

NCDS

Data Note 5

Centre for Longitudinal Studies

Subjects of NCDS5 Qualifications and Courses

Peter Shepherd

Centre for Longitudinal Studies

Institute of Education 20 Bedford Way London WC1H 0AL

Tel: 020 7612 6860 Fax: 020 7612 6880 Email cls@cls.ioe.ac.uk

Web http://www.cls.ioe.ac.uk

NCDS Data Note 5

SUBJECTS OF NCDS5 QUALIFICATIONS AND COURSES

Peter Shepherd

INTRODUCTION

This *NCDS Data Note* reports on work done to improve the quality of the data available for the fifth follow-up of the *National Child Development Study (NCDS5)*. It reports on the considerable work done at the University of Manchester to code details of the subjects of qualifications and courses reported during the NCDS5 interview, and was prepared by Peter Shepherd. It is hoped that the information provided below may be of value to others analysing NCDS data.

A brief introduction to NCDS will be followed by an outline of the coding undertaken and the nature of the enhanced data which is available.

NATIONAL CHILD DEVELOPMENT STUDY

The *National Child Development Study (NCDS)* is a continuing, multi-disciplinary longitudinal study which takes as its subjects all those living in Great Britain who were born between 3 and 9 March, 1958.

Following the initial birth survey in 1958 - the *Perinatal Mortality Survey (PMS)* - there have been, to date, five attempts to trace all members of the birth cohort in order to monitor their physical, educational and social development. These were carried out by the National Children's Bureau in 1965 (*NCDS1*), 1969 (*NCDS2*), 1974 (*NCDS3*), and 1981 (*NCDS4*); and by the Social Statistics Research Unit, City University in 1991 (*NCDS5*). In addition, in 1978, details of public examination entry and performance where obtained from schools and colleges.

For the *PMS* information was obtained from the *mother* and from *medical records* by the midwife. For *NCDS1-3*, information was obtained from: *parents* (by health visitors); *head teachers* and *class teachers* (who completed questionnaires); *medical examination* (carried out by the schools health service); and the *subjects* themselves (who completed tests of ability and, latterly, questionnaires).

NCDS4 differs in that information was obtained from the **subject** by survey research interviewer, and from the **1971 and 1981 Censuses** - from which variables describing area of residence were taken. Similarly, **NCDS5** also relied on survey research interviewers to collect information from **subjects**. Self-completion questionnaires were also used to gather data from NCDS **subjects** and from **husbands**, **wives**, **and cohabitees**. In addition, for a random sample of one in three subjects, information was collected for all **natural or adopted children** who were living with them. Data were gathered from the **children** themselves, and from their **mother**, **or mother-figure** (who might be the cohort member, or their spouse or partner), using a series of age-specific assessments of cognitive and behavioural development. These were supplemented by a **mother** interview, and by **interviewer observations** of mother-child interaction.

During *EXAMS* survey, information was obtained only from *schools and colleges* by postal survey.

In addition information has also been gathered during a number of *NCDS Special Sub-studies* for samples of cohort members selected for their particular characteristics. They include studies of children in care, adoptive children, gifted children, the children of one-parent families, handicapped school leavers, and those suffering from epilepsy, respiratory problems, and Crohn's disease.

Data available for research

The data from the NCDS follow-ups are held by the ESRC Data Archive at the University of Essex and on-line at Manchester Computing. Access to the data is open to anyone interested, although intending users are asked to commit themselves to ensuring that confidentiality is observed, and to inform the *NCDS User Support Group* at the Centre for Longitudinal Studies about their proposed use of the data and any resulting publications, etc.

The Data Archive also hold data from a number of special sub-studies where additional data has been gathered for samples of cohort members selected for their special characteristics or circumstances.

User Group

This is open to all users of NCDS data. It provides opportunities for users to get together to explore developments, problems, and other issues of mutual interest. Ad hoc "Updates" on NCDS data and developments are circulated to members.

Membership is free on application to the NCDS User Support Group.

User Support Group

This provides advice and guidance on the use of NCDS data; produces documentation; collates and disseminates information on uses of the data, publications, and other developments; produces and distributes a newsletter and working papers; provides access to non-computerised NCDS data; collects additional information; and services the User Group.

