

TECHNICAL EDUCATION AND THE LONDON
COUNTY COUNCIL 1918-1939: A STUDY
IN COURSE INNOVATION AND DEVELOPMENT

BY

D.W. THOMS.

Thesis submitted to Brunel University
for the degree of Doctor of Philosophy.

BEST COPY

AVAILABLE

Variable print quality

ABSTRACT

Our thesis is concerned with the process of course innovation and development in technical education within the area of the London County Council during the period 1918-39. Although essentially an historical study, the thesis is intended to be of value in a consideration of future development in technical education, and in particular in the study of the relationship between curriculum management and manpower planning.

The first part of our thesis describes the institutional structure of the principal sectors of technical education in London and outlines the type of courses that were available and their general progress during the interwar years. The second part of our thesis seeks to analyse the background to course innovation and to assess why certain courses were successful and why others were comparative failures. Since the topic is potentially so vast, our thesis has been limited to an identification of major factors, rather than a detailed consideration of each one.

Our analysis shows the process of course innovation and development in technical education to have been a highly complex interaction of forces in which the other aspects of the educational structure, including administrative as well as teaching institutions, played a vital role. Emphasis has been given to the influence of senior administrative officers within the local education authority framework. Special mention has been made of the work of the Board of Education and of the limitations of the Board in failing to establish definite guidelines for course development in technical education. Important factors outside the educational structure have also been considered, including the attitudes of parents and business management to formal technical training.

	Bibliography	i	-	xxiii
	Introduction	1	-	7
CHAPTER	1. The General Provision for Technical Education Outside London, 1918-1939.	8	-	31
	2. The Framework of Technical Education Within the Area of the London County Council, 1918-1939.	32	-	57
	3. Evening Instruction in the London Technical Institutes, 1918-1939.	58	-	88
	4. Day and Evening Instruction in the London Polytechnics, 1918-1939.	89	-	108
	5. The London Monotechnics, 1918-1939.	109	-	137
	6. The London Junior Technical Schools, 1918-1939.	138	-	154
	7. The Influences upon Course Innovation and Development 1.	155	-	189
	8. The Influences upon Course Innovation and Development 2.	190	-	215
	9. The Influences upon Course Innovation and Development 3.	216	-	239

CHAPTER	10. Parties and Policies	240 - 274
	11. Technical Education and the London County Council. Some Aspects of Policy.	275 - 304
	12. The Board of Education and the London County Council.	305 - 324
	13. The Day Continuation School Experiment 1.	325 - 351
	14. The Day Continuation School Experiment 2.	352 - 372
	Conclusion	373 - 381
	Appendices and Maps	382 - 388

B I B L I O G R A P H Y

The bibliography is arranged according to the following classifications:

A Documentary Evidence

1. Manuscripts in the Public Record Office, London.
2. Manuscripts in the Greater London Record Office.
3. University Collections.
4. Professional Institutions.
5. Other Documentary Evidence.

B. Printed Sources

1. Official Reports and Publications.
2. L.C.C. Publications.
3. Association for the Advancement of Education in
Industry and Commerce.
4. Association of Teachers in Technical Institutions.
5. British Association for Commercial and Industrial Education.
6. City and Guilds of London Institute.
7. Institution of Gas Engineers.
8. London Municipal Society.
9. University of London.
10. Books.
11. Theses.
12. Articles and Pamphlets.
13. Newspapers and Journals.

C. Interviews and Correspondence

A. Documentary Evidence

1. Manuscripts in the Public Record Office, London.

Cab.	24:	Cabinet Papers.
Ed.	24:	Private Office Papers.
Ed.	46:	General Files (Further Education)
Ed.	75:	Day Continuation School Files.
Ed.	82:	Technical School Files.
Ed.	90:	Technical College Files.
Ed.	98:	Junior Technical School Files.

2. Manuscripts in the Greater London Record Office.

EO/GEN	: 1 - 10	General Papers.
EO/HFE	: 1 - 12	Higher and Further Education.
EO/PS	: 1 - 11	Primary and Secondary Education.
EO/STA	: 1 - 11	Staffing.
EO/WEL	: 1 - 4	Welfare.

3. University Collections.

- a. The London School of Economics and Political Science
(Special Reading Room). The Tawney Papers: box marked
'Memoranda on education and educational policy.
- b. Newcastle University. The Trevelyan Papers: The Papers
of Sir Charles Trevelyan. Box Nos.
 27. Political letters 1917 - 25.
 28. Political letters 1918 - 20.
 29. Political letters 1920 - 22.
 34. Political and Personal letters, speeches, 1925.

36. Political and Personal letters, 1926.

37. Political and personal letters, 1927.

48. 1929 Election. 1930 U.S.S.R. 1931 Resignation.

49. Cabinet Papers, 1924.

c. Oxford University (Department of Western MSS. Bodleian Library).

The H.A.L. Fisher Papers, boxes 1 and 3 personal letters.

4. Professional Institutions

a. The Institution of Electrical Engineers, Savoy Place, London, W.9.2.

i. Individual college results for national certificate and diploma examinations on electrical engineering, 1922 - 1939.

ii. Minutes of the education branch of the Institution, 1922 - 39.

b. The Institution of Gas Engineers, 17, Grosvenor Crescent, London, S.W.1.

i. Minutes of Advisory Committee on Education, 1926-29.

ii. Gas Education Executive Committee Minutes, 1930-35.

5. Other Documentary Evidence

a. London Chamber of Commerce, Sidcup, Kent.

i. Commercial Education Minutes 1918-39.

b. Papers in the private possession of Mr. G.A.N. Lowndes

Education and Industry. Growth and Existing Methods of Local Co-operation 1933. Written by Mr. Lowndes in 1933 when he was at the Board of Education.

- c. Papers concerning the relationship of the University of London with the London polytechnics, 1918-39. These papers are located at Senate House, W.C.1.

File Nos

297	General L.C.C.
266	Chelsea Polytechnic.
363	Woolwich Polytechnic.
600	Chelsea Polytechnic.

d. Paddington Technical College

- i. Student enrolment cards, 1929 - 39.

B. Printed Sources.

1. Official Reports and Publications

- Board of Education, Annual Reports, 1903, 1913, 1918-39.
- Parliamentary Debates, 1918-39.
- Royal Commission on University Education in London, 1910-13.
- Census of England and Wales, 1921, 1931.
- Survey of Technical and Further Education in England and Wales, 1926.
- Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London, 1926.
- Reports of the Committee on Education and Industry (England and Wales), 1926-28.
- The Education of the Adolescent: Report of the Consultative Committee, 1927.
- Report of H.M. Inspectors on the Provision in England of Instruction in Commodities for Persons Employed in Commerce, 1927.

Report of H.M. Inspectors on the Provision of Engineering Education in London, 1927.

Report of the Committee on Industry and Trade, 1927.

Day Classes For Engineering Apprentices, 1928.

Report of H.M. Inspectors on Full-Time Courses in England and Wales for the Bakery and Confectionary Trades, 1927.

Education for Industry and Commerce. The West Midland Metal Working Area, 1930.

Report of the Committee on Education for the Engineering Industry, 1931.

Report of the Committee on Education for Salesmanship, 1931.

London Regional Advisory Council for Juvenile Employment, Annual Report, 1935-39.

Co-operation in Technical Education, 1937.

Scottish Education Department, Report of the Advisory Council as to the position of Technical Education in the Day School System of Scotland, 1937.

A Guide to Employment for Boys and Girls in Greater London, 1938.

Report of the Royal Commission on the Distribution of the Industrial Population, 1940.

A Guide to the Education System of England and Wales, 1945.

Report of a Special Committee on Higher Technological Education, 1945.

Report of a Special Committee for Management Subjects in Technical and Commercial Colleges, 1947.

Report of a Special Committee on Education for Commerce,
1949.

Ministry of Education, Annual Report, 1950.

Technical Education, 1956.

15 to 18: Report of the Central Advisory Council for
Education (England), 1959 - 60.

Report of the Committee on Higher Education, 1963-64.

A Plan for Polytechnics and other Colleges: Higher Education
in the Further Education System, 1966.

A Report on the Use of Costing and other Financial
Techniques in Technical Colleges, 1969.

Report of the Committee on Technician Courses and
Examinations, 1969.

Department of Education and Science, Annual Report, 1970.

2. L.C.C. Publications

Annual Reports, 1918-39.

Council Minutes, 1904 - 39.

Education Committee Minutes, 1904 - 39.

Financial Abstract, 1918 - 39.

London Statistics, 1918 - 1938.

The London Scheme of Further Education, 1944.

The London School Plan, 1947.

3. Association for the Advancement of Education in Industry and Commerce.

Proceedings of the Association, 1920, 1922.

4. Association of Teachers in Technical Institutions
Report of an Enquiry into the relationship of Technical Education to other Forms of Education, 1927.
5. British Association for Commercial and Industrial Education.
Report on Education for Foremanship, 1928.
Report of an Enquiry into the Vocational Education after General Education up to the Age of Sixteen, 1936.
6. City and Guilds of London Institute
Annual Reports, 1918 - 39.
7. Institution of Gas Engineers
Transactions, 1928 - 1939.
8. London Municipal Society
A large collection of electioneering literature being located at the Guildhall Library, London.
9. University of London
Calendars 1918 - 39.

10. Books

- Anon, The City of London College, 1848 - 1948.
The First Fifty Years.
History of the Brixton School of Building.1904-54.
- Abbott, A., Education for Industry and Commerce in England, 1933.
- Abbott, A., and Ferguson, R.W., Day Continuation Schools, 1935.
- Abercrombie,P., and Forshaw,J.H., County of London Plan, 1943.
- Aldcroft, D.H., and Fearon,P. (Eds). Economic Growth in 20th Century Britain, 1969.
- Aldcroft, D.H., and Richardson,H.W., Building in the British Economy Between the Wars, 1968.
- Allen, B.M. Down the Stream of Life, 1948.
William Garnett-A Memoir, 1933.
- Argles, M., South Kensington to Robbing, 1964.
- Armytage, W.H.G., The Social History of Engineering, 1961.
- Arrowsmith, H., Pioneering in Education for the Technologies. The Story of Battersea College of Technology 1891-1962, University of Surrey, 1962.

- Ashworth, W., An Economic History of England, 1870-1939, 1960.
- Banks, O., Parity and Prestige in English Secondary Education, 1955.
- Barker, B., Labour in London. A study in Municipal Achievement, 1946.
- Barnbaum, G., Social Change and the Schools 1918-1944, 1967.
- Brosan, G., and others Patterns and Policies in Higher Education, 1971.
- Campbell, F., Eleven Plus and All That, 1956.
- Cardwell, D.S.L., The Organisation of Science in England, 1957.
- Coleman, D.C., Courtaulds. An Economic and Social History, Two Vols., 1969.
- Cotgrove, S.F., Technical Education and Social Change, 1958.
- Curtis, S.J., History of Education in Great Britain.
- Dent, H.C. Part-Time Education in Great Britain. An Historical Outline, 1949.

- Dymond, D. (Ed.) The Forge. The History of Goldsmiths' College. 1905-55.
- Eaglesham, E., From School Board to Local Authority. 1956.
- Erickson, C., British Industrialists. Steel and Hosiery 1850-1950. Cambridge, 1959.
- Everand, S., The History of the Gas Light and Coke Company 1812 - 1949. 1949.
- Ferguson, R.W., and Abbott, A., Day Continuation Schools. 1935.
- Fisher, H.A.L., An Unfinished Autobiography. 1940.
-
- Fogarty, M. (Ed.) Educational Reform Speeches. 1918.
- Fogarty, M. (Ed.) Prospects of the Industrial Areas of Great Britain, 1945.
- Forshaw, J.H., and Abercrombie, P., County of London Plan, 1943.
- Gibbon, Sir G., and Bell, R., A History of the L.C.C., 1889 - 1939. 1939.
- Gilbert, B.B., The Evolution of National Insurance in Great Britain. 1966.

- Ginsberg, M. (Ed.) Law and Opinion in England in the 20th Century. 1959.
- Glass, D.V. (Ed.) Social Mobility in Britain. 1954.
- Gosden, P.H.J.H., The Development of Educational Administration in England and Wales. 1966
- Guest, L.H. (Ed.) The New Education. 1920
- Hall, P.G., The Industries of London Since 1861. 1962.
- Halsey, A.H., Flord, J., and Anderson C.A. (Eds.) Education, Economy and Society. 1965.
- Harris, P.A., London and its Government. 1931.
- Hayward, F.H., An Educational Failure: A School Inspector's Story. 1938.
- Henderson, P.D., (Ed.) Economic Growth in Britain. 1966.
- Jackson, W.E., Achievements: A Short History of the London County Council. 1966.
- Jackson, B, and Marsden, D, Education and the Working Class. 1962.

- Jeffreys, J.B., Retail Trading in
Britain 1850 - 1950.
Cambridge, 1954.
- Kogan, M., The Politics of
Education. 1971.
- Lewis, R., and Maude, R., The English Middle
Classes. 1953.
- Lidgett, J.S., My Guided Life. 1936.
- Lindsay, K., Social Progress and
Educational Waste. 1926.
- Lowndes, G.A.N., Margaret Mc Millan, 'the
Childrens' Champion. 1960.
-
- Maclure, S., The Silent Social
Revolution. 1937.
- Maclure, S., One Hundred Years of
London Education 1870-1970.
1970.
- Mais, S.P.B., Fifty Years of the L.C.C.,
1939.
- Maude, A., and Lewis, R., The English Middle
Classes. 1953.
- Mc Briar, A.M., Fabian Socialism and
English Politics, 1884-1918.
Cambridge, 1962.
- Millis, C.T., Education for Trades
and Industries. 1932.

-
- Morrison, H., Technical Education Its Development and Aims, 1925.
Herbert Morrison An Autobiography, 1960.
How London is Governed, 1949.
-
- Mowat, C.L., Britain Between the Wars 1918-40, 1955.
- Musgrave, P.W., Technical Change, the Labour Force and Education, 1967.
The Economic Structure, 1969.
-
- Musson, A.E., The Typographical Association Origins and History up to 1949, 1954.
- Niven, M.M., Personnel Management, 1913 - 63, 1967.
- Peters, A.J., British Further Education, 1967.
- P.E.P., The Entrance to Industry, 1935.
- Pelling, H., Popular Politics and Society in Late Victorian Britain, 1968.
- Percy, Lord E., Education at the Crossroads, 1929.

- Plummer, A., New British Industries in the Twentieth Century, 1937.
- Riddell, J.R., The London School of Printing and Kindred Trades, 1939.
- Richardson H.W., Economic Recovery in Britain, 1932-39, 1967.
- Richardson, H.W. and Aldcroft, D.H., Building in the British Economy Between the Wars, 1968.
- Richardson, W.A., The Technological College, 1939.
- Robson, W.A., The Government and Misgovernment of London, 1939.
- Routh, G., Occupation and Pay in Great Britain 1906-60, Cambridge, 1965.
- Sadler, M.E., Continuation Schools in England and Elsewhere, Manchester, 1908.
- Salby-Bigge, L.A., The Board of Education, 1927.

- Scott, J.D., Siemens Brothers 1858-1958. An Essay in the History of Industry. 1958.
- Schultz, T. W., The Economic Value of Education, 1963.
- Sheehan, J and Vaizey, J., Resources for Education, 1968.
- Smith, D.H., The Industries of Greater London, 1933.
- Snell, Lord H., Men Movements and Myself. 1936.
- Spencer, F.H., An Inspector's Testament. 1938.
- Taylor, A.J.P., English History 1914-1945. Oxford, 1965.
- Vaizey, J., Education For Tomorrow, 1962.
- _____ The Costs of Education, 1958.
- Vaizey, J and Sheehan, J., Resources For Education, 1968.
- Ward, H., The Educational System of England and Wales and its Recent History, Cambridge, 1935.
- Waterfall, E.A., The Day Continuation School in England. Its Function and Future, 1923.
- Williams, G., Recruitment to Skilled Trades. 1957.
- Wilson, C., Unilever 1945-65. Challenge and Response to the Post-War Industrial Revolution. 1968.
- Wood, E.M., A History of the Polytechnic, 1965.

11. Theses

- Andrews, P.H., The Organisation, Development and Administration of Public Education in the Area of the London County Council, 1903-1922. Unpublished Ph.D. thesis, University of London, 1963.
- Barker, R.S., The Educational Policies of the Labour Party, 1900-61. Unpublished Ph.D., thesis, University of London, 1965.
- Brooks, L., The London Compulsory Day Continuation Schools. Unpublished M.A., thesis University of London, 1923.
- Coach, V.J., A Sociological Interpretation of The Development of Technological Education in England, France and Germany During the Twentieth Century. Unpublished Ph.D., thesis, University of London, 1955.
- Dean, D.W., The Political Parties and the Development of their Attitude to Educational Problems, 1918-1942. Unpublished M.Phil, thesis, University of London, 1968.

- Pannett, D.A., A Comparison of Girls' Junior Technical Schools in London and Paris. Unpublished M.A., thesis, University of London, 1939.
- Rust, W.B., Educational Administration in England and Wales, 1870 - 1950. Unpublished Ph.D., thesis, University of London, 1955.
- Surman, A.H., The Voluntary Day Continuation Schools in London. Unpublished M.A. thesis, University of London, 1949.
- Thomas, D.H., John Scott Lidgett, 1854-1953, and the Education of the People. Unpublished Ph.D., thesis, University of London, 1960.
- Whitehead, E., A Critical and Historical Survey of the Growth and Nature of State Control in English Education from 1886 to 1926. Unpublished B. Litt., thesis, Oxford University, 1934.
- Wooder, L.G., Technical Education and the Distribution of Industry in London and South East England. A Study in Applied Geography. Unpublished Ph.D., thesis, University of London, 1958.

12. Articles, Speeches and Pamphlets.

Abbott, A.,

'Education for Industry in England and in some Continental Countries,' Journal of the Royal Society of Arts, Vol. LXXXI, 1933.

'Recent Trends in Education for Industry and Commerce in Great Britain', International Labour Review, August, 1935.

Allen, R.G.D., and Thomas, B.,

'The London Building Industry and its Labour Recruitment Through Employment Exchanges', The Economic Journal, vol. XLVII, 1937.

Blair, Sir, R.,

'The Education of the Adolescent', The Contemporary Review, vol. CXXXI, 1927.

Strennan, E.J.T.,

'Sidney Webb and the London Technical Education Board: The Board at Work', The Vocational Aspect of Secondary and Further Education, vol. XII, 1960.

'Sidney Webb and the London Technical Education Board: The London Education Act of 1903', The Vocational Aspect of Secondary and Further Education, vol. XXVIII, 1962.

- Byng, E.S., and Robinson, G. A., 'Education in Industrial Management,' Paper read before the Association of Technical Institutions, 1937.
- Cobb, Sir C., 'London's Scheme of Education,' The Contemporary Review, vol. CXVIII, 1920.
- Davies, A.E., 'The London County Council, 1889-1937,' Fabian Tracts, 243, 1937.
- Dent, 'To Cover the Country with Good Schools. A Century's Effort', British Journal of Educational Studies, vol. XLX, 1971.
- Doherty, B., 'Compulsory Day Continuation Education: An Examination of the 1918 Experiment', The Vocational Aspect of Secondary and Further Education, vol. XVIII, 1966.
- Drake, B., 'The Spens Report,' The Political Quarterly, vol. X, 1939.

- Drakely, F.J.,
'The Status of Higher Technical Education,' Paper read before the Association of Technical Institutions, June, 1944.
- Foden, F.E.,
'The National Certificate', The Vocational Aspect of Secondary and Further Education, vol. 111, 1951
'A Descriptive Account of Commercial Education in London with Special Reference to Developments Since the War', International Congress on Commercial Education, 1932
- Gilbert, Sir J.,
'Twenty Five Years in London Education', The Contemporary Review, vol. CXLIV, 1933.
- Goodenough, Sir F.,
'What Education is Doing for the Gas Industry', Paper read by Mr. Alden on behalf of Goodenough before the Association for the Advancement of Education in Industry and Commerce, 1926.
- Gray, E.,
'Education and Economy', The Nineteenth Century, DXLIV, 1922.
- Jackson W.H.M.,
'Foremanship', British Management Review, vol 2, 1937.

- Marsden, W.E.,
'The Growth of Technical Education in Southport, 1874-1944', The Vocational Aspect of Secondary and Further Education, vol. XI, 1960.
- Morrison, Lord H.,
'How the London County Council Does its Work', Public Administration, vol. XIV, 1936.
- Musgrave, P.W.,
'Constant Factors in the Demand for Technical Education: 1860-1960', British Journal of Educational Studies, vol. XIV, 1966.
- Percy, Lord E.,
'An Educational Policy for an Industrial Nation', Presidential Address to the Association for the Advancement of Education in Industry and Commerce, 1931.
- Pickard, O.G.,
'Office Work and Education, 1848-1948, The Vocational Aspect of Secondary and Further Education, vol. 1, 1949.
- Robinson, G.A.,
'Education for Industry', British Management Review, vol. 2, 1937.

- Robinson, G.A., and Byng, E.S., 'Education in Industrial Management', Paper read before the Association of Technical Institutions, 1937.
- Robson, W.A., 'London and the L.C.C. Election', The Political Quarterly, vol. 111, 1937.
-
- 'Thoughts on the L.C.C. Election: The Chaos of London Government', The Political Quarterly, vol. 5, 1934.
- Sayers R.S., 'The Springs of Technical Progress in Britain, 1919-39', The Economic Journal, vol. LX, 1950.
- Smal, J.C., 'Some Aspects of Education for the Printing Trades', Paper read before the Association of Technical Institutions, 1937.
- Thomas, B., and Allen, R.G.D., 'The London Building Industry and its Labour Recruitment through Employment Exchanges', The Economic Journal, vol. XLVII, 1937.

13. Newspapers and Journals

Education Outlook
Lewisham Borough News
London News
The Battersea Boro' News
The City and East London Observer
The City Press
The Daily Dispatch
The Journall of Education
The Kentish Mercury
The Morning Post
The Schoolmaster and Woman Teacher's Chronicle
The South London Press
The Technical Journal
The Times
The Times Educational Supplement

C. Interviews and correspondence

Interviews and / or correspondence were held with:

Mrs. H. Bentwich
Dr. T.J. Drakely
Sir Isaac Hayward
Mr. G.A.N. Lowndes
Eleanor, Lady Nathan
Mrs. E.M. Rich
Sir Graham Savage
Sir Harold Shearman

Introduction

As Stuart Maclure has recently demonstrated the history of London's education service during the last hundred years is a story of continuous adaptation to changing circumstances,¹ In some ways, however, the interwar period appears as a rather quiet interlude sandwiched between two periods of exceptional activity. The contribution of the London School Board and the Technical Education Board to education in London during the latter part of the nineteenth century was very considerable. In 1870 the London School Board was said to have found over 50 per cent of the child population of London without a school to attend, a situation that was fully rectified by 1903.² Under the guidance of its first Chairman, Sydney Webb, the Council's Technical Education Board sought to expand the range and number of scholarships and also to improve the provision of buildings and courses. Edward J.T. Brennan notes that :

"by 1903 the provision of technical education over the County of London was so widespread that nobody who wanted to better himself in this way needed to walk for more than half an hour to obtain instruction, and most people in fact lived within a quarter of an hour's walking distance from some sort of educational institute"³

Moreover, the tense manoeuvring in 1903 when the relationship of the London School Board to the London County Council was being discussed provided an occasion of high political drama.⁴ The post 1945 period has also witnessed an enormous expansion in London's education service, especially in secondary

1. S.Maclure, One Hundred Years of London Education 1870-1970 (1970).

2. G.Gibbon and R.W.Bell, History of the London County Council (1939) p.241

3. E.J.T.Brennan, 'Sidney Webb and the London Technical Education Board: The Board at Work', Vocational Aspect, Vol. X11 (1960), p.36

4. See P.34.

and further and higher education. The table below illustrates the change in the pattern of expenditure on London's education service since the second world war.¹

	<u>1945-6</u>	<u>1970-71</u>
<u>Total</u>	£14,443,800	£143,507,000
Amount to be met from rates	£ 6,931,000	£ 89,670,000
Primary	£ 4,841,000	£ 25,972,000
Secondary	£ 2,897,000	£ 32,005,000
Special	£ 455,300	£ 4,536,000
Further and Higher	£ 1,286,800	£ 24,969,000
Training of Teachers	£ 88,000	£ 4,781,000
Milk, meals	£ 935,000	£ 8,549,000
<u>New items since 1946</u>		
Careers service		£ 594,000
Educational TV Service		£ 610,000
Service of Youth		£ 1,582,000

It would be wrong to assume, however, that during the interwar years London was educationally stagnant and detailed research into, for example, curriculum development might yield interesting results. Certainly the London education service at this time was not without its critics but it had its admirers too, and in support of their case they could point to the increased provision of scholarships, buildings and equipment. Nevertheless it is true that education in London between 1918 and 1939 was built upon foundations that were already firmly laid even before the Council became the capital's education authority. Yet the personalities who came to fashion London's education service during the interwar period, both at County Hall

1. These figures are given by Maclure *op.cit.*, p.142.

and in the schools, were probably no less formidable than those who went before. This, coupled with the high level of economic and social change experienced during the interwar period, and the vagaries of political life at central and local government level, inevitably meant that the twenty years after 1918 were important ones in the development of the education provision in London. While admitting that the interwar period was hardly the scene of revolutionary educational change, our thesis does indicate that technical education in London was far from static. The interchange of forces during the interwar years provides a valuable framework for the purpose of our thesis, namely an examination of the factors which contributed to the introduction of, or affected the development of, new courses in technical education.

Apart from its value for its own sake as a piece of historical research, it is hoped that our study will prove of use in an understanding of certain of the problems associated with technical education today. Interest in education as investment rather than simply consumption has widened considerably over the last fifteen years. This interest has been reflected in technical education by the programme of accelerated government expenditure following the White Paper on Technical Education in 1956.¹ More recently the Crowther² and Robbins³ reports have again emphasized the economic importance of the education service. A recurrent theme in the literature is the need to match the output of the technical colleges with the current and anticipated manpower requirements of the economy. So early as 1945 the Percy report emphasized that the output of trained men by the

1. Ministry of Education, Technical Education (1956), Cmd. 9703. Between 1954-55 and 1963-64 current education expenditure by local education authorities grew at a rate of 10 per cent per annum, but further education expenditure increased at a rate of some 15 per cent per annum. D.E.S. A Report on the Use of Costing and other Financial Techniques in Technical Colleges (1969), p.12

2. Ministry of Education 15 to 18 (1959).

3. Committee on Higher Education, Higher Education (1963-64).

universities and technical colleges "has been, and still is, insufficient both in quantity and quality." ¹ While the need for manpower planning has become increasingly recognized and while the output of the technical colleges has increased enormously since 1945, there are still important weaknesses in the flow of appropriately trained labour to industry and commerce. One of these weaknesses concerns the relationship between the type of course provided by the technical colleges and polytechnics and the particular needs of industry and commerce. Despite the co-ordinating activities of such bodies as the Regional Advisory Councils and the Industrial Training Boards there is still no central machinery for deciding whether a course is relevant at a particular time and in its particular location bearing in mind the overall requirements of the economy. There are many sides of this particular issue. One aspect, for example, is the collection of adequate data. Until recently most quantitative studies of manpower requirements have concentrated upon scientists and technologists so that relatively little has been known about present and future needs of technicians and craftsmen. ² Another aspect of the problem, however, is how and why new technical or commercial courses arise. To some extent this naturally depends upon the local demand from industry and commerce but there are other considerations too in determining the range and level of work developed by particular institutions. The identification of these factors is important if the structure of technical college and polytechnic courses is to be related closely to manpower requirements.

Furthermore, once the planning authorities have decided the type of course that is desirable at a particular time it would be necessary for them to consider the factors which influence the flow of students to colleges.

1. Ministry of Education, Higher Technological Education (1945), p.5.

2. This point is discussed by A.J.Peters, British Further Education.

A Critical Textbook (1967), pp. 12-14.

Despite the expansion of technical college work since the war, especially the growth of courses involving full-time attendance,¹ there are still blockages which retard the flow of students to the colleges. Moreover, one of the problems remarked upon by the Crowther report was the enormous wastage involved in students attending courses and leaving before gaining the appropriate qualification and also in the time spent in repeating courses and perhaps taking several additional years to achieve final success.² The post-war period has witnessed various experiments in the form of sandwich courses to make the training process more realistic but such courses have been mainly at professional and technician levels. While it is true that the number of craftsmen and operative³ workers attending day release courses has increased markedly since 1945, the proportion of the age group in attendance has not risen substantially in recent years.⁴ Many students therefore still attend technical or commercial classes partly or wholly in the evening,⁵ a situation which cannot be viewed with satisfaction if manpower planning is to be taken seriously.

A good deal of evidence is available which permits of a fairly close look at the process of course innovation and development in technical education in London during the interwar period. In particular the records of the Education Officer's department at County Hall have been well preserved and

-
1. This type of expansion naturally owes a good deal to the increased provision of student grants.
 2. Ministry of Education, 15-18, op.cit., p.360-362.
 3. A definition of technologists, technicians and craftsmen is given in Ministry of Education, Technical Education, op.cit. Operative workers are defined in Ministry of Education, 15-18, op.cit.
 4. G.Brosan and others, Patterns and Policies in Higher Education (1971), p.55.
 5. In the autumn term of 1969 725,300 out of a total of 1,735,900 students attending further education establishments were evening only students. D.E.S. Education and Science in 1969 (1970), p.53.

catalogued and provide a unique view of the daily activities of a major local education authority. The relaxation of the fifty year rule has also made available important material at the Public Records Office which usefully supplements the County Hall evidence. One of the main difficulties of our study, which became increasingly apparent as the work progressed, was the inter disciplinary nature of the subject. Inevitably this opened a number of avenues which one would like to have investigated but which were necessarily avoided in order to keep the thesis within manageable proportions. The function of our thesis is therefore to identify some of the main problems associated with the process of course innovation and development rather than to attempt to investigate each one in detail.

Technical education is loosely defined in our thesis to incorporate the whole range of vocational studies undertaken by the London technical institutes, polytechnics and monotechnics. This definition excludes the most junior evening instruction offered by the evening institutes, but it also excludes the work of the senior commercial institutes. The principal reason for excluding the work of the senior commercial institutes was the paucity of evidence, which would have made any general conclusions rather unrealistic. The justification for including a section on the introduction and abandonment of the compulsory day continuation schools is that, although their level of work was not necessarily high, the rise and sudden decline of the schools seems to illustrate many of the themes which occur throughout our work. The discussion of these schools has accordingly been left to the end of our thesis.

The thesis begins with an introduction to course development in English technical education as a whole throughout the interwar period and then, after a short discussion of the background to technical education in London during the interwar years, attempts to outline the main features of the technical education system referred to above and to illustrate some of the main trends in course development. The remaining part of our thesis

is an attempt to assess some of the main factors shaping the structure as it came to develop between the wars. Since the causal factors behind course innovation and development, including the progress of courses of different levels, overlap each other so much, no attempt is made to categorise the factors influencing different aspects of the work. However, where a factor is clearly relevant to one aspect of course innovation or development this has been made clear in the text.

CHAPTER ONE

The General Provision for Technical Education Outside London, 1918-39.

The interwar period is usually seen as a time of consolidation in the field of technical education rather than as a period of marked expansion. The great developments of the late 19th Century are sometimes seen to overshadow the less dramatic changes of the interwar years, characterising the period as one of disappointing anti-climax. Professor Cotgrove argues that "The period from 1880 to 1905 was one of rapid growth in further technical education. By contrast, the next forty years saw no dramatic changes, and only a slow evolution of the system already established during the formative years."¹ This view is echoed by Michael Argles when he claims that by the late 1950's "despite the consolidation and development of resources technical education had still not taken its rightful place in the life and economy of the country."² Yet, while admitting that the overall performance of technical education was depressing, the absence of dramatic legislative action and the comparatively low enrolment figures should not obscure the important and substantial changes that did occur. The Report of the Ministry of Education for the year 1950 identified the nature of some of these changes when it suggested that "...the developments which took place in technical education were less in the field of new provision than in the reform and re-organisation of existing facilities, and in the steady growth of co-operation between the Board and the local authorities, and between the educational services and industry, in which latter development the great professional institutions played an important part."³ The inherited structure and philosophy of 19th Century technical education, together with the troubled economic years of the interwar period, represented a formidable barrier against which change

1. S.F.Cotgrove, Technical Education and Social Change (1958), p.68.

2. M.Argles South Kensington to Robbins (1964), p.70.

3. Ministry of Education, Education 1900-1950 (1950 Annual Report, 1951), p.48.

of a revolutionary kind was perhaps impossible. Though progress between the two World Wars was of a pedestrian and unassuming nature when viewed in relation to the years of growth in the late 19th Century or the post 1950 era, discussion as to the function, content and organisation of technical education was voluminous and widespread, and helped to initiate changes upon which some of the most important developments after the Second World War were based.

The ad hoc development of technical education during the 19th Century meant that by the beginning of the 20th Century further technical education was provided in a great variety of institutions thus making it difficult to form a manageable number of categories into which each institution would conveniently slot, especially since more than one set of classes might be found in a particular building. However, the administrative reforms introduced by the Balfour Act, and the subsequent Board of Education Regulations relating to technical education, provide an identifiable framework for discussion. The Education Act of 1902 co-ordinated all forms of education under local education authorities, dispossessing of the school boards which had been set up under Forster's Education Act of 1870, and also the technical instruction committees established by the Technical Instruction Act of 1889.¹ The school boards had originally been given responsibility for elementary education but increasingly came to exercise an influence in the field of secondary and technical education, eventually creating the situation around which the Cookerton decision revolved.² The Technical Instruction Act enabled local authorities to raise a penny rate in support of technical education and the technical instruction boards, sometimes called technical education boards, which came to administer this assistance therefore represented a second body at the local level having some responsibility for technical education.

1. Argles, op.cit., p.35 .

2. E.Eaglesham, From School Board to Local Authority (1956), chps.10 & 11.

The Regulations dealing with technical education issued by the Board of Education in 1903 distinguished between grants paid to evening schools and those paid to technical institutions, a distinction that emerged from the Cookerton decision and which formed the basis of central government grants until a new and completely revised set of Regulations was issued in the 1920's.¹ Technical institutions were defined as "An Institution giving an organised course of instruction in day classes, including advanced instruction in Science, or in Science and Art, and provided with a staff and equipment adequate for the purpose."² Eligible for grant assistance under this latter category were "Day Technical Classes" which were to be of the same character and standard as the normal course of instruction in technical institutions but did not follow the same full-time course commitment.³ In 1905, however, the Regulations relating to day technical classes were extended to include courses adapted to the technical requirements of the students, though not necessarily of the post-secondary standard required by a technical institution course.⁴ The definitive feature of evening schools was that they were intended to provide educational facilities for those people who were already engaged in some occupation so that such classes were held in the evening after 4.p.m. or on a Saturday afternoon after 1 p.m.⁵ The Regulations of 1904 freed the government from courses of the type approved by the Science and Art Department and widened the range of subjects eligible for a grant so that in subsequent years there was a notable expansion in the variety of courses available.⁶ The Regulations for technical education underwent an important modification in 1915 when courses which had hitherto received assistance as day technical classes were considered sufficiently numerous to constitute a distinct

1. Board of Education, 'Regulations for Evening Schools etc.' (1903), p.10 .

2. Ibid.

3. Board of Education, 'Regulations for Evening Schools etc.' (1904), p.20.

4. Board of Education, 'Regulations for Evening Schools etc.' (1905), p.23 .

5. Board of Education (1904), op.cit., p.2.

6. Ministry of Education, Education 1900-1950, op.cit., pp.48, 49.

educational type and were therefore treated under a separate set of "Regulations for Junior Technical Schools in England and Wales."¹ The junior technical schools were described in the Board's Regulations as "Day Schools, organised as part of the system of higher education, and providing a continued full-time education under school conditions for pupils from Elementary Schools in preparation either for artisan or other industrial employment or for domestic employment."²

The framework thus established remained the general basis upon which central government grants were distributed for the upkeep of technical education until a thorough revision of the Board's Regulations occurred in the 1920's. The piecemeal revision of the Regulations, although often minor in themselves, eventually created a situation where the interests of clarity demanded a fresh look at the position. Even the Board of Education was obliged to admit that "...the regulations did not afford much assistance to those who consulted them in search of information about the arrangements which obtained in this branch of public education."³ Out of the Board's disquiet emerged the "Regulations for Further Education" which became operative from the 1st August, 1926 and which provide a clear outline of the institutions providing technical education, and enable the schools and colleges referred to in the Board's Reports prior to that time to be recognised within the Scheme. In addition, adult liberal education was to be treated separately under the "Adult Education Regulations" which came into force from the 1st August, 1924.⁴ The classification of courses providing technical education from August 1926 was as follows:

-
1. Board of Education, 'Regulations for Junior Technical Schools in England and Wales' (1913), p.2.
 2. Ibid., p.4.
 3. Board of Education, Report for the Year 1925/6 (1927), p.59.
 4. Ibid.
 5. Ibid.

Part-time

1. Day Continuation Schools
2. Junior Evening Institutes
3. Senior Evening Institutes

Full-time

1. Junior Technical Schools
2. Junior Housewifery Schools

Full-time or Part-time

1. Technical Day Classes
2. Art Schools
3. Junior Art Departments in Art Schools
4. Colleges for Further Education

The most pervasive form of technical education was that provided in the evening. In 1918-19 about 564,040 students attended courses in 2,883 schools aided by the Board of Education, though not all of these students followed vocational courses.¹ By 1927-28 however, when vocational and recreative studies had been separated in the Board's Regulations, some 771,291 students attended courses in 4,542 schools.² Although the number of courses available and student enrolments both declined between 1931 and 1933, the figures once again rallied so that in 1936-37 enrolments passed the million mark for the first time,³ and the following year totalled approximately 1,179,000 students.⁴

Classes were held in evening institutes which may be further subdivided into junior and senior evening institutes, and in Colleges of Further Education. The junior evening institutes provided a general course

-
1. Board of Education, Report for the Year 1919/20 (1921), pp.43,44.
 2. Board of Education, Report for the Year 1927/28 (1929), statistical appendix.
 3. Board of Education, Report for the Year 1937 (1938), statistical appendix.
 4. Board of Education, Report for the Year 1938 (1939), statistical appendix.

of instruction and catered for students between 14 and 16 years of age, while the senior institutes were more strictly vocational, offering courses for the older student. The College of Further Education courses were again vocational in nature and sometimes gave instruction leading to university examinations for those students who had satisfied matriculation requirements.

Most of the evening work was organised under a "grouped course" system which involved the study of co-ordinated, rather than unrelated subjects. The "grouped course" programme grew rapidly in Lancashire, Yorkshire and Cheshire after 1904 when the Board's Regulations allowed for a more liberal interpretation of the courses eligible for grant aid.¹ Out of the "grouped course" system one may distinguish between minor and major courses. The minor courses were intended to provide apprentices with a technical course for a particular occupation within an industry, and were generally extended over a three year period of study, involving about 6 or 7 hours attendance at school each week.² The major technical course normally lasted for five years and aimed at instructing the student in the principles underlying the work of a particular industry or section of industry.³ The major courses were divided into two stages, senior and advanced. For the non-commercial subjects the senior stage normally involved a study of mathematics, general science, and two or three technical subjects, The advanced course was more specialised with instruction in perhaps three technical subjects and possibly mathematics in the first year.⁴ Although courses varied between colleges, with short courses often being put on of one year's duration, the general division between minor and major courses may be seen as a broad framework covering full-time and part-time day classes as well as evening work. Full-time and

1. Board of Education, Report for the Year 1924/25 (1926), p.25.

2. W.A. Richardson, The Technical College (1939), pp.189-191.

3. Ministry of Education, Education 1900-1950, op.cit., p.49.

4. W.A. Richardson, op.cit., p.192.

part-time day courses, however, allowed the student more time for study and this was taken advantage of by the examination of a subject in greater depth or by the introduction of general and ancillary subjects to broaden the nature of the course.¹

The Board of Education statistics reveal that by the mid-1920's the main growth areas of evening study were the chemical trades, engineering and metal trades, food and drink industries and professional and commercial services. Many new courses were started in the evening and tended to reflect changes in the economy itself. By about 1925 there was a marked growth of courses in retail trading. Classes for butchers, for example, were first held in 1925 but thereafter there was a considerable development due largely to the active interest of the National Federation of Meat Traders' Associations.² Local Meat Traders' Associations were particularly helpful in providing premises and meat for demonstration purposes.³ By the end of the 1920's more interest was apparent in the commercial side of certain industries such as textiles,⁴ and gradually, as the conception of commercial education broadened, much greater attention came to be paid to a detailed study of commodities. In 1929 new courses were started at Leeds in works management and economics for engineers, and in the same year a new class in artificial silk technology was started at Bradford.⁵ Textile engineering in general, however, tended to decline in the interwar period with both the number of classes and student enrolments falling by almost a half between 1926-27 and 1937-38.⁶ On the other hand motor car engineering made considerable gains in both the number of classes held and student entries.⁷ Evening institute courses for motor mechanics increased in number and attendance as well as the more advanced

1. Ibid.

2. Board of Education, 'Report of H.M. Inspectors on the Provision in England of Instruction in Commodities for Persons Employed in Commerce' (July 1927) p.8

3. Ibid., p.9.

4. Ibid., p.12.

5. Board of Education, Report for the Year 1929 (1930), p.35.

6. Board of Education, Report for the Year 1926/27 (1928), statistical appendix ibid., 1938 (1939), statistical appendix.

7. Ibid.

courses in Colleges of Further Education. A similar pattern also emerged in general electrical engineering.

1926-27

	<u>Evening Institutes</u>		<u>Colleges of F.E.</u>	
	<u>Classes</u>	<u>Class Entries</u>	<u>Classes</u>	<u>Class Entries</u>
Motor car eng.	69	1,682	131	2,320
Textile eng.	55	618	82	1,481
General elec.eng.	193	2,604	599	11,923

1937-38

Motor	290	6,747	303	5,859
Textiles	26	420	60	866
Electrical	370	6,496	906	19,448

Evening classes remained the backbone of technical education during the interwar period, but the strain put upon students was enormous so that drop-out rates were high, especially at the end of the first year of a course. The Malcolm Committee commented that "It is no doubt true that to some extent the result is the survival of the fittest and that those who have the moral and physical strength to pass through the whole range of junior, senior, and advanced courses ending at 21 are perhaps the finest material in the world."¹

In 1927-28 just over 4 per cent² of part-time students attended day classes and the figure remained depressingly low throughout the 'thirties so that, although ten years later the absolute number of part-time day students had increased, in percentage terms the figure was very much the same.³ Excluding day continuation schools,⁴ there were 138 schools providing part-time day work in 1927-28 compared with 208 schools a decade later.⁵ Over the same period

-
1. Report of the Committee on Education and Industry (1926-28), vol.2.p.38.
 2. Board of Education, Report for the Year 1927-28 (1929), statistical appendix.
 3. Board of Education Report for the Year 1938 (1939), statistical appendix.
 4. Board of Education, Report for the Year 1927/28 (1929), statistical appendix.
 5. Board of Education, Report for the Year 1938 (1939), statistical appendix.

the number of student enrolments increased from about 19,870 to approximately 34,250.¹

The range of work on part-time day courses varied widely from pre-apprenticeship to advanced classes, including instruction for teachers in technical, evening and continuation schools, but the majority of part-time day students throughout the interwar period came from the engineering industry. New courses were introduced to meet the changing requirements of industry. In 1928, for example, classes in aerodynamics were arranged in Coventry and Southampton,² and the following year three new part-time day courses were introduced at Hull to accommodate the needs of compositors, letter-press machinists and workers engaged in the electrical trades.³ Although the engineering industry remained the largest single area from which part-time day students were drawn, throughout the interwar period there was also a marked growth in young people from the building, food, drink and catering trades as well as retail distribution.⁴ Part-time instruction in the building industry was unknown before the First World War, but by 1929 part-time day release classes were being held in over fifty towns in England and Wales,⁵ usually in connection with local apprenticeship schemes and by 1938 almost 4,000 students attended part-time day instruction in building subjects. Perhaps the periodic shortages of skilled manpower in the building industry up to 1926 and again from 1935 contributed to a greater willingness on the part of employers to release their young recruits for part-time instruction.⁷

1. Ibid.

2. Board of Education, Report for the Year 1928 (1929), p.70.

3. Board of Education, Report for the Year 1929 (1930) p.33.

4. Board of Education, Annual Reports.

5. Board of Education, Report for the Year 1928 (1929), p.35.

6. Board of Education, Report for the Year 1938 (1939), p.25.

7. H.W. Richardson and D.H. Aldcroft, Building in the British Economy Between the Wars (1968), pp.123-127.

Throughout the interwar period the Board of Education in its annual reports draw attention to the desirability of day release and regretted that progress was so pedestrian. In the field of commerce, for example, so late as 1939, day release was still almost non-existent.¹ Other official reports, emphasised the advantages of part-time day over evening study, and the failure of employers to respond whole-heartedly to these statements seems the main reason for assuming that industry and commerce were indifferent to technical education generally. To some extent this may fairly be a guide to the employers' attitude towards technical education, though a report by H.M. Inspectors on day classes for engineering apprentices indicated that sometimes a lack of interest in day release could be due to simple day to day problems. "It is an important fact", said H.M Inspectors, "that frequently the difficulty in arranging for release of apprentices lies not in securing the goodwill of the employers but in overcoming the objection of someone within the works who will have to make some change in organisation or suffer some inconvenience."² Some employers seem to have enthusiastically accepted the concept of day release. Perhaps the best schemes were those of a "sandwich system" whereby the student spent period of perhaps five or six months alternately in the works and at school. This system was found in the north-east engineering and ship-building region.³ A more usual method of day release was to allow the employee two half days off work each week in order to attend a course, though at Dursley in 1929 apprentices from local engineering firms were allowed to attend classes on two whole days per week.⁴ In the engineering industry, at least, the employers did not deduct any money from the apprentices wages, and some even paid the school fees as well.⁵ Even so, conditions varied considerably from area to area and in the

1. Board of Education, Report for the Year 1937 (1938), p.29.

2. Board of Education, 'Day Classes for Engineering Apprentices', Educational Pamphlet No. 66 (1928), p.9.

3. Report of the Committee on Education and Industry, op.cit. vol.2.p.42.

4. Board of Education, Report for the Year 1929 (1930), p.35.

5. 'Day Classes for Engineering Apprentices', op.cit. p.16 .

west-midlands metal working region it was still unusual in 1930 for employers to release their young workers for day classes. The most usual concession was that of allowing workers to leave work a little early in order to attend evening classes.¹

Where day release was given it was quite common for conditions to be attached to the privilege. Sometimes this took the form of an informal selection of the best apprentices, although it often appears to have been carefully organised on a formal basis as at Huddersfield where the Huddersfield Engineering Employers' Association allowed apprentices to attend day classes provided that they had already successfully passed the technical college course and examinations for the senior second year National Certificate course.² The Coventry and District Employers' Association instituted a system in 1929 in conjunction with the Local Education Authority whereby Probationership courses were introduced for boys under sixteen years of age with instruction in mathematics, English, drawing and science, with the boys in attendance for 2½ days each week. If successful, the boys received an Engineering Probationership Certificate which enabled them to go on to the Apprenticeship course in preparation for the Ordinary and Higher National Certificate. In addition, successful students could obtain the Coventry Engineering Apprentices Certificate which was endorsed by the Local Education Authority and the Engineering Employers' Association.³ In its Report for 1930-31 the Board emphasised that there had recently been a marked increase in the number of part-time day students in Coventry and that this was largely due to the introduction of the probationer scheme.⁴ Indeed by 1930 most of the large firms in Coventry allowed their apprentices to follow part-time day courses.⁵

1. Board of Education 'Education for Industry and Commerce. The West Midlands Metal Working Area', Educational Pamphlet No. 4(1930), p.14

2. Board of Education, Report for the Year 1930/31 (1931), p.33.

3. Board of Education, Report for the Year 1929 (1930), p.33.

4. Board of Education, Report for the Year 1930/31 (1931), p.27.

5. 'Education for Industry and Commerce. The West Midlands Metal Working Area. op.cit., p.38.

For the most part, however, employer assistance to the young worker, although growing during the interwar period, was meagre, perhaps more often taking the form of a few minutes off work in order to attend evening classes rather than full scale day release.

The institutions classified as Colleges of Further Education under the Regulations issued in 1926 roughly correspond to the colleges described as large institutions in the Board's Reports prior to that time. The larger technical colleges of which there were 127 in 1919-20, 130 in 1927-28 and 149 by 1937-38,¹ did not always have full-time senior students and in the school year 1925-26 only about one-third of the colleges had full-time courses for older students.² There was something of a boom in technical institution courses immediately after the First World War but this was due to an unusual demand from ex-servicemen.³ Once this demand had been absorbed and the trade depression made its appearance to further exacerbate the problem, student numbers fell away.⁴ The immediate post war peak of full-time students on senior courses came in 1921-22 when 10,288 students were enrolled in institutions aided under the Board's Regulations. This figure was not surpassed again until 1937-38, though enrolments were growing again by the late 'twenties and remained relatively steady during the period of depression with only a minor decline in 1933-34 before recovery set in.⁵ In fact, the growth in students attending full-time courses during the latter part of the 'thirties is to some extent disguised by a glance at the bare figures for senior full-time courses in colleges since from 1934-35 certain

1. Board of Education, Annual Reports.

2. Board of Education, Report for the Year 1925/26 (1927), p.58 .

3. Board of Education, Report for the Year 1918/19 (1920), p.49 .

4. Board of Education, Report for the Year 1922/23 (1924) p.90 .

5. Board of Education, Annual Reports.

schools formerly classified as Art Schools were redesignated Art Classes and these took art students from the technical college and evening institute classification.¹

Full-time technical education was also available in junior technical schools. As already indicated,² these schools were officially recognised under a separate set of Regulations in 1913. They in fact grew out of the full-time Day Trade Schools which had been established in London from the beginning of the 20th Century and which were intended for boys nearing the end of their elementary education but who wished to receive some form of specialised education for a further one to three years.³ The junior technical schools of the post 1913 era catered for boys and girls who had completed their elementary education and were intended to prepare pupils either for artisan or other industrial occupations or for domestic employment. In practice, however, many ex-junior technical school pupils went on to take National Certificate and Diploma courses, sometimes becoming managers, chief engineers, heads of departments, designers and research workers so that by the late 'thirties the junior technical schools were no longer merely for artisans.⁴ The schools provided a continued general education combined with preparation for a definite occupation at the age of 15 or 16. The actual age at which a course was to be completed was often determined by local conditions since some industries did not admit young people to apprenticeship schemes once they had passed 16.⁵ The Board of Education itself distinguished between those schemes which prepared students for the engineering and constructive trades providing pre-apprenticeship instruction in mathematics, science and mechanical drawing, and those schools which gave instruction for occupations where

1. Board of Education, Report for the Year 1934/35 (1936), statistical appendix.

2. See p.11.

3. Board of Education, Report of the Consultative Committee on Secondary Education (1930), p.82.

4. O. Buckle, Equality and Justice in English Secondary Education (1955), p.114.

5. Board of Education, 'A Review of Junior Technical Schools in England' Educational Pamphlet No.111 (1937), p.12.

craftsmanship is an important factor. The instruction given in the latter type of school was to some extent a substitute for apprenticeship and was rarely found outside London.¹ A few junior technical schools provided a four year course, admitting students at the age of 12, but these tended to be more like the normal secondary school providing the student with the opportunity to take the School Certificate.² In 1920-21 there were 85 junior technical schools aided by the Board of Education with a total of 11,235 students. The growth of these schools was one of the success stories of technical education during the interwar period and by 1937-38 there were 230 schools with over 29,000 students.³ Though engineering, construction and commercial employment dominated the junior technical schools during the interwar period, there was an extension of the number of courses available, from 171 in 1926-27 to 224 in 1937-38.⁴ Nevertheless, in 1937-38 courses in the construction and engineering trades and in commerce still accounted for 171 of the courses and 22,887 students out of a total of 27,901 students.⁵ The detailed breakdown of the curriculum varied according to local needs, but the freedom from external examinations did provide the opportunity for some experimentation.⁶ Generally, however, apart from the vocational subjects, most of the pupils in the junior technical schools studied English, history and geography, though the content and treatment of subjects could differ materially from similar subjects taught in the ordinary schools.⁷

Many of the junior technical schools were housed in the larger colleges or the colleges of further education, as they became. In 1931-32 out of a total of 182 schools, 141 of them formed part of a college of further education, and this contact with advanced work may well have been

1. Board of Education, Report for the Year 1921/22 (1923), p.45.

2. 'A Review of Junior Technical Schools in England', op.cit., p.11.

3. Board of Education, Annual Reports.

4. Ibid.

5. Ibid.

6. 'A Review of Junior Technical Schools in England', op.cit., p.17.

7. Ibid.

beneficial to the schools. Most of the schools were fairly small in terms of student numbers, and in 1937 only about 19 per cent of the schools had more than 200 pupils.¹ The total student complement tended to be determined by the ability of local industry to absorb students who had completed their course of study. Though the majority of the schools charged fees, and by 1937 about 49 per cent of the pupils paid full fees,² the demand for places generally outstripped the accommodation available, and, on the whole, official comment in the interwar period tended to favour the extension of the junior technical school system.

Perhaps the most promising, yet frustrating experiment in technical education during the interwar period was that of the day continuation scheme. In the 19th Century certain progressive firms such as Messrs. Mather and Platt and Messrs. Brunner Mond had maintained their own technical schools in order to provide their employees with continued education.³ In 1909 the Consultative Committee of the Board of Education recommended a system of part-time compulsory education for young workers of a general continuative nature or in subjects related to their employment.⁴ With the advent of the First World War, the new President of the Board of Education, H.A.L. Fisher, decided that the time was appropriate for the introduction of such a scheme. In his autobiography Fisher claimed that "I was sensible from the first that while the war lasted reforms could be obtained and advances could be made which would be impossible to realize in the critical atmosphere of peace. I resolved to move forward at a hard gallop and long the whole front."⁵

1. Ibid., p.9.

2. Ibid., p.31.

3. Ministry of Education, Education 1900-1950, op.cit., p.51.

4. Ibid.

5. H.A.L. Fisher, An Unfinished Autobiography (Oxford, 1940), p.103.

The bill was originally intended to provide a system of part-time compulsory education from 14 to 18, with each pupil attending for 320 hours each year. Opposition, however, particularly from Lancashire employers, forced a revision of the scheme so that local authorities were allowed to reduce attendance to 280 hours and part-time education should only be compulsory up to the age of 16 with a postponement of seven years before the application of the scheme to young people between 16 and 18.¹ With the onset of economic depression the government was obliged to capitulate on the issue of compulsory day continuation schools and in January 1921 a circular from the Board to the local authorities informed them that the Board could not accept any more applications for the establishment of compulsory day continuation schools.² Although some schools were opened in Leeds, Birmingham, West Ham, Stratford-on-Avon, Rugby and Swindon, the compulsory schemes were soon dropped by all authorities apart from Rugby.³ Nevertheless many day continuation schools developed on a voluntary basis, often with considerable co-operation between local authorities and employers and some employers followed the 19 Century tradition by making it a condition of employment that their young workers should attend a voluntary day continuation school.⁴ Such schools were sometimes held on the premises of the firm itself. In 1920-21 there were 112 day continuation schools with a total of 52,000 students, but with the abandonment of the full scheme in 1920 enthusiasm waned so that by 1937-38 the number of schools had been reduced to 39 and the number of students to 19,629.⁵ The Malcolm Committee viewed with satisfaction the schools that had been established on a voluntary basis⁶ and W.A. Richardson concluded that the only

1, B.Doherty, 'Compulsory Day Continuation Education: An Examination of the 1918 Experiment', Vocation Aspect, Vol.XVIII, (1960), pp.44,45.

2. Board of Education, Report for the Year 1920-21 (1922), p.41.

3. Ibid.

4. Board of Education, Annual Reports.

5. Ibid.

6, Report of the Committee on Education and Industry, op.cit., vol.2, p.39.

compulsory day education continuation school,' that in Rugby had been so complete as to have more than justified the foresight of those who framed the measure.'¹ The day continuation schools, therefore, represented a promising idea that in the event came to very little.

The accommodation at the disposal of technical education during the interwar period was restricted by a lack of money flowing in that particular direction. During the interwar there was only a very slow growth in the amount of money spent on further education.² The Board of Education's survey of technical education for 1924-25 reported that in terms of buildings "The story of actual progress since 1918, therefore is not impressive."³ Near the close of the interwar period the Board lamented that, although it had approved £1,280,000 in 1938 for sites and buildings, "We are convinced that the provision of satisfactory accommodation for technical education is one of the most pressing educational needs of the time."⁴ The 1937 report on junior technical schools claimed that "The reports of the Inspectors on the premises occupied by the Junior Technical Schools are depressing, and it is evident that the review of the provision of accommodation for this branch of technical education is very necessary."⁵ Nevertheless it is fair to say that, despite the economic problems of the interwar period, there were important additions to technical college or institute accommodation. Sometimes this took the form of a completely new college. In 1930 a new technical college was opened at Torquay at an estimated cost of £17,000, and in Southport the pressure on accommodation resulting from the greater demand for technical education from boys who had benefited from the improvement in secondary education prompted the local council into action so that in October 1935 a new technical college

1. W.A. Richardson, op.cit., p.29.

2. J. Vaizey, The Costs of Education (1958), p.103.

3. Board of Education, Report for the Year 1924/25 (1926), p.29.

4. Board of Education, Report for the Year 1938, (1939), p.26.

5. 'A Review of Junior Technical Schools in England' op.cit., p.28.

block was opened.¹ In 1937 new technical colleges were opened at Blackpool and Twickenham.² Sometimes the construction of a technical college was financed by charitable activity, rather than by the local authority, and in the case of Constantine Technical College at Middlesborough, which was opened in the late 1920's and cost about £80,000. the money was provided by a local family.³ Apart from completely new colleges, however, additions were made to old establishments, sometimes by the conversion of existing buildings. At Accrington a disused church was converted into an evening school for the Borough,⁴ and at Hull a house near the technical college was bought and fitted out to provide laboratories for geology and botany and workshops for watch-making, linotype and lithography and a room for camera and screen work.⁵ The improvement or centralisation of accommodation could sometimes stimulate enrolments and after a number of scattered part-time classes for women in Liverpool were transferred to a new central technical school for women the number of enrolments doubled.⁶

Criticism in the interwar period was also directed at the equipment used by the colleges and institutes. The 1937 report on junior technical schools drew attention to 'Dilapidated decorations, cellars and basement rooms in constant use, overcrowded classrooms, corridors and other unlikely places used as classrooms, and laboratories and workshops too small and inconvenient for proper use are all too common.'⁷ Sir Eustace Percy, one time President of the Board of Education, noted the disadvantages of having technical

-
1. W.E. Marsden, 'The Growth of Technical Education in Southport, 1874-1944', Vocational Aspect, Vol.X11, (1960), p.58.
 2. Board of Education, Report for the Year 1937 (1938), p.30.
 3. Board of Education, Report for the Year 1926/27 (1928), p.33.
 4. Board of Education, Report for the Year 1925/26 (1927), p.62.
 5. Board of Education, Report for the Year 1930/31 (1931), p.29.
 6. Board of Education, Report for the Year 1925/26 (1928), p.61.
 7. 'A Review of Junior Technical Schools in England', op.cit., p.29.

classes in converted buildings where the small desks and chairs of what was formerly an elementary school might prove ill suited to the needs of older students.¹ Yet it was not always easy to provide machinery and similar equipment for as the Malcolm Committee pointed out "The schools cannot possibly provide, and keep up-to-date machinery used for the particular processes of all the industries from which their students will come."² At the same time, however, the efforts of local authorities and interested firms and individuals and associations did much to remedy problems, if only on a makeshift basis. In 1925-26 at Liverpool the local authority equipped premises for the teaching of building subjects and the school proved very successful with building apprentices being given day release to attend classes.³ In that year, as interest in building instruction developed, other authorities made additions to equipment for building classes in Manchester, Blackburn, Salford, Southend and Gillingham.⁴ At Blackburn in 1929 a bakery school was equipped with electric ovens and other apparatus provided by local trade associations⁵ and a similar provision was made at Brighton in 1930-31.⁶

By 1924 about 3,000 full-time teachers and several thousand part-time teachers were engaged in further education.⁷ Part-time staff came from elementary and secondary schools and some from industry, commerce and the professions. Generally the part-time staff from elementary and secondary schools taught English subjects, elementary mathematics and science. The

-
1. E.Percy, 'An Educational Policy for an Industrial Nation', Presidential Address at the Annual Conference of the Association for Education in Industry and Commerce. (1931), p.9.
 2. Report of the Committee on Education and Industry, *op.cit.*, vol.2.p.43.
 3. Board of Education, Report for the Year 1925/26 (1927), p.62.
 4. Ibid.
 5. Board of Education, Report for the Year 1929 (1930), p.28.
 6. Board of Education, Report for the Year 1930/31 (1931), p.31.
 7. Board of Education, Survey of Technical and Further Education in England and Wales (1926), p.31.

full-time teachers of engineering subjects were usually members of a professional institute and many were also graduates.¹ The commercial departments of technical colleges tended to appoint graduates in economics or commerce to the principal posts, though in the case of lower level work in office practice the staff tended to be experienced in industry or commerce, rather than well endowed in paper qualifications.² Most of the teachers, too, in textiles, printing, boot and shoe, building crafts and the needle trades were in this position. According to C.T. Millis "All over the country the practical engineer has shown himself a good teacher of engineering subjects, including science."³ The 1937 survey of junior technical schools revealed that some 57 per cent of the staff of those of the schools inspected were graduates and that the majority of those without a degree taught subjects where there was no appropriate degree at that time, but who nevertheless held the appropriate professional qualifications.⁴ According to the report the teaching staff "have won the confidence not only of their pupils but also of the industrial and business communities in their areas."⁵

The interwar period saw important developments in the variety and structure of the examination system in technical subjects. In 1911 the Board decided to discontinue its own lower grade "Science and Art" examinations, and in 1918 the advanced examinations were also brought to a close, together with certain examinations of the City and Guilds of London Institute. In order to fill the gap the Board encouraged the development of regional examining unions such as the Union of Lancashire and Cheshire Institutes and the Union of Educational Institutions, both of which had been founded in the 19th Century.⁶ To these were added the East Midland Educational Union and the Northern Counties

1. Ibid., p.32.

2. Ibid.

3. C.T.Millis, Technical Education:Its Development and Aims (1925), p.111.

4. 'A Review of Junior Technical Schools in England', op.cit.,27.

5. Ibid.

6. Ministry of Education, Education 1900-1950, op.cit.,p.49.

Technical Examinations in 1911 and 1921 respectively.¹ It was the function of these bodies to draft curricula and syllabuses of examinations and examining candidates and issuing them with certificates. By 1931 only two authorities in the north of England were not represented on the Northern Counties Technical Examinations Council.² By that time, too, the East Midland Educational Union and the Union of Educational Institutions had agreed that where one examining body did not provide an examination in a certain subject and the other did, candidates from the area of the former could be admitted to the examinations of the latter at a reduced fee.³ The City and Guilds of London Institute, while maintaining close contact with the Unions, provided a wide variety of examinations of their own. Like the Unions, too, the City and Guilds operated in conjunction with specialist advisory committees and by 1929 virtually all subjects offered by the City and Guilds were covered by such committees.⁴

One of the most important developments in the field of technical examinations during the interwar period was the inception of the National Certificate scheme for part-time students and the National Diploma scheme for full-time students. The organisation of the Certificate and Diploma schemes was tripartite being joint-wards of the Board of Education and professional bodies, and the individual schools and colleges. The Ordinary National usually took three years and the Higher National a further two years.⁵

The National scheme arose out of the Board's dissatisfaction with the existing provision for examinations in technical subjects for part-time students.⁶ The courses offered in technical colleges and institutes were

1. Ibid.

2. Board of Education, Report for the Year 1930/31 (1931), p.40.

3. Ibid.

4. Board of Education, Report for the Year 1929 (1930), p.38.

5. Argles, op.cit., p.66.

6. F.E. Foden, 'The National Certificate' Vocational Aspect, Vol.III (1951), p.38.

sometimes extremely disorganised and confusing with a wide range of subjects from which to choose. In 1920, therefore, the Board initiated discussions with the Institution of Mechanical Engineers with the aim of organising a co-ordinated course in engineering. The conditions under which the scheme was to operate were embodied in Circular 1209 of April 1921 and the first exams were held the following year. In 1922 arrangements were completed with the Institute of Chemistry and in 1924 the examinations were extended to include electrical engineering.¹ The Board of Education Report for 1924 outlined the picture at that time.²

Mechanical Engineering

	<u>Certificate</u>		<u>Diploma</u>	
	Ord.	Higher.	Ord.	Higher.
Schools with approved schemes.	88	31	7	5
Number of Candidates, 1924	1,094	239	49	37

Electrical Engineering

Schools with approved schemes.	48	15	4	1
Number of Candidates, 1924	417	62	17	5

Chemistry and Applied Chemistry

Schools with approved schemes.	28	13	1	-
Number of Candidates, 1924	99	65	-	-

Nationals in Naval Architecture were established in 1925, and in 1930 a Building National Certificate scheme set up in conjunction with the Institute with the Institute of Builders.³ In commerce, however, it proved more difficult to generate interest. The professional bodies themselves had their own examinations and tended to be specialised and not so much interested in commercial education of a general nature. Nevertheless, there was criticism

1. Ibid, p.39.

2. Board of Education, Report for the Year 1923/24 (1925), p.85.

3. Foden, op.cit., p.40.

by the early 'thirties that commercial education at the lower level "...all too frequently connotes a wide range of subjects with but very little coherency as a whole."¹ The major problem in establishing Nationals in commerce was that of finding an interested and suitable professional body so that in 1934 Endorsed Certificates in commerce were established, but without the inclusion of a professional body as the third partner. It was not until 1939 that the Association of British Chambers of Commerce agreed to become the third party.²

The National scheme was valuable in many ways. It helped to provide a nationally recognised qualification that combined practical and theoretical competence. The scheme contributed towards improved relations between industry and education since industrialists frequently served as advisors. Many of the colleges and schools were encouraged to improve their equipment and staffing arrangements in order to reach the required standards. The importance of course work helped to reduce the stress of the examination room, and the flexibility allowed the school or college in the setting of examinations permitted courses to adjust to modern developments.

Superficially, at least, technical education between the two World Wars was very much a poor relation of social policy. Yet there were important developments at a time when almost all branches of education suffered at the hands of economic depression. H.C. Dent argues that "Owing to the recurrent economic crises, all kinds of part-time education had their ups and downs (most governments thought education was the first social service to be cut, especially on its voluntary side), but on balance the ups had it over the downs, and it is safe to say that by 1939 there had been substantial progress in all fields and marked advance in many."³

-
1. Report of the Joint Committee Appointed by A.T.I, the Association of Principals of Technical Institutions and the A.F.T.I., 'National Certificates in Commerce', (1934), p.6.
 2. Foden, op.cit., p.40 .
 3. H.C.Dent, Part-time education in Great Britain. An historical outline (1949), p.42.

Buildings and equipment were complained about but the occasional outstanding improvement and the vast number of less startling additions to accommodation, machinery and materials, together amounted to important developments. Courses were modified according to the needs of the time. Teachers were employed who were often very well qualified, both in terms of examination success and practical experience. The examination was adjusted to become sufficiently flexible to meet the changing requirements of industry and commerce. Perhaps the weakest aspect of technical education during the interwar period was the apparent insistence upon the teaching of theory rather than practical criticism that could equally have been levelled against technical education in the late 19th Century. The Board of Education recognised that technical education in engineering, metallurgy and chemical manufacture "... tends to be, in the main, scientific in outlook and to take insufficient account of the actual conditions of the workshop."¹ Industry, too, argues Cotgrove, tended to lack interest in science based technology, preferring the traditional rule of thumb methods of the 19th Century. This, says Cotgrove, was "The underlying factor, then, behind the stagnation in technical education in the interwar years."² Undoubtedly the attitude of some employers contributed towards low enrolments, at least for full-time and part-time day courses, though it is also true that many industrial and commercial employers strongly supported the cause of technical education. The lack of technical education facilities, particularly in the more remote areas, the costs of instruction, the test of physical endurance that evening attendance involved, and the security that came with the white collar clerical occupations may all have been important in directing young people away from the technical college.

1. Board of Education, Report for the Year 1931 (1932), p.34.

2. S.Cotgrove, op.cit., p.100.

CHAPTER TWO

The Framework of Technical Education Within The Area of the London County Council, 1918-1939.

Chapter 1.

The establishment of the L.C.C. as the education authority for London.

The effect of the Local Government Act, 1888, in London was to establish the Administrative County of London with the London County Council as the central authority. The geographical area controlled by the Council was that previously administered by the Metropolitan Board of Works, though the Local Government Act, 1899, which set up the twenty-eight Metropolitan Borough Councils to take over the work of the many vestries and district boards, resulted in the addition of South Hornsey and the detachment of Penge and Clerkenwell. Minor adjustments were made in 1903 and 1907, but the Metropolitan Boroughs, as constituted in 1899, together with the City of London, represented substantially the one hundred and seventeen square miles of the Administrative County of London.¹

The Council, however, was not made the education authority for London until 1904, and initially this function devolved upon the London School Board, although the Technical Education Board was set up later under the aegis of the Council. The London School Board, having been set up under the Education Act of 1870, in fact, preceded the London County Council, and its refusal to confine itself to elementary education leading up to the Cookerton decision is a well known aspect of education history. The establishment of the Technical Education Board for London, which first met in 1893, was made possible under the provisions of the Technical Instruction Act, 1889. The Board contained thirty-five members, twenty of whom were L.C.C. councillors with the remaining fifteen representing other organisations, and, under the guidance of its first Chairman, Sidney Webb, zealously and with good management attempted to make the best use of the financial provision made

1. The London County Council 1938 (L.C.C. 1938), p.5.

available for technical education under the 1889 Act, and also the money that was set aside for this cause under the Local Taxation (Customs and Excise) Act, 1890. By the time the Technical Education Board was abolished in 1904 it had helped to treble the number of day classes in technical subjects and contributed to a fourfold increase in student hours worked in evening trade and technical classes.¹ Of significance for the future, the Technical Education Board had demonstrated that the Council's control of education could be as noteworthy as that of the London School Board.²

The reorganisation of education under the Act of 1902 did not apply to London, for it was not until the Education (London) Bill was introduced into the House of Commons in April, 1903 that the position of London within the system was officially dealt with. The reason given for the delay was that the presence of the Metropolitan Borough Councils had to be considered in detail, but in addition the Government wanted a breathing space to see how the scheme worked before tackling the London County Council and the London School Board.³ The battle over the Education Act of 1902 had no doubt wearied the Government and a period of relative inactivity was necessary before turning to the complexity of London's education system. The London bill underwent considerable modification during its passage through the Commons, though in the event the final legislation placed the Council in the same position as regards post-elementary education as other Part II authorities and its control of elementary education was not greatly different from that of other county councils.

The choice of the London County Council as the education authority for London was not an automatic decision for the claims of the powerful

-
1. W.E. Jackson, Achievement. A Short History of the L.C.C. (1965), p.25.
 2. A.M. McBriar, Fabian Socialism and English Politics 1884-1918 (Cambridge 1962), p.210.
 3. P.H. Andrews, The Organisation, Development and Administration of Public Education in the Area of the London County Council, 1903-1922 (Unpublished London Ph.D.thesis, 1963), p.12.

London School Board were strong, and the position of London was something of a test case for the country as a whole since the final decision brought an end to the ad hoc principle in education, though one result of the London Local Government Act, 1963, has been the establishment of the Inner London Education Authority as the first single purpose body dealing with education since the London School Board. During the discussions which centred around the Education (London) Bill the L.C.C. itself appeared only mildly enthusiastic to accept responsibility for London's education for it was anxious not to upset the London School Board, and some elements within the Council were reluctant to accept the organisational duties that such a scheme entailed, perhaps not surprisingly for it was estimated that the work of the Council would be doubled.¹ This was at a time when Lord Salisbury was already describing the Council as suffering from megalomania.² That the Council did become the education authority for London was very largely due to the skilful manoeuvres of Sidney Webb whose eventual success in turn owed much to the support of Harmsworth and a series of articles in the Daily Mail.³

The Education Committee of the Council appointed a number of sub-committees to deal with the various aspects of its work and thus followed the practice of the Technical Education Board.⁴ The number and nomenclature of the sub-committees changed from year to year and by 1918 the original eight had been increased to nine. They were: general purposes, special schools, teaching staff, books and apparatus, higher education, accounts and attendance, buildings, children's care and elementary education. To assist the Council in its education work three professional officers were appointed. The chief clerk (education) transacted all clerical work concerned with the

1. E.J.T.Brennan, Sidney Webb and the London Technical Education Board:IV. The London Education Act of 1903; Vocational Aspect, Vol.28, (1962), p.50.

2. G.Gibbon and R.W. Bell, op.cit., p.255.

3. P.H.Andrews, op.cit., p.23.

4. P.H.J.H.Gosden, The Development of Educational Administration in England and Wales (Oxford, 1966), p.157.

Education Committee and was responsible for advising the chairman of committees on standing order procedure. The executive officer ensured that the decisions of the Council relating to education were carried out and the educational adviser was in the position of general mentor from whom specialised information of an educational nature could be sought. In practice the tripartite division of authority did not work well, mainly because the chief clerk and the executive officer, Robert Blair, found it difficult to work together. In 1908 a Special Sub-Committee on Education Administration was set up and it recommended that the whole of the education work should be placed under the control of one person and Blair was selected as the first incumbent.¹ This system worked more satisfactorily than the previous devolution of responsibility and was retained throughout the interwar period. Blair remained the Education Officer until his retirement in 1924 to be succeeded by G.H. Gater who remained in office until 1933 when he became Clerk of the Council. Gater was followed as Education Officer by E.M. Rich who had spent some time as Gater's assistant. London was one of the few local education authorities to have its own inspectorate and after the system was modified in 1919 the force comprised a chief inspector, four divisional inspectors, a woman inspector and thirty eight others. The reports of the Council's inspectors provide a valuable source of evidence in an investigation of the structure of technical education in London, during the interwar period. In addition to their professional officers, members of the Council were assisted by external Consultative Committees and Advisory Sub-Committees. The Advisory Sub-Committees were local bodies attached to a particular institution maintained by the Council. The Consultative Committees, however, while sometimes local in character, could also be of a wider nature, with special reference to particular industries or trades. By 1919 there were eight Central Consultative Committees in such industries as engineering, chemistry and

1. P.H. Andrews, op.cit., pp.83-93.

book production, each containing representatives of the Council, employers' associations and the trade unions.¹ The framework thus established during the formative years after 1904 remained the basis of the Council's administrative structure in its work as education authority for London.