The User Support Group can be contacted by post, 'phone, fax, or email as shown below:

Cohort Studies User Support Group, Centre for Longitidinal Studies, 6th Floor: Institute of Education, 20 Bedford Way, London WC1H 0AL

Tel: +44 0207 612 6864 Fax: +44 0207 612 6880 Email: cohort@cls.ioe.ac.uk

Internet: http://www.cls.ioe.ac.uk/Cohort/Ncds/mainncds.htm

SUBJECTS OF NCDS5 QUALIFICATIONS AND COURSES

Background

During the NCDS5 survey cohort members were asked at interview about the qualifications they held, and the courses they had followed to obtain qualifications, training courses and leisure courses. This included details of the subject(s) of courses followed. Following the completion of the NCDS5 survey the text of the subject descriptions was keyed to disk and subsequently made available through the ESRC Data Archive. More recently this data has been reviewed and coded to facilitate analysis. This work was funded by the Department of Employment and undertaken by the University of Manchester.

A list of questions for which subject information was keyed to disk and subsequently coded is given in Table 1 below.

Table 1: NCDS5 questions on the subjects of qualifications and courses

| Question B05a) | Topic Highest qualification course since sixteen | | | | |
|-------------------|---|--|--|--|--|
| B05a) | Second highest qualification course since | | | | |
| | sixteen | | | | |
| B13a) | Most recent training course since sixteen | | | | |
| B13a) | Second most recent training course since sixteen | | | | |
| B13a) | Third most recent training course since sixteen | | | | |
| B21c) | Leisure courses since sixteen | | | | |
| B22a) | Other City & Guild qualification held | | | | |
| B22a) | Other qualications held 1-3 | | | | |

Coding frame

The subject oding frame employed was derived from the GHS-based frame used for coding subject information for the NCDS4 survey, modified to include subjects which did not appear to fit. A copy of this frame is given in Appendix 1.

Many courses were recorded as just 'engineering'; these were coded as 'General and other engineering' (147).

Similarly, if a subject was given as just 'management' it was coded as 'Other management' (486).

'Leisure' (713) includes sports which people did at evening classes.

Word processing courses were coded as 'Clerical' (491).

Data available

The subject codings have been set up as an SPSS 'portable' file. A summary of the contents of the dataset is given in Table 2 below.

The dataset is available to researchers on application to the NCDS User Support Group.

Table 2. NCDS5 Subject variables

| Table 2: NCDS5 Subject variables | | | |
|----------------------------------|--|--|--|
| Variable | Label | | |
| name* | | | |
| SERIAL | Serial number | | |
| QB05A1 | Subject - Highest qual course since 3/81 | | |
| QB05A2 | Subject - 2nd highest qual course since 3/81 | | |
| QB13A1 | Subject - Most recent training course since 3/81 | | |
| QB13A2 | Subject - 2nd most recent training course since 3/81 | | |
| QB13A3 | Subject - 3rd most recent training course since 3/81 | | |
| QB21C01 | Subject - Leisure course since 3/81 #1 | | |
| QB21C02 | Subject - Leisure course since 3/81 #2 | | |
| QB21C03 | Subject - Leisure course since 3/81 #3 | | |
| QB21C04 | Subject - Leisure course since 3/81 #4 | | |
| QB21C05 | Subject - Leisure course since 3/81 #5 | | |
| QB21C06 | Subject - Leisure course since 3/81 #6 | | |
| QB21C07 | Subject - Leisure course since 3/81 #7 | | |
| QB21C08 | Subject - Leisure course since 3/81 #8 | | |
| QB21C09 | Subject - Leisure course since 3/81 #9 | | |
| QB21C10 | Subject - Leisure course since 3/81 #10 | | |
| QB21C11 | Subject - Leisure course since 3/81 #11 | | |
| QB21C12 | Subject - Leisure course since 3/81 #12 | | |
| QB21C13 | Subject - Leisure course since 3/81 #13 | | |
| QB21C14 | Subject - Leisure course since 3/81 #14 | | |
| QB21C15 | Subject - Leisure course since 3/81 #15 | | |
| QB21C16 | Subject - Leisure course since 3/81 #16 | | |
| QB22A17 | Subject - Other City & Guild qual held | | |
| QB22A34 | Subject - Other qual held #1 | | |
| QB22A35 | Subject - Other qual held #2 | | |
| QB22A36 | Subject - Other qual held #3 | | |

Notes: * Variable names have the general form: Q(Section)(Question number)(Question part)(nth subject mentioned)

eg: B21c "What subjects have you studied on this (leisure) course?" has the variable names QB21C01 - QB21C16. These variables provide coding for up to 16 named subjects. The first named subject has a variable name derived as follows: Q(B)(21)(C)(01) = QB21C01

Further details of the dataset are given in Appendix 2.