By the interwar period the London County Council had developed its own classification of institutions providing technical education. This classification, which remained constant between the two world wars, was:

- (a) Aided polytechnics
- (b) Other aided technical institutes
- (c) Maintained technical institutes
- (d) Evening institutes
- (e) Day continuation schools

The institutional framework in London differed from that in most other authorities in that the Council aided as well maintained schools and colleges. This reflected the unique historical development of technical education in London. The Education Committee of the L.C.C. inherited from the Technical Education Board a complex of polytechnics, monotchnics and technical institutes that had developed markedly during the preceding eleven years. In addition the Technical Education Board had given substantial grants to further post-elementary work of the London School Board.² Assisted by an increasingly large share of the money set aside from the "whiskey money" fund,³ the Technical Education Board set out to strengthen existing facilities and co-ordinate the activities of the various institutions where it seemed there was a serious danger of duplication of function. The latter was made possible by insisting upon representation upon the governing bodies of those institutions

1. The Organisation of Education in London (L.C.C.1919), p.31.

2. E.J.T. Brennan, 'Sidney Webb and the London Technical Education Board:

II. 'The Board at Work', Vocational Aspect, Vol.XII (1960), p.33.

3. G.Gibbon & R.W. Bell, op.cit., p.249.

which formerly had been independent of the Council but which now received financial assistance.¹ Moreover, each aided institution was to provide annual reports for the Technical Education Board showing the nature of work undertaken, students attendance, teachers' salaries and a statement of accounts. This was reinforced by the introduction of a scholarship system which eventually helped to wield the highly competitive structure of technical education into some kind of unit, with each institution paying due regard to the activities of neighbouring schools and colleges.² Mention should also be made, however, of the contribution of other bodies such as the City Companies, the City and Guilds of London Institute and the charitable activities of various organisations and individuals. The City Parochial Charities Act, 1883, empowered special commissioners to assist the development of technical education and by 1903 the Trustees were providing £40,000 to the polytechnics alone.³ This compared with about £88,000 to be polytechnics from the London County Council.⁴ The City Companies were also generous in their assistance to technical education, the Goldsmiths' Company, for instance, purchased the Royal Naval School at New Cross and equipped it as a polytechnic.⁵

Not only did the number of polytechnic institutes increase under the assistance of the Technical Education Board, but their range and volume of work, and student numbers also expanded. Although by 1903 a wide range of general, technical and trade classes were taught in the polytechnics, there was already a tendency to place emphasis upon the higher level work, and this trend continued into the interwar period. This point was commented upon in the draft of a speech prepared for the Education Officer, G.H.Gater, to deliver before the A.T.I. in 1950. In a marginal note, Gater pointed out that

1. E.J.T.Brennan, op.cit., p.34.

2. P.H.J.H.Gosden, op.cit., p.161.

3. E.J.T.Brennan, op.cit., p.35.

4. G.Gibbon and R.W.Bell, op.cit., p.278.

5. The London Education Service (L.C.C. 1927), p.104.

polytechnics were more concerned with the higher grade full-time student than the part-time artisan, though he made it clear that this was not to be mentioned in the final draft.¹

The smaller institutions also developed from a variety of backgrounds. The Wandsworth Technical Institute, for example, arose out of a public meeting in March 1894 when a local committee was elected to prepare and submit plans for the establishment of a technical institution to serve south-west London.² Plans were eventually accepted by the Council and premises, originally intended for shops and a covered skating rink, were acquired and converted into lecture rooms and workshops. The Westminster Technical Institute, however, derived its origin from some trade classes for metal workers, plumbers and other craftsmen founded in 1890 by Baroness Coutts. In 1893 the Baroness provided for the erection of a new two-storey building to house the classes and this became known as the Westminster Technical Institute.³

By the time the Technical Education Board was abolished, the day work of the polytechnics and technical institutes had been supplemented by the establishment of full-time trade schools. These trade schools, the first of which was the Trade School for Furniture and Cabinet Making at the Shoreditch Technical Institute founded in 1901, tended to cater for boys, and eventually became part of the Junior Technical School system.

The evening continuation schools in London became part of the structure of technical education under the Education (London) Act, 1903. The early experience of the Council with these schools was not a happy one for although enrolments were often quite high initially, student numbers tended to fall away fairly rapidly with the result that classes folded up. In 1913,

-
1. L.C.C. EO/HFE/1/9. Speech prepared for the Education Officer to be given before the A.T.I. February, 1930.
 2. P.R.O. Ed.90/164. J. Robertshaw to the Secretary of the Board of Education, 25th April, 1932.
 3. L.C.C. EO/HFE/4/176. Report of an inspection of the Westminster Technical Institute by the Council's Inspectors, July, 1936, p.1.

therefore, a revised scheme was introduced to deal with the evening institutes. Under this arrangement the institutes were organised in close relation to each other and to the senior institutes and in fact their main function was seen as that of providing a flow of students to the senior technical institutes. Attempts were made to avoid overlapping of work, standardise the age of admission and the general structure of courses. Vocational and non-vocational courses were separated and so, too, were the junior and senior students. Boys and girls of fourteen to eighteen could attend junior commercial or junior technical institutes where they were to take an organised course rather than single subjects as had been permitted under the old system.¹ After satisfactory completion of a two years' course, students could progress to the appropriate higher institution such as a polytechnic, technical institute or commercial institute. The latter, although officially part of the evening institute system, served the more advanced student, catering for the seventeen plus age group. The remainder of the evening institutes were generally of the non-vocational type and tended to provide instruction for distinct groups. The full list of vocational and non-vocational evening institutes is as follows:

- (a) Commercial institutes-advanced commercial education for both sexes to which students under 17 were not admitted unless educationally qualified.
- (b) Junior commercial institutes-preparatory commercial education for both sexes.
- (c) Junior technical institute- mainly for boys, though provision for girls in some cases.
- (d) Literary institutes
- (e) Men's institute-subjects of general interest; for men 18 plus.
- (f) Men's institute (junior)-for boys 14-18
- (g) General institutes-in outlying areas; subjects taught as in above institutes.
- (h) Free institutes-general education.

1. L.C.C. EO/HFE/1/145 Report of H.M. Inspectors on the New Scheme for the Re-organisation of the Evening Institutes in the Administrative County of London, July 1914, pp.2-7.

- (i) Institutes and classes for the deaf.
- (j) Institutes with more than one dept. e.g. junior commercial and junior technical.

With the exception of the day continuation schools there was very little fundamental change in the structure of London's system of technical education after 1914, though, in the words of Sir Cyril Cobb, there was "now a good groundwork to build upon"¹, and it is with this development that our thesis is concerned.

The special problems of the L.C.C. in its treatment of technical education.

Before outlining the general structure of London's system of technical education during the interwar period, it is necessary to consider briefly some of the environmental differences between London and provincial towns and cities which help to explain the unique development of vocational education within the capital. The progressive attitude adopted by both the Technical Education Board and the London School Board set a strong precedent that was not easily ignored. Perhaps the determined stand that the Education Committee sometimes took towards the Board of Education in its desire to improve technical institute buildings reflected something of this past. At the same time, of course, there were those who exercised a restraining influence over the Council to ensure that the cart did not overtake the horse. Quoting again from Sir Cyril Cobb, Chairman of the L.C.C. from 1913 to 1914, "It is clear then that we must pray to be saved from educational enthusiasts who are out for revolutionary changes, our only hope is to proceed by orderly development, not hurrying ahead of possibilities or lagging behind popular demand; making the best use of the financial resources placed at our disposal."²

As the largest and most prestigious area of local government in England, with a well organised party structure, the London County Council

1. Sir C. Cobb; London's Scheme of Education' The Contemporary Review, Vol. CXVIII, (1920) p.652.

2. Ibid., p.653.

formed a miniature parliament so that particular issues concerned with education perhaps became more fiercely contested than in other local authorities. Certainly the scale of London's local government meant that a change in the political climate could affect more institutions than anywhere else in the country. In addition, the gargantuan nature of the administration of London's education service held serious dangers of inefficiency from over bureaucratisation.

The size of London, combined with the fact that, with the exception of certain occupations such as leather manufacture in Bermondsey, industry was not very highly localised, meant that facilities had to be provided over a wide area resulting in a good deal of duplication. For instance, during the session 1925-26 nine senior institutions in London provided evening instruction in building subjects.¹ A similar situation existed in the teaching of full-time courses in chemistry. By 1925 Battersea Polytechnic, Chelsea Polytechnic, Finsbury Technical College, the Leathersellers' College and the Northern Polytechnic all provided full-time junior and or senior instruction in applied chemistry.² In the case of the more advanced work this meant that classes were often very small so that average costs per student in terms of teachers' salaries, equipment and building were high. One of H.M. Inspectors noted in 1923 that in Hackney Technical Institute a third year senior mechanical engineering class had only three or four students and this meant that the well equipped advanced engineering laboratory was only used on average by about twelve students per week during January of that year.³ The Technical Education Board had attempted to reduce duplication in the 1890's and after a detailed survey in 1909 of the facilities available in London, the Council began a more sustained effort to promote the co-ordination of all kinds of

-
1. L.C.C. EO/HFE/1/95 Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London for the Period Ending 31st July 1926, p.20.
 2. L.C.C. EO/HFE/1/96 Report of H.M. Inspectors on the Provisions of Instruction in Chemistry in the County of London for the Period Ending 31st July 1925 p.2.
 3. P.R.O. Ed.90/137 Dr. Morley to H.T. Holmes, 24th February, 1923.

education. As a result of the 1909 enquiry engineering work was abandoned in two polytechnics and concentrated in eleven other institutions of which five were polytechnics.¹ Conferences were held between the Council and the local education authorities of neighbouring areas to discuss the establishment of new courses. In practice, however, it was not easy to restrain the development of new courses and by 1939 the Council's Inspectors were still calling attention to overlapping of function resulting from the expansion of facilities during the previous few years. In their report on Wandsworth Technical Institute, for example, the Inspectors recommended that the Higher National Certificate courses in electrical and mechanical engineering should go to Battersea Polytechnic and that there should be closer cooperation between the building departments of the School of Building at Brixton and Wandsworth Technical Institute.² The building boom of the 1920's brought about an increase in the demand for classes in building subjects. The report of H.M. Inspectors on building instruction in London noted that, "the increasing enrolment of building students has overtaken the accommodation available, and on this account, for the moment at least, no proposals for the concentration in senior schools on present lines can very well be considered."³ This was at a time when the building industry was enjoying a period of prosperity and the years 1926-27 saw a peak of residential capital formation.⁴ A progressive and enthusiastic principal could also do much to stimulate the development of course. In April, 1930, one H.M.I. noted with surprise that after a recent visit he had made to Hackney Technical Institute the new principal had felt so encouraged

-
1. L.C.C. EO/HFE/1/98 Report of H.M. Inspectors on the Provision of Engineering Education in London, March, 1927, p.6.
 2. L.C.C. EO/HFE/4/105 Report of an Inspection of Wandsworth Technical Institute by the Council's Inspectors, May, 1939, pp.17, 18.
 3. Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London, op.cit., p.20.
 4. H.W. Richardson and D.H. Aldcroft, op.cit., p.228.

as to apply immediately for permission to operate National Certificate courses in building.¹ Although the first application was rejected, a revised scheme was quickly forwarded to the Board of Education and this was approved in June 1930.

The relatively abundant facilities for technical education in London, combined with a good transport system, attracted students from the area of neighbouring local education authorities and this involved the Council in the problem of out-county fees. The good facilities and advanced engineering courses at Hackney attracted students from both Middlesex and Essex. During the session 1920-21 about 27 per cent of the students in the gas industry, civil engineering and building classes of the Westminster Technical Institute were from outside the area of the London County Council.² In the building trades there were special problems of this nature for as H.M. Inspectors commented in 1926, "Building employees may live in London and travel daily to out-county districts, or they may live in distant suburbs and work in London, first in one district and then in another."³ Oversea students were attracted to the London institutes, especially the polytechnics, and in 1926 about two-thirds of first year full-time engineering students at Battersea came from abroad.⁴ In 1920 the Council decided to introduce a penal fee structure for out-county students, though this was soon modified as schemes of financial adjustment were negotiated between the London County Council and other local education authorities. Sometimes the initiative seems to have been taken by the school authorities themselves for the new principal of Paddington Technical Institute was able to come to an arrangement with Acton Technical College

1. P.R.O. Ed.90/137 Manson to H.T.Holmes, 2nd April, 1930.

2. L.C.C. EO/HFE/4/175 Report of H.M.Inspectors on the Westminster Technical Institute, April 1924, p.2.

3. Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London, op.cit., p.11.

4. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.9.

over out-county students.¹ The short-term effect of the penal out-county fee seems to have been quite substantial, at least in the case of some institutions. Hackney Technical Institute provides the most notable example of this for day and evening enrolments for the session 1922-23 (up to the 24th January, 1923) were down almost 20 per cent on the previous year.² H.M.I., Mr. Davies attributed this mainly to the higher out-county fees, although he admitted that the depressed state of industry was also a factor.³ Paddington, too, experienced a decline in the number of its out-county students. In 1932 the Council's inspectors noted that during the past four years the number of out-county students attending the Institute had declined from 141 to 50.⁴ Generally, however, by the mid-'twenties the question of out-county fees does not seem to have been raised very often as an important factor affecting student enrolments. In the case of Hackney and Paddington there were special circumstances which help to explain their particular difficulties. Hackney Institute adjoined Hackney Downs Junction which had main line services into Essex and Middlesex. It is perhaps not surprising, therefore, that a high proportion of students attending the Institute should have come from these counties and that when out-county fees were increased their numbers should fall away. H.M.I. Dr. Morley observed that, "a large part of the demand for Engineering at Hackney came from several districts outside London for which Hackney is a particularly convenient centre on account of the railway service."⁵ In 1928 Paddington Technical Institute was the only large technical school in north-west London, but soon after the North-Western Polytechnic and the Hammersmith School of Arts and Crafts and Building were both opened and

1. P.R.O. Ed.90/147 G.H. Gater to the Secretary, Board of Education,

13th January, 1931.

2. P.R.O. Ed. 90/137 Davies to H.T. Holmes, 19th February, 1923.

3. Ibid.

4. L.C.C. EO/HFE/4/158 Report of an Inspection of the Paddington Technical Institute by the Council's Inspectors, 1932, p.1.

5. P.R.O. Ed.90/137. Morley to H.T. Holmes, 24th February, 1923.

probably siphoned off some students, especially since the Institute itself had rather a poor reputation. Moreover, as counties such as Essex, Kent and Middlesex improved their facilities for technical education they were likely to retain students who might otherwise have found their way to one of the institutes aided or maintained by the L.C.C. During the 1930's, for example, the Middlesex local education authority made substantial efforts to improve its own colleges and new institutions were opened at Southall, Acton, Willesden and Twickenham.¹

Another problem in London, according to G.H. Gater, was that of high land values, which meant that employers were often unwilling to devote time and space to training their employees on their own premises.² The question of high overhead costs probably made many employers reluctant to release their young workers at all, especially since many firms in London were very small and liable to disappear when economic conditions deteriorated. H.M.I. Dr. Morley considered that one of the reasons for the decline in student numbers at Hackney Technical Institute in the early 1920's was the decline of a large number of small firms in the Walthamstow area which had mushroomed after the First World War. The multiplicity of small businesses made it difficult to organise block day release for students since a firm with only a few employees would find it hard to cover the absence of even one or two workers. Indeed, there seems to have been particular difficulty in securing the support of employers for part-time day release. In 1927 H.M. Inspectors claimed that, "Possibly the most important change in engineering education in England since the war had been the great growth of the system of organised part-time instruction of apprentices given either partly or wholly in the day time by arrangement between local education

-
1. Speech prepared for the Education Officer, Feb. 1939, op.cit. p.2.
 2. G.A. Robinson, 'Education for industry', British Management Review, Vol.2.(1937), No.2. p.94.

authorities and employers."¹ The Inspectors went on to comment, however, that London had fared rather poorly in this development. A similar opinion was expressed by one of the Council's Inspectors in 1935 when he claimed that, "The problem of obtaining students for Part-time Day classes is a very difficult one everywhere in London."² The reasons for this difficulty are analysed more closely in Chapter Seven.

The institutions, their general character and enrolments.

The senior institutions providing technical education in schools maintained or aided by the London County Council in 1918-19 and their additions and detachments during the interwar period were as follows:³

1. Maintained technical institutions:

Beaufoy Institute

Camberwell School of Arts and Crafts

Hackney Technical Institute

Norwood Technical Institute

Paddington Technical Institute

School of Building

School of Engineering and Navigation

School of Photo-Engraving and Lithography

Shoreditch Technical Institute

Trade School for Girls, Barrett Street

Trade School for Girls, Bloomsbury

Trade School for Girls, Hammersmith

Westminster Technical Institute

Additions

London School of Printing and Kindred Trades

-
1. Report of H.M. Inspectors on Engineering Education in London, op.cit., p.17
 2. L.C.C. EO/HFE/4/168 J.Currie to Chief Inspector, 15th July, 1935.
 3. This information is extracted from London Statistics, vols.26-41(1921-39).

Trade School for Girls, Clapham.

Hammersmith School of Buildings and Arts and Crafts (Until 1930 this institution was known as the Hammersmith School of Arts)

School of Retail Distribution (In 1937 this institution became the Technical Institute for the Distributive Trades)

Smithfield Meat Trades Institute

South-East London Technical Institute

Wandsworth Technical Institute (This institute was formerly aided by the Council)

Detachments

Camberwell School of Arts and Crafts (Detached 1920/21)

Trade School for Girls, Bloomsbury (Detached 1925/26)

Trade School for Girls, Hammersmith (Detached 1925/26)

Enrolments at maintained technical institutes

1918-19	8,032	1928-29	14,135
1919-20	8,625	1929-30	15,392
1920-21	9,796	1930-31	15,904
1921-22	6,772	1931-32	18,882
1922-23	7,254	1932-33	17,679
1923-24	8,655	1933-34	17,853
1924-25	9,921	1934-35	19,228
1925-26	11,336	1935-36	20,627
1926-27	12,388	1936-37	24,438
1927-28	12,739		

2. Aided technical institutions

Albany Institute

Bermondsey Settlement

Blackheath School of Art

Cordwainers' Technical College

Goldsmiths' College
Harold's Institute
Leathersellers' Technical College
Morley College
Royal School of Art Needlework
St. Bride's Foundation Printing School
St. Martin's School of Art
School of Wood Carving
Toynbee Hall
Wandsworth Technical Institute
Working Men's College

Additions

Newcomen's Foundation Trade School
Sailors' Home School of Nautical Cookery
Camden Technical Institute
Mary Ward Settlement
King Edward VII Nautical School
John Woolman Adult Educational Settlement
Blue Coat School for Girls

Detachments

School of Wood Carving (This institution was closed Easter 1937) and its work was transferred to the Hammersmith School of Building and Arts and Crafts)
Working Men's College (Detached 1925/26)
St. Bride's Foundation Printing School (From September, 1922 this institution became known as the London School of Printing and Kindred Trades and was Maintained by the Council)
Wandsworth Technical Institute (A maintained institute as from 1936/37)

Enrolments at aided technical institutes (excluding polytechnics)

1918-19	6,637	1928-29	10,081
1919-20	9,791	1929-30	10,697
1920-21	10,737	1930-31	11,491
1921-22	9,464	1931-32	12,228
1922-23	7,517	1932-33	10,843
1923-24	8,096	1933-34	11,768
1924-25	7,674	1934-35	11,747
1925-26	8,245	1935-36	12,176
1926-27	9,156	1936-37	10,345
1927-28	9,289		

It is necessary to draw a distinction between the maintained and aided technical institutes since the latter generally tended to emphasise the non-vocational aspect of further education. For example, in 1933 the Council's Inspectors said of the Bermondsey Settlement that, "The strongest branch of the educational work of the Settlement is concerned with literary and humanistic studies."¹ Because of this it was recommended, "that future developments at the Settlement should be on the non-vocational side of adult education for which it is well adapted."² The warden of the Settlement, however, claimed that vocational classes served as a method of attracting students to the building where their interest in non-vocational work might be aroused and for this reason it seems that a few vocational classes continued to function.³ Of an even less vocational nature was Morley College. In 1931 the Council's Inspectors commented that, "There can be no manner of doubt that the College, as at present conducted, is succeeding to a remarkable degree in fostering intellectual and aesthetic interests in a great number of working

1. L.C.C. EO/HFE/5/12 Report of a Special Inspection of the Bermondsey Settlement by the Council's Inspectors, October, 1933, p.7.

2. Ibid.

3. L.C.C. EO/HFE/5/12 The Reverend J.Scott Lidgett to the Education Officer 29th June, 1934.

population in this part of London."¹ The group social work aspect of the late nineteenth century settlements formed a most important aspect of the activities of the John Woolman Adult Educational Settlement for in 1939 the Council's Inspectors noted that, "the Settlement seeks to be more of a community centre than an evening institute."² On the other hand some aided institutions such as Wandsworth Technical Institute and the Cordwainers' College were very clearly orientated along vocational lines. Nevertheless, the general remarks which follow apply most uniformly to maintained, rather than aided technical institutes.

Although the technical institutes catered for part-time day as well as evening students, the bulk of their work during the interwar period was conducted in the evening. Part-time day students were admitted to the technical institutes from the age of 14 but evening only students were not eligible below the age of 16. Junior evening students were to follow a preparatory course of instruction at an evening institute before proceeding to the more senior institutions. Enrolments at the evening institutes between 1918 and 1937 were as follows:

	<u>Total enrolment</u> *	<u>Commercial inst.</u>	<u>Junior commercial</u>	<u>Junior technical</u>
1918-19	111,954	21,062	17,204	6,226
1919-20	135,367	28,973	19,046	8,669
1920-21	152,097	38,954	18,153	8,481
1921-22	119,207	27,351	14,410	6,084
1922-23	224,489	25,338	12,930	5,497
1923-24	117,359	25,169	12,697	5,204
1924-25	127,544	28,429	12,191	4,607

1. L.C.C. EO/HFE/5/218 Report of an Inspection of Morley College by the Council's Inspectors, June, 1931, p.4.

2. L.C.C. EO/HFE/5/62 Report of a Special Inspection of the John Woolman Adult Education Settlement by the Council's Inspectors, February, 1939, p.4.

	<u>Total enrolment</u> *	<u>Commercial inst.</u>	<u>Junior commercial</u>	<u>Junior technical</u>
1925-26	129,933	27,567	10,976	4,317
1926-27	142,076	28,245	11,013	4,216
1927-28	149,386	29,295	11,393	4,337
1928-29	152,791	30,104	10,433	3,999
1929-30	156,423	29,590	10,374	4,190
1930-31	159,855	31,409	9,217	3,809
1931-32	144,354	30,316	6,427	2,737
1932-22	125,276	25,965	5,077	2,443
1933-34	132,442	24,827	5,427	2,725
1934-35	139,458	25,352	5,488	2,270
1935-36	144,302	26,257	5,625	2,425
1936-37	151,626	30,372	5,211	2,571

*This column includes classes in clubs affiliated or not affiliated to an institute.

The instruction available in the technical institutes followed the pattern of the country as a whole, being classified as major or minor courses. The minor courses were of the less academic variety and intended for the better type of apprentice, while the major courses were of a more advanced theoretical nature. In the engineering trades the minor courses were of two types, craft instruction for workers such as pattern makers, smiths and boilermakers, and secondly more general courses in engineering production for fitters, turners and machinists.¹ In the gas industry minor courses were provided in gas fitting and gas supply.² As new industries were developed, new subjects, such as automobile engineering, were introduced into the pattern. Students sat for a wide variety of examinations including

1. Report of H.M. Inspectors on Engineering Education in London, op.cit., p.19.

2. Institution of Gas Engineers, Transactions, vol.78 (1928-29), pp.72.73.

those of the City and Guilds of London Institute, the Institute of Production Engineers, the Institute of Gas Engineers and the Institute of Automobile Engineers. The growing tendency in the case of major courses was for students to take national certificate examinations, though the examinations of the professional bodies remained popular.

The part-time day work of the technical institutes was predominantly concerned with minor courses, although there were exceptions to this. For instance, in 1932 Wandsworth Technical Institute, in conjunction with Chelsea College of Automobile and Aeronautical Engineering, began a part-time day course leading to the Ordinary National Certificate.¹ This course was still running in 1939 and, according to the Council's Inspectors, had proved highly successful.²

The other area of part-time technical instruction outside the polytechnic system was that of the day continuation school. London's compulsory day continuation schools were opened on the 10th January, 1921, but closed in July of the following year. During that period 33 London County Council day continuation had been established together with two that were non-provided. When the voluntary system came into operation at the end of August, 1922 only eleven schools were opened. These schools catered for children between 14 and 18 and their curriculum was mainly vocational in the direction of industry and commerce, though instruction in general subjects was also given. In the case of the Westminster Day Continuation School, however, instruction was of a highly specialised nature preparing students for work in the retail section of large London stores. The School built up a large evening, as well as day enrolment, and since the constitution of day continuation schools did not allow for evening work these students were eventually transferred to

1. Report of an Inspection of Wandsworth Technical Institute, op.cit., p.15.

2. Ibid.

Buckingham Gate Evening Institute.¹ The nature of the work done at the Westminster Day Continuation School, together with the average of the students, which was somewhat higher than that of similar institutions, resulted in the School being reclassified as a technical institute from the session 1919-20. The School then became known as the L.C.C. School of Retail Distribution.²

The L.C.C. day continuation schools in 1922-23, together with their additions and detachments and enrolment figures during the interwar period, are given below:

Battersea

Brixton

City and Whitechapel

Greenwich and Woolwich

Hammersmith

Islington

St. Marylebone

St. Vincent's

South Hackney

Southwark and Bermondsey

Westminster

Additions

As from September, 1936 Greenwich and Woolwich was reorganised as two separate schools, viz. Greenwich and South East London.

Detachments

City and Whitechapel (as from 1929-30).

Westminster (as from 1929-30).

1. P.R.O. Ed.82/89 E.M.Rich to Secretary of the Board of Education,
1st June, 1929.

2. Ibid.

Enrolments

1922-23	9,167	1931-32	8,101
1923-24	10,125	1932-33	6,490
1924-25	10,533	1933-34	5,462
1925-26	10,606	1934-35	6,434
1926-27	9,191	1935-36	6,830
1927-28	9,451	1936-37	6,233
1928-29	8,813		
1929-30	8,159		
1930-31	9,069		

For the most part, full-time senior courses were restricted to the polytechnics, though again there were exceptions and the L.C.C. School of Building and the London School of Printing both catered for students of this type. Although the polytechnics usually offered courses of a similar nature to those of the technical institutes, some of them also devoted much of their resources to advanced instruction with full-time students. By the mid-'twenties, for example, full-time national diploma courses were available in mechanical, civil and electrical engineering at Battersea, Northampton and Regent Street polytechnics and some students were presented for the University of London degree examinations.

Aided polytechnics 1918-19

Battersea

Birkbeck College

Borough

City of London College

Northampton

Northern

Regent Street

Sir John Cass Technical Institute

South Western Polytechnic (1920-21 became Chelsea Polytechnic)

Woolwich

Additions

Finsbury Technical College (1921)

North-Western Polytechnic (1929-30)

Detachments

Birkbeck (1920-21)

Finsbury (1926)

Enrolments

1918-19	25,240	1927-28	36,581
1919-20	37,835	1928-29	28,024
1920-21	28,471	1929-30	42,291
1921-22	32,749	1930-31	45,278
1922-23	29,846	1931-32	44,324
1923-24	30,725	1932-33	42,334
1924-25	32,250	1933-34	42,790
1925-26	33,241	1934-35	44,102
1926-27	35,026	1935-36	46,411
		1936-37	48,728

The main feature of full-time technical education in London, however, was the junior technical school which were often located within the polytechnics and technical institutes.

Junior technical schools for boys maintained by the Council, 1918-19

Beaufoy Institute

Central School of Arts and Crafts

Hackney Institute

Paddington Technical Institute

School of Building

School of Engineering and Navigation

School of Photo-Engraving and Lithography

Shoreditch Technical Institute

Westminster Technical Institute

Additions

School of Retail Distribution (1929-30). Combined boys and girls.

Hammersmith School of Buildings and Arts and Crafts (formerly Hammersmith School of Arts and Crafts)

Smithfield Meat Trades Institute (1931-32)

South-East London Technical Institute (1935-36)

Wandsworth Technical Institute (1935-36)

Junior day technical schools for girls maintained by the L.C.C. 1918-19

Norwood Technical Institute

Paddington Technical Institute

Shoreditch Technical Institute

Trade School for Girls, Barrett Street,

" " " " Bloomsbury

" " " " Hammersmith

Additions

South Eastern Home Training School (1925-26)

Trade Schools for Girls, Clapham (1928-29)

Camden Institute of Home Training (1935-6)

Wandsworth Technical Institute (1935-6)

Junior technical school enrolments, 1918-37

	<u>Boys</u>	<u>Girls</u>
1918-19	892	529*
1919-20	1,054	555
1920-21	1,143	679
1921-22	1,256	757
1922-23	1,300	744
1923-24	1,261	782
1924-25	1,255	797
1925-26	1,323	1,018
1926-27	1,354	1,067

	<u>Boys</u>	<u>Girls</u>
1927-28	1,435	1,094
1928-29	1,513	1,133
1929-30	2,066	1,207
1930-31	2,199	1,240
1931-32	2,171	1,267
1932-33	1,872	1,240
1933-34	1,829	1,284
1934-35	1,848	1,397
1935-36	2,054	1,485
1936-37	2,543	1,718

*This figure includes 44 students who were in domestic economy schools.

CHAPTER THREE

Evening Instruction in the London Technical Institutes

1918-39

In 1930 the Education Officer for London, G.H. Gater, claimed that over 490 different subjects were approved for instruction in evening classes maintained or aided by the Council.¹ In practice, however, only seven of the thirty-five technical institutes which were operating at the close of the interwar period were of general technical variety, the remainder being either devoted to one particular area of study and therefore ranking as monotecnics, or else catering largely for the non-vocational type of student. The seven technical institutes which therefore come within the framework of this chapter were the School of Engineering and Navigation at Poplar, Westminster Technical Institute, Wandsworth Technical Institute, Paddington Technical Institute, Hackney Technical Institute, Norwood Technical Institute and the South East London Technical Institute.

Major Courses

During the 1920's major courses in mechanical engineering were limited to the technical institutes at Poplar, Paddington, Hackney and Wandsworth. In 1932 these were joined by the newly opened South East London Technical Institute. Major courses in mechanical engineering became closely linked with the national certificate scheme so that the pace at which institutes received approval to run such courses provides a guide as to the facilities available in that particular subject area. Paddington and Poplar both received permission to offer ordinary national certificate courses in mechanical engineering in 1922, to be followed by Hackney in 1925, Wandsworth in 1927 and the South East London Technical Institute in 1931. With the exception of Wandsworth, all of these colleges went on to offer higher national certificate courses in mechanical engineering, though the course at Paddington was dropped in 1929 as part of the Council's policy to

1.L.C.C.EO/HFE/1/9 Speech prepared for G.H.Gater and presented to the A.T.I.
February, 1930, p.2.

limit advanced courses to particular institutes.¹ Permission to offer endorsement subjects to higher national certificates in mechanical engineering was given to Poplar in 1933 and the South East Longon Technical Institute in 1934.

Inadequate evidence makes it difficult to assess the relative importance of major courses in mechanical engineering among the technical institutes, though it is clear that differences in student enrolments could be quite marked. For the session 1934-5 some 77 students were registered at the South East London Technical Institute for the first year of the ordinary national certificate course in mechanical engineering.² The Paddington records indicate that at the same time 13 students were enrolled in the corresponding class for that institute. The possibility of the Paddington record cards being incomplete may distort the latter figure, but it is clear that the national certificate course in mechanical engineering at the South East London Technical Institute very quickly became a major part of the provision available in London for that subject, a fact which perhaps reflected its favourable geographical position, being relatively free of competition for students in the New Cross-Lewisham area.

The same national certificate guide may be used to determine the availability of major courses in electrical engineering. Approval to run classes for the ordinary national certificate in electrical engineering was given to Poplar (1925), Paddington (1926), Hackney (1927) and the South East London Technical Institute (1931), and instruction in electrical engineering leading to higher national certificates became available at all of these except Paddington. Permission to offer subjects for higher national certificate endorsement in electrical engineering was given to Hackney in 1932 and the South East Longon Technical Institute in 1934.

1.L.C.C.EO/HFE/7/52 Paddington Technical Institute Advisory Sub-Committee, Report, 1927-29, 10th October, 1928 .

2.L.C.C.EO/HFE/4/172 Report of H.M.Inspectors on the South East London Technical Institute, June 1935,p.9.

The relative strength of national certificate courses between the various technical institutes is illustrated by the table below,¹ the outstanding feature of which is the rapid progress made by the South East London Technical Institute.

	<u>1924</u>		<u>1928</u>		<u>1935</u>		<u>1938</u>	
	<u>Candidates</u>							
	<u>O.N.C.</u>	<u>H.N.C.</u>	<u>O.N.C.</u>	<u>H.N.C.</u>	<u>O.N.C.</u>	<u>H.N.C.</u>	<u>O.N.C.</u>	<u>H.N.C.</u>
Paddington	-	-	5	-	14	-	10	-
Poplar	7	4	6	5	19	7	12	10
Hackney	-	-	7	-	18	19	24	20
S.E.London					11	6	40	6

Major courses in building subjects were developed at Hackney, Wandsworth, Westminster and the South East London Technical Institute. Hackney and Wandsworth were both approved for national certificate schemes in building in 1930, to be followed by the South East London Technical Institute in 1931. In 1935 the South East London Technical Institute also received permission to offer a course leading to the higher national certificate in building. The real strength of national certificate courses in building, however, probably rested with the polytechnics and the School of Building for the ordinary national examination successes in 1937 show that only three students from Hackney gained certificates and only four from the South East London Technical Institute. Higher national certificate successes were limited to Regent Street Polytechnic, Woolwich Polytechnic and the School of Building.² To some extent this may reflect variations in pass rate percentages between the different colleges but it is probably indicative of the general position.

A wider range of examinations for major courses were available in building subjects than in mechanical and electrical engineering, and Wandsworth

1. This table is compiled from material extracted from the results files of the Institution of Electrical Engineers.

2. The Journal of the Institute of Builders, vol.1.no.3.July 1938.

for example, prepared students for the examinations of the Institute of Builders and the Institute of Chartered Surveyors.¹ Westminster Technical Institute did not receive permission to run a national certificate course in building, but it did develop flourishing classes in such subjects as architectural design, builders' quantities and building construction. These classes began before the First World War and prepared students for the examinations of professional bodies such as the Institute of Civil Engineers and the Institute of Chartered Surveyors. During the session 1934-35 290 students attended the classes in civil and structural engineering at the Westminster Technical Institute 67 students followed the course in architecture.²

In 1930 only Westminster of the technical institutes provided a major course in either gas supply or gas engineering. In 1933 approval was given to the School of Engineering and Navigation (Poplar) to offer courses leading to ordinary national certificates in gas supply and gas engineering, though in fact the institute very soon came to limit itself exclusively in the field of gas technology to minor courses. According to H.M. Inspectors, this was because "very few of the students have been able to attend on three nights a week."³ In 1933, however, the South East London Technical Institute received permission to run a national certificate course in gas supply and a similar course in gas engineering in 1935. Due to its special relationship with the Gas, Light and Coke Co., the Westminster Technical Institute maintained its position as the dominant centre for instruction in gas technology and was the only institute to offer higher national certificate courses in that field. In 1934, Dr. Long, the principal of the Westminster

1. Report of an Inspection of Wandsworth Technical Institute, op.cit., p.18.

2. L.C.C. EO/HFE/4/176 Report of an Inspection of the Westminster Technical Institute by the Council's Inspectors, July 1936, p.18.

3. L.C.C. EO/HFE/4/74 Report of H.M. Inspectors on the Poplar, L.C.C. School of Engineering and Navigation, February, 1934, p.18.

Technical Institute, claimed that 59 percent of the country's trainees in gas supply received their instruction at the Westminster Technical Institute.¹

The distribution of successful ordinary national certificate candidates in gas supply and gas engineering in London institutes is shown by the following table. The figures in red relate to successful higher national certificate candidates.²

	<u>Westminster</u>		<u>South East London</u>		<u>Wandsworth</u>	
	<u>Gas supply</u>	<u>Gas Eng.</u>	<u>Gas supply.</u>	<u>Gas Eng.</u>	<u>Gas supply.</u>	<u>Gas.En</u>
1930	32	13	-	-	-	-
1934	45	20	2	4	-	-
1938	26	16	3	2	-	5

Since demand for instruction in pure science was very limited in the interwar period, such courses were far less common than those in engineering building and gas technology, though pure science often formed an important element in national certificate schemes for those subjects, particularly in electrical engineering and gas technology. The South East London Technical Institute offered a course in physics which, although it mainly comprised engineers attending for a fourth night a week, also attracted some degree students since the classes covered the physics content of the London Intermediate B.Sc examination.³ Physics was also offered at Wandsworth for students preparing for the College of Preceptors examination.⁴ In 1930 a course in chemical engineering was offered at Hackney.⁵ The classes were intended to be of post-graduate standard, being particularly suitable for those holding responsible positions such as works' chemists, though the lack of information

-
1. Institution of Gas Engineers, Transactions (1933-34), vol.83, p.46.
 2. This table is compiled from information in The Institution of Gas Engineers, Transactions (1929-30 to 1938-39), vols.79-88.
 3. Report of H.M. Inspectors on the South East London Technical Institute, op.cit., p.19 .
 4. Report of an Inspection of Wandsworth Technical Institute op.cit., p.19.
 5. L.C.C. Annual Report of the Council, 1930 (1931), vol.5, p.21.

on the course in the Institute's records perhaps suggests that it never really flourished.

In 1926 Hackney received approval to offer a national certificate course in chemistry. The demand for the course was so limited, however, that it proved impossible to form viable groups and in 1935 the Board of Education removed Hackney from its list of approved centres for national certificates in chemistry.¹ The only other institute to offer a national certificate course in chemistry was Norwood where major classes in chemistry were already functioning before 1927 when the institute was officially given permission to introduce a national certificate course. This development appears to have been successful for in 1931 Norwood was given permission to prepare a higher national certificate course in chemistry.

Commercial courses in London were very largely restricted to the evening commercial institutes and to the City of London College. However, major courses in certain commercial subjects were available at the South East London Technical Institute and at Wandsworth Technical Institute. The South East London Technical Institute was the pioneer in London in developing courses for works supervisors and labour managers. In addition to those students who prepared for the managerial subjects alone, the course was also taken by some candidates as a supplementary endorsement to the Higher National certificates.² The course was praised by one of the Council's Inspectors as an example of co-operation between industry and education and was developed in consultation with the Institute of Labour Management.³ Wandsworth, however, was the only technical institute to offer a wide variety of commercial subjects at major or minor level. During the session 1937-38 Wandsworth had

1. P.R.O.Ed.90/137 J.Marsh to Board of Education, 29th June 1935.

2. Report of H.M.Inspectors on the South East London Technical Institute,
op.cit., p.17.

3. L.C.C. EO/HFE/4/168 J.Currie to L.C.C. Chief Inspector, 15th July, 1935.

over 800 students enrolled for its evening commercial courses¹ and from 1938 had its own separate department of commerce. Most of the students followed minor courses, though classes were available which prepared students for the Pitman's Shorthand Teachers' Diploma, the Road Transport Diploma and membership of the Institute of Bankers and the Institute of Cost and Works Accountants.² Professional courses for sales managers and people employed in the export and grocery trades were also developed, though in 1939 the Council's Inspectors noted that, of the professional courses, only those for accountants and bankers were flourishing.³

Sometimes major courses in fairly specialised fields were introduced on an experimental or short-term basis. In 1935 two classes were formed at Poplar providing instruction in navigation for air pilots,⁴ and in 1939 the Council's Inspectors noted the success of a cinema projection course at Wandsworth intended to help teachers in the use of visual aids.⁵ By contrast, a much shorter course was that for teachers of gas supply and gas engineering held at the Westminster Technical Institute in July 1932.⁶

Minor courses.

The seven technical institutes already discussed were the principal institutions providing classes in subjects of minor grade, though some of the smaller institutes were, from time to time, quite active in the provision of these courses. Among the metal trades the usual pattern was that of courses for machinists, turners, fitters, metal plate workers and welders. Classes in these metal workshop subjects were to be found at Paddington, Hackney, Wandsworth and the South East London Technical Institute and, on a much more limited scale, at

1. Report of an Inspection of the Wandsworth Technical Institute, op.cit., p.15.

2. Report of an Inspection of Wandsworth Technical Institute, op.cit., p.23.

3. Ibid.

4. P.R.O. Ed.90/149 Minute T95073 A/37 8th November, 1935.

5. Report of an Inspection of Wandsworth Technical Institute, op.cit., p.22

6. Institution of Gas Engineers, Draft minutes of the Gas Education Executive Committee, 8th December 1931, fol.1611. These minutes are in the possession of the Institution of Gas Engineers, Grosvenor Crescent, London.

the Beaufoy Institute. At the School of Engineering and Navigation rather more specialised courses in combustion engineering and refrigeration were introduced to meet the stokers and those people interested in techniques of cold storage.¹ Related to these subjects was instruction in motor vehicle repair work which was provided at Paddington, Hackney and Wandsworth technical institutes.

On the electrical side, the most common courses were those in electrical installation work which were provided at all the major institutes apart from Norwood and Westminster. Classes in telephony and telegraphy were developed at the South East London Technical Institute, and in 1933² and 1936 special classes were introduced at Paddington for those people interested in television servicing. In 1935 a similar short course on television and electricity in the home was organised at Poplar.³

During the 1930's minor courses in building subjects came to be very largely concentrated at Hackney, Wandsworth and the South East London Technical Institute, though Paddington continued to offer classes in plumbing and the Beaufoy institute made available instruction in carpentry and joinery. The 1926 report on building education in London noted that a minor course in carpentry and joinery was available at Poplar,⁴ but by the early 'thirties this had been dropped. During the 1920's Paddington had offered a similar course in carpentry, but this was withdrawn at the close of the 1931/2 session. Carpentry and joinery, together with plumbing, were the most common subjects for trade courses in building, though Wandsworth did provide classes in plastering⁵ and at Hackney there were courses in woodcutting and machine work.⁶

-
1. Report of H.M. Inspectors on the Poplar, L.C.C. School of Engineering and Navigation, op.cit., p.16.
 2. Report of H.M. Inspectors on the South East London Technical Institute, op.cit., p.18.
 3. P.R.O.Ed 90/149 Minute T98073 A/37 2nd November, 1935.
 4. Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London, op.cit., p.15.
 5. Report of an Inspection of Wandsworth Technical Institute, op.cit., p.15.
 6. L.C.C.EO/HFE/4/148 Report of an Inspection of Hackney Technical Institute by the Council's Inspectors, June, 1938, p.5.

Minor courses in gas supply practice were developed at Hackney, Westminster, Poplar and the South East London Technical Institute and in gas fitting at Hackney, Poplar, Westminster and Wandsworth. Minor courses in gas works practice were limited to the Westminster Technical Institute.

The principal centre for minor commercial courses was Wandsworth, though the geographical position of Norwood helped to ensure that it too developed an important commercial section. In his report for the session 1924-25 the principal of Norwood technical institute noted the pronounced development of commercial classes, stating that "The essentially residential character of the neighbourhood, and the absence of industrial pursuits in the area served by the Institute, preclude the possibility of development along purely technical lines."¹ As already indicated, however, the commercial aspect of Wandsworth's activities became so large that a separate department of commerce was created with students preparing for the examinations of such bodies as the Royal Society of Arts, Pitmans and the London Chamber of Commerce as well as a wide range of professional examinations for major courses. An interesting development at the South East London Technical Institute was the introduction of works supervisory courses which were intended "to broaden the knowledge of works organisation and production planning on the part of foreman, charge hands and leading craftsmen,"² a course which appears to have been unique among the technical institutes. Of the smaller institutes only the Bermondsey Settlement seems to have offered very much in the way of commercial subjects. In 1933 the Council's Inspectors reported that Bermondsey ran three grouped courses in commercial subjects with a total of 34 students. In addition there were some students preparing for the general clerkship examination of the civil service.³

1. L.C.C. EO/HFE/1/1 Wandsworth Technical Institute, Annual Report, 1924-25.

2. Report of H.M. Inspectors on the South East London Technical Institute, op.cit., p.16.

3. L.C.C. EO/HFE/5/12 Report by the Council's Inspectors of a Special Inspection of the Bermondsey Settlement, October, 1933, pp.2 & 3.

During the interwar period Paddington, Wandsworth, Westminster and Norwood of the larger institutes developed evening vocational classes for women in non-commercial subjects. The classes normally prepared students for the embroidery, millinery and dressmaking trades for which London was, of course, an important centre. Cookery, too, became an important subject and by the session 1933-34 127 women students attended the evening classes in cookery at the Westminster Technical Institute.¹ In 1939 the Council's Inspectors reported that at Wandsworth dressmaking and cookery rivalled each other as the most popular of the women's subjects, there being 23 weekly evening classes divided between the two areas.² Evening instruction in hairdressing was available in the Campden Institute in North Kensington but competition for this course was severe,³ and opportunities for those women seeking evening vocational tuition were limited very largely to the needle trades, commercial subjects and cookery.

Popularity between courses.

In this section the Paddington record cards are extensively relied upon to give an overall picture of the relative popularity of different courses, both in terms of absolute numbers at particular times, and also from the point of view of rates of growth or decline of particular subject areas throughout the period as a whole. Although the industrial area which Paddington served was fairly representative of London's economic activities as a whole, at least from the manufacturing side, the rate of growth of particular industries, especially in the industrialised area of west Middlesex, may somewhat distort the overall picture. At the same time, Paddington came under severe competition from the Middlesex institutes at Willesden and Acton, and this undoubtedly helps to present a rather different growth picture from that of the South East

-
1. L.C.C.EO/HFE/4/110 Principal, Westminster Technical Institute to E.M.Rich 20th September, 1934.
 2. Report of an Inspection of Wandsworth Technical Institute, *op.cit.*, p.20.
 3. L.C.C. EO/HFE/1/107 Report of H.M. Inspectors on the Provision of Part-Time Technical Training for Women and Girls in the County of London, April, 1925. p.6.

London Technical Institutes where competition from other institutes was much less marked. Bearing this in mind, however, and using other evidence as a check, the Paddington record cards may be used as a basis for certain generalisations. At this stage no detailed attempt is made to explain those changes which occurred

In his report for 1921-22 the principal of Paddington Technical Institute drew attention to the fact that probably the majority of engineering students at his college were connected with electrical applications.¹ Naturally, there were periods of fluctuation in all branches of engineering and the principal of the School of Engineering and Navigation referred to the decline in student demand following the economic slump of 1921 and the impact of higher out-county fees,² but overall the 1920's appear to have been a period of growth for both major and minor courses, even though that growth was by no means dramatic. In reference to major courses in London, H.M. Inspectors commented in 1927 that "On account of the prosperity of that branch of the industry there has been of recent years a marked and general increase in the proportion of students taking Electrical Engineering courses."³ "The technical institutes shared in this development for in 1924 only seven candidates presented themselves for the ordinary national certificate examination in electrical engineering, all of whom received their instructions at Poplar."⁴ By 1930, however, when Poplar had been joined by Hackney and Paddington in the national certificate scheme, 42 candidates sat for the ordinary national certificate examination in electrical engineering.⁵ This gives an indication of the number of students entering technical institutes in 1927 for major courses in electrical engineering, though, due to the high drop-out rate, the real enrolment figure for 1927 was probably rather higher than this.

1. L.C.C. EO/HFE/1/1 Paddington Technical Institute, Annual Report, 1921-22.

2. The City and East London Observer, 26th January, 1929, 2a.

3. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.12.

4. The Institution of Electrical Engineers. Results files for national certificate and diploma examinations.

5. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.20.

The 1927 report also acknowledged that craft courses in electrical work were flourishing, especially those in installation practice, and in 1929 the principal of the School of Engineering and Navigation eventhought it desirable to introduce national certificate courses into such manipulative occupations as electrical installation work.¹ In 1930 some 20 new students joined the craft course in electrical installation work at Paddington Technical Institute.

The development of both major and minor courses in electrical engineering suffered with the onset of the world slump. The years 1931-34 appear to have been the most crucial ones in terms of recruitment of students to national certificate courses. The number of ordinary national certificate candidates in electrical engineering from the technical institutes declined from 72 in 1933 to 64 in 1934, reaching a nadir of 47 in 1936. Thereafter recovery set in and by 1938 86 candidates sat for the national certificate examination, and in the following year the figure jumped to 112 candidates.² Even during the depression, however, the figures show that in general national certificate courses in electrical engineering were very much stronger than in the 1920's, so that the decade as a whole may be seen as an important period of consolidation and eventually one of notable growth. In terms of higher national certificates the trend was not quite so favourable. This was to be expected, however, since the real period of growth would necessarily have been built upon successful ordinary national certificate candidates and had it not been for the war would probably have come in the early Forties.

1. The City and East London Observer, op.cit.

2. The Institution of Electrical Engineers. Results files for national certificate and diploma examinations.

The aggregate number of higher national certificate candidates in electrical engineering at Hackney, Poplar and the South East London technical institutes, 1932-39.¹

1932	22	1936	29
1933	26	1937	31
1934	35	1938	36
1935	30	1939	36

As the table below illustrates, the figures for new entrants to the ordinary national certificate course at Paddington do not correspond precisely to the overall national certificate trend for London.

New entrants to the O.N.C. Course in electrical engineering at Paddington Technical Institute, 1930-38.

1930	19	1935	32
1931	27	1936	28
1932	25	1937	33
1933	33	1938	31
1934	15		

The relatively high enrolment figures for the early part of the decade probably reflects the growth of the industrialised area of West Middlesex which many of Paddington's students came, but it may also be partly due to the efforts of a new principal who appears to have injected new life into the Institute. The table does show, however, that by the end of the 'thirties the course had been consolidated, the average enrolment figure for the years 1936 to 1938 inclusive being just over 30 compared with a little more than 23 for the period 1930-1932. What the figures may indicate is that the major course in electrical engineering at Paddington did not grow as much as might have been expected, partly, one may suppose, because of increasing competition from the Middlesex institutes at Willesden and Acton.

The Paddington enrolment cards reveal a very low demand between 1931 and 1933 for the minor course in electrical installation practice, with some revival from 1934, but no real growth until 1937. Evidence from the

1. Ibid.

School of Engineering and Navigation again suggests that the second half of the 'thirties witnessed a renewed demand for trade courses in electrical installation work. In 1934 H.M. Inspectors reported that they "confidently expected" the electrical installation course at Poplar to be extended from two years to three years.¹ This would indicate that they considered sufficient demand would be forthcoming to justify the extra expenditure on staff and equipment.

Although the comprehensive figures are not available, the evidence does suggest that roughly the same pattern of development and popularity emerged for major courses in mechanical engineering as for major courses in electrical engineering. In 1925 15 candidates from the Council's institutions entered for the ordinary national certificate examination in mechanical engineering² and by 1926 this had increased to 86 candidates.³ Although both figures include the polytechnics as well as the technical institutes, they are probably indicative of the general growth rate in the smaller institutes. The total number of candidates from London institutions in 1926 for the ordinary national certificate examination in electrical engineering was 69, suggesting that, overall, major courses in mechanical engineering were slightly more popular than those in electrical engineering, though even this conclusion is tentative since the first national certificate courses in electrical engineering were introduced slightly later than those in mechanical engineering thus giving the institutes less time to prepare and develop their schemes. The Paddington figures, however, show that in 1930 only 17 new entrants to the institute followed the ordinary national certificate course in mechanical engineering compared with 27 for the corresponding course in electrical engineering.

-
1. Report of H.M. Inspectors on the Poplar, L.C.C. School of Engineering and Navigation, op.cit., p.17.
 2. L.C.C. Annual Report of the Council, 1923 (1924), vol.4.p.16.
 3. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.14.

During the early 1930's new entrants to the mechanical engineering course at Paddington remained quite low and fairly stable and, as in the case of national certificates in electrical engineering, no real growth occurred until near the end of the decade. This does, in fact, correspond closely with the position for England and Wales as a whole, though nationally the recovery seems to have come a little earlier.

	<u>No. of new entrants to the O.N.C, course in mech. eng. at Paddington</u>	<u>Entries for O.N.C. in mech. eng. in England & Wales.</u>
1930	18	
1931	11	
1932	12	
1933	7	2,021
1934	13	1,952
1935	12	1,896
1936	25	1,782
1937	36	2,120
1938	31	2,646
1939		3,441

In terms of popularity, the Paddington figures suggest that for most of the 'thirties the major course in electrical engineering was in greater demand than that in mechanical engineering, though to some extent this probably reflects the importance of the electrical engineering industry in the area served by Paddington. The enrolment figures during the session 1934-35 for the first, second and third year major courses in mechanical and electrical engineering at the South East London Technical Institute show an extremely even balance between the two areas, viz.²

	<u>First Year.</u>	<u>Second Year</u>	<u>Third Year</u>
Mechanical engineering	77	32	24
Electrical engineering	78	40	24

1. These figures were provided for me by the Institution of Mechanical Engineers.

2. Report of H.M. Inspectors on the South East London Technical Institute, op.cit.,

This is not necessarily a true reflection of demand since the Institute may have had a policy of accepting roughly equal numbers, though no evidence has been found to support this. The Paddington figures do show, however, that by the late 'thirties the pressure for major courses in mechanical and electrical engineering was becoming roughly equalised, a fact no doubt related to the impact of the armaments boom upon London from 1936.

The 1926 report on engineering education in London noted that minor courses in general engineering workshop practice were flourishing. Such courses usually included instruction in fitting, turning and machine work.¹ The minor engineering courses of a craft nature in engineering subjects seem to have been less popular and even by 1935 only 11 students at the South East London Technical Institute prepared for the craft examination of the City and Guilds of London Institute compared with 76 for the general engineering production course. One of the notable features revealed by the Paddington records, however, is the dramatic growth of minor engineering craft courses during the late 1930's.

New entrants to the Engineering Workshop Course (C & G) at
Paddington Technical Institute, 1930-38.

1930	6	1935	14
1931	6	1936	26
1932	7	1937	36
1933	9	1938	43
1934	10		

That the demand for post-basic courses in engineering was growing by the mid-thirties is indicated by the experience of the School of Engineering and Navigation where, in 1933, the workshop courses were remodelled and so designed that if students stayed on for a four year course they would have

1. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.20.

the opportunity of gaining a national certificate in mechanical engineering,¹ In 1934 H.M. Inspectors noted that "There is considerable scope for this type of instruction, and with the improvement of general education there is a prospect that those specially interested in engineering as craftsmen will find greater benefits from attendance at technical Institutes."² Perhaps the expansion of the Paddington City and Guilds engineering workshop course was in part related to this improvement in general education.

One of the areas of very marked expansion for minor courses was that of welding practice. The demand for instruction in welding appears to have developed from the late 'twenties, and in 1934 the Advisory Sub-Committee of the School of Engineering and Navigation especially singled out welding and gas fitting as two of the major areas accounting for the very substantial expansion of evening class enrolments since 1926.³ In the same report, the Advisory Sub-Committee remarked that, as welding came to replace riveting, the demand for tuition in the subject had suddenly become very acute, with a particular emphasis upon electric welding, though gas welding was also very popular.⁴ At that time Poplar had a total of 99 students following courses in welding,⁵ and the following year the South East London Technical Institute enrolled 54 students on similar courses. Even the small Beaufoy Institute was affected by this demand for in 1927 it, too, started a class in oxy-acetylene welding. Paddington Technical Institute came to offer classes in welding in 1935, but although enrolments increased from 3 in 1933 to 23 in 1938, the course was not on the same scale as those at Poplar and the South East London Technical Institute. Again, however, the main increase in student numbers occurred towards the end of the 'thirties for the previous record of 9 new entrants to the Paddington welding course in 1936 jumped to 19 in the

1. P.R.O.Ed.90/149 J.Paley Yorke to G.H.Gater, 24th May, 1933.

2. Report of H.M.Inspectors on the Poplar, L.C.C.School of Engineering and Navigation, *op.cit.*, p.16.

3. L.C.C.EO/HFE/4/74 Report (No.2) of the Advisory Sub-Committee of the L.C.C. School of Engineering and Navigation, 15th March, 1934.

4. *Ibid.*

5. *Ibid.*

following year.¹

Another area of growth for minor courses was that of gas supply and more particularly, gas fitting. In 1932 the City and Guilds of London Institute considered the rise in the number of gas fitting candidates sufficiently marked to specifically make mention of it in its Annual Report.² Four years later H.M.I. Dr. Thorne noted that the plentiful supply of jobs during the last few years had brought about a very substantial increase in the number of gas fitting students,³ while in 1927 H.M.I.Mr. Creasey drew attention to the fact that gas fitting was only one of the 100 subjects examined by the City and Guilds and yet it accounted for about 10 per cent of the total examinees. As an important centre of gas education, London naturally shared in this development. Mention has already been made of the 1934 Report of The Advisory Sub-Committee of the School of Engineering and Navigation in which gas fitting was particularly mentioned as an important factor in the rise in the number of evening class students in the late 'twenties and early 'thirties.⁵ Also in 1934 H.M.Inspectors referred to the "unexpectedly large number" of gas fitting and gas supply students at Poplar.⁶ In 1936 H.M.Inspectors noted that the major and minor courses in gas supply at the South East London Technical Institute have "been amply justified by the enrolments."⁷

Of the major courses associated with the gas industry, those in gas supply were the most popular. In their report on Westminster Technical Institute in 1924 H.M.Inspectors pointed out that "The class in Gas Engineering

-
1. Report of H.M.Inspectors on the South East London Technical Institute, op.cit.,p.9.
 2. City and Guilds of London Institute,Department of Technology.Report of the Warden, 1932,p.31.
 3. The Institution of Gas Engineers, Transactions (1935-36),vol.85.p.45.
 4. The Institution of Gas Engineers, Transactions (1936-37),vol.86,p.51.
 5. Report (No.2) of the Advisory Sub-Committee of the L.C.C. School of Engineering and Navigation, op.cit.
 6. Report of H.M.Inspectors on the Poplar, L.C.C. School of Engineering and Navigation, op.cit.,p.18.
 7. Report of H.M.Inspectors on the South East London Technical Institute, op.cit.,p.20.

has, for some years, been a small one",¹ a situation which remained much the same throughout the interwar years. Figures for the number of successful candidates for major courses in gas supply during the 1930's indicate that 1932 was the peak year for recruitment. Thereafter the number of successful candidates declined quite markedly. In his report for 1935-36 Dr. Long, the principal of Westminster Technical Institute, mentioned that in the planning of a new institute gas subjects should not be allowed to dominate since the needs of the industry were not growing.² Furthermore, Dr. Long informed his audience that the Westminster Technical Institute itself was no longer attracting so many students from its main supplier, the Gas, Light and Coke Co. Ltd.³ This general decline in recruitment to major courses in gas education was referred to in 1938 by H.M.I. Dr. Thorne who thought that there was as yet no immediate cause for concern over the labour position in the industry.⁴

Motor vehicle repair work seems to have been one area where there was comparatively little demand for organised instruction in the technical institutes. In 1926 only Hackney of the technical institutes provided a course in motor vehicle repair work for garage mechanics.⁵ During the session 1924-25 36 students attended the Hackney course,⁶ but, in their 1926 report on engineering education in London, H.M. Inspectors strongly emphasised that the course at Hackney, and similar ones at the polytechnics were greatly hampered by the lack of preparatory education so that, although classes tended

1. L.C.C. EO/HFE/4/1 Report of H.M. Inspectors on the Westminster Technical Institute, April, 1924, p.11.

2. L.C.C. EO/HFE/4/176 Westminster Technical Institute, Annual Report, 1935-36.

3. Ibid.

4. The Institution of Gas Engineers, Transactions (1937-38) vol.98, p.68.

5. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.21.

6. L.C.C. EO/HFE/1/1 Hackney Technical Institute, Annual Report, 1924-25.

to start off with quite large enrolments, they diminished very quickly.¹ It was not until 1934 that the City and Guilds of London Institute introduced a motor vehicle mechanics' course and a motor vehicle electricians' course.² This gives some idea of the overall demand for motor vehicle courses, though the position in London may have differed somewhat from that in other parts of the country. By the close of the 'thirties, Hackney had been joined by Paddington and Wandsworth in providing a motor vehicle course, although by 1939 the classes at Hackney were in danger of being closed through lack of support.³ The table below illustrates the fluctuating nature of demand for the motor vehicle course at Paddington.

New entrants to the motor vehicle repair course at Paddington technical institute, 1930-38

1930	8	1935	17
1931	18	1936	11
1932	11	1937	17
1933	8	1938	18
1934	15		

Overall, the demand for instruction in building subjects at the technical institutes during the interwar period appears to have shown very little growth, at least when compared with the pre-first world war position, though the situation is complicated by the fact that demand seems to have been very closely related to the fortunes of the building industry so that a direct comparison between the early 'twenties and the late 'thirties is not of great value since the building boom was sandwiched between the two periods. The enrolment figures for the evening building department of Wandsworth Technical Institute are given below. It should be noted that the figure for

1. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., 21.

2. City and Guilds of London Institute, Department of Technology. Report of the Warden, 1935, p. 39.

3. Report of an Inspection of Hackney Technical Institute, op.cit., p. 3.

the session 1925-26 represents a period when demand for building instruction was particularly high. In addition the South East London Technical Institute became quite an important centre for instruction in building subjects so that some demand was channelled there which might have otherwise found its way to Wandsworth or one of the other technical institutes.

Enrolments in the evening building department of Wandsworth Technical Institute

1925-26	260	1935-36	220
1933-34	177	1936-37	243
1934-35	196	1937-38	211

The development of national certificate courses in building at three of the technical institutes in the face of competition from the polytechnics and from the schools of building at Brixton and Hammersmith indicates a fairly strong demand in the 1930's for this type of major course. During the session 1935-36 146 students were enrolled at the South East London Technical Institute for building subjects, with the largest single group preparing for the national certificate examination.² In 1936 H.M. Inspectors reported that over the last ten years the building classes at Westminster Technical Institute which prepared students for the examinations of the professional bodies had experienced a marked rise in enrolments.³ This, it was suggested, was due to the greatly increased use of steel and reinforced structures.⁴

-
1. The figures for 1933/34 to 1937/38 are taken from the Report of an Inspection of Wandsworth Technical Institute, p.36., op.cit., The figure for 1925/26 is taken from the Report of H.M. Inspectors on the Provision of Technical Instruction in Building In London, op.cit.
 2. Report of H.M. Inspectors on the South East London Technical Institute, op.cit., p.21.
 3. Report of an Inspection of the Westminster Technical Institute, op.cit. p.19.
 4. L.C.C. EO/HFE/4/176 Observations of the Advisory Sub-Committee of the Westminster Technical Institute.

Of the individual subjects for minor courses, the most clear out trend appears to have been the decline in demand at certain institutes for courses in carpentry and joinery. The 1929 report on building instruction in London revealed a fairly high demand for courses in carpentry and joinery. The Paddington enrolment figures, however, show that in 1930 only 6 students were enrolled at the institute for classes in carpentry and joinery and shortly afterwards the course was dropped. In their report on the South East London Technical Institute in 1936, H.M. Inspectors remarked that "The course in Carpentry extends over two years, but the number enrolled this session is so small that the two sections have to be combined both for practical and for theoretical work."¹ That a larger number of carpentry students had been anticipated when the Institute had been planned is demonstrated by the fact that the institute possessed a spacious and well equipped workshop, capable of dealing with a very large enrolment.² At both Paddington and the South East London Technical Institute, however, courses in plumbing seem to have at least maintained their popularity. During the session 1935-36 64 students were enrolled at the South East London Technical Institute for the plumbing course, a figure which H.M. Inspectors regarded as "notably high". The fortunes of the Paddington plumbing course, as indicated by student enrolments is indicated below:

1930	6	1935	9
1931	6	1936	6
1932	10	1937	6
1933	6	1938	5
1934	3	1938	5

One general feature of the enrolment trends as a whole which calls

1. Report of H.M. Inspectors on the South East London Technical Institute, op.cit., p.21.

2. Ibid.

comment is that of the numerical relationship between major and minor courses. In 1931 the Clerk Committee on engineering education remarked that "Some trade instruction is already in existence, but we regret to say that experiments in this direction have of ten been most disappointing. This in our opinion is not the fault of the schools nor has the active support of employers necessarily guaranteed success. The problem of finding the type of course and the type of teacher which will make the work interesting to the boys is very baffling and can only be solved, if at all, by patient experiment."¹ So late as 1935 student enrolments were in general very much in favour of major courses. In 1935 A. Abbott, formerly H.M.Chief Inspector of Technical Schools, noted that "as yet the Minor Courses are not numerous and contain very few students compared with the Major Course. Amongst them are courses for plumbers, pattern makers, carpenters and joiners, acetylene welders, moulders, plasterers and various other types of manual workers."² The Paddington enrolment figures and those from other institutes, however, show that by the mid-thirties the gap between major and minor courses in some areas, at least in London, was shrinking and the rapid development towards the end of the decade of minor courses in electrical installation work, engineering workshop practice, welding and gas fitting suggest that the traditional pattern had changed quite radically and that, as a generalisation, Abbott's statement was no longer valid.

Course organisation.

The outstanding development in the field of course organisation during the interwar period was the evolution of grouped courses, where students attended a range of classes on related topics rather than single subjects of their own choosing, though within the group system there could be a certain amount of choice around a particular subject area. In his

-
1. Report of the Committee on Education for the Engineering Industry (1931)p.22.
 2. A. Abbott, 'Recent Trends in Education for Industry and Commerce in Great Britain', International Labour Review, August 1935, p.188.

report to the Higher Education Sub-Committee in May 1934, the Education Officer for London contrasted the organisational position in 1920/21 with it as it then was in 1934. In the earlier period, he said, students enrolled for single subjects, but "Such enrolments are almost unknown today, and the increasing numbers of students and student hours shown by the advisory sub-committee have been accompanied by a complete organisation of grouped courses in which the majority of students attend for three evenings a week, a smaller first year enrolment of a better type, and increased proportion of students proceeding to second and further years."¹ The introduction of the national certificate scheme was an important stimulus to the development of major grouped courses, although occasionally major courses outside the scheme remained orientated towards the single subject approach. In 1936, for example, 150 of the 174 civil engineering students at the Westminster Technical Institute attended single subject classes.² This was due to the special nature of the instruction which catered largely for adults working in local civil engineering offices who were wished to obtain information on a particular aspect of their work.³

Even by 1935 some minor courses were organised on a single subject basis, although H.M. Inspectors took an unfavourable view of this arrangement. The classes in carpentry and plumbing at Paddington Technical Institute were criticised since they formed no part of a properly organised building course.⁴ In 1936 H.M. Inspectors noted that in the telephony classes at the South East London Technical Institute "the number of students taking grouped courses is regrettably small. Some sound theoretical and practical instruction is given in the subject, the value of which to the students would be enhanced if they

1. L.C.C.EO/HFE/4/74 Report by the Education Officer to the Higher Education Sub-Committee, 3rd May, 1934.

2. Report of an Inspection of the Westminster Technical Institute, 1936, op.cit. pg

3. Report of H.M. Inspectors on the Westminster Technical Institute 1924 op.cit. pg

4. Report by the Education Officer to the Higher Education Sub-Committee, 18th February, 1929.

were taking an adequate course of ancillary classes in addition."¹ Once grouped courses were arranged, however, it was sometimes very difficult to ensure that students attended the ancillary classes. In 1938 the Council's Inspectors drew attention to the poor results attained by students following the engineering workshop at Hackney Technical Institute. This, it was claimed, was due to the failure of students to attend the full grouped course.²

The actual structure or organisation of a national certificate course often owed a good deal to the influence of H.M. Inspectors. Once an application was made for an institute to offer a national certificate course, H.M. senior Inspectors were given responsibility for discussing its merits and making a recommendation to the Joint Committee. Indeed H.M. Inspectorate appears to have been closely concerned with the national certificate scheme since its inception in 1921. In February 1920 H.M. Staff Inspector Dr. Morley wrote to the Institution of Mechanical Engineers suggesting that, since the Board of Education had gradually abolished its public examinations, the Institution might like to co-operate with the technical institutes in the development of a new scheme.³ After this preliminary approach by Dr. Morley and some further informal discussions, the Board wrote officially to the Institution suggesting a formal conference, which took place in June, 1920.⁴

National certificate courses were sometimes rejected more than once before H.M. Inspectors felt themselves able to recommend adoption. Sometimes a rejection was related to the content of the syllabus and sometimes to a more purely administrative matter. The first application put in by the principal of Hackney Technical Institute for a national certificate course in

1. L.C.C.EO/HFE/4/172 Report of H.M. Inspectors on the South East London Technical Institute, op.cit., p.18.

2. L.C.C.EO/HFE/4/148 Report of an Inspection of Hackney Technical Institute op.cit., p.2.

3. This letter is referred to in a paper prepared in the 1940s, a copy of which has kindly been given to me by the Institution of Mechanical Engineers. The original letter is not available, nor the author of the paper.

4. Ibid.

building was recommended for rejection by H.M. Inspectors because the conditions of admission were badly expressed, the percentage marks required of the students were too high and the teaching list consisted mainly of vacancies.¹ H.M.I. Mr. Manson expressed surprise at Hackney's application, wondering "who would think that this applicⁿ emanates from an Institute already recognised for Nat. Certs in Mech. & Elect. Eng^g & Chemistry?"² Once a course was functioning an equally watchful eye was kept on its progress. In 1933 Dr. Morley wrote to the Education Officer for London informing him that the electrical engineering course at Poplar as advertised in the Institute's prospectus differed from that originally approved. The principal of the School of Engineering and Navigation advised the Education Officer that the content of the course remained the same, but that the subject titles had been changed in accordance with modern terminology.³ Dr. Morley insisted that the approval of the Board should have been sought and considered that "a mild rebuke is due."⁴

The usual minimum age of admission to ordinary national certificate courses was 16, though some institutes would not admit students until they had attained the age of 17. The normal education requirement was that the student should have pursued a full-time education until the age of 15 or 16, though the detailed practice did vary. No specific educational requirements were asked of candidates for the ordinary national certificate course in mechanical engineering at Wandsworth, although all potential students were interviewed and advised as to their suitability for a major or minor course, based upon various factors, of which previous education was one.⁵ When the ordinary national certificate course in chemistry was introduced at Norwood

1. P.R.O. Ed 90/137 Minute dated 14th April, 1930.

2. Ibid.

3. P.R.O. Ed.90/149 Minute dated 26th August, 1933.

4. P.R.O. Ed.90/149 Minute dated 14th October, 1933.

5. P.R.O. Ed,90/164 Application for ordinary national certificate course in mechanical engineering, 14th October, 1927.

students were required to have passed the junior certificate course certificate of the I.C.C. or a test of similar standing set by the principal.¹

By the 1930's some national certificate schemes were being revised to allow students who had successfully completed a course at a junior technical school or who had gained the General School Certificate to enter the second year of a national certificate course. In 1935 Hackney Technical Institute received permission to allow students with an ordinary national certificate in electrical engineering into the third year ordinary national course in mechanical engineering provided that engineering drawing was taken as an additional subject.² Similarly holders of the ordinary national certificate in mechanical engineering could be admitted to the third year of the corresponding electrical engineering course so long as electrical technology was taken as an additional subject.³

The great fluidity in the national certificate system which existed by the 1930's also expressed itself in a more general organisational way. Mention has already been made of the experiment at the School of Engineering and Navigation whereby trade students following an engineering production course could eventually hope to obtain a national certificate in mechanical engineering. In 1932 Wandsworth Technical Institute revised its ordinary national certificate course in mechanical engineering with separate schemes for evening students, part-time day and evening and evening only students.⁴ In 1932 the principal of the South East London Technical Institute introduced a five year course for the ordinary national certificate in building, the purpose of which was to enable students to take the City and Guilds examinations in plumbing and carpentry. The Institute of Builders objected to this scheme but H.M. Inspectors agreed to it since it helped to economise by having the

1.P.R.O.Ed.82/78 Application for national certificate in chemistry, 20th May 1927.

2.P.R.O.Ed.90/137 Revised application O.N.C. in mechanical engineering,
15th November, 1935.

3. Revised application O.N.C. in electrical engineering, 15th November, 1935.

4. P.R.O.Ed.90/164 Revised application O.N.C. in mechanical engineering,
17th August, 1932.

two groups together.¹ The principal of the South East London Technical Institute also took the initiative in arranging for an interchange of students between colleges when one institution was unable to offer all the subjects which a student required. In 1933, G.A. Robinson, the principal of the South East London Technical Institute, wrote to G.H.Gater informing him that during the last session he had sent some students to Woolwich Polytechnic to receive instruction in subjects which his institute was unable to offer.² This arrangement was accepted by H.M. Inspectors and in March 1935 it was reported that during the session 1933-34 4 students took part of the national certificate course at other institutions, 2 at Woolwich, 1 at Borough and 1 at the School of Engineering and Navigation.³ In 1934 an arrangement was agreed between the L.C.C. and the Kent Education Committee for students at Beckenham Junior Technical School to take the first year of ordinary national certificate courses in mechanical engineering, electrical engineering and building at Beckenham and the last two years at the South East London Technical Institute.⁴

The weekly course requirement for both ordinary and higher national certificates varied between 6 and 7½ hours spread over three evenings, making a total of between 150 and 270 hours for the session as a whole. The higher national certificate course in chemistry at Norwood was exceptionally severe in terms of course requirement when it obliged second year students for 8½ hours per week making a total of 306 hours for the session as a whole.⁵ At some institutions, however, students were in any case expected to attend classes in ancillary so that as many as five evenings a week could be taken

1. P.R.O. Ed.90/145 Minute dated 13th July, 1932.

2. P.R.O. Ed.90/145 G.A.Robinson to Education Officer, 25th May, 1933.

3. P.R.O. Ed.90/145 J. Marsh to Secretary, Board of Education, 21st March 1935.

4. P.R.O. Ed.90/145 G.G.Williams to L.C.C. 1st October, 1934.

5. P.R.O. Ed.82/78 Application for higher national certificate in chemistry, 12th January, 1933.

up in institutionalised study.

The amount of practical work varied according to the nature of the course, but courses in chemistry, gas supply and gas engineering had the highest proportion of laboratory work. The original application for an ordinary national certificate course in gas supply at the School of Engineering and Navigation had provision for about one sixth of the time in the first year to be spent in laboratory work, rising to about one third in the second year and approximately one half in the final year.¹ The ordinary and higher national certificate courses in chemistry at Norwood Technical Institute provided for a division between classwork and laboratory work as follows:²

	<u>O.N.C.</u>		<u>H.N.C.</u>	
	<u>Class Work</u>	<u>Lab. Work.</u>	<u>Class Work.</u>	<u>Lab. Work</u>
1st year	4	3	3	4½
2nd year	3	4½	4	4½
3rd year	3	4½		

Building courses, too, sometimes had a substantial proportion of drawing office and laboratory work. The ordinary national certificate course in building at Wandsworth devoted 50 per cent of the time in both the first and second years to practical work.³ Practical work generally formed a much smaller part of the total scheme for national certificate courses in mechanical and electrical engineering, though H.M. Inspectors still insisted that certain standards should be maintained. The first application for a national certificate course in mechanical engineering put forward by the School of Engineering and Navigation was rejected, partly because there was no laboratory work at all in the first year.⁴ Nevertheless, the overall

-
1. P.R.O.Ed.90/149 Application for national certificate course in gas supply, 16th November, 1932.
 2. Applications for national certificate courses in chemistry, op.cit.
 3. P.R.O.Ed.90/164 Application for national certificate course in building, 30th May, 1930.
 4. P.R.O.Ed.90/149 Minute T.C.3337/21 15th December, 1921.

impression from the applications for national certificate course in mechanical and electrical engineering is that they were highly theoretical, often with surprisingly little emphasis upon practical work.