Appendix 1: Coding frame for NCDS5 Subjects

The subject coding frame employed for NCDS5 was derived from the GHS-based frame used for coding subject information for the NCDS4 survey, modified to include subjects identified by NCDS5 respondents which did not appear to fit the earlier frame

.

EDUCATION

- 1 Education/Teacher training
- 2 Teaching methods
- 3 Programmed learning
- 4 Audio-visual aids
- 5 Other education/teaching
- 6 Education combinations
- 7 Education combined with other groups

MEDICINE, DENTISTRY AND ANCILLIARY HEALTH SUBJECTS

- 10 Pharmacy
- 11 Pharacology
- 12 Medicine
- 13 <u>Dentistry</u>

Ancilliary Health Subjects

- 14 Air Pollution
- 15 Cardiography
- 16 Chiropody
- 17 Cleaning Science
- 18 Dental nurse and Assistants
- 19 Dental technicians
- 20 Dietetics
- 21 Dispensing assistants
- 22 Dispensing opticians
- 23 Dispensing technicians
- 24 Food inspection, analysis and hygiene
- 25 Health visitors
- Manicure and pedicure
- 27 Meat inspection
- 28 Medical certificate
- 29 Medic laboratory technicians
- 30 Nursing(medical)
- 31 Nursery nursing

- 32 Nutrition
- 33 Opthalmic opticians
- 34 Physiological Measurement technician
- 35 Physiotherapy
- 36 Pre-nursing
- 37 Public-Health inspection
- 38 Sanitary inspection
- 39 Radiography
- 40 Smoke control
- 41 Speech therapy
- 42 Surgical laboratory technicians
- 43 Other health subjects
- 44 Health and safety
- 45 Health combinations
- Health combined with other groups
- 47 Occupational therapy

ENGINEERING

- 50 Aeronautical engineering
- 51 Aeronautics
- 52 Aerodynamics
- 53 Aerostructure
- Aero engineering and space technology
- Aircraft electrical power systems
- 56 Aircraft electronic devices
- 57 Astronautics
- 58 Flight Control
- 59 Guided Missiles
- 60 Agricultural engineering
- 61 Farm machinery maintenance
- 62 Horticultur machinery maintenance
- 64 Automobile engineering
- 65 Motor bodywork
- 66 Motor vehicle electricians
- 67 Motor vehicle engineering
- 68 Motor vehicle mechanics
- 69 Motor vehicle technicians
- 70 Motor vehicle painting
- 71 Motor vehicle repair and maintenance
- 72 Panel beating
- 73 Vehicle body building

74 Chemical engineering and technology 75 Chemical plant operation 76 Chemical technicians 77 Chemical technology 78 Gas engineering 79 Process plant operation 80 Civil engineering 81 Civil engineering (gas) 82 Municipal engineering 83 Traffic engineering 84 Land economics 85 Electrical engineering 86 Cable jointing 87 Electrical fitting 88 Electrical installation 89 Electronics 90 Electronic engineering 91 Electronic servicing 92 Illuminating engineering 93 Radar 94 Radio and television 95 Radio, television and tape recorders (amateur) Radio, television and tape recorders servicing 96 97 **Telecommunications** 98 Marine engineering 99 Mechanical engineering Fabrication of steelwork 100 **Hydraulics** 101 Mechanical engineering craft practice 102 Mechanical engineering technicians 103 Mechanical engineering inspection 104 Rail carriage building 105 Refrigeration engineering 106 Workshop technology and practice 107 Naval architecture and shipbuilding 108