The detailed organisation of minor courses varied considerably between institutes though the development of grouped courses increasingly meant that students were expected to attend classes for 2, 3 or even 4 evenings a week. Some minor courses were completed in one year while others lasted for two or three years and sometimes longer. The gas fitting course at Westminster Technical Institute, for example, required a total attendance of 5 years, although not all of that time was necessarily spent in the evening.¹ By the late 1930's, however, the course was modified when the Gas, Light and Coke Company introduced a system of training whereby new entrants to the gas sales department attended a technical institute for one whole day a week during the first year, and after the second year specially selected candidates were indentured to spend one year on full-time vocational training after which they would attend evening classes to complete their training.² This is an outstanding and unique example among the London technical institutes of course organisation bringing the technical institute and the industrial concern into close relationship.

Although the preference of H.M. Inspectors was towards the extension of minor courses in terms of the period of study, the high drop-out rate and the difficulty of ensuring attendance at ancillary classes made it very difficult to achieve in practical terms. When the reorganised production engineering course was introduced at Poplar, H.M. Inspectors noted that "To induce workshop students to follow with regularity a course involving

-
1. Report of an Inspection of the Westminster Technical Institute, 1936, op.cit., p.15.
 2. Institution of Gas Engineers, Transactions (1937-38), vol.87, p.71.

attendance on three evenings per week and including the necessary calculations, drawing and science is something of an achievement."¹ To the extent that courses were extended, however, this must have been an important factor in the overall increase in student hours which occurred during the interwar period.

1. L.C.C. EC/HFE/4/74 Report of an Inspection on the Poplar, L.C.C.

School of Engineering and Navigation, op.cit., p.16.

CHAPTER FOUR

Day and Evening Instruction in the London Polytechnics, 1918-39

1. The contrast between course development in the polytechnics and technical institute.

In terms of level and variety of work and student numbers the polytechnics were the most important institutions providing technical education in London during the interwar period. In 1935 H.M.I. Mr. Holmes listed the London technical institutes of first rank, regarding the Regent Street, Battersea and Northampton polytechnics as premier institutions, closely followed by Borough, Northern and Chelsea. The third most important group was made up of the City of London College, Woolwich Polytechnic, Wandsworth Technical Institute and the North-Western Polytechnic.¹ According to Holmes, therefore, eight of the ten major technical colleges in London were polytechnics. Surprisingly, the Sir John Cass Polytechnic Institute was excluded, perhaps because its work was concentrated entirely in the evening, though the range and level of work undertaken by the staff was similar to that in many other polytechnics.

Some of the polytechnics had a substantial number of day students, although overall, most of the student hours were registered in the evening. Full-time instruction was concentrated very largely at Battersea, Northampton, Chelsea and the Northern polytechnics, and this permitted a greater degree of flexibility in staffing and course development. A number of experiments in part-time day vocational education also helped to expand the amount of day time teaching and thus distinguish the polytechnics from the general technical institute. By the session 1935/6, for example, 138 of the 143 day students at Northampton polytechnic attended on a part-time basis.²

1. P.R.O. Ed.90/135 H.T. Holmes to J. Wilkie, 17th August, 1935.

2. These figures and the calculations which follow are deduced from H.M.I. Report on Northampton Polytechnic, July 1937, L.C.C.

EO/HFE/5/225.

Nevertheless, since 2,870 students were enrolled for evening classes, day work at least in terms of student numbers, was still a relatively small proportion of the Polytechnic's total work. However, this is deceptive since more hours were devoted to full-time students than evening students so that approximately 47 per cent of total student hours were completed in the day whereas only 12 per cent of individual enrolments were for full-time and part-time day classes. Moreover, compared with the position a decade earlier, the Northampton Polytechnic was increasing its share of day time work. In 1926/7 approximately 93 per cent of total enrolments were for evening classes and only 31 per cent of total student hours were registered during the day.

If the same information was available for Battersea, Chelsea, Regent Street and the Northern Polytechnics it would probably show, at least in some institutions, a similar pattern. This is important because the development of day work at these polytechnics facilitated the use of more expensive equipment and the employment of high specialised full time staff and thus contributed to the development of high level work of final degree and post-graduate level, sometimes at the expense of craft courses. When, in 1939, the Regent Street Polytechnic dropped its evening typewriting classes, the Polytechnic's director remarked that "We are in the happy position of always being able to fill up gaps with more senior work."¹ Although the Regent Street centre was the largest of the London polytechnics, the same observation could have been made with regard to many of its sister institutions.

The level of work in the polytechnics, even combined with Council's policy of concentrating areas of study within particular institutions, did not result in narrow specialisation by individual polytechnics. Specialisation occurred, but within their particular areas the polytechnics developed a wide range of work. This, together with the restrictions on course development through lack of accommodation, makes it difficult to produce a detailed assessment of the progress of particular areas of study and their relative popularity.

1. L.C.C. EO/HFE/5/134 D.Humphrey to J.W.Bispham, 26th January, 1939.

The type of study that was made of the technical institutes is therefore not possible when dealing with the polytechnics and this chapter will examine the polytechnic programme within a more general overall framework.

Mechanical engineering.

During the interwar period the Battersea, Northampton, Woolwich, Regent Street and Borough polytechnics became the main centres for mechanical engineering instruction, though, until the South East London Technical Institute was opened, Goldsmiths also provided this type of vocational education. In terms of student numbers and standard of work, the foremost of these institutions was the Northampton Polytechnic. Most of the senior day work in the engineering department of the Northampton Polytechnic developed on a sandwich basis, students attending for a total of four years but with two five month periods spent in the firm. A common curriculum was followed for the first two years of the engineering course after which specialisation was possible in mechanical, civil, electrical and aeronautical engineering,¹ most students, except the aeronautical engineers, taking a University of London engineering degree. The aeronautical engineering course began in 1920, successful students at first receiving a Polytechnic Diploma, though eventually the Polytechnic was able to link the course with the ordinary and higher national certificate scheme. During the 1920's, however, there were rarely more than eight sandwich students taking the subject as a third and fourth year specialisation and in 1928 the Board of Education, on the grounds of economy, tried to encourage the London County Council to abandon the course.² The principal of the Northampton Polytechnic, however, informed the Education Officer that "The demand from Industry for students completing the Aeronautical course is probably greater at the present

1. Report of H.M. Inspectors on the Northampton Polytechnic, op.cit., p.6.

2. L.C.C. EO/HFE/5/225 S.C.Laws to G.H.Gater, 17th January, 1929.

moment than at any time previously and in view of developments now taking place would appear likely to increase."¹ The Education Officer and the Council supported this view and at the close of the interwar period the aeronautical course was still functioning, apparently with some success. Another novel development in the engineering department of the Northampton Polytechnic was the introduction in 1934 of a higher national certificate course in works management specifically concerned with problems of factory organisation and operation. This course was well received by the Board of Education and, according to H.M.I.Dr. Morley, put into practice "ideas which have for some years past been advocated."² Part time day instruction was also offered for the ordinary and higher national certificates in mechanical engineering and by 1937 H.M. Inspectors remarked, favourably upon the growing practice among firms of releasing workers to attend the polytechnic for one or more half days per week.³ Evening work developed on similar lines with students preparing for University of London engineering degrees and national certificate examinations, the latter including specialisation in workshop studies and automobile engineering, as well as the standard mechanical engineering subjects.⁴ Evening trade instruction was also offered and included classes for machinists, fitters, turners, welders, die casters and automobile engineers.

Full time instruction leading to a University of London degree in engineering was also available at Battersea, and on an evening only basis at Regent Street and Woolwich polytechnics. All three institutions, together with Borough Polytechnic, introduced national certificate and/or diploma courses, with perhaps the most interesting scheme being that arranged at

1. L.C.C. EO/HFE/5/223 G.G.Williams to the L.C.C. 19th December, 1928.

2. P.R.O. Ed.90/135 Dr. Morley to H.T.Holmes, 13th October, 1934.

3. L.C.C. EO/HFE/5/225 Report of H.M. Inspectors on the Northampton Polytechnic
op.cit., p.7.

4. Ibid.

Woolwich between the Polytechnic and the Royal Ordnance factory for apprentices who could be expected to obtain the ordinary national certificate and who were allowed time off to attend classes on a part-time day basis. This arrangement was said to have facilitated a steady flow of students to the advanced evening engineering classes.¹ The senior and advanced courses tended to include the standard mechanical engineering subjects, though at Borough a special two year evening course was developed for heating and ventilation engineers, with the opportunity of a further two years of more advanced study.²

Minor courses in the mechanical engineering subjects seem to have enjoyed some success at most of the above polytechnics, and towards the end of the 'thirties a workshop course was also introduced at the North Western Polytechnic though, on the whole, not a great deal of interest appears to have been taken in this type of course development. In their general report on engineering education in London published in 1927, H.M. Inspectors criticised the polytechnics for concentrating too much on higher level work to the exclusion of the minor course programme.³ The position does not seem to have improved a great deal in succeeding years. For example, in 1938 H.M. Inspectors reported that at Battersea Polytechnic "A few trade courses for artisans operate but those are neither strong numerically nor vigorous in growth."⁴ The exception to this criticism was Borough Polytechnic where, perhaps because of its strong artisan tradition, an important section of minor course work was developed, including a heating and ventilation course which, at one time, was unique in London. In addition, Borough and Regent

1. L.C.C. EO/HFE/5/257 Report of H.M. Inspectors on the Woolwich Polytechnic, July, 1925, p.10.

2. L.C.C. EO/HFE/5/186 Report of H.M. Inspectors on the Borough Polytechnic, January, 1926, p.6.

3. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.9.

4. L.C.C. EO/HFE/5/182 Report of H.M. Inspectors on the Battersea Polytechnic, February, 1938, p.7.

Street were the only polytechnics to make a serious attempt to develop minor courses in motor car engineering.

Metallurgy.

Instruction in metallurgy in London during the interwar period was almost entirely confined to the Cass Polytechnic Institute and to Chelsea Polytechnic. Chelsea Polytechnic developed its own school of metallurgy within the department of chemistry and by 1939 was offering evening courses in engineering and industrial metallurgy, as well as some day and evening work for students attending refresher courses, taking technical analysis as part of a first degree or doing their own research.¹ All the metallurgy work at Cass was confined to the evening, although the principal sought permission to operate day classes in 1929,² but this was not granted until 1939.³ The classes in the metallurgy department at Cass included instruction in general metallurgy, metallurgy for engineers, metallurgy for miners and foundry practice and therefore tended to be different in scope from those at Chelsea.

Electrical engineering.

The polytechnics with mechanical engineering departments also provided instruction in electrical engineering subjects. Writing in 1928, H.M.I.Mr.Holmes considered that Northampton and Battersea polytechnics "constitute the chief provision of Electrical Engineering in London".⁴ A similar position existed by the close of the interwar period, though by that time Northampton was the more successful institution, due largely to its greater volume of day work based upon the sandwich system, a development which H.M.

-
1. L.C.C. EO/HFE/5/192 Report of H.M. Inspectors on Chelsea Polytechnic, February, 1939, pp.18, 19, 20.
 2. L.C.C. EO/HFE/5/159 G.Patchin memorandum on need for full-time metallurgy course at Cass, 19th December, 1929.
 3. Ibid., J. Wilkie to L.C.C. 7th March, 1939.
 4. P.R.O. Ed.90/135 H.M.I.Holmes to Maxwell Lyte, 30th January, 1925.

Inspectors thought could usefully be followed at Battersea.¹

Degree work was undertaken during the day and evening at Northampton and Battersea and on an evening only basis at Woolwich. In addition, a considerable amount of post-graduate work in electrical engineering was carried out at Battersea and during the session 1937/38 fifteen students were registered for evening research work and one as a full-time day post-graduate student.² Full time instruction of a national diploma character was developed At Regent Street Polytechnic and, though the number of candidates during the interwar period never exceeded nine,³ the fall out rate was high so that this figure fails to give a representative picture of the popularity of the course as a whole. By 1936 Woolwich, too, was offering higher national diploma courses and in that year ten candidates sat for the examination, eight being successful.⁴ Only in one year, 1929, did Battersea submit any national diploma candidates, and Northampton none at all so that in the case of both institutions full-time major courses in electrical engineering were directed almost exclusively towards University of London degrees. Par-time day work in electrical engineering, however, was developed at Northampton, Battersea, Woolwich and Regent Street, though not Borough, probably because there were very few large electrical firms in that area. Northampton was the major centre for part-time day work and seems to have established the sandwich system as its own particular trade mark, with degree course students spending one-term each session at a particular firm where a programme of works training was arranged. In addition, from 1932 the Northampton Polytechnic began to submit part-time day students for national certificate examinations. Again, however, the Royal Ordnance factory enabled Woolwich Polytechnic to rival Northampton as a centre

-
1. Report of H.M. Inspectors on Battersea Polytechnic, op.cit., p.11.
 2. Ibid., p.10.
 3. Institution of Electrical Engineers. Results files for national certificate and diploma examinations.
 4. Ibid.

for part-time instruction, but for national certificates rather than degrees.

Major courses of evening instruction were available at all the polytechnics with engineering departments, though Battersea and Northampton were the only institutions operating degree classes. Both polytechnics provided candidates for ordinary and higher national certificates in electrical engineering. The Table below illustrates the number of electrical engineering candidates from the polytechnics for the last three years of the inter war period.¹

	<u>Borough</u>		<u>Battersea</u>		<u>Northampton</u>		<u>Regent Street,</u>		<u>Woolwich.</u>	
	<u>ONC</u>	<u>HNC</u>	<u>ONC</u>	<u>HNC</u>	<u>ONC</u>	<u>HNC</u>	<u>ONC</u>	<u>HNC</u>	<u>ONC</u>	<u>HNC</u>
1937	32	-	29	9	34	5	49	37	27	8
1938	35	-	23	11	22	8	45	36	27	11
1939	45	-	19	18	33	10	53	37	40	11

Major courses in electrical engineering tended to follow traditional lines providing a grounding in underlying scientific principles and, where degree instruction was given, national certificate courses covered broadly the same material in order that students could take both examination. Perhaps the most notable development was that in ordinary national certificates with specialisation in radio engineering and with the first candidates from the Northampton and Regent Street polytechnics presenting themselves for examination in 1937, and from Borough in 1939. The usual minor courses in electrical installation work and telephone and telegraphy for Post Office engineers were developed at most of the above polytechnics and certain of them developed specialised courses, such as illumination engineering, cable jointing and armature winding at Northampton and electric lift construction at Borough. Although the minor courses were normally in the evening, towards the end of the 1920's the Northampton Polytechnic was able to introduce a sandwich

1. This table is constructed from figures made available to me by the Institute of Electrical Engineers.

scheme for apprentices in electrical installation firms. The scheme which, even a decade later, was still unique, involved the students in four weeks attendance at the polytechnic every third month.¹ Three groups of students functioned under this scheme and, by rotating with each other, enabled college staff and equipment to operate as if the course was full-time. In 1937 a less ambitious, but nevertheless important, arrangement was introduced at Borough whereby a number of local electrical contracting firms co-operated by allowing their apprentices one free day a week to attend a polytechnic course in electrical installation work.² Such experiments, however, were limited to certain courses in particular institutions and were intended for the few outstanding young workers rather than the main body of juvenile employees.

Chemistry and chemical engineering.

Courses in pure and applied chemistry were much stronger in the polytechnics than in the technical institutes where, with the exception of Norwood, they enjoyed very little success. With the exception of Goldsmiths and the North-Western, all the London Polytechnics developed important chemistry departments, major day and evening courses in pure chemistry being available at Battersea, Regent Street, Northampton, Northern and Chelsea polytechnics. In addition, Borough, Cass and Woolwich provided instruction in pure chemistry on an evening or part-time basis. A similar pattern existed for instruction in applied chemistry, though most of the work was done in the evening since the nature of the work in industrial laboratories made it difficult for employers to release their employees for day time study. The range of work was so wide as to necessitate a brief outline of the work of each institution where chemistry formed a major area of study. By the very nature of the subject, however, most instruction in chemistry departments was

1. Report of H.M. Inspectors on Northampton Polytechnic, op.cit., p.8.

2. Borough Polytechnic, Annual Report, 1937/38.

of the major course variety, and where a City and Guilds examination was taken this generally indicated that no other examining body set an examination in that subject.

The evening work of the department of chemistry at Battersea was concerned with such courses as petroleum technology, analysis and microscopy of foods and drugs, sewerage chemistry, flour milling, industrial bacteriology and chemical engineering. According to H.M. Inspectors, by the close of the interwar period Battersea was the major centre in London for chemical engineering.¹ The course in the chemistry of flour milling and by the late 1930's the Poplar School of Engineering and Navigation was its only competitor. The chemistry of sewerage purification was a course initiated by Battersea in 1934² and by the end of the interwar period was still the only one in London.

Chelsea Polytechnic developed a large chemistry department of high repute but once again most of the applied work was done in the evenings. This work included the chemistry and microbiology of milk, food and drugs, photomicrography and biochemistry. Even before the first world war Chelsea had been the pioneer institution in developing courses in the chemistry of milk and the successful classes in chemistry and microbiology were introduced in 1935.³ The very substantial growth in work of a pharmaceutical nature resulted in 1933 in the creation of a separate department of pharmacy and so late as 1939 Chelsea Polytechnic was still the only technical institute in London with an approved school of pharmacy for the teaching of pharmaceuticals and related disciplines.⁴ The polytechnic also developed a high reputation as a centre of postgraduate work in various areas of pure and applied chemistry and between 1924 and 1939 24 students of the chemistry department obtained the London University degrees of B.Sc., Ph.D., or M.Sc.

1. Report of H.M. Inspectors on Battersea Polytechnic, op.cit., p.24.

2. Ibid.

3. L.C.C.EO/HFE/5/42 Education Officer to Board of Education, 3rd December 1935.

4. Report of H.M. Inspector on Chelsea Polytechnic, op.cit., pp.23-29.

Both Regent Street and Borough polytechnics developed a section of their chemistry departments dealing with pigments, varnishes, paints oils and waxes. Borough, in particular, seems to have been progressive introducing a pioneer course in synthetic resins and another in plastic materials in January 1930,¹ a course in inks in 1937² and the following year arranged classes for students interested in canning techniques.³ In addition, the evening dental mechanics course at Borough was housed within the chemistry department and, had it not been for the intervention of the second world war, would almost certainly have been developed as a full-time course.

The Cass Polytechnic Institute was particularly important in developing courses associated with the fermentation industries, petroleum technology and technical gas analysis. The Northampton Polytechnic also operated a few classes in fuel technology, and also evolved an important course in glass working. In general, however, the work in chemistry at Northampton was of a servicing nature for other departments.

A development worthy of special mention was that of the school of rubber technology at the Northern Polytechnic. The department of chemistry and rubber technology at the Northern Polytechnic offered senior full-time day courses in technical chemistry leading to an honours degree of the University of London, and a senior full-time course in rubber technology. No continuous series of figures providing a breakdown of the relative importance in terms of student numbers between technical chemistry and rubber technology is available, though the evidence suggests that, at least for a few years after it was formed in 1920, the rubber section was fairly insignificant. In 1922 there were only 4 full time rubber technology students compared with 25 technical chemistry students,⁴ and in 1924 H.M. Inspectors reported that

1. Ibid, p.12.

2. Borough Polytechnic, Annual Report, 1929/30, p.12.

3. L.C.C. EO/HFE/5/28 E.Rich to Principal, Borough Polytechnic, 6th May 1932.

4. L.C.C. EO/HFE/5/227 Triennial Report of the Council's Inspectors, September, 1923, p.18.

the rubber classes were in danger of being closed down.¹ Thereafter the position seems to have improved for by 1930 full time day students were attending the polytechnic to do research in rubber technology and by 1934 15 full time students were following a three course in preparation for the examinations of the Institution of the Rubber Industry.² The report of the Advisory Committee in Rubber Technology covering the period 1936/38 noted that demand for full-time places in rubber technology was continuing to grow and that in 1938 there were 30 senior full-time students.³ Indeed the reports of the Advisory Committee indicate that by the late 'thirties further progress in the full-time course was held back by a lack of suitable accommodation. Already by 1922 the evening course in rubber technology attracted 17 students, though the total complement for the department as a whole was 119.⁴ The proportion of rubber technology students thereafter seems to have increased for by 1929/30 the department had 274 evening students of whom about one-third were rubber technologists.⁵ The average number of evening rubber technology students between 1930/1 and 1935/6 was 81. During the latter part of the 'thirties, however, the figure declined, due, the Advisory Committee claimed, to unsettled conditions in the industry.⁶

Building, architecture and surveying.

The overall pattern of development in the building departments of the Regent Street and Northern polytechnics was very similar, though the latter had a slightly larger day and evening student population. The same range of architectural, progressional building and trade classes were available, the

-
1. L.C.C. EO/HFE/5/227 Report of H.M. Inspectors on the Northern Polytechnic, July, 1924, p.15.
 2. L.C.C. EO/HFE/5/228 Report of H.M. Inspectors on the Northern Polytechnic, July, 1934, p.38.
 3. L.C.C. EO/HFE/5/169 Report of a meeting of the Advisory Committee in Rubber Technology, 29th March, 1939.
 4. Triennial Report of the Council's Inspectors, op.cit., p.18.
 5. Report of H.M. Inspectors on the Northern Polytechnic, 1934, op.cit., p.6.
 6. Report of a meeting of the Advisory Committee in Rubber Technology, op.cit. 100.

one major difference being that in 1936 Regent Street was permitted to operate a two year full-time course leading to the final examination of the Royal Institute of British Architects, a decision greatly resented by Dr. Drakely the principal of the Northern Polytechnic.¹

The building, architecture and surveying section of the Northern Polytechnic has always been, and remains today, a major part of the institution's work. In 1924 H.M. Inspectors reported that during the preceding four years the head of the building department "has amplified and extended in many directions the work of which he has charge."² By the close of the interwar period the building department was working to capacity and the staffing problem was so acute that retired teachers were being brought back into service, a temporary relief measure that was also adopted at Regent Street.³

In absolute terms the main area of growth between the wars was in the evening section, though, as the table below indicates, proportionately the full-time day work also underwent marked expansion.

Individual students in the building department of
the Northern Polytechnic.⁴

	<u>F-T.Day</u>	<u>P.T.Day</u>	<u>Evening</u>
1922/3	15	25	425
1923/4	28	16	497
1930/1	70	22	797
1931/2	85	19	973
1932/3	91	6	825
1935/6	171	4	1,104
1936/7	203	5	1,178
1937/8	227	-	1,232

1. The correspondence relating to this matter is found in L.C.C. EO/HFE/5/135.
2. Report of H.M. Inspectors on the Northern Polytechnic, 1924 op.cit. p.9.
3. L.C.C. EO/HFE/5/169 B. Ingram to J. Bigham, 11th October, 1937.
4. These figures are extracted from the Annual Reports of the Governing Body and the Reports of H.M. Inspectors.

Of the full-time courses, that in architecture was the most popular and students who successfully completed a three year course at the Polytechnic were exempt from the intermediate examination of the Royal Institute of British Architects, a privilege which had been conferred upon the Northern Polytechnic in 1925.¹ Surveying and general building courses were also well attended and in 1930 the polytechnic began offering a scheme of study leading to the ordinary and higher national certificate in general building and in building administration and estimating. A unique three year full-time course developed at the Northern Polytechnic was that for interior designers which, poorly attended in its initial stages, began to flourish and by 1934 had a student complement of 17.²

The evening work of the building department included major courses in architecture, surveying and general building as well as a variety of minor courses for craftsmen, and in 1932 an arrangement was made whereby certain craft students were allowed to enter the second year of the ordinary national certificate course.³ At the time of H.M. Inspectors report on the Northern Polytechnic in 1934, minor course students formed the largest single group with a total strength of 319, compared with 154 architects, 157 builders and 53 surveyors.⁴ Within the minor group woodworking formed the major element with 113 students followed by plumbing with 64 students.⁵ Towards the end of the 'thirties it was reported that fewer students were taking carpentry and joinery than in former years and this was attributed to a decreasing demand for skilled craftsmen in handiwork. To some extent, however, this was compensated for by a growth in other areas such as brickwork.⁶

-
1. L.C.C. EO/HFE/5/227 Report of R.I.B.A. visiting body, 3rd June, 1930, p.1.
 2. Report of H.M. Inspectors on the Northern Polytechnic, 1934, op.cit., p.34.
 3. P.R.O. Ed.90/141 W.M. Macbeth to Board of Education, 8th November, 1932.
 4. Report of H.M. Inspectors on the Northern Polytechnic, 1934, op.cit., p.9.
 5. Ibid.
 6. Northern Polytechnic, Annual Report, 1937/8, p.16

Apart from the Northern and Regent Street polytechnics, building classes were also available at the Woolwich and Borough polytechnics, although the range of work, particularly on the professional side was more limited. In 1935/6, the peak year of the 1930's construction boom, the relative position of the London polytechnics in terms of part-time day and evening building students were as follows:¹

Northern	1,108
Regent Street	1,159
Woolwich	232
Borough	328

Both polytechnics came under competition from nearby institutions, Woolwich from the South East London Technical Institute and Borough from the School of Building at Brixton and this probably served to retard their development. In 1937 the principal of Borough Polytechnic informed the Education Officer that the brickwork and national certificate classes had been so poorly attended in recent years, partly due to competition from the School of Building, that the classes were to be closed at the end of the session.² In fact, in 1939 all the building class at Borough Polytechnic were removed to Brixton.³

Women's trades

Departments catering for instruction in such women's subjects as cookery dressmaking and needlework were to be found at all the London polytechnics, though at Cass instruction was confined to tailoring and attracted students engaged in the local wholesale trade. In addition, classes in women's subjects were found in some of the other polytechnic departments. At Battersea, for instance, the department of hygiene and public health offered day and/or

1. L.C.C. EO/HFE/5/174 Unsigned memorandum, dated 6th December, 1937.

2. L.C.C. EO/HFE/5/24 D.Ingell to E.M.Rich, 19th May, 1937.

3. L.C.C. EO/HFE/5/24 D.Ingall to E.M.Rich, 12th May, 1939.

evening classes for health visitors, housemothers, sister tutors¹ and in 1937 a unique course was started providing training for workers in children's homes and residential schools.²

On the domestic science side the Northern and Battersea polytechnics developed the most advanced courses. By the 1930's the department of household science at the Northern offered full-time instruction for a cookery certificate course. Eventually, too, full-time courses became available for women chefs, confectionery and luncheon cooks and for women employed as institutional housekeepers.³ The full-time courses were usually for one year's duration - similar part-time day and evening classes were provided, with cooking being the most popular of the evening classes for women. Development at Battersea was on similar lines with a full-time and evening course available in household management for housewives, housekeepers or school matrons.⁴ Women's classes in general seem to have been popular and in some cases waiting lists were opened, particularly for cookery instruction. The main exception to this appears to have been the North-Western Polytechnic where, according to H.M. Inspectors, "The department as a whole is comparatively small and there is a certain lifelessness about it which is not conducive to growth."⁵

Commercial subjects

Instruction in commercial subjects at the London polytechnics was restricted to Regent Street and the North-Western polytechnics. This was in accordance with Council's policy of concentrating commercial work in the evening institutes, the City of London College and Regent Street polytechnic, and work in commercial subjects was permitted at the North-Western largely

-
1. Report of H.M. Inspectors on the Battersea Polytechnic, op.cit., pp.27/28 .
 2. L.C.C. EO/HFE/5/6 E.M. Rich to G.F.O'Riordan, 19th July, 1937.
 3. Report of H.M. Inspectors on the Northern Polytechnic, 1934, op.cit., p.50.
 4. Report of H.M. Inspectors on the Battersea Polytechnic, op.cit., p.30.
 5. L.C.C. EO/HFE/5/232 Report of H.M. Inspectors on the Evening Classes at the North-Eastern Polytechnic, July 1937, p.50.

because of the difficulty of developing other courses without duplicating work done at the Northern and Northampton polytechnics.¹ In fact, even though commercial ranked as the largest department at the North-Western its work was largely of an elementary nature and was completed entirely in the evening. Instruction was given in such subjects as book-keeping and typing, though some students followed the more advanced professional courses in accountancy and transport.² The Regent Street Polytechnic, however, flourished as a centre of part-time and full-time instruction in commercial subjects and during the 1930's the department of commerce rarely had less than 200 full-time and 1,700 part-time students.³ Most day students followed a group course which included such subjects as economics, law, arithmetic, accountancy, geography, typing and shorthand. From 1935 the Polytechnic was able to offer approved courses for the endorsed certificate in commerce.⁴ Evening courses were chiefly concerned with professional examinations, especially in accountancy and banking. In addition to the department of commerce, the Regent Street Polytechnic also housed a modern languages department which was one of the largest of its kind in the world,⁵ providing instruction from elementary to degree level in a variety of languages, including Russian and Dutch, and which also contributed to the commercial side of the Polytechnic's work.

Special subject areas.

In some polytechnics the work of a particular department was highly specialised and in this sense was similar to the activities of individual monotchnics.

-
1. P.R.O. Ed.90/155 H.T.Holmes to W.R. Davies, 19th December, 1923.
 2. Report of H.M.Inspectors on the Evening Classes at the North-Western Polytechnic, op.cit.,pp.8,9.
 3. Regent Street Polytechnic, Annual Reports.
 4. P.R.O. Ed.90/153 D. Humphrey to the Board of Education, 31st May, 1935.
 5. L.C.C. EO/HFE/5/256 Report of an Inspection of the Regent Street Polytechnic by the Council's Inspectors, December, 1929,p.6.

Bakery trades

The national bakery school at the Borough Polytechnic evolved day and evening classes in bakery subjects at both major and minor level and during the interwar period provided the Polytechnic's only senior full-time course. The full-time bakery course lasted two years and prepared students for the Diploma of the National Association of Master Bakers and Confectioners.¹ In 1927 a similar major evening course lasting four years and requiring attendance on two or three evenings a week was introduced, though, when the first group of students completed the course in 1931, about 80 per cent of the original complement had dropped out, and the drop-out rate remained high throughout the 'thirties.² The majority of the evening students, however, followed minor rather than major courses. In 1930/31, for example, only 180 of the total evening group of 479 bakery students were enrolled for the major course, although near the end of the decade the proportion was a little more in favour of major course students.³ Overall, however, evening student enrolments were substantially higher during the 1930's than in the 'twenties. By the late 1920's the full-time course had reached its maximum enrolment of about 46 students so that, although the full-time enrolment for 1938/9 was only 48 students, this did not represent a failure of the course to develop.

Applied optics

Northampton Polytechnic was unique in London in providing courses in applied optics, its nearest rival being a post-graduate course in technical optics at Imperial College. A two year full-time course in ophthalmic work formed an important part of the Polytechnic's day work and by 1934/5 had 41 students compared with only 15 in 1921/2.⁴ Evening students were able to

-
1. Borough Polytechnic, Annual Report, 1929/30, p.25.
 2. Borough Polytechnic, Annual Report, 1930/31 p.1.
 3. Borough Polytechnic, Annual Reports.
 4. Report of H.M. Inspectors on the Northampton Polytechnic, op.cit., pp.8,9 and P.R.O.Ed.90/135 Report of the Governing Body of the Northampton Polytechnic, 31st July, 1923, p.6.

follow a wide variety of courses, ranging in duration from two to four years and including spectacle making, optical glass working, optical instrument making, but in practice nearly all group course students followed the four year course in ophthalmic optics. By 1934/5 317 students were enrolled for the evening classes in applied optics.¹

Horology

The Northampton Polytechnic was also unique in its horology classes which served the old established watch and clock making industry in Clerkenwell. In the initial boom period of the post-war years when many ex-servicemen followed full-time courses, the Polytechnic was able to offer full-time instruction in watch and clock-making, but from the end of the 1923/4 session only part-time day and evening classes were held² and by 1937 only a 4 year evening course in watch and clock making was available.³ Considering its esoteric nature, however, this course was quite well attended with 83 students in the session 1935/6.⁴

Printing

The North-Western Polytechnic was in a favourable geographical position to attract students from the printing firms around the Kentish Town area and during the 1930's this aspect of the Polytechnic's work underwent marked development, both in terms of student numbers and type of work. During the session 1931/2, for example, successful part-time day classes were started in Linotype and Monotype⁵ and in the session 1934/5 a book-binding section

-
1. Report of H.M. Inspectors on the Northampton Polytechnic, op.cit., p.14.
 2. L.C.C. EO/HFE/5/223 Report of H.M. Inspectors on the Northampton Polytechnic, March, 1927, p.26.
 3. Report of H.M. Inspectors on the Northampton Polytechnic, 1937, op.cit., p.26.
 4. Ibid.
 5. The North-Western Polytechnic, The Third Year Book of the Printing Department, 1931/32.

was established.¹ In their report of July, 1937, H.M. Inspectors were really only satisfied with the printing aspect of the Polytechnic's work, noting of the composing room that "The equipment and lay-out of this portion of the Department are both admirable, and may, in fact, be regarded as a model."² The major portion of the printing department's work was concerned with a three year grouped evening course, though, as the table below illustrates, there was an important development of part-time day work.

Individual students in the printing department of
the North-Western Polytechnic, 1930/1 to 1938/9.

	<u>1930/1</u>	<u>1931/2</u>	<u>1932/3</u>	<u>1933/4</u>	<u>1934/5</u>	<u>1935/6</u>	<u>1936/7</u>	<u>1937/8</u>	<u>1938/9</u>
P.T.Day	37	56	65	69	78	89	97	88	106
Evening	256	268	250	257	296	330	277	318	329

-
1. The North-Western Polytechnic, The Sixth Year Book of the Printing Department, 1934/35.
 2. Report of H.M. Inspectors on the Evening Classes at the North-Western Polytechnic, op.cit., p.23.
 3. North-Western Polytechnic, Annual Reports.

CHAPTER FIVE

The London Monotechnics 1918-1939

General characteristics

Although some provincial centres had a sufficiently large industrial population to support a monotechnic or near monotechnic, London was the only area where the scale and variety of industrial activity was such as to justify the existence of a number of institutions providing instruction in one major field of study. It was common in the provinces for highly specialised departments providing instruction in fairly esoteric subjects to be found within a technical institute in a similar way that rubber technology was taught at the Northern Polytechnic and hotel and restaurant services at the Westminster Technical Institute,¹ but it was comparatively rare for a whole institution to be devoted to one branch of study. This is reflected, too, in the fact that almost the only specialised junior technical, or trade schools, as they were known, grew up within the framework of the London polytechnics and technical institutes.

The development of the London monotechnics reflects the interest taken in technical education by the old established London companies and societies which were prepared to initiate and help develop classes in particular trades. As well as providing financial assistance, some of the London companies and societies supported certain of the monotechnics by encouraging their employees to attend classes. The London School of Printing, in particular, benefited from the close support of the trade for it was able to operate flourishing part-time day classes, with part-time day apprentices

1. The School of Cookery and Waiting at the Westminster Technical Institute was opened in 1910 with the purpose of training boys for employment as assistants in hotel kitchens or as waiters in hotels or restaurants. By the early 1930's the School was extending its work to the training of suitable candidates for hotel and restaurant management and in 1934 it changed its title to the Hotel and Restaurant Training School.

sometimes accounting for almost 50 per cent of total student enrolment. In 1930 the Council's Inspectors pointed out that "The co-operation with employer is one of the outstanding successes in the School, and the contribution which has been made to the establishment of part-time education in London by the formation of part-time day courses for apprentices is a striking example of what can be secured if employers are convinced that the instruction offered to their junior employees is sound, practical and up-to-date."¹

Moreover, support from the trade enabled some of the monotronics to develop relatively large senior day classes and in this respect some institutions were more successful than many of the polytechnics, especially in terms of the proportion of senior full-time day students to the total student complement. In 1935-36, for example, the Northampton Polytechnic, one of the largest of the London polytechnics, had a total of 3,238 senior day and evening students, of whom 267 attended full-time. During the same session the School of Photo-Engraving and Lithography enrolled 172 full-time senior day students and a further 931 evening students. Even where work was predominately of a part-time nature the monotronics often secured large senior full-time groups. Again in 1935-36 the Barrett Street Trade School, which specialised in women's subjects, had 209 senior full-time students out of a total enrolment of 3,775 students. During the session 1933-34 the City of London College attracted 2,949 evening students and 266 senior full-time day students.

Both the size of an institution as measured by enrolments, and the work, varied considerably between the different monotronics. In 1929-30, for example, the London School of Printing had a total enrolment of 3,081 students compared with 108 at the Leathersellers' College. Such variation reflected not only differences in accommodation available, but also the size,

1. L.C.C. EO/HFE/4/154 Report of an Inspection of the London School of Printing and Kindred Trades by the Council's Inspectors, March, 1930, p.1.

structure and nature of particular industries, as well as the deliberate policy of course development followed by the London County Council.

The type of work developed by the monotronics normally followed the minor and major course pattern, though certain institutions, such as the Smithfield Meat Trades Institute and the Clapham Trade School, were predominantly concerned with low level work. All the courses, however, were strongly of a vocational nature so that the more general type of pure science course found at the polytechnics and technical institutes was very uncommon. The specialised content of their work and the high proportion of day students enabled some of the monotronics to do work of a very high level comparable, in fact, with advanced work of university standard. As a centre of training for the leather industry, the Leathersellers' College, at least at the beginning of the interwar period, was ranked in importance with Leeds University.¹ The College was equipped with research tanneries and throughout the 1920's and 1930's research work was carried out by staff and other interested parties.² Research work was also carried out at the School of Building at Brixton and by early 'thirties the School's staff were co-operating with the Institution of Structural Engineers in the testing of building materials.³ Since much of this work was of a voluntary nature and conducted outside of school hours, it seems to have gone largely unrecorded, though the number of research papers published by staff, for example, at the Leathersellers' College, suggest that monotronics may have made an important contribution to the advancement of technical knowledge in particular industries. The School of Photo-Engraving and Lithography appears to have been a pioneer of technical development for the

1. P.R.O. Ed.90/120 Report by Professor D.McCandlish on a visit to the Leathersellers' Technical College, 21st March, 1923.

2. L.C.C. EO/HFE/5/67 The Leathersellers' College, Annual Reports.

3. L.C.C. EO/HFE/4/134 Report of an Inspection of the School of Building, Brixton, by the Council's Inspectors, March 1931, p.1.

trades with which it was concerned. Reporting in 1938, the Advisory Sub-Committee of the School praised its unique position:

"We know of no other case of an institute occupying relatively to a group of trades, the position this school commands in relation to the photo-engraving and kindred trades. In the usual scheme of things new trade methods evolve outside in the research laboratories and experimental workshops of the great industries and in the national laboratories, but in the trades connected with the school it can be said that their great progress since 1912 has been due almost entirely to the work of the school. In this trade the work of systemising existing methods, developing new ideas and, when occasion demands, initiating new methods falls to the school."¹

With so much specialised knowledge and equipment at their disposal it was perhaps to have been expected that a good deal of useful co-operation might have been introduced between individual monotecnics and between the mono-technics and other technical institutes, but in practice there seems to have been almost a complete absence of a cross institutional exchange of ideas and only limited intercourse between the various monotecnics themselves. A fairly successful scheme of co-operation was that introduced in 1933 between the Cordwainers' College and the Smithfield Institute whereby students were exchanged with a view to increasing their knowledge of the properties of leather,² but others, such as that between the London School of Printing and the School of Photo-Engraving and Lithography under which students from the former institute attended block-making lectures at Bolt Court, ended in failure after a few years.³

1. L.C.C. EO/HFE/4/80 Report of the Advisory Sub-Committee of the School of Photo-Engraving and Lithography, November, 1938.

2. L.C.C. EO/HFE/5/67 Leathersellers' Technical College, Annual Report, 1937-38 p.6.

3. L.C.C. EO/HFE/4/79 J.W.Bispham to A.J. Bull, 24th April, 1937.

The Building Trades

The three principal centres of instruction in building subjects in London during the interwar period were the Brixton School of Building, the Northern Polytechnic and the Regent Street Polytechnic. In addition to Brixton, a second monotechnic, the Hammersmith School of Building and Arts and Crafts, was opened in 1930.

The Brixton School of Building.

Throughout the 'twenties and 'thirties the Brixton School of Building experienced a marked increase in student numbers and an expansion in the range of subjects offered for instruction. In 1927 H.M. Inspectors noted that "its value to the industry of building in London is beyond measure"¹ and in the following year the development of the School since its foundation in 1904 was recognised when it was given the status of a College of Further Education.² In the same year the School was divided into three departments - the Woodworking Trades Department, the Evening Building Department and the Architecture and Interior Design Department³ - a reflection of the growing administrative burden placed upon the principal as a result of overall course development. In 1939 a separate Art Department was formed.⁴ In their report of 1927 H.M. Inspectors drew attention to the strain on accommodation that was already becoming apparent. During the 1930's the problem became more acute for in 1944 the Advisory Sub-Committee emphasised that "Before the outbreak of war, the accommodation at the main institute was being utilised to its full capacity."⁵

1. L.C.C. EO/HFE/4/133 Report of H.M. Inspectors on the School of Building, Brixton, July, 1927, pp.37,38.

2. London County Council, The First Fifty Years. History of the Brixton School of Building 1904-54, p.19.

3. Ibid., p.20.

4. L.C.C. EO/HFE/4/17 Advisory Sub-Committee Papers, 1938-49, 9th January, 1939.

5. Ibid., 21st June, 1944.

In relation to the Northern and Regent Street polytechnics, the Brixton School of Building fared well in terms of student numbers in evening and part-time day classes, but less well in terms of full-time day enrolments.

Student Enrolments

<u>1925-26</u>	<u>Brixton</u>	<u>Northern</u>	<u>Regent Street</u>
Senior Day	45	42	65
Evening	1,165	775	1,071
Apprentices	72	39	-
<u>1936-37</u>			
Senior Day	62	203	108
Evening	1,848	1,178	1,152
Apprentices	70	-	-

The senior day course at Brixton began in 1912 and catered for boys of 16 and above who intended entering the business of professional side of the building industry. In 1929 the two year course was extended for a third year to bring it into line with the other senior building courses in London and at the same time the course was divided into two specialisms, one for general building and the other for the professional occupations in the industry.¹ Writing in 1931, the Council's Inspectors noted that the senior day school provided a preliminary training for youths hoping to qualify eventually as architects, surveyors, structural engineers, reinforced concrete engineers and sanitary engineers.² Students prepared for such examinations as the national diploma, the Intermediate examination of the Royal Institute of British Architects and the examinations of other professional bodies. The general building course was partly intended for the sons of employers and, according to H.M. Inspectors, was a useful experiment since

1. L.C.C. The First Fifty Years, op.cit., p.22.

2. Report of an Inspection of the School of Building, 1931, op.cit., p.3.

"the training of master builders and of the organisers and supervisors of building work has not yet been fully worked out anywhere."¹

Enrolments in the senior day school of building fluctuated during the 1920's being at their ebb between 1922-23 with 25 students, recovering to 54 enrolments in the session 1930-31 and growing during the 1930's to reach 57 in 1933-34 and 87 in 1938-39. In June 1938 the Advisory Sub-Committee reported that "In the Senior Day School the numbers have been constantly growing and the first year classes have become too large for one teacher to conduct"² Moreover, at that time, the sub-committee noted, demand for the session 1938-39 was "much in excess of previous years at a comparable date."³

On the initiative of the Institute of Builders, the London Master Builders' Association and the London Central Advisory Committee for Juvenile Employment a London Building Apprentice Committee was established in 1917 and part of the apprenticeship scheme drawn up by this body included a certain amount of technical instruction for apprentices in a technical institute.⁴ Out of this arrangement certain apprentices were sent to the Brixton School of Building and the Northern Polytechnic for two half days each week. The Committee, however, was unsuccessful in increasing the flow of indentured apprentices to the industry and was wound up in 1926. According to H.M. Inspectors "the task of adapting an ancient institution such as apprenticeship to the complexities of modern industry is fraught with difficulties and complexities."⁵ Although the classes for apprentices at the Northern polytechnic gradually faded away after 1926, those at Brixton continued to attract students and, though, falling in the early 'thirties below the 1926

1. Report of H.M. Inspectors on the School of Building, op.cit., p.10.

2. L.C.C. EO/HFE/4/17 School of Building, Advisory Sub-Committee, Report, 27th June, 1938.

3. Ibid.

4. Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London, op.cit., pp.8,9.

5. Ibid., p.9.

maximum of 76, recovered to 60 students by 1939. In 1943 the building industry in co-operation with the Ministry of Works planned a national scheme of apprenticeship and this proved extremely successful as far as Brixton was concerned for by 1951 over 600 apprentices were enrolled at the School.¹ No part-time day professional course was available at Brixton until 1943.²

Evening classes in building subjects at Brixton generally flourished throughout the interwar period. In 1919-20 797 students enrolled for evening classes, reaching 1,165 by 1925-26, 1,401 by 1930-31 and 1,848 by 1936-37. Both minor and major courses progressed well, new subjects being introduced as demand justified. The major courses included instruction in architecture, surveying and estate agents work, and in 1930 a national certificate scheme was introduced which pioneered the subject of building administration.³

In the following year a special five years structural engineering course began which was designed to meet the needs of those engaged in steel and reinforced concrete construction.⁴ Most evening trade courses were three or four years in duration and included classes in masonry, painting and decorating, plumbing and carpentry and joinery. The School of Building helped to pioneer trade instruction in the application of machinery to the building trades. For example, the School developed a joiners' machinery course to meet the increased demand which appeared for this type of instruction in the mid'twenties.⁵ In 1937 a special course of instruction in the application of electric arc welding to the building trades was begun.⁶ Towards the close of the interwar period the evening trade classes at Brixton received a marked stimulus when all building instruction at Borough Polytechnic, apart from classes in woodwork

1. L.C.C. The First Fifty Years, op.cit., p.24.

2. Ibid., p.23.

3. P.R.O. Ed.90/122 M.S.Briggs to Manson, 14th April, 1930.

4. Report of an Inspection of the School of Building, op.cit., p.14.

5. Report of H.M. Inspectors on the School of Building, op.cit., p.28.

6. L.C.C.EO/HFE/4/17 School of Building, Advisory Sub-Committee, Report, 6th December, 1937.

ended¹ and this undoubtedly helps to explain the relative strength of the evening department in 1939.

The Hammersmith School of Building and Arts and Crafts

In 1926 the Education Officer for the L.C.C. G.H.Gater, informed the Board of Education that "having regard to the need for technical instruction in building trade subjects in the West of London, and the need for an increase in the number of skilled workers to cope with the present housing problems, and other large constructional schemes in London, the Council included the project in its three years programme." The scheme for a new school of building in West London had been decided upon by the Council in 1913 but had been delayed by the outbreak of the First World War. According to one of the Council's Inspectors the need for a new school of building was desperate and he doubted whether even Hammersmith would solve the problem:

"The development of the work of technical education in the Building Trades in London is urgent and though some relief will be obtained by the proposals to build a new building trade school at Hammersmith it will not be sufficient to meet the needs of South London."³

The School, the first purpose built monotchnic, opened in 1930 and provided evening insturction leading to the ordinary national certificate examinations in building, the examinations of the professional institutions, as well as courses of the workshop variety.⁴ An unsuccessful attempt was made in 1938 to obtain permission to operate a higher national certificate course in building.⁵ Although a junior technical school of building was opened in

1. See p.103.

2. P.R.O.Ed.90/139 G.H.Gater to the Secretary, Board of Education, 4th February 1926.

3. L.C.C.EO/HFE/4/133 A.E.Briscoe to the Chief Inspector, 14th January 1928.

4. L.C.C.EO/HFE/4/149 Report of an Inspection of the Hammersmith School of Building and Arts and Crafts by the Council's Inspectors, February 1935, pp.16.

5. L.C.C.EO/HFE/4/48 Hammersmith School of Building and Arts and Crafts Advisory Sub-Committee, Report, 16th January 1939.

1931, the School was not permitted to introduce senior day classes during the 'thirties. Nevertheless, the evening and junior technical school classes flourished putting considerable pressure on accommodation. By 1937, for example, the School had accommodation for 300 students but had an enrolment of approximately 1,300 pupils.¹

The Printing Trades

Throughout the interwar period instruction in one or other of the printing trades was available at the London School of Printing and Kindred Trades, the School of Photo-Engraving and Lithography, the Central School of Arts and Crafts and the Camberwell School of Arts and Crafts, the latter two institutions being primarily concerned with art subjects. In addition, when the North-Western Polytechnic opened in 1930 a printing department was included within its sphere of work.

During the 'twenties and 'thirties London was the major centre of the printing industry so that demand for instruction was substantial and for many courses extensive waiting lists were opened. When the projected North-Western Polytechnic was being discussed by Board of Education officials in the early 1920's the establishment of a printing department to satisfy the needs of the trade in North West London was considered a priority.² The success of the London printing monotechnics and the printing departments of other institutes contributed to the development of printing instruction in the provinces.³

The London School of Printing and Kindred Trades

The London School of Printing was the largest of the London printing schools, by 1933 possessing approximately half of all the capital's

1. Ibid., 20th December, 1937.

2. P.R.O. Ed.90/155 H.T.Holmes to W.R. Davies, 17th July 1922.

3. J.C. Smail, 'Some Aspects of Education for the Printing Trades' A.T.I. February, 1937, p.2.

printing students. Printing was one of the oldest London crafts to be associated with systematic technical training. In 1918 classes held at Borough Polytechnic, Regent Street Polytechnic and the Aldenham Institute were transferred to the St. Bride Foundation Institute Printing School and in 1922 the classes were removed to larger and more suitable premises in Stamford Street, Blackfriars. At the same time the name of the Institute was changed to the London School of Printing and Kindred Trades.¹

The move to Stamford Street appears to have been largely the work of the Council's Organiser of Trade Schools, J.C. Smail, encouraged by the Printing and Kindred Trades Technical Council, and seems to have been prompted by the heavy demand for instruction in the various branches of the printing trade.² In 1919 the St. Bride Institute was reported as having a waiting list of 400 prospective students. From its beginning, therefore, the London School of Printing was well attended by students and by the session 1926-27 had an enrolment of 2,926 students. Upon his retirement in 1939, the principal of the School, J.R. Riddell, was able to report that "the majority of the classes are fully enrolled before the session commences, and invariably has a long waiting list of applicants for enrolment."³ Would be candidates for the full-time course were obliged to have their names on the waiting list three years in advance of the session in which they wished to begin their course.⁴

The full-time course of study, initially of two years duration and then extended by a third year, was intended for the sons of master printers and by 1930 included instruction in workshop routine, the manufacture and the executive branches of a printer's business, including accountancy and economics.⁵ The course appears to have been popular and there was considerable competition

1. C.T. Millis, Education for Trades and Industries (1932), pp.106-108.

2. L.C.C. EO/HFE/4/56 Printing and Kindred Trades Technical Council, Deputation to L.C.C. Higher Education Sub-Committee, 20th November 1919.

3. J.R. Riddell, The London School of Printing and Kindred Trades (1939), p.5.

4. Ibid.

5. Report of an Inspection of the London School of Printing and Kindred Trades, op.cit., p.3.

to join, though the maximum the School was prepared to accept for the total course complement seems to have been around fifty. Writing in 1937, however, J.C. Smail, then principal of Heriot Watt College, Edinburgh, was not entirely satisfied with this type of instruction, being of the opinion that it was difficult for the young master printer with his limited educational training, to become fully conversant with any one branch of the trade.¹ What was needed, argued Smail, was the recruitment of more students to the managerial ranks of the industry with a wide scientific background. According to H.T. Holmes, one of H.M. Inspectors, the principal of the London School of Printing had a strong distrust of science, though, he added, more recently he "has followed up the various applications of science to the printing industry."² One of the beneficiaries of this approach was probably the full-time senior course.

The day apprenticeship classes at the London School of Printing were almost certainly the most successful part-time day classes at any institution in England. In 1926-27, for example, the apprenticeship students numbered 1,297 pupils, more even than attended evening classes during that session. By 1930 two apprenticeship schemes were operating, one catering for compositors and the other for linotype and monotype apprentices. Both courses lasted for five years and involved attendance of four hours weekly.³ Evening classes provided instruction in a wide range of subjects including composing, letterpress, machine work, lithography, photo-lithography, stereotyping and electrotyping, binding and warehouse work and special subjects such as costing, estimating and salesmanship.⁴

The London School of Printing undoubtedly provided an important service for the printing industry in London, though the overall impression is

1. J.C.Smail, op.cit.,p.4.

2. P.R.O. Ed.90/162 H.T.Holmes to Eaton 1st February, 1933.

3. Report of an Inspection of the London School of Printing and Kindred Trades, op.cit.,p.2.

4. Ibid.

that in terms of course development it followed change rather than initiated it. In 1930 the Council's Inspectors observed that "the time has now probably arrived when the school should be considered as a place where experimental work may be carried out and research attempted."¹ If such work was developed during the 'thirties, little evidence of it has survived, and perhaps the personality of principal Riddell, who appears to have been rather conservative himself, and who found it difficult to maintain cordial relations with his own staff and with the officers of the L.C.C., made it difficult for the School to be in the van of course experimentation.

The School of Photo-Engraving and Lithography

The School of Photo-Engraving and Lithography provided instruction for those people engaged in some branch of the photo-engraving, photographic, design, lithographic engraving, printing and illustrating crafts. The School derived its origin from some art classes founded in 1893 under the auspices of the National Society of Lithographic Artists, Designers and Writers and Copperplate Wood Engravers. With the help of the L.C.C. Technical Instruction Board, the classes so that premises were acquired in Bolt Court with the first principal being appointed in 1898.² In 1900 the School, then known as the Bolt Court Technical School, changed its name to the School of Photo-Engraving and Lithography and, according to C.T.Millis, soon acquired a high reputation.³

As with the case of most technical institutes, enrolments were quite high following the First World War, reaching 625 senior day and evening students in 1920-21. Thereafter a decline set in, at least until the session 1924-25, for by the middle of January 1925 total senior day and evening enrolments totalled 426 pupils, though to some extent this was compensated

1. Ibid., p.1.

2. EO/HFE/4/163 Report of H.M. Inspectors on the School of Photo-Engraving and Lithography, June, 1925, p.1.

3. C.T.Millis, op.cit.,p.112.

for by an increase in the number of junior technical school students. By 1930, however, the Council's Inspectors noted that pressure on accommodation was becoming quite marked, a good deal of it due to senior day and evening enrolments since at that time the junior technical school was going through a difficult period.¹ By the session 1933-34 senior day and evening enrolments reached a total of 965 pupils and by 1936-37 had increased to 1,187 students, by which time a lengthy waiting list was necessary for some classes. In 1938 the School's principal, A.G.Bull, informed the Education Officer that "on the first enrolment evening the queue began to form at 4 p.m., and extending right round Gough Square eventually necessitated the attention of the police. This was because students know from experience that only early applicants have a chance of admission to the majority of trade classes."²

In 1921 approximately 50 students were enrolled in the senior day classes. At each time senior day students followed a two years' course or a short course of about three months in some special area of work. Only about six of the students pursued the two years' course which was intended for sons of employers or managers, but which was not systematic in the sense of a uniform course followed by all students.³ By 1924-25 of the 38 senior day students, 24 followed a full-time course, though in July 1925 the Advisory Sub-Committee of the School reported that "A definite course of training for senior students has been worked out by the Principal but only comparatively few students have, so far, followed it, the majority of students requiring specialised individual courses."⁴ The fluid nature of the work of the senior full-time school was criticised by H.M. Inspectors and this appears

-
1. L.C.C. EO/HFE/4/163 Report of an Inspection of the School of Photo-Engraving and Lithography by the Council's Inspectors, March 1929, p.1.
 2. L.C.C. EO/HFE/4/80 A.G.Bull to E.M.Rich, 4th April 1938.
 3. P.R.O. Report on the School of Photo- Engraving and Lithography by Dr.Slater Price, 14th December 1921.
 4. L.C.C.EO/HFE/4/163 School of Photo-Engraving and Lithography, Advisory Sub-Committee, Report, July 1925.

to have produced the desired result. The development of a more uniform two years' course in photo-engraving may have contributed to an increase in total senior day enrolments which by 1936-37 had reached 190 students.

Evening class enrolments increased from approximately 388 in 1924-25 to 997 in 1936-37¹. Instruction was provided in the various branches of photography for reproduction processes; in processes for relief printing, surface printing and intaglio printing; art classes for persons engaged in commercial studios and classes in paper-making and testing.¹ One of the important developments in evening class work was a greater emphasis upon lithographic work which in 1925 was restricted to lithographic drawing and did not include press work or machining.² Special evening lectures in block-making given by the principal of the School for students of the London School of Printing were started in 1932 and seem to have functioned quite successfully until their conclusion in 1936.³

The Leather Trades Industry

During the interwar period two institutions in London, the Leathersellers Technical College and the Cordwainers Technical College, catered solely for people already engaged in or about to enter the leather trades industry. The Leathersellers' College was concerned more specifically with leather technology while the Cordwainers' College offered instruction in subjects related to the boot and shoe trade and more generally to the leather working industry as a whole. As a major centre of the leather goods industry, London was well situated to develop technical education in this field and seems to have remained almost unique in its scale of this type of educational activity. The Advisory Trade Committee of the Cordwainers' Technical College reported in 1935 that "serious attempts to develop technical education in

1. Report of an Inspection of the School of Photo-Engraving and Lithography,

op.cit., p.4.

2. Ibid., p.1.

3. L.C.C. EO/HFE/4/79 J.W.Bispham to A.G.Bull, 24th April, 1937.

the Leather Goods Industry have not been attempted except here in London."¹

The Leathersellers' College

The Leathersellers' College, which opened in 1909, developed out of a series of evening lectures in leather manufacture started at the Borough Polytechnic in the session 1894-95.² The progress of the College during the interwar period owed a great deal to the support of the trade and especially to the Court of the Leathersellers Company which in 1917 assumed responsibility for its overall development.³ By 1921 the College was already well established and, according to Professor McCandlish of Leeds University "had a national reputation and is regarded by the trade as one of the leading institutions of its kind in the country."⁴ After the initial post war boom, total enrolments at the College fell away until the late 'twenties when another period of growth set in. Development was particularly marked in the early 1930's and by 1934-35 a record 153 students were enrolled at the College, a figure which, the principal argued, represented the absolute maximum the accommodation would permit of.⁵ For the remainder of the 'thirties enrolments exceeded 100 in every year except 1938-39 when they declined to 96.

Both day and evening students were able to receive instruction in light and heavy leather manufacture and leather dyeing and finishing, and could hope eventually to become established in middle and lower management positions.⁶ As the quality of the student intake improved during the early 1930's, so the College was able to develop instruction in more sophisticated techniques. Subjects that had been introduced as special lectures in 1932

1. L.C.C. EO/HFE/5/49 The Cordwainers' Technical College, Advisory Trade Committee, Report, March 1935, p.7.

2. C.T. MILLIS, Education for Trades and Industries, op.cit., pp.106-108.

3. P.R.O. Ed.90/120 Undated and unsigned memorandum, TC 1834/21.

4. Report by Professor D.McCandlish, op.cit.

5. L.C.C. EO/HFE/5/67 The Leathersellers' Technical College Annual Report, 1934-35, p.4.

6. P.R.O. Ed.90/120 J.Salt to G.G.Williams, 8th September, 1934.

became part of the normal curriculum.¹ At the same time evening work became increasingly organised on the course system enabling students to take advantage of the newer type of work, a development which received the support of the trade.² Day students were admitted on a full and part-time basis, though apart from 1934-35 when 24 of the 58 day students were part-timers, the proportion was very much in favour of full-time students. The total complement of full-time students between 1928-29 and 1938-39 averaged approximately 54 pupils while over the same period the average number of part-time students was about eight. The full-time students followed a two year's course, after which, if they were successful, they received the College Diploma. In 1930 a third year was made available for students who undertook a research project, success in which entitled them to the Associateship of the College.³ In addition, both day and evening students were permitted to take the City and Guilds examination and most of them appear to have done so.

Mention has already been made of both the scheme of co-operation with the Smithfield Meat Trades Institute and of the research work undertaken at the College by staff and other interested parties.⁴

The Cordwainers' Technical College

The Cordwainers' Technical College arose out of an approach by a Committee of the Boot and Shoe Manufacturers' Association to the Leathersellers' Company for assistance in establishing a technical school for the leather industry.⁵ A scheme of co-operation was worked out between the Boot and Shoe Manufacturers' Association, the Cordwainers' Company, the Leathersellers' Company and the City and Guilds of London Institute which provided for the establishment of a committee to develop a leather trades school. Premises

1. L.C.C. EO/HFE/5/67 The Leathersellers' Technical College, Annual Report, 1932-33, p.6.

2. J. Salt to G.G.Williams, op.cit.

3. The Leathersellers Technical College, Annual Report, 1934-35, op.cit., p.4.

4. See p.111.

5. L.C.C. EO/HFE/5/47 The Cordwainers' Technical College, Report of the Governing Body for the Session 1913-14, p.3.

were acquired in Bethnal Green Road and the first classes were held in 1889. The management of the School was modified in 1893 and in 1913-14, with the interest of the Leathersellers' Company developing in the direction of the Herold's Institute, the forerunner of the Leathersellers' College, the Cordwainers, assisted by the L.C.C. and the Boot and Shoe Manufacturers' Association, assumed primary responsibility for the Leather Trades School which thereafter became known as the Cordwainers' Technical College.¹ Initially, the Cordwainers' College concentrated upon preparing students for the boot and shoe industry but in 1916 classes in the manufacture of fancy leather goods were started and soon after a Leather Goods Department was set up.²

In their report for 1913-14 the Governing body of the Cordwainers' College noted that they had received a number of applications for day classes, but added that the College lacked the necessary staff to accommodate such requests.³ In 1919, however, senior full-time courses were introduced in both the Leather Goods Department and the Boot and Shoe Department, with a total complement of sixteen students, plus thirteen part-timers.⁴ Both courses failed to attract a large enrolment and by 1938-39 eighteen senior full-time students were registered at the College, together with a further seven part-timers, though the total number of day students was increased following the opening of the junior technical school in 1925.

The senior day courses were intended to cover all the processes in the design and manufacture of the goods concerned, plus certain aspects of industrial management relevant to the industry.⁵ In 1929, however, H.M. Inspectors criticised the instruction in the Boot and Shoe Department, noting

1. Ibid.

2. L.C.C.EO/HFE/5/198 Report of H.M. Inspectors on the Cordwainers' Technical College, July 1921, p.1.

3. The Cordwainers' Technical College, Report of the Governing Body, op.cit., p.9.

4. The Cordwainers' Technical College, Advisory Trade Committee, Report, op.cit. p.2

5. L.C.C.EO/HFE/5/198 Report of H.M. Inspectors on the Cordwainers' Technical College, July 1929, p.5.

that although the trade processes were adequately dealt with, the curriculum did not respond quickly enough to changes within the industry. Moreover, though the instruction in craft processes was sound, not enough attention was paid to management subjects. The senior courses were of two years duration and were mainly intended for the sons of manufacturers and others aiming for the higher posts in the respective industries. In addition, by 1936 a two years' full-time trade course in hand sewn boot and shoe making had been started for boys over sixteen who were prevented from by physical disability following other trades.¹ Apart from part-time day students following senior courses, some apprentices and shop assistants attended classes started from time to time to deal with their particular needs, though they never appear to have developed to any great extent.

Throughout the interwar period evening class students formed the mainstay of total enrolments. In 1920-21 288 students were enrolled for evening classes and, despite falling to 212 in 1928-29, recovered to reach a total of 343 enrolments in 1938-39. Instruction for both junior and senior evening students was provided, although the great bulk of enrolments were made up of senior students. Evening classes were available in both boot and shoe manufacture and the production of leather goods and gradually additional subjects were introduced to cover the work done in a greater number of factory departments. The classes were essentially of a practical nature, and as well as being of great value to craftsmen were intended to assist men who aspired to become foremen, a development which, according to the College's Advisory Trade Committee, was very desirable.² Special evening classes covering four terms were also started for those interested in aspects of salesmanship and distribution and catered for men and women in the wholesale and retail branches of the boot and shoe trade.³ The lectures were intended

-
1. L.C.C.EO/HFE/5/49 Typed Outline History of the Cordwainers' Technical College, 8th October, 1936.
 2. L.C.C. EO/HFE/5/199 The Cordwainers' Technical College, Advisory Trade Committee, Report, undated.
 3. L.C.C.EO/HFE/5/199 Report of an Inspection of the Cordwainers' Technical College by the Council's Inspectors, October 1935, p.7.

to acquaint students with a knowledge of leather and its manufacture, the anatomy of the foot and a knowledge of the wholesale and retail trades.¹

The City of London College

Throughout the interwar period the City of London College was the only London monotechnic concerned with commercial subjects. For some time after its foundation in 1848, however, the College provided instruction of a more general nature and it was not until near the end of the nineteenth century that it became almost exclusively concerned with education for business, and in fact it was not until 1930 that the last technical course, that leading to the examination of the Surveyors' Institute, was relinquished.²

Total enrolments exceeded 2,000 students per annum throughout the whole of the interwar years, though from the late 1920's a particular period of growth set in so that by 1939 enrolments, at approximately 4,500 students, were about double the 1925-26 level. This period of development owed much to the guidance of the College's first director, J.W.Ramsbottom, whose scheme of reorganisation placed emphasis upon the more advanced work thus enabling the College to establish a leading position in the field of commercial education.³

The Day Department of the City of London College was established in 1905. In terms of total student enrolments, the day work of the College suffered a temporary setback during the mid 'twenties but thereafter, however, enrolments declined, due, in part, to the closure of the junior day school in 1931, although the close of the junior day school was itself related to the need to provide more accommodation for senior full-time students and therefore merely reflected the development of more advanced work. At the beginning of the interwar period the senior day school provided a matriculation

1. Ibid.

2. Anon, The City of London College, 1848-1948, p.28.

3. P.R.O.Ed.90/130 Report of a Conference with the Governing Body of the City of London College, 13th March, 1935.

course for students coming from secondary or private schools, a one year course of secretarial work for girls of about 17 years of age who had completed a secondary school course and a nominal four years' post matriculation general commercial course. In 1927 the senior day work was reorganised, the general commercial course being replaced by preliminary instruction in professional subjects for people entering banks, insurance offices and other business institutions, and by a one session intensive general business course. At the same time the secretarial course for girls was extended to two years, although it was sometimes difficult to fill second year classes.¹ Nevertheless, from the late 'twenties this course began to attract substantially more entries and by 1931-32 accounted for 233 of the 387 senior day students. In 1937 the College received permission to introduce a similar course for older women.² The City of London College was unable to develop part-time day professional courses. In 1932, however, a scheme was started for young Swedish men and women to attend on a part-time day basis for instruction in language and general subjects, and during the 'thirties the arrangement was gradually extended to other nationalities.³

The pattern of growth of evening work at the College was similar to that of the day courses with a period of marked expansion from about 1926 with a short decline lasting about two years from the session 1931-32. The largest proportion of the overall increase in student enrolments was in the area of professional studies such as accountancy, law and banking, again with the College concentrating upon the more advanced work. Between the sessions 1925-26 and 1933-34 a fourfold increase occurred in student hours devoted to advanced accountancy courses, and a more than fivefold increase in banking.⁴

-
1. L.C.C.EO/HFE/5/195 Report of H.M. Inspectors on the City of London College, July, 1935, pp.5-7.
 2. L.C.C.EO/HFE/5/45 J.W.Ramsbottom to the Education Officer, 23rd March 1937
 3. Report of H.M. Inspectors on the City of London College, op.cit., p.5.
 4. Ibid., p.16.

The College also came to pioneer some courses such as those leading to the examinations of the Advertising Association and the Sales Managers Association.¹ Instruction in commercial products was first started in 1910 with classes in textiles, but during the interwar period this pioneer work was expanded and by 1935 courses were available in tea, timber, rubber, sugar, iron and steel and the non-ferrous metals, and grain. At that time approximately two-thirds of each course was devoted to the scientific study of the commodity itself, the remainder of the time being given over to business methods and the geographical and economic aspects of the supply and consumption. Each course lasted two or three years and was only available on the basis of evening study.² Apart from instruction in professional subjects, courses of a more general nature were available including classes leading to the intermediate examination of the B.Com and the B.Sc(Econ), and in 1935 the College was given permission to offer tuition for the ordinary national endorsed certificate in commerce.³ A wide variety of modern language subjects was also made available.

Instruction in women's subjects

At the beginning of the interwar period three schools in London were concerned exclusively with instruction in women's subjects and a fourth, the Clapham Trade School, was opened in 1927. All four schools developed junior and senior day as well as evening classes, though in terms of student numbers the three smaller institutes relied much more heavily upon full-time junior instruction than the largest of the schools, the Barrett Street Trade School. Moreover, a large proportion, sometimes 50 per cent, of evening class students at the smaller institutes belonged to the respective junior department.

Bloomsbury Trade School for Girls was opened in 1907 as part of Morley College and was one of the first trade schools catering for full-time

1. Anon, op.cit., p.27.

2. Report of H.M.Inspectors on the City of London College, op.cit., p.33.

3. P.R.O. Ed.90/130 S.Laskey to G.F.Colton, 5th July, 1935.

junior technical scholars. The full-time senior work of the School was devoted to instruction in photography, a one year course begun in 1925.¹ The course though small, it had eight students in 1936-37, formed an important part of the overall scheme of instruction in technical subjects, being the only one of its type in London. Similarly, an evening class started in 1929 for photographers' assistants, and dealing with miniature work and the colouring of photographs, was allowed to continue, despite very low enrolments, its uniqueness being considered sufficient justification for running the course.² Other evening work at Bloomsbury included instruction in dressmaking, millinery, ladies' tailoring and lingerie and corset making.³ The Clapham Trade School, too, provided evening classes in needle subjects, and unlike Bloomsbury it also offered instruction in cookery.⁴ From 1928 Clapham developed a full-time senior course in tearoom cookery for women intending to become tea-room and restaurant owners, waitresses or cooks.⁵ The course was the first of its kind in London, though it was soon emulated by the Battersea and Northern polytechnics. A senior full-time course in millinery was developed at Hammersmith Trade School for Girls, as well as evening classes in ladies' tailoring, millinery, upholstery and cookery.⁶

The Barrett Street Trade School was opened in 1915 and, perhaps mainly because of its favourable position in central London, grew to be the largest of the trade schools for women, generally having a total enrolment at least three times greater than any of the other monotechnics specialising in

-
1. L.C.C.EO/HFE/4/131 Report of an Inspection of the Bloomsbury Trade School by the Council's Inspectors, October, 1937, p.1.
 2. L.C.C.EO/HFE/4/13 G.H.Gater to A.Crawley, 7th November, 1932.
 3. Report of an Inspection of the Bloomsbury Trade School, op.cit., p.5.
 4. L.C.C.EO/HFE/4/141 Report of H.M.Inspectors on the Clapham Trade School, March, 1933, p.7.
 5. L.C.C.EO/HFE/4/39 Report of an Inspection of the Clapham Technical School for Women by the Council's Inspectors, November 1937, p.1.
 6. L.C.C.EO/HFE/4/152 Report of H.M.Inspectors on the Hammersmith Trade School July 1930, p.11.

women's subjects.

Senior full-time day classes were started in hairdressing (1926), embroidery (1927), dressmaking (1927) and ladies' tailoring (1934). Hairdressing was frequently the most popular of these classes. In October 1929, for example, 37 students enrolled for the senior full-time hairdressing course compared with 19 in dressmaking and 7 in embroidery, though by 1935 dressmaking and hairdressing were about equal, but substantially ahead of other senior day classes. At first of one year's duration, all the senior courses were eventually extended by the addition of a second year. Hairdressing instruction concentrated mainly upon saloon work and by the late 1930's included manicure and beauty culture "since these are now recognised branches of the trade of which some knowledge is a necessity."¹ In addition to the senior full-time classes, part-time day classes, involving attendance for some eight hours a week for learners in dressmaking, embroidery or ladies' tailoring workrooms, were developed and appear to have been a left over from the day continuation school scheme.²

Evening classes were conducted in all of the trade subjects in which instruction was available during the day. In addition, however, a special course of evening lectures dealing with textile fabrics was started in 1923 for salesmen and saleswomen and attracted almost 600 students.³ The success of these classes encouraged the School to expand the range of subjects dealt with and assistance was given by the education committee of the London Employers' Association by arranging for an examination at the end of each course. Eventually, however, the range of subjects became so wide that the Association could no longer provide this facility.⁴ These lectures continued

-
1. L.C.C.EO/HFE/4/5 Report of an Inspection of the Barrett Street Technical School by the Council's Inspectors, February 1937, p.9.
 2. L.C.C.EO/HFE/1/1 Barrett Technical School, Annual Report, 1921-22.
 3. L.C.C. EO/HFE/4/2 Consultative Committee on Technical Education for Distributors, Annual Report, 1929-30.
 4. L.C.C.EO/HFE/4/2 G.H.Gater to H.Kay, 2nd February, 1932.

to attract large enrolments throughout the thirties, though towards the close of the interwar period some of them were removed to the School of Retail Distribution.¹

The School of Retail Distribution

The School of Retail Distribution owed its origin to the compulsory day continuation scheme. After the Council discontinued its compulsory day continuation schools in 1922, the Westminster day continuation School, as the Institute was then known, continued on a voluntary basis.² An education committee to help foster the development of the School was formed by the Incorporated Association of Retail Distributors and part of the work of this committee was to direct suitable prospective employees to the School with the assurance of employment after the satisfactory completion of the course.³ The work of the School differed from that of other voluntary day continuation schools in that students began to attend in the evening and by the session 1928-29 approximately 200 evening students were in attendance with the result that the Council felt obliged to transfer evening classes to a nearby evening institute since the constitution of a day continuation school did not allow for this type of work, though the evening work still remained under the direction of the principal of the Westminster Day Continuation School.⁴ With the growing popularity of the School, the Council decided to change its status to that of a technical institute, to which the Board of Education agreed in 1929,⁵ so that from the session 1929-30 the institution became known as the School of Retail Distribution. The School thus became the first monotchnic in its field.

Evening classes were developed to meet the needs of men and women in the distributive trades and included a three years' course in retail

1. L.C.C.EO/HFE/4/3 J.W.Bispham to B.Ingram, 28th July 1939.

2. L.C.C.EO/HFE/4/145 Report of H.M.Inspectors on the School of Retail Distribution, May 1932, p.1.

3. P.R.O.Ed.82/89 E.M.Rich to the Secretary of the Board of Education 1st June 1929.

4. Ibid.

5. P.R.O. Ed.82/89 G.G.Williams to the L.C.C. 17th June, 1929.

distribution (drapery and outfitting) in which students prepared for the examinations in retail distribution of the City and Guilds of London Institute, and a two years' course in furniture and furnishing which aimed at acquainting students with the historical background of both subjects and instruction in materials and methods of manufacture.¹

Initially day-time instruction was limited to part-time senior work for boys and girls and full-time instruction over two years of the junior technical school type. In 1932, however, a one year senior full-time course was started which aimed at introducing the student to the general problems of the retail trade and was directed toward an examination set by the Incorporated Association of Retail Distributors.² In the case of both senior day and evening classes, however, the School found it difficult to develop its courses, perhaps in part because there was some disillusionment during the 'thirties with the value of education for distributors, but also because of competition from the short evening courses held at the nearby Barrett Street Trade School. These courses received the support of the trade and, according to the principal of the School of Retail Distribution, had virtually come to be "the recognised method of training for retail distribution."³ The principal complained that the short courses at Barrett Street were inadequate as a proper training for the distributive trades, but it was not until 1939 that Barrett Street agreed to relinquish some of its special evening lectures.

The Smithfield Meat Trades Institute.

The Smithfield Meat Trades Institute, which opened as a technical institute in 1931, had its origin in the classes for persons engaged in the meat trades conducted at the Battersea Day Continuation School.⁴ In 1927

-
1. Report of H.M. Inspectors on the School of Retail Distribution, op.cit., p.12.
 2. P.R.O.Ed.82/89 G.G.Williams to London County Council, 5th July 1932.
 3. L.C.C.EO/HFE/4/3 Report Submitted on Technical Education for the Distributor by the Principal of the School of Retail Distribution, 28th June 1934.
 4. L.C.C.EO/HFE/4/168 Report of H.M. Inspectors on the Smithfield Institute, July 1931, p.1.

these classes, together with similar ones at a nearby evening institute, were transferred to new premises in Great Saffron Hill. Although officially an evening institute, the Great Saffron centre was attended by part-time day students and a number of day continuation pupils, the latter being nominally attached to the City Day Continuation School.¹ In the first year of its activities, the Great Saffron centre attracted an enrolment of 786 students, and this did not include the day continuation pupils. In the following year, 1928-29, enrolments increased to over 850, and such was the success of the School that discussions were opened with the trade which led to its change of status to that of a full technical institute.² During the 1930's the Institute developed junior and senior part-time day classes and evening classes, as well as instruction of a junior technical school nature, but no full-time senior classes were introduced. An important feature of the part-time day work was the fairly large body of apprentices sent by the Co-operative societies. In 1938-39 the Royal Arsenal Co-operative Society sent 150 of its apprentices for four hours instruction a week at the Institute and the London Co-operative Society sent a further 50 apprentices for the same period each week.³ The classes included general subjects and science as well as instruction in meat commodity. Apprentices from other firms also attended the Institute, though towards the end of the 'thirties their numbers declined.⁴ Similar classes were held in the evening, and from time to time classes in particular aspects of the meat trade, such as refrigeration and packing house practice, were introduced. However, an attempt to introduce the slaughtering of animals on the premises to illustrate the use of bye-products was not allowed by the L.C.C. This was unfortunate, said the principal, since "Past experience in the School has shown that there is a crying need for this instruction in the Greater

1. L.C.C.EO/HFE/4/91 Higher Education Sub-Committee Agenda, 20th March 1930.

2. Ibid.

3. L.C.C.EO/HFE/4/168 The Smithfield Institute, Report by the Principal and Chief Commodity Instructor, February, 1940, p.7.

4. Ibid.

London trade."¹ The senior part-time day course involved attendance for fifteen hours each week and, though small, its record number of enrolments was 29 in 1938-39, attracted boys of a high general standard of education who were aiming at the more responsible positions in the trade.² In addition to their teaching commitments, the staff of the Institute assisted the trade with general day to day problems. Writing in 1939, the Institute's principal claimed that "Hardly a week passes without problems being submitted to Members of the Scientific & Commodity staff by members of the Meat Industry."³ Indeed the Institute appears to have gained a high reputation even in the international field, frequently being visited by overseas representatives of the meat industry.⁴

Shoreditch Technical Institute

The Shoreditch Technical Institute was opened in 1899 with the primary aim of preparing students for the various branches of the furniture trade, Very little information relating to its development during the interwar period has survived, although there is sufficient material to obtain an overall view of the type of courses that were introduced.

In January, 1901, the Institute opened a junior technical school, the first of its kind in London, and this contributed to its early success which necessitated the construction of new accommodation, opened in 1905.⁵ Evening classes at the Institute were consistently well attended, attracting 562 students in 1933-34, and provided instruction in woodwork, cabinet-making, decorative metalwork and upholstery.⁶ More senior work was also conducted in the evening which aimed at assisting those students who intended to enter the

1. L.C.C.EO/HFE/4/169 Principal to E.M.Rich, 11th February 1935.

2. The Smithfield Institute, Report by the Principal and Chief Commodity Instructor, op.cit., p.8.

3. L.C.C.EO/HFE/4/90 The Smithfield Institute, Annual Report, 1938-39.

4. Ibid.

5. C.T.Millis, Education for Trades and Industries, op.cit., p.121.

6. L.C.C.EO/HFE/4/105 Report of an Inspection of the Shoreditch Technical Institute by the Council's Inspectors, November 1933, p.23.

higher positions in the furniture industry. A special feature of evening class work was a handicraft course preparing students for the Handicraft Teachers' Examinations of the City and Guilds of London Institute, the main centre for such instruction in London. The senior day work of the Institute centred around a three year full-time course for designers and others engaged in drawing office work¹ and a two years' full-time course begun in 1932 for students preparing to enter the executive branches of the industry.² Both senior day courses appear to have attracted comparatively few students, though their work was regarded by the L.C.C. officers as extremely valuable.

1. P.R.O. Ed.90/159 Statement of work to be conducted in the Shoreditch Institute as a College of Further Education, T.98076 B/19 5th October, 1933.
2. Report of an Inspection of the Shoreditch Technical Institute, op.cit., p.22.

CHAPTER SIX

The London Junior Technical Schools 1918-39

The overall development and general characteristics of junior technical schools has already been described.¹ The London junior technical schools were among the first of their type and often formed the model for similar provincial institutions.² The first of the London schools was that at the Shoreditch Institute, opened in 1901 and which provided instruction for boys entering the woodworking trades. This school was soon followed by the opening of junior technical schools of engineering at Paddington and Poplar, and by 1911 there was a total of 14 junior technical schools for boys in London.³ The first junior technical or trade school⁴ for girls was that at Borough Polytechnic, specialising in the techniques of waistcoat-making. The schools proved quite popular and just after the First World War there was another period of expansion so that by 1926 there were 19 junior technical schools for boys in London and 8 for girls.⁵ By the close of the interwar period the total had increased to 34, 20 of which were for boys, 13 for girls and one, that at the School of Retail Distribution, was for boys and girls.

1. See p.20.

2. L.C.C.EO/HFE/1/104 Report of H.M. Inspectors on the London Junior Technical Schools for Boys, July 1928 p.1.

3. Ibid., p.2.

4. The nomenclature of the schools was regularised in 1935 when any full-time junior technical course was designated as a junior technical school, even though they might be conducted under the aegis of the same institution. Prior to this time the terms trade school and junior technical school were sometimes used as if they were synonymous and sometimes a different connotation was given to one or the other. L.C.C. Education Committee Minutes, 10th July 1935, p.329.

5. This excludes the two junior schools of commerce. L.C.C. Education Committee Minutes, 10th March, 1926, p.178.

Writing in 1928, H.M. Inspectors took the view that the decline of apprenticeships in London and the consequent scarcity of trained workers, was the principal factor encouraging the L.C.C. to develop trade schools.¹ This view was similar to that of Dr.C.W.Kimmins, one-time L.C.C.Chief Inspector, who in 1911 emphasised that the growth of the trade school was due to "the changed conditions of modern industry, and the total disappearance in some, and the gradual disappearance in others, of the apprenticeship systems in many of the London industries."² At the same time, however, the junior technical schools enjoyed the support of the Council's officers and this was probably a major reason for their expansion. In a report to the Polytechnics and Evening Schools Sub-Committee in 1907, Sir Robert Blair praised the valuable part trade schools played in the London Scheme of Education and expressed the view that their range should be extended and that the Polytechnics might contribute by providing staff and accommodation for such classes.³ Blair's successor as Education Officer, G.H.Gater, also appears to have supported the schools. In submitting his own report to the Higher Education Sub-Committee on the Report of H.M.Inspectors upon trade schools on the Continent, Gater added a marginal note to the draft copy in which he observed that "It is often said in England that the British workman is the best in the world. There is no guarantee that he will remain so unless our system of training craftsmen is kept abreast of the times."⁴ Indeed, the tone of the Education

-
1. Report of H.M.Inspectors on the London Junior Technical Schools for Boys, op.cit., p.1.
 2. C.W.Kimmins 'Trade Schools of London', Educational Handbook, vol.111 1909 No.13, p.110. Quoted by V.J.Cooch, A Sociological Interpretation of the Development of Technological Education in England, France and Germany During the Twentieth Century (Unpublished Lond. Ph.D.thesis 1955).
 3. L.C.C.EO/HFE/1/10 Report by the Education Officer to the Polytechnics and Evening Schools Sub-Committee, 11th July, 1907, p.2.
 4. L.C.C.EO/HFE/1/17 Draft copy of G.H.Gater's Report to the Higher Education Sub-Committee on the Report of H.M.Inspectors on Trade Schools on the Continent, 24th November, 1932.

Officer's report as a whole was highly complimentary of the work done by the London junior technical schools.

Outside London the junior technical schools never became so specialised as in the Capital, and usually a more generalised course for entry into a variety of forms of technical employment was provided. Even so, the London engineering schools tended to be less keenly specialised than most of the other institutions, with more emphasis being put upon the underlying scientific principles.¹ Nevertheless, the aggregation of a large industrial and commercial population in London permitted the junior technical schools as a whole to concentrate upon a very narrow subject area. The practicability of specialised junior technical schools in London but not in the provinces, was recognised by Charles Trevelyan, then President of the Board of Education, when, in 1924, he prepared a memorandum for the Cabinet on how to increase the supply of trained recruits to the building industry. Outside of London, he argued, the general junior technical school engineering course was quite adequate for the potential building workman, but in London it was necessary to provide separate junior schools of building.² The London trade schools, with their specialised approach, had more in common with Continental trade schools than with those in the remainder of the country. By the close of the interwar period the London junior technical schools provided courses in engineering and allied trades; building trades (carpentry, bricklaying, plumbing, etc.); motor body and carriage building; motor and aero metalwork; navigation; printing and book binding; photo-engraving; furniture and cabinet making and woodwork; painting and decorating; plastering; wood carving; cooking (chefs); restaurant trainees; meat trade; boot and shoe making; tailoring; hairdressing; rubber trade; musical instrument-making and radio;

1. Report by H.M. Inspectors on the London Junior Technical Schools for Boys, op.cit., p.3.

2. P.R.O. Ed.24/1868 Memorandum by the President of the Board of Education to the Cabinet on Training for the Building Industry, 29th January, 1924.

and retail distribution. Of these the most numerous schools were those for engineering with 7 and building with 4. Courses for girls became available in dressmaking, both retail and wholesale; embroidery (hand and machine); hairdressing; lingerie and corset-making; millinery, ladies tailoring; men's ready-made tailoring; waistcoat-making (retail); upholstery photography; laundry; domestic employment as cooks, housemaids, parlour maids, nursery maids; and retail distribution. Statistics relating to the relative popularity of different junior technical school courses were collected as evidence for the Malcolm Committee on Education and Industry and Trade, and highlight the importance of engineering for boys and dressmaking for girls.¹

<u>Schedule of trades</u>		<u>Numbers in attendance 1925</u>
<u>Boys</u>	Engineering	915
	Photo-engraving, etc.	70
	Building trades	417
	Furniture making	121
	Book production	76
	Silversmithing	16
	Professional cooking (chefs)	107
	Waiters	33
	Musical instrument trades	80
	Rubber trades	36
	Tailoring	58
	Boot and Shoe	10
<u>Girls</u>	Cookery	43
	Dressmaking	467
	Embroidery	118
	Hairdressing	55
	Ladies' Tailoring	257
	Lingery	20
Millinery	135	

1. L.C.C. Education Committee Minutes, 10th March, 1926, p.178.

Schedule of TradesNumbers in attendance 1925

Photography

38

Upholstery

123

A similar breakdown of course statistics was not attempted again, though, despite the addition of new schools after 1925, it seems likely that the relative position of different subjects changed comparatively little in succeeding years. The above table excludes the commercial schools which, although accounting for some 500 students in 1925, became less important after the closure of the junior commercial schools at the City of London College and the Regent Street Polytechnic. The remaining junior commercial school at Wandsworth Technical Institute continued to admit students, but, according to G.H.Gater, there was no justification for an extension of this type of school since "there is not a sufficient demand for the facilities offered."¹ Perhaps in part the lack of success of the junior commercial school in London was the competition from the central schools for by 1932 the annual output of these schools with a commercial bias was about 5,000 students.²

The usual length of course for boys was three years and two years for girls. The general education of the student was continued, although in the second and third years subjects such as history, English, science and mathematics became relatively less important in terms of hours while technical subjects became correspondingly more important. The table below shows the allocation of time to the different subjects at the School of Photo-Engraving and Lithography in 1929.³

-
1. G.H.Gater 'A descriptive account of commercial education in London with special reference to developments since the war', International Congress on Commercial Education, 1932, p.660.
 2. Ibid.
 3. Report of an Inspection of the School of Photo- Engraving and Lithography, op.cit.,p.2.

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>
Trade	10	11	17 hours
Science	6	5	3 "
Art	6	6	3 "
English and Maths	6	6	5 "
Physical Exercises	2	2	2 "

In the junior technical schools for boys about 50 per cent of the time was normally spent on trade subjects and sometimes as much as 75 per cent in the case of girls.¹ At the Newcomen Domestic Trade School, which prepared girls for domestic employment, a complete 2½ days per week was spent outside the classroom on work of a practical nature.² In 1924 H.M. Inspectors described the daily routine at the Westminster School for Waiters:

"From 9 to 11 o'clock classroom instruction is given, from 11 till 12 the boys are engaged every day in pantry work and the preparation of the restaurant. An interval of three-quarters of an hour is then allowed for lunch and recreation. From 12-45 till 2.30 the boys are engaged in the service of meals and in clearing up. At 2.30 classroom instruction is resumed carried on till 5 p.m. Altogether 13½ hours per week are spent in restaurant work, 6 are devoted to French, 5½ to English subjects and Arithmetic, and 2 to Physical Exercises."³

Such practical experience could include work outside of the school altogether. For example, at the Hammersmith School of Building and Arts and Crafts selected senior students were allowed to complete part of their courses

-
1. Draft Copy of G.H.Gater's Report to the Higher Education Sub-Committee on the Report of H.M. Inspectors on Trade Schools on the Continent, op.cit.
 2. L.C.C. EO/HFE/5/87 Report of an Inspection of the Newcomen Domestic Trade School for Girls by the Council's Inspectors, April, 1935, p.3.
 3. Report of H.M. Inspectors on the Westminster Technical Institute, 1924, op.cit., p.5.

under the supervision of local building firms. Officials at the Board of Education were very much in favour of this type of arrangement, one of them noting that "A similar scheme inaugurated experimentally a few years ago by the School of Retail Distribution in conjunction with certain large stores proved highly successful and has become part of the regular machinery of that school."¹ Yet, although the ethos behind the development of the junior technical school was that recruits would be produced for the production side of industry, in practice a considerable portion of the output of the schools appear to have gone into the non-artisan sphere of economic life. In 1927 H.M. Inspectors noted that only about 56 per cent of the students who passed through the junior technical school of building at Brixton took up practical work as a skilled craftsman the remainder going into office occupations.² In 1940 the principal of the Smithfield Meat Trades Institute noted that boys from the junior school frequently entered Smithfield Market as office workers and eventually worked their way up to become cashiers or junior salesmen.³ If a person left a junior technical school as a craftsman there was no guarantee that he would remain in that capacity for the rest of his working career. In 1934 Dr. T.J. Drakely, the principal of the Northern Polytechnic, noted of the student who completed the building trades school course that few "remain craftsmen for the whole of their careers."⁴ In their report of 1928 upon the London trade schools H.M. Inspectors drew attention to the fact that junior technical school scholars sometimes rose to hold important positions as managers, chief engineers, research workers and heads of department.⁵ By accident or design,

1. P.R.O. Ed.98/92 W.S.P. to Briggs, 31st May, 1935.

2. Report of H.M. Inspectors on the School of Building, op.cit., p.37.

3. The Smithfield Institute, Report by the Principal and Chief Commodity Instructor, op.cit., p.8.

4. L.C.C. EO/HFE/5/114 Special Report by the Principal of the Northern Polytechnic upon the Development of the Polytechnic's Trade Schools 14th December, 1934, p.2.

5. Report of H.M. Inspectors on the London Junior Technical Schools for Boys, op.cit., p.17.

therefore, some junior technical school courses were not of the strictly artisan type. A rather extreme example of this was the junior technical school course for boys at Woolwich Polytechnic which appears to have been developed as a close substitute to the normal academic secondary school course. In their report of 1936 upon the school, H.M. Inspectors emphasised that there was "a conflict of aims brought about by an attempt to provide instruction which might lead to Matriculation. Such an orientation of the curriculum is unsound and if unchecked will ultimately destroy the essential feature of the School."¹ The Council's Inspectors welcomed the criticism, hoping that it would curtail any similar development in the future.² On the other hand certain courses were designed specifically for non-craft students. At Brixton School of Building, for example, all students shared a common first year which included building construction, workshop practice and building science, but in the second and third years the students were divided between such craft courses as bricklaying, plumbing and plastering, and special courses for those intending to enter architects', builders' and surveyors' offices.³ Similarly, in 1934 Dr. Drakely, referring to the building trades school of the Northern Polytechnic informed E.M. Rich that "the training the boys receive renders them suitable for employment not only as craftsmen but as draughtsmen in many of the allied industries."⁴ This was a policy which the Council's officers appear to have endorsed. For example, in their report upon the Cordwainers' Technical College, published in 1935, the Council's Inspectors urged the College authorities to extend the junior technical school course for recruits to the boot and shoe trade from two to three years thus providing time to enable the boys to become better fitted to fill the post of supervisor, manager or foreman.⁵ Moreover,

-
1. L.C.C. EO/HFE/5/259 Report of H.M. Inspectors on the Boys' Junior Technical School of the Woolwich Polytechnic, April, 1936, p.9.
 2. L.C.C. EO/HFE/5/259 B.Ingram to J.W.Bispham, 5th May, 1936.
 3. Report of an Inspection of the School of Building, op.cit., p.3.
 4. L.C.C. EO/HFE/5/109 T.J.Drakely to E.M.Rich, 16th October, 1934.
 5. Report of an Inspection of the Cordwainers' Technical College, op.cit., p.4.

in 1934 E.M. Rich advised the principal of Borough Polytechnic that part of the function of trade schools for girls was to help them eventually to rise to managerial positions.¹ Thus without any apparent direct change of policy the trade schools were allowed to become more flexible in their course structure. At the same time, however, the schools were not allowed to stray too far from orthodoxy. In 1934 Dr. Drakeley requested that he be allowed to recruit younger students who would follow a larger course with a view to taking up professional appointments in the offices of building contractors, architects' or surveyors. J.W. Bispham was not impressed by Dr. Drakeley's arguments and informed him that "If the new course were too academic it would only be duplicating the provision made in the secondary and central schools. I think that to "educate" the boys as distinct from providing them with the "grammars" of a number of academic subjects and also to earn the confidence of employers boys in junior technical schools should have a proper proportion of technical training in preparation for specific trades."²

The normal age of entry for boys to the London junior technical schools was between 13 and 14 and between 13½ and 14½ in the case of girls. The comparatively late age of transfer was intended to avoid the dangers of early specialisation and yet enable the student to join industry at a sufficiently early stage to be incorporated into traditional works training schemes. During the early 'twenties the Authority was rebuked for allowing students to join a junior technical school course below the minimum age of entry,³ and when from August 1927 the age at which a student could be recruited was left to the local education authority,⁴ London kept to the established precedent. In 1934 Dr. Drakeley attempted to establish 11 as the age of recruitment for his junior schools of building, rubber and music trades on

1. L.C.C. EO/HFE/5/30 E.M. Rich to J.W. Bispham, 20th July, 1934.

2. L.C.C. EO/HFE/5/114 J.W. Bispham to T.J. Drakeley, 25th February, 1935.

3. P.R.O. Ed. 98/91 H.W. to Bentliff, 28th June, 1921.

4. P.R.O. Ed. 98/102 H.W. to G.G. Williams 20th July, 1926.

the grounds that at 13 the best students had already decided upon their future careers so that trade schools generally received the poorer student.¹ This, however, was firmly rejected by the Council's officers and E.M. Rich, the Education Officer, informed one of his assistants that "I am sorry Dr. Drakely has proceeded so far with this."² The officials of the Education Officer's department of the London County Council appear in practice to have been more concerned that students should conclude their course soon after reaching the age of 16 since otherwise it could make it difficult for them to get suitable employment. This was a particular problem in the printing industry since the Masters' Federation had an agreement with the trade union for boys to be apprenticed on their 16th birthday. Referring to the placing of pupils from the School of Photo-Engraving and Lithography, J. Macdonald, one of the Council's Inspectors, noted that employment prospects were now much better, but added "Unfortunately, however, many of the remaining boys are over the age of sixteen and there still may be difficulty in getting them into jobs. The employers will probably not create difficulties but the unions may."³ Indeed the Council was most anxious to ensure that the employment prospects of successful students were favourable before a new junior technical school was initiated. In this capacity the Council's advisory committees played an important role. The opening of the girls trade school at the South East London Technical Institute was delayed, according to Rich, because "The Council's expert Cte on Needlework Trades had advised us that having regard to the state of the Trade it would be unwise to increase our output at present."⁴ When necessary Rich was also prepared to advise principals upon the scale of their intake in order to ensure adequate job opportunities for junior technical school leavers.⁵

1. L.C.C. EO/HFE/5/114 T.J. Drakely to E.M. Rich, 14th December, 1934.

2. L.C.C. EO/HFE/5/114 E.M. Rich to J.W. Bispham, 15th December, 1934.

3. L.C.C. EO/HFE/4/78 J. Macdonald to E.M. Rich, 16th November 1932.

4. L.C.C. EO/HFE/4/100 E.M. Rich to Rayment and Brown, 26th April, 1932.

5. L.C.C. EO/HFE/4/100 J. Macdonald to A.J. Bull, 10th December, 1932.

The age of entry for girls was slightly later than for boys and was related to the shorter length of course that was considered necessary for instruction in girls' subjects. In 1934, Dr. Ingall, the principal of Borough Polytechnic, requested that his junior technical school work for girls should be extended from two to three years. Miss Saunders, the Inspector in charge of women's subjects for the London Education Service, informed her superior J.W. Bispham, that a similar line was being taken by Miss Cox, principal of the Barrett Street Trade School, but that she personally was strongly against a three year course for girls. Her arguments were that unless accommodation was increased then fewer students would reach the market each year; that if girls joined the schools a year earlier this would involve premature specialisation and finally that from the evidence presented by the head of the junior technical school at Willesden Polytechnic parents themselves were generally not willing¹ to allow their daughters to attend a three years specialised course. This appears to have been the official attitude adopted by the Education Officers' Department for Dr. Ingall and Miss Cox were not permitted to develop three year courses for girls. Moreover, it was only in special circumstances that a course was allowed to cover less than two or three years. One such example was the one year course for Waiters at the Westminster Technical Institute which had been introduced in 1910 and which catered for older boys.² By 1933 the Institute authorities considered that a one year course was insufficient to provide a training which would equip boys to compete with waiters from the Continent. The waiters' course, therefore, became of two years duration, although in very exceptional circumstances some boys continued to be admitted for a one year course.³

The junior technical schools as institutions were on average larger in terms of student numbers in London than elsewhere. During the session

-
1. L.C.C. EO/HFE/5/30 H. Sanders to J.W. Bispham, 10th April, 1934.
 2. Report of H.M. Inspectors on the Westminster Technical Institute, 1924, op.cit., p.5.
 3. Report of H.M. Inspectors on the Westminster Technical Institute, 1936, op.cit., p.2.

1935-36 only 19 per cent of the junior technical schools in England as a whole contained more than 200 students.¹ While in London in the summer term of 1934 eight institutions possessed more than 200 students and this represented approximately 54 per cent of the total junior technical school complement. Furthermore, the average student enrolment for each institution in London was 157 students.² To some extent this is accounted for by the fact that one institution might have more than one junior technical school course. For the session 1932-33 for example, the music trades school of the Northern Polytechnic had a total complement of 44 students while the rubber trades school had 29 students and the building trades school 141 students.

The largest of the London schools tended to be those catering for the engineering industry. In the summer term of 1934 the boys section of the Borough Polytechnic junior technical school had an enrolment of over 300 students while the corresponding section of the Woolwich Polytechnic possessed a total student body of 246 pupils. Similarly, the engineering schools at Hackney and Paddington each possessed almost 150 students. The largest of the girls junior technical schools at that time was Barrett Street with 218 students, closely followed by the men's tailoring school at Shoreditch with 166 students. The smallest institutions at that time in terms of student enrolments were the School of Wood-carving with 13 boys and the South East London Technical Institute with 17 girls.⁴ With such large student intakes classes were often quite large, sometimes necessitating sub-division into smaller groups for practical work. For example, during the 1930's classes of the junior technical school for boys at Borough Polytechnic averaged between 32 and 35 boys so that they were usually split for workshop practice,

-
1. 'A Review of Junior Technical Schools in England', *op.cit.*, p.9.
 2. L.C.C. Education Committee Minutes, 10th March, 1926, p.178.
 3. P.R.O. Ed.90/141 Northern Polytechnic, Statement Concerning Junior Technical School Enrolment, 1926/27-1932/33.
 4. L.C.C. EO/HFE/1/22 Education Officer's Report to the Higher Education Sub-Committee, 9th May, 1935.

laboratory work and drawing.¹ On the other hand one of the disadvantages of a small enrolment, as was discovered at the Cordwainers' Technical College, was that the range of technical subjects was necessarily restricted since only a limited teaching staff could be employed.²

The overall development pattern of the London junior technical schools as reflected by enrolment figures shows only a very moderate growth throughout the interwar period as a whole. Although in percentage terms enrolment increased dramatically, in absolute numbers the increase was relatively modest. To some extent this was accounted for by the closure of the ~~junior~~ schools of commerce at the City of London College and the Regent Street Polytechnic, but these were made up for by the opening of junior technical schools in other academic areas. The London trade schools were highly praised by educational observers and frequent reference was made to the eagerness with which employers recruited junior technical school leavers. Yet many of the schools reported difficulties of recruitment and, from time to time, even of placing boys or girls. In writing to the Board of Education in 1923, H.A. Garratt, the principal of the School of Engineering and Navigation, Poplar, reported that "much difficulty is experienced in filling the School with London students and the present fees charged to persons residing outside the Administrative County of London appear to be almost prohibitive."³ Similar problems appear to have been experienced by other junior technical schools for only a few months earlier J.C. Smail, the Council's organiser of trade schools, had requested the Board of Education to allow students who upon completion of their course, had been unable to find employment to stay free of charge during the summer term. With the Board's permission, nine students remained at the

1. L.C.C. EO/HFE/4/130 Statement by the Headmaster of Borough Polytechnic Junior Technical School, 13th June, 1945.

2. Report of H.M. Inspectors on the Cordwainers' Technical College, 1929, op. cit., p.4.

3. P.R.O. Ed.98/102 H.A. Garratt to the Secretary of the Board of Education, 20th February, 1923.

School of Photo-Engraving and Lithography, but by October four of them had still not secured employment and a further request was made for them to be allowed to continue at the School. After the matter had been discussed by the Board's officials this request was acceded to.¹

The difficulty of recruitment to the junior technical school did not go unnoticed by the Board of Education officials or by those in the Education Office's department of the London County Council. In their report of 1930 upon the Hammersmith Trade School for Girls H.M. Inspectors referred to the school as "one of the examples of a phase of English education little known except to officials and experts."² Near the close of the interwar period H.M. Inspectors expressed the view of trade schools in general that "It is not exaggeration to say that in comparison with other types of school the Junior Technical School is almost unknown to the general public."³

Serious concern over the low level of recruitment to London's junior technical schools was felt by the Council's officials early in 1931, though it was not until 1935 that a substantial recruiting campaign was introduced by the Education Officer's department. Matters appear to have been brought to a head by a letter January 1931 from J.W. Bispham, at that time principal of the Borough Polytechnic, to E.M. Rich, in which the serious nature of recruitment to the Council's trade schools was stressed.⁴ After a meeting in March, 1931, between himself and the heads of the junior technical schools of Borough Polytechnic, and the Beaufoy and Wandsworth technical institutes Bispham further informed Rich that "The bulk of the entrants now received in junior Technical Schools came from a few elementary schools who

1. This correspondence is located in P.R.O. Ed. 98/86.

2. Report by H.M. Inspectors. Report on the Hammersmith Trade School for Girls, op.cit., p.10.

3. 'A Review of Junior Technical Schools in England', op.cit., p.14.

4. L.C.C. EO/HFE/1/12 J.W. Bispham to E.M. Rich, 29th January, 1931.

faithfully, year after year, send five to ten boys to compete for entry."¹ This approach by Bispham, together with the comparatively low enrolment figures of the early 'thirties, evidently created anxiety at County Hall and perhaps G.H. Gater's rather depressing words on the subject at the close of 1932 were a reflection of this." In a report to the Higher Education Sub-Committee Gater argued that "employers in London do not usually feel any sense of responsibility towards the technical school, they recruit the majority of their young employees direct from the elementary schools, and in times of depression it is sometimes difficult to secure any preference for the trade school trained boy or girl. There is, further, no general admission that the trade school trained student should have any better rate of pay than his untrained confrere."² Conferences were arranged at County Hall to discuss ways of increasing the flow of recruits and encouragement was given for school heads to collaborate more closely with the junior technical schools. However, the position failed to improve and in May 1935 the Higher Education Sub-Committee reported that "In view of the efficiency of the junior technical and trade schools and their success in suitably placing their pupils in appropriate trades, we are of opinion that the flow of pupils to these schools from senior schools, central schools and secondary schools is less than might be expected."³ In view of this the Council agreed to revise the scholarship system for junior technical school students with the hope of stimulating recruitment and perhaps was a factor in the substantial increase of junior technical school enrolments during the 1936-37 session.

The comparative lack of success in terms of total enrolments of the junior technical schools was disappointing for their advocates since they

-
1. Ibid., J.W. Bispham to E.M. Rich, 31st March, 1931.
 2. Draft copy of G.H. Gater's Report to the Higher Education Sub-Committee on the Report by H.M. Inspectors on Trade Schools on the Continent, op.cit.
 3. L.C.C. Education Committee Minutes, 15th May, 1935, p.227.

appear to have provided a useful service within the overall scheme of education in London. The Times praised the opening of the Bloomsbury Trade School for Girls for widening the job opportunities for young girls. When the School was opened in 1924 The Times remarked that the courses in photography and lingerie were especially good for girls who "do not care for needlework and are too sensible to go into the overcrowded world of clerks."¹ Evidently The Times was also satisfied with the output of the schools for in the following year one of its correspondents remarked that "There is little doubt that the entry of highly trained and cultivated girls into these trades is one factor which is enabling London to hold its own with Paris in all matters relating to women's interests."² The girls Trade Schools in London tended to introduce a certain amount of flexibility into their courses so that, in the needle trades in particular, the potential employee was adaptable when, for example, there was a sudden change of fashion. In 1935 the Chief Inspector at the L.C.C. viewed the trade schools as a major weapon in combating unemployment by making people more adaptable.³ In general the curriculum of the junior technical schools appears to have gone largely unauthorised, although in their report of 1928, upon the London schools for boys, H.M. Inspectors advised that the engineering schools should devote more time to the newer techniques generally, and in particular the uses of electricity.⁴

So far as the school authorities were concerned, the principal advantage of the junior technical school was that it enabled a nucleus of full-time staff to be employed who could also perform a certain amount of evening duty thus enabling part, at least, of the evening work to have some sense of identity with the institution as a whole. When the proposed junior

1. The Times, 3rd July, 1924, 16 g.

2. The Times, 18th September, 1925, 7 e.

3. L.C.C. EO/HFE/1/22 Chief Inspector's Report on the Junior Technical Schools, 1935, p.4.

4. Report of H.M. Inspectors on the London Junior Technical Schools for Boys, op.cit., pp.13, 14.

technical school for boys at the South East London Technical Institute was being discussed by the Board's officials in 1934 one of the main arguments put forward in support of such a school was that it would enable the principal to maintain a nucleus of full-time staff.¹ This was perhaps not a very important matter for the polytechnics, but for the smaller institutes it was crucial since it enabled specialist teaching staff to be recruited and enabled more economic use to be made of expensive capital equipment. Moreover, since many of the junior technical school students went on to evening and even full-time instruction at the institutes a steady demand for more advanced work was maintained. In their report of 1927 upon the provision for engineering education in London, H.M. Inspectors emphasised that "Judged simply from a general educational standpoint or from that of entry upon an engineering apprenticeship the schools are undoubtedly successful but viewed as a starting point for further study undertaken during apprenticeship their success is remarkable."²

The Clark committee which reported in 1937 upon the position of technical education in the day school system of Scotland regretted the absence of the junior technical school in the Scottish education system, noting the link that they could help forge between industry and education.³ The potential of the trade school was clearly very considerable and in the next two chapters an attempt will be made to analyse the reasons why both the junior technical school and London's technical education in general failed to develop and why when growth occurred it should have been more rapid in certain areas than in others.

1. P.R.O. Ed.98/87 F. Bray to G.G. Williams, 20th December, 1934.

2. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.24.

3. Report of the Advisory Council to the Scottish Education Department as to the position of technical education in the day school system of Scotland (Clark Report), 1937, p.26.

CHAPTER SEVEN

The Influences upon Course Innovation and Development, 1.

1. Factors outside the education system.

A wide variety of factors outside the education system served to promote or retard the overall progress of particular courses and this chapter seeks to identify and relate them, rather than to attempt a quantitative assessment of each one. Broadly, these factors relate to the view taken by industry and commerce and their representatives to the value of a vocational education and also to the attitude adopted by parents and students.

A. The view of industry and commerce

The comparatively slow expansion of technical education during the interwar period is commonly attributed to the lack of support provided by industry and commerce. According to Cotgrove, "The underlying factor, then, behind the stagnation in technical education in the interwar years, and the expansion since 1945, would seem to be the changing attitude of industry towards research and the increasing application of science to production."¹ The old attitude of which Cotgrove writes related to the importance attached to practical experience as a qualification for management. Writing of the interwar period, Professor Coleman argues that "In England the vogue of the practical man, although it had perhaps passed its heyday as a consequence of the shocks administered by the 'Great Depression,' still remained powerful. When it was grafted, at a different point in the social scale, on to another powerful vogue, that of the intelligent amateur, the man well-read in classics who could turn his mind to all problems, then the result was to ensure that science and business came together only in exceptional circumstances and rarely with harmonious consequences."²

1. S. Cotgrove, op.cit., p.100.

2. D.C. Coleman, Courtauld's. An Economic and Social History (1969), 11 p.35.

It was not until 1937 that Courtaulds had a scientist as a director in charge of research.¹ The slow movement of trained technologists into industry was recognised and deplored by the Percy Report of 1945.² Indeed, eighteen years later the Robbins Report argued that only in recent years had there been a general interest in the value of education and a "growing realisation of the country's economic dependence upon the education of its population."³ Similarly, in the field of education for craftsmen, technicians and semi-skilled workers the English tradition was said to have been against formal institutionalised instruction in manual skills.⁴ According to Lord Eustace Percy, demand tended to come from potential students rather than from the employers.⁵ Nevertheless, the response, especially of industry, to the possibility of technically trained personnel varied greatly between different industries and between firms within particular industries, and also from one geographical region to another. In an attempt to account for these variations it therefore seems valid to view the ways in which the nature of industry and commerce could influence the structure of vocational education.

(a) The management of industry and commerce

(1) Senior management

Some of the most successful schemes of co-operation between business and technical education occurred when senior management was personally involved. One of the outstanding examples in London was the influence of David Milne Watson and Frances Goodenough, respectively Governor and Sales Director of the Gas Light and Coke Co. Ltd. The arrangement between the Company and the Westminster Technical Institute has already been described.⁶ As chief executive of the

1. Ibid.,,p.227.

2. Ministry of Education, Report of a Special Committee on Higher Technological Education,(1945), p.5.

3. Committee on Higher Education, op.cit.,p.5.

4. A.Abbott, Education for Industry and Commerce in England (1933), p.61.

5. E.Percy, Education at the Crossroads, (1929), p.66.

6. See p.87.

company, Milne Watson promoted a progressive policy, both in research and training. Despite acquiring his own knowledge of the gas industry through practical experience, Milne Watson fully appreciated "The value of the apprenticeship scheme in training boys for the Industry."¹ Milne Watson eventually became President of the Association for Education in Industry and Commerce.

The Smithfield Meat Trades Institute owed much of its early development to Mr. R. Hammett of Messrs. Hammetts Ltd., for he encouraged his young employees to attend relevant classes.² The School of Retail Distribution benefited from the interest of F.R. Chitham, a director of Messrs. Harrods and Sir George Schuster, Chairman of Allied Suppliers and of a large chain of retail provision shops which included the Home and Colonial, Liptons, Maypole, Meadow Dairies and so on. It was at his suggestion in the mid 'thirties that the Institute began to operate classes for the firm's employees.³ Prior to the classes beginning, the firm arranged to pay for a member of the School's staff to spend a period of six months on secondment in order to make an assessment of the kind of instruction required. The experiment proved very successful and similar classes were introduced for the firm's employees in other parts of the country.⁴

With the exception of a few other individuals, however, the top flight of management appear to have taken little personal interest in the training of their employees. In 1932 F.R.Chitham informed Board of Education officials that the heads of businesses were too busy to interest themselves in questions of education and training but that "Certain large firms employed Staff Managers whose functions had developed considerably in recent years.

-
1. S.Everard, The History of the Gas Light and Coke Company 1812-1949(1949)p.324.
 2. The Smithfield Institute, Report by the Principal and Chief Commodity Instructor, op. cit., p.1.
 3. The correspondence relating to this scheme is filed under L.C.C.EO/HFE/4/43.
 4. L.C.C.EO/HFE/4/43 G.Schuster to J.W.Bispham, 8th December, 1937.

If the Staff Manager could be interested the Head of the firm would no doubt generally be willing to leave the matter to him."¹ Certain of these senior management personnel clearly did take an interest in training. For example, a number of the large London stores supported the central London trade schools. In manufacturing, too, firms such as British Thompson Houston, Osram, G.E.C., Sandersons and others sent some of their employees to technical institutes in London. Writing in 1911, A.E. Briscoe, L.C.C. Divisional Inspector for Technology, commented that "The present rising generation of works managers are usually technically trained men and are more ready than the older generation to appreciate the value of such training,"² It is, therefore perhaps surprising that this new breed of managers failed to play a more dynamic part in the interwar development of technical education in London. Perhaps in part this was due to losses caused by the First World War and perhaps also to the structure of firms operating within London itself, and to the attitude of lower management. The latter two possibilities will be considered later.

One of the ways of influencing management in its training policy was through trade associations. According to Chitham "There were usually one or two members who were interested, or who were capable of being interested, in such questions."³ The National Association of Master Bakers gave financial assistance towards the establishment and maintenance of a national school of bakery at Borough Polytechnic.⁴ The London Master Printers also helped financially in the development of printing classes in London and also made suggestions as to the type of courses that should be offered. The Incorporated Association of Retail Distributors gave support for the foundation of the School of Retail

1. P.R.O. Ed. 24/1884. Report of a meeting held at the Board of Education, 19th February, 1932.

2. L.C.C. EO/HFE/1/1 Typed Manuscript Review of the Period 1903-1911 by A.E. Briscoe, 20th April, 1911, p.16.

3. P.R.O. Ed.24/1884 Report of a meeting held at the Board of Education, op.cit.

4. Board of Education, 'Full-Time Day Courses in England and Wales for the Bakery and Confectionery Trades', Educational Pamphlet No.67 (1927), p.23.

Distribution.¹ As Secretary of the London Employers' Association, George Kay assisted with popularising the work of the London trade schools for girls.² Mr. Reeves Smith, managing director of the Savoy Hotel and Chairman of the executive of the Hotels and Restaurants Association, helped to promote and provide financial assistance for the Hotel School at the Westminster Technical Institute.³ In general, support for technical education seems to have been most pronounced in industries where trade associations flourished. Trade associations provided a channel of communication through which the L.C.C. officers were able to maintain contact with individuals known to be favourably disposed towards technical education, and the L.C.C. records make it clear that from time to time even the Education Officer could be personally involved. In a marginal note to J.C. Smail, George Gater expressed satisfaction of his recent meeting with Reeves Smith which had resulted in a promise of financial support from the Hotel and Restaurant Association for the Westminster Technical Institute, noting that "This is the very rapid result of my lunch at the Savoy."⁴ Gater's predecessor, Sir Robert Blair, had also been on personal terms with important London businessmen, including Milne Watson. The governing bodies of particular institutions and the advisory and consultative committees attached to the L.C.C. were another means of attracting the support of representatives of trade associations for technical education. A third way in which trade associations could be useful was that they sometimes possessed an education committee to which parties interested in education might be co-opted. This was the case with the Joint Industrial Council of Flour Millers. When the Schools of Engineering and Navigation introduced classes in flour milling in 1934-35 the principal, J. Paley Yorke, was invited to join the

1. P.R.O. Ed.82/89 E.M.Rich to Secretary, Board of Education, 1st June, 1929.

2. L.C.C.EO/HFE/2/11, Consultative Committee on Classes in Needle Trade Subjects, Minutes, 1924-29.

3. The correspondence relating to the work of Reeves Smith in this connection is filed under L.C.C. EO/HFE/1/83.

4. L.C.C. EO/HFE/1/83 G.Gater to J.C.Smail, 20th April, 1928.

education committee.¹

The channels of communication, however, were not always so free as theory might suggest. In 1911 A.E. Birscoe claimed that "The connection between the institutions and the trades concerned has not hitherto been so intimate in London as it is in the great northern towns."² This problem persisted into the interwar period. An undated memorandum (probably 1930), referring to the advisory sub-committees of the girls trade schools at Barrett Street, Bloomsbury, Clapham, Hammersmith, Paddington and Shoreditch, noted that although each school had more than one committee, the meetings were very irregular and there was a good deal of variation between committees in the interest taken in the activities of the schools.³ The Advisory Committee of the School of Engineering and Navigation consistently found it difficult to attract a quorum of members so that any decisions taken had to be confirmed at a later date. In 1925 the Education officer drew attention to the fact that some members hardly attended at all.⁴

The lack of formal contact between education and industry was seen in many quarters as a fundamental problem retarding the progress of technical education. In addressing the London Advisory Council for Juvenile Employment in 1925, Lord Eustace Percy, then President of the Board of Education, regretted that in his view, with few exceptions, there was very little contact between employers or employed in industry and the type of education given in schools. Moreover, the Malcolm Committee on Education and Industry concluded that the lack of communication between industry and education was a general

1. L.C.C. EO/HFE/7/36 Minutes of the Advisory Sub-Committee of the School of Engineering and Navigation, 27th June, 1935.

2. Typed Manuscript Review of the period 1903-11, op.cit., p.13.

3. L.C.C. EO/HFE/2/11. This Memorandum is located among the papers of the Consultative Committee on Class in Needle Trade Subjects, 1924-30.

4. L.C.C. EO/HFE/7/36 Minutes of the Advisory Sub-Committee of the School of Engineering and Navigation, 6th February, 1925.

problem and that part of the blame lay with the inactivity of the L.E.A.s.¹ The Committee recommended an extension of the advisory committee system, though as suggested above, the mere existence of such bodies did not guarantee the active co-operation of industry and commerce.

According to Briscoe, it was particularly difficult to obtain the services of businessmen in London since "The greater demands upon the time of employers and managers and the distances at which they live from their work makes it more difficult to obtain their services upon advisory committees and governing bodies."² At the same time, however, there seems to have been some suspicion of educationists and the educational process, a feeling that was not confined to London. Lord Eustace Percy described this attitude as "a kind of stubborn reluctance on the part of those concerned with employment to have any dealing with teachers or the schools."³ To some extent this view may have had its roots in the more practical approach to industrial development common in the nineteenth century, but in part it may have been related to a feeling of insecurity at a time when the relationship between industry, education and business success was increasingly being discussed. The abolition of the half-time system, the raising of the school leaving age and the attempt to introduce compulsory day continuation schools constituted a direct attack upon the liberty of the businessman and there seems little doubt that the fear of a renewed attempt to introduce compulsory attendance at continuation schools lingered for some time. In referring to enquiries that he had made relating to the Clerk Committee on the Provision for Engineering Education, one of the Board's Inspectors informed Chief Inspector Abbott that "I have found, at all the firms I have visited so far, a fear expressed that behind the Enquiry,

-
1. Report of the Committee on Education and Industry, op.cit., p.42.
 2. Typed Manuscript Review of the Period 1903-11, op.cit., p.13.
 3. P.R.O. Ed. 24/1274 Lord Eustace Percy to Sir Arthur Steel-Maitland, 22nd April, 1925.

there is a plot to re-establish compulsory day classes for their employees."¹ Furthermore, Abbott himself expressed the view that some businessmen felt that they were not going to allow themselves to be "talked down by fluent educational persons."² If, as Professor C.R. Darling claimed, a large number of the men who had made their mark in industry during the last forty years had left school "before 12 years of age and had sold newspapers"³ this attitude was perhaps understandable. Certainly the feeling seems to have existed among businessmen that educationalists found it difficult to appreciate the needs of the businessman. According to Goodenough, "employers have frequently been known to say that the educational world cannot think in terms of industrial needs."⁴ The Malcolm Committee suggested that this was one of the reasons why several large firms ran what amounted to technical colleges on their own premises.⁵ To Dr. Schofield, the Principal of Loughborough Technical College, the root of the problem was a clash between "the Schoolmaster with his pedagogic ideas and training on the one hand, and the Industrial Manager merely concerned with output and dividends on the other."⁶ Lord Eustace Percy evidently believed that blame for the lack of co-operation between industry and education lay with both sides for in 1927 he informed Sir Philip Cunliffe-Lister at the Board of Trade that "until recently, few industries have thought out what they require in the education of their employees and our Technical Institutes have

-
1. P.R.O. Ed/24/1878 J.T.C. to A. Abbott, 11th March, 1929.
 2. P.R.O. Ed.24/1884 A.Abbott to Secretary, Board of Education, 16th November 1928.
 3. A.Abbott, 'Education for Industry in England and some Continental Countries'; Journal of the Royal Society of Arts, Vol.LXXXI, No.4201, 26th May, 1933, p.650, 651. This comment was made by Professor Darling during the discussion which followed Abbott's paper.
 4. What Education is doing for the Gas Industry. Paper by Goodenough read by Mr. P. Alden to the Association for Education in Industry and Commerce at Birmingham, June, 1926, p.13.
 5. Report of the Committee on Education and Industry, op.cit., p.43.
 6. Association for the Advancement of Education in Industry and Commerce, Proceedings, Vol.IV, 1920, p.51.

consequently tended perhaps to take a more academic view of their functions."¹ The gulf between educationalists and businessmen of the kind described above could easily lead to resentment at any attempt to bring education and industry into closer relationship. With reference to the Goodenough Committee on Salesmanship, Mr. R.B. Dunwoody, the secretary of the British Association of Chambers of Commerce, informed Board of Education officials that "There was a feeling among members that Sir Francis Goodenough and his Committee were attempting to dictate to them, or at any rate to teach them how to run their own business."² A similar attitude may well have infiltrated advisory committees and have been a factor in the alienation of business and education.

Lower Management.

The training of craftsmen and the less skilled workers, however, frequently rested with lower management, especially foremen. Prior to the Second World War many of the functions now performed by middle management were in the hands of foremen. The appearance of labour officers, personnel managers and training officers has greatly reduced the significance of the foreman in relation to the training of young workers.³ Before 1939, however, men and women occupying this lower management position were strategically placed regarding control over works training and the supply of recruits to the technical institutes. The Clerk Committee observed that "In most large firms and many small ones the training is in the hands of a specially appointed person, frequently a foreman."⁴ Furthermore, the Committee's report added, "we think that possibly attention has been too exclusively concentrated on securing the co-operation of employers, though this is, of course, of vital importance. As we have said in Chapter III, we regard it as of the utmost importance to interest foremen in the work of the schools and to secure their

1. P.R.O.Ed.24/1875 Lord Eustace Percy to Sir Philip Cunliffe Lister, 5th October, 1927.

2. P.R.O.Ed.24/2884 Report of an interview between Board of Education officials and R.B. Dunwoody, 1st February, 1932.

3. P.W. Musgrave, The Economic Structure (1969), pp.87, 88.

4. Report of the Committee on Education for the Engineering Industry (Clerk Committee), 1931, p.12.

their sympathy with the arrangements made to enable young workers to attend part-time classes, whether in the day or in the evening. Every effort should be made to encourage foremen to visit schools and to see for themselves the work which is being done there, and also to secure their services on Advisory Committees."¹ The Guide to Employment for Boys and Girls in Greater London prepared by the London Regional Advisory Council for Juvenile Employment and published in 1938 makes it clear that in many industries foremen placed a crucial role in the training process.² This was particularly important in London where the apprenticeship system was rapidly declining so that outside training was of especial significance.

In 1911 A.E. Briscoe stressed how important it was for foremen to be impressed by trained students, adding that many of the younger generation of employers have had the benefit of a scientific training and the foremen are the old race of foremen to encourage the younger employees to attend classes, many of them go out of their way to help the lads in their employ in choosing suitable classes."³ Not all commentators, however, shared Briscoe's optimism. In 1937 The Times quoted J.Paley Yorke, the Principal of the School of Engineering and Navigation, as being puzzled by "the large number of students who asked them not to let it be known to their employers that they were attending classes."⁴ The correspondent added that Paley Yorke "was confident that there was a tremendous amount of interference by works foremen in the kind of studies that a youth was taking up." To Paley Yorke this "was a bad thing, and when they had got rid of it they would have achieved something."⁵ Paley Yorke was a

1. Ibid., p.28.

2. Ministry of Labour (London Regional Advisory Council for Juvenile Employment) A Guide to Employment for Boys and Girls in Greater London, 1938.

3. Typed Manuscript Review of the Period 1903-11, op.cit.,p.13.

4. The Times, 14th September, 1937, 10d.

5. Ibid.

highly successful principal and widely known in technical education as a committee man. It seems likely, therefore, that he was speaking not merely of his own experience at Poplar, but from his knowledge of a wider geographical area.

The foreman had at his disposal a variety of methods for discouraging the young employee from taking up institutionalised instruction, from outright refusal to the provision of overtime work. Moreover, according to Abbott, "one of the powerful motives impelling young men to give up their leisure to system study has been the ambition to rise in the industrial world, and it is clear that when once the whole of a very large class of potential students see the possibility of their deriving material advantages from their attendance at vocational courses of instruction diminishing, or even disappearing this motive will have little force."¹ The foreman or forewoman was in a position to influence the upward mobility of young workers and were therefore crucially placed to promote or retard the flow of recruits to the technical college. The Clerk Committee noted that "the foreman is often, far more than the employer, the visible boss for the boy, and his belief in technical education has a profound influence on the boy's attitude."²

An enquiry into the selection of foremen carried out in 1928 by the British Association for Commercial and Industrial Education revealed a lack of anything approaching a uniform system in industry and commerce, though it was found that engineering firms more commonly had schemes for training foremen than general manufacturing concerns.³ According to C.T.Millis, however, it was necessary for prospective foremen to work their way up from the bottom⁴ and it seems possible that, certainly in the 1920's, many foreman had received little exposure to formal technical education. For some foremen, therefore, the system of works training must have appeared as the usual and appropriate method of acquiring relevant skills. Moreover, it is noticeable that in the

1. A.Abbott, 'Education for Industry in England and Continental Countries' op.cit., p.640.

2. Report of the Committee on Education for the Engineering Industry, op.cit. p.28

3. B.A.C.I.E. Report on Education for Foremanship (1928), pp.16-31.

4. C.T.Millis, Technical Education. Its Development and Aims, op.cit., p.108.

printing industry, perhaps the most successful example of co-operation between business and education in London during the interwar period, the School of Printing was one of the first institutions to promote classes for journeymen who were to fill executive positions such as that of foreman. Classes in foremanship were gradually introduced on a wider scale in London in the 1930's. though the decline of the traditional type of foreman was rather protracted and in 1934 one of the Board's officials could only say that "To some extent the old type of foreman and manager is disappearing."¹

The need to control the flow of skilled and semi-skilled workers on to the labour market was another consideration which the foreman had to bear in mind. In industries such as printing and shipbuilding where the apprenticeship system retained a strong hold, the potential supply of trained workers was to a greater or lesser extent controlled by the existence of trade union agreements, but where apprenticeship had broken down the foreman could be a major instrument in preserving the future employment prospects of employees, and certainly there are a number of references to the careful eye which trade union representatives kept on the general question of technical education.

The size of the firm.

The size of firms had an important bearing upon the development of technical education in London during the interwar period. In general, the business unit in London was small, particularly in inner London. According to Forshaw and Abercrombie, "High rents and cramped surroundings tended to restrict the central area to small scale industries which are likely, in spite of decentralisation, to continue to be the mainstay of inner London's industrial life."² Large labour intensive factories or yards were found in the food industry, chemicals and in light and heavy engineering,³ though the tendency

1. P.R.O. Ed. 90/120 J.Salt to G.G.Williams, 8th September, 1934.

2. J.H. Forshaw and P.Abercrombie, County of London Plan (1943), p.85.

3. Ibid., pp.85-94.

was for the larger units to be concentrated in outer London and even, in some cases, to move away from the capital altogether. According to A.E. Briscoe, so early as 1915 this trend was already visible in the engineering industry where "The tendency has been for the larger engineering works to go outwards; in many cases to remove right away from the County."¹ Moreover, from information supplied to him by the Amalgamated Society of Engineers, Briscoe noted that apart from the Royal Arsenal "there are several other large firms in the Woolwich district and one or two scattered about the County and in the district immediately surrounding it, but they are comparatively few in number. London as an engineering centre is largely composed of small and medium sized workshops engaged upon repair and maintenance work."² Even in industries like printing, furniture making and clothing where there was a growth of larger concerns, the small scale business still remained firmly entrenched in central London and the development of the larger units tended to be concentrated in the peripheral areas around the administrative County.³ The interwar period witnessed the growth of industry in the Greater London area as a whole and, according to H.W. Richardson, the net balance of factories opened over those closed in Greater London is indicative of the high growth performance of the region during the period 1932-38.⁴ However, the Barlow report makes it clear that the net increase of factories in Greater London between 1934 and 1937 was due entirely to factory development in outer London, with inner London showing a net loss for the period of 126 factories.⁵ In addition, the employment

-
1. L.C.C./HFE/9/35 Higher Education Sub-Committee. Report on Technical Instruction in London for the Engineering Group of Trades, 21st October 1915, p.29.
 2. Ibid.
 3. P.G. Hall, The Industries of London since 1861 (1962), pp.90,102.
 4. H.W. Richardson, Economic Recovery in Britain 1932-39 (1967), pp.274, 275.
 5. Report of the Royal Commission on the Distribution of the Industrial Population (1940), p.167.

potential of the factories opened in West and North London was greater than for anywhere else in the region.¹ However, it would be wrong to exaggerate the scale of the business unit even in Greater London for D.H.Smith's survey of the northern and western sectors of Greater London, published in 1933, indicated that "With the exception of one firm which employs 6,000 workers there is nothing comparable with the large industrial firms of the north of England (e.g., the Metropolitan Vickers Co., which employs approximately 10,000 in Manchester.)"²

Studies such as those of Erickson and Musgrave, the former relating to the steel and hosiery industries and the latter to the iron and steel industries, indicate that the larger business unit had a more favourable influence upon the development of technical education than the small firm.³ In his study of Messrs. Siemens Brothers, J.D. Scott has shown that trainee professional engineers at the Woolwich factory were encouraged to attend technical classes, though no formal technical college training was introduced for apprentices.⁴ Some at least of the implications of the comparatively small size of the business unit in London for the general prospects of the young employee appear to have been appreciated at an early stage. In 1918 the Chairman of the London Central Advisory Committee for Juvenile Employment lamented to Robert Blair that employers in London are "a poor lot compared with the provinces - mostly small and highly specialised."⁵ The introduction of compulsory day continuation schools drew particular attention to the problems of the small firm. According to the Reverent Scott Lidgett, "Many

1. Ibid.

2. D.H. Smith, The Industries of Greater London (1933), p.175.

3. C.Erickson, British Industrialists Steel and Hosiery 1850-1950 (Cambridge, 1959), p.116. P.W.Musgrave, Technical change the Labour Force and Education A Study of the British and German Iron and Steel Industries 1860-1964 (1967), p.269.

4. J.D.Scott, Siemens Brothers 1858-1958. An Essay in the History of Industry (1958), pp. 258, 259.

5. L.C.C. EO/WEL/1/6 B. Bray to R. Blair, 6th August, 1918.

of the great employers welcomed them, in some cases housing them and in others cheerfully co-operating with them in their business arrangements. But they undoubtedly caused difficulties to small employers."¹ It is noticeable, too, that the London firms which demonstrated their support for technical education by joining the Association for the Advancement of Education in Industry and Commerce after its formation in 1919 were generally large ones such as Debenhams, Anglo-American Oil, Selfridges, Harrods and Dunlop.²

The greater resources of the large business concern made them better able to support management staff in charge of training than the more limited funds of the smaller business. In the smaller firm, therefore, more responsibility in the general question of training was likely to devolve upon the foreman. Further, the larger firms were more likely to be flexible in terms of overtime so that employers who were committed to evening instruction might be allowed to attend classes rather than consistently obliged to work a uniform overtime schedule. On the other hand, very large concerns such as Metropolitan Vickers and British Thompson Houston were able to develop their own training programme thus to some extent circumventing the local authority provision. However, the greater flexibility of a large workforce appears to have made it easier for the bigger concern to arrange part-time day release for selected employees. The evidence received by the Clerk Committee strongly indicated that it was the larger firms which were willing to co-operate in day release schemes.³ In 1928 H.A.Garratt, at that time principal of the School of Engineering and Navigation, noted that part-time day "continued education has developed much more in the provinces than in London."⁴ It seems

1. J.Scott Lidgett, My Guided Life (1936), p.221.

2. Association for the Advancement of Education in Industry and Commerce, Proceedings, op. cit., p.9.

3. Report of the Committee on Education for the Engineering Industry, op.cit.p.15.

4. L.C.C. EO/HFE/7/36 Minutes of the Advisory Sub-Committee of the School of Engineering and Navigation, 11th May, 1928.

likely that one of the reasons for this was the prevalence of the small business unit in London. In 1932 Miss Nettleford, a director of Messrs. Nettleford and Sons Ltd., a London firm of wholesale ironmongers, informed Board of Education officials that release for day time study was impractical "at any rate for the smaller firms."¹ The Board, however, appears to have persisted in its hope of encouraging the growth of part-time day classes for in their report upon Battersea Polytechnic, published in 1938, H.M. Inspectors advised that the future of the Polytechnic's day work rested with part-time day classes.² J.M. Currie, one of the L.C.C. Inspectors, doubted the practicality of this suggestion, noting in particular that there were very few large firms within the Polytechnic's immediate catchment area.³

The small firm was probably more susceptible to business fluctuations than the larger concern and the loss of employment, even for a short period, might encourage the student to discontinue his evening study. In 1923 one of H.M. Inspectors felt that the decline of the small engineering firms in the Walthamstow area was a major factor accounting for the fall in the enrolment of engineering students at the Hackney Technical Institute.⁴

The small businessman may also have found it difficult to spare the time to attend advisory and consultative committees personally, and without the benefit of a number of executives could not easily delegate the task. Moreover, once the management personnel of the large firm were convinced of the desirability of technical education it was within their power to encourage a very large number of workers to attend classes. The work of converting the small businessman was much more formidable if the same reward was to be reaped.

-
1. P.R.O. Ed. 24/1884 Report of a Meeting held at the Board of Education, 5th February, 1932.
 2. Report of H.M. Inspectors on the Battersea Polytechnic, op.cit., p.8.
 3. L.C.C.EO/HFE/5/182 J.Currie to Chief Inspector, 6th October, 1938.
 4. P.R.O. Ed.90/137 Dr. Morley to Holmes, 24th February, 1923.

Technical change and industrial and commercial expansion.

Writing of the interwar years, Professor Sayers argues that "Technical progress in the period was in fact spectacular."¹ As one of the major centres of industrial growth, London shared in this technical progress, both in terms of the development of the newer industries and also from the point of view of the organisation of production. According to one commentator "London was outstandingly prosperous before the war. London's industries and services were not merely not declining; they were advancing rapidly."² Although there were many innovations in the newer industries such as electrical goods, motor cars and equipment, and aero engines and aeroplanes, there was also a good deal of change in the industries in which London had traditionally been involved such as clothing, printing and furniture making. These technical changes, both prior to and during the interwar period, had an important influence on London's system of technical education.

The link between technical change and course innovation and development is perhaps most obvious in the promotion of classes to meet particular needs such as those for people versed in techniques of welding, the use of steel and reinforced structures in building, the application of biochemistry and so on. The application of more sophisticated devices in retail distribution, including the use of display and salesmanship techniques was a feature of the interwar period³ and contributed to the demand for specialised courses. Innovation in industry or commerce could also have adverse effects upon particular courses. For example, following the First World War there was a marked shortage of skilled persons in the musical instrument making industry.

1. R.S. Sayers, 'The Springs of Technical Progress in Britain, 1919-39,'

The Economic Journal, vol. LX, No. 238, June, 1950, p.275.

2. M. Fogarty, 'London Industries before the War' in M.Fogarty (ed) Prospects of the Industrial Areas of Great Britain (1945), p.422.

3. J.B.Jefferys, Retail Trading in Britain 1850-1950 (Cambridge, 1954), p.52.

The Northern Polytechnic met this need by operating special courses for the training of skilled operatives and scientific personnel and designers. With the increasing impact of radio and the development of new factories in the north of England, demand fell away and eventually the Governors discontinued the provision in the Polytechnic.¹

One aspect of technical change in industry during the interwar period was the spread of mechanisation. The New Survey of London Life and Labour provides a good deal of information on this development in London and its implications for technical education. According to the authors of the New Survey, mechanisation "is fast making obsolete the old bipartite distinction between skilled and unskilled labour, and a graduated series of specialised process workers are becoming the most characteristic figures in mechanical industry. The altered view of what constitutes skill is bringing with it changed conceptions as to the kind of training needed for industry and the conditions under which training can best be given."² The changed conception of training referred to the decline of apprenticeship which had occurred in many industries and which was in part due to the spread of mechanised techniques of production. The authors of the New Survey reported that apprenticeship was being replaced by modified schemes of instruction within the shop and by attendance at technical classes or a combination of both.³ This trend was recognised by the Goodenough Committee which noted that the decline of apprenticeship in the distributive trades was a major factor contributing to the development of the L.C.C. School of Retail Distribution.⁴ Similarly, the decline of apprenticeship in the building industry was said to have encouraged support for classes in building trade subjects.⁵ The degree to which

1. Dr. T.J. Drakeley in correspondence with the author, April, 1971.

2. The New Survey of London Life and Labour, vol.2, London Industries 1, (1931), p.5.

3. Ibid., vol. 5, London Industries, 2 (1933), p.16.

4. Final Report of the Committee on Education for Salesmanship, 1951, p.129.

5. The New Survey, op.cit., London Industries, 1, p.11.

technical or management innovation contributed to the decline of apprenticeship is difficult to quantify, but to the extent that it was a relevant factor it appears to have exercised an influence upon the success of technical and commercial education. That influence, however, may not always have been favourable since an apprenticeship might involve attendance at a technical institute. This arrangement was common in the printing industry where the Typographical Association regarded technical education as a means of preserving craftsmanship standards and high wage rates.¹ Further, the dilution of skills whilst perhaps contributing to the substitution of formal technical education in place of workshop training, could also mean a less prolonged training for young employees or even no training at all. According to the authors of the New Survey, "The fact, however, remains that in a number of the industries dealt with in the following pages there is no question of technical training for the bulk of the employees, who, provided that they have the all important qualification of being steady and industrious, can easily and quickly master the few simple repetition processes which are all that they are required to perform."²

Nevertheless, technical change in industry and commerce often occurs in the fastest growing sectors of economic activity and there is a tendency for the fastest growing industries to be the most skill intensive.³ Further, when labour saving machinery is introduced this may in itself create more need for skilled labour and therefore accelerate the skill shortage. Since the late 1940's the expansion of the British economy has been checked from time to time by a shortage of skilled labour.⁴ It seems likely, however, that

1. A.E. Musson, The Typographical Association Origins and History up to 1949 (1954), pp.185-188.

2. The New Survey, op.cit., vol. 5, London Industries, 2, p.17.

3. J. Vaizey, 'Education, Training and Growth'm in P.D.Henderson (Ed), Economic Growth in Britain (1966), p.238.

4. Ibid.

the expansion of industry by the mid '30's was putting pressure upon reserves of skilled labour and that this pressure was in turn reflected in technical college activities. A study carried out in 1936 by R.G.D. Allen and Brindley Thomas suggested that there was a considerable shortage of engineering workers in the London area, especially in west and north west London.¹ This shortage, they concluded, was due partly to the expansion of industry and partly to the decline of the apprenticeship system. According to Allen and Thomas, employers attempted to augment the local supply of skilled labour by recruiting from outside their own region. Attention had already been drawn to the energetic recruitment policy of certain firms in West London by G.A. Robinson, the principal of the South East London Technical Institute. In 1933 Robinson informed E.M. Rich that "Mr. Samuels, apprentice supervisor at the B.T.H., anxious to obtain J.T.S. boys has come across from West London and given vacancies to J.T.S. boys in the Borough and at Poplar. I have youths in my own evening classes here who, in order to obtain employment, have to travel daily to and fro from the H.M.V. factory at Hayes, Middlesex."² The need for skilled labour in North-West London to which Allen and Thomas referred coincided with the growth of students on electrical and mechanical engineering courses at Paddington Technical Institute and the home addresses of the students show a clear preponderance in favour of North-West London. Were similar material available for other technical institutes and polytechnics it seems likely that, at least for those within reach of West and North-West

1. R.G.D. Allen and B. Thomas, 'The Supply of Engineering Labour, Under Boom Conditions', The Economic Journal, Vol. XLIX, No. 194, June 1939, p. 268. The study related to Employment Exchange records for certain parts of London for the period July to December 1936 and was directed towards the placing of workers of different skills in three sections of the engineering industry - General Engineering, Construction and Repair of Motors and Aircraft and Electrical Engineering.

2. L.C.C. EO/HFE/4/100 G.A. Robinson to E.M. Rich, 14th December, 1933.

London, a similar picture would emerge.

The letter from Robinson to Rich quoted above is interesting because it suggests a basic difference of approach to employment policy between the growth industries of North-West London and the more traditional heavy engineering industries in the area from which the South East London Technical Institute drew its students. According to Robinson, 'Many firms such as H.M.V., A.E.C., and B.T.H., will only take boys from secondary and elementary schools when the J.T.S. supply is exhausted.'¹ Moreover, Robinson claimed that since employers in West London recruited specifically from the junior technical schools there was very little demand in that area for evening trade instruction but that demand was channelled into courses of the national certificate type. Again, with reference to Paddington, this would explain the relatively faster growth of major as compared with minor courses during the 1930's. In addition, it would also help to explain the strong position of evening trade instruction at the South East London Technical Institute where the catchment area covered employers who were less committed to recruiting junior technical school pupils. The employment policy of some of the old established heavy industries such as ship repairing seems to have been to employ young people for a short period and then dispense with their services when they became old enough to qualify for higher wages. Robinson noted that "The nature of the engineering industry in this district is such that large numbers of boys of fourteen are employed. There are no new firms as in West-London controlled and staffed by young progressive people working under modern conditions as is the case in West Middlesex. Enquiry at the Labour Exchange here will show that boys of sixteen plus one being put out of work and replaced by school leavers last July of fourteen."² Furthermore, it appears to have been in the newer industries that the older and perhaps less

1. Ibid.

2. Ibid.

progressive type of foreman disappeared first and thus helped to open the way for a more systematic approach to the value of technical education.¹

Other factors which relate to the growth, structure or some other aspect of industry but which seem more relevantly placed under other general headings will be discussed below.

The attitude of parents and potential students

The attitude of parents and potential students towards extended vocational education was of particular importance at a time when employers themselves often failed to exert a positive influence upon their employees. Ideally, we would like to know the attitude of parents and students towards particular courses but lack of evidence, and the difficulty of isolating the recipient's assessment of individual courses from his evaluation of the employment itself, makes this impossible. However, there is sufficient information to make an overall assessment of the factors which engendered support for, or antipathy towards, technical education.

In 1937 H.M. Inspectors reported that "there are signs that parents are beginning to awaken to the fact that the trained boy or girl stands an infinitely better chance of continuous employment than the untrained. The prevalence of unemployment unfortunately makes it impossible for some parents to adopt a long view but the fact of their looking into the possibilities of training for entry into trades is an encouraging feature."² This guarded optimism, however, finds little support among the County Hall records, and the general picture that emerges is one of apathy, especially when technical education was viewed in relation to the opportunities for clerical employment opened by the non-technical secondary school. In 1932 the Clerk Committee

1. W.H.M. Jackson, 'Foremanship,' British Management Review, Vol. 2.

April-June, 1937, p.107.

2. Report of H.M. Inspectors the Clapham Trade School, op.cit., p.8.

noted "the tendency of Secondary School boys and their parents to prefer black-coated occupations."¹ The relatively low enrolment of the London junior technical schools was the subject of an enquiry in 1934 by the L.C.C. Chief Inspector. The report, issued the following year, remarked that one of the principal difficulties experienced by the junior Technical Schools was that "the preference for black coated occupations remains very strong."²

The bias in favour of office work was in part due to factors within the education system which tended to socialise the child towards a certain career pattern. This is examined in the next chapter. However, the question of status of technical education may relevantly be mentioned here, though the topic is a difficult one since the status of the technical institute was closely related to the status of the type of employment for which a particular institution trained. Job evaluation is a topic outside the scope of our thesis, but that it had important implications for technical education is clear. Discussing the immediate post First World War period, M.M.Niven noted that "to work in a store was respectable whereas factory work was not."³ To the extent that this respectability contributed to the growth of a career pattern in shop work, it must also have assisted the development of technical education for the distributor. Similarly, the Consultative Committee of the School of Cookery and Waiting of the Westminster Technical Institute felt that "many parents are averse to sending boys to be trained as waiters mainly because they do not realise that waiting is not merely a career in itself, but also as a necessary preparation for many higher posts in the Hotel and Restaurant industry."⁴ It was for this reason that the Committee advocated a change in the name of the school "to bring out the fact that the ultimate goal of students is not merely to be cooks and waiters."⁵ Further, D.H.Ingall,

1. Report of the Committee on Education for the Engineering Industry, op.cit. p.9.

2. Chief Inspector's Report on the Junior Technical Schools, op.cit., p.4.

3. M.M.Niven, Personnel Management, 1913-63 (1967), p.59.

4. L.C.C.EO/HFE/4/120 The Westminster Technical Institute, Consultative Committee of the School of Cookery and Waiting, Report, 25th September, 1933.

5. Ibid.

the principal of Borough Polytechnic, argued that one of the main factors militating against recruitment to his own girls trade school was "An attitude of mind in both parents and children that a trade occupation is derogatory in comparison with a clerical occupation."¹ Relating specifically to the trade schools, Dr. Drakely, principal of the Northern Polytechnic, argued that a stigma surrounded the schools, largely because they recruited at the age of thirteen and this conveyed the impression that they were the repository of the second class student.² In 1929 the Council's Inspectors commented that the students at Regent Street Polytechnic were weak, very often being "the lost hopes of the public and secondary schools."³ Perhaps this was an unduly pessimistic view of the technical college student, but it does reflect the fact that even the polytechnics could be the last resort for many students.

There seems little doubt that higher technological education enjoyed an elevated status during the interwar period, though the Percy Committee, reporting in 1945, felt that the shortage of trained personnel was still acute, with too large a proportion of the best output of the schools going into non-industrial occupations.⁴ Part of the problem, argued the Committee, was the social prestige attached to the technical professions was too low to attract the best recruits.⁵ However, the status of a University degree was attractive and, according to H.M. Inspectors, contributed towards the success of London polytechnic degree courses. Further, there is evidence that the status of a university degree sometimes reacted unfavourably upon the development of other courses. According to the Governors of the Northern

-
1. L.C.C. EO/HFE/5/30 D.H.Ingall to Education Officer, 2nd July, 1934.
 2. Special Report by the Principal of the Northern Polytechnic upon the Development of the Polytechnic's Trade Schools, op.cit., p.2.
 3. Report of an Inspection of the Regent Street Polytechnic, op.cit., p.3.
 4. Report of a Special Committee on Higher Education, op.cit., p.5.
 5. Ibid., p.16.

Polytechnic, chemistry students preferred to work for the examination of the University of London and the Institute of Chemistry¹ rather than for the national certificate awarded jointly under the tripartite scheme. This may help to explain the general lack of success of national certificate schemes in chemistry in London throughout the interwar period.

The desire for a "black coated" form of employment was also influenced by the security of job tenure that that type of work enjoyed. In 1935 the L.C.C. Chief Inspector argued that employers failed to realise "the extent to which the parents preference for black-coated occupations, as being less precarious and more attractive, is affecting recruitment into industry on the production side."² The records indicate that enrolment patterns were quite sensitive to fluctuations in employment, and in 1925 The Times Educational Supplement emphasised, too, the influence of social background. "Full classes," it was argued, "are found when the tide of industry flows high and boys and girls are well employed. Unemployment has a marked influence on the attendance of young people in the poorer districts."³ On the other hand the appearance of a slump and difficult employment conditions sometimes brought about an expansion of full-time day work,⁴ and conversely an improvement in employment conditions could lead to a fall in day work, even of degree standard, because qualifications were no longer so important in securing employment.⁵ Perhaps the influence of a decline in employment conditions fell most heavily upon part-time day classes where employers were probably unwilling to suffer the inconvenience of losing some of their labour force for part of the day.

-
1. L.C.C.EO/HFE/96 Higher Education Sub-Committee Agenda, 8th July, 1926.
 2. Chief Inspector's Report on the Junior Technical Schools, op.cit.,p.6.
 3. The Times Educational Supplement, 19th September, 1925, 397c.
 4. L.C.C.EO/HFE/5/182 G.F.O'Riordan to Education officer,27th October, 1938.
 5. Report of H.M.Inspectors on the Battersea Polytechnic, op.cit.,p.21.