109

Ship building

- 110 Ship joinery
- 111 Ship plumbing
- 112 Yacht and boat building
- 113 <u>Production engineering</u>
- 147 <u>General and other engineering</u>
- 114 Precision engineering
- 115 Ergonomics
- 116 Materials handling
- 117 Audio-vis technicians
- 118 General engineering
- 119 Combined engineering
- 120 Control engineering
- 121 Blacksmithing
- 122 Boiler house practice
- 123 Boilermaking
- 124 Corrosion engineering
- 125 Engineering drawing
- Engineering planning, estimating and costing
- 127 Engineering science
- 128 Fire engineering
- Heating and ventilating engineering
- 130 Industrial engineering
- 131 Industrial radiography
- 132 Mill engineering and services
- 133 Instrument engineering and maintenance
- 134 Metal finishing and electro-chemistry
- 135 Metal plate work
- 136 Metrology
- 137 Miscellaneous engineering
- 138 Nuclear engineering
- 139 Pipework engineering
- 140 Press tool making
- 141 Pressure vessel design
- 142 Scientific instrument manufacture (including optical instruments)
- 143 Sheet metal work
- 144 Textile engineering
- Watch and clock manufacture
- 146 Welding
- 147 General and other engineering
- 148 Engineering combinations
- 149 Engineering & technology combinations
- 150 Engineering in combination with other groups (except technology)

TECHNOLOGY

| 160 | Building |
|-----|---|
| 161 | Bricklaying |
| 162 | Building economics |
| 163 | Building foremnship |
| 164 | Building inspection |
| 165 | Building technology |
| 166 | Builders quantities |
| 167 | Carpentry and joinery |
| 168 | Clerks of works |
| 169 | Concrete practice |
| 170 | Concrete technology |
| 171 | Construction, plant maintenance and repair of |
| 172 | Furnace brickwrk |
| 173 | Gas fitters work |
| 174 | Glazing and allied trades |
| 175 | Heating and ventilation (installation and fitting) |
| 176 | Highways and works superintendents |
| 177 | Industrial safety officers |
| 178 | Masonry |
| 179 | Mastic asphalt work |
| 180 | Painting and decorating |
| 181 | Plasterers work |
| 182 | Plumbing and sanitary engineering |
| 183 | Roadwork (road masons and paviors) |
| 184 | Roof slating and tiling |
| 185 | Shopfitting |
| 186 | Structural engineering |
| 187 | Wall and floor tiling (inclusing terrazo and mosaic work) |
| 188 | Clothing and footwear |
| 189 | Boot and shoe manufacture and repair |
| 190 | Dress manufacture |
| 191 | Embroidery and lace manufacture |
| 192 | Hoisery and knitted goods manufacture |
| 193 | Millinery (other than domestic) |
| 194 | Tailoring (other than domestic) |

| 196 | Food technology and manufacture |
|-----|--|
| 197 | Bakery and flour confectionery |
| 198 | Brewing |
| 199 | Chocolate and sugar confectionery |
| 200 | Flour milling |
| 201 | Milk pasteurisation, processing and distribution |
| 202 | Eval and natraloum technology |
| 202 | Fuel and petroleum technology |
| 203 | Coal processing |
| 204 | Gas manufacture and utilisation |
| 205 | Petroluem and petroleum products |
| 206 | Metal technology |
| 207 | Metallurgy |
| 208 | Foundry technology |
| 209 | Foundry practice |
| 210 | Iron and steel manufacture |
| 211 | Metallurgical technicians |
| 212 | Non-ferrous metal manufacture |
| 213 | Patternmaking |
| 214 | Mining and quarrying |
| 215 | Colliery electtricians |
| 216 | Colliery mechanics |
| 217 | Mineral engineering |
| 218 | Mining engineering |
| 219 | Mining deputies and managers |
| 220 | Mining geology |
| 221 | Offshore engineering and technology |
| 222 | Printing and book production |
| 223 | Printing |
| 224 | Book production |
| 225 | Book binding |
| 226 | Electro and stereotyping |
| 227 | Line composition |
| 228 | Lithographic printing |
| 229 | Monotype casters work |
| 230 | Monotype composition |