The movement of people from one form of employment to another also had implications for technical college development. Referring to the work of his own junior technical school, the principal of the Smithfield Meat Trades Institute noted that "a period of depression in the heavy industries corresponds to peak periods in the number of applicants seeking to enter the meat trade, which is considered a fairly safe, steady occupation."¹ Similarly, a period of expansion in the higher paid industries resulted in a decline in the number of candidates wishing to enter the meat industry. For this very reason, it was argued, the recruitment of boys to the junior technical school of the Smithfield Meat Trades Institute fell dramatically from 59 during the session 1937-8 to 39 in the following year.²

A period of full employment could also affect the attitude of the young worker towards technical education, through the competitive bidding by employers seeking to attract labour thus encouraging a high level of job transference. According to the reports of the London Regional Advisory Council for Juvenile Employment, this situation was a particular problem in West London where employers were sometimes obliged to adopt "abnormal methods of recruitment."³ In their report for 1937, the Council concluded that "In the western districts of London, particularly in the region of the Great West Road, the volume of employment available, and the ease with which it may be obtained, lead to frequent change of employment by juveniles, with an unsettling effect on their outlook and industrial future."⁴

The status of technical education and the security of certain types of employment relate very closely to the potential student's decision to take one type of employment rather than another and the subsequent implications of that decision for technical college development. Having entered a

1. The Smithfield Institute, Report by the Principal and Chief Commodity Instructor, op.cit., p.8.

2. Ibid.

3. Ministry of Labour, London Regional Advisory Council for Juvenile Employment, Report, 1939, p.9.

4. Ibid.

particular occupation, another set of factors influenced the student in his willingness to embark upon a course of training. One of the most important of these factors was the potential benefit in terms of promotion accruing to the successful student. The interwar period witnessed an overall "increase in the recognition of the value of qualifications for self advancement."¹ However, the evidence of many contemporary observers indicates that employers were sometimes slow to reward the diligent employee and that this could quell ambitions with consequent adverse effects upon technical training. The Balfour Committee suggested that whatever formal training arrangements might be made, the greatest encouragement to self improvement was "the consciousness on the part of each student that his training and progress are the object of personal interest to the responsible heads of the undertaking."² The Clerk Committee added that each new entrant to industry should have the knowledge that if sufficiently able, he could rise to the highest positions and that promotion should in part, depend upon attendance at technical classes. The Committee emphasised that "it must be remembered that a satisfactory scheme of technical education is impossible without the goodwill of the student; that ambition is an important factor in inducing a boy to begin, and persevere with, such education, particularly if it means evening work; and that this ambition soon fades unless he sees that he has a reasonable chance of rising by his efforts to more responsible and better paid work."³

In 1934 the Divisional Controller at the Ministry of Labour informed the L.C.C. Education Officer that "it is problematical whether, at present, prospects of higher posts for women in this trade (ladies' tailoring) are sufficiently well defined to attract girls of high education to take the

-
1. J.Floud, 'The Educational Experience of the Adult Population of England and Wales as at July, 1949' in D.V.Glass (Ed), Social Mobility in Britain (1954), p.99.
 2. Final Report of the Committee on Industry and Trade, 1929, p.208.
 3. Report of the Committee on Education for the Engineering Industry, op.cit. p.44.

training at Barrett Street Trade School."¹ According to H.M. Inspectors, the standard of building trade recruits to the Brixton School of Building was partly influenced by prospects within the industry.² Once established on course, however, Dr. Long Principal of the Westminster Technical Institute confirmed that it was of great importance for evening students as a whole to retain the hope of eventual promotion from their course of study.³ In a variety of ways, however, the ambitions of the young employee could be frustrated by an unco-operative employer. Promotion to more senior posts was frequently made from employees with some experience of office work,⁴ perhaps simply because they came into more frequent contact with those in charge of promotion than employees on the shop floor. The report of a joint committee published in 1937 also indicated that in commerce even public and secondary school boys might be thwarted by the attitude of their employers.

"There is considerable evidence that many ex-public school and ex-secondary school students, possessed of qualities which would have enabled them to render highly useful service in our home and foreign trade, have been dismayed in their early contact with business by finding themselves engaged in daily rounds of routine duties, for the proper understanding of which they have not been adequately equipped. They have in consequence, sought careers in other directions, and their withdrawal from commerce has entailed a considerable wastage."⁵

-
1. L.C.C.EO/HFE/4/1 Ministry of Labour to Education Officer, 6th March, 1934.
 2. Report of H.M. Inspectors on the School of Building, op.cit., p.25.
 3. The Institution of Gas Engineers, Transactions, Vol.84, 1934-5, p.43.
 4. Report of the Committee on Education for the Engineering Industry, op.cit. p.9.
 5. Report on Policy in Technical Education by a Joint Committee (A.T.I. A.P.T.I. A.T.T.I. National Society of Art Masters) 1937, p.27.

Perhaps in part the high fall out rate, especially among evening students, was related to difficulties of this kind, though the nature of the problem would make it difficult to substantiate this suggestion and no supporting evidence has been found.

Attendance at technical classes directed towards self advancement presupposes some desire for upward mobility on the part of the young worker and this in turn brings into consideration the importance of social background. Himmelweit's 1951 study of working class and middle class London secondary school children indicated "that in a variety of ways middle class parents show greater concern for their sons' scholastic progress and take more interest in the affairs of the school. The parents thus provide a greater motivation for their sons to do well at school."¹ Moreover, Himmelweit's study noted that working class boys "described their desire to leave early as being in accord with that of their parents."² Many of these parents would themselves have grown up during the interwar period and the difference in attitude was perhaps partly a reflection of their own upbringing. There was a certain amount of contemporary comment about differences in educational aspirations between the social classes in London. The Times, for example, noting in 1924 that almost every boy and girl from "good class neighbourhoods"³ attend evening school. In his study of London and certain other Local Education Authorities published in 1926, Kenneth Lindsay concluded that the London evening institutes attracted students from the better type of job and home.⁴ A P.E.P. report of 1935 emphasised that in general the social background of working class children, especially the lack of parental encouragement, was a major factor in their failure to attend evening classes in greater numbers.

-
1. H.T.Himmelweit, "Social Status and Secondary Education since the 1944 Act: Some data for London," in Glass, op.cit., p.153.
 2. Ibid., p.159.
 3. The Times, 18th September, 1925, 7e.
 4. K.Lindsay, Social Progress and Educational Waste (1926), p.32.

The report stressed that working class children were not socialised into vocational ambition.¹ The Paddington student record cards also throw some light on educational aspirations. The cards record the type of employment of the student at the time of registration and almost all the cards are in sufficient detail to place the student within the Registrar General's classification. Approximately 77 per cent of the new entrants to the ordinary national certificate course in mechanical engineering between 1930/31 and 1938/9 were from social class C1 or C2, the remainder coming from social class D. Over the same period the corresponding figures for the ordinary national certificate in electrical engineering were 69 per cent and 31 per cent respectively. The strong bias in favour of students from the higher occupational grouping may in part reflect the importance of social background. The very low level of job transference as indicated by relating the student's occupation with his projected course of training leads to a similar conclusion. In the case of the mechanical engineering course approximately 4 per cent of the students registered between 1930/31 and 1938/39 may reasonably be said to have anticipated changing from one area of employment to another. The corresponding figure for the ordinary national certificate course in electrical engineering was rather higher than 16 per cent.

The real and opportunity costs involved in attendance at technical classes appears to have been an important factor influencing the attitude of both parents and students. As far as the working class was concerned the expense of purchasing meals and other items involved in full-time attendance probably related more to the junior technical schools than to senior courses since the latter required an entrance standard beyond the achievement of the bulk of working class children. However, other items such as travelling costs, stationery and fees affected evening as well as day students. Moreover, the policy of concentrating courses within certain institutions may have

1. Political and Economic Planning, The Entrance to Industry (1935), p.19.

added to the difficulty of travelling expenses. In 1935 the secretary of the School of Building, Brixton, informed the Education Officer that about 30 students attending the junior technical school travelled distances involving a journey of one hour or more.¹ Of these students almost two-thirds appear to have travelled part of the way by tram which had a cost advantage over a train journey.² The fact that such a large proportion came by the cheaper method indicated that the cost of travelling was an important consideration for parents and may suggest that access to a tram route was important in attendance at technical classes. Enquiries by the Education Officer of other technical institutes also indicates that access to tram and bus services was an important consideration for long distance travellers.³ Apart from the cost of travel, there was also the general question of convenience. According to L.G.Wooder the "removal of the site of a college by more than say, five minutes from a centre of communication brings a disproportionate loss in convenience to students."⁴ The evidence for the interwar period closely supports Wooder's conclusion. A technical institute such as Hackney, being very well served by railway services, was able to attract many out county students,⁵ while the School of Retail Distribution⁶ was said to have suffered because of its relative isolation from the main points of communication. On the other hand, the comparatively isolated nature of its position perhaps contributed artificially to the success of Woolwich Polytechnic. Before the opening of the South East London Technical Institute, however, many potential students in South East London were confronted with the expense and inconvenience and travelling some way to classes or foregoing technical education altogether. This was a particularly significant problem since the region was an important

1. L.C.C. EO/HFE/1/29 H.A.Hawley to Education Officer, 5th November, 1935.

2. Ibid.

3. The results of the Education Officer's enquiries are to be found in file EO/HFE/1/29.

4. L.G.Wooder, Technical Education and the Distribution of Industry in London and South East England, A Study in applied geography (Unpublished London Ph.D thesis, 1958, p.352.

5. P.R.O.Ed.90/137 Dr.Morley to Holmes, 24th February, 1923.

6. L.C.C. EO/HFE/1/8 Higher Education Sub-Committee Agenda, 28th June, 1934.

residential growth area during the interwar period with the population of Lewisham alone increasing by 26.3 per cent between 1921 and 1931.¹ This expansion was related to the opening of the L.C.C. housing estate at Downham and made Lewisham the largest development area in London during the 1920's.² Nevertheless, so early as 1911 A.E.Briscoe remarked that "owing to the increased traffic facilities London has become smaller and districts are not now so isolated as they were years ago, with the result that institutions serve a wider area than they did at first."³ The continued development of London's transport facilities during the interwar period was probably an important factor contributing to the development of technical classes.⁴

In addition to real costs, the opportunity costs involved in attendance at technical classes could be quite considerable. Lindsay's study of London demonstrated that in the poorer boroughs the larger working class families would be completely dependent upon children's earnings.⁵ This factor related primarily to junior technical schools, though evening attendance could also involve loss of income through inability to accept overtime work or, in the case of the building industry, the problem of working for lengthy periods away from London. By sacrificing the opportunity for leisure activities, the technical college student also incurred certain costs. In 1937 J.H.Currie, one of the Council's Inspectors, noted that since the First World War "the cinema and broadcast have increased manifold the alternatives to attendance at evening classes as the sole means of escaping boredom."⁶ The authors of the

1. Census of England & Wales, 1931, County of London (1932), p.VIII.

2. Ibid.

3. L.C.C. EO/HFE/1/1 Typed Manuscript Review of the Period 1903-11 op.cit., p.3.

4. Closely related the question of ease of access to an institution was that of the nature of the institution's immediate catchment area. The residential nature of the area around Norwood, for example, made it difficult for Norwood Technical Institute to develop technical classes.

5. K.Lindsay, op.cit., p.40.

6. L.C.C. EO/HFE/5/232 J.H.Currie to Till, 22nd December, 1937.

New Survey believed the cinema to be the most popular form of entertainment in London and furthermore that it was overwhelmingly "the workman's theatre."¹ Many people familiar with the London situation and interested in technical education remarked upon the difficulty of securing the interest of the London student as compared with his counterpart in the north and the many attractions of London's social life may go some way to explain this.

Conclusion

Other factors, apart from those mentioned above, which appear to have influenced course innovation and development include accommodation, equipment and staffing. These factors relate closely to the finance of education which will be discussed in later chapters. One important area, however, which requires some mention is that concerned with demographic considerations. Reference has already been made to Lindsay's study which inversely related attendance at technical classes involving loss of income with family size. On this basis the 1931 Census indicates that the technical institutes which drew their students from the boroughs of Stepney, Poplar, Bethnal Green and Bermondsey to be at a disadvantage since they contained on average the largest families, though average families were smaller than at the time of the 1921 Census.² Moreover, when family size is related to social conditions as measured by room density, the four boroughs listed above were among the worst examples of overcrowding. The 1931 Census reported "that the Inner Eastern Boroughs must still range amongst the most unsatisfactory areas in the country so far as housing conditions are concerned."³

The overall decline in birth rate which characterised English demographic history from the late nineteenth century to the 1940's, together with migration to and from the administrative county of London, by affecting

1. The New Survey, op.cit., Vol.1 (1930), p.294.

2. Census of England and Wales, 1931 County of London, op.cit., p.XIX.

3. Ibid.

the balance and characteristics of population within the London area, helped to determine the pressure at certain times on particular courses. According to London County Council Inspectors, the comparatively poor enrolment returns of the London junior technical schools for the session 1936-37 were in part due to the demand for juveniles during the Coronation season but that "also the decline in the number of school leavers was already making itself felt."¹ Similarly, the sharp increase in the number of births in London in 1920 would have been expected to have affected enrolments at the technical institutes in the mid'thirties and certainly the session 1935-36 saw a marked rise in overall enrolments at the aided technical institutes. The same year also saw a rise in polytechnic enrolments, though both sets of figures may perhaps have been more profoundly influenced by other factors, especially the acceleration of business activity in London. Nevertheless, it was expected at County Hall that the sharp increase in birth rate would have an effect upon enrolment statistics. In addition, birth rate changes, by affecting the employment situation, may have influenced the attitude of both employers and employees towards technical education.

Population migration also influenced technical education. Between 1921 and 1931 the County experienced a net outward migration of 7.3 per cent, with the City, Holborn, Stepney, Westminster and Finsbury being the worst sufferers.² Apart from the outstanding example of Lewisham, the boroughs of Wandsworth, Hampstead and Kensington also gained on balance during this period. Similar trends were noticeable for the period 1931-51. It seems particularly likely that the natural increase of population in Wandsworth, together with a net gain from migration, contributed substantially to the development of Wandsworth Technical Institute.

1. Report of an Inspection of the Bloomsbury Trade School, op.cit., p.1.

2. Census of England and Wales, op.cit., p. VIII.

Many of the migrants leaving London had probably settled in Middlesex which between 1921 and 1931 had the highest county rate of population growth in England and Wales.¹ Much of this growth was concentrated in the urban areas of Willesden, Tottenham, Ealing and Hendon and was associated with the industrial development of Greater London. According to the London Regional Advisory Council for Juvenile Employment, this movement "resulted in a marked tendency for the central areas to be denuded of their supplies of young recruits."² In turn this was likely to redirect a certain amount of actual and potential demand for technical instruction away from London and towards the Middlesex Institutes. Finally, the character of migration also had some bearing upon technical education. Apart from the general question of the sex and age structure of the migrants, their degree of skill was also important. For example, many London builders had for several years imported skilled labour from the provinces and this was said to have contributed to the decline in the demand for young London trainees and hence to the decay of the apprenticeship system.³ Conversely, when the flow of migrants to London began to weaken, the need for trained labour may have encouraged employers in the building industry to support L.C.C. technical classes.

1. Census of England and Wales, 1931, County of Middlesex, p. VII.

2. Ministry of Labour, London Regional Advisory Council for Juvenile Employment, Report, 1937, p.7.

3. Report of H.M. Inspectors on the Provision of Technical Instruction in Building in London, op. cit., p.8.

CHAPTER EIGHT

The Influences upon Course Innovation and Development, 2.

2. Factors within the education system.

A. The mechanics of course innovation.

The inspiration for a new course or the modification of an existing scheme normally emanated from within the technical institution or from one of its associated committees. The course was then submitted to the Education Officer's department for consideration before being presented to the Council. Once agreed to by the Council, the proposals were forwarded to the Board of Education for approval. Not all new developments necessarily went through each stage and, in order to smooth working relationships, a number of informal arrangements were made. Nevertheless, this basis sequence structure illustrates that there were certain crucial stages identifiable in the process of course innovation and development. These stages are dealt with below, though the important question of Council policy and the influence of the Board of Education are investigated in separate chapters.

a. The Principal and Governors

The principal and the governing body of an institution were central participants in the introduction of new courses. According to Dr. Drakely, "it was the Principals and their respective Governing Bodies which brought forward new ideas and so far as practicable made financial provisions (with the help of advisory committees) for their inauguration and development."¹ It is perhaps impossible to measure the contribution of other members of staff, such as heads of department, to the initial idea and subsequent development of a course, but it seems likely that when the full-time staff of even a poly-technic could be fairly small, the work-load of individual principals was more evenly distributed between the academic and administrative than is often

1. Dr. Drakely in correspondence with the author.

necessarily the case today. During the interwar period several principals acted as head of one of their own departments and sometimes made significant contributions to the teaching and research programme. A good deal of authoritative contemporary comment testifies to the influence exercised by a good or bad principal. In 1929, for example, one of the Board's officials remarked of Paddington Technical Institute that "The resignation of the Principal is a fortunate ending to our Full Report and I hope that under a new Principal the school may be more successful. There can be no doubt that it has not had a fair chance during the later years of Mr. Cooke's tenure of office."¹ Conversely, near the close of the interwar period the Council's Inspectors attributed the preceding eighteen years of expansion at Wandsworth Technical Institute very largely to the hard work of its principal.²

One of the main ways in which a principal could contribute towards the success of his college was by familiarising himself with new developments in industry and commerce and by being prepared to adjust his resources accordingly. The outstandingly successful principals such as Drakely, Paley, Yorke and Robinson were active in a number of areas in technical education and certainly did not take an insular view of their position. According to Dr. Drakely, it was necessary for the enterprising principal to introduce a potentially successful course even before the demand had manifested itself:

"It is no use leaving the training until the demand arises.

Start the training first and the demand will assuredly and necessarily follow. The reverse is unlikely ever to occur, except in times of war."³

Inevitably, such an approach required expert advice and it was in this context that an institution's advisory committee could be particularly useful. Similarly,

1. P.R.O. Ed.90/147 Min. T98072 A/8 21st June, 1929.

2. Report of an Inspection of the Wandsworth Technical Institute, op.cit., p.14.

3. T.J. Drakely, 'The Status of Higher Technical Education; Association of Technical Institutes, June, 1944.

with the frequently unenthusiastic response shown by the business world to technical education it was particularly important for the principal to make direct contact with business interests that were not represented on advisory committees, especially in view of the small nature of the firm in London. The principal of the Leathersellers' College was said to have been "almost entirely responsible for the good relations existing with industry."¹ Counsel from all relevant quarters was essential in the difficult financial circumstances of the interwar period when resources were strictly limited and when it could take some time to secure additional staff, equipment and accommodation.

The process of applying for a new course sometimes required considerable persistence and the determination on the part of a principal and his governing body if that application was to be successful. As will be demonstrated later, the consent of the Local Education Authority, the Board of Education and the various examining bodies was not easily forthcoming. Something has already been said of the difficulties involved in obtaining permission to operate national certificate and diploma classes,² but examples are to be found in the County Hall records of other applications that were prolonged for several years. For example, the governors of Borough Polytechnic first applied to the L.C.C. in 1927 to run a class in printing ink technology but were not finally given permission to go ahead with their plans until 1932.³ Proposals for a full-time course in metallurgy were first made to the L.C.C. by the Cass Institute in 1929 and, despite regular applications thereafter, it was not until 1938 that the Education officer agreed in principle to the introduction of such a scheme.⁴ Even if negotiations for a new course were not very protracted their success appears to have been commonly due to the personal

1. P.R.O. 90/120 J. Salt to G.C. Williams, 8th September, 1934.

2. See pp. 82-87.

3. The correspondence relating to this application is located at L.C.C.EO/HFE/5/28.

4. The correspondence relating to this application is located at L.C.C.EO/HFE/5/159.

effort of the relevant principal. This was the case with a cookery certificate course introduced at Regent Street polytechnic in 1933. After investigation by the Education Officer's staff and a refusal by the Education Officer, the course was eventually allowed to operate, largely it seems, as a result of the reasoned arguments of the Polytechnic's Director.¹

Some of this determination on the part of principals was also channelled into ensuring that other institutions did not introduce courses similar to those offered by their own college. To some extent it was necessary at a time when there were no Regional Advisory Councils to keep a careful eye on other institutions though the Council's officers themselves regarded the problem of overlapping as a major consideration when dealing with applications for new courses. Nevertheless, existing courses were sometimes gradually modified over a lengthy period so that even the Council's Inspectors might not have been fully aware of what was happening. This appears to have happened at the Cass Institute where a preliminary course for nautical cadets, although officially rejected, appears in practice to have developed.²

Student recruitment was another area where the principal and his governors could exercise an important influence on course development. A close relationship with the elementary and secondary schools often appears to have been frustrated by the attitude of those directly in charge of the schools,³ but even so relatively little regular machinery was developed to bring the personnel of the technical institute and schools together. Examples of co-operation appear to have been mentioned because they were outstanding rather than because they were normal practice. Perhaps more surprising was the lack of contact between the junior and senior evening institutes. No overall figures are available for those transferring from a junior to a senior

1. The correspondence relating to this application is to be found at L.C.C. EO/HFE/5/138.

2. The papers relating to this course are located at L.C.C. EO/HFE/5/160.

3. See p. 223.

institute but those figures that are available suggest a considerable leakage. For example, of the 247 evening students attending the School of Engineering and Navigation for the first time during the session 1933-34, only 12 had previously attended a London junior evening institute. When asked by 30 fewer students passed from one type of institute to another,¹ Dr. Spencer, the Council's Chief Inspector, could only comment that "I believe these causes to be very complicated."² No committee was ever set up to investigate this problem, but probably one of the main factors was the lack of contact between the relevant authorities. Where more definite arrangements were made a happier situation seems to have existed. At the South East London Technical Institute, for example, a scheme was evolved where the principals of all the junior institutes in the area met at the senior institute under the chairmanship of the college principal with the result that leakage between the second year of the junior institutes and the first year of the senior was "comparatively small."³

Apart from adopting a generally negative approach to college development, a principal might retard course promotion in other ways. Writing in 1930, the Council's Inspectors noted of the London School of Printing that "the time has now probably arrived when the school should be considered as a place where experimental work may be carried out and research attempted."⁴ The slow progress of this aspect of the School's work was undoubtedly related to the attitude of the principal who, according to one of the Board of Education's officials, had a strong antipathy towards science.⁵ The principal of the School of Printing, J.R.Riddell, also appears to have found it difficult

1. Report of an Inspection on the Poplar L.C.C.School of Engineering and Navigation, op.cit., p.15.

2. L.C.C.EC/HFE/5/190 F.H.Spencer to J.C.Smail, 1st December, 1923.

3. Report of H.M.Inspectors on the South East London Technical Institute, op.cit., p.4.

4. Report of an Inspection of the London School of Printing and Kindred Trades, op.cit., p.1.

5. P.R.O.Ed.90/162 H.T.Holmes to Eaton, 1st February, 1933.

to maintain cordial relationships with his colleagues. As a result of an incident in 1931 in which principal Riddell had recommended the dismissal of a member of staff, an enquiry was carried out at the school of the L.C.C. Chief Inspector. The Chief Inspector agreed with members of the School's staff that the principal's attitude "is one of overbearing arrogance which a self-respecting man could not avoid resenting."¹ Following an incident two years later when the principal had failed to inform the Council of a visit to the School by local dignitaries, Riddell was called to a meeting at County Hall where he was told that "no other principal behaved as he did, that over a period of years he had given them an enormous lot of trouble, and that if any further case arose the Council would have to consider whether it could retain him in its service."²

Although problems of the type found at the London School of Printing seem to have been extremely rare within the London education service, it is possible to appreciate the difficult circumstances under which some principals worked. For many institutions the interwar period was one of very considerable development and in some cases the internal administrative arrangements failed to keep pace with these changes. It was not until 1928, for example, that the Brixton School of Building was organised on a departmental basis and prior to that time the administrative burden thrown upon the principal was very large. This point had been raised by H.M. Inspectors in 1927³ and in January of the following year A.E. Briscoe informed the L.C.C. Chief Inspector that "Something needs to be done to meet the situation which has brought about the premature loss of two principals before the retiring age within recent years."⁴ To the extent that delegation improved the efficiency

-
1. L.C.C.EO/HFE/4/154 Report by the Chief Inspector on the London School of Printing, 6th October, 1931, p.2.
 2. L.C.C.EO/HFE/4/56 Report of a meeting between J.R.Riddell, the Chairman of the Education Committee and Chairman Higher Education and Teaching Staff Sub-Committees 20th July, 1933.
 3. Report of H.M. Inspectors on the School of Building, op.cit., p.6.
 4. L.C.C.EO/HFE/4/133 A.E.Briscoe to Chief Inspector, 14th January, 1928.

of an institution, it may well have been a factor in stimulating course innovation and development.

Although an overall assessment of the attitude of principals and governing bodies to course development during the interwar period obscures individual differences, the evidence presented in the chapters on the structure of London Technical education indicates a general trend towards higher level courses. In the case of the polytechnics this development was already noticeable before the First World War and, particularly from 1919, the polytechnics came to concentrate increasingly on more advanced work. It was perhaps with tongue in cheek that F.J. Harlow, principal of Chelsea polytechnic, informed Bispham in 1937 that "You won't let me cater for the poorer classes when I want to!"¹ This comment was in response to the Council's refusal to allow a minor course in radio servicing to operate at the polytechnic. The policy of course rationalisation which even before the First World War was fostered by the L.C.C. indicates that the implications of the move towards higher level work were already being appreciated. The attempt to develop national certificate as well as the major courses suggests that the principals and governors of the technical institutes were also happy to expand higher level work. The encouragement given to major courses may help to explain not only the development of that type of work but also the lack of dynamism apparent in many minor courses. In 1927 Gater explained to the Higher Education Sub-Committee that it was difficult "for minor courses to flourish in institutions side by side with major courses, as the minor courses are definitely regarded as of a lower standard."²

1. L.C.C. EO/HFE/5/39 F.J. Harlow to J.W. Bispham, 29th June, 1937.

2. L.C.C. EO/HFE/1/106 Papers submitted to the Higher Education Sub-Committee, 6th October, 1927.

b. Consultative and Advisory Committees.

It has already been indicated in earlier chapters that the Council was advised by a number of central consultative committees and by one or more advisory sub-committees attached to individual colleges. Although both bodies acted in an advisory capacity and were without mandatory power, the consultative committees were in fact the more senior bodies since they reported to the Council while the more immediate responsibility of advisory sub-committees was to the governors of particular institutions. To some extent, however, there was an overlap between the functions of the two bodies. This overlap sometimes resulted in friction. In 1936, for example, a report by members of the Consultative Committee on classes in the Furnishing Trades commented adversely upon certain art classes at the Shoreditch Technical Institute, The criticisms upset the principal of the Institute and his advisory sub-committee and bad feeling was generated all round.¹ Incidents of this type had important implications for course development since both committees included members who were influential in the furnishing trades.

Another difficulty with the advisory system was that members of a consultative committee might, for personal reasons, favour one institution rather than another. The evening lectures for distributors held at the Barrett Street Trade School seem to have flourished at the expense of the larger and more integrated course at the School of Retail Distribution. This became a matter of some concern to L.C.C. officials and efforts were made to restrict those classes at Barrett Street which appeared to be in competition with the

1. This debate was prolonged for over a year and a compromise was eventually reached when a separate art department was established at the Institute. Information on this matter is located at L.C.C. EO/HFE/2/6 Consultative Committee on Classes in the Furnishing Trades, 1926-38. Minutes and General Papers.

School of Retail Distribution programme. However, J.C.Till explained to Ingram that "The position is a delicate one since certain members of the Committee are probably more interested in the one School than in the other."¹ The principal of Barrett Street had over many years taken special care to interest influential businessmen in the work of the School and undoubtedly this was at the root of Till's comment.

This particular case illustrates that although both types of committee were essentially advisory, in practice both exercised a considerable influence over the Education Officer and his staff. The unsatisfactory nature of the relationship between Barrett Street Trade School and the School of Retail Distribution was first discussed in 1931, but it was not until 1939 that a compromise was reached, and even then Beresford Ingram regarded the arrangement as so unsatisfactory that he wanted his opposition to it put on record.² The files show that throughout the 'thirties the Education Department at County Hall was unwilling to insist on the removal of certain classes from Barrett Street, even though the Education Officer himself strongly favoured "arranging such short courses as may be desirable at the S of R.D."³ A further important example of the influence of advisory bodies relates to the discussions concerning the proposed hotel school at the Westminster Technical Institute. In October 1932 E.M. Rich informed Dr. Long that "In regard to the hotel school, I am afraid we are faced at present with the repeated recommendation of the Consultative Committee advising the Council to defer action in the matter...I am sorry to be so discouraging for I agree that it is disturbing to see English boys being sent abroad for training, but, in the circumstances you will understand that it is impossible for the Education officer to take any action in the matter until such time as the Consultative Committee may reverse their

1. L.C.C. EO/HFE/4/2 J.C. Till to B. Ingram, 6th November, 1931.

2. L.C.C. EO/HFE/4/3 Marginal note B. Ingram to J.W.Bispham, 27th July, 1939.

3. L.C.C. EO/HFE/4/3 Marginal note E.M. Rich to J.W.Bispham, 13th November, 1936.

attitude and decide definitely to ask for the formation of the school."¹

The decision to establish a girls' trade school at the South East London Technical Institute was taken in principle by the Education Committee in 1928, but the implementation of this decision was delayed for some time by the failure of the Needle Trades Consultative Committee to reach a majority decision over the actual date upon which the school should open. The matter was discussed several times during 1932 and 1933 but the Consultative Committee remained dead locked and in November 1933 the Education Officer was informed that "It is evident that the employees' representatives feel very strongly on the matter, and that if the Consultative Committee do reach a decision it will be only as the result of an accidental majority attendance of one side at a particular meeting."²

The discussions surrounding the opening of the girls' trade school at the South East London Technical Institute illustrates how particular factions within advisory bodies might retard course development. In the issue of the relationship between the Barrett Street Trades School and the School of Retail Distribution it was the employers rather than the employees who proved difficult, J.W. Bispham noting in 1939 that "Miss Cox is supported by her desire for certain courses by an influential group of employers."³ Nevertheless, it would be incorrect to assume that the Education Officer and his staff were powerless against the consultative and advisory committees. In the case of the girls trade school at the South East London Technical Institute, for example, Rich at one time contemplated by-passing the consultative committee.⁴ In fact further discussions were held, but without success so that in January of the following year the Education Officer recommended to the Higher Education Sub-Committee that a junior technical school for girls

1. EO/HFE/1/83 E.M. Rich to Dr. Long, 19th October, 1932.

2. L.C.C. EO/HFE/4/100 A.B.S. to Education Officer, 9th November, 1933.

3. L.C.C. EO/HFE/4/3 J.W.Bispham to Ingram and Terry, 28th July, 1939.

4. L.C.C. EO/HFE/4/100 E.M. Rich to H. Sanders, 24th April, 1933.

in wholesale dressmaking be opened at the South East London Technical Institute. Since the reports of the advisory sub-committees were not made direct to the Council it was easier than in the case of the central consultative committees for the Education Officer to overrule any decisions taken. In 1939, for instance, the principal of the Smithfield Meat Trades Institute expressed concern to Rich about a decision taken the previous year by his advisory sub-committee that all classes should be held on the school's premises. This, the principal argued, endangered the support of certain business concerns for the Institute.¹ The sub-committee's decision was apparently reversed by the Education Officer for classes continued to function on the premises of individual firms.

The committee structure provided the Education Officer with a useful weapon for countering ambitious principals and governing bodies, and perhaps the consultative committees were especially valuable in relation to the polytechnics where the greater freedom attached to aided institutions could prove an embarrassment. Even so, there is little doubt that the committees were influential and were treated with considerable respect. Their members were able to provide expert guidance on professional matters, on the selection of staff and on all the technical detail not easily accessible to the education authorities. Dr. Drakely's thoughts on the importance of advisory committees are worth quoting at length:

"For the maintenance and development of existing courses and for the inauguration of new courses, an advisory committee is indispensable. The advisory committee must be composed of the eminent leaders in the industry or profession. I always refused to have on advisory committees members who were not "heads." Indeed if an industrialist on receiving

1. L.C.C. EO/HFE/4/90 Principal of Smithfield Institute to E.M. Rich,
21 June, 1939.

an invitation to serve on an advisory committee suggested he would send a departmental foreman I always refused the offer and said either he would come himself or not at all. The reason for this is that a foreman or representative cannot commit his firm to a line of action without referring back for instructions, but most of all if representatives appear and not the "head", the other eminent industrialists you have persuaded to join will either cease to attend or send representatives with consequent loss of effectiveness. "With a powerful advisory committee much can be achieved.

For instance, the rubber advisory committee provided free of charge new - not discarded - machinery worth thousands of pounds. In addition moneys were made available for prizes, books, testing equipment and for students to visit factories at home and abroad.

"Influential advisory committees collaborate with the Governing Body in many ways. Thus one advisory committee arranged for a machinery manufacturing firm to supply a particular machine, provided the Governing Body agreed to purchase an electric motor to operate the machine. The Governors made suitable financial arrangements and the institution thus had a very expensive complete machine for the cost of the electric motor. Furthermore, a powerful advisory committee can ensure that if a new model of a machine comes out, an exchange will be made so that the students are familiar with the most modern equipment."¹

It has already been indicated that it was very often extremely difficult to secure the regular attendance of members at advisory committee

1. Dr. Drakeley in correspondence with the author.

meetings and that this may have reduced their effectiveness.¹ Perhaps not all principals were so persuasive as Dr. Drakely, but, as individuals, committee members could be valuable in a variety of ways. In 1928 the Education Officer noted that several members of the advisory sub-committee attached to the School of Engineering and Navigation attended only very irregularly and suggested that their removal from the committee should be considered.² The principal of the School, however, was greatly alarmed at this suggestion since the influential Magnus Mowat was one of the members concerned. Principal Garrett argued that "It is certainly desirable from my point of view that the Secretary of the Institution of Mechanical Engineers should remain a member of the Advisory Sub-Committee of this School."³

In practice a good deal of the work of consultative advisory committees was carried out by a small group of interested people. In 1931 the Higher Education Sub-Committee reported that the marked increase in enrolments at the Barrett Street lectures for distributors was due to the work of the newly formed advisory committee and the efforts of its chairman, H.J. Clarke, the chairman of Messrs. Selfridges, were singled out for special mention.⁴ Sir Isidore Salmon, chairman of the advisory committee of the School of Cookery and Waiting at the Westminster Technical Institute, campaigned over a period of years for the addition of a hotel school at the Institute, and in fact it was Sir Isidore who had first approached the Council in 1909 with a view to establishing a course for chefs.⁵ Apart from their propaganda value, men such as Salmon and colleagues on Committee

1. See pp.160,161.

2. L.C.C.EO/HFE/7/36 Minutes of the Advisory Sub-Committee of the School of Engineering and Navigation, May 1913 to Feb. 1927, 6th February, 1925.

3. Ibid.

4. Education Committee Minutes, 9th December, 1931, p.555.

5. L.C.C.EO/HFE/1/83 Section on the Provision of Technical Education in Central London. Report of an interview with Sir Isidore Salmon, 23rd May, 1935.

were able to assist in organising financial support for particular developments. In reality, therefore, the importance of the central and local advisory committees was more complex than their terms of reference would suggest and undoubtedly they played an important part in fashioning the structure of technical education in London.

The Education Officer and his Staff

When proposals for a new course were submitted to the Education department of the L.C.C. it was normal practice for the Education Officer to make certain enquiries before deciding whether to attempt to discourage the college authorities or whether to forward the scheme, together with his own recommendations, to the Council. Sometimes the Education Officer was personally concerned in making enquiries, particularly if the proposals were likely to result in substantial expenditure or involved discussions with outside institutions, though the basic groundwork was left to subordinates. However, in view of the enormous commitments attached to position of Education Officer, the degree to which successive occupants of the post took a personal interest in course development is particularly noteworthy, especially since their own attitudes were therefore more likely to be reflected in the structure of technical education.

Enquiries were made of the central consultative committees, the Ministry of Labour, trade organisations, employees' associations and individuals with specialist knowledge. It is difficult to estimate the extent to which enquiries were made of local businessmen since they were less likely to leave a record in the County Hall files than the formal approach to relevant organisations or individuals. Nevertheless, it is clear from internal memoranda that the local situation was usually carefully assessed and the investigator's impressions forwarded to the appropriate officer. Surprisingly though, relatively little contact seems to have been made with the non-technical school authorities where, with particular reference to the junior technical schools, useful information may have been available.

Throughout the interwar period the principal objective behind the Education Officer's enquiries seems to have been a desire to avoid undue proliferation of similar courses. The precedent for this approach was found in the pre First World War decision of the Council to concentrate subjects according to content and level of work. In 1917, for example, the engineering department of the Northern Polytechnic was closed down and shortly after as a reciprocal measure, the work of the building department of the Northampton Polytechnic was discontinued.¹ One of the main difficulties behind the opening of the North-Western Polytechnic in 1931 was the exact nature of the courses to be assigned to the Polytechnic. In 1922 H.T. Holmes, one of the Board of Education's Divisional Inspectors, noted that "it is difficult to suggest any definite branch of work which the new Poly should take up."² Various suggestions were put forward by County Hall officials as to the type of course that might with justice be introduced at the North-Western, but their deliberations were extremely protracted and it seems that eventually it was largely due to the persistence of Sir William Collins, the Chairman of Governors, and his policy of limited development that helped to determine the balance in favour of the Polytechnic's opening. Even when the polytechnic had been functioning for some time the concentration policy pursued by the Council and its officers was found highly restrictive, particularly when other institutions maintained a close watch to forestall any competitive overlap. In 1936 the Education Officer granted permission for the North-Western Polytechnic to offer trade classes in engineering subjects. However, the matter soon came to the attention of J.A. Reid, the principal of nearby Paddington Technical Institute, and in a strong letter to Bispham expressed the view that "the polytechnics may open up classes and courses without any consideration being given to the views or

1. Report of H.M. Inspectors on the Northern Polytechnic, 1924, op.cit., p.1.

2. P.R.O. Ed. 90/155 H.T. Holmes to W.R. Davies, 17th July, 1922.

wishes of the Principal of a maintained Institute."¹ A meeting was eventually arranged between Bispham, Reid and Dr. Lowery, the principal of the North-Western Polytechnic, at which a firm assurance was given that the North-Western would not be allowed to develop engineering courses of a national certificate character.²

The prime consideration behind the concentration policy was financial, based upon the prevention of unnecessary duplication. A similar motive lay behind the refusal to sanction similar classes at different institutions if there was a danger of demand falling short of the increased facilities. This was likely to be the case, argued Bispham, when he was approached by the Joint Council of the Heating, Ventilating and Domestic Engineers in 1934 with a view to permitting the Northern Polytechnic to offer a course in heating and ventilating.³ Bispham may perhaps have adopted an unduly cautious policy, but as was frequently the case he was in a difficult position since D.H. Ingall, the principal of Borough Polytechnic the only centre at which such a course was already being held, was strongly against the proposal.⁴ In this very general sense financial considerations were therefore an important, though not necessarily insurmountable, limitation upon the Education department's manoeuvrability, yet the careful and jealous way in which courses were protected by particular institutions created a further set of references which to some extent limited the perspectives of the Education Officer and his staff.

Before allowing a new course to proceed E.M. Rich, in particular, went to a good deal of trouble to satisfy himself as to the employment prospects of the trained worker. This applied especially to full-time courses where a lengthy period of training might commit a boy or girl to an area of employment offering little in the way of personal advancement. Thus in 1932, when

1. L.C.C.EO/HFE/5/123 J.A. Reid to J.W.Bispham, 10th May, 1937.

2. L.C.C.EO/HFE/5/123 Report of meeting held 4th June, 1937.

3. L.C.C.EO/HFE/5/17 H.L.Egerton to J.W.Bispham, 1st September, 1934.

4. L.C.C.EO/HFE/5/17 D.H.Ingall to J.W.Bispham, 1st October, 1934.

employment conditions in the photo-engraving section of the printing industry were difficult, Rich made it clear to the principal of the School of Photo Engraving and Lithography that the intake to the junior technical school should be limited.¹ In 1933, the introduction of a one year full-time senior tearoom course at Clapham Trade School was only permitted after a strong assurance from the School's principal that employment prospects in the trade were very favourable.² From the County Hall files, the principal officers of the technical branch of the Education Officer's Department and including the Education Officers themselves, emerge as extremely sympathetic to the welfare of individual students, yet it is difficult to access the balance reached between ethical and economic considerations. Economic factors were present in the sense that the failure of a course to attract students, might represent a financial loss, but beyond this was the wider consideration of meeting the needs of the economy for the correct type of labour.

Certainly on the micro level concern was expressed that the needs of London's economy represented an important element in course development, though the approach to planning was of a very general nature with little evidence of detailed quantitative analysis. A degree of emphasis was placed upon the adaptability of workers to meet changes in techniques of production. According to Rich, the aim of trade schools was to improve the students' "general education, giving him an artistic training and thorough instruction in all the principles and methods involved so that they could become readily adaptable to changing conditions."³ When a shortage of workers in a particular trade became apparent the Education Officer was willing to consider allowing the introduction of a course to help satisfy the demand for labour. For example, as a result of certain enquiries, Miss Sanders found "that nowhere in London is special training being given for men cutters in the ready-made

1. L.C.C.EO/HFE/4/78 J.Macdonald to A.J.Bull, 10th December, 1932.

2. L.C.C.EO/HFE/4/141 K.A.Corner to Education Officer, 17th October, 1933.

3. L.C.C.EO/HFE/5/30 E.M.Rich to J.W.Bispham, 20th July, 1934.

and wholesale bespoke work."¹ Following this report permission was given for the Cass Institute to provide such a course. Other considerations, however, might counteract the immediate needs of the economy. In reference to the proposed full-time course in metallurgy at the Cass Institute, Beresford Ingram remarked that "there is a slowly growing demand for instruction in metallurgical processes by metal founders other than those engaged in mechanical engineering. The Council, I think should be in front of this demand directing it at the beginning rather than when it has become partially formed."² Ingram's suggestion was not pursued by the Education Officer, more importance being attached to the cons than the pros.

At the macro level, too, the value of technical education was frequently expounded by the Education Department's officers, especially in relation to the achievements of the German system of vocational education. C.T. Millis, one time principal of Borough Polytechnic and one of the earliest and leading supporters of technical education, London, attributed much of the credit for the establishment of the London School of Printing to J.C. Smail,³ who had himself been impressed by first hand experience of the Continental approach to education.⁴ The printing trade, too, was in accord with Smail. In 1919 a deputation from the Printing and kindred Trades Technical Council informed the Higher Education Sub-Committee that "There was not the slightest doubt about it that those members of the trade who visited Germany before the war were astounded at the technical education in that country, and even if we start now we are going to be ten years behind."⁵

Economic factors were clearly important in the overall development of London's system of vocational education. However, it would be incorrect

1. L.C.C.EO/HFE/5/158 H.Sanders to J.W.Bispham, 25th October, 1934.

2. L.C.C.EO/HFE/5/159 B.Ingram to E.M.Rich, 9th February, 1930.

3. C.T.Millis, Education for Trades and Industries, op.cit., p.107.

4. Mrs. E.M. Rich in conversation with the author, 3rd January, 1971.

5. L.C.C.EO/HFE/4/56 Printing and kindred Trades Technical Council, Deputation to Higher Education Sub-Committee, 20th November, 1919.

to assume that the needs of London or the national economy were necessarily of paramount importance to the Education Officer's department. As far as Dr. Drakely could recall, the L.C.C. never attempted to initiate new courses at the Northern Polytechnic.¹ Perhaps in part the answer lay in the common belief that industry and commerce would automatically make known their requirements. In 1917 Ingram made it known that he was not convinced "that those who are in charge of the higher technical institutions have succeeded in gaining the confidence of the industrial employers. It seems to be an accepted fact that the business man should approach the institution - the converse appears to be exceptional."² In 1932 Gater himself expressed the view that it was for the employers to indicate their needs and for the schools to attempt to meet them. More generally, however, the explanation is multi-causal with financial, institutional and other interests combining to make a single factor approach unrealistic.

Nevertheless, the contribution of individual officers to course development should not be underestimated. Whether in negotiating directly for a particular course or, more peripherally, for the accommodation that would make further development possible, the three Education Officers of the interwar period and their staff frequently demonstrated remarkable persistence in securing their objectives. The issue of further accommodation arose in the early 'twenties with regard to Hackney Technical Institute. The Council's application for grant assistance was not favourably received by the Board of Education, one of the Board's officials believing that the Authority had based "their argument on figures of total student hours which they must have known to be misleading."³ Sir Robert Blair, however, argued that average student attendance at Hackney was very high so that the request for additional

1. Dr. Drakely in correspondence with the author.

2. L.C.C.EO/GEN/1/51 Report of the Departmental Conference on Technical Education, 5th December, 1917, Reservations by B.Ingram.

3. P.R.O.Ed.90/137 H.T.Holmes to Pearson, 13th June, 1923.

accommodation was fully justified.¹ The debate continued for some time, J.C.Smail carrying on the campaign after Blair's retirement, so that eventually the Board capitulated. Reference has already been made to the personal efforts of Blair and Gater in organising business interests in support of new courses² and the same may be said of Rich. In an article on the development of management courses, G.A. Robinson paid tribute to the helpful way in which Rich and Bispham had personally contributed to the promotion of management courses.³ In general, therefore, although the inspiration for course development rarely came from the Education Officer's department, the degree of enthusiasm exercised by the Education Officer and his staff was of major importance in determining the success of any new scheme and throughout the interwar period London was served by officers who, on the whole, adopted a positive approach to technical education, even if allowance necessarily had to be made for other pressures.

The influence of Robert Blair within the London education service requires particular consideration. Blair became London's first Education officer, or more precisely Executive Officer, in 1904 and remained in that position until his retirement twenty years later. Assuming control of the administrative work of the London School Board and the Technical Education Board was a formidable task, but arriving at the beginning provided Blair with the opportunity of fashioning London's education system to his own design and inevitably, therefore, to some extent determining the long term direction of the service. In 1935 Rich expressed the opinion that "It can safely be said that the structure of education in London he (Blair) created stands today essentially as he built it."⁴ Even many years after his retirement Blair's influence upon the development of London's education system may

1. P.R.O. Ed.90/138 R.Blair to Secretary, Board of Education, 22nd January 1924.

2. See p.159.

3. G.A.Robinson 'Education for Industry', British Management Review, vol.11 April-June 1937, No.2. p.98.

4. The Times, 17th June, 1935, 21 a.

fairly be said to have been highly positive working through the actions of the team which he had built up. Blair had spent four years in Ireland, firstly as Chief Inspector of Technical Education and then as Assistant Secretary for Technical Instruction.¹ During that period he renewed his acquaintance with Rich, whom he had taught at Aske's Hatcham Grammar School,² for Rich himself spent some time in Ireland as an Inspector with the Department of Agricultural and Technical Instruction. Moreover, both J.C. Smail and Beresford Ingram held similar positions with the same Department so that the work of all three men was thoroughly familiar to Blair.³ Soon after his appointment as Executive Officer (Education) to the London County Council, Blair accepted Rich, Smail and Ingram into his department. Ingram was eventually assigned the post of organiser of the Council's day continuation schools and Smail, that of the Council's organiser of trade schools, two of the aspects of London's education service to which Blair attached great importance. Rich became successively Principal Assistant in the Education Officer's Department (1905-10), Head of Technology Branch (1907-10), Head of Elementary Branch (1910-28) and then again Head of Technology (1928-33), until in 1933 he succeeded George Gater as Education Officer.⁴ Rich retired in 1940, and although Smail had departed in 1928 to take up an appointment as principal of Heriot Watt College, Ingram continued in the service of the L.C.C. for a further five years. The impact of one person's ideas upon the thinking of other men is difficult to assess, but it would seem unlikely that the dedicated approach to technical education shown by Rich, Smail and Ingram did not owe something at least to Sir Robert Blair.

Blair's own general attitude to technical education is quite well documented. It would not be an exaggeration to say that technical education

1. Who Was Who, 1929-40, sub.

2. Mrs. E.M. Rich in conversation with the author, 3rd January, 1971.

3. Rich, Ingram and Smail became good personal friends, Rich acting as best man at Smail's wedding, ibid.

4. Who Was Who, 1951-60, sub.

was of special interest to Blair. Apart from his work in Ireland, Blair had been headmaster of the School of Science and Technical School, Cheltenham (1893) Inspector North Scotland District for the Science and Art Department (1894-8) and had acquired his own degree through part-time evening study in London.¹ His work in Ireland demonstrated his wholehearted support for technical education. According to Rich, he "covered the country with efficient technical schools, and he modernised the curriculum of the secondary schools by the introduction of science."² As with so many administrative reformers, Blair was deeply impressed by events in Germany. In February, 1914, he informed the Council that "continued education in England still follows the plan of laissez-faire or go-as-you-please. Germany possesses a national organisation for definite national objectives... The British method makes the best top; it also produces the worst tail, and it does not do much for the general raising of the great mass of workers."³ In 1916 Blair established a number of departmental committees to consider the relationship of educational reforms to post-war reconstruction. At the beginning of his memorandum outlining the approach he intended to take, Blair noted how educational reform on the Continent had frequently followed war and emphasised that the time was now appropriate for a major reassessment, commenting that "The war has shown us what we had not sufficiently realised that we have disagreeable and troublesome but capable and thorough going neighbours in Europe."⁴ Five committees were established to discuss the overall plan of reconstruction but significantly the Chief Inspector informed Blair that, although he would have general oversight of all the committees, he would pay special attention to two of them,

1. Who Was Who, 1929-40, sub.

2. The Times, 17th June, 1935, 21a.

3. L.C.C. EO/HFE/1/16 Report by the Education Officer submitting a Report by J.C. Smail on trade and technical education in France and Germany, February, 1914, p.1.

4. L.C.C.EO/GEN/1/44 Post War Reconstruction. Memoranda by the Education Officer, 1916, p.12.

one of which was concerned with technical education.¹ It seems likely that this arrangement was to satisfy Blair's own requirements.

Further evidence as to the importance Blair attached to technical education is provided by the appointment of Dr.F.H.Spencer as successor to Dr. Kimmins upon his retirement as Chief Inspector at the close of 1921. Dr. Spencer's qualifications were particularly strong on the technical side for he had spent six years as head of the Day Commercial Department of the City of London College and seven years as an Inspector with the Technical Branch of the Board of Education.² Moreover, on certain major issues Spencer was clearly in sympathy with Blair. For example, he regarded the failure of the compulsory day continuation scheme as morally and economically indefensible.³

More specifically, Blair firmly believed in the value of the London trade schools, consistently showing himself to be in support of their development. In particular, he urged the growth of trade schools within the polytechnic structure.⁴ But perhaps one of Blair's most significant contributions to London education was to set the guidelines for a co-ordinated system of planned development where the various components were related one to another. Blair realised, however, that such a scheme would not be easy to achieve:

"The difficulties of our own traditions, especially of the haphazard way in which on the whole our educational system has grown up, will oppose (sic) serious obstacles to reform and especially to any reform which shapes towards co-operation of all parts of any system."⁵

-
1. L.C.C.EO/GEN/1/45 Post War Reconstruction. Suggestions by Officers. Chief Inspector to Education Officer, 17th June, 1916.
 2. L.C.C.EO/HFE/STA/3/3 Qualifications of applicants for the post of Chief Inspector, 1922.
 3. The Times, 5th June, 1939, 10c.
 4. L.C.C.EO/HFE/1/1 Report to the Polytechnics and Evening Schools Sub-Committee, 11th July, 1907, p.2.
 5. L.C.C.EO/GEN/1/44 Post War Reconstruction. Education Officer's Memoranda, 1916, p.2.

In 1915 Blair advised the General Purposes Sub-Committee that all children could benefit from a break at a certain age to embark upon a specially planned course.¹ More consideration, he argued, should be given to the long term requirements of the child.² Technical education was regarded by Blair as an important part of the general theoretical framework, with the junior technical schools, compulsory day continuation schools and the central schools being viewed as a more practical alternative to the usual full time school course. The Council's concentration policy appears to have emanated from Blair for in a series of memoranda, undated, but probably 1906 or 1907, Blair instructed A.E. Briscoe to urge the polytechnics to specialise upon those courses in which they had special interests.³ Further, Blair seems to have had no objection to the development of higher level work within the polytechnics, indeed he favoured research in all the senior institutes,⁴ but he did object to the proliferation of full time day courses leading to University of London degrees.⁵ Whatever the motives behind Blair's attitude, its implications for the future developments of technical education in London were considerable. To the extent that degree work was discouraged it no doubt encouraged institutions to support other courses of a senior nature and search for areas of study outside the traditional range of University of London degrees.

Blair's overall scheme of co-ordination went beyond the immediate learning situation. In 1916 Blair informed his senior officers that "We have not succeeded in establishing the same relationship between education and industry and commerce as our two greatest rivals have done. Bringing in the

1. Ibid.

2. EO/HFE/1/1 R. Blair to A.E. Briscoe, undated.

3. P.R.O. Ed.24/1862 R. Blair to Selby Biggs, 22nd February, 1919.

4. Report by the Education Officer to Education (General Purposes Sub-) Committee, op.cit., p.17.

5. Report to the Polytechnics and Evening Schools Sub-Committee, op.cit., p.2.

business world is to me the crucial problem of technical and commercial education. Consultative committees - say of Engineers, Chemists, Bankers and so on - for local education authorities or for separate institutions might be formed."¹ The impetus given by Blair to the consultative and advisory committee movement was perhaps one of his most lasting contributions to the structure of London's provision for technical education.

Finally, it is necessary to refer briefly to the administrative development of the Council's Education department where Blair's contribution was important in ensuring that the Education Officer was able to push through those ideas which he himself personally favoured. The initial organisation of the Education department was such that a Chief Clerk, equivalent in status to the Executive Officer,² was responsible for all clerical work connected with the committee structure as well as certain other tasks. Blair found this arrangement restrictive and in 1908 the educational work of the Council was placed under one department with Blair in charge.³ However, the post of Educational Adviser, which had been established in 1903 as the third section of the original tripartite structure remained until finally being abandoned in 1922. Blair later remarked that "In the years after 1903 the relationship of Educational Adviser and Education (Executive) Officer in the L.C.C. administration was a delicate one. That it worked without a jar was largely due to the lofty and serene atmosphere in which Dr. Garnett lived and to his capacity for co-operation."⁴ In fact Dr. Garnett had retired in 1915 and his post remained vacant until the matter was raised again when Dr. Kimmins retired. The office of Educational Adviser was then abolished and the duties shared between the Chief Inspector and the Education Officer. Blair, however, went

1. Post War Reconstruction. Education Officer's Memoranda, op.cit., p.12.

2. P.H. Andrews, 'The Organisation, Development and Administration in the Area of the London County Council, 1903-22,' op.cit., p.80.

3. Ibid., p.90 .

4. The Times, 3rd November, 1932, 14e.

to considerable effort to ensure that the Chief Inspector was fully answerable to the Education Officer. In May 1922 Blair reported to the General Purposes Sub-Committee that "the education service requires one officer on whom final responsibility should rest."¹ Moreover, the Chief Inspector "should remember that the seat of his operations is the schools and not the office."² Under the arrangements of 1903 the Chief Inspector had been assigned his own department and clearly Blair felt that this was, at any rate a potential, threat. In practice, the appointment of Dr. Spencer ensured a generally trouble free period of some years during which working relationships between the Education Officer and the Chief Inspector progressed smoothly.³ Nevertheless, Blair's overall efforts helped to ensure that his policy and those of his successors were only questioned by the Council.

1. L.C.C.EO/STA/3/3 Report by the Education Officer to the General Purposes Sub-Committee, 17th May, 1922, p.2.

2. Ibid.

3. In fact the question of the relationship between the Education Officer and the Chief Inspector arose again in 1940 when Graham Savage was appointed to replace E.M. Rich as Education Officer. According to S. Maclure, One Hundred Years of London Education 1870-1970 (1970), Savage 'distrusted the peculiar combination of administrative and advisory duties which fell to the London inspectorate.' The matter created considerable difficulty at the time and, according to Sir Harold Shearman (in conversation with the author, 4th June, 1971), the Council had to tread very carefully for fear that Savage or John Brown, the Chief Inspector, would resign. The compromise was reached when Brown was elevated to Deputy Education Officer and a new Chief Inspector was appointed.

CHAPTER NINE

The Influences upon Course Innovation and Development, 3.

2. Factors within the education system.

B. The Schools, the University of London and the Examining Bodies.

a. The elementary and senior schools

From 1903, when the L.C.C. assumed general responsibility for London's education service, until the outbreak of the Second World War, the Council's elementary and senior schools were subject to persistent criticism. Since the elementary and senior schools provided the backbone of recruitment to the technical college, the quality of their education is of importance, both in terms of the size of the output likely to take up further study and of the pupils' ability to complete a particular course.

Part of the attack on the elementary and senior schools was of a political nature and was related to the alleged social class bias of the education system. Much of the criticism, however, was more specifically concerned with the day-to-day work of the schools, and a good deal of this unease was expressed within the Education Officer's department of the L.C.C. In 1907 William Garnett claimed that both parents and employers had lost faith in London's elementary schools. Garnett argued that "The widespread existence of this feeling is the strongest condemnation of the educational system."¹ Blair also expressed himself as far from satisfied with London's schools. In 1915 he informed the Education General Purposes Sub-Committee that "We have at the bottom of the schools in London a very bad collection. Whether it is 500 or 400 does not matter but there is a very bad tail to our schools."² The following year when he was considering the questions of post war educational reconstruction Blair noted that "A very large number of children leave school at 14 in Standard IV, or below. When the standard of attainment up to Standard IV

-
1. L.C.C.EO/PS/1/8 Day Schools Sub-Committee. Report by the Educational Adviser, 22nd October, 1907.
 2. L.C.C.EO/GEN/5/21. 'Some Problems of Education in London.' A report by the Education Officer to the Education General Purposes Sub-Committee, 14th June 1915. This was said in discussion, of which a handwritten record was kept.

is considered, particularly in the poorer districts, it will be seen that a very large number of children are leaving elementary schools without possessing anything approaching the essentials of an elementary education."¹ Blair was particularly concerned with the effect that such poor quality elementary school leavers had upon the attitude of prospective employers. An investigation during 1915/16 had revealed a serious lack of confidence by the London business world in their young recruits.² Throughout his reconstruction memorandum of 1916 Blair referred time and again to the points made by the businessmen. Every possibility was to be considered. For example, Blair informed his senior officers that the businessmen "complained of the want of initiative in the elementary school pupil. Does the School discipline tend to reduce initiative? What can be done to foster it?"³

The reorganised senior schools appear to have been no more satisfactory than the elementary schools for during the 1930's they came under attack, both from within the Education Officer's department and from the Board of Education. In 1935 one of H.M. Inspectors calculated that a depressingly high figure of some 3,000 children aged ten and over in London's schools were unable to read.⁴ The weaknesses of the senior schools became so marked that in 1939 a special report was prepared by the L.C.C. Chief Inspectors which reflected in highly adverse terms upon the influence of the schools. Perhaps the most serious condemnation of both the senior and junior schools was their influence upon the attitude of the children who, according to the Inspector's report, "come to accept as true the unfavourable verdict often unwittingly pronounced upon their ability by their teachers in the junior school."⁵

-
1. Post War Reconstruction Education Officer's Memorandum, op.cit., p.7.
 2. L.C.C. Education Committee Minutes. Report of the Higher Education Subcommittee, 11th July, 1917, pp.401-407.
 3. Post War Reconstruction Education Officer's Memorandum, op.cit., p.7.
 4. L.C.C. EO/GEN/1/57 Minutes of a Joint Meeting of the Board of Education and L.C.C. Inspectorate, 7th April, 1933.
 5. L.C.C. EO/PS/1/15 Report of L.C.C. Inspectors upon Senior Elementary Schools, 20th June, 1939, p.5.

One of the major areas of criticism of both elementary and senior schools was that of curriculum. In detail, the fact that the teaching of biology was apparently "seriously neglected"¹ had adverse implications for more advanced biological course such as those provided by the Chelsea polytechnic. Similarly, in 1937 H.M. Inspectors remarked that the teaching of chemistry at the Northampton Polytechnic suffered from the student's lack of knowledge of elementary chemistry.² More generally, however, the 1939 report on the senior schools suggested that too little attention was given to the basic subjects and too much time devoted to games, handicraft and the like.³ Moreover, the curriculum, it was argued, was often unsuitable for modern conditions. The report noted that "Here and there efforts are being made to adopt the curriculum or parts of it to the needs and abilities of the pupils, and syllabuses and methods of approach are gradually being influenced by the affairs of everyday life. It is, however, doubtful whether the senior school has sufficiently questioned the appropriateness of the curriculum and teaching methods taken over largely en bloc from the unreorganised school."⁴

To some extent the problem of curriculum and teaching method stemmed from other sectors of the education system. It was reported in 1933, for example, that, with the exception of twenty five students at Furzedown, no student at any of the London training colleges were studying chemistry or physics.⁵ During the 1930's it became part of the Council's education policy to make the schools more technical in their approach to the curriculum,⁶ but such a development must have been retarded by the lack of suitable staff.

-
1. L.C.C.EO/PS/2/21 F.H.C.Butler to J.Brown, 10th November, 1932.
 2. Report of H.M.Inspectors on the Northampton Polytechnic, 1937, op.cit., p.17.
 3. Report of L.C.C.Inspectors upon Senior Elementary Schools, op.cit., p.5.
 4. Ibid.
 5. L.C.C.EO/GEN/1/57 Minutes of a Joint Meeting between the Representatives of the Board of Education and L.C.C. Inspectorate, 7th April, 1933.
 6. See pp.267, 268.

The infant and junior schools also came in for a share of criticism. It was claimed, for instance, that infant head teachers promoted rigidly at 7 . 9 years of age instead of regarding this as an average age of promotion so that children of very mixed ability passed through to the next stage of their education with the danger that the weaker pupils fell behind.¹ In 1938 the position was summarised by Rich who noted that "The establishment of senior schools has brought clearly the fact that many children reach senior school stage in a state of backwardness which prevents them from making the best of their senior school courses."² Rich, however, placed emphasis upon the large size of infants and junior school classes and the refusal of the Board of Education to allow the Authority to reduce them.³ Writing at a distance of more than forty years, Sir Graham Savate notes that the senior schools "were not weak schools so much as schools with weak pupils."⁴ Although this remark involves consideration of the students' family background as well as previous education, it does tend to relieve the senior schools of some responsibility for the often poor quality of their output.

Nevertheless, much of the responsibility for the weaknesses in the teaching programme was placed upon the teaching staff. Ideally, Blair would have liked his staff to have been social workers as well as specialist teachers. In 1915 Blair gave his own view of the classroom situation. "The child," he argued, "brings all the social problems into the schoolroom, and we have to think of this. We have to teach far more in the school than reading, writing and arithmetic. We have to think of what the children will be 25 years later."⁵ In practice this was a counsel of perfection. A little

-
1. Minutes of a Joint Meeting between Representatives of the Board of Education and L.C.C. Inspectorates, op.cit.
 2. L.C.C.EO/GEN/1/57 Memorandum prepared by Rich for members of an L.C.C. deputation to the Board of Education, 22nd July, 1938, p.4.
 3. Ibid.
 4. Sir Graham Savage in correspondence with the author, 15th July, 1971.
 5. Some Problems of Education in London, op.cit., p.14.

earlier William Garnett had attributed many of the problems of the schools to the nature of the teaching profession. Garnet argued that "the secondary school and the University had led by insensible graduations to the pupil, the bar, the solicitor's office or the medical profession, while the same steps, or the pupil teacher system and the training college, have similarly led to the teachers' register. Hence it has come about that the leaders of education have experienced no break in the continuity of their own lives and have not realised the breadth of the gap which separates the ordinary school from the workshop."¹ Over thirty years later the Council's Chief Inspector wrote in similar terms that "It is difficult for the educationists brought up on an academic curriculum to free themselves from the idea that, for senior school pupils, the study of a subject, as such, is intrinsically important and that a standard of knowledge, something like that which they themselves formally acquired for examination purposes, is desirable as a main aim of the teaching."²

Staffing problems intrinsic in the nature of recruitment to the teaching profession were exacerbated by fluctuations in the school role and the necessary adjustments to the staffing programme. From 1903 when the Council accepted responsibility for education, until the late 'twenties, the Education Officer's department was generally embarrassed by a shortage of qualified teachers. The shortage was particularly severe in the poorer districts of London where some schools were obliged to advertise so often for staff that they soon acquired a bad reputation among teachers.³ Moreover, it seems likely that the reputation of the schools in the poorer districts influenced recruitment to London schools as a whole. In 1923 it was claimed that "Any inspector who goes to the training colleges, will tell you that the London service is already obnoxious to many students on account of the slum

1. Day Schools Sub-Committee Report by the Educational Adviser, op.cit., p.15.

2. Report by L.C.C. Inspectors upon Senior Elementary Schools, op.cit., p.5.

3. L.C.C.EO/STA/2/30 Memorandum from the London Head Teachers' Association, undated but probably 1922.

districts and an idea that teachers are made to work in them."¹ The staff shortage further aggravated the situation by enabling teachers to migrate from schools in the poor districts to those in areas where more acceptable social conditions prevailed. A conference between senior County Hall education officials was held in April 1925 to discuss the staffing problem. Several explanations were suggested to account for the very low recruitment of staff to schools in the East End of London, including the problem of travelling from middle class suburban areas to the schools and the difficulty of obtaining a midday meal in the immediate locality of the schools.² Surprisingly little emphasis, however, was given to the particular expertise required in teaching children from a deprived background. Almost a year later the Board of Education expressed concern at the difficulty of filling vacancies in the East End of London and in response to this the Council's Chief Inspector informed Rich that "It may be that we shall have to lower somewhat the standard we demand for men teachers."³ The problem was further discussed by Board of Education and L.C.C. officials in October 1925 when "The Education Officer stated that the position had been given much consideration during the last few months and that the conclusion arrived at was that there was no main remedy."⁴ Thereafter, however, the staffing position appears to have eased as the impact of the declining rate of population growth and the migration from the County began to be felt.

Nevertheless, the changing demographic conditions created difficulties of a different kind. As the school roll fell and departments were closed fewer young teachers were appointed direct from training college with the consequence

-
1. L.C.C. EO/STA/2/30 Illeg. to Dowling 25th September, 1923.
 2. L.C.C. EO/STA/2/30 Conference between the Education Officer and members of his staff, 27th April, 1925.
 3. L.C.C. EO/STA/2/30 Dr. Spencer to E. Rich, 6th May, 1925.
 4. L.C.C. EO/STA/2/30 Conference between representatives of the Board of Education and the Education Officer's department.

that the London service became saturated with elderly teachers. Furthermore, any transfers that were necessary from one school to another normally involved the most recently appointed teachers so that while some schools were staffed largely by older teachers others had a strong preponderance of young teachers. In 1936 the Education Officer pointed out that 30 per cent of assistant teachers in London were aged 50 and above while the equivalent percentage for the rest of the country was 19.¹ Moreover, only 7 per cent of London teachers were under 25 compared with 15 for the remainder of the country.² The potential weaknesses of this situation did not escape the notice of the Board of Education. At a conference with County Hall officials in April 1927, Board of Education representatives claimed that they "had evidence which showed that (the) present distribution of staff did not adequately cover the subjects of (the) curriculum especially in senior schools."³ A further meeting was held in July of the same year when it was stated that "there were undoubted instances of schools where the staff as a whole were so elderly or so infirm as to border on inefficiency."⁴

Implicit in the criticisms of Blair and Garnett referred to earlier is a lack of awareness on the part of teachers of the future needs of the young pupil. Certainly during the interwar period there was a good deal of comment upon the failure of teachers to acquaint their pupils with the range of job opportunities available to them. The Chief Inspector's report upon recruitment to the junior technical schools published in 1935 attributed this in part to a lack of knowledge among the teachers themselves.⁵ In 1931, when

1. L.C.C. EO/STA/2/17 Report by the Education Officer on the Staffing of Elementary Schools, 3rd December, 1936, p.2.

2. Ibid.

3. L.C.C. EO/STA/2/17 E.P.Bennett to Young, 8th April, 1937.

4. L.C.C. EO/STA/2/17 Report of a meeting between representatives of the Board of Education and the Education Officer's department, 14th July, 1937.

5. L.C.C. EO/HFE/1/22 Recruitment to Junior Technical School. Report of Committee, A, p.4.

he was still principal of the Borough polytechnic, J.W.Bispham informed Rich that "the head teachers in elementary schools either forget to tell their students about the facilities provided for a junior technical school education or they find it convenient to keep the students."¹ In reply, Rich felt that "Head Teachers were so much immersed in their daily job of running their school that they forget about the junior Technical Schools."² In an internal memo to the Chief Inspector Rich expressed his own view more openly that "There is no doubt whatever that there is still a great deal of ignorance among Head Teachers and parents as to the conditions of entry into Junior Technical and Trade Schools."³ The problem of ignorance was perhaps greatest where an institution offered an uncommon subject. Referring to the music and rubber trades schools at the Northern Polytechnic, Dr.Drakely informed the Education officer that "Headmasters of elementary and other schools other than in this immediate neighbourhood know nothing of the prospects which training in these schools opens up for boys."⁴ Beresford Ingram, however, felt that the basis of Dr. Drakely's problem was that "H.Ms are not convinced that there is a career in the Rubber Trade."⁵ This and other comments leads to the view that some teachers deliberately deterred their pupils from applying for entry to a junior school. Paley Yorke, the Principal of the School of Engineering and Navigation, claimed that headmasters were suspicious of the junior technical schools because they believed that some principals were attempting to rob them of their higher tops.⁶ Paley Yorke also believed that teachers were sensitive to the status implications of the trade schools. In 1932 he informed Rich that "I am sure that behind this title of Trade Scholarships lies the idea in teachers' minds that this is a

1. L.C.C. EO/HFE/1/12 J.W. Bispham to E.M. Rich, 29th January, 1931.

2. L.C.C. EO/HFE/1/12 E.M.Rich to J.W. Bispham, 2nd February, 1931.

3. L.C.C. HFE/1/12 E.M. Rich to Dr. Spencer, 30th January, 1931.

4. L.C.C. EO/HFE/3/9 T.J.Drakely to Education Officer, 14th March, 1935.

5. L.C.C. EO/HFE/3/4 B. Ingram to J. Macdonald, 1st January, 1936.

6. L.C.C. EO/HFE/1/12 J. Paley-Yorke to E. Rich, 24th February, 1932.

last resort type of scholarship which should be reserved for the weaker boys - for those who are destined to be hewers of wood and drawers of water."¹

There is also evidence to suggest that the method of selecting students for junior technical school scholarships caused discontent among teachers. The issue was raised in 1927 when Gater informed Smail that some head teachers in the poorer districts were unhappy that their pupils were persistently offered courses in subjects which had only been placed as a second or third choice.² As the examination system was arranged only the top scholars were allowed to follow their first choice so that "It is very likely to be the case that schools in poor districts suffer most in this respect, not from any prejudice on the part of the examiners but merely because their marks have to be a little lower than those of the best candidates from other schools."³ The issue was apparently considered of some importance in recruitment to the junior technical schools for it was again raised in 1934 in relation to the preparation of the Chief Inspector's report on the same subject. The possible agitation that the scholarship system created among teachers is indicated by a note from the secretary of the Woolwich Head Masters Consultative Committee. The secretary informed the Education officer that "Nobody had any inkling of the principles or methods behind the awards."⁴ That this comment should have been made indicates a serious lack of understanding between the two particular sectors of the educational system.

-
1. L.C.C. EO/HFE/3/6 J. Paley-Yorke to E. Rich, 6th February, 1933.
 2. L.C.C. EO/HFE/3/5 G. Gater to J.C. Smail, 26th June, 1927.
 3. L.C.C. EO/HFE/3/5 J. Macdonald to Smail, 29th June, 1927.
 4. L.C.C. EO/HFE/3/6 R.E. Warriar to the Education Officer,
29th May, 1935.

The Secondary and Central Schools

One of the main failings of the elementary and senior schools appears to have been the lack of direction given to the pupils' future careers. A criticism frequently directed at the grammar schools was that they almost automatically channeled their pupils into a particular range of job opportunities. Moreover, it is suggested, the council secondary schools established under the Balfour Act were merely imitations of the traditional grammar school. During the 1930's the narrow vocational aim of the secondary schools became the main argument used by the Municipal Reformers on the L.C.C. against the further extension of the secondary system.¹ Certainly there was a good deal of comment during the interwar period that the traditions and values handed on by the secondary schools did little to foster the development of technical education. According to Lord Riddell, President of the Association for Education in Industry and Commerce, "The deification of scholasticism had had several unfortunate results. It has intensified the traditional inferiority of the craftsman and manual worker. It has led parents to hanker after scholastic careers for their children. And it has caused technical education to be regarded as the Cinderella of the educational system."²

Flann Campbell's work upon the London grammar schools during the first half of the twentieth century showed that "under the tripartite system of secondary education the curriculum has proved peculiarly inflexible and unadaptable to modern needs. The bookish, academic syllabus, which was so characteristic of grammar schools in the nineteenth century, has not been greatly modified."³ Moreover, argued Campbell, "even among those pupils who stay at school until their course is completed too large a proportion flock into the white-collar and minor professional occupations, although from the

1. See pp. 267, 268.

2. Lord Riddell, 'The Function of Education', Presidential Address to the British Association for Education in Industry and Commerce, 1928, p.6.

3. F.Campbell, Eleven Plus and All That (1956), p.XIII.

point of view of the country as a whole, as well as the pupils themselves, they might be better suited in manual or technical jobs."¹ Even, however, when science subjects were extensively taught within the secondary school there was relatively little chance that the pupil would wish to transfer to the technical school since the technical schools tended to concern themselves with the teaching of underlying scientific principles and therefore were frequently unable to offer a course that was markedly different from that provided by the technical school. According to Abbott, a specifically technological course, such as baking or building, was much more successful in attracting secondary school recruits than the general science course. The success of the more applied senior courses at the London polytechnics would seem to support Abbott's contention that greater attention to practical work was a more likely method of weaning more pupils from the secondary schools.²

Probably the most important implication for technical education of the London Central schools was that of their public image as second best grammar schools. Moreover, the mildly vocational bias of the central schools appears to have reacted adversely upon technical education in that it led to the belief that there was little difference between them and the junior technical schools. In a typescript report for the Council's Chief Inspector, a departmental committee suggested of the central schools in 1935 that the "existence of a technical bias in the school itself gives the idea that no transfer is necessary or desirable and the special facilities available in junior technical schools are not appreciated."⁴

1. Ibid., p. XIV.

2. A. Abbott, 'Senior Full-Time Schools', Education Outlook, Summer, 1933, p.77

3. By the end of March, 1938 there were 84 recognised central schools, 42 of which had a commercial bias, 4 a technical bias, the remaining 38 being of a dual nature.

4. L.C.C.EO/HFE/3/9 Recruitment to Junior Technical Schools, Report of Committee A, op.cit., p.4.

The provision of secondary school places in London improved considerably during the 1920's and, although no new maintained schools were built after 1928, the fall in the birth rate enabled London to approximate the average ratio of grammar school places in relation to the child population of the country as a whole.¹ Contemporary comment suggests that some courses benefited from the increase in the number of students possessing the entrance requirements. One example was that of the senior girls secretarial course at the City of London College which experienced a very considerable period of growth during the 1930's. In the technological field a joint committee reported in 1937 that the increase in secondary school pupils had been one of the factors behind the success of the national certificate scheme.² In 1933 the Council's Inspectors noted that an increasing proportion of students attending the training centre for handicraft teachers at Shoreditch Technical Institute had attended a secondary or central school.³ By 1936 approximately 43 per cent of part-time day and evening students at Northampton polytechnic had attended a secondary school.⁴ This exaggerates the position of London technical education as a whole since the level of course provided at Northampton frequently required a high entrance qualification. Nevertheless, the figure is of value for a comparison with enrolment statistics for 1930-31 shows that the number of ex secondary pupils had increased by some 14 per cent of the total while at the same time total enrolment had itself increased by approximately the same percentage.⁵ However, these considerations need to be balanced by the possible

1. F. Campbell, op.cit., p.35.

2. Report of a Joint Committee on Policy in Technical Education, 1937, op.cit., pp.16,17.

3. Report of an Inspection of the Shoreditch Technical Institute, op.cit.,p.2.

4. Report of H.M. Inspectors on the Northampton Polytechnic, op.cit.,p.22.

5. L.C.C. EO/HFE/5/224 Report of an Inspection of the Northampton Polytechnic by the Council's Inspectors, February, 1931, p.2.

loss of some pupils who, under the influence of the secondary school were directed away from a technical education. Similarly, while the standard of recruits to some courses may have improved, the educational quality of recruits to others may have fallen. In 1937 the Board of Education recognised that nationally the increase in secondary school places had probably lowered the standard of recruitment to the junior technical schools since the able elementary school pupil who had once found his way to the more vocational institution now entered the grammar school instead.¹ According to Abbott, the growth of secondary and central schools tended "towards an intellectual stratification of the population of a more definite kind than has ever existed."² This stratification, he argued, meant that the overall standard of recruits to the technical school had declined since formally the technical institutes had attracted some of the very bright pupils from the elementary schools. The L.C.C. Chief Inspector's report upon London senior schools noted in 1939 "that the general policy of increasing scholarship and special places tenable at secondary schools is resulting in a smaller proportion of children with ability above the average passing into and through the senior school."³ If this was indeed true and given that the bulk of the recruits to the technical institutes came from the elementary or senior schools, there seems little doubt that course development in technical education, at least for the lower grade work, was likely to be adversely affected.