| 231 | Photo engraving |
|-------|---|
| 232 | Photogravure |
| 233 | Photo-lithography |
| 234 | Print administration |
| 235 | Printing ink technicians |
| 236 | Printing technicians |
| 237 | Printing warehouse practice |
| 238 | Publishers edition binding |
| 239 | Technical authorship and iluustration |
| 240 | Typographical design |
| 241 | Typography |
| | 1)pog.up) |
| 242 | Surveying/Valuation |
| 243 | Mine surveying |
| 244 | Quantity surveying |
| 245 | Cartography |
| | |
| 246 | Textile technology and manufacture |
| 247 | Carpet and upholstery fabric manufacture |
| 248 | Cotton manufacture |
| 249 | Silk manufacture |
| 250 | Synthetic texttile manufacture |
| 251 | Textile merchanting (where course has technological content) |
| 252 | Textile printing |
| 253 | Textiles, general |
| 254 | Woollen and worsted manufacture and weaving |
| 255 | Other textile manufacture |
| 256 | General and other technology and manufacture (see also 282 and 283) |
| 257 | Acoustics |
| 258 | Brickmaking |
| 259 | Ceramics technology and manufacture |
| 260 | Cybernetics (industrial) |
| 261 | Furniture and upholstery manufacture |
| 262 | Leather technology |
| 263 | Leather and leather goods manufacture, dyeing and finishing) |
| 264 | Kiln burning |
| 265 | Gemmology |
| 266 | Goldsmiths and silversmiths work (excluding design) |
| 267 | Instrument technology |
| 268 | Jewellery manufacture |
| 269 | Musical instrument manufacture |
| 270 | Paint technology |
| 271 | Pottery manufacture |
| _ , _ | |

272 Paper science 273 Paper technology 274 Plastics technology 275 Polishing and Sanding 276 Rubber workshop practice 277 Rubber technology 278 Synthetic fibre manufacture 279 Timber technology 280 Tobacco processing 281 Woodcutting machinists work 282 Other manufacturing 283 Other technology 284 Technology combinations 285 Combinations of engineering and/or technology with other groups AGRICULTURE, FORESTRY AND VETERINARY SCIENCE 300 Agricultural chemistry 301 Agriculture (see also 314-379) 302 Agricultural economics Animal husbandry 303 304 Beekeeping 305 Dairying 306 Farm records and accounts 307 Farm organisation and management 308 Gardening 309 Greenkeeping 310 Horticulture 311 **Poultry** 312 Rural saddlery 313 Fish farming 314 Agricultural biology Agricultural biochemistry 315 316 Agricultural botany

Forestry

317

318319

320

321

322

323

Agricultural science

Agricultural zoology

Animal genetics

Plant toxonomy

Soil chemistry Soil science

324 Arboriculture 325 Sylviculture 326 Forestry management Timber felling and sawmilling 327 328 Timber merchanting 329 Tree nursery work 330 Veterinary sciences 331 Animal nursing 332 Animal technicians 333 Agricultural combinations 334 Agricultural and other group combinations 350 Biological sciences 351 Applied biology 352 Applied micro biology 353 Biology 354 Bacteriology Biological chemistry 355 356 Botany 357 Genetics 358 Microbiology 359 Microscopy Physiology and anatomy 360 361 Pathology 362 Zoology 363 **Biochemistry** 364 Applied biochemistry Medical biochemistry 365 366 Physiological chemistry 367 Chemistry 368 Analytical chemistry Applied chemistry 369 370 Cosmetic chemistry 371 Spectroscopy 372 Chemistry as applied to textile industry 373 Dyeing of textiles Polymer chemistry 374 375 Colour chemistry

Technical chemistry

376

| 377 | Geology |
|-----|--|
| 378 | Geophysics |
| 379 | Mineralogy |
| 380 | <u>Mathematics</u> |
| 381 | Applied mathematics |
| 382 | Arithmetic |
| 383 | Computer studies (mathematical bias) |
| 384 | Decimalisation |
| 385 | Numerical analysis |
| 386 | Elasticity |
| 387 | Hydrodynamics |
| 388 | Probability theory |
| 389 | Statistics |
| 390 | Theoretical astronomy |
| 391 | Technological mathematics |
| 392 | Systems international units |
| 393 | Computer science |
| 394 | <u>Physics</u> |
| 395 | Applied physics |
| 396 | Applied astronomy |
| 397 | Mathematical physics |
| 398 | Nuclear physics |
| 399 | Astrophysics |
| 400 | Radio astronomy |
| 401 | Radiation protection |
| 402 | Environmental sciences |
| 403 | Oceanography |
| 404 | Meterology |
| 405 | General science |
| 406 | Science laboratory technician |
| 407 | Mathematics/physics |
| 408 | Mathematics/other sciences |
| 409 | Combinations of physical sciences other than maths/physics |
| 410 | Cmbinations of biological sciences |
| 411 | Combinations of sciences with other subjects |

SOCIAL, ADMINISTRATIVE AND BUSINESS SUBJECTS

| 420 | <u>Economics</u> |
|-----|--|
| 421 | Economic sciences and statistics |
| 422 | Economic history |
| 423 | Economic organisation |
| 424 | Industrial economics |
| | |
| 425 | Geography |
| 426 | Law |
| 427 | Legal executives |
| 428 | Social Sciences |
| 429 | Sociology |
| 430 | Humanities and social studies |
| 431 | Industrial relations |
| 432 | Social administration |
| 433 | Social Work |
| 434 | Careers guidance |
| 435 | Youth and community service/Youth work |
| 436 | Youth employment and vocational guidance |
| 437 | Psychology |
| 438 | Social anthropology |
| 439 | Other economics, law or social sciences |
| 440 | Combinations of economics, law and social sciences |
| 441 | Accountancy, banking and insurance |
| 442 | Accountancy |
| 443 | Book-keeping |
| 444 | Law accounting |
| 445 | Cost and works accouting |
| 446 | Actuarial studies |
| 447 | Banking and currency |
| 448 | Insurance |
| 449 | Municipal treasurers and accountants |
| 450 | Stock exchange practice |
| 451 | Taxation |
| 452 | Government and public administration |
| 453 | Civil defence |
| 454 | Central government |
| 455 | Fire service |

456 Hospital/health administration 457 International relations 458 Local government 459 Police 460 Political science 461 Management and management science 462 Administration, general Busness administration 463 464 Company secretary practice 465 Computer systems analysis 466 Cybernetics (management) Industrial administration 467 Industrial foremanship 468 469 Industrial organisation 470 Industrial training 471 Information science 472 Organisation and methods 473 Management, construction 474 Management, estate 475 Management, housing 476 Management, office 477 Management, personnel 478 Management, production 479 Management, works 480 Management, sales 481 Marketing and sales management 482 Operational research Quality control 483 484 Time and motion study 485 Work Study Other administrative and management studies 486 488 Supervisory studies 489 Secretarial/clerical studies 490 Agricultural secretaires 491 Clerical 492 Personal Assistant 493 Shorthand/typing 494 **Typing** 495 Medical secretaries 514 Other social administrativee and business subjects 496

Advertising

497 **Business studies** Commerce (including combined commerce and secretarial) 498 499 Business machine operation 500 Commercial travelling 517 Computing 501 Computer languages 502 Computer operation 503 Computer programing (general and commercial bias) 504 Data processing 505 Estate agency 506 Export practice 507 Office studies 508 **Purchasing** 509 Salesmanship Sales representatives 510 Shipbroking 511 512 Switchboard operation 513 Travel/travel agency 514 Other social administrativee and business subjects 515 Combinations of social, adminsitrative, business 516 Combinations with other groups MISCELLANEOUS PROFESSIONAL AND VOCATIONAL SUBJECTS 519 <u>Architecture</u> 520 Landscape architecture 521 Land use 522 Town and country planning 523 Conservation (of buildings) 524 Rural and regional resources planning 525 Catering and institutional management 526 Catering, basic trades 527 Cookery for hotel catering trades Hotel and catering 528 529 Hotel book-keeping and reception 530 Institutional management and housekeeping 531 Licenced house staff Preliminary trade cookery 532 533 Waiters and hotel assistants 534 Institutial catering and housekeeping 535 Home economics