The problem of securing the interest of headmasters in technical education existed in secondary as well as elementary education. The distinction of building a flourishing sixth form and maintaining a strong flow of students to the universities represented a special challenge to the secondary school headmaster. In commenting upon a suggestion from the Council's Inspectors

-
1. 'A Review of Junior Technical Schools in England', op.cit., p.13.
 2. A. Abbott, 'Recent Trends in Education for Industry and Commerce in Great Britain', International Labour Review, vol. XXXII No.2, August 1933, p.184.
 3. Report of L.C.C. Inspectors upon Senior Elementary Schools, op.cit., p.4.

that he should develop a closer relationship with the secondary schools, Dr. Long, the principal of the Westminster Technical Institute, remarked, somewhat ruefully, that "I should be exceedingly grateful to receive advice as to how to secure a working and virile co-operation with London secondary schools."¹ The frustration of apathetic and even hostile parents and teachers must have presented formidable opposition to even the most active of principals.

The University of London

The scale and breadth of the University of London's internal and external degree work inevitably meant that the University exercised an important influence over the development of technical education in the Council's maintained and aided institutions. In terms of status alone, the University's recognition of an institution could be of great importance. For example, without the University's acceptance of certain members of staff as recognised teachers of the University, the Institute of Chemistry refused to accept instruction provided by the Regent Street Polytechnic as qualifying students for its own awards. According to Major Worswick, the Polytechnic's director, this was a major factor holding back the development of chemistry teaching at Regent Street and was simply a matter of prestige.²

Detailed figures are not available for the number of external candidates attached to the University but the total internal University population reached 6,511 students in 1919-20 and had about doubled by the close of the interwar years, with annual growth being distributed fairly evenly throughout the period.³ The relative importance of degree work in institutions with recognised teachers as compared with University colleges for the period 1925-26 to 1935-36 is shown below:

-
1. L.C.C.EO/HFE/4/176 Dr.Long's report (undated), upon an L.C.C.Inspection of Westminster Technical Institute, July, 1936.
 2. L.C.C. EO/HFE/1/76 Report of a meeting between Gater, Smail, Miss Fawcett and Major Worswick.
 3. Collated in London Statistics from the University Calendars.

T A B L E A

Faculty of Science

	<u>University colleges</u>	<u>Chelsea</u>	<u>Battersea</u>	<u>Northern</u>	<u>Cass</u>	<u>Woolwich</u>
1925-26	2,265	143	108	133	103	26
1926-27	2,177	136	104	139	105	25
1927-28	2,215	146	140	138	106	27
1928-29	2,136	146	151	106	136	35
1929-30	-	-	-	-	-	-
1930-31	2,435	183	172	112	205	50
1931-32	2,646	221	183	117	181	35
1932-33	2,773	187	184	130	235	59
1933-34	2,792	182	206	125	244	69
1934-35	2,769	205	176	117	265	84
1935-36	2,748	220	172	118	302	113

T A B L E B

Faculty of Engineering

	<u>University colleges</u>	<u>Chelsea</u>	<u>Battersea</u>	<u>Northampton</u>	<u>Woolwich</u>
1925-26	600	1	59	104	19
1926-27	585	1	77	93	22
1927-28	595	2	85	109	25
1928-29	666	2	99	113	27
1929-30	-	-	-	-	-
1930-31	755	4	113	178	30
1931-32	808	6	133	213	19
1932-33	823	5	152	264	54
1933-34	775	8	157	227	68
1934-35	746	5	153	263	81
1935-36	759	5	135	270	103

It is difficult to assess to what extent the University's presence deterred students from entering one of London's polytechnics or technical institutes, though tables A and B suggest that in percentage terms in both science and engineering in general the polytechnics compared favourably with the University Schools as a whole. Moreover, if the number of external students attending the non University colleges was known the polytechnics would appear in an even more advantageous position. In the case of evening work only the London School of Economics could be regarded as a major threat since the remaining colleges offered little or no evening instruction that came into direct competition with the Council's aided or maintained institutes. The absence of a detailed breakdown of London students attending University or Council institutions as fee payers or scholarship holders adds to the difficulty of analysing why students attended one college rather than another. The Board of Education report upon engineering education in London published in 1927 argued that students went to the polytechnics rather than to the University because the fees were lower.¹ This would suggest that many, perhaps the bulk of polytechnic students were without a scholarship. Overseas students necessarily attended as fee payers and in 1926 about two-thirds of the first year full-time engineering students at Battersea Polytechnic were from abroad.² By itself, therefore, the presence of the University did not necessarily attract students away from the polytechnics, the issue being perhaps more closely related to other aspects of Council policy as well as to the social background of the students concerned.

The Council was aware of the changes of competition between the University colleges and its own institutions and, by virtue of its grant to the University, was able to exercise some control over the University's own

1. Report of H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.9.

2. Ibid.

course development. In 1929, for example, it was proposed that a department of business administration should be established at the London School of Economics. This gave concern to Rich for he asked Miss Fawcett, the Council's liaison officer with the University, "is this not infringing on the work of the City of London College."¹ This was followed by an enquiry from the Education Officer, George Gater, to the Director of the School which noted that "As the whole question of teaching business administration is in its initial stages and one or two of the London polytechnics have been experimenting in this direction, I am naturally interested in the draft scheme to which reference has been made."² In reply, Sir William Beveridge stated that "Our own interest is mainly concerned with research and nothing we do would be likely to interfere with the polytechnics."³ Gater then informed Rich and Miss Fawcett that "I don't think we can take any further action. Developments should be watched."⁴ Later in the same year the committee which was attempting to sponsor the proposal sought financial aid from the Council but Gater felt that any application should come through the University and added that "I am not certain whether in any case it is an application which should be entertained."⁵ Gater's reference to the application coming through the University is significant for it was upon Sir Robert Blair's suggestion in 1920 that University colleges were requested to forward their application for grant assistance from the Council through the University, a suggestion which the Senate viewed with satisfaction.⁶ This policy was aimed at co-ordinating the development of

1. L.C.C. EO/HFE/5/78 E.Rich to Miss Fawcett, 8th March, 1929.

2. L.C.C. EO/HFE/5/78 G.H.Gater to Sir William Beveridge, 12th April, 1929.

3. L.C.C. EO/HFE/5/78 Sir William Beveridge to G.H.Gater, 19th April, 1929.

4. L.C.C. EO/HFE/5/78 G.H. Gater to Rich and Miss Fawcett, 22nd April, 1929.

5. L.C.C. EO/HFE/5/78 G.H. Gater to Rich and Miss Fawcett, 9th October, 1928.

6. University of London File 297, E.Cooper Berry to R.Blair, 21st October, 1920

I am grateful to Dr.L.L.Pownall, the Clerk of the Senate and to Mr.Baatz, the Academic Registrar, for permission to search the University's own record

London's educational facilities and was undoubtedly intended as a measure of protection for the Council's institutions as well as ensuring a general orderly development.

The University's influence stretched to the content and organisation of certain polytechnic courses. National certificate and diploma courses, for example, were sometimes designed to follow the University degree syllabus so that students were able to take both the degree and national certificate or diploma examination. This was a practice criticised by H.M. Inspectors since it tended to reduce the initiative and experimentation in course development for which the national certificate and diploma scheme allowed. Moreover, in 1937 H.M. Inspectors noted that "the syllabuses for the engineering degree of the University have changed but little for a long time."¹ In this particular report H.M. Inspectors were especially critical of University policy for in 1935 the regulations relating to the date of future examinations for engineering students was changed with the result that the staff at Northampton Polytechnic found it impossible to continue their degree sandwich course arrangement. H.M. Inspectors attacked the inflexible attitude of the University, noting that "Technical Colleges such as this cannot afford to give what it considers decidedly the best engineering training, because the examination requirements of the University can no longer be met within the terms of a sandwich course. If the College did not fall into line with the new requirements of the University it probably could not continue to attract students, and as a result a successful course of uncommon value because of its close association with industry is made to approximate more closely to the traditional academic type of the University schools."²

There are other examples, too, of the University failing to allow

1. Report of H.M. Inspectors on Northampton Polytechnic, 1937, op.cit., p.6.

2. Ibid.

the promotion of particular courses at one or other of London's technical institutions. In 1932 F.J. Harlow, the principal of Chelsea Polytechnic, wrote to the Education Officer suggesting that the University might give its support to a diploma in biology and bacteriology.¹ Rich consulted his own staff who agreed that such a development was desirable so that in turn Rich communicated with the University. However, Dr. Deller, the University's principal officer, informed Rich that "I doubt whether the University ought to go on multiplying diplomas."² Both Gater and Rich pursued the matter and in 1936 two of the University's professors, acting as occasional inspectors, visited Chelsea Polytechnic to determine its suitability as a centre for the Diploma in Bacteriology already offered by the School of Hygiene and Tropical Medicine. Their report was highly unfavourable. The objections were based on three main points, the lack of suitable laboratory accommodation, the unsuitable qualifications of the staff and weakness in the nature of the bacteriology course already available at the Polytechnic.³ As a result of this report, the Academic Council of the University felt itself unable to accede to Chelsea's application.⁴

In 1936 a proposed course in astronomy at Woolwich Polytechnic was rejected by the University for rather different reasons. Although the content of the proposed course itself was not altogether satisfactory, the Academic Registrar felt that a more serious difficulty was that if the students were to take part of their practical work at the Royal Observatory, the University might be compelled under its statutes to inspect the Observatory and this was considered to be out of the question. Furthermore, the governing body of

-
1. L.C.C. EO/HFE/5/40 F.J.Harlow to G.H.Gater, 18th February, 1932.
 2. L.C.C. EO/HFE/5/40 Dr. E. Deller to E. Rich, 5th May, 1932.
 3. University of London File 600 1935-36. Chelsea Polytechnic. Inspection as to suitability for post graduate teaching for the Diploma in Bacteriology, June, 1936.
 4. University of London File 600 1936-36 Academic Registrar to F.J.Harlow, 26th June, 1936.
 5. University of London File 363 1936-37. Academic Registrar to Principal Woolwich Polytechnic, 12th November, 1936.

the Polytechnic had intended the course to be restricted exclusively to employees at the Royal Observatory and the University felt that such selectivity was undesirable.¹

Another aspect of this problem was the unwillingness of the University to extend its range of qualifications to meet an anticipated demand for instruction in particular subject areas. During the 1930's the principals of both Battersea and Chelsea polytechnics pressed the Education Officer to allow them to provide a full-time course in chemical engineering, a branch of the industry which, according to the principal of Chelsea polytechnic, was "becoming more widely recognised."² The difficulty, however, was that the University only examined internal students for degrees in chemical engineering. The need for an external degree in this subject was emphasised by W.Abbott, one of H.M. Inspectors, who felt that "London University will have to yield on this point, sooner rather than later."³ The enormous administrative work of the University's internal and external degree system helps to explain why a further proliferation of examination commitments should be regarded as undesirable, though the danger of retarding an important area of course development was also a matter of concern.

The Council's concentration policy also meant that certain proposals were blocked by the Education Officer's department because of the risk of duplicating work already in progress at one of the University colleges. In 1929 the principal of the Cass Technical Institute applied to the Education Officer for permission to offer a full-time course in metallurgy. The authorities of Imperial College, however, were very strongly against the scheme so that Rich felt unable to allow Cass to proceed with the application.⁴ During the

1. Ibid.

2. L.C.C. EO/HFE/5/5 G.F. O'Riordan to E.M.Rich, 23rd January, 1939.

3. L.C.C. EO/HFE/5/5 W.Abbott to J.W. Bispham, 10th May, 1939.

4. L.C.C. EO/HFE/5/159 E.M. Rich to B. Ingram, 12th February, 1930.

'thirties the principal of the Cass Institute made repeated efforts to secure a full-time course in metallurgy but was thwarted by the opposition from Imperial College. Eventually in 1938 Sir Henry Tizard, the Rector of Imperial College, expressed himself as less strongly opposed to the Cass scheme, though his suggestion was that the Institute should offer a shorter non-University type course.¹

To some extent the University of London may have been guilty of parochialism. Furthermore, the presence of the University may have directed some potential polytechnic students to one of the University colleges. Against this, however, needs to be balanced the possible effect of the University in encouraging the polytechnics to develop high level work of a less conventional academic nature. At the very least some of the University institutions set a high academic standard to which the polytechnics may have aspired. On balance, therefore, it is difficult to assess the influence of the University upon course development at the London technical institutes, although it was undoubtedly responsible for certain changes of speed and direction.

Other Examining Bodies.

The influence of the different examining bodies upon course development could vary considerably. Institutions such as the Royal Institute of British Architects or the Pharmaceutical Society of Great Britain were themselves able to refuse a college permission to prepare students for their examinations. Alternatively, the influence of the professional bodies within the national certificate and diploma schemes was more limited since they functioned in close partnership with the Board of Education. Moreover, the very number of examining institutions might have influenced the type of examination for which students prepared, thereby affecting course development. Cotgrove has argued, for example, that by continuing their own examination work, the professional

1. L.C.C. EO/HFE/5/159 E.M.Rich to J.W.Bispham, 14th July, 1938.

bodies prejudiced the success of the national certificate and diploma scheme in commerce.¹

As paper qualifications came to be held in increasingly high esteem, the attitude of examining bodies to course development was of great importance. By appreciating the need for and establishing an examination in a particular subject, an examining body could help to encourage the development of courses designed to meet the requirements of that examination. For instance, by setting up an examination for dental mechanics in 1937, the City and Guilds of London Institute prompted the Principal of Borough Polytechnic to seek permission to offer a full-time course for dental mechanics.² Similarly, a modification of syllabus requirements could induce a college to adjust its own courses. Hence in 1936 Chelsea Polytechnic was obliged to introduce classes in the chemistry and micro-biology of milk in order to accommodate new City and Guilds regulations.³ More directly, the national certificate and diploma scheme provided for the professional body to require a college to modify its course programme and from time to time this was done. Apart from the actual syllabus, however, the examination requirements of a particular body could determine the organisational structure of a course. This was perhaps most obvious in the case of grouped courses which became increasingly common during the interwar period. The implications of this arrangement reached beyond the question of subject choice for it had implications for the willingness of the boy or girl to take up further study and for their ability to complete a three or four evening a week programme. Equipment and staffing were other items not directly connected to the syllabus but which could come under the purview of some examining bodies. In 1935, for example, the Pharmaceutical Society of Great Britain allowed Chelsea Polytechnic to

1. S. Cotgrove, op.cit., p.157.

2. L.C.C. EO/HFE/5/26 D. Ingall to E.M. Rich, 9th July, 1937.

3. L.C.C. EO/HFE/5/42 E.M. Rich to Secretary, Board of Education, 3rd December, 1935.

continue preparing students for the Pharmaceutical Chemists' Qualifying Examination but only on condition that another full-time demonstrator was appointed, that certain apparatus be acquired and that the relevant head of department be provided with his own room.¹

Even if an examining body did not actively encourage the establishment or prodification of an existing course by lending its support to ideas emanating from within the technical institute it could influence the process of course development. Until 1936 it was the policy of the L.C.C. to restrict R.I.B.A. courses at the Council's maintained or aided institutions to the intermediate examination. In that year, however, the principal of Regent Street Polytechnic applied to the Education Officer for permission to provide a sandwich course leading to the final examination of the R.I.B.A. The proposal was approved by Rich, who seems to have been influenced by the support given to the scheme by the R.I.B.A.²

Sometimes, however, the examining bodies were comparatively slow in reacting to modern conditions. It was not until the early 'thirties that the City and Guilds drafted an educational scheme for an examination in welding technology, even though the advantages of welding over rivetting had been one of the discoveries of the First World War.³ Similarly, in 1935 the Radio Manufacturers' Association was instrumental in drawing the attention of the Institution of Electrical Engineers to the need for an organised scheme of training for radio service engineers, but the Institution decided to wait until receiving a formal communication from the Board of Education before taking action.⁴ Although the power of the professional institutions in the national certificate and diploma scheme was restricted through association with the Board of Education, they could nevertheless prove obstructive, at

1. University of London File 266 1935-36. A copy of this report was sent to the Academic Registrar of the University of London.

2. L.C.C. EO/HFE/5/136 E.M. Rich to J.W. Bispham, 2nd April, 1936.

3. Sayers, op.cit., p.278.

4. Institute of Electrical Engineers Library, Minutes of the Joint Standing Committee, vol. 9, 28th February, 1935.

least in the short-run. In 1930, for example, the Institute of Builders refused an initial application by the School of Building at Brixton for a national certificate course, even though the scheme apparently had the support of the Board.¹ The relationship of the Board of Education and the professional institutions and hence the power of the latter in course development is indicated by a comment from one of H.M. Inspectors in 1935. In response to a query brought to the notice of the Board by the Institute of Builders, it was noted by the Inspector that "The point raised by the Secretary of the Institute of Builders is, of course, ridiculously petty; but... it appears to be our practice to humour."² By 1935 the possible obstructive influence of the professional institutions appears to have been a mild irritant rather than a major obstacle.

In several ways, therefore, the various examining bodies could exercise an influence over the process of course development. It would be wrong, however, to view those institutions in isolation for there was undoubtedly a feedback process from the colleges and from other interested parties such as H.M. Inspectorate. For example, the City and Guilds committee which considered the proposed examination for dental mechanics included the principal of Borough Polytechnic. Similarly, representatives of the professional institutions might be members of governing bodies or advisory committees of one or more technical institute. Thus responsibility for another aspect of course development was placed in the hands of the principals.

1. P.R.O. Ed. 90/122 M.S. Briggs to F.E. Drury, 26th June, 1930.

2. L.C.C. EO/HFE/4/109 Minute by Dr. Burness, 8th July, 1935.

CHAPTER TEN

Parties and Policies, 1918-39

1. The party system

Since the machinery of government at County Hall was modelled upon the type of political system which had been evolved at Westminster, the characteristics of political life on the London County Council are more easily recognisable than for local government generally. In particular, the organisation of the political parties was more complex than elsewhere. Most of the rural counties were in any case without a party system at all, though the large cities were generally run on party lines. ¹ Nevertheless, only London had provision in its standing orders for the leader of the Council and for the leader of the opposition. ² Even though these offices were only introduced into the standing orders in 1934, both of them had been recognised and referred to in a quasi-official way for some time. Similarly, although the Chief Whips and their junior whips did not appear in the standing orders, their presence and authority were fully appreciated. ³ The Chairmen of committees have been compared with Cabinet ministers and like their counterparts at Westminster they all possessed a room or part of a room for their own use. The detail of L.C.C. politics reflects both the importance attached to the party system and the influence of the parliamentary system. Apart from party whips, there were division bells, tellers and sometimes even "pairing" arrangements were made.

The party system at County Hall had important implications for London's education service. One aspect of the party system was that education policy became clearly stated, both at election time and within the Council Chamber. The Education Committee, moreover,

-
1. Gibbon and Bell, op.cit., pp. 87, 88.
 2. W.A. Robson, 'London and the L.C.C. Election', The Political Quarterly, Vol. V111, April, 1937, p.198.
 3. H. Morrison, How London is Governed (1949), p.63.

was the only committee which met in public ¹ and to which reporters were allowed, a facility of which even the national press took advantage. The tendency towards a well defined education policy was further strengthened by the electoral system in London where the whole Council was dissolved every three years and new members elected, in contrast to the system of one-third annual retirement practised in the provinces. ² With a term of office lasting three years it was perhaps easier for a party to pursue a well defined education policy than if tenure of office was secure for one year only. It may be argued, therefore, that the party system contributed to a rigid polarization of attitudes on educational matters, and that opportunity for a useful less partisan approach to particular issues was perhaps missed. However, while the atmosphere at meetings of the Education Committee resembled that of meetings of the full Council, most of the basic work was done in private by the various sub-committees where party rivalry was likely to be less intense.

One of the dangers of the party system was that it might discourage an individual from proffering his own ideas. At the very least it made it difficult for the unseasoned councillor to effect a major change of policy. According to Eleanor, Lady Nathan, "matters of policy and general oversight of important matters did not come one's way at the earlier stages of one's time at County Hall. Later one learnt a lot at the endless conferences which took place in the Education Chairman's room, to which the Vice-Chairman and all Sub-Committee

1. Ibid, p.48.

2. Gibbon and Bell, op.cit., p.88.

Chairmen were summoned to meet officers and discuss problems before they came before the Committee at all." ¹ On the other hand it may be argued that the party system did help to ensure that "the activities of the individual crank, of which a few are almost invariably elected to public bodies, are not allowed to have play at the expense of broader interests." ²

Perhaps one of the principal ways in which the party organisation at County Hall influenced education was in its affect upon the relationship between the Education Officer and his staff and the councillors themselves. It may have been that the level of political controversy, at least on major issues, made it more difficult for the Education Officer to persuade the Council to accept his own ideas than was the case in the smaller, less political authorities. A good deal naturally depended upon the personality of the Education Officer, but when a policy had been evolved after prolonged party discussion and had perhaps been made an important cornerstone of electioneering policy, it was a difficult matter, even for the most resolute of professional officers, to effect a change of policy direction. The compulsory day continuation school issue in 1922 provides an example of the party machinery demolishing a structure which had virtually been the Education Officer's personal brainchild. The close relationship of the two major parties at County Hall with their respective national parties further consolidated the strength of particular education policies thus adding to the difficulties of the Education Officer who wished to introduce

1. Lady Nathan in correspondence with the author, 14th August, 1971. Lady Nathan was a member of the L.C.C. 1928-34 (Progressive) and 1934-49 (Lab.)

2. Gibbon and Bell, op.cit., p.88.

ideas into the educational framework. An examination of the general relationship between the Education Officer and his staff and the councillors is made later in this chapter. ¹

2. The parties, 1918-39.

The balance of power between the parties at County Hall during the interwar period is indicated below. ²

	<u>Councillors (Elected)</u>				<u>Councillors and Aldermen</u>			
	<u>Progressives</u>	<u>Mun.Reformers</u>	<u>Lab.</u>	<u>Ind.</u>	<u>Progressives</u>	<u>Mun.Reformers</u>	<u>Lab.</u>	<u>Ind.</u>
1910	55	60	3	-	57	75	3	2
1913	50	57	1	-	53	81	1	2
1919	40	68	15	1	46	80	17	1
1922	25	82	17	-	30	94	20	-
1925	6	83	35	-	9	96	39	-
1928	5	77	42	-	6	89	48	1
1931	6	83	35	-	6	96	41	1
1934	-	55	69	-	-	64	80	-
1937	-	49	75	-	-	57	87	-

The Municipal Reform party, which held the balance of power from 1907 until 1934, developed from the group on the Council collectively known as Moderates. At first the Moderates were simply a loosely knit body with very little party

1. See pp. 247-254.

2. Gibbon and Bell, op.cit., 0.677.

organisation, but the formation of the London Municipal Society in 1894¹ provided both a link with the Conservative party and a platform from which to develop a strong local party organisation. The decline of the Progressive party, which had dominated politics at County Hall until 1907, was matched by the rise of the Labour group on the Council. The London Labour party had been established in 1914, partly with the aim of setting up a co-ordinated working class party on the L.C.C.² The First World War delayed the party's assault on the Council but in 1919 it was decided to make a concerted effort to capture as many seats as possible. Herbert Morrison described the considerations bearing upon this decision.

"For the London Labour Party an important question concerned the risk of the Party, fighting independently, damaging the Progressives and so helping the Tories in three-cornered fights. We had no wish to assist the Tories in this way, but it was doubtful whether the Progressives had any real future; their period of achievement and progressive advance seemed more or less ended.

Electurally their prospects were poor. Moreover, if the Labour Party was to become a real and predominant face in London we simply had to fight everybody, everywhere. We therefore stuck to our principles and urged our local

1. Ibid., p.90 .

2. Herbert Morrison, Herbert Morrison An Autobiography (1960), p.56 .

organisations to put forward as many candidates
as possible in the election of March, 1919." ¹

The election of 1925 elevated the Labour group on the Council to the position of principal opposition party and in 1934 Labour gained control of the Council for the first time. The Labour party retained its majority on the Council at the next election in 1937 which, according to W.A. Robson, was remarkable "at a time when schemes of social welfare are becoming subordinated to considerations of military policy." ²

As an important instrument of local government, the London County Council attracted a number of extremely able men and women to its membership. During the period of its control of the Council the Municipal Reform party and hence the Council was led by G.H. Hume ³ (1917-25) and W. Ray ⁴ (1925-34). During that period the chairmen of the Education Committee were C. Cobb ⁵ (1917-21), H.C. Gooch ⁶ (1921-22), C. Jackson ⁷ (1922-23), and Mrs Wilton Phipps ⁸ (1923-26), W.H. Webbe ⁹ (1926-28), J.W. Gilbert ¹⁰ (1928-32) and Captain E. Cobb ¹¹ (1923-34). Throughout the whole of this period, however, Sir John Gilbert appears to have been regarded as the mentor

-
1. Ibid., p.74.
 2. W.A. Robson, op.cit., p.196.
 3. G.H. Hume; member of L.C.C. 1910-22 and then an Alderman; Chairman of the Council 1926-27.
 4. W. Ray; member of L.C.C. 1913-34; M.P.(U) 1932-37.
 5. C. Cobb; member of L.C.C. 1905-34; Chairman of the Council 1913-14; M.P.(U) 1928-29 and 1930-38.
 6. H.C. Gooch; member of L.C.C. 1907-10 and 1919-34; Alderman 1914-19.
 7. C. Jackson; member of L.C.C. 1907-13; Alderman 1913-16 and 1919-24.
 8. Mrs Wilton Phipps; Alderman 1913-31.
 9. W.H. Webbe; member L.C.C. 1925-34; Alderman 1934-40; Chairman General Purposes Committee, 1933.
 10. J.W. Gilbert; Alderman 1910-34; Chairman Education Committee 1917- and 1928-32; Chairman Council 1920-21; Chairman General Purposes Committee 1921-27.
 11. E. Cobb; member L.C.C. 1925-34.

of his party on educational matters. After the defeat of the Municipal Reformers in March 1934, W.H. Webbe became leader of the party and Eric Hall ¹ the chief education spokesman.

The elected Labour group and their Aldermanic colleagues on the Council in 1919 lacked experience of L.C.C. procedure, though their first leader, Harry Gosling, ² had served on the Council since 1898. Moreover, Susan Lawrence, ³ who had at one time been a Municipal Reformer, was capable of exploiting her expert knowledge of the standing orders. ⁴ With five of the nineteen members on the Council being Fabians, ⁵ the Labour group did not lack inspiration and, according to Gosling, the party possessed "every shade of advanced political thought." ⁶ After the departure of Gosling in 1924 the leadership of the Labour party went to A.E. Davies ⁷ (1924-25), Herbert Morrison ⁸ (1925-29 and 1933-40), G.A.G. Manning ⁹ (1929-31) and L. Silkin ¹⁰ (1931-33).

-
1. E. Hall; Alderman 1931-37; member of L.C.C. 1937-49.
 2. H. Gosling; member L.C.C. 1898-1904; Alderman 1904-25; M.P.(Lab.) 1923-30.
 3. Miss S. Lawrence; member L.C.C. 1910-12 (M.R.) and 1913-28 (Lab.)
 4. A.E. Davies, 'The London County Council, 1889-1937', Fabian Tract No.243, January, 1937, p.16.
 5. Ibid., p.15.
 6. H. Gosling, Up and Down Stream (1927), p.107.
 7. A.E. Davies; Alderman 1919-50; prominent Fabian and later an M.P.
 8. H. Morrison; member L.C.C. 1922-45; Secretary of the London Labour party, 1915-47; M.P.(Lab.) 1923-24 and 1924-31 and 1935-59.
 9. G.A.G. Manning; member L.C.C. 1922-32 and 1937-50.
 10. L. Silkin; member L.C.C. 1925-46; M.P.(Lab.) 1936-50.

The chief Labour spokesman on education affairs during the 1920's and early thirties was Mrs. E.M. Lowe ¹ who was first elected to the Council in 1922, and who became Chairman of the Education Committee in 1934. Mrs Lowe retained this position until 1937 when she was succeeded by Charles Robertson. During the Labour period of office enthusiasm for Education Committee work was apparently high and, according to Mrs Helen Bentwich ² "Herbert Morrison often said that education was too popular among the members, as so many give the education committee as their first choice." ³

3. The relationship between the professional officers and members of the Council.

Although the political system at County Hall ensured a close relationship between education policy and party politics, it would be wrong to assume that the influence of the Education Officer and staff, not only upon the day to day running of the schools, but also upon general matters, was anything less than enormous. The formal relationship between the Council and its officers was governed by the standing orders and by tradition. The standing orders ensured that all questions of principle, policy and finance were under the control of the full Council. In 1936 Herbert Morrison outlined the official relationship between the councillors and the officers.

"If the matter to be settled concerns policy, they might go so far as to say that the Committee will wish to do so and so which is politely telling the Committee what to do. If it is policy which borders on political policy the officer invariably says,

-
1. Mrs E.M. Lowe; member L.C.C. 1922-46; Chairman of the Council 1939-40.
 2. Mrs H. Bentwich; member L.C.C. 1937-55.
 3. Mrs Bentwich in correspondence with the author, 13th July, 1971.

This is a matter of policy for the Committee to determine; and if he does not think it involves policy but knows there may be controversy about it, he is careful to keep out of matters which may involve controversy between him and members or parties.But the Committees are absolutely free to disagree with the Chief Officers, and if they do, the Chief Officer may have a broken heart but never shows it, he always accepts the decision of the Committee with loyalty." ¹

In practice, however, the scale and complexity of the Council's work was such as to ensure that the influence of the professional officers was a good deal less circumscribed than the standing orders might suggest.

The scale of the L.C.C.'s work as an L.E.A. ensured that the Council would rely heavily upon the Education Officers' recommendations. The problem was explained by Dr. F.H. Spencer, the Council's Chief Inspector for the period 1923 to 1933. Writing of the members of the Education Committee and its sub-committees, Dr. Spencer argued that "in the great mass of their business they accepted generally and readily the recommendations of their officers. How else could an agenda of some 150 or 200 items be finished in an hour-and-a-half or two hours?" ² Dr. Spencer added, however, that "They were very sensible in distinguishing between detail and matters of principle. They desired candid advice on matters of principle, but they fully realised that the decision must be theirs." ³ But in the daily rush of business the temptation must

1. H. Morrison, 'How the London County Council does its Work', op.cit., pp.24, 25.

2. F.H. Spencer, An Inspector's Testament (1938), pp.291, 292.

3. Ibid., p.292 .

inevitably have been to rely upon the advice of the professional officers, especially on policy matters of less than first rank importance.

Although most L.C.C. members were only part-time politicians, their responsibilities, especially of the office holders, were considerable. According to Morrison "the responsibilities of a leader of the Council who takes his job seriously are as heavy as those of a Cabinet Minister with a busy department."¹ The work of other Council members could also be extremely burdensome. Lady Nathan noted that "When I was first elected as a Labour member of the Council I was immediately appointed a member of the Education Committee and as Vice-Chairman of the teaching staff sub-committee I became completely immersed in the job of learning how the wheels went round; of attending endless committees, both education and otherwise, as I served on other committees of the Council tooOne just struggled to keep abreast of the avalanche of day to day work."²

The strength of the Education Officer's influence also depended upon the personality of the Chief Officer concerned, and upon the personalities of the Council members with whom he had to deal. To this extent, therefore, the relationship between the Council and its professional officers must have varied over time according to the individuals involved. One aspect of the personality question was the Education Officer's skill in handling the various committees. This could be a formidable task since, according to Dr. Spencer, the committees could generate a difficult atmosphere. In describing his own, rather unhappy, first year with the L.C.C. Dr. Spencer noted that:

-
1. H. Morrison, How London is Governed, op.cit., p.65.
 2. Lady Nathan, op.cit.

"In my early days with the L.C.C. I was far too conscious that I was the servant of these committees; I felt I had lost an independence I had always valued, and this in some inexplicable way seemed to have undermined proper self-confidence. London had its own atmosphere. An aura to which I was unsympathetic seemed to enwrap every committee I entered; though I felt it was right that I should attend numerous sub-committees at which I had no immediate and specific business..... But attendance produced in me a state of intellectual and spiritual discomfort which was far from reassuring." ¹

It is difficult to generalise on the personal relationships between the councillors and the professional officers, but G.A.N. Lowndes throws an interesting light upon the type of approach adopted by two Education Officers. According to Lowndes "Gater was a charming and supremely tactical administrator in dealing with the new type of member brought into County Hall after the election of 1934 because, as Lord Snell ² put it, from that date they were determined that their administrators must be on tap but never on top. Blair on the contrary would never truckle to committees. He knew what he wanted and was determined to go for it and get it. I have often wondered how such a strong man

1. F.H. Spencer, op.cit., p. 284.

2. H. Snell; member L.C.C. 1919-25; Chairman of the Council, 1934-38.

would have fared with the kind of members and Committees we had after 1934. Even before he retired there were some quite serious explosions." ¹ Related closely to this point was the desire of the Education Officer concerned to modify the educational framework. There seems little doubt, for example, that Blair was determined to exercise a very considerable influence over London's education service. By contrast E.M. Rich appeared less ambitious than Blair. In discussing the issue of multi-lateral schools in the late 'thirties and early 'forties, Lady Nathan wrote of Rich that "My experience of Mr Rich, who had many good qualities, was that he was inclined to be on the defensive when new and perhaps rather revolutionary ideas were put forward. No I think Graham Savage was the forward looker." ² Rich's attitude, however, was not necessarily a reflection of inherent conservatism for there is little doubt that he greatly admired the work of Blair and was therefore probably reluctant to greatly modify the structure that he had helped to build. According to Lowndes "Rich was his (Blair's) keenest disciple and in conversation seldom omitted to mention him and his ideas. The impression which such conversations left upon me was that Blair was one of the greatest and most original and imaginative administrators which the L.E.A's of this country have ever known." ³

Apart from their attendance at committee and sub-committee meetings, the professional officers made contact with chairmen and members at informal meetings, in personal discussion and through correspondence. By its very nature this aspect of the relationship between Council members and the professional officers has left little evidence for the

-
1. G.A.N. Lowndes in correspondence with the author, 12th July, 1971. Mr Lowndes joined the L.C.C. from the Board of Education in 1934 as Assistant Education Officer in charge of the General Purposes Branch.
 2. Lady Nathan, op.cit.
 3. G.A.N. Lowndes in correspondence with the author, op.cit.

historian to analyse. Nevertheless, it is clear that either through informal group meetings or personal contact the Council members and officers had frequent opportunity to exchange ideas. Indeed Sir John Gilbert claimed that during his first period as Chairman of the Education Committee he "came into practically daily contact with Sir Robert Blair."¹ Through this less formal type of relationship the Education Officer had the opportunity to impress his own views upon party leaders. In this sense it may be argued that the party system could be used to advantage by the professional officer for once the party leaders were convinced of the merit of a scheme it would be assured of support in committee meetings.

Another important way in which the Education Officer could influence Council policy was in the preparation of the estimates. In general terms the Education Officer's experience enabled him to judge the overall temper of the Council and thus decide when it was possible to attempt an expansionist policy and when it was wiser to adopt a more conservative approach. In detail the Education Officer co-ordinated the different projects that were forwarded by the branch heads and it was his responsibility to balance the merits of the various projects which competed for the Council's funds. Although the Council's general development policy established the framework within which the Education Officer worked, a certain amount of flexibility was inevitable so that a programme could be weighted in the direction which the Education Officer felt desirable. Within the specific field of technical education, the Education Officer's support for one item of capital expenditure rather than another helped to determine the particular areas in which development occurred. During his own period as Chief

1. L.C.C. EO/STA/3/1 Speech by Sir John Gilbert delivered to the Education Committee on the occasion of Sir Robert Blair's retirement, 13th February, 1924.

Officer, Rich appears to have adopted the view that although the most urgent cases requiring capital expenditure should be given priority, regard should also be paid to the period when an institution last received assistance. This may have been equitable in general terms but it held the risk that particularly important areas of course development ran the risk of serious delay.

By urging the governing body of an institution to press for a particular type of development the Education Officer could again, within the overall boundary of Council policy, help to determine the shape of capital expenditure. For example, at a meeting between representatives of the governing body of Woolwich polytechnic and County Hall officials held in November 1929 "The Education Officer explained that he thought that the case made by the governors for tapping a new field of education such as the gas supply and for dealing with a new development such as the automatic telephone installation could appeal to the Council and that they would be more likely to give them a grant for putting up workshops and class rooms for these two developments than for providing more favourable and better conditions for classes in connection with the Girls' Trade School." ¹ Whether in fact the argument used by the Education Officer was legitimate is impossible to determine, but the fact remains that in one way or another Gater was attempting to influence the type of development that would finally be endorsed by the Council.

The nature of the relationships between Council members and the professional officers therefore makes it difficult to assess with certainty the origins of particular policies and the driving force which propelled them along. Sometimes the Education Officer clearly did or did not take a major part in the development of policy, but over a large area

1. L.C.C. EO/HFE/5/168 Report of a Meeting held 11th November, 1929.

of the Council's education work it would be unwise to apportion responsibility too firmly between the political parties and the Education Officer's department. To what extent, for example, did the Council's lack of progress during the 1920's in the field of nursery education reflect the opposition of Dr. Spencer to this type of service. ¹ During their period of office the Municipal Reformers were frequently criticised for their attitude towards the school leaving question, but Blair was strongly against an increase in the school age and so too, under certain circumstances, was Gater. ² At the very least the support of Spencer, Blair and Gater must have provided support for the policies of the majority party so that a bald statement of the formal relationship between Council members and the professional officers fails to do justice to the complex nature of the issues involved.

4. The education policy of the parties 1919-39.

The existence of a well organised party system did not mean that all subjects which came up for the Council's consideration were the subject of strong partisan debate. Indeed, the volume of topics with which the Council had to deal made this impractical. Apart from the question of time, however, many issues were of a non-controversial nature. Herbert Morrison noted that "It is the duty of the majority to do things, and the duty of the opposition to criticise, to make suggestions as to other things they should do, and to expose the majority as the wickedest majority that ever was! But over a wide field of administration there is little difference between the parties owing to the nature of the issues to be settled." ³

1. The Times, 2nd January, 1935, 15c.

2. See pp.271,272.

3. H. Morrison, 'How the London County Council does its Work', op.cit., p.23.

In the particular field of education, for example, the Labour party found little to criticise in the policy adopted by the Municipal Reformers towards special schools. ¹ After Labour achieved power in 1934 the Municipal Reformers frequently allowed the estimates to go through with very little opposition and some of the topics which monopolised much of the Education Committee's time from the mid 'thirties were of a comparatively minor nature, such as the pros and cons of allowing children to visit military displays. Nevertheless, the parties were deeply divided over certain educational issues and, though the value of technical education was not generally in dispute, its precise function within the general framework was a question over which opinions differed.

Expenditure on education, 1919-39.

Gross expenditure by the L.C.C. on education climbed sharply after the first world war reaching a peak of just over £14 m. in the financial year 1921-22. ² However, the pressures for economy that had been developing both at national and local level came to a head at the beginning of 1922 so that the Council's post war reconstruction plan was shelved, with expenditure falling away and failing to accelerate again until 1925-26. Almost immediately, however, the central government made another call for economy and the next twelve months witnessed a further, more modest, fall in education expenditure. Thereafter the gross outlay on education increased steadily reaching a total of a little over £13 m. in the financial year 1930-31. The next three years were dominated by the economy campaign introduced by the national government in 1931. By 1933-34 the Council's gross expenditure on

1. Mrs H. Bentwich, op.cit.

2. Gross expenditure excludes the immediate outlay on capital items but does include the debt charges which were thereby incurred. The calculations relating to gross and net expenditure are made from figures available in London statistics and the L.C.C. Financial Abstract.

education had fallen to just under £12 m. In addition, expenditure on capital items, which was loan financed, also fell and in some cases, especially elementary school building, the decline was much steeper than for education expenditure as a whole. The fall in capital expenditure is particularly significant since it was in that area that the Council had a strong measure of control for in the case of maintenance expenditure it was difficult to vary staffing and general running costs. The Council's net expenditure on education did not fall quite as sharply as gross expenditure since with the modification in 1931 of the central government grant formula for elementary education the Council was obliged to bear a larger proportion of total expenditure, and even though fees were increased in certain institutions, total income fell more than total expenditure. Nevertheless, gross expenditure on education as a proportion of the Council's total budget moved comparatively little throughout the Municipal Reform party's tenure of office. At the peak of expenditure in 1921-22, for example, approximately 42 per cent of the Council's budget was devoted to education compared with about 38 per cent in the financial year 1933-34. However, since such large monetary totals were involved the small percentage change to some extent obscures the true position.

The overall financial policy of the Municipal Reform party was subjected to considerable criticism by the Labour group on the Council, particularly the argument frequently used by the majority party that a cautious economic policy was necessary in the national interest. Emil Davies, for example, emphasised that "During the life of the 1925-28 Council the need for post-war economy was the excuse for going slow."¹ Certainly the leadership of the Municipal Reform party aligned itself with government economy measures. In 1926 Sir William Ray noted that "The party in power was keen in supporting the demand of the Government for economy, and would

1. A.E. Davies, op.cit., p.17.

do its utmost to see that the Government was supported whenever it chose to act in an economical way." ¹ Indeed central to the Municipal Reform philosophy was the ideal of efficient, yet economic administration. In May 1925, Sir Reginald Blair, at that time Chairman of the London Municipal Society, stated that since its establishment the "society had fought for the principle of economy and efficiency in local government," adding that, "The society's influence in London had been most marked, and it was there that their policy had been most strictly carried out." ² Although rateable values increased during their period of office, the Municipal Reformers were successful in bringing down the rate, and this aspect of their work was highly publicised at election time. Economy was also justified as a measure to combat unemployment, the argument being that low rates would encourage firms to establish themselves in the London area thus adding to the number of jobs available. ³ Sir William Ray firmly rejected Keynesian arguments for priming the economy. ⁴

The economy measures adopted by the Council between 1931 and 1934 were the subject of special criticism. While recognising that some economy measures were necessary, Lewis Silkin objected to what he considered to be the indiscriminate nature of the cuts. ⁵ Emil Davies, however, took a more aggressive attitude.

"That the Municipal Reform Party should have responded to this invitation is not surprising, but as a witness and participant in the proceedings of the Council that time, I must state the conviction that the call for economy was received and acted

-
1. The Times, 27th January, 1926, 9d.
 2. The Times, 19th May, 1925, 13a.
 3. The Kentish Mercury, 2nd March, 1934.
 4. The Times, 2nd March, 1922, 9e .
 5. The Times, 23rd April, 1932, 16e.

upon by the leaders of that party as a heaven-sent opportunity and justification for slowing down every form of activity." ¹

The decision to implement an economy programme in education was taken before economy Circular 1413 was issued by the Board of Education in September 1931. At the end of August Gater had informed branch heads that "In view of the national economic situation and of the uncertainty as to the educational policy of the new Government, the Chairman of the Education Committee has given instructions that, apart from the maintenance of existing services, expenditure should not be incurred on any new proposals unless such proposals can be regarded as both essential and urgent." ² Responsibility for the economy measures was taken by Sir William Ray, ³ though it is clear that he had the sympathy of Sir John Gilbert. In 1932 Gilbert was urging the Education Officer to investigate the possibility of further economies. Again the justification for economy measures was the national situation and the need to maintain employment. In addition, the reduction of the central government grant for elementary education and of consequent greater financial burden placed upon the Council was also used to justify the reductions in expenditure. By the beginning of 1933, however, the economy measures were the subject of increasing criticism. W.A. Webbe later admitted that economy had perhaps been carried too far and was certainly a factor in the party's election defeat of 1934. ⁴ This criticism seemed to modify the Municipal Reform approach to economy. In March 1933, Sir William Ray was reported as stating that "If the Council received an assurance from the Treasury that the financial situation had improved

1. A.E. Davies, op.cit., p.19.

2. L.C.C. ED/HFE/1/70 G.H. Gater to Heads of Branches, 31st August, 1931.

3. The Times, 17th September, 1931, 9d.

4. The Times, 21st March, 1934, 9b.

to such an extent that capital expenditure would be advantageous, then he would have no hesitation in asking the Council to proceed. When the assurance was forthcoming he would not hesitate to ask for a supplementary estimate." ¹ The tone of this statement is interesting since responsibility for the economy measures was placed firmly upon the government with the hint that measures which the Municipal Reformers were now anxious to introduce were being retarded. The approach of the 1934 local election may have influenced Ray's thinking, though in fact there was a good deal of justification for his account of the position.

The economy measures introduced during the 'twenties and early 'thirties did have an important impact upon educational development. The suspension of the Council's post-war reconstruction scheme was a major casualty of the 1921-22 economy campaign and a severe blow to its architect, Sir Robert Blair. In writing of his period as Education officer, Blair's disappointment at the comparative lack of success of his later work was reflected in his comment that "The first half of the period under review was one of constructive activity, the second was mainly conservative." ² The low level of capital expenditure on the maintained technical institutes between 1925-26 and 1927-28 was in part related to the financial pressures of those years. The difficulties of the mid 'twenties, however, were small compared with the effects of the 1931-34 economy campaign. A number of building schemes in technical education were initiated prior to 1931 and these included major works at Regent Street, Borough, Chelsea and Northampton polytechnics so that to some extent the blow of 1931 as far as certain aspects of technical education was concerned was cushioned. Nevertheless, expenditure on other projects, some of which were extremely urgent, was delayed as

1. The Times, 22nd March, 1933, 11a.

2. The Times, 28th March, 1924, 15f.

capital grants fell dramatically. One of the schemes retarded by the economy measures concerned an extension at Brixton School of Building. The situation at the school had been described in 1929 by H.M. Senior Inspector of Building Trade Subjects.

"Though this is admittedly the chief school of Building in England where brickwork and plastering of the highest grade is carried on, the conditions of work are almost as bad as anywhere I know and no development is possible until they are improved." ¹

According to Charles Robertson, one of the most serious measures introduced during the economy crisis was that of raising fees in technical institutes. ² This, he argued, merely resulted in a fall in the school roll. However, because of the variables involved, the effect of an increase in fees is difficult to gauge, though a report from the Higher Education Sub-Committee in March, 1933, suggested that the majority of principals in maintained technical institutes and polytechnics did not consider that the new scale of fees had any marked effect upon enrolment. ³ In the case of the day continuation schools, however, the principals were agreed that the fall in the student roll was closely related to the imposition of fees in institutions which had formerly provided a free education. ⁴

After the Labour party assumed control of the Council at the election of March 1934, total gross and net expenditure on education rose sharply reaching a peak in the financial year 1936-37 of a little over £14 m. before falling away slightly at the close of the interwar period. ⁵

-
1. P.R.O. Ed. 90/123 M.S. Briggs to Dr. Morley, 15th April, 1929.
 2. C. Robertson, 'National Government's Education Plans Examined', London News, December, 1935, p.6.
 3. Education Committee Minutes, 22nd March, 1933, p.114.
 4. Ibid., p.115.
 5. For national trends see J. Vaizey, The Costs of Education, op.cit.

Therefore the peak expenditure of the Labour Council during the 1930's was approximately the same as the peak expenditure of the Municipal Reformers during the 1920's. Moreover, education expenditure as a proportion of total Council expenditure for 1936-37 was about 42 per cent. On capital account with the exception of expenditure on elementary schools, the Labour performance was little better than that of the Municipal Reformers during the 1920's, and in some respects it was weaker. For example, capital expenditure on maintained technical institutes between the financial years 1934-35 and 1938-39 totalled £271,352 compared with £414,449 between 1927-28 and 1931-32. Although for the most part the economies of the early 'thirties were quickly made good, the advent of a Labour Council did not result in a dramatic change in the Council's financial policy towards education.

The limitations of Labour's education programme were recognised by the party's own officials. In introducing the Labour scheme which was to cover the years 1938-41, Mrs Drake was reported as commenting that "The programme was not sensational. It was concerned with the average ordinary child in the average ordinary school."¹ The Municipal Reformers recognised, too, that Labour policy was difficult to criticise as extravagant. Indeed in February, 1935, W.H. Webbe informed the Council that "He and his party were relieved to find it (estimates) free of any of those extravagances, either educational or financial, which the action of the party in opposition had led them to fear."² Furthermore, the Municipal Reformers appeared to agree that some expansion was in fact desirable after the restrictions of former years. In discussing

1. The Times, 19th February, 1938, 9f.

2. The Times, 6th February, 1935, 14d.

the same estimates referred to by Webbe, W.F. Marchant argued that "had his party been in power, the estimates would have been of a very similar character. Mrs Lowe was in the happy position of resuming the development of education which unhappily ceased in 1930-31 as a result of the financial crisis." ¹ As the 1937 election approached, Eric Hall's criticism of the Labour education policy was not one of financial recklessness. In a letter to The Times Hall wrote that "It cannot be emphasised sufficiently that the whole policy of the London Labour Party, including, as it has done, the changing of the name of Empire Day, the forbidding of school children going to the Tattoo, and the preferential reinstatement of conscientious objectors, makes it imperative that London should vote against them on the first Thursday of next March." ²

Although the Labour party appreciated that if services were to be improved the rate must increase, the leadership was nevertheless anxious to ensure support at future elections. At the annual dinner of the London Labour party in February, 1936, Herbert Morrison was reported as saying that "He believed they were going to win the next L.C.C. election. The thing their people must not do was to let themselves get out of hand. They must be disciplined not by the party but by themselves." ³ According to Sir Isaac Hayward, some of the educationalists in the party wished to press ahead quickly with educational development and became frustrated at the pace of events, but Morrison was concerned to ensure that all the personal services were treated with equal sympathy and that a balanced programme was pursued. ⁴

-
1. The Times, 27th March, 1935, 16b.
 2. The Times, 19th November, 1936, 10b.
 3. The Times, 4th February, 1936, 23f.
 4. Sir Isaac Hayward in conversation with the author, 6th July, 1971.

Some important developments in technical education did occur during Labour's period of office. Included among these was a revised agreement with neighbouring Authorities over out-county students, the provision of more grants for junior technical scholars and major building works at Chelsea Polytechnic and Wandsworth Technical Institute as well as more modest projects at other institutions. Nevertheless, by the close of the interwar period it is clear that the existing provision for technical education was far from satisfactory. Reports emanating from H.M. Inspectors and the L.C.C. Inspectors indicate that a serious lack of accommodation was evident at Northampton, Battersea and Borough polytechnics, the School of Photo-Engraving and Lithography, the South-East London Technical Institute, Hammersmith School of Building, Hackney Technical Institute as well as less pressing demands at a number of other institutions. In their report upon Battersea Polytechnic published in 1938, H.M. Inspectors were especially critical of the facilities available in the civil and mechanical engineering department and in the chemistry department. Of the former, H.M. Inspectors noted that the "laboratories, and to some extent their contents, represent the standards of a bygone age; they are not now acceptable and make a poor showing in comparison with the provision in the newer provincial colleges." ¹ Conditions in the chemistry department were equally unsatisfactory. H.M. Inspectors observed that "The whole lay-out, furnishing and equipment of the department needs early and careful re-examination in the light of present day requirements. The existing arrangements have reached and passed the limit of what is tolerable." ² Moreover, it was argued, the Polytechnic was

1. Report of H.M. Inspectors on Battersea Polytechnic, 1938, op.cit., p.9.

2. Ibid., p.19.

failing to respond to the possibility that it held as a centre of research.¹ The principal placed much of the blame for this criticism upon the lack of money at the polytechnic's disposal.² It does seem likely that one of the methods urged upon the polytechnics to save money during the economy campaign of 1931-34 was in the area of research. A hint of this was given in October 1931 when Beresford Ingram advised the Council's Chief Inspector that "the whole question of research work in the Ps and T.1s may have to be reviewed from the point of view of expense."³ If this was one area of approach to economy it would help to explain the particular difficulties of Battersea Polytechnic in 1938.

The accommodation difficulties were also apparent in other ways. In 1938, for example, Rich enquired of Bispham whether there was any development in regard to the proposed extension at the School of Photo-Engraving and Lithography, noting that "I don't want to call the Police in again, to regulate the queue on enrolment night."⁴ Generally, however, the pressure upon facilities was of a less dramatic nature, but were nevertheless sufficiently serious to retard particular subject areas.

General education, technical education and the political parties, 1919-39.

The general outline of the education policy of the Municipal Reformers and the Labour groups tended to follow the lead given by the national parties. The links between the local and national associations could be quite close and, for example, in the case of the Labour party, their representation on the L.C.C. from time to time included important

1. Ibid., p.21.

2. L.C.C. EO/HFE/5/182 G.F.O'Riordan to E.M. Rich, 27th October, 1938.

3. L.C.C. EO/HFE/5/181 B. Ingram to Chief Inspector, 2nd October, 1931.

4. L.C.C. EO/HFE/4/80 E.M. Rich to J.W. Bispham, 21st June, 1938.

members of the national Advisory Committee on Education. Nevertheless, the special conditions of London meant that there were variations in emphasis in the approach of the local parties to the problems of the London education service.

The Municipal Reform Party, 1919-39.

Although education did not dominate the election platform of the Municipal Reform party during this period, as the largest single consumer of the Council's income it was naturally always a major issue. Municipal Reform policy placed a close link between technical and general education. Essentially the policy was based upon a selection process in which it was assumed that the ability and future vocational inclinations of a child were measurable so that the child could be directed into the type of educational institution for which he was best suited. The academic child was thus channelled into the secondary school while the remainder were dispersed between the elementary or senior schools and the various types of vocationally biased institutions. Whereas the child at the junior technical or central school was able to continue his post school education at the senior institutes, the elementary and senior school leavers were to have the opportunity of furthering their education by attendance at a day continuation school or an evening institute. The views of the Municipal Reform party were put to the Council by W.H. Webbe and reported by The Times in 1935 . According to The Times:

"The crux of his criticism.....had reference to the proper balance between the academic secondary school education and technical and other forms of continued education. The programme before the Council left no doubt that the Socialist policy had been framed. It was there that he desired to

join the issue. He believed that the secondary schools, with a curriculum necessarily governed by a School leaving examination, did not give the best form of post-primary education for the great majority of boys and girls in the world today." ¹

While the number of secondary school places was increasing during the 1920's and additions made to the number of junior county scholarships, there was still criticism that the Municipal Reformers had not made as much progress with their secondary school programme as was desirable. Indeed, frequent comparisons were made by the Labour supporters to show that in comparison with some other authorities, the provision of secondary school places in London in relation to the population of school age was rather poor. In March 1931 Sir John Gilbert referred to this disquiet, noting that he thought "it was agreed that everything necessary had been done in the direction of trade and technical education, but there was some criticism in connection with secondary education." ² Despite his awareness of this criticism, however, Gilbert's intention was nevertheless to devote particular attention to the provision for technical education, Gilbert's speech to the Education Committee in May, 1931 was reported in the following terms:

"Many members of the Committee felt strongly that at the present time more attention should be given to the technical side of higher education than to the academic side. They were of opinion that for some time past one of the weaknesses of the education system in London had been that there was no wide

1. The Times, 6th February, 1935, 14d.

2. The Times, 25th March, 1931, 11d.

approach from the elementary school to the University on the technical side as there was at present on the Academic side." ¹

Much of the education policy of the Municipal Reformers during their period of office followed from their basic view of the relationship between general and technical education. For instance, the reorganisation of the evening institutes in 1913 helped to establish a more satisfactory relationship between elementary and further education. In 1920 Sir Cyril Cobb noted that "The whole scheme of evening institutes, as they are now called, has recently been thoroughly revised and they will continue to advance side by side with the day continuation schools, the one being complimentary to the other, thus covering the whole ground of adolescent and adult education." ² It is perhaps surprising that the compulsory day continuation schools should have been abolished by the Municipal Reformers but within the context of their general financial policy and their policy of freedom of choice, the decision was not out of context. Furthermore, on the issue of compulsory day continuation schools much of the impetus seems to have been generated by the Education Officer rather than by the Municipal Reform leaders themselves.

Proposals to raise the school leaving age were not received with enthusiasm by the Municipal Reformers, though providing that a measure of freedom of choice was allowed to parents the party was not in total opposition. In a letter to The Times in February, 1930, Gilbert outlined the attitude of his party on the school leaving age issue:

-
1. The Times, 6th May, 1931, 11c.
 2. C. Cobb, op.cit., p.651.

"The majority are not opposed to the lengthening of the school life, by the raising of the school age or by other means. They consider, however, that the educational interests of young people between 14 and 15 years will be much more effectively and permanently served if any such lengthening is carried out, not by compulsion, but by voluntary methods." ¹

One of the principal arguments used against compulsory education to fifteen, and also against maintenance allowances for secondary school children was that other forms of post primary education would suffer a severe blow through the loss of students.

The development of the London central schools was another part of the planned relationship between technical and general education for not only did they provide a high educational standard but with their slightly vocational bias in theory, though not always in practice, they offered something of an alternative to the traditional grammar school. Moreover, the products of the central schools represented a potential supply of students to the senior technical institutes. The value of the central and other schools providing a practical education was emphasised by the Municipal Reformers at election time. At the 1931 election, for example, London Municipal Society Pamphlet No. 21 claimed that "The L.C.C. have earned the gratitude of London parents by directing advanced education into technical and practical subjects. This will enable the school child to qualify at once on leaving school for entry into a trade, instead of filling his mind with useless subjects for which there is no need in the educational market." ² In 1936 Eric Hall deprecated the work of the

1. The Times, 8th February, 1930, 8a.

2. L.M.S. Pamphlet No. 21, 1931.

Labour party in the "bias they are placing on secondary academic education," at the same time stating that he regarded "the Central School as perhaps the most important type of school that we have in London today." ¹

Apart from a genuine belief in the educational value of a non-academic post primary education, several other arguments were advanced by the Municipal Reform party for their attitude towards technical education. On general economic grounds Cobb argued that "It is essential that educational work should coincide with the growth of new industries in London as well as with the old established ones." ² At a lecture to the London Municipal Society in 1925 Sir William Ray spoke of the importance of developing higher education "if we are to compete seriously with foreign trade rivals". ³ In 1935 W.H. Webbe outlined the views of his party on technical education when he said that "We believe that the secondary schools partly through nature and constitution of their work and staffs, have not been able to move with the times and have not developed the type of education which modern world conditions demand..... there is in some directions, something approaching a shortage of skilled industrial labourers. There is certainly a very great glut of the black-coated labourer." ⁴ Moreover, it is noticeable that concern by the Municipal Reformers over the relationship between the nation's economic standing and technical education was particularly expressed during the difficult years of the late 'twenties and early 'thirties. W.H. Webbe summarised this feeling in March, 1931. According to The Times Webbe expressed the view that "the Council had perhaps gone too far in the

-
1. E. Hall, L.C.C. Education, Lecture to the London Municipal Society, July, 1936.
 2. Cobb, op.cit., p.652.
 3. W. Ray, London Education, Lecture at the Royal United Service Institution, November, 1924.
 4. This is a direct quote from a speech by Webbe at County Hall on 5th February, 1935 and included in Notes for Speakers and Workers, LMS. 1937.

provision of education of the academic type. Today the world demands education of a different type from that which had been justly the pride of this country. Industry was in a parlous state largely because industry and industrial leaders lacked the imagination and force which made British industry in the past, and because the best brains of the country for generations had been directed through the secondary schools into the professions." ¹

It may be argued that further technical education was cheaper than an extension of other forms of post-primary education. In a report upon the Education Committee's deliberations concerning the Hadow scheme, one commentator argued that "In summing up the debate one is bound to say the attitude of the majority party on the Committee is the result of financial rather than educational considerations." ² Although the economics of the situation were complicated by the number of variables involved, the Municipal Reformers were concerned at the cost of a higher school leaving age and the extension of secondary education and no doubt this played an important, if unquantifiable, role in their attitude to technical education.

An analysis of Municipal Reform policy, however, would be incomplete without regard to the possible influence Sir Robert Blair had upon the party leadership. Reference has already been made to Blair's part in the movement for compulsory day continuation schools and of his firm support for the junior technical schools. ³ On a wider level, however, Blair was a strong advocate of a varied form of post-primary

1. The Times, 25th March, 1931, 11d.

2. W.D. Bently, 'Education in Greater London', The Schoolmaster and Woman Teacher's Chronicle, 10th November, 1927.

3. See pp.212,213.

education. Although he was in favour of a break in the school life at about the age of eleven, it seems Blair did not favour an automatic transfer to the secondary school. Blair argued that "To call all schools after eleven secondary would seem to damage the status of existing secondary schools. Moreover, within the higher group it would be unfortunate to abandon such attractive names as junior technical schools, trade school, or even the much more neutral name of central school." ¹ In a private letter to Sir Henry Pelham ² at the Board of Education Blair explained further his view of the secondary school, believing them to be "the pivot of the whole Grant aided system". ³ The basis of Blair's criticism of the Hadow scheme was that it failed to appreciate the full value of a vocationally orientated form of post-primary education. Moreover, he argued that there were other more satisfactory ways of catering for the education of the adolescent than a general raising of the school leaving age. In an article in The Times Educational Supplement Blair emphasised that "It is obvious that as soon as up to 15 is made obligatory an agitation to substitute 16 will at once begin. Some enthusiasts are already looking to 18 as the next step! My conviction is that the compulsory day continuation school would be a better solution after three years of the Hadow ~~senior~~ schools." ⁴

In his opposition to an indiscriminate raising of the school leaving age Blair was supported by his successor, George Gater. Gater, however, was in general in favour of an extended full-time education for every child, though he believed that timing was essential. In a letter to Sir Cyril Cobb in October, 1924, Gater argued that at that time "the raising of the school

-
1. R. Blair, 'The Education of the Adolescent', The Contemporary Review, vol. CXXXI. March, 1927, p.305.
 2. H.E. Pelham; joined the Board of Education in 1900; Principal Assistant Secretary 1920-29; Deputy Secretary 1929-31; Permanent Secretary 1931-37.
 3. P.R.O. Ed. 24/1261 R. Blair to H.E. Pelham, 17th January, 1933.
 4. R. Blair, 'Why Raise the School Age Now,' The Times Educational Supplement 3rd November, 1934, p.369.

leaving age to 15 would cut right across our proposals for smaller classes and better staffing in the elementary schools." ¹ Furthermore, from a number of memoranda passed within the Education Officer's department it is clear that throughout the whole of the interwar period the general views of both Blair and Gater were widely shared among the senior staff.

The Labour Party, 1934-39.

The Labour party failed to share the same view of the relationship between technical and general education as the Municipal Reformers. The economic value of technical education was in general appreciated by the Labour leadership, even though their views on the benefits to be derived from a secondary education sometimes made them appear rather ambivalent. In their support for extended full-time secondary education in preference to part-time further education, therefore, the Labour group on the Council agreed with the policy which had been adopted from the mid 'twenties by the national Education Advisory Committee. ²

Soon after the London Labour party gained control of the L.C.C. Charles Latham, the influential Chairman of the Finance Committee, outlined his own view of technical education. According to The Times "He rejected the theory which held that the bulk of the children of the country should be denied the humanities..... Any increase in technical education should go side by side with academic education." ³ The initial efforts of the Labour party were directed towards the sphere of post-primary education. In June 1934 a meeting was called of interested L.E.A.s to discuss the

-
1. EO/PS/1/28. This letter is unsigned but was without doubt from Gater to Cobb, 1st October, 1924.
 2. R.S. Barker, The Educational Policies of the Labour Party, 1900-61, (Unpublished London Ph.D. thesis, 1968), p.138.
 3. The Times, 13th March, 1935, 11c.

question of raising the school leaving age. ¹ The case for an increase was put by R.H. Tawney who emphasised that reorganisation along Hadow lines could only be successful if children were exposed to school life for a sufficient length of time. Tawney also mentioned the economic value of well educated children and the economic sense in using investment in education to the full now that the low birth rate was bringing a decline in the school roll. This meeting was followed by another in 1935 between officials of the Board of Education and representatives of the L.C.C., where the latter urged strongly that consideration should be given to an increase in the school age. ² A number of practical factors, particularly the attitude of neighbouring authorities, made it difficult for the Labour Council to independently raise the school leaving age. Discussions were also held in the winter of 1934-35 concerning the idea of multi-lateral schools but again the practical difficulties were considered too great for any immediate action. ³ According to Sir Isaac Hayward, Tawney became extremely frustrated by the Council's lack of decisiveness during this period. ⁴ Certain measures, however, were introduced which were designed to promote the cause of secondary education, including an extension of the scholarship system and a substantial increase in capital expenditure upon maintained secondary schools.

A number of Labour members were especially interested in technical education, ⁵ and the general belief that further education was not a substitute for a full secondary education did not obscure the value of vocationally orientated schools. For example, although a policy was

-
1. L.C.C. EO/PS/1/90 Meeting held 29th June, 1934.
 2. L.C.C. EO/PS/1/90 Meeting held 26th March, 1935.
 3. Report of a Joint Section of the Elementary Education and Higher Education Sub-Committees, 30th August, 1935.
 4. Sir Isaac Hayward, op.cit.
 5. Mrs H. Bentwich, op.cit.

introduced in 1935 which limited the development of junior technical schools in terms of accommodation and scholarship provision, the Sub-Committee which was appointed to consider the question of post-primary education believed that the junior technical schools had an especial worth and that if multi-lateral schools were eventually introduced some special arrangements should be made for the junior technical schools. ¹ Moreover, particular emphasis was placed upon technical education in the Council's education programme for the period 1938-41. According to Charles Robertson this provision was in response to the "marked increase in recent years in the demand for technical and continued education" ² and was no doubt related to the very considerable pressure on accommodation and equipment that was referred to earlier.

1. Report of a Joint Section of the Elementary and Higher Education Sub-Committees, op.cit.

2. The London News, March, 1938, p.5.

CHAPTER ELEVEN

Technical Education and the London County Council: Some Aspects of Policy.

Having examined the general attitude of the Council towards education, including the part played by technical education within the overall scheme, it is now necessary to discuss in detail certain aspects of policy. The two policy topics selected for particular study relate to the Council's attempt at educational co-ordination and to the question of grants for junior technical scholars. The co-ordination scheme is of special importance in a study of course innovation since the development of this policy circumscribed within certain limits the type of course that an institution might attempt to introduce. In detail, however, the co-ordination policy related not only the work of the various technical institutions to each other, but also the relationship of technical and non-technical education, as well as the important issue of relations with other authorities. The grant arrangement for junior technical schools was of importance in helping to determine the pace of development of junior technical schools and, since successful junior technical scholars frequently advanced to the more senior courses, the scholarship facilities thus contributed indirectly to the expansion of other areas of the technical education sector. Moreover, as a special form of post-primary full-time education, the generosity of the grant provision for the junior technical schools was something of an indicator of the Council's policy towards the general role assigned to technical education.

The Co-ordination policy

- a. The relationship of the various branches within the education sector to each other.

By transferring the care of London's Board schools, Church schools, special schools, continuation schools, evening schools, art schools, technical institutes and polytechnics to the London County Council, the

London Education Act of 1903 provided the Council with the opportunity of relating the various sectors of education one to another. Within a short time Council policy was endeavouring "to promote the co-ordination of all forms of education within the area."¹ Much of the initiative for this policy no doubt came from Sidney Webb who had done so much in 1902-3 to ensure that the L.C.C. should assume control of the work of the London School Board², but Blair was also an enthusiastic supporter of planning and his influence over a period of twenty years was of great importance in setting the guidelines for co-ordination. Blair expressed himself as in favour of "any reform which shapes the co-operation of all parts of any system".³ The pivot of Blair's ideas was that young people should have the opportunity of enjoying an education that was best suited to their needs. Almost as soon as he took up office at the L.C.C. Blair was instructing his senior officer to consider and report upon the various forms of post primary education.⁴ It was out of such discussions with officers and councillors that central school system was evolved and the provision made for the further development of the junior technical schools. During the debate on post-war educational reconstruction Blair argued that "in the provision of secondary schools, regard must be given to sufficient provision of each kind of secondary school, district by district and in the area as a whole. It is, therefore, necessary to consider the local schools as a whole."⁵

Blair's advocacy of co-ordination of the school system emerged clearly during the discussions which centred around the 1918 Education Act.

Co-ordination was the essence of this act. In 1925 Selby-Bigge

1. L.C.C. Scheme under the Education Act, 1918, 21st July, 1920, p.32.
2. See p.34.
3. L.C.C. EO/GEN/1/44 Post War Reconstruction Education Officer's Memorandum, op.cit., p.2.
4. L.C.C. EO/PS/1/8 Report by the Education Officer for consideration by his senior staff, December 1905.
5. P.R.O. Ed. 24/1656 Memorandum drawn up by Blair and submitted to the Higher Education Sub-Committee, 28th February 1918, p.3.

explained to Eustace Percy that "For the purpose of building up a national system of education, providing something like equality of opportunity for the children and youth of the country in different areas, reducing the present great diversity of local standards, and presenting a landscape in which the valleys shall not be very deep and the peaks not very high, it is most desirable that the Local Education Authorities should look at their requirements comprehensively and not piecemeal. The idea of a gradual approximation to a national system and standard underlay the Scheme procedure of the Act of 1918".¹ Although it is difficult to be precise about Blair's part in the formulations of the 1918 Act, there seems little doubt that his support for general co-ordination was of considerable significance. In 1916, at the request of officials at the Board of Education, Blair submitted his own ideas on educational reform. In his memorandum Blair emphasised the need for co-ordination of the work of the Local Education Authorities, arguing the "Under the existing system some things like attendance at an elementary school, are compulsory. Even in a subject like this education authorities have, by their variation in exemption, destroyed any possibility of equality of opportunity."² It followed from this, stressed Blair, that "the Board should lay an obligation on the Local Education Authorities, as reconstituted, to prepare for approval a scheme of education for the whole of the area and including elementary, secondary, technical and all other forms of education: due provision of necessary schools of all kinds (elementary, secondary, technical and so on) staff, scholarships, etc., would form part of the requirements of the Board of Education in any approved scheme for an area. They (the L.E.A.'s) would have to think in terms of education - the provision of a scheme - instead

-
1. P.R.O. Ed. 24/1479 L.A. Selby-Bigge to Eustace Percy, 26th January 1925.
 2. P.R.O. Ed. 24/1461 Memorandum by Blair on Educational Reform, 25th September 1916, p.4.

of in terms of a maximum grant for minimum work".¹ Later in the same year two meetings were held at the Board of Education and it is clear that many of Blair's suggestions, including the co-ordinated, planned approach to education, were accepted by the Board's senior officials.² Although it is perhaps impossible to determine the extent to which Blair, rather than other individuals, influenced Board of Education thinking, The Times Educational Supplement later remarked that "It is an open secret that the impulse which resulted in the inclusion of scheme making as a feature of the Education Act of 1918 largely derived from Sir Robert Blair's influence based on his London experience."³

The co-ordination of the different sectors of the London education system was reinforced by the introduction of the programme system. The Council's decision to develop London's education service on the basis of triennial plans was taken in June 1924 and anticipated by some months Circular 1358 in which the Board of Education first required Local Education Authorities to formulate such programmes for the triennium 1927-30.⁴ The argument commonly put forward in favour of programme planning was that it tended towards a balanced development of the major areas of the educational framework. In his report for 1937, E.M. Rich noted that "the Council has always aimed at meeting the most urgent needs of every branch of the educational service"⁵ and no doubt the programme system enabled the Council to take a more telescopic view of development than would have otherwise been the case. As far as London was concerned, however, it seems likely that another factor was also

-
1. Ibid., p.5.
 2. P.R.O. Ed. 24/1461 Report of two meetings at the Board of Education, 10th October, 1916 and 18th October, 1916.
 3. The Times Educational Supplement, 7th August, 1934, p.223d.
 4. P.R.O. Ed. 24/1480 London Three Year Programmes. Enclosure No.A for the Education Committee, 7th January, 1935, p.1.
 5. London County Council, Annual Report, Education (1938), p.39.

behind the earlier consideration given to programme planning. According to Selby Bigge, "The programme procedure was originally a concession to certain L.E.A.'s who were seriously in default and whose grant was in peril - e.g. London in 1909, and Lancashire in respect of defective school premises. The Board agreed that if the L.E.A.'s would make and adhere to a programme for remedying these defects within a stated period the Board would, during that period, overlook the continuance of the defects and not reduce grant on account of them".¹

Apart from the value of planning in achieving a balanced development, the programme arrangement assisted the technical institutes and polytechnics to think ahead and consider the possibility of course development. Dr. Drakely compared the advantage of the triennial programme system over the alternative method of annual budgeting when writing of the economy measures of the early 'thirties he noted that "the triennial grant system was abandoned for yearly assessments. This change unavoidably limited the power of Governing Bodies to start new courses. They could not plan ahead sufficiently to finance new developments."² Furthermore, according to Selby Bigge, the programme system tended to encourage Local Education Authorities to accelerate their pace of development, noting that "It is undeniable that the general effect of a Scheme or Programme procedure must be expansion of educational expenditure."³

One important advantage of the programme system was that it could assist in reducing the volume of administrative work at County Hall which tended to reduce the efficiency of the Education Officer's department. In commenting upon his own work as Chief Inspector, Dr. Spencer noted that routine administrative problems absorbed much of his energy and time and

-
1. P.R.O. Ed. 24/1479 L.A. Selby Bigge to Eustace Percy, op.cit.
 2. Dr. Drakely in correspondence with the author, op.cit.
 3. P.R.O. Ed. 24/1479 L.A. Selby Bigge to Eustace Percy, op.cit.

that his office staff consisted "of people who could never really appreciate educational issues, but who, nevertheless cumulatively exercised enormous power."¹ To some extent, however, the programme system may have reduced the amount of time wasted in administrative detail for according to Sir George Gater "Our experience in London has been that the programme has eased the situation so far as delays are concerned. I think we are, inside our own cumbersome machinery, getting things through a great deal quicker."²

Although the programme system held a number of potential advantages, it nevertheless possessed one major weakness. If a programme was devised immediately after a period of retrenchment it tended to commit the Council to a scheme of development which may in fact have underestimated the Council's ability to finance long term projects. It was of course possible for the Council to introduce a supplementary budget when it became clear that the financial position would support more ambitious development but not only was that another hurdle to be overcome, but also it would not always have been easy for principals and governing bodies to readjust quickly to the possibility of greater expansion.

b) The relationship of institutions within the technical education structure

When he was first appointed as Education Officer to the London County Council, most of Blair's attention was taken up by elementary education,³ so that co-ordination within the technical education sector was not immediately tackled. In any case, Blair argued that co-ordination within technical education was inevitably a continuous process. In his scheme prepared under the 1918 Education Act Blair noted that "A properly co-ordinated solution of the problem of technical education must be a matter of gradual and constant development, with the fusion of conflicting voluntary and other interests; while

1. F.H. Spencer, op.cit., p.286.

2. P.R.O. Ed. 24/1479 Report of a meeting between Board of Education officials and representatives from Local Education Authorities, 28th January, 1925.

3. Royal Commission on University Education in London. Cmd 5166 Minutes of Evidence, July 1909 to April 1910. Evidence given by R. Blair as Education Officer to the L.C.C.

owing to the perpetual growth of new industries, the disappearance of old ones and the complex and ever changing distribution of work places and residences, no simple permanent lines of organisation can be expected for London, as in the case of provincial towns largely dependent for their existence on one staple industry."¹

However, once Blair turned his attention to planning in technical education one of the most important aspects of his work was the scheme introduced in 1913 which remodelled the relationship of the institutions providing evening instruction. The early experience of the Council with the evening continuation schools, which had been inherited from the London School Board, was not a happy one. In particular, student numbers tended to fall away quite rapidly after enrolment so that many classes ran for only a few weeks before being discontinued. In June 1909 the Polytechnics and Evening Schools Sub-Committee reported that "We have given careful consideration to the question of the organisation of the Council's evening schools. In view of the unsatisfactory attendance in the schools, we are of opinion that it is highly desirable that definite steps should be taken to effect an improvement."² Furthermore, the Sub-Committee argued, the existing evening schools tended to place too much emphasis upon commercial subjects so that the evening school system was characterised by a lack of balance. In 1909 arrangements of an experimental nature were made whereby evening instruction in Catford and Woolwich were co-ordinated, with instruction being provided according to the age of the students and the level of work.³ The weaknesses of the evening school system in general, however, were fully appreciated by H.M. Inspectors. In 1913 Selby Bigge informed the President of the Board of Education "that we have known for a good many years that the London system of evening classes

-
1. Quoted in L. Haden Guest (Ed), The New Education (1920) p.46.
 2. L.C.C. Education Committee Minutes, 23rd June, 1909, p.1519.
 3. L.C.C. Education Committee Minutes, 16th June, 1909, p.1413 and 30th June, 1909, p.1622.

is extraordinarily bad. We have made some strong criticisms on it in our Area Reports which have been sent to the L.C.C. but these reports, so far as I know, have not been published. We have had the materials for hammering London administration very hard, but we have held our hands and not made a big row because we knew Mr. Blair was at work on a project of reform."¹

Under Blair's scheme the evening institutes were organised on a two-tier system with the junior institutes acting as a feeder to the senior institutes. Boys and girls of between fourteen and eighteen years of age could attend junior commercial or junior technical institutes where they were generally obliged to take an organised course of study rather than single subjects as had been permitted under the old arrangements. After satisfactory completion of the course, students could progress to the appropriate higher institution, namely a polytechnic, technical institute or senior commercial institute. The 1913 scheme also attempted to avoid overlapping of work among the various institutions, to standardise the age of admission and course structure.² According to the Higher Education Subcommittee, the careful distribution of resources" will eliminate all fear of competition as to mere number of students or student hours, and will leave those responsible for each institution free to pursue without distraction the educational ideals of these schools."³ In addition, there was incorporated within the general structure provision for the development of non-vocational evening institutes which provided instruction in distinct subject areas.⁴

The arrangements introduced in 1913 evidently bore fruit very rapidly for in July 1914 H.M. Inspectors noted that "The Authority is to be congratulated upon having introduced this Scheme of reorganisation, and it is quite clear that the improvements which have been made in the system and in the internal

-
1. Ed. 24/1840 L.A. Selby Bigge to the President of the Board of Education, 21st April, 1913.
 2. L.C.C. EO/HFE/1/143 Report by HM Inspectors on the new scheme for the re-organisation of the evening institutes in the Administrative County of London, July, 1914, pp.2 - 7.
 3. L.C.C. Education Committee Minutes, 7th May, 1913, p.880.
 4. Report by H.M. Inspectors on the new scheme for the re-organisation of the evening institutes in the Administrative County of London, op.cit.4

arrangements of the Institutes, together with the new spirit which has been infused into the work both by administrators and teachers, are already beginning to show beneficial results."¹ According to the London scheme of 1920, the reorganisation of evening education resulted in "closer co-operation between ordinary evening schools and technical institutions, which had formed the separate fields of effort of the School Board and the Technical Education Board, respectively."² In addition, it was noted, "These measures have largely relieved the pressure in the higher institutions, setting free their staff and accommodation for more specialised lines of effort."³ In 1924 Blair expressed himself satisfied that the reorganisation scheme of 1913 had indeed contributed to an overall improvement in the quality of evening technical education. In fact, however, the reorganisation did not enjoy the support of all members of the Council, the Reverend Stewart Headlam, for example, complaining that the new scheme forced pupils to follow a programme to which they may not have been particularly attracted.⁴ Blair, however, enjoyed the support of Sir Cyril Jackson and the Municipal Reform party and was thus able to receive the overall support of the Council.

The duplication of work with London's technical institutes and polytechnics was a matter which had caused concern to those responsible for the London education service since the late nineteenth century. In a number of memoranda to A.E. Briscoe in 1906 or 1907 Blair expressed particular concern at the duplication of work between the polytechnics and emphasised his belief in the importance of concentrating courses, especially those in which particular institutions had proved successful.⁵ After a survey of technical education in 1909, the Council decided to initiate

1. Ibid.

2. L. Haden Guest, op.cit., p.47

3. Ibid.

4. The Morning Post, 4th December, 1913, 3f.

5. L.C.C. EO/HFE/1/1 Undated memoranda R. Blair to A.E. Briscoe.

"a series of sustained efforts towards a progressive delimitation of the functions of rival institutions."¹ As a result of this survey engineering work was dropped from two polytechnics and concentrated in eleven institutions, five of which were polytechnics.² In 1912 the polytechnics agreed to a rationalisation, and in highly specialised subjects - a specialisation, whereby duplication in the provision of a course was eliminated within a normal student catchment area.³ Much of this rationalisation had been completed by 1918.⁴ Instructions in such subjects as technical optics and horology presented little difficulty since the industries themselves tended to be geographically concentrated and the number of students available was limited. Engineering, however, was the most difficult area to control, perhaps because the industry was so ubiquitous in London. At the close of the First World War, for example, the principal of Northampton Polytechnic began pressing the Education Officer for permission to develop high level engineering work.⁵ Blair, however, was determined to restrain the Polytechnic, arguing that "duplication of this advanced work should not be financed by the Council, in view of the importance of securing in once centre the highest talent for teaching and the best possible equipment, which must be ruthlessly scrapped when out of date, and further ... the number of students going beyond the degree stage in any one branch is likely to be limited."⁶ After Blair's retirement the attempt to avoid overlapping within the technical institutes was continued and in 1928 the

-
1. L.C.C. Scheme under the Education Act, 1918, op.cit., p.32.
 2. Report by H.M. Inspectors on the Provision of Engineering Education in London, op.cit., p.6.
 3. Dr. Drakely in correspondence with the author, op.cit.
 4. Ibid.
 5. P.R.O. Ed. 24/1862 R. Blair to Selby Bigge, 22nd February, 1919.
 6. Ibid.

Council decided to further limit advanced engineering work to six of the larger technical institutions.¹

The decision in 1928 to further concentrate advanced engineering instruction was taken upon the recommendation of the Council's Engineering Advisory Committee.² This committee also advised that full-time day work of a University character in the polytechnics should be contained. This recommendation followed the policy laid down by Blair several years before. Blair's attitude to full time day work in the polytechnics and technical institutes emerged clearly during his evidence given before the Royal Commission on University Education in London. Although he was in favour of day time work in the technical institutions and regarded the emphasis upon evening instruction as a temporary position,³ Blair was not in general support of full-time or indeed part-time evening instruction in the polytechnics for University of London degrees. In part, Blair's attitude was governed by a desire to avoid overlapping with the University colleges. He was nevertheless in sympathy with the polytechnics developing advanced applied work of the highest kind. Blair expressed the view that historically "the technical education movement was a revolt against academic institutions," adding that "now we see something like an exchange of functions. You see your University college or your University becoming to a certain extent a School of Applied Science, and, on the other hand, you see your Institution that was intended to be the College of Applied Science becoming a School of Pure Science. I think we ought to do our best to keep the two functions separate, the function of the Technical College and the function of the University in Pure Science."⁴ Blair's criticism of full-time work in the polytechnics was thus concerned with kind rather than standard.

1. Education Committee Minutes, 16th May, 1928, p.250.

2. Ibid.

3. Royal Commission on University Education in London, Minutes of Evidence, op.cit., p.2.

4. Ibid., p.3.

Blair's objection to evening external degree work was also based upon the belief that the evening student lost a great deal from his inability to participate in the more general aspects of University life which the full-time student enjoyed. Blair's argument was that anyone who was capable of benefiting from a full-time University education should, with the assistance of the scholarship system, have the opportunity of doing so. Blair's own experience as a part-time evening degree student in London appears to have been a major influence upon his thinking. Blair had enjoyed the benefit of a University education in Scotland but he later felt it necessary to obtain a science degree. He explained to the Royal Commission on University Education in London that he had married rather young and that when an opportunity arose to pursue a full-time science course at Cambridge his financial position and general responsibilities made this impossible. Blair was also offered another course at the Royal College of Science but was again unable to avail himself of the opportunity. He was thus obliged to spend a period of some seven or eight years in evening study.¹ Blair emphasised that "if there had been sufficient provision I would certainly have thrown up my daily engagements and gone to either Cambridge or the Royal College of Science, as the case might have been, because it would have taken infinitely less out of me. The work which I had to do by working in the day time as a teacher, by doing private work also as a teacher, and by working here, there, and in evening institutions to get my degree - well it was only the class of work which a man of very good constitution could stand I feel I have lost much."² Blair's experience in Scotland also influenced him, where, he noted, the working classes were much less unfamiliar with university education than in England. Blair therefore argued that "In England you are face to face

1. Ibid.

2. Ibid.

with a very great danger; you must make up leeway in the right way, you must make the people of England, the middle and lower class people, feel that they must get their University education in the normal way, and that what they get in the evening, good and all as it is, is not University education of the right type."¹ This did not mean, however, that Blair precluded any chance of evening degree instruction in the polytechnics for he believed that a safety net should be provided for those people who, even with the benefit of a scholarship, would find it impossible to attend a full-time university course.² Nevertheless, this type of provision was to be kept to a minimum.

Blair's highway to University education was not established during his period of office, but the general guidelines which he established for advanced work in the higher technical institutes continued to determine the broad framework within which the colleges worked throughout the inter war period.

c. Regional co-operation.

The question of regional co-operation was of particular importance in London where so many Local Education Authorities were within a comparatively short distance of the County boundary. Moreover, the movement of population out of London to neighbouring suburbs which had been taking place since 1880 created a special problem of out-county relationships. By 1921 over 22 per cent of London's work force lived outside the County³, and in 1940 the Barlow Commission estimated that this percentage had almost certainly increased.⁴ The industrial development of Greater London, especially Middlesex, was undoubtedly an important factor in this trend, a development which was of particular relevance to technical education. The out-county problem was essentially in two parts. Firstly, the question of the fee

1. Ibid., p.9.

2. Ibid., p.3.

3. EO/GEN/1/11 Royal Commission on the Geographical Distribution of the Industrial Population. Statement of Evidence as to Fact. General Purposes No. 266, p.3.

4. Royal Commission on the Distribution of the Industrial Population, Report, op.cit. p.172.

structure and whether Local Education Authorities preferred to adopt a free trade or a discriminating policy; secondly, the general issue of the regional provision for technical education.

Until 1921 students from outside the County boundary were allowed into London's technical institutions at the same fee as London based students. In June 1921, however, the Education Committee recommended that out-county students should bear the full cost of their education so that no part of their education should fall upon the London rates.¹ It was therefore intended that the out-county fee should include "the Council's administrative expenses at the central offices and at the institutions concerned, loan and debt charges, insurance, repairs and renewals funds and the cost of equipment, together with all the direct expenditure and maintenance of classes".² At the request of the Board of Education an arrangement was agreed upon whereby full-time students already on a course should be allowed to complete their studies if their own Authority refused to pay the extra cost and that part-time students working inside the County but living outside should be charged only 50 per cent more than the fee paid by London students.³ According to The Times Educational Supplement the new scheme was unanimously welcomed by the Education Committee.⁴ In fact, concern over the question of out-county students had been expressed by Council members for some time, and the Finance Committee had been urging the Education Committee to consider the matter since the beginning of 1920.⁵ Even before the Education Committee's decision Blair had circularised neighbouring Authorities, warning them that in future it might be necessary to charge an additional fee to students attending London technical institutions but living within their area.⁶ It seems likely that Blair had delayed as long as possible the out-

1. Education Committee Minutes, 15th June, 1921, p.387.

2. Ibid.

3. Ibid.

4. The Times Educational Supplement, 18th June, 1921, 274a.

5. L.C.C. EO/HFE/9/36 Report by the Education Officer to the Higher Education Sub-Committee, 2nd June, 1921.

6. R. Blair to out-county Authorities, 21st February, 1921.

county issue for the matter was being considered by his senior staff as early as 1908, but it was then stressed that an increase in out-county fees would greatly weaken the London technical institutes.¹ By 1920, however, the national financial situation and the need to finance the Council's education scheme formulated in compliance with the 1918 Act perhaps made it inevitable that out-county fees and technical education should be selected as a possible area for economy, particularly since similar arrangements had already been made with regard to elementary education.

The out-county arrangements introduced in 1921, remained in force with only comparatively minor modifications until 1934 when the Council agreed to a new scheme under which out-county students or their Authorities were required to pay half rather than the full cost of instruction.² In reporting to the Education Committee, the Higher Education Sub-Committee expressed the view that it was advisable that the students' choice of a higher educational institution should not be fettered by administrative boundaries.³ In practice, however, it seems clear that the effect of the 1921 arrangements was causing increasing alarm to Council members and to the Education officer and his staff. By the session 1932-33 agreements had been reached with seven authorities on the question of out-county fees for technical students.⁴ In detail the schemes varied somewhat, but the overall principle that the full cost of the service provided should be met was adhered to. This condition, however, caused consternation among the neighbouring authorities, particularly as the number of students attending London institutions increased and as the economy campaign of the early 'thirties made itself felt. In 1933 E. Salter Davies, the Director of Education for Kent, informed J.W. Bispham that "from a review of the out-County fees charged in

1. L.C.C. EO/HFE/1/1 Report on overlapping between technical institutes on the County boundary and out-county institutes, 16th March, 1908, p.6.
2. Education Committee Minutes, 20th June, 1934, p.245.
3. Ibid.
4. Ibid.

some instances, I am not at all sure whether it will not be to the Committee's advantage to provide certain instruction in Kent, rather than to send their students to London."¹ At a conference between the representatives of the London Education Authority and neighbouring Authorities held in January 1934, Salter Davies repeated his argument, noting that "During the last 12 years London had charged out-county fees which in his opinion were so unreasonably large that it was often cheaper and better for Authorities to make their own provision."² The Director of Education for Middlesex supported Davies, adding that "They had proved in Middlesex without any shadow of doubt that they could provide almost all forms of technical education at a cheaper rate in Middlesex than they had to pay for it in institutions already existing in London."³ The general view adopted by the neighbouring Authorities was that the arrangements of 1921 had substantially reduced the number of out-county students entering London's technical institutions and that unless modifications were introduced "the L.E.A.s around London would seek to provide their own facilities and their contributions to London would vanish to small proportions."⁴ The neighbouring authorities gave support to their views by refusing to renew their arrangements with the L.C.C. so that by June 1934 six of the seven agreements had lapsed.⁵ The conclusion of an acceptable agreement in 1934 was warmly welcomed by the London County Council, The Times noting that "Sir John Gilbert congratulated the committee on the arrangement, and said he hoped it would prove a lasting solution of a difficulty which the Council had experienced for many years."⁶

An attempt at planning resource allocation in technical education for Greater London was made during the interwar period, but progress was slow and arrangements were far less formal than those developed in the West

-
1. L.C.C. EO/HFE/1/38 E. Salter Davies to J.W. Bispham, 30th December, 1933.
 2. L.C.C. EO/HFE/1/38 Report of a conference between representatives of the L.C.C. and certain Local Education Authorities, 17th January, 1934, p.6.
 3. Ibid. p.10.
 4. Ibid., p.12
 5. Education Committee Minutes, 20th June, 1934, p.245.
 6. The Times, 23rd June, 1934, 9b.

Midlands and parts of Northern England. As early as 1908 an investigation was carried out by senior staff in the Education Officer's department into the problem of overlapping between London technical institutes close to the County boundary and those institutes attached to out-county authorities. The investigation showed that overlapping was mainly a problem on the Middlesex border where London students travelled out to Willesden Polytechnic for their instruction and Middlesex students made the opposite journey to Paddington Technical Institute. In general, however, the investigating team concluded that overlapping was not yet a serious problem, though the situation required watching in specialised areas of development.¹ The growth of industry and population in Middlesex made relations with that county of particular significance, a fact of which Blair took note. In his memorandum prepared for the Board of Education in 1916 Blair emphasised that higher technical education required a wider outlook than was at present permitted, arguing that "Willesden, Acton, etc., are as much a part of the London technical education problem as Poplar, Woolwich, Hammersmith and N. Paddington... Voluntary association of Local Education Authorities could do much to elucidate the problem and bring out inherent obstacles."²

Meetings between the L.C.C. and out-county authorities of the informal type suggested by Blair were held, though no record of what took place appears to have survived. After Blair's retirement in 1924 these meetings came to a temporary halt, perhaps partly because the new Education Officer was obliged to spend time familiarising himself with the London education service as a whole, but also because the initial period of Gater's tenure of office followed a time of general retrenchment so that the issue of new, overlapping facilities was not likely to be to thefore. However, in March 1929 a meeting was held between Gater and the directors of education

-
1. Report on overlapping between technical institutes on the County boundary and out-County institutes, op.cit., p.6.
 2. Notes by R. Blair on Educational Reform, op.cit. p.4.

for several neighbouring authorities. The initiative in calling the meeting was taken by Gater who had made preliminary enquiries among the directors before formally inviting them to attend a meeting.¹ The purpose of the meeting was to discuss certain of the recommendations put forward by the Atholl Committee, though Gater took the opportunity of informing the directors that "we ought to meet from time to time, as there are matters of common interest which ought to bring us together."² No further initiative was taken until 1932. In March of that year Gater explained why he had been unable to follow up issues raised in 1929, noting that "owing to the pressure of work arising first from the proposal to raise the school leaving age and secondly from the national economy campaign, further action has been suspended."³

In the meantime, however, unilateral arrangements had been agreed upon with Middlesex. In a lengthy memorandum to the Education Officer in 1932, E.M. Rich reminded Gater of the origin of the Middlesex scheme.

-
1. L.C.C. EO/HFE/1/36 Report of a meeting of the Directors of Education for the Counties and County Boroughs on the outskirts of London, 21st March, 1929.
 2. Ibid.
 3. L.C.C. EO/HFE/1/36 Gater to Directors of Education for neighbouring L.E.A.s, 9th March, 1932.

"In 1930, the Board of Education drew attention to the likelihood of special difficulties arising between London and Middlesex in connection with the provision of technical education, owing to the housing developments and the rapid expansion of new industries in Middlesex, particularly in the cases in which the students lived in one education area and worked in the other.

As a result a series of conferences took place between London and Middlesex.

One particular difficulty which had already arisen was the proposal of Middlesex to establish five-year National Certificate courses in engineering at the Acton Technical Institute. As considerable numbers of Middlesex students were already attending, under permits from their authority, similar courses in London, it was felt that Middlesex would not be so willing to allow future students to come to London if the Acton classes were established, with a consequent diminution of the numbers in the London classes and detriment to the students' course of instruction.

This difficulty was, however, amicably overcome by an agreement between the two authorities that all students, whether residing in London or Middlesex, should have complete freedom of choice in regard

to the Middlesex or London institution at which they would take these courses and that London would not charge Middlesex in respect of these students more than the cost to Middlesex for doing similar work.

Since then an exchange of information as to developments has taken place from time to time between the two authorities.¹

After an understanding with Middlesex had been reached, the Essex authority also began to participate in an exchange of information regarding development proposals.² By the early 'thirties Gater clearly regarded the question of regional co-operation in technical education as a matter of considerable importance. In his letter of the 9th March, 1932 to the directors of education for neighbouring authorities, Gater expressed the view that "it would be worth exploring the possibilities of greater co-operation between authorities in the sphere of technical education."³ On March 15th of the same year Gater attended a meeting between himself and senior officials of the Board of Education on the question of regional co-operation in technical education in Greater London. At this meeting Gater emphasised that regional co-operation was more efficient than the laissez-faire system which prevailed at that time.⁴ Gater's suggestion that a standing conference be established between the L.C.C. and other Local Education Authorities received the support of the Board's officials, who agreed to help if their assistance was required.⁵ Gater kept the Board's officials informed of his subsequent progress with out-county authorities but asked that his communications with the Board be treated as highly confidential,

1. L.C.C. EO/HFE/1/36 E.M. Rich to G.H. Gater, 17th March, 1932.

2. Ibid.

3. L.C.C. EO/HFE/1/36 Gater to Directors of Education for neighbouring L.E.A.s, 9th March, 1932.

4. P.R.O. Ed. 90/119. Meeting between G.H. Gater and representatives of the Board of Education, 15th March, 1932.

5. Ibid.

an indication perhaps of the suspicion with which the Board was viewed by some Education Authorities.¹

The conference which developed out of Gater's initiative in March 1932 became an annual affair. In 1936 H. Boyes Watson, the Director of Education for Southend, noted that "our Conference is becoming one of increasing importance",² but writing in 1939, W.A. Robson felt that in practice the conference was of little value and it could not be said that there was any "proper planning of technical education for the whole metropolis."³ The mechanism of planning adopted by the conference was one whereby an enquiry form was circulated before a conference was due to be held upon which the proposals of an L.E.A. relating to technical education were put down for possible discussion. One of the major weaknesses of this system was that proposals were only made known to neighbouring authorities after they had been the subject of discussion by the relevant education Committee thus making it more difficult to change arrangements than if the proposals had been discussed by the conference before going to committee. This arrangement was the one originally suggested by Gater at the first conference in 1932 but which was rejected, partly on the grounds that important developments might be delayed.⁴ Indeed, the informal nature of the conference was perhaps one of the main obstacles to securing effective co-operation. In 1936 Rich referred the conference to the more elaborate scheme of co-operation practised elsewhere, suggesting that representatives of the Board of Education might be invited to the conference to proffer their views. However, the feeling of the meeting was that the informal arrangements should be retained and that Board of Education representatives should not be invited.⁵

1. Ibid.

2. EO/HFE/1/40 H.Boyes Watson to E.M. Rich, 17th October, 1936.

3. W.A. Robson, The Government and Misgovernment of London (1939), p.290

4. L.C.C. EO/HFE/1/36 Notes of a meeting between representatives of the L.C.C. and the Directors of Education of neighbouring L.E.A.s, 22nd March, 1932.

5. L.C.C. EO/HFE/1/40 Notes of a meeting between representatives of the L.C.C. and the Directors of Education of neighbouring L.E.A.s 16th October, 1936.

In fact, Rich had written to the Board of Education a week earlier indicating that despite the conference there was still a good deal of duplication of course development between the L.C.C. and neighbouring authorities and that the assistance of the Board could be useful,¹ so that he was no doubt disappointed at the decision of the conference.

In having to rely upon the general agreement of all the parties concerned the effectiveness of the conference was necessarily limited and occasionally important issues were raised by the L.C.C. but without a conclusion satisfactory to the London authority being reached. In referring to the introduction of ordinary national certificate course in mechanical and electrical engineering at Willesden Polytechnic, Rich informed Gater in October 1932 that Willesden in less than 1 mile from Paddington and it certainly does compete with Paddington. I should have objected if he (the Director of Education for Middlesex) had told us. I only found out by accident."² A letter of protest went from Gater to Walton but eventually Gater considered it politic to let the matter drop. No doubt Gater appreciated that to censure the Middlesex authority further would only result in bad relations, a situation that could be more damaging than competition in ordinary national certificate courses from Willesden Polytechnic. At the conference of June 1935 Rich stated his objection to senior full-time engineering courses at the new South East Essex Technical College at Barking, but Sargent, the Essex Director of Education, emphasised that his authority was anxious to develop high level courses because of the prestige involved and also because of the financial saving resulting from a possible decline in out-county payments.³ In practice the competition between London and neighbouring authorities was probably most damaging in terms of the

-
1. L.C.C. EO/HFE/1/40 E.M. Rich to Secretary, Board of Education, 18th September, 1936.
 2. L.C.C. EO/HFE/1/36 E.M. Rich to G.H. Gater, undated, but October, 1932.
 3. L.C.C. EO/HFE/1/39 Extracts from notes of a conference with out-county Authorities, 6th June, 1935.

technical institutes that were close to each other and which depended heavily for their enrolments upon minor and major general engineering and building courses. These courses were of the type which were relatively easy to introduce in terms of staffing and equipment. It is thus noticeable that Macdonald of the Education Officer's staff informed G.A.N. Lowndes in 1937 that Paddington Technical Institute was by no means functioning to its full capacity.¹ On the other hand the Northern Polytechnic appears to have suffered relatively little from competition from out-county institutions. In 1933 the Middlesex Director of Education informed Rich that the principal of Tottenham Polytechnic had requested permission to provide a higher national certificate course in building.² The Education Officer enquired of Dr. Drakely for his views upon the subject,³ but Dr. Drakely replied that he had no strong feelings in the matter.⁴ Dr. Drakely later noted that throughout the interwar period the Northern Polytechnic was little worried by competition from Middlesex institutions.⁵ The more specialised the course the less likely was competition to be a serious consideration since it was probably cheaper, at least in the short-run while demand was limited, to send students out-county rather than to provide a satisfactory alternative to a course provided at a London institution.

In general terms the value of the conference was that channels of communication were opened that might otherwise have remained closed and ideas were exchanged, perhaps resulting in some kind of sketchy regional planning. However, the conference did not consider in any really sophisticated fashion the industrial and technological requirements of Greater London as a whole. W.A. Robson fairly summarised the position in 1939:

-
1. L.C.C. EO/GEN/1/11 J.Macdonald to G.H. Gater, 17th August, 1937.
 2. L.C.C. EO/HFE/1/38 H.M. Walton to E.M. Rich, 13th November, 1933.
 3. L.C.C. EO/HFE/1/38 E.M. Rich to Dr. Drakely, 21st November, 1933.
 4. L.C.C. HFE/L/38 T.J. Drakely to E.M. Rich, 28th November, 1933.
 5. Dr. Drakely in correspondence with the author, op.cit.

"No account is taken by the London County Council of the technical training required for special industries situated outside the boundary - e.g. motor engineering at the Ford works at Dagenham. There are few instances, if any, on record where an outlying local authority has requested the London County Council to make provision for a particular form of technical education."¹

Junior Technical Scholarships

Scholarships for pupils attending trade or junior technical schools were first introduced in 1905 when the Council made provision for 25 scholarships for boys and 80 scholarships for girls,² the greater provision for girls being explained by the greater number of trade school places available for girls than for boys. The provision of trade scholarships expanded in subsequent years and in 1909 the total maximum number of awards was raised from 310 to 610 scholarships of the 310 scholarships available in 1909, 263 were taken up by boys, the remainder being allocated to girls.³ A further modification in the scholarship arrangements was made in 1920 when the Council agreed to allow a limited number of free place students into the schools. These students were permitted to attend classes without payment of a fee, but they were not provided with a maintenance allowance. Initially, only a few free places were available but in 1935 provision was made for a substantial increase in the number of exhibitions, as the free place awards were called.⁴

-
1. W.A. Robson, op.cit., pp. 290-291.
 2. L.C.C. EO/HFE/3/4 Undated, unsigned typescript. L.C.C. EO/HFE/3/5 undated, unsigned typescript.
 3. Ibid.
 4. Education Committee Minutes, 15th May, 1935 pp. 227,228.

The number of both scholarships and exhibitions was therefore gradually increased, and near the close of the interwar period over 2,500 scholarships were available for junior technical students and over 700 exhibitions.¹

The growth in the provision of junior technical scholarships and free places was linked overall with the development of the junior technical schools themselves. In turn, the fortunes of these schools was tied to the view adopted by the Council of the relationship between primary and post-primary education. The attitude adopted by Blair upon the need for variation in the type of post-primary education available and the support he received in general terms from the Municipal Reform party have already been recounted.² While recognising the value of the junior technical schools, the Labour party was less happy about the vocational nature of the courses provided and consequently tended to be less enthusiastic about increasing junior technical scholarship and free places, especially in relation to the provision of junior county scholarships. It is noticeable that the London Plan of 1947, prepared under the care of a Labour Council, favoured the incorporation of craft instruction within the comprehensive school where the opportunity was available for students to benefit fully from a liberal curriculum. The 1947 London School Plan stressed that "it is not intended that pupils who take secondary courses leave school as little engineers or builders nicely adjusted to strict industrial requirements but rather as young people capable of fitting readily and settling happily in any one of a large range of occupations, and also like all educated persons, capable of leading full lives both as private individuals and as citizens."³ However, while the junior technical schools were considered educationally

1. G. Gibbon and R.W. Bell, op.cit., p.271

2. See pp. 223, 224.

3. London County Council, London School Plan (1947), p.235.

desirable, experience showed that without the benefit of a substantial influx of scholarship pupils it was uneconomic for the schools to function since in general they were unable to attract fee payers in large numbers.

During the interwar period the demand for scholarship places was frequently far greater than the number of awards available. Yet in 1935 E.M. Rich was prepared to inform the Higher Education Sub-Committee that he had long felt the flow of students to the junior technical schools to be far from satisfactory.¹ Rich's concern was not only with the overall number of students entering the schools, but also with the previous educational experience of the pupils. In particular, he was anxious that so few grammar and central school children transferred to the more vocational institutions² thus reflecting upon the quality of student available to the junior technical schools. Part of the problem was related to the relative unwillingness of parents to allow their children to attend the junior technical schools as fee payers and also to the need for a greater overall provision of scholarship places. Yet the explanation was not as clear as this since many scholarships were in practice not taken up so that some courses attracted only a minimum number of scholarship holders. While certain factors which had a bearing upon recruitment to the junior technical schools, such as the attitude of parents and teachers have already been discussed,³ the mechanics of the scholarship system also require consideration.

The scholarship arrangements which were established in 1920 for potential junior technical school pupils formed the basis of the selection system until important modifications were introduced in 1935. The examination scheme set up in 1920 was of a two-tiered nature with the first part being of a written and practical nature and the second part consisting of an interview with representatives from the interviewee's chosen technical

1. L.C.C. EO/HFE/1/22 Education Officer's Report to the Higher Education Sub-Committee, 9th May, 1935, p.16.

2. Ibid.

3. See pp.223, 224.

school and the Education Officer's department. Lack of evidence makes it difficult to assess the relationship between the examination and the interview in determining the character of successful examiners, but according to R. S. Clay, the principal of the Northern Polytechnic, "in practice, the examination results were allowed to override entirely the results of the interview." ¹The first part of the examination was itself divided into two sections, the first section consisting of an examination in English and arithmetic and the second involving an examination in handicraft subjects. Prior to 1920 the examination for junior technical scholarships had not been separated in this way, but a dual arrangement was then considered desirable on financial grounds. ²Since a large number of students failed the test in English and arithmetic expenses for the remainder of the examination were thus reduced. Also, in 1920 the age at which students were eligible to sit for the scholarship and free place examination was set at between 13 and 14. Originally, students had entered for the examination at 14 years of age but this was later modified to cover students between 13½ and 15½ years of age. The adjustment was introduced because of the difficulty of persuading parents to keep their children on at school after the statutory leaving age in order to sit for the scholarship examination. ³The age limit was similarly modified in 1920 in order to ensure that all students had the opportunity of sitting for the scholarship examination before reaching 14 years of age.

Part of the criticism surrounding the junior technical scholarship arrangements concerned the timing and content of the examination. As principal of the Borough Polytechnic, J. W. Bispham argued strongly that by recruiting junior technical students at 13 plus the technical schools were unable to attract the more able elementary school pupils who had

-
1. L.C.C. EO/HFE/3/8 R. S. Clay to E. M. Rich, 28th October, 1931.
 2. L.C.C. EO/HFE/3/8 H. Sanders to E. M. Rich, 29th July, 1931.
 3. L.C.C. EO/HFE/3/5 S. C. Smail to H. T. Holmes, 17th August, 1919.

already been confronted with the junior county scholarship examination at 11 plus. ¹ Moreover, both parts of the junior technical scholarship examination were held before the examination for supplementary junior county scholarships so that pupils were held back in order to attempt the junior county examination. ² Since the professional officers felt it undesirable that students should prepare for a definitely vocational education before thirteen, the problem of the relationship between the junior technical and junior county scholarships was a difficult one. The problem was exacerbated by the fact that for many years the junior technical and junior county scholarships were not interchangeable, so that even if a secondary school child decided at the age of thirteen that he would like to transfer to a junior technical school he was deterred from doing so by the prospect of losing his grant. As early as 1911 the London division of the Incorporated Association of Head Masters informed the Education Officer that "It is the experience of head masters as it is of head mistresses, that parents of pupils who would benefit far more by a course of training in a trade school than by continuing in secondary schools, are unwilling to transfer them owing to the loss of grant." ³ J. C. Smail, the Council's organiser of trade schools, believed that an arrangement for the transfer of junior county scholarships was desirable, though "there would be opposition to this on the ground that the intentions of the scholarship were not being carried out". ⁴ It was not until the overhaul of junior technical scholarship arrangements in 1935 that, subject to the approval of the Higher Education Sub-Committee, junior county scholars were allowed to exchange their award for a junior technical scholarship. ⁵ By the end of 1937, however, only 49 junior county and

-
1. L.C.C. EO/HFE/1/12 J. W. Bispham to E. M. Rich, 31st March, 1931.
 2. L.C.C. EO/HFE/1/12 Report of a Conference at County Hall on co-operation between technical institutes and elementary schools, 15th April, 1932.
 3. L.C.C. EO/HFE/3/4 Report by the Education Officer to the Higher Education Sub-Committee, 10th June, 1912, p.5.
 4. L.C.C. EO/HFE/3/6 J. C. Smail to E. M. Rich, 21st February, 1912.
 5. Education Committee Minutes, 15th May, 1935, p.228.

special place holders had transferred to a technical school,¹ and Dorothy Pannett noted in 1939 that "in theory it is possible to transfer unsuitable holders of junior county scholarships from secondary to technical schools but in practice this is almost unknown".² It is difficult to judge what success the transfer arrangements would have had if they had been introduced earlier, but it seems clear that the system required the goodwill of pupils and teachers and that this was not easily forthcoming.

The subject matter of the first part of the examination may have tended to work unfairly against children from a certain background. Rich himself expressed concern that the examination in English and arithmetic was inevitably weighted against a particular type of student. In 1931 Rich informed Dr. Spencer that "I am concerned about some very good craft pupils getting cut-out because they are low in English and Arth^C."³ However, senior education officials at County Hall seemed to have been satisfied that English and arithmetic were a satisfactory test of a pupil's general ability.⁴ The fact that these discussions were held during the financial crisis may well have militated against a change, though no attempt was made in 1935 to modify this part of the examination programme.

Another aspect of the scholarship structure which remained unaltered in 1935 was that relating to the system of scholarship distribution. Since the introduction of junior technical scholarships in 1905 the awards were distributed between the schools rather than direct to the examinees.⁵ One result of this has already been referred to whereby successful candidates were sometimes awarded a scholarship in a subject and at a school which had been a second or third choice.⁶ If this arrangement had not been

-
1. L.C.C. EO/HFE/1/22, Undated, unsigned document.
 2. D. A. Pannett, A Comparison of girls' junior technical schools in London and Paris (Unpublished London M.A. thesis 1939), p.154.
 3. L.C.C. EO/HFE/3/8 E. M. Rich to Dr. Spencer, 11th February, 1931.
 4. L.C.C. EO/HFE/3/8 Report of a conference between senior officials of the Education Officer's department, 24th February, 1932.
 5. L.C.C. EO/HFE/3/4 J. Macdonald to B. Ingram, 1st January, 1936.
 6. See pp. 223, 224.

introduced it is possible that an even greater imbalance in the number of students following different courses would have occurred, with the more esoteric subjects being the greatest losers. However, the arrangement did mean that a number of scholarships for which provision had been made were not taken up. In addition, any institutional stickiness in awarding more scholarships to developing areas may have noticeably retarded course development in some schools.

Finally, the value of the junior technical scholarship was another factor which may seriously have influenced the number of candidates entering for the examination. The poverty of parents was frequently referred to among the County Hall memoranda as a problem which retarded the flow of pupils into the junior technical schools. In 1938 J. Macdonald informed Rich and Bispham that "We can hardly say at present that no child is debarred from getting the benefits of higher education owing to inability to pay, as every year a large number of boys have to be withdrawn owing to the poverty of the parents."¹ While agreeing that there were many difficult cases Rich felt himself unable "to do anything further at present"². One of the problems facing Rich was that a rise in the value of junior technical scholarships would necessarily have been accompanied by an increase in the value of junior county awards, especially since the technical scholarships were already of a slightly higher value than the county awards. To have increased the value of both types of scholarship would have been costly. However, the fact that the parents of the potential junior technical school pupils were almost certainly on average less able to afford to forgo their child's income does not appear to have been considered in detail, if at all by senior officials in 1938. In addition, though, Rich was no doubt influenced by the policy of the Council which at that time was not favourably disposed towards a substantial expansion of junior technical scholarships.

1. L.C.C. EO/HFE/3/6 J. Macdonald to Rich and Bispham, 29th June, 1938.

2. L.C.C. EO/HFE/3/6 E. M. Rich to J. W. Bispham, 3rd July, 1938.

CHAPTER TWELVE

The Board of Education and the L.C.C.

The interwar period was an important stage in the evolution of relationships between the Board of Education and L.E.A.s. The role of the Board of Education in course innovation was necessarily an indirect one since, according to G.A.N. Lewndes, "the function of the Board was administrative e.g. persuading L.E.A.s to allow their minds to move in particular directions over the next few years whereas the function of the L.C.C. was predominantly executive"¹. Nevertheless, through its control of financial assistance to L.E.A.s and in its capacity as an expert advisory body, as well as the third party in the national certificate and diploma schemes, the influence of the Board and of H.M. Inspectors upon course innovation and development was a great importance in shaping the character of technical education in London during the interwar period.

(a) The Board of Education and L.E.A. expenditure.

One of the most important ways in which the Board of Education influenced the work of L.E.A.s was through its own departmental estimates. In its control of education expenditure, however, the Board was essentially an intermediary since, as W.B. Rust observes, "It was .. the Treasury which in this century came to exercise control over the whole of Education operating through the estimates of the Board of Education"². Our discussion concerning the day continuation school issue suggests that the 1918 Education Act was an important catalyst in bringing to a head the question of Treasury control over Board of Education expenditure. By March 1920 the principle was clearly established that the Board,

1. G.A.N. Lewndes in correspondence with the author, op.cit.

2. W.B. Rust, Educational Administration in England and Wales, 1870-1950 (Unpublished London Ph.D thesis 1955), p.532.

acting as intermediary between the Treasury and L.E.A.s, had the authority and the duty to restrain local spending on education should this become necessary.¹

Government spending on further education during the interwar period increased, but only at a very slow rate so that on this basis Professor Vaisey argues that "the expansion of further education was not a striking feature of pre-war development."² The size of the further education sector, compared with other aspects of the education system, inevitably meant that expenditure in this direction would be less substantial than elsewhere. However, the personal interests of politicians and civil servants, as well as other factors, no doubt helps to explain the imbalance of expenditure between different educational areas. It has been argued that the limited funds at the disposal of the Board of Education tended to encourage a concentrated effort upon particular parts of the education structure and that, for instance, during Morant's period as Permanent Secretary at the Board efforts were especially directed at secondary education, reflecting Morant's own interest.³ The financial difficulties of the interwar period placed a good deal of pressure upon the Board and perhaps this helped to concentrate the strong interest in secondary reorganisation which a reading of the departmental records reveals. Even Lord Eustace Percy, probably the strongest advocate for technical education at the Board during the interwar years, recognised that other parts of the education structure required priority attention. In October 1928 Percy outlined his own views on educational reform to the Chancellor of the Exchequer, noting that "The ladder of promotion from the Primary

1. See p.351.

2. J. Vaisey, The Costs of Education, op.cit., p.103

3. W.B. East, op.cit., p.391.

through the Secondary School to the University has been too narrow at the bottom and has tapered much too rapidly at the top, we have never properly constructed the second ladder, which we need, from the Primary School through part-time classes to the Technical College; and the platform of elementary education on which both ladders have to be erected has not been sufficiently solid. The first step towards reform is the re-organisation of elementary education into a solid system of primary and senior schools."¹

As in the case of other areas of education, further education was subject to an uneven pattern of expenditure. The economies associated with the Geddes recommendations have been referred to elsewhere,² but retrenchment in education was pressed upon local authorities in 1927, and more vigorously during the depression period of the early 1930s. The departmental records clearly indicate the pressure which was exerted by the Treasury upon the President of the Board of Education. In December 1924 Percy submitted his ideas on future educational expenditure to W.S. Churchill, at that time Chancellor of the Exchequer, expressing the hope that the education estimates for the following year would be some £1,000,000 less than in the previous year.³ Officials at the Treasury, however, were far from satisfied with Percy's assurance for in reply Churchill emphasised that "I did not understand that the reduction of your Estimates by about £1,000,000 .. only meant that you would not over-estimate as much next year as the Board of Education has done in previous years. I was under the impression that this reduction of £1,000,000 was the result of a more effective control of expenditure within the Education Department."⁴ In his letter, Churchill referred to the Boards over-estimating in 1922/3 and 1923/4, adding that "In these circumstances I think that not only should the Estimates be framed on their

-
1. P.R.O. Ed 24/1389 Lord Eustace Percy to the Chancellor of the Exchequer, 1st October 1928.
 2. See pp.328,329.
 3. P.R.O. Ed. 24/1389 Lord Eustace Percy to W.S. Churchill, 1st December 1924.
 4. P.R.O. Ed. 24/1389 W.S. Churchill to Lord Eustace Percy, 4th December 1924.

true basis and no more money be asked for than will in fact be spent but that in addition an effort should be made to curtail so far as possible expenditure not producing an adequate return."¹ The atmosphere within which the Board functioned became even chillier in January 1930 when Philip Snowden, the Chancellor of the Exchequer, informed Charles Trevelyan that "I am extremely perturbed at the forecasts of the future increases in your Estimates, increases which are far greater than can be accounted for by the raising of the school age and I hope that you will bear with me if I say that I think that for the present we have made a sufficient advance in educational development, and that a task not less urgent than that of seeking to expand educational facilities is to make certain that we are getting value for our existing expenditure and that no practical economies have been overlooked."² The following year Snowden again urged Trevelyan to make substantial cuts.³ The major economies, however, awaited the fall of the Labour Government. Writing in September, 1931, Donald Maclean, the recently appointed President of the Board of Education, noted that discussions at the first meeting of the new Cabinet had been dominated by education and that in his view the attitude was one of change "from rapid progress to severe economy."⁴ Following the recommendations of the May Committee, the Government's economy measures relating to education were severe.⁵ In December 1931 the Board's Permanent Secretary informed L.E.A. representatives that "In the case of technical schools, new schools will only be approved if they are regarded as essential to the needs of industry and commerce."⁶

1. Ibid.

2. P.R.O. Ed.24/1393 P. Snowden to C. Trevelyan, 28th January, 1930.

3. P.R.O. Ed. 24/1393 P. Snowden to C. Trevelyan, 12th February, 1931.

4. P.R.O. Ed. 24/1258 Report of a meeting between the President of the Board of Education and L.E.A. representatives, 4th September, 1931.

5. These economies are summarised by G. Bernbaum, Social Change and the Schools, 1918-1944 (1967), p.55

6. L.C.C. EO/GEN/1/25 Meeting between officials of the Board of Education and L.E.A. representatives 7th September, 1931.

In practice, however, the Board's policy towards technical education was perhaps more flexible than in certain other areas of the educational framework. In 1934 E.H. Pelham informed the President of the Board of Education and the Parliamentary Secretary that in relation to technical education "We have throughout adopted a more generous attitude and have been prepared to sanction any proposals likely to prove of immediate benefit and importance to industry and commerce."¹ Nevertheless, Pelham added that "In the circumstances Technical Education need make no call on the new money"² so that there was a danger that what technical education gained on the swings it lost on the roundabouts. As President of the Board of Education Lord Irwin began pressing the Chancellor in 1933 to relax the financial restrictions upon education³ and in December Chamberlain agreed to ease the position on capital expenditure.⁴ The more liberal financial policy was not announced publicly and as Pelham noted "local authorities have only realised our more lenient attitude as they happened to bring up individual cases."⁵ However, by the latter half of 1934 the rate of acceleration of capital expenditure by the Board had increased greatly so that an attempt was made to retard local authority spending.⁶ This placed the Board in an embarrassing position. For example, with regard to London Ainsworth

1. P.R.O. Ed. 24/1261 E.H. Pelham to the President and Parliamentary Secretary of the Board of Education, 17th April, 1934.

2. Ibid.

3. P.R.O. Ed. 24/1395 Lord Irwin to Neville Chamberlain, 12th January, 1934.

4. Ibid.

5. P.R.O. Ed. 24/1261 E.H. Pelham to President and Parliamentary Secretary of the Board of Education, 17th October, 1934.

6. P.R.O. Ed. 24/1261 A. Ainsworth to E.H. Pelham, 9th October, 1934.

explained to Pelham that "London are obviously assuming that the slump is over and we are faced with the alternative either of relaxing Circular 1413 and facing the risks of such a relaxation or of a public quarrel with the L.C.C."¹ By placing the Board in a difficult position L.E.A. pressure helped to speed the further relaxation of the economy measures for it forced the President to request an increase in the Board's allowance. This increase was agreed to by the Treasury² and thus contributed to further spending in 1935.

The financial policy of government towards education during the interwar period inevitably meant that L.E.A. services were from time to time seriously handicapped by the lack of assistance from the central education authority. Moreover, the regular calls for retrenchment ensured that there was generally a backlog of work to be tackled which in turn no doubt acted as a pressure against the consideration of totally fresh developments. The difficulties under which technical education in London functioned during the latter part of the 1930's have already been recounted³ and reflect the accumulation of work delayed by the periodic demands for economy. The stop-go nature of government assistance during the interwar years also made it difficult for L.E.A.'s to adopt a planned approach towards education, such as that suggested under the Fisher act since the authority could never be sure of the long-term support of the Board of Education. At the very least, confidence in Board of Education pronouncements was not always likely to be very great so that the advice of H.M. Inspectors and other Board officials relating to suggested developments might be viewed with scepticism.

1. Ibid.

2. P.R.O. Ed. 24/1261 R.V. Hopkins to E.H. Pelham, 16th November, 1934.

3. See p.260.

(b) Criteria for Board of Education expenditure within the technical education sector.

Regular meetings between senior Board of Education officials became the accepted procedure during the interwar period for discussing the allocation of capital to London's technical education service. ¹ Consideration was given at these meetings to the adequacy of existing capital equipment and to the requests endorsed by the L.C.C. for new extensions and buildings. The purpose of such meetings was to formulate a general overall order of precedence of expenditure. ² In detail, however, a file was established for each institution so that any scheme involving substantial capital expenditure was discussed in a written report by individual officers and the final decision recorded. Much of the initial work in the preparation of the London County Council's proposals was done in conjunction with H.M. Inspectors so that by the time a scheme reached the Board many detailed criticisms had already been tackled. ³ Indeed, according to a document prepared in 1932 in evidence for the Board's L.E.A. Advisory Committee, the Council's schemes normally suffered little modification at the hands of the Inspectors. ⁴ Furthermore, it was argued, the Council was able to resist proposals emanating from the Board which would involve additional expense. The purpose of this document was to illustrate that much of the preliminary work upon L.C.C. proposals undertaken by the Board's representatives was unnecessary and could be dropped. ⁵ Nevertheless, the files built up at the Board of Education, being concerned with general matters of policy, provide a useful insight into the criteria upon which the financial allocation between different institutions was made.

1. P.R.O. Ed. 90/125 H. Davies to H.T. Holmes, 2nd May, 1931.

2. Ibid.

3. L.C.C. EO/GEM/1/28 J.B. Currie to G.H. Gater, 19th August, 1932.

4. L.C.C. EO/GEM/1/28 Typescript of evidence for the Board's L.E.A. Advisory Committee, undated but almost certainly August 1932, p.4.

5. Ibid., p.3.

Although the written comments by Board of Education officials upon particular projects were not always in agreement, it is possible to trace certain consistencies of approach. Some of the policies adopted by the Board were in line with the Council's own policy. For example, the Board was anxious to ensure that its agreement to particular schemes would not result in a serious overlapping of work between one institution and another. For instance, the pressing need which emerged during the 1920's for extensions at the Brixton School of Building and which have been referred to earlier in our thesis,¹ were "delayed in order to see what effect might be produced by the building of the new School of Building at Hammersmith and the new S.E. Technical Institute."² Closely linked to the problem of overlapping was the more general question of whether the development of an institution was necessary in relation to the overall need for training in a particular industry. It was largely because the conclusion reached in this respect by the Board in 1921 was adverse that assistance in extending the premises of the Cordwainers' Technical College was refused.³ However, when there was a clear need for more workers who had been trained at a technical institute the Board's officials were in general prepared to support capital expenditure, and it was largely on these grounds that extensions at the Brixton School of Building were allowed in the 1930's.⁴

The Board of Education records show that the senior officials of the Technical Branch were aware of the advantages of planning to meet anticipated needs. For example, the large scale building programme at Regent Street Polytechnic was allowed to proceed partly because of the need

1. See p. 260.

2. P.R.D. Ed. 90/123 H.T. Holmes to H. Davies, 9th October 1928.

3. P.R. O. Ed. 90/133 W.R. Davies to Selby-Biggs, 17th December, 1921.

4. P.R.O. Ed. 90/123 M.S. Briggs to Dr. Morley, 15th April, 1929.

for an easily accessible central institution, bearing in mind the flow of population to Greater London. ¹ However, this was planning of a limited nature and, apart from a general feeling in the 1930's that advanced work in certain of the polytechnics should be encouraged, there appears to have been very little detailed discussion as to what demands upon the labour force the economy was likely to make in future years and how best the Board's control over capital expenditure could be used to balance the supply of trained workmen with the probable demand.

In part, the limited role of the Board in using its control over capital expenditure to direct course innovation and development in particular directions was frustrated by the frequent demands from the Treasury for retrenchment. In this sense detailed educational planning was as much retarded at the central level as at the local level by endemic financial alarm. In addition though, the administrative arrangements at the Board of Education may sometimes have served to impede a planned approach to education. The senior officials upon whom the decision to recommend capital expenditure rested were necessarily restricted in the amount of time they could spend in making personal visits to particular institutions so that they had to rely upon second or third hand information. In 1934 a visit to the Wandsworth Technical Institute by three senior Board of Education officials left no doubt "that a complete rebuilding of the whole of the temporary premises to the west of the Institute is a matter of immediate urgency. The state of dilapidation of the skating rink passes description and the temporary hut classrooms, apart from being in some cases in a state of serious disrepair are totally inadequate for the work." ² After this report was submitted permission was very quickly given for building work to begin. ³ That such a

-
1. P.R.O. Ed. 90/154 H.T. Holmes to G.G. Williams, 28th September, 1925.
 2. P.R.O. Ed. 90/165 G.G. Williams to Campbell, 10th October, 1934.
 3. P.R.O. Ed. 90/165 J. Wilkie to the L.C.C. 28th January, 1935.

drastic position could be reached reflects not only the build up of repair work during periods of economy but also a certain weakness in the flow of information to those responsible for assessing the urgency of different aspects of London's educational requirements.

Perhaps a more fundamental problem, however, was the view adopted by the Board's officials of their own part in course innovation and development. The discussions surrounding the proposed extensions to the Cordwainers' Technical College in 1921 illustrate the collective view of senior Board of Education officials. Though the building scheme was finally abandoned in 1922 when the Geddes economies were introduced, the proposal was already being viewed unfavourably because, although the leather industry employed a large work force in London, it was regarded as an industry where training could easily be accommodated within the ordinary work situation. ¹ Thus in 1921 formal institutionalised technical training failed to receive the unqualified support of the Board of Education. The expansion of building work in the 1920's provided the Board with an opportunity of planning to help meet the additional labour requirements in the construction industry that the housing legislation of the early 'twenties made, if not inevitable, at least highly likely. However, the Board rejected the suggestion that it could stimulate L.E.A.s in providing more instruction in building trade subjects. Part of the difficulty related to the probable opposition that any interference with the apprenticeship arrangements would bring. ² However, Selby-Bigge's memorandum to the President of the Board of Education in October 1924 suggests a rather easy acceptance of the existing position and an unwillingness to initiate a positive policy toward the L.E.A.s Selby-Bigge informed Charles Trevelyan that "I doubt whether, on the ordinary lines of technical school training L.E.A.s could contribute on a large scale to

1. P.R.O. Ed. 90/133 W.R. Davies to Selby-Bigge, 17th December, 1921.

2. P.R.O. Ed. 24/1868 Selby-Bigge to Charles Trevelyan, 6th August, 1924.

the expeditious expansion of the building crafts. They naturally think along lines which, however sound for normal conditions, are not really suitable for an industrial emergency." ¹Selby-Bigge added that in his view the best that could be hoped for would be to enlist the co-operation of one or two L.E.A.s in experimenting with emergency training of building workers. ²

The enquiries concerning the relationship between technical education and industry and commerce which were initiated by Lord Eustace Percy during the 1920's suggest a belief in the value of educational planning. These enquiries, however, did not necessarily mean that the role of the Board of Education in a consideration of the manpower requirements of industry and commerce was viewed in a highly positive way. Indeed the reports emanating from these enquiries were more by way of propaganda, attempting to promote friendly relations between educationists and employers, rather than a detailed survey of the anticipated labour requirements of the economy. The comments of Sir Graham Savage, who was the Board's Chief Inspector of Technical Schools and Colleges between 1933 and 1940, are instructive. In correspondence with the author, Sir Graham expressed the view that "I don't know how much more the Board could have done to promote course innovation. This comes from the demands of industry and commerce so far as vocational courses are concerned." ³Implicit in this comment is the belief that education followed rather than anticipated labour market trends and that the role of the Board in course innovation was necessarily limited. This attitude is reflected in Dr. Drakeley's comment that so far as he could recall the Board never played a major role in initiating important new courses. ⁴The limited view of their work taken by Board officials no doubt derived from experience of practical difficulties rather than simply a

1. P.R.O. Ed. 24/1868 Selby-Bigge to Charles Trevelyan, 16th October, 1924.

2. Ibid.

3. Sir Graham Savage in correspondence with the author, op.cit.

4. Dr. T.J. Drakeley in correspondence with the author, op.cit.

narrow view of the Board's functions. The enquiries promoted by the Board in the 1920's were often frustrated by opposition from employers and employers' associations. ¹ Moreover, the Board did not always receive as much co-operation from other government departments as was perhaps desirable. In October 1927, for example, Percy informed Sir Philip Cunliffe Lister at the Board of Trade that "there is a considerable feeling in our party and in the country as a whole that education ought to be more closely linked up with industry, and this feeling is being increasingly shared by the teachers."² Percy therefore argued that the Board of Trade should initiate a detailed enquiry into the training needs of employers for their employees. ³ The suggestion, however, was rejected ⁴ so that a valuable opportunity of collecting the information necessary for the guidance of course innovation and development in technical education was lost to the Board of Education. Similarly, Percy evidently experienced some difficulty with the Ministry of Labour for in 1924 he informed Sir Arthur Steel-Maitland that stubbornness "too often extends to the relations between our Departments." ⁵ In this kind of atmosphere it was difficult for the Board of Education to do its work effectively.

-
1. P.R.O. Ed. 24/1884 H.B. Wallis to A. Abbott, 23rd December, 1931.
 2. P.R.O. Ed. 24/1875 Lord Eustace Percy to Sir Philip Cunliffe Lister, 5th October, 1927.
 3. Ibid.
 4. P.R.O. Ed. 24/1875 Sir Philip Cunliffe Lister to Lord Eustace Percy, 21st November, 1927.
 5. P.R.O. Ed. 24/1274 Lord Eustace Percy to Sir Arthur Steel-Maitland, 22 April, 1925.

(c) The general influence of the Board of Education upon course innovation and development.

Although the Board of Education did not attempt to develop a centrally directed programme of course innovation and development, it was nevertheless able, through its position as paymaster, to exert considerable pressure upon the way that technical education was fashioned. The control exercised by the Board could be of a very direct kind as with the economy circulars which specifically instructed L.E.A.s to pursue certain policies of retrenchment. Even then, however, the Board's instructions could leave a good deal of discretion to the Authority. Circular 1388, dated February 1927, accepted that technical education did not readily submit to clearly defined economy measures, adding that "The provision for part-time students is, on the whole, well justified by the results, but might with advantage be reviewed from time to time in respect of such points as to the suitability of the courses to the circumstances of the students in them, the value of the attainment which is realised in some of the more popular subjects, or the standard which is being reached in the matter of regular and sufficient attendance throughout the session." ¹ A more unofficial, but nevertheless effective, form of pressure was through discussions with L.E.A. representatives, some of which could be held at high level. An example of this concerned the revision of the fee structure in technical institutions which occurred shortly after the London Labour party gained control of the L.C.C. At that time the Board was concerned about the fee arrangements in London, partly because variations between London and neighbouring authorities was thought to affect the free movement of students and also because the high number of remissions granted to students by the college authorities meant that a very low proportion of the total costs were recovered in fees. ² A meeting

1. L.C.C. EO/GEN/1/24 Circular 1388, 11th February, 1927.

2. P.R.O. Ed. 55/67 G.A.N. Lowndes to H.B. Wallis, 9th March, 1934.

between L.C.C. and Board of Education representatives was held in June 1934 to discuss the question of a revision of the fee structure. However, the matter was not immediately taken up by the Council so that the Board was obliged to press for action with the result that an acceptable formula was devised by the Council in 1936.

Reports emanating from the Board of Education may also have had a significant effect in helping to determine the shape of technical education during the interwar period. During the 1920's a number of general reports dealing with progress in technical education and its relevance to industry flowed from the Board of Education. Much of the interest of the Board in technical education during this period probably derived from the influence of Lord Eustace Percy. According to Dr. Rust, Percy's belief in the merit of technical education was a crucial factor in stimulating the interest of H.M. Inspectors in that area of educational activity. ¹One particular aspect of technical education in which the Board was especially concerned by the late 'twenties was that of co-operation between employers and those responsible for the education service. ²The Board's policy was to emphasize to employers that properly trained workers were an important economic asset and that they, as much as the workers themselves, would benefit from encouraging their employees to pursue a technically orientated part-time education. ³The success of the Board's work in this respect is difficult to evaluate, though in 1933 G.A.N. Lowndes felt that there "is encouraging evidence that our Education and Industry pamphlets and Reports

1. W.B. Rust, op.cit., p.408 .

2. Education and Industry, Growth and Existing Methods of Local Co-operation, 1933, p.1. This was a memorandum written by G.A.N. Lowndes in 1933 for consideration by H.M. Inspectors. Mr. Lowndes has kindly allowed me a right of a copy of this document.

3. Ibid., p.2.

and the ceaseless propaganda of H.M.I.s have borne fruit." ¹Lowndes added that "Many areas record a marked diminution of the indifference formerly shown by many managers and foremen to the efforts of the Technical Schools to attract and train their young employees." ²Nevertheless, Lowndes recognised that many obstacles remained to be overcome before the value of technical education was more widely appreciated. One problem referred to by Lowndes, and of particular relevance in a study of London, was the opposition which H.M. Inspectors encountered in areas where there were a large number of small scale firms. ³At the very least, however, the Boards general reports helped to establish a frame of reference and thus enabled H.M. Inspectors to exert pressure upon the more laggard Authorities by contrasting their work with the activities of the more progressive Councils.

The detailed reports on individual institutions prepared by the Board's Inspectors were undoubtedly an important factor in the shaping of technical education. During the inspection period itself the principal of a college had the opportunity of discussing in detail the work of other institutions as well as that of his own college. Indeed, during the interwar period the role of H.M. Inspectors came to be viewed in terms of expert advisors on educational matters. ⁴In addition, the departmental records of the Education officer's section at County Hall make it clear that H.M. Inspectors' reports were carefully digested by the staff concerned and that attempts were made to ensure that, so far as possible, the recommendations were complied with. The Education officer's staff necessarily regarded H.M. Inspectors' reports with care since the Board's officials kept a close check on the application of H.M. Inspectors' suggestions. In 1936 E.M. Rich noted that "The B of E have written a critical report on Smithfield Inst. The premises

1. Ibid., p.1.

2. Ibid., p.1.

3. Ibid., p.5

4. W.B. Rust, op.cit., p.603.

are clearly inadequate and we must have something better. I propose to put down £20,000 in the next programme." ¹ Not all of the Board's criticisms were attended to in such a decisive manner but this example does carry the implication that H.M. Inspectors' reports were regarded as of major significance.

The importance of H.M. Inspectors' reports and of meetings senior Board of Education and L.C.C. officials is also illustrated in another way by the departmental records. In writing of his work as an H.M.I., Dr. Spencer noted that part of his job was "to advise the Directors on policy, to smooth their path with the Central Government and, on occasion, to support them formerly or informally with (or against) their committees".² Successive Education officers to the L.C.C. used H.M. Inspectors' reports in support of particular projects which they considered desirable. Moreover, the question of the fee structure for London's technical institutions which was referred to earlier ³ demonstrates that on occasions the Education Officer could enlist the support of senior Board officials to support him at committee meetings. The problem of fees at London's technical colleges was a difficult matter for Rich to face in 1934. Not only had he only recently gained promotion to Education officer, but he was also faced with the first Labour Council, some members of which, including Mrs. Lowe, the Chairman of the Education Committee, had strong feelings on the fee issue. It was in these circumstances, therefore, that Rich approached the Board of Education in 1935 with the suggestion that a letter should be addressed to the Authority outlining specific proposals. ⁴ The Board concurred with this suggestion and the matter was quickly resolved. Another aspect of the same technique was that by which the Education Officer's staff could use the Board's influence as a weapon in controlling the ambitions of enthusiastic principals. One important example of co-operation in this

1. "L.C.C. EG/HFE/1/13 E.M. Rich to J. Macdonald, 2nd October, 1930.

2. F.H. Spencer, *op.cit.*, p.277.

3. See p.289.

4. P.R.O. Ed. 55/67 E.M. Rich to W. Eaton, 12th August, 1935.

respect was that between the Board and Sir Robert Blair in 1919 when the principal of the Northampton Polytechnic applied to the L.C.C. for permission to extend the range of high level engineering courses offered by his college. The Board agreed with Blair that until fuller consideration had been given to advanced technical instruction in London as a whole it was necessary" to check the Northampton's ambitions." ¹

A further use made by the Education officer of H.M. Inspectors' reports and comments was as ammunition when the Council applied to the Board for financial assistance for particular projects. It is difficult to determine the success of this approach, though no doubt it could place the Board's officials in an embarrassing position. Certainly, in their discussions on particular schemes of capital expenditure, the Board's officials frequently referred to their own past comments.

However, the work of the Board of Education as a propaganda and advisory agency was impeded by certain factors. One of these factors concerned the adequacy of the Board's own staff. In 1929 Charles Trevelyan informed the Chancellor of the Exchequer of the need for more Inspectors.² Trevelyan added that "I might also want some slight increase in the expenditure of our Department of Special Inquiries and Reports. I do not think the Board have done enough in this direction, and I should like to make this Department a real Intelligence Branch of Office."³ This particular criticism implied that some adjustment in the Board's own functions was desirable. In this sense Trevelyan, while not going so far as Blair, nevertheless echoed some of the principles discussed by Blair in his 1916 memorandum on education reform. ⁴In this document Blair argued for a broader concept of the work of the Board and in particular the development of a more sophis-

1. P.R.O. Ed. 24/1862 W.B.H. To Selby-Bigge 25th February, 1919.

2. P.R.O. Ed. 24/1393 C. Trevelyan to P. Snowden, 29th October, 1929.

3. Ibid.

4. Memorandum by R. Blair on educational reform, op.cit.

licated approach to the collection and dissemination of information and ideas. Less time should be spent, argued Blair, on routine and administrative detail.¹

Another of the difficulties faced by the Board in its capacity as a policy making and advisory body was that of the suspicion with which the Board's activities were viewed by the Treasury. The planned growth of Board of Education spending consequent upon the 1918 Education Act appears to have contributed to an atmosphere of distrust between the two departments. This distrust was exacerbated by the inclusion in the Fisher act of a percentage system of grant payments to local authorities in connection with their expenditure on higher education. The introduction of the percentage scheme was to relieve the financial burden upon L.E.A.s by establishing the principle that the State and the L.E.A. should each pay half of the net approved expenditure of the L.E.A. on higher education.² Both the Geddes and the May Committees felt that the percentage grant arrangement was a major factor in the expansion of educational expenditure.³

The strained relationship between the Board and the Treasury during the 1920's is reflected in the Board's attempt in 1925 to encourage L.E.A.s to develop programme planning in education. In writing as Chancellor of the Exchequer, W.S. Churchill emphasized to Percy that "It was understood at our discussion last week that in calling for these programmes you make it clear that a strict selective process would be applied by you, that the mere invitation to formulate schemes implied no undertaking that any particular scheme would be adopted, and that you would control the expenditure

1. Ibid.

2. S.J. Curtis, *History of Education in Great Britain* (1965 edn), pp. 344, 345.

3. P.R.O. Ed. 24/1260 Memorandum from the Board of Education to the Cabinet Committee on the Report of the Committee on National Expenditure, undated.

in such schemes as were eventually approved".¹ Sir George Barstow, Controller of Supply Services at the Treasury, made it clear to Selby-Bigge in March 1925 that the Treasury wanted it inserted in the forthcoming circular to L.E.A.s that the programme system did not commit the present government or future governments in advance of the yearly provision voted by Parliament.² In addition, Barstow noted "that the Board should in the Circular invite Local Authorities not only to consider new developments of their services, which of course involve increased expenditure, but also to review carefully the whole of their existing administration with a view to securing any possible economies consistent with the efficient discharge of their duties".³ Thus although the Board was able to encourage L.E.A.s to adopt the programme system, the Treasury's agreement was only on condition that the Board exercised a very strict control over L.E.A. spending. The knowledge that the Treasury was keeping a particularly careful watch upon the Board's work must to some extent have circumscribed the educational thinking of Board of Education officials.

Although the Board's financial position gave it an important lever in its relationship with L.E.A.s, the high degree of independence enjoyed by local authorities necessarily meant that the Board's reliance upon persuasion to direct the educational thinking of L.E.A.s was likely to be frustrated, perhaps on major issues. One such issue was that of regional co-operation. Some of the problems associated with independent action taken by L.E.A.s were already apparent at the beginning of the inter-war period. For example, in 1924 Percy Alden, the M.P. for South Tottenham, informed Charles Trevelyan that the Essex authority was apparently refusing to pay the out-county fees of Essex students attending the London School of

1. P.R.O. Ed. 24/1389 W.S. Churchill to Lord Eustace Percy, 4th December, 1924.

2. P.R.O. Ed. 24/1479 G.L. Barstow to Selby-Bigge, 26th March, 1925.

3. Ibid.

Printing. ¹ However, the view taken by the Board's senior officials was that they were not in a position to coerce L.E.A.s into regional agreements. ² The economic problems of the late 1920's and early 1930's provided the Board with an incentive to promote regional co-operation. In a memorandum to H.M. Inspectors in September 1931 A. Abbott emphasised the need to encourage regional planning in technical education, noting that "It ought to be possible, at this time, when the need for economy is so great, to quicken this movement towards the regional co-operation of separate Local Education Authorities." ³ However, the work of the Board in fostering co-operation was of a very general kind and L.E.A.s were not always responsive to the Board's encouragement. As one senior Board of Education official explained in 1931, "Progress in this matter is bound to be slow because of the jealousies of local patriotism." ⁴ Throughout the 1930's the Board continued to press for regional planning in technical education but it was not until the Regional Advisory Councils were set up following the recommendations of the Percy Committee in 1945 ⁵ that regional planning was tackled in a more orderly fashion.

-
1. P.R.O. Ed. 90/162 P. Alden to C. Trevelyan, 25th January, 1924.
 2. P.R.O. Ed. 90/162 W.R. Davies to L.G. Duke, 28th January, 1924.
 3. P.R.O. Ed. 24/1885 Memorandum from A. Abbott to H.M. Inspectors, 22nd September, 1931.
 4. P.R.O. Ed. 24/1261 Memorandum by E. Howarth discussing suggested economy measures, 30th November, 1932.
 5. Ministry of Education, Report of a Special Committee on Higher Technological Education, op.cit.

CHAPTER THIRTEEN

The Day Continuation School Experiment

H.A.L. Fisher's maiden speech in the House of Commons was delivered in April 1917. According to Sir William Harcourt, this speech "was a great one and commended universal respect."¹ Some four months later when Fisher introduced his Education Bill the reaction of the House was generally in similar vein. Thereafter, however, Fisher was subjected to an attack which became increasingly more powerful and bitter until even his sanity was questioned.² The cause of this attack, and one of its casualties, was the Education Act which had once been widely received as compensation for the costly struggle with Germany.

The part of the Act which sustained most criticism concerned the clauses relating to compulsory day continuation schools, though when the original Bill had been introduced in August 1917 this aspect of it was not a major item of concern. During the second reading of the Bill in March 1918, and then at the Committee stage, the continuation clauses came under heavy attack and in June 1918 Fisher announced certain modifications to his original scheme. Initially, the Bill had provided for young people between the ages of fourteen and eighteen to attend compulsory continuation classes for a minimum of 320 hours per annum. Local education authorities were to draw up schemes after which the Board of Education would set an "appointed day" for the opening of such classes. In June 1918, however, Fisher capitulated to pressure and the continuation clauses relating to young people between sixteen and eighteen were only to come into operation seven years after the "appointed day"; secondly, local

1. W. Harcourt to H.A.L. Fisher, 28th April, 1917, Fisher Papers, Box 3.

2. The Battersea Boro' News, 17th February, 1922, 8c.

education authorities could, if they wished, reduce hours of attendance to 280 per annum.¹

The Education Bill received the Royal Assent on the 8th August, 1918 and by the end of 1920 a number of authorities were operating compulsory continuation schools or had decided upon an "appointed day". In December 1920, however, a cabinet instruction stated that no extra commitments involving any further expenditure by the central or local government should be undertaken without prior reference to the Cabinet Committee on Public Expenditure.² Circular 1185 issued by the Board and dated 12th December, 1920 ordered that schemes not yet functioning were to remain in abeyance, though after considerable discussion between the Board and the Treasury, London's scheme was allowed to begin in January 1921.³ Circular 1190, issued by the Board of Education and dated 11th January, 1921 took the matter a stage further by informing local education authorities that the Board would not entertain any new applications for the fixing of "appointed days". In May 1922 the Cabinet decided to obtain the necessary legislation for relieving local authorities from their obligation to establish compulsory day continuation schools,⁴ and, with the exception of Rugby, all the schemes set up under the Fisher Act were soon abandoned.

The scheme of education to be followed by the London County Council under the Fisher Act was published in July 1920. A little short of a year later, in June 1921, the Education Committee passed a resolution requesting the Board of Education to allow the Council to limit its continuation school programme to a one year course. In the difficult circumstances of the time, with friction mounting between his own department and the Treasury,

-
1. This part of the story is told in detail by B. Doherty, 'Compulsory day continuation education: an examination of the 1918 experiment', Vocational Aspect, Vol. XVIII, (1966).
 2. 135 H.C. Deb. 5s. 2507, December 9, 1920.
 3. Evidence of this discussion is to be found in P.R.O. Ed. 24/1258.
 4. P.R.O. Ed. 24/1447 T. Jones to H.A.L. Fisher, 16th May, 1922.

Fisher was obliged to accede to the Council's request. Nevertheless in a private letter to Henry Gooch, at that time Chairman of the Education Committee, Fisher explained his disappointment at London's decision.

"May I say at once that I consider that any modification of the present scheme of DCS adopted by the London Authority under the Act of 1918 would be a real educational calamity. The energy and enterprise of the L.C.C. in bringing the Scheme into operation and the success which has so far attended the Schools which have been established under the Scheme, have attracted general admiration and the intelligence that London had gone back upon the undertaking would be very discouraging to the many voluntary Day Continuation Schools in the Provinces which are now educating young people between the ages of 14 and 16. The Country is now looking and properly looking to the Metropolis to give it a lead in this matter of Continuation Education and in view of the very liberal measure of Government assistance which is now furnished to all forms of Public Education in London and which bears a much greater proportion to the sums contributed from the rates than was the case when I came into Office more than four years ago, it is not unreasonable to expect that London should be in the van of progress."¹

1. P.R.O. Ed. 24/1447 H.A.L. Fisher to H.Gooch, 4th May, 1921.

Worse was to follow for on the 9th May, 1922 the Council endorsed the Education Committee's recommendation that the authority should ask for its complete release from the compulsory scheme. A deputation from the L.C.C. met Fisher on the 18th May and their request was once again reluctantly agreed to by Fisher and the Board. All 35 compulsory day continuation were closed on 23rd July, 1922, though the Council did accept Fisher's plea that a number of voluntary schools should be set up in their place. Even so, the part-time day scheme of continued education was gone and the voluntary schools remained as a mere palliative to those interested parties who had supported their early development.

The closure of the London schools has generally been attributed to the local election of March 1922 which swept the Municipal Reform party back into power with an increased majority. The Reformers, it is suggested, claimed that a major factor in their decisive victory was the pre election promise to abolish compulsory day continuation schools, and soon after they were installed in office the decision was taken to ask for the Council's release from its commitment to the continuation schools. The purpose of this chapter is to test the validity of this argument and to assess other factors which might have contributed to the failure of the compulsory continuation school experiment.

The abandonment of London's scheme was intimately connected with the overall failure of continuation schools and it is intended to begin with this part of the story. The economies recommended by the Geddes Committee on National Expenditure have usually been seen as the principal factor in the failure of compulsory part-time continued education. Writing in 1937 of the continuation experiment, G.A.N. Lowndes claimed that "... the opposition of parents and employers

combined to render this portion of the Act abortive." ¹ More recently, A.J.P. Taylor noted that "Fisher also proposed to institute part-time education in 'continuation schools' up to 16. The Geddes axe slaughtered these schools".² But in fact a variety of factors had undermined, and perhaps even decided the fate of the continuation schools, by the very beginning of 1920, and that even without the Geddes economies the compulsory day continuation may not have survived the 'twenties.

Disillusionment with the compulsory day continuation schools system probably owed a good deal to the changing social and political climate of the post-war years. Discussion on the principle of continued day-time education was developing before the First World War. The Education Act, 1902, obliged local education authorities to view education as a whole so that the gap between day time elementary and evening school education was perhaps more fully appreciated than ever before. Furthermore, according to Edith A. Waterfall, "It was the almost complete failure of the Evening School to attract the adolescent as distinguished from the adult pupil that caused the series of investigations and reports that culminated in the Act of 1918".³ The enquiries to which Miss Waterfall referred included the series of essays, written by influential educationists and edited by Michael Sadler, on the function of day continuation schools and published in 1908,⁴ the Report of the Consultative Committee on Attendance,

-
1. G.A.M. Lowndes, The Silent Social Revolution (1937), p. 193.
 2. A.J.P. Taylor, English History 1914-1945 (Oxford, 1965), p. 184.
 3. E.A. Waterfall, The Day Continuation School in England. Its function and future (1923), p. 33.
 4. M. Sadler, Continuation Schools in England and Elsewhere. (Manchester, 1908).

Compulsory or otherwise, at Continuation Schools,¹ and the Board of Education Departmental Committee on Compulsory Day Continuation Education under the Chairmanship of J. H. Lewis, Parliamentary Secretary to the Board of Education. Meanwhile, the Board of Education was itself approached by various interested parties on the matter of continued education. During the early years of the century a number of local education authorities, together with various teachers' associations put resolutions to the Board urging that attendance at evening continuation schools be made mandatory.² In January 1911 the West Riding authority expressed concern that only about one-third of the children leaving the day schools of the West Riding received any further education at secondary or evening schools and therefore " - the Authority are fully convinced that no scheme on a voluntary basis can ever be entirely satisfactory or provide for the adequate education of young people up to the age of sixteen".³ An internal minute at the Board of Education in reference to this letter is significant since it shows that such an attitude towards compulsory continued education on the part of the West Riding Authority was keenly noted and that the issue of compulsion was still a very delicate topic. The minute referred to "- this very important letter which shows the attitude of the West Riding Education Committee take up upon the thorny problem of compulsory attendance at evening school for young people up to the age of 16".⁴ Yet The Journal of Education complained in February 1914 that "The English Government has been hard to move in the matter of Continuation. Indeed, only once has Mr. Asquith shown practically an interest in education. When he

-
1. Board of Education, 'Report of the Consultative Committee on Attendance. Compulsory or otherwise, at Continuation Schools'. 1909.
 2. This material is located at P.R.O. Ed.46/15a.
 3. P.R.O. Ed. 46/15a E.A. Cook - Board of Education, 2nd January, 1911.
 4. Ibid., Min. T.16. 9th January, 1911.

transferred Mr. Runciman from the Board of Education to the Board of Agriculture it was to indicate an opinion that our children are, after all, of more importance than our salads." ¹ In fact, Runciman had introduced the abortive school and Continuation Class Attendance Bill in 1911, and in 1913, and again in 1914, Mr. Pease, the President of the Board of Education, presented a similar Bill to the House of Commons but was thwarted by the outbreak of War.

The position, then, at the beginning of the War was that interest in compulsory continuation schools had been aroused, though the consensus of opinion was in favour of evening work, but that nothing had been achieved in terms of legislation. The outbreak of war was the decisive element in the introduction of compulsory day continuation schools, not only because it created the necessary environment for social change, but also because it brought Lloyd George to the fore and he was instrumental in summoning Fisher to be President of the Board of Education. Fisher was no doubt interested in continued education before he took office, though his private papers have left little record of this. Nevertheless, he was probably familiar with the problems involved through his contact with J.A. Pease, for it was Pease who had tried to persuade Fisher to enter politics so early as 1909.² At a departmental discussion in January 1917 on the issue of day continuation schools, Fisher let it be known that he regarded "a system of Day Continuation classes as one of prime importance."³ Fisher was popular with his civil servants, and his parliamentary secretary Herbert Lewis, considered

1. The Journal of Education, Vol. 46, No. 535, Feb. 1914, p116.

2. Fisher papers, Box 3, J.A. Pease to H.A.L. Fisher, 21st September, 1909.

3. P.R.O. Ed. 24/1422.

Fisher's to be " .. the greatest of all Education Ministries".¹
Thus the new President of the Board of Education gave the purpose and direction to his department that was so essential during the drafting of the new Education Bill.

In December 1916 The Times Educational Supplement reported that the country was ready for compulsory continuation schools.

"Public opinion appears to be hardening more and more in the direction of the adoption, after the War, of compulsory continuation in education up to the age of 17 or 18 for children who leave school at the age of 13 or 14, the classes to be held during the daytime and young people to be allowed time off from their work for the attendance at these classes."²

The War seems to have been no less important in chrystalising opinion and acting as a catalyst of social change in education as it was in so many other areas. Fisher himself regarded the circumstances of 1917 as exceptional and an opportune moment to galvanize his department for action. At the January meeting referred to above, Fisher noted that "If it were not for the fact that we want to take advantage of the hour we should like time for more deliberation, but it would be a thousand pities to let the occasion pass without striking a blow."³

Interested contemporaries also noted the influence of the War. Writing in 1923, L. Brooks commented that "It was felt to be imperative that the actual volume of regular education should be increased."⁴

-
1. Fisher papers, Box 3, H. Lewis to H.A.L. Fisher, 25th October, 1922.
 2. The Times Educational Supplement, 28th December, 1916, 258^A. A cutting of this portion of the Times Educational Supplement was placed in the Board's file on the establishment of day continuation schools. P.R.O. Ed. 46/15a.
 3. P.R.O. Ed. 24/1422.
 4. L. Brooks, The London compulsory day continuation schools (Unpublished London M.A. Education thesis, 1923), p. 7.

In a private note to Fisher, Sir Robert Blair said that "You were fortunate in your opportunity and, if I may say so, the occasion was no less fortunate in you." ¹ In his own incomplete autobiography Fisher acknowledged his debt to the special circumstances of the time.

"The vast expenditure and harrowing anxieties of the time, so far from extinguishing the needs of social progress, helped to promote a widespread feeling for improvement in the general lot of the people. Where War demands of all equal sacrifices, it was felt that to all should be accorded, so far as might be, equal opportunities. The Country was in a spending mood and eager to compensate the wastage of War by some real contribution to the arts of peace." ²

The need to compensate for war time suffering was clearly a vital factor in public acceptance of the Fisher Act, but what of the wider issues behind the pre-war discussions and the Act itself? In part, the explanation rests on the fact that some people regarded education as an important human right. Michael Sadler claimed that in "the course of every year more than half a million children in England and Wales leave the public elementary school at thirteen or fourteen years of age. Not more than one out of every three of these children received, in point of general or technical education, any further systematic care. Yet those who fail to receive such care, are, broadly speaking, those who need it most. And the years which immediately

1. Fisher papers Box 1 R. Blair to H.A.L. Fisher 24th February, 1926.

2. H.A.L. Fisher, An Unfinished Autobiography (Oxford, 1940) p. 94

follow the day school course are the critical years of adolescence when stimulating instruction, technical training and well directed guidance in matters of conduct and personal hygiene are often most needed and, if wisely given, most helpful towards healthy living".¹ The feeling emerged during the War that once hostilities were over, young people would need educating in self discipline. The Board itself considered that discipline would be a problem among young people drawn from school.² According to Sir Cyril Cobb, M.P. and one-time Chairman of the L.C.C. Education Committee, the War had precisely this affect for he claimed in 1919 that "owing to conditions arising out of the War our juvenile population had acquired certain definite notions of independence, because they had been earning high wages, and they were largely uncontrolled by home influence."³ Probably the main influence, however, in directing public opinion in educational affairs during and prior to the First World War was the cry of national efficiency. Bentley B. Gilbert has documented the influence of the ideal of national efficiency in relation to the early development of a social welfare programme. According to Gilbert, a speech by Lord Rosebery in 1900 " - was an admirable summary of most of what would become the programme of national efficiency."⁴ Lord Rosebery's speech contained the following observation:

"An Empire such as ours requires as its first condition an Imperial Race - a race vigorous and industrious and intrepid. Health of mind

-
1. M. Sadler, op. cit., p. XII.
 2. Board of Education, Report for the year 1920/21, (1922) p. 53.
 3. This speech was reported in The Schoolmaster, 26th April, 1919, 658a and was given at a conference of members, and officials of Education Committees. A cutting was preserved in the Board's file on the establishment of day continuation schools. P.R.O. Ed. 46/15b.
 4. B.B. Gilbert, The Evolution of National Insurance in Great Britain (1966) p. 72.

and body exalt a nation in the competition of the universe. The survival of the fittest is an absolute truth, in the conditions of the modern world".¹

With growing German military and economic strength, the question of education became an increasingly important aspect of national efficiency. In 1908 Michael Sadler expressed the view that post elementary education was a matter contributing to "the economic well-being of the nation."² Furthermore, he noted that it was in Germany that the most successful efforts had been made to deal with the problem of continued education.³ In March 1914 the Morning Post reported that "it has become fashionable during recent years for English folk to measure themselves by German standards".⁴ The newspaper went on to note that the latest reports of the Board of Education and the L.C.C. revealed a distressing situation and thought that the time was ripe for a radical change of attitude.

"England always drops voluntarism slowly and regretfully. This year the Education Committee of the County Council has made one more effort to reorganise its evening schools on the voluntary basis. Such efforts deserve support and success, but many people are beginning to think that, like Germany, we shall find it hopeless to rely upon

-
1. Reported in The Times, 17th November, 1900. Quoted by Gilbert, ibid .
 2. M. Sadler, op. cit., p. XVI.
 3. Ibid.
 4. The Morning Post, 6th March, 1914, 13a. A cutting from the Morning Post is preserved in P.R.O. Ed. 46/15a.

the simple freewill and goodwill of children and employers, and that in the end we shall have to lay the benign compulsion of the State equally and impartially upon all." ¹

During the same month the annual meeting of the Lancashire County Association of the National Union of Teachers at Bolton discussed the need for day continuation schools and concluded that they were economically essential. ² In February 1914 the Journal of Education noted "how cautiously does Germany guard her young in the field of Continuation. In England a burglar may keep a night school, and Fagin probably had a grant in aid". But, it was added, "it grieves us that it should be said that Germany is making men whilst England is making money". ³ In general, Fisher seems to have regarded the day continuation school as a humanising influence rather than as a factor in economic or military superiority, though even he, recognising the mood of the country was sometimes obliged to refer in his speeches to this aspect of the matter. When, on the 10th August, 1917, Fisher introduced his Education Bill in the House of Commons, he declared that "the measure is not obscurely connected with circumstances of the War. It is prompted by deficiencies which have been revealed by the War." ⁴ At Manchester in September, 1917, Fisher, in uncharacteristically jingoistic terms, claimed that "The whole future of our race and of our position in the World depends upon the wisdom of the arrangements which we make for education." ⁵

1. Ibid.

2. Daily Dispatch, 2nd March, 1914, 5c.

3. The Journal of Education, op.cit., pp. 116, 117.

4. H.A.L. Fisher, Educational Reform Speeches (1918), pp. 29, 30.

5. Ibid., p. 49.

While it is true that the end of the war freed resources for more productive uses, such as education, the collapse of the war-time atmosphere of self-sacrifice dissipated much of the energy that was so essential for Fisher's reforms. Germany's defeat relegated the issue of national efficiency to a less exalted position in the scale of priorities. Some years later Fisher noted that "I was sensible from the first that while the war lasted reforms could be obtained and advances could be made which would be impossible to realise in the critical atmosphere of peace".¹ Perhaps in the post war period, however, more emphatic support by Fisher of the link between economic success and technical education would have enhanced the prospects of the day continuation schools. As it was the stress upon the spiritual, moral and psychological benefits of a non-vocational education fell largely upon stoney ground. Moreover, one of the factors in parental opposition to the London day continuation schools was the impression that young people were obliged to forgo an income in order to attend lessons that were not strictly relative to their employment. At the same time, however, Fisher was obliged to exercise caution of the way to avoid alienating the trade unions. In February 1921 Fisher assured a deputation from the Parliamentary Committee of the Trades Union Congress that "I entirely agree with the view, which I think is widely and strongly held in certain organised bodies, that it would be very undesirable that the education of boys and girls between the ages of 14 and 16 should be too exclusively technical."² On the other hand Fisher's belief that "the general intelligence of the boy or girl at that age should be developed on wide, broad, liberal lines"³ was unlikely to

1. H.A.L. Fisher, An Unfinished Autobiography, op.cit., p.103.

2. P.R.O. Ed. 46/156 Deputation to the President of the Board of Education from the Parliamentary Committee of the T.U.C. 10th February, 1921.

3. Ibid.

appeal to working class parents, many of whom were already suspicious of and even hostile towards existing social institutions. ¹

The deteriorating financial situation of 1921 is usually regarded as a major element behind the economies in education which followed the Geddes recommendations. However, it is evident that expenditure on education was coming under scrutiny at least by the end of 1919. In December 1919 Fisher, in response to instructions, placed before the Cabinet information on expenditure by the Board of Education. In his memorandum Fisher emphasised that such items as staff salaries and equipment had increased in cost due to the devaluation of money over the past few years. ² His explanation did not, it seems, satisfy the Treasury for in January 1920 a memorandum to the Cabinet by Austen Chamberlain, the Chancellor of the Exchequer, called "the serious attention of the Cabinet to the immense growth of expenditure on education since the Act of 1918 and to the huge liabilities in prospect." ³ The memorandum continued in a tone that was unpromisingly grey in its implications for educational reform.

"In the year before the war the increase in expenditure on education was very slow:- Even after the war began it was gradual, and not continuous. When Mr Fisher became Minister of Education it grew rapid. Since the

-
1. H. Pelling, Popular Politics and Society in Late Victorian Britain (1968), chp.1.
 2. P.R.O. Cab. 24/95 Memorandum by the President of the Board of Education to the Cabinet on the growth of expenditure on education, 23rd December, 1919.
 3. P.R.O. Cab. 24/97 The growth of expenditure on education. A memorandum to the Cabinet by Austen Chamberlain, 27th January, 1920.

Act of 1918 it has been breathless." ¹

To help remove the difficulties ahead Chamberlain called for the "postponement of further developments until the finances of the country can better afford them". ² Fisher's note to the Cabinet of February 1920 replied to Chamberlain's criticisms and was in similar terms to his earlier memorandum of December, 1919. He reiterated that the cause of increased educational expenditure since 1913-14 was inflation rather than the 1918 Act, adding that the cost of buildings and shortage of teachers would in any case arrest further development. In terms that were perhaps better suited to a conference of educationists than the hard bargaining of the Cabinet room, Fisher defended his Act by claiming that "there is no item in the Government's programme for raising the social condition of the people more immediately necessary than the improvement of our Educational System". ³

During the course of 1920 attacks in the House of Commons upon education became increasingly frequent, especially from Unionist members. At the centre of much of this attack was Sir J. Butcher, the Conservative Unionist member for York, and by July he was pressing for a special committee to be set up for the purpose of investigating the expenditure of the Board of Education. ⁴ By the end of the year even certain members who regarded themselves as supporters of educational reform were speaking against the 1918 Act. J.R. Marriott, a Conservative Unionist, wanted time for the financial position of the Country to improve.

1. Ibid.

2. Ibid.

3. P.R.O. Cab. 24/98 Memorandum on educational expenditure by the President of the Board of Education, 10th February, 1920.

4. 131 H.C. Deb. 5s. 2591, 15th July, 1920.

"I believed in the Act of 1918 and I believe in it still and I hope to see it carried out in its fullest implications, but I am so convinced of the gravity of our financial situation today that I say, and say deliberately, the more elaborate provisions of that Act ought to be not abandoned, but postponed, at any rate for a period of years until we have reached financial equilibrium." ¹

Publicly, Austen Chamberlain defended the Education Act, and during a Commons debate on the 9th December, 1920, he emphasised that "The cost included in the Education Estimates is not the result of the Bill of 1918. It almost entirely arises from increases of salaries." ² Yet, in fact, the fate of the 1918 Act had already been sealed from the 29th November when a meeting of the Finance Committee of the Cabinet had attributed a considerable part of the increase in the estimates of educational expenditure to the Fisher Act, and especially the day continuation school sections. ³ In the course of debate in the Commons on the 9th December Chamberlain reported that instructions had gone to all spending departments "that except with fresh Cabinet authority schemes involving expenditure not yet in operation are to

1. 131 H.C. Deb. 5s. 2491, 9th December, 1920.

2. 135 H.C. Deb. 5s. 2505, 9th December, 1920.

3. P.R.O. T. 161/98 file 7422 H.A.L. Fisher to Sir M.P.A. Hankey, 7th December, 1920.

remain in a balance.¹ The following day, a note from the Board, and almost certainly written by Sir Anselm Selby-Biggs, the Permanent Secretary, informed Fisher that Herbert Lewis "spoke to the P.M. last night and he, the P.M. said something to the effect that he did not mean to close down Continuation Schools but we must get it in black and white."² This letter shows the Board's officials to be heavily anxious over the very existence of the day continuation schools, though as it turned out, for the time being, the main limitation was upon the fixing of "appointed days". On the 11th December Herbert Lewis and Selby-Biggs went to the Treasury and discussed with Warren Fisher, the Treasury Permanent Secretary, the future of the day continuation schools. At this meeting Warren Fisher was strongly in favour of abandoning the schools altogether, though Selby-Biggs argued that this was politically and administratively impossible.³ Despite the tone of this meeting, Selby-Biggs was surprisingly optimistic, assuring Fisher "at present no one knows what line the Cabinet will take. I have no immediate ground for alarm."⁴

A further Cabinet meeting towards the end of December decided that the Board was not to stop those local authorities which had already received "appointed days" from operating their schemes unless they requested it.⁵ This latter clause was inserted by Chamberlain on the draft of a memorandum distributed within the Board by Fisher and which gave an account of the decision taken by the Cabinet. The fact that local authorities could opt out of the Act

-
1. 135 H.C. Deb. 5s. 2507, 9th December, 1920.
 2. P.R.O. Ed. 24/1258 Unassigned to H.A.L. Fisher, 10th December, 1920.
 3. *Ibid.*: A. Selby-Biggs to H.A.L. Fisher, 11th December, 1920.
 4. *Ibid.*
 5. P.R.O. Ed. 24/1258 Memorandum, 29th December, 1920.

gave reactionary influences on local councils the opportunity to assert themselves. Another marginal note by Chamberlain advised the Board to "be lenient and content to move slowly in the matter of improving unsanitary premises, overcrowded classrooms and insufficient staff."¹ A letter from Chamberlain to Fisher, dated 30th December, 1920, called for the "least possible expenditure, even though, I know that I am asking you to postpone hopes which are very near to your heart."² In essence, therefore, many aspects of educational reform, including the day continuation schools, were in grave danger by the end of 1919 and doomed by the close of the following year.

The disquiet expressed by the Treasury during 1920 over the amount of money that was being devoted to education was no doubt partly related to the policy of financial stringency that was recommended by the Cunliffe Committee on Currency and Foreign Exchanges after the War. The government accepted the policy that the gold standard should be restored as soon as possible at the pre-war parity,³ and this involved, among other things, balancing the budget. At the same time, however, the demand for economy came from some quarters where retrenchment and a minimum of government activity almost represented an ideology in themselves.

Influential in the campaign for economy was the English Middle Class Union, a pressure group which had evolved from the Middle

1. Ibid.

2. Ibid. A. Chamberlain to H.A.L. Fisher, 30th December, 1920.

3. W. Ashworth, An Economic History of England, 1870-1939 (1960), p. 385.

Classes Defence Organisation, set up in March 1906. ¹ According to The Times, the Middle Class Union conducted an intensive campaign during 1920 and in March of that year six candidates under the Union ticket had succeeded in unseating six Labour councillors at Watford, which at that time was regarded as a Labour stronghold. ² According to J.R. Prentyman, M.P., the Chairman of the Union, the local elections of November 1920 resulted in a "victory against municipal extravagance - Conservatives, Liberals and ratepaying Labour jointly contributed to this result. It was a victory of ratepayers at last aroused to action." ³ The importance of retrenchment for political reasons was alluded to by Chamberlain when he informed Fisher that "I honestly believe that in the long run it will be better for education if we can lighten the load on ratepayer and taxpayer just now, than if by further burdening them both, we make education generally unpopular with every class except perhaps those who pay no direct taxes and direct rates." ⁴ It was not until June 1921 that the General Secretary of the Middle Class Union, Captain Stanley Abbott, formally approached the Board on the question of day continuation schools, ⁵ but that the Union had been important in arousing public opinion against expenditure on education is indicated by the unsigned letter to Fisher referred to below.

"These have been disturbed days of

-
1. R. Lewis and A. Maude, The English Middle Classes (1953), p.238.
 2. The Times, 1st November, 1920, 9j.
 3. The Times, 3rd November, 1920, 13e.
 4. P.R.O. Ed. 24/1258 A. Chamberlain to H.A.L. Fisher, 30th December, 1920.
 5. P.R.O. Ed. 24/1447 S. Abbott to H.A.L. Fisher, 14th June, 1921.

excursions and alarms, involving a lot of futile labour, and I am very tired; but I am going to see Beckett and Moran fight tonight, and that will be a refreshment. I wish the head of the Middle Class Union was on the shoulders of one of them so that it might be well punched." ¹

The pressure applied by certain Unionist M.P.s, together with the efforts of the Middle Class Union, combined to produce a difficult political situation for Lloyd George, bearing in mind that his government was a coalition and that the alliance was already under stress by the beginning of 1920. ² On the 6th December, 1920, the Unionist Reconstruction Committee waited on Lloyd George, Bonar Law and Austen Chamberlain to make representation urging that the suspension of the "clauses of the Education Act of 1918 which invoke progressive expensive in excess of the current expenditure of the present year." ³ Five days later, at the meeting between Treasury and Board of Education officials, Sir Warren Fisher was reported to have said "that unless Continuation Schools were stopped he did not see how the Cabinet could show their Unionist supporters any saving on educational expenditure." ⁴ Faced with constitutional problems in Ireland and abroad, and with deteriorating industrial relations at home, Lloyd George required as much support as he could get so that the undermining of the Education Act of 1918 was as much a product of a brittle political environment as of

-
1. P.R.O. Ed. 24/1258 Unsigned (Selby-Bigge) to H.A.L. Fisher, 10th December, 1920.
 2. C.L. Mowat, Britain Between the Wars 1918-1940 (1955), pp. 79-142.
 3. The Times, 7th December, 1920, 12d.
 4. P.R.O. Ed. 24/1258 A. Selby-Bigge to H.A.L. Fisher, 11th December, 1920.

international trade and finance.

Once the decision had been taken to suspend the fixing of "appointed days" there were powerful arguments in favour of dropping schemes that were already in existence, and these are dealt with in the section on London. The above discussion, however, indicates that the really critical period for day continuation schools was not reached until near the close of 1920, and by then Treasury officials were becoming alarmed that the Board was suddenly accelerating in its attempt to get the 1918 Act into operation. ¹ Yet by the middle of 1919 the Board's apparent inactivity was already coming under criticism in the educational press and Fisher himself was aware of this. In March 1920 Fisher informed Sir Cyril Cobb that "there is a good deal of rather ill informed intrusion being passed upon the Board and the Local Education Authorities for what is described as their half-heartedness in bringing the new Education Act into operation and I am naturally anxious that no colour be lent to this charge". ² The question remains, therefore, as to why local authority schemes were not prepared and functioning sooner, especially since Fisher himself realised that the post-war climate would become less favourable for social reform. The explanation rests partly with the reluctance of local education authorities to implement the 1918 Act and partly with the relationship of the Board to local authorities and the Treasury. The 1918 Act raised so many administrative questions, which, in turn, derived from the earlier legislation of 1902, that it represents an important land mark in the administrative history of education.

-
1. P.R.O. T. 161/98 file 7422 R.B. Howard to R.P.M. Gower, 9th December, 1920.
 2. L.C.C. EO/HFE/1/109 H.A.L. Fisher to Sir C. Cobb, 5th March, 1920.

From her own survey work among Part 11 authorities, Edith Waterfall concluded that only a small percentage of local education authorities regarded day continuation schools as a permanent feature of the education landscape. ¹ A memorandum prepared in 1923 for the new President of the Board of Education by one of the Board's officials attributed the failure of the compulsory day continuation schools to the unwillingness of the local authorities to press ahead with suitable schemes. ² The Board was aware of this reluctance from internal memorandum of April 1920 noted that "a large number of Authorities, perhaps the majority, have not yet given serious and systematic thought to the Continuation School problem as a whole." ³ The memorandum added that the situation was bleakest in Northern and North-Eastern England and the rural areas generally. Yet the Board's inspectors emphasised the need for swift action if local authorities were to be galvanized for action. In January 1920 H.M.I. Mr Stelfox, in referring to Dewsbury day continuation school was most anxious that an "appointed day" should be decided upon.

"The fixing of a date for the start of the compulsory attendance would have a good steadying effect even if the date were far ahead, or if the date applied only to the locality or even only to the textile firms in the locality. The present uncertainty is not healthy." ⁴

-
1. E.A. Waterfall, op.cit., pp.63-80.
 2. P.R.O. Ed. 46/156 W.R. Davies, Note on the history of continuation schools, 19th February, 1923.
 3. Ibid., T. No.428 15th April, 1920.
 4. P.R.O. Ed. 46/14 Min. 1005 c 30th January, 1920.

So early as 1917 Haldane warned Fisher that it would be necessary to establish special provincial authorities to deal with the Education Act "Otherwise Whitehall will not be able adequately to influence the scheme of the LEA's or to develop secondary education and several other things hardly less important." ¹

Opposition by local education authorities to compulsory day continuation schools derived from a variety of factors. The post war economic and political climate, and the opposition of some parents and employers were no doubt important contributors. To judge by reports entering the Board from the end of 1919 and the beginning of 1920, the attitude of employers towards the continuation classes was hardening. For example, the resolution of the Wolverhampton Chamber of Commerce called for classes to be held in the evening which, it was claimed, "would prove beneficial to the large number of young persons who spend their evenings frequenting music hall, cinemas or parading the streets." ² Furthermore, it was argued, evening classes would not impede production and would reduce the potential strain on school staff and equipment. ³ The textile employers of Cheshire proved similarly obstructive and in face of this opposition the Cheshire Education Committee was not prepared to ask for an "appointment day" for its area. ⁴ The principal explanation favoured by the Board for the unwillingness of local authorities to prepare schemes was that of a shortage of teachers to man the schools. A memorandum to E.K. Chambers, the Second Secretary

-
1. Fisher papers, Box 1 Haldane to H.A.L. Fisher, 13th August, 1917.
 2. P.R.O. Ed. 46/15a J.R.D. Davies to H.A.L. Fisher, 29th January, 1920.
 3. Ibid.
 4. Ibid., W.S. Dann to Dr. Spencer, 21st June, 1920.

to the Board, in June, 1919, noted that "It has been considered impossible to fix the Appointed Day because we cannot get the teachers." ¹

Furthermore, it was claimed, a vicious circle had developed since authorities were reluctant to train teachers because of the uncertainty about the fixing of "appointed days". The lack of teaching staff was a major problem. There was some discussion within the Board in June, 1919, as to the feasibility of the Board taking on the whole cost of a crash training programme but this was rejected on the grounds that such an arrangement might be extended to other areas of teaching and that, in effect, the Board would be committed to finding students employment once they had been trained. ² In the event, however, the Board did not press the matter of teacher training very far and local authorities were left largely to make their own arrangements.

Whatever the reasons behind the local opposition to day continuation schools, and they must have varied from area to area, the crucial fact is that the Board did not press local authorities to prepare and submit schemes. In particular, according to W.R. Davies, there was no plan for ensuring that day continuation schools were introduced concurrently in all areas or even in regions and this, as it turned out, ³ was a major factor in the failure of compulsory continued education. Recalcitrant authorities were given a great deal of leeway. To some extent this was no doubt a reflection of the Board's appreciation of the amount of work involved by the local authorities in preparing schemes,

-
1. Ibid., Owen to E.K. Chambers, 5th June, 1920.
 2. Ibid., G.M. to Sir A. Selby-Bigge, 16th June, 1919.
 3. P.R.O. Ed. 24/1429, W.R. Davies to R.S. Wood, 4th November, 1926.

though even when it became obvious that many authorities were intending to be permanent malingers the Board did not force the issue.

In part, the explanation probably rests with the Board's somewhat casual approach to the matter. For example, on the question of teacher training Fisher instructed that a circular be sent to local authorities requesting information on their requirements, but it was not until four months later that this circular was actually despatched. Fisher himself must take some of the blame for this situation since he was often engaged on League of Nations business when his influence was required at the Board, or perhaps his genial personality was unsuited to the task of prompting hesitant local authorities. Selby-Bigge, though a strong advocate of continuation schools when representing the Board, was sceptical that the scheme could be speedily expedited. For example, in July 1919 Selby-Bigge informed Fisher that "I have, as you know, always been very doubtful whether the development of Continuation Schools work could possibly be as rapid as the enthusiasts wished or expected."¹ Selby-Bigge's loyalty to Fisher and the Board was not in question, but he appears to have been genuinely convinced that affairs should not and could not be rushed.

Part of the delay in fixing "appointed days" was due to confusion over the date of the legal termination of the war. The position was explained to Selby-Bigge in June 1920:

"I do not feel able to get on much longer without some decision as to whether the President's promise in the House as to fixing "Appointed Days" under Section 10

1. P.R.O. Ed 46/156 Sir A. Selby-Bigge to H.A. L. Fisher 28th July, 1919.

will prevent him from giving an "Appointed Day" to London, and possibly also other large Authorities before the legal termination of the War." ¹

The legal termination of the War required an Order in Council which could only be executed when treaties had been negotiated with all the participating countries and therefore "appointed days" had only been given to authorities where the Board was convinced that there would be no local opposition and hence no danger that Fisher's statement in the House would be resurrected. ² Selby-Bigge, realising the importance of the issue, asked Fisher if his statement could be taken as "an announcement of intention" ³ and not a definite pledge, to which Fisher agreed. However, it is clear that much uncertainty had been engendered which hampered H.M.I.'s in their dealings with local authorities, and that this helped to slow down the progress of day continuation schemes.

The technicality discussed above also illustrates the uncertain relationship between the Board and local authorities at that time. This relationship was thrown into new relief when the bureaucratic structure established in 1902 received its first major test with the 1918 Act. The attitude of the Board in 1917 was expressed by E.K. Chambers who observed that "we are helpless against a L.E.A. which won't play the game at all", ⁴ to which Selby-Bigge replied that "Public opinion is the only real sanction." ⁵ One of the important results of the

-
1. P.R.O. Ed. 46/14 Wallis to Sir A. Selby-Bigge, 3rd June, 1920.
 2. Ibid.
 3. Ibid., Sir A. Selby-Bigge to A.L. Fisher, 4th June, 1920.
 4. P.R.O. Ed. 24/1422 Discussions on the establishment of day continuation schools, 9th January, 1917.
 5. Ibid.

discussions following the 1918 Act was the establishment of a new relationship between the Board of Education and the Treasury. The demand from the Treasury at the beginning of 1920 that the Board should control local authority spending on education brought the reply from Fisher that in the past it had not been necessary to control local authority spending. ¹ This was amplified by Selby-Bigge who claimed that in the past the difficulty had been getting local authorities to loosen their purse strings rather than curb their financial recklessness. ² Without a precedent for interfering directly in the financial activities of local education authorities, and armed with only public opinion as a possible weapon, it is perhaps not surprising that the Board should not wish to take on the local authorities in a major conflict. Finally, and perhaps most importantly, the Treasury had already indicated to the Board that spending should be kept a minimum and that this included local authority spending. Chamberlain asked of Fisher whether "the expenditure of different authorities (is) compared with a view to detecting and checking extravagance and eliminating waste due to bad management or ignorance?" This letter resulted in at least two lengthy meetings of senior officials at the Board and it was agreed that the Board had the right, especially in view of its financial support, to exercise control over the expenditure of local education authorities. ³ By March 1920 the Board had a clear duty to encourage local authorities to follow the Treasury policy of retrenchment.

-
1. P.R.O. 24/1256 A. Chamberlain to H.A.L. Fisher 19th December, 1919.
 2. Ibid., marginal note Sir H. Orange to Sir A. Selby-Bigge, 22nd March, 1920.
 3. Ibid., A. Chamberlain to H.A.L. Fisher, 20th February, 1920.

CHAPTER FOURTEEN

The Day Continuation School Experiment 2

The failure of the London plan for continued education.

Chronology

15. 5. 19 Plan presented to the Council.
4. 5. 20 Plan approved by the Council.
1. 6. 21 Education Committee passes resolution recommending reduction in the length of course.
4. 5. 21 Deputation to Board of Education; Fisher agrees to one year scheme.
- March 1922 L.C.C. elections.
14. 3. 22 Council refers the question of day continuation schools to Education Committee to consider and report on future policy.
6. 4. 22 H.E. Sub-Committee recommends that the Council asks for its release from the 1918 Act.
9. 5. 22 Council endorses decision to ask for release.
18. 5. 22 Deputation to Board of Education asking for release; Fisher agrees.

The reversal in policy which led to the closure of the London day continuation schools was commonly attributed to the local election of March, 1922, which returned the Municipal Reformers to power with, it was claimed,

authority to abolish the schools, at least on a compulsory basis. The Times Educational Supplement noted that "The issue seems to have been decided on the allegation that the new Council was elected on a mandate to close the schools." ¹ Sir Cyril Jackson, Chairman of the L.C.C. Education Committee was reported to have said that "the unpopularity of the schools among parents and employers was clearly demonstrated at the recent election," ² adding that every elected member of the Council now had a duty to his constituents to oppose compulsory day continuation schools. ³ Dr. Scott Lidgett, the leader of the Progressives on the Council, informed Fisher that even those who were not pledged to the abolition of the schools "consider that London has given a mandate to this effect." ⁴ Fisher himself may have been impressed by this argument for in May 1922 he emphasised that the wishes of the electorate should not be ignored. ⁵

Writing in 1936, Scott Lidgett claimed that "on the eve of the election the Municipal Reform Party pledged themselves to the dismay of their educationists, that, if returned to power, they would close the schools." ⁶ From party literature, however, it is clear that the decision to make day continuation schools an issue at the March election was not taken at the last minute for a steady supply of leaflets discussing the continuation school issue appear to have been issued simultaneously with similar material dealing with other topics. In a special series of

-
1. The Times Educational Supplement, 13th May, 1922, 223b.
 2. South London Press, 12th May, 1922, 9a.
 3. Ibid.
 4. P.R.O. Ed. 24/1447 J. Scott Lidgett to H.A.L. Fisher, 8th April, 1922.
 5. Ibid., meeting at the Board of Education, 18th May, 1922.
 6. J. Scott Lidgett, op.cit., 221.

pamphlets, each one dealing with an issue of special importance to Londoners, the first question discussed was the day continuation school, and at least three other special pamphlets were devoted almost entirely to the same topic. ¹ London Municipal Society leaflet No. 23 listed in summary form the eight points upon which the Municipal Reformers would take action if returned to power and the pledge to close down the day continuation was the only item printed entirely in bold black capitals. References to continuation schools by Municipal Reform Candidates were reported in the local press at the very beginning of the campaign, and there can be little doubt that party leaders had taken their decision on this line of attack well before the eve of the election.

Although many candidates referred to the day continuation schools as an expensive luxury, the question of economy was not used as a major piece of ammunition in the attack. Indeed, the party manifesto, while recognising that economy in education necessary, emphasised that "we pledge ourselves to oppose any proposals which threaten to inflict real damage upon the education and care of the children, and to do injustice to the teachers." ² The manifesto did not stress that the abolition of day continuation schools was linked with the need for economy. Even after the election the question of finance did not figure as the major issue when the Council decided to ask for its release from its statutory obligations. During and after the election campaign the major area of attack upon the day continuation schools by the Municipal

1. This literature is preserved in the Guildhall Library, London.

2. London Municipal Society Leaflet No. 8, 2nd March, 1922, p.5.

Reformers was centred upon the Government's failure to oblige local education authorities contiguous to London to introduce compulsory attendance at continuation schools. The party manifesto drew attention to the hardship "inflicted upon London children who are hindered from obtaining employment while extra-Metropolitan children secure work in London." ¹ The manifesto therefore demanded that the Council "be released by the Government from the statutory obligation to carry on Day Continuation Schools, and to place London in the same position as the rest of the country until financial stability is restored and the Act of 1918 is generally applied." ² London Questions No. 1 reiterated the need for a consistent policy on the part of the central government.

"Grave difficulties are put in the way of London boys and girls seeking employment. Many small employers of labour find that to release these young people for two half days a week tends to disorganise their business arrangements, and so it has become customary to engage youth from extra-metropolitan districts rather than residents from within the County. This injustice is felt most keenly, especially at this juncture when so many heads of families find themselves unemployed and when the money earned by sons and daughters would be most welcome." ³

1. Ibid., p.4.

2. Ibid.

3. L.M.S. leaflet London Questions No. 1. p.2.

So early as 1919 the Board was itself concerned about the possible effect of a variation in the dates of "appointed days" between London and the surrounding authorities. The extent of discrimination is difficult to assess but that it existed is not in doubt. The extant records of the London education office contain very few reports of discrimination, though many cases were probably dealt with at the local level by the Council's Inspectors. Sir Cyril Jackson claimed that the matter was a serious one for "Not only elected members of the Council, but people like myself who in the past were elected members, have been bombarded with cases of this kind." ¹ In February 1922, a number of reports by principals of London continuation schools were sent to the Education Officer for circulation within the Higher Education Subcommittee. It is likely that in self interest the reports were not entirely accurate, but overall the impression is that local employers were not obstructive and in some cases were proving very helpful. Difficult situations arose in areas adjoining an authority not operating the compulsory clause, particularly when there were a number of small employers in the neighbourhood. At a conference with Council officials in March 1922, Mrs Mahoney of the London Advisory Committee claimed that Poplar was the worst area for juvenile labour in London since employers could easily obtain young people from outside the county boundary. ² Sir Robert Blair had recognised discrimination as a potential problem and warned the Board's officials that "The difficulty is the effect this has on the minds of the parents and the minds of young persons." ³ One of the difficulties was that reports of discrimination,

1. P.R.O. Ed. 24/1447 meeting 18th May, 1922.

2. L.C.C. EO/HFE/110 Conference at County Hall, 27th March, 1922.

3. P.R.O. Ed. 24/1436 Meeting at Board of Education, 7th April, 1921.

circulating, could be exaggerated beyond their true merit. The principal of Poplar Day Continuation School claimed that reports of outside young people getting jobs that had previously been secured by London boys were greatly exaggerated, but widely believed. ¹ Sir Cyril Jackson admitted that "If there are a few children in any district who fail to get employment, because some of the employers refuse to take them in view of the liability to let them off for school, that is sufficient to create the impression that they are not able to get employment." ² This particular difficulty was exacerbated by an incomplete understanding by parents of the factors leading to unemployment for very often a child could have been out of work due to some special factor affecting a particular part of London. The principal of Stepney Day Continuation School noted that "The main objection is caused by the state of poverty which exists in so many homes." ³ Moreover, the expectation that day continuation schools would have adverse effects upon employment may have been important. According to Scott Lidgett "the period of commercial depression and consequent unemployment supervened, and many parents believed that the chances of their children finding employment were damaged by the obligation to attend the schools." ⁴

Mrs Mahoney estimated that between 70 per cent and 80 per cent of day continuation school students were in employment. ⁵ Probably a proportion of the remainder were between jobs or were not actively seeking employment so that it seems reasonable to conclude that the principal effect of young migrants going to work in London was not a

-
1. L.C.C. EO/HFE/1/110 Undated.
 2. P.R.O. Ed. 24/1447 Meeting 18th May, 1922.
 3. L.C.C. EO/HFE/1/110 Undated.
 4. J. Scott Lidgett, op. cit., p.221.
 5. L.C.C. EO/HFE/1/110 Meeting at County Hall, 27th March, 1922.

general problem but one which chiefly affected areas close to West Ham or the Middlesex and Essex authorities where there was a reservoir of suitable labour. Yet the Municipal Reformers were highly successful in parts of South London where the danger of competition from young people in Surrey and Kent was likely to be less severe.

Other factors, however, may have combined to make the schools unpopular. One criticism referred to Scott Lidgett was the curriculum which, he claimed, parents sometimes found irrelevant to the needs of the young workman or workgirl and consequently an important issue in the 1922 election. ¹ Blair appreciated that curriculum was a particularly sensitive part of the day continuation school anatomy. Three internal minutes at the education office throw light on this particular problem. In October, 1921, Blair informed Mr Beresford Ingram, one of the Council's Inspectors, that "I have read the notes on the Finsbury Day Continuation School. As you know fairly well, I am not against the social side of an institution. It seems to me, however, that this is the only side that gets enthusiasm, or at any rate whose enthusiasm is apparent to the public." ² Ingram soon felt himself obliged to reply that "I have never ceased impressing upon the Principals and teachers that we must get 'results' which employers can recognise." ³ Blair, in a less aggressive mood, informed Brooks, another of the Council's Inspectors, "You must not take my note so much as a complaint as a piece of advice." ⁴ The question of

1. Scott Lidgett, op.cit., pp. 221, 222.

2. L.C.C. EO/HFE/1/110 R. Blair to B. Ingram, 11th October, 1921.

3. Ibid., B. Ingram to R. Blair, 13th October, 1921.

4. Ibid., R. Blair to L. Brooks, 14th October, 1921.

curriculum was raised at the Education Committee debate on the 3rd May, 1922, when, according to District Inspector Holmes, there was "a general agreement that the curriculum ought to be of a more practical and vocational nature." ¹

A complex of other factors probably contributed to criticism of the continuation schools. The buildings used by the schools were very often former elementary schools and, with only a few exceptions, accommodation was distributed between more than one building. ² The best intentions to improve existing buildings could come to nothing. District Inspector Holmes noted that in the case of St. Andrews School, Wells Street, "The original intention of the L.C.C. was to carry out extensive alteration on these premises. Then Sir R. Blair visited them himself and disliked them so much that he instructed his staff to search for other premises. After spending some time in a vain search they have fallen back upon these premises but have left themselves no time to carry out the alterations." ³ The inconvenience of moving from one building to another, and the return to a school-like environment must have been abhorrent to many students. The expense of travelling between work and school, added to the opportunity costs in terms of leisure or overtime, probably made the school less attractive.

But the day continuation schools were not the only issue or, according to Brooks, the most important issue at the election. ⁴ One major theme was that of economy, and, though to some extent this was

-
1. P.R.O. Ed. 24/1447 4th May, 1922.
 2. A.H. Sturman, The Voluntary Day Continuation Schools in London (Unpublished London M.A. thesis, 1949), p.97.
 3. P.R.O. Ed. 75/52 Min. C 7 964/20, 18th December, 1920.
 4. L. Brooks, op.cit., p.147.

associated with education, the call for retrenchment rested on a broad basis. The Municipal Reformers pledged themselves to "Manage London's affairs on sound business lines." ¹ The third report of the Geddes Committee which appeared just before the election seemed to reinforce the wisdom of Municipal Reform ideals. Bleak warnings of excessive expenditure was one of the most popular taunts hurled at the Labour candidates. Most constant reference was made to Harry Gosling's statement that rates must be increased if proper municipal services were to be introduced, and the example of the Labour controlled Poplar Council where the rates were very high was submitted as proof of the danger that loomed ahead should Labour gain control of the L.C.C.

The hostility of the Municipal reform party towards the London Labour party on the issue of economy was part of an extremely bitter campaign against socialism, and, since support for the Progressives was being eroded, the Labour party came to bear the brunt of Municipal Reform attacks. Socialism thus became the principal issue at the election. Sir Herbert Jessell, the leader of the Municipal Reform party, translated the danger of socialism into practical terms.

"Every man and woman who fails to vote
is helping the Labour Socialist extremists
to capture London, to put up the rates, to
depress industry and create unemployment." ²

But for the most part the question of socialism was discerned in vague general terms, with common reference being made to the Russian revolution.

1. L.M.S. Leaflet No. 23.

2. The Times, 24th February, 1922, 11e.

In an editorial The Times claimed that "The London Labour Party, dominated by Socialists and influenced by their Communist Allies, have made Municipal Socialism the main issue at the London County Council election next Thursday." ¹ The Times added that "The Municipal Reform Party stand alone in their resistance to Socialism in all its forms." ² The editorials in The Times for the period leading up to the election made something of the housing issue but said relatively little on education, and concentrated most of their attention on the socialist peril. Local papers followed similar lines and the South London Press, for example, announced in headline form "Red Menace the Dominating Factor in South London Contests; Electors Warned." ³ The City Press associated the Labour Party with Russian Communism, and Alderman Hunt, addressing a campaign meeting at Putney, warned that if the electorate "had a Labour Council on the L.C.C. dominating the position, they would have taken the first step to a slavery almost as bad as they had seen in Russia." ⁴ Moreover, The Times argued, extremists in the Labour party "will strive to introduce Bolshevist teaching into the school." ⁵

Although it is impossible to assess precisely the importance in the election of the attack upon socialism, it seems likely that the dramatic presentation of the dangers of socialism was a more successful vote catcher than day continuation schools, especially since many Labour party supporters were by no means convinced of the benefits of socialism. ⁶ Moreover, by no means all of even the working class

-
1. Ibid., 27th February, 1922, 7b.
 2. Ibid.
 3. The South London Press, 24th February, 1922, 1e.
 4. The Battersea Boro' News, 17th February, 1922, 5ab.
 5. The Times, 22nd February, 1922.
 6. H. Pelling, op.cit., chp.1.

population of London could expect to be concerned in the near future, if ever, about the education of young people between 14 and 16. The Labour party itself could not be too roundly condemned since the attitude of some of its leaders was rather ambivalent. Although the party officially befriended the schools, Gosling argued against the schools since "the Day Continuation System is likely to lead to unnecessary hardship, owing to loss of much-needed wages and the lack of maintenance of the children while at the compulsory Continuation School." ¹

Not all of the Municipal Reformers were convinced that the election had been won on the continuation school issue. Major Ernest Grey, M.P., for Brixton and a Municipal Reformer on the new Council, was the most vocal supporter of the schools. Grey was reported to have remarked that during the course of the election he was only once asked about the continuation schools, claiming that "the country was absolutely solid for having the education fabric unimpaired." ² The South London Press noted, however, that Grey's enthusiasm was tempered by pressure from his party. ³ It seems certain that some of the Municipal Reformers who voted to discontinue the schools did so reluctantly. According to District Inspector Holmes, "It was obvious that the resolution (to ask for the Council's release from the 1918 Act) was due to party pressure. It was also clear that some of the majority followed the lead unwillingly." ⁴ The Times Educational Supplement also hinted that decisions had been taken speedily so that

1. The South London Press, 7th April, 1922, 8d.

2. Ibid., 5th May, 1922, 1e.

3. Ibid., 12th May, 1922, 9a.

4. P.R.O. Ed. 24/1447, 4th May, 1922.

the opponents of day continuation schools would encounter the minimum of opposition,

"Perhaps the most disturbing factor in Tuesday's discussion was the evident ignorance of new members to the meaning and aims of the schools. The party machinery had given no time for recently elected councillors to become acquainted with their work." ¹

The local election of March, 1922, appears important, therefore, not so much from the point of view of providing a clear cut mandate to abolish compulsory day continuation schools, but rather in providing party managers with the opportunity of manoeuvring the Council into the position of asking for its release from the continuation clauses of the 1918 Act. Dissatisfaction with compulsory day continuation was evident within the Municipal Reform party well before March, 1922. In December, 1920, Sir Cyril Cobb and Sir Robert Blair met officials from the Board to discuss the possibility of modifying London's scheme to accommodate children on a one year basis only - during the course of discussion, Selby-Bigge reported, "Both he (Cobb) and Sir Robert Blair agreed that there would be considerable controversy on the Council, but that the reactionaries would and the majority of the Council would be glad to take the opportunity of dropping the schools altogether." ² This lack of enthusiasm at such a comparatively early stage appears strange,

1. The Times Educational Supplement, 13th May, 1922, 225a.

2. P.R.O. Ed. 46/156 Sir A. Selby-Bigge to H.A.L. Fisher, 17th December, 1920.

particularly in view of party literature on education in the period prior to 1920, and the fact that a Municipal Reform controlled Council was among the first authorities to produce and implement a scheme of compulsory day continuation schools, and this in spite of the complex administrative problems which an area so large as London posed. In 1919, the London Municipal Society published an address by Cobb, then Chairman of the Education Committee of the L.C.C.

"In many ways we have anticipated the Act,
and in none more than getting into
sympathetic touch with leading employers
whose help is so essential if the day
continuation classes and the Act are to be
the success they should be." ¹

Cobb seems to have been the most influential supporter within the hierarchy of the Municipal Reform party of compulsory continuation schools. At the meeting between Cobb, Blair and the Board's officials in December 1920 Selby-Bigge reported Cobb as anxious to go on with the two year scheme, "but there is a Unionist majority on the Council which he thought would beat him." ² This is significant since, it links up with the Unionist pressure on the central government for economy during 1920, and because, as a Member of Parliament, Cobb was likely to be under duress from political groups outside the L.C.C. There is no evidence to suggest that Cobb took an active part in the debate on the 3rd May, 1922, on the future of the day continuation schools, and, though this may have

1. L.M.S. Report of an address by Sir Cyril Cobb, 21st January, 1919, p.8.

2. P.R.O. Ed. 46/156 Selby-Bigge to Fisher, 17th December, 1920.

been due to a genuine change of heart, it seems unlikely since he refrained from voting. In the prevailing atmosphere of 1919 Cobb could support compulsory continuation schools. In his January speech of that year, Cobb emphasised that "We have to recognise the fact that the country is looking to Education as its first line of reconstruction, and we cannot wish to hold our hand".¹ By 1922 the social, political and economic climate had been considerably modified.

The influence of Cobb alone does not explain the energy and planning that went into the establishment of London's day continuation schools. The efforts of Sir Robert Blair are unmistakable in an analysis of the early development of London's continuation schools. Blair had probably been interested in continued education for some time before the Fisher Act. In 1911, for example, he had been in touch with Ramsay Macdonald over the question of Runciman's unsuccessful Bill.² Blair believed strongly in the value of continuation schools as a major part of the education system. In 1919 he addressed the British Association, stating that "If in 200 years' time these schools have not leavened the whole lump of education and are not taking their full share in the making of the English nation, the fault will lie with us."³ Once Fisher's Bill had become law, Blair addressed a succession of meetings attended by London's industrial and commercial interests to outline the scheme he envisaged and to convince them of its merit. Parents were invited to attend gatherings in many of the Borough towns to hear Blair explain

-
1. L.M.S. Report of an address by Sir Cyril Cobb, op.cit.
 2. L.C.C. EO/HFE/1/109, R. Macdonald to R. Blair, 18th July, 1911.
 3. The Times, 12th September, 1919, 16a.

what the day continuation schools meant for them and their children. According to Brooks, "In all this work - as indeed in everything connected with the schools throughout their history - the Education officer was the leader and inspirer of those who had the privilege of working with him." ¹ The decision of the Council to ask for its release from its statutory obligations was a bitter blow to Blair. Miss Cross, a member of the Council, sympathised with Blair, noting that "Everyone yesterday felt the deepest sympathy for you in the lamentable position in which you were placed by the regrettable action of the L.C.C.", adding, how "heartbreaking it must be for you to see the realisation of your greatest desire, thus ruthlessly cast aside." ² Blair replied appreciatively, commenting that "I am afraid I wore my heart on my sleeve a little more than I ought to have done the other day." ³ As head of an autonomous department within the administrative structure of the L.C.C., Blair was in a strong position to accelerate the development of day continuation schools, but once the position of the Board of Education showed signs of weakening, and the continued existence of the schools became a political issue, Blair was no longer so powerful, and his inability to fight on the same level as the party managers must have been an important factor in the demise of the compulsory system.

It is possible to identify some of the opponents of day continuation schools and to assess the reasons for their opposition. Sir Cyril Jackson, Chairman of the General Purposes Sub-Committee in 1920

-
1. L. Brooks, op. cit., p.21.
 2. L.C.C. EC/HFE/1/110 M. Cross to Sir R. Blair, 24th May, 1922.
 3. Ibid., R. Blair to M. Cross, 26th May, 1922.

and Chairman of the Education Committee in May 1922, was one of the leading figures in the Municipal Reform party, having at one time been its leader. Jackson appears to have been knowledgeable and well respected upon the subject of education. Speaking in 1912, W.H. Fisher, M.P., and former leader of the Municipal Reform party, claimed that Jackson knew more about education than any other man in London. ¹ This was almost certainly more than flattery for a fellow party worker for in 1910 the secretary of the Lads' Employment Committee in London had informed Jackson that "you are more or less the 'print' of the whole (day continuation movement) movement during the last 3 or 4 years." ² It seems likely that part of the motivation behind Jackson's support of continued education was related to the idea of national efficiency for he was a supporter of the scientific philanthropy movement of the early twentieth century which used national efficiency as an argument for social reform. ³ By 1922 Jackson was still greatly interested in educational reform and just prior to the debate of the 3rd May he wrote to Fisher informing him that he had requested Blair to send him alternatives to the existing scheme to ascertain if he could find something which the Council might accept. "In the present temper of the Council", he told Fisher, "it is useless for me to propose any form of continuance but I should like to see whether you feel disposed to make suggestions to the deputation." ⁴ Fisher agreed to meet Jackson but informed him that it was for the Council to initiate alternative suggestions. ⁵ The principal reason put forward by Jackson at the L.C.C.

1. Municipal Reform Pamphlet no. 49.

2. L.C.C. EO/HFE/1/110 Myers to C. Jackson, 27th April, 1910.

3. B.B. Gilbert, op.cit., p.68.

4. P.R.O. Ed. 24/1447 Sir C. Jackson to H.A.L. Fisher, 1st May, 1922.

5. Ibid., H.A.L. Fisher, Min. 5th May, 1922.

deputation's meeting with Fisher on the 18th May was that of the difficulties created by the failure of neighbouring authorities to initiate their own compulsory schools. Yet if the Times Educational Supplement was correct, Jackson's motives had a more radical basis.

"Sir C. Jackson regards the raising of the school age to fifteen as the real line of educational advance. He considers that day continuation schools may stand in the way of this reform." ¹

The Lads' Employment Committee on which Jackson, together with other prominent educationists such as R.H. Tawney, was a member, campaigned for the raising of the school leaving age. In a letter dated April 1910, Jackson informed Myers that "My objection as you know is to compulsory continuation schools at the present stage. I do not believe in frightening people by urging too many things at once." ² Twelve years later, when representing the L.C.C., Jackson told Fisher that "the difficulty of compulsion had already been made manifest, long before we came to our present decision." ³ Even if his motives appear somewhat ambivalent, the opposition of such an important educationist member of the Municipal Reform party to compulsory continuation schools was undoubtedly a factor in weakening the position of the supporters of such institutions.

Other members of the Council who were probably more active than Jackson in this opposition to the compulsory scheme were Canon H.J.

-
1. The Times Educational Supplement, 13th May, 1922, 225a.
 2. L.C.C. EO/HFE/1/110 Sir C. Jackson to Myers, 28th April, 1910.
 3. P.R.O. Ed. 24/1447 Meeting, 18th May, 1922.

Swallow and J.M. Gatti. Canon Swallow was Chairman of the Higher Education Sub-Committee in 1922 and a committed retrencher. In a letter to The Times in January 1920, Swallow noted with distaste the increase in municipal expenditure and claimed that "For every sane person there can only be one watchword - Retrenchment." ¹ Referring to the Council debate of the 3rd May, 1922, the Morning Post claimed that "Canon Swallow, Chairman of the Sub-Committee, in moving the adoption of the recommendation, said his personal feeling was that continuation schools should be abolished altogether." ² District Inspector Holmes, however, was more charitable.

"On the contrary he said that if the Board released the L.C.C. from its obligation the Higher Education Committee would consider schemes by which as much as possible of the work of the schools should continue." ³

This version was probably near the truth for the Times Educational Supplement, in reporting the same debate, thought that Swallow had said that it would be lamentable if the day continuation schools were completely abandoned but that he and his friends could not support them in their present form. ⁴

J.M. Gatti became Chairman of the Finance Committee in 1920, succeeding A.F. Buxton. Buxton himself was not altogether in favour of heavy expenditure on education. In a debate on the cost of education

-
1. The Times, 30th January, 1920, p.8, col. a.
 2. The Morning Post, 4th May, 1922, 6g.
 3. P.R.O. Ed. 24/1447 Holmes Min. 4th May, 1922.
 4. The Times Educational Supplement, 6th May, 1922, 211d.

under the 1918 Act, Buxton wanted it remembered that "the pockets into which they had to dip were not bottomless. The improvement in education would mean burdens which might, by reason of the economy that ratepayers would be forced to practice, cause a serious lowering of the standard of housing in London." ¹ Gatti seems to have taken a similar line to that of his predecessor. During the election campaign of 1922, he was reported to have emphasised that there was a pressing need for economy in education and that people must "be prepared to have some of the less essential parts curtailed." ² The Times Educational Supplement spoke with open contempt of Mr Gatti's "pruning knife" and described his patent "satisfaction at the rigid economy which had been practised by the Education Committee." ³ Gatti seems to have been concerned in the Council's successful attempt to substitute a one year day continuation course for the two year scheme. Most of the intermediary work between the Council and the Board of Education seems to have been carried out by Henry Gooch, Chairman of the Education Committee in 1921, but Gooch was unable to promise very much without consulting Gatti and Sir John Gilbert, the Chairman of the General Purposes Committee. After Fisher had written to Gooch in May 1921, Gooch consulted with Gatti and Gilbert and replied to the effect that "I have every reason to believe that the L.C.C. will accept the scheme of 8 hours up to 15, and will reject any other proposal. This scheme, too, is the cheapest; a matter of moment at the present time." ⁴ No doubt part of Gooch's confidence derived from the knowledge that he had the support of Gatti and Gilbert. Perhaps

1. The Times, 21st July, 1920, 11c.

2. The South London Press, 24th February, 1922, 6j.

3. The Times Educational Supplement, 3rd June, 1922, 259d.

4. Ibid., 20th May, 1922, 236b.

too the reference to economy owed something to Gatti's influence. Gatti himself was not present at the meeting between the Board's officials and Council representatives on the 18th May 1922, but his Vice-Chairman, Sir P.G. Henriques was there, and no doubt his views were very much a reflection of those of Gatti.

"Purely as a financial measure, we do feel, as an economical body on the Council, that this very large sum of nearly £500,000 a year must weigh, and should weigh with us in considering the question. I cannot help feeling that we do not get full value, either in education or anything else." ¹

It is difficult to assess the part played by Gilbert in the abandonment of compulsory continued education for, according to Ernest Grey, "he played a big part in the establishment of the Schools." ² Gilbert himself informed Fisher that "I deeply regret having to be here this morning to put this request, but at the last election a majority of the elected members pledged themselves to make this request." ³ Perhaps Gilbert genuinely felt that democracy had voiced its opinion, or perhaps he was being pulled along by party pressure, but at least it seems highly unlikely that he was a major influence in London's decision to ask for its release from the continuation school experiment.

In analysing the Council's decision to drastically modify

-
1. P.R.O. Ed. 24/1447 H. Gooch to H.A.L. Fisher, 5th May, 1921.
 2. P.R.O. Ed. 24/1447 Meeting, 18th May, 1922.
 3. The South London Press, 12th May, 1922, 9a.

its day continuation school programme it is evident that opposition to the schools was strong even before Blair's scheme was published. Yet there was a good deal of support for this type of education and when, in 1921, the original plan was altered to allow for just a one year course the Times Education Supplement claimed that "No question in recent years has aroused so much controversy."¹ The economy campaign of 1920, however, had left its mark, both on the Board of Education and the Council, thus enabling the pessimists to win a tactical victory, if not the battle. By early 1922 the Conservatives, strengthened by the economic problems of the time, and armed with the third report of the Geddes committee, were in a more favourable position to manipulate the election result of March, 1922, to justify the closure of the compulsory day continuation schools and leave only the 55 voluntary institutions as a reminder of Blair's original structure.

1. The Times Educational Supplement, 18th June, 1921, 274a.

Conclusion

In a consideration of the process of course innovation and development in technical education perhaps the main contribution of our thesis is to emphasize the impossibility of any detailed manpower planning without the existence of a strong central educational planning agency. Our thesis has demonstrated that although the Board of Education was able to influence the structure of technical education in London in a variety of ways the actual courses which the colleges offered depended to a very considerable extent upon the initiative of the principals and governing bodies concerned, as well as upon the attitude of the local education authority. It was for this reason that the Crowther report was able to note in 1959 that:

"further education has grown up empirically, in response to one special need or demand after another, with the arrangements for each devised ad hoc and without those periodic attempts at a synoptic review that have been made in the sphere of school education."¹

Moreover, even if the Board of Education had been able to exert a more direct influence upon course innovation, there were still problems of course development over which it had comparatively little control, notably the attitude towards technical education of employers, employees and parents.

The education ministry still influences the work of the local education authorities through its control over capital expenditure, though with the introduction of Regional Advisory Councils the Department of Education and Science has had the benefit of a preliminary selection process which has introduced a measure of regional co-ordination into the

1. 15 to 18, op.cit., p.314.

process of course introduction and development. The R.A.C.s, however, are only concerned with advanced courses so that control over the growth of non-advanced courses is less complete. Implicit in the type of indicative economic planning which governments of both major political parties have come to accept is the need to relate course innovation and development in technical education to manpower planning, but it cannot yet be said that the DES always exercises decisive control over the process of educational change.

The limitations of DES control over the content of course structure is one illustration of the Department's restricted role in course development. One example of this is the way that the professional bodies can still influence the syllabus and even the geographical location of courses. The strength of the professional has recently been demonstrated by the highly critical report which the board of education of the R.I.B.A. made upon five schools of architecture, four of which are in polytechnics. The colleges concerned were warned by the R.I.B.A. that unless they improved their standards significantly the Institute might refuse to examine their students. This could in effect put the schools out of business. Although the board which visited the colleges included a member of Her Majesty's Inspectorate, the board was nevertheless strongly weighted in favour of R.I.B.A. representatives.¹

Although the aim of maintaining standards is desirable, it is possible to conceive of a situation when a differently weighted inspection team could regard certain developments in a favourable light which an R.I.B.A. inspection board might reject. However, the central

1. The Times Educational Supplement, 6th August, 1971.

issue is the authority of the DES in relation to the powerful influence of the R.I.B.A.

Another way in which the professional bodies may influence course structure and development was referred to by the Haslegrave committee.¹ It was noted by the committee that as other, less arduous, ways were opened to the individual aspiring to professional status than through the medium of the higher national certificate it may become desirable to adapt syllabus to cater for what is likely to become a high level course for technicians. Structural modifications along these lines have already occurred for higher national certificates in engineering, but in other fields the exemption regulations of the professional bodies still encourage people who are seeking professional status to follow higher national certificate courses.²

Perhaps the time is appropriate for a major overhaul of the examination system, involving a consideration of the status of the examining bodies and their relationship to the DES, as well as their role in curriculum building. The Haslegrave report drew attention to the need for co-ordinating machinery in the field of examinations for technicians, noting that the proliferation of courses could only result in confusion and lack of confidence by the business world.³ On the other hand, the rapidly changing nature of employment makes the need for a flexible examination system very great. Furthermore, our thesis has indicated that to win the support of students and employers the qualifications offered must have a high status level.

-
1. DES. Report of the Committee on Technician Courses and Examinations(1969.)
 2. Ibid., pp. 26, 27. A further example of the limitations of the establishment examining bodies upon course initiation and development is that of the University of London external (and in some cases internal) degree examinations. It may be interesting to speculate upon the type of degree courses which would have emerged from the London polytechnics during the interwar period had the Council for National Academic Awards been functioning.
 3. Ibid., p.49.

From our study it appears crucial that for manpower planning to be effective the central educational agency should have a clear definition of the aims of the technical education sector and of its powers to direct the education service towards the achievement of those objectives. The identification of those objectives, however, requires the availability of an analytical framework and the collection of a large amount of quantitative data, which in turn suggests perhaps the need for a strengthening of the education ministry's own research work or a high level of technical co-operation between the ministry and other government departments. Our thesis shows that both these problems were a possible retarding factor in the development of the Board of Education's work during the interwar period. ¹

The interaction of forces within so complex a structure as the education service inevitably makes detailed programme planning for any one sector a technically difficult assignment. However, other, less specifically technical factors, may restrict forward planning by the education minister. Party politics and the nature of political life is one aspect of this. It may be that the political party from which the government is called is committed to a particular policy that places strong emphasis upon the non-technical sector of the educational framework. At the very least, the education minister requires the support of his party and of the Prime Minister. The lack of support from these quarters appears to have been one of the major factors which encouraged Charles Trevelyan to resign as President of the Board of Education in 1931. In 1931 Trevelyan's cousin noted that "Macdonald & Thomas have been thwarting you from the beginning

1. See pp.321,322.

& that only a row in the Parliamentary Party in February 1929 forced the Cabinet to consider the School leaving age Bill at all. Only the other day Macdonald himself told me that he thought the Education Bill was most unpopular in the country & was going to lose us thousands of votes." ¹

Our thesis has described the careful watch kept by the Treasury over Board of Education spending during the interwar years ² and Professor Kogan's conversation with Edward Boyle and Anthony Crosland makes it clear that the attitude of the Treasury remains a major threat to the work of the DES. The concern of the Treasury for the stability of the external balance and the foreign exchange rate places difficulties in the path of all departments, but perhaps especially education. According to Edward Boyle "There always had to be an element of the 'anti-government' about the Ministry of Education - fighting for resources at times other people found inconvenient." ³

In addition, the sometimes relatively short periods for which ministers held office may add to the difficulties of long term planning, particularly if a government only holds office for one term. One consequence of this is to enhance the influence of the civil servants. To the extent that senior civil servants favoured a particular view this is likely to have influenced the collective attitude of the education department. During the debate on the day continuation schools there is evidence to suggest that the then Principal Secretary, L.A. Selby-Bigge, was not altogether happy about

-
1. The Trevelyan Papers, Newcastle University, Box 48 P. Price to C. Trevelyan.
 2. See pp. 322, 323.
 3. The Politics of Education. Edward Boyle and Anthony Crosland in Conversation with Maurice Kogan (1971) p.143.

the speed with which Fisher attempted to establish the compulsory day continuation schools. ¹

The political leaders at local government level sometimes have more experience of active political power than the central government minister and this may be one area of weakness when the education minister comes into contact with the Council representatives. During the interwar period the long experience of power enjoyed by the municipal reform leaders must have represented a formidable challenge to the two interwar labour governments. However, under the British system of government, with its arrangement of checks and balances, the relationship of the local authority with the central government is by design ambivalent. The 1944 Education Act placed enormous power in the hands of the Minister of Education, though in practice that power is exercised with great caution. The amount of freedom allowed to L.E.A.s and the variation between the type and standards of the educational provision in different areas is an important obstacle to a national or even regionally planned system of technical education. Perhaps, therefore, our discussion must lead us to the conclusion that a greater degree of central government direction, even though it is at the expense of some element of local autonomy, is necessary if the education Ministry is to be a major force in manpower planning.

There still remains, however, the question of course development and here the main problem seems to rest with operative, craft and technician courses. In part, the problem relates to the pre-technical college experience of the child. Our thesis has indicated the concern that was expressed during the interwar period about the quality of

1. See p.349. In reference to J. Dover Wilson, G.A.N. Lowndes notes that "So far as I can remember he had a very heated interview with Selby-Bigge the then Permanent Secretary who told him that members of the Board would be hung from every lampost in Whitehall if they tried to preserve the day continuation schools." G.A.N. Lowndes in correspondence with the author, op.cit.

student recruits to the technical schools ¹ and in 1959 the Crowther report noted that, especially in mathematics, the technical college pupil was frequently ill-equipped to tackle the work required of him. ² The Crowther report also drew attention to the need for adequate counselling. ³ There still appears to be a need for a more systematic counselling system if students are to be directed to the course most suited to them. Perhaps one of the factors retarding the development of counselling arrangements is the lack of courses for counsellors themselves. ⁴ However, it may be argued that at fifteen or sixteen years of age the student is too young to be filtered into a particular field of employment. In this case one answer may be the expansion of vocational courses of a broad nature with the opportunity of greater specialisation at a later date. ⁵

This assumes, however, that students are released during the day by their employers or that they are willing to attend on an evening basis. The uneconomic aspects of evening study have been referred to in our thesis, especially the high level of student drop-out rates. Nevertheless, certain commercial courses in particular are still largely held in the evening and this cannot be regarded as a satisfactory situation. The economics of evening work, however, is complicated by the advantages to be gained from intensive use of capital equipment, though perhaps the problem should be approached from the side of a lengthening of the school year rather than an extension of evening work. Our thesis has illustrated some of the manifold

-
1. See pp. 216-219.
 2. 15 to 18, op.cit., p.362.
 3. Ibid., pp. 372-374.
 4. There appears to be a need for more courses in education management generally.
 5. The whole relationship between secondary and further education is perhaps in need of a clearer definition in the same way that binary policy defined the relationship between polytechnic and University education.

problems in securing the support of parents and employers for day release courses. ¹ The establishment of the industrial training boards has helped to make the concept of training more familiar to industry, though there are certain dangers in this type of development. In particular, the tendency for firms to make provision for their own courses takes an important area of education out of the specialist education sector. There is a danger that the emphasis will be placed increasingly upon narrow vocational training rather than on the flexible course structure which seems likely to be called for in view of the high rate of technological change. Socially, too, unless careful control is exercised over works based training there is a danger that this will emerge as a second class education system. If the economic, sociological and other factors affecting day time study remain so stubborn the only solution to a controlled programme of course development may be a degree of compulsion upon the employer to release his young employees. Part of the difficulty is that at the precise time that the economy is expanding, and when the need is greatest for trained workers, the employer is likely to require all the employees at his disposal. Moreover, even if the employer is forced to release his young workers the problem remains as to whether they should be compelled to attend classes. However, it seems likely that with their wages and employment safeguarded young employees would respond to the opportunity of an extended part-time education, especially if the counselling had been efficiently done. Moreover, with, for example, the increase in the number and range of technician jobs available, it would seem necessary that provision be made for students who wished eventually to transfer from one area of study to another to do so. A properly co-ordinated curriculum structure would accommodate this and could be assisted through an extension of the provision for block release and full-time courses.

1. See pp. 358, 359.

Our thesis thus leads us back to the basic economic issue of scarcity of resources and then to the question of political and social priorities. While some of the problems perhaps appear intractable, an illumination of the factors involved may help towards the formation of policy guidelines for manpower planning.

APPENDICES

A. London Administrative County: Population 1891-1951

<u>Date</u>	<u>Population</u>	<u>% Intercensal Increase or Decrease(-)</u>
1891	4,227,954	
1901	4,538,267	7.3
1911	4,521,685	-0.3
1921	4,484,523	-0.8
1931	4,397,003	-2.0
Mid-1939 estimate	4,013,400	
1951	3,347,982	-23.9

Source: Census of England and Wales, 1951.

B. London Administrative County: Population by Age.

Intercensal Increases or Decreases(-) 1921-31.

<u>Age Last Birthday</u>	<u>Total (Men)</u>	<u>Total (Women)</u>
0-1	-35,718	-34,393
2-9	-40,008	-41,057
10-19	-39,939	-54,321
20-29	64,195	6,923
30-39	-14,816	-23,838
40-59	1,199	32,139
60 and over	37,616	54,498

Source: Census of England and Wales, 1931.

C. Great London: Employment By Principal (Selected) Industries, 1921 and
According to the Standard Classification.

<u>Industry</u>	<u>Employees</u>	
	<u>1921</u>	<u>1951</u>
Chemicals	56,200	95,700
30 - Chemicals	28,100	55,600
34 - Paint	7,500	14,000
35 - Soap, Oils, Greases	20,700	26,000
Metal Manufacture	12,200	24,700
Engineering	160,100	357,500
50 - Shipbuilding, marine engineering	13,200	13,400
52 - General engineering	95,500	161,100
70 - Electrical engineering	51,300	183,000
Vehicles	59,300	143,800
Precision instruments, jewellery, etc.	54,400	70,000
Leather, leather goods and fur	27,400	21,300
Clothing	218,100	185,000
Food, drink and tobacco	136,000	146,300
Manufacturers of wood and cork	68,200	89,900
Paper and printing	139,600	173,300
Other manufacturing		
190 - Rubber	10,100	19,600
Building	145,900	238,100
Distributive trades	534,900	599,300
Insurance, banking and finance	109,900	186,900
Professional services	207,100	365,000

Source: Census of England and Wales, 1921 and 1951.

D. London Administrative County: Approximate Employment By (Selected)
Principal Manufacturing Industries, 1938.

<u>Industry</u>	<u>Employees</u>
Engineering	230,000
Clothing	180,000
Food, drink and tobacco	90,000
Furniture	70,000
Printing and paper	67,000
Chemicals	47,000

Source: J.H. Forshaw and P. Abbercrombie, County of London Plan, 1943.

E. London County Council: Education Expenditure on Current Account
1918-19 to 1938-39

<u>Date</u>	<u>Secondary Schools</u>		<u>Technical Institutes and Schools of A:</u>	
	<u>Maintained</u>	<u>Aided</u>	<u>Maintained</u>	<u>Aided</u>
1918-19	143,430	102,710	95,993	100,880
1919-20	208,533	137,977	158,653	224,644
1920-21	310,080	301,466	221,832	384,157
1921-22	348,741	400,352	228,266	371,215
1922-23	322,947	334,716	203,746	310,980
1923-24	303,174	238,848	205,344	312,230
1924-25	308,791	282,330	216,404	330,700
1925-26	322,946	301,456	244,808	341,651
1926-27	323,036	322,071	253,523	331,558
1927-28	335,263	428,034	263,867	361,650
1928-29	366,078	469,834	271,548	384,941
1929-30	373,928	481,582	289,795	411,050
1930-31	387,187	500,290	309,969	451,525

1931-32	374,342	470,202	306,358	424,481
1932-33	350,607	432,281	307,803	403,874
1933-34	355,431	442,131	310,736	407,780
1934-35	376,125	470,870	333,616	449,781
1935-36	401,426	519,599	363,487	489,342
1936-37	432,522	531,857	395,689	497,921
1937-38	438,230	465,464	565,581	506,620
1938-39	454,409	581,257	483,484	535,738

Source: L.C.C. Accounts in Abstract.

F. London County Council: Education Expenditure on Capital Account,
1922-23 to 1938-39.

1. Maintained Institutions.

<u>Date</u>	<u>Elem.Schools</u>	<u>Sec.Schools</u>	<u>Technical Institutes</u>	<u>Training Colleges</u>
1922-23	172,489	24,891	10,733	61
1923-24	67,748	17,165	7,434	-
1924-25	117,940	18,260	17,542	3,930
1925-26	175,223	49,641	58,624	22
1926-27	343,069	110,547	60,328	1,170
1927-28	527,868	181,347	55,724	11,370
1928-29	305,538	107,324	41,433	14,215
1929-30	205,079	36,302	86,169	-
1930-31	144,382	52,756	81,162	-
1931-32	154,491	1,126	129,961	-
1932-33	51,158	621	37,191	-
1933-34	25,424	8,005	22,680	-

1934-35	60,493	8,331	58,840	-
1935-36	275,429	18,497	47,570	1,838
1936-37	301,679	70,981	38,242	1,625
1937-38	191,748	29,126	46,955	20,091
1938-39	494,437	53,544	79,745	31,744

2. Grants to Aided Institutions.

1922-23	10,000
1923-24	5,000
1924-25	2,634
1925-26	25,670
1926-27	86,042
1927-28	160,496
1928-29	149,640
1929-30	127,879
1930-31	118,490
1931-32	115,706
1932-33	57,617
1933-34	53,494
1934-35	93,181
1935-36	235,140
1936-37	212,844
1937-38	156,440
1938-39	64,281

Source: L.C.C. Accounts in Abstract.

LONDON A.C.
SHOWING
CITY OF LONDON
AND
METROPOLITAN BOROUGHS



LOCAL GOVERNMENT AREAS