536

Domestic science/dress and design

537 Domestic science/food and nutrition 538 Domestic studies 539 Cookery Dressmaking (domestic) 540 541 Home management Houseworking 542 543 Millinery (domestic) 544 Needlework and embroidery (domestic) 545 Tailoring (domestic) 546 Upholstery and soft furnishings 547 Weaving 548 Nautical studies 549 Fishing Nautical catering 550 551 Nautical science 552 Radio-telegraphy (nautical) 553 Seamanship and navigation 554 **Transport** 555 Air transport Rail transport 556 Road transport 557 558 Shipping 559 Wholesale and retail trades 560 Retailing 561 Flower display and arrangement/Florist General and undefined distribution 562 563 Grocery Paper merchanting 564 Retail distribution 565 Retail management and storekeeping 566 567 Stationery Textile distribution 568 569 Other professional and vocational subjects 570 Hairdressing/cosmetics/beauty Laundry and dry cleaning work 571 572 Journalism Librarianship 573 574 Trichology 575 Photography

576 General and liberal studies

- 578 Civics
- 579 Current affairs
- Modern studies
- Miscellaneous professional and vocational n.e.c.
- 582 Combination of professional and vocational
- 583 Combination with other groups

LANGUAGES

- English language and literature
- English for foreign students
- 602 Gaelic and other Celtic languages
- 603 French
- 604 German
- 605 French/German
- 606 Spanish
- 607 Danish
- 608 Dutch
- 609 Italian
- 610 Norwegian
- 611 Portugese
- 612 Swedish
- Other single West European languages
- 614 Russian

Other Central and Eastern European languages

- 616 Classical studies
- Oriental, Asian and African languages
- 618 Other languages
- Modern languages
- 620 Combined language courses (see also 625)
- 621 Languages with other groups

ARTS OTHER THAN LANGUAGES

- 650 Archaeology
- 651 History
- 652 Philosophy
- Moral sciences
- 654 Logic
- 655 Theology
- Arts general (where not elsewhere specified)
- 657 Combinations of arts with other groups

MUSIC, DRAMA AND VISUAL ARTS

| 669 | Art and design |
|-----|--|
| 670 | Art |
| 671 | Design |
| 672 | Art metalwork and jewellery design |
| 673 | Antiques |
| 674 | Ceramics (design) |
| 675 | Fashion design |
| 676 | Furniture design |
| 677 | Graphic design (including commercial art and illustration) |
| 678 | Handicrafts |
| 679 | History of art |
| 680 | Industrial design |
| 681 | Industrial glass design |
| 682 | Interior design |
| 683 | Lettering |
| 684 | Painting |
| 685 | Sculpture |
| 686 | Stained glass |
| 687 | Textile design |
| 688 | Window dressing and display |
| 689 | Woodcarving |
| 699 | Drama and entertainment and music |
| 700 | Drama |
| 701 | Speech |
| 702 | Cinema and film studies |
| 703 | Music |
| 704 | Music, drama, visual arts n.e.c. |
| 705 | Music, drama, visual arts combinations |
| | |

OTHER CODES

| 706 | Subject | given | but can' | t be | classified | anvw | here e | else |
|-----|---------|-----------|----------|------|------------|----------|--------|------|
| 700 | Subject | 51 V C11, | out cuii | t UC | ciassifica | uii y vv | 11010 | 2130 |

No subject given, or illegible 707

708 More than one CSE and/or 'O' level being studied

CODES ADDED FOR NCDS5

709 Subject listed as "unacceptable" in GHS

710 Alternative medicine, including:

hypnotherapy art therapy aromatherapy

massage

reflexology

homeopathy

drama therapy

711 **Driving qualification**, including:

HGV

Fork-lift Truck licence

PSV

Driving instructor

motorcycle licence

side load driver

mercury training

713 Leisure, including:

RS 1 rally sports

Physical training

Basketball referee

Certificate of movement and dance

British canoe union instructors award

County swimming teaching certificate

day skipper certificate

British amateur gym association

Mountain Walker leader

County rock climbing foundation

Fellowship in dancing

YMCA aerobics teacher training course

Cricket Coaching

Qualified weight training instructors course

British Sport therapist

Senior instructor on Kayak

Rugby league coach

swimming coach

yacht master British Wheel of Yoga Other sports

715 <u>First Aid</u>, including:

Life saving Off-shore survival St Johns Certificate Red Cross

716 Social and Caring qualifications, including: Sign language

717 <u>Security</u>, including:

alarm fitting security guards use of pistols and fire arms

718 <u>In-house training</u>, including:

assertiveness training public speaking report writing skills, evaluation and assessing staff. problem solving negotiation skills presentation skills

900 Not applicable

Note:

- Many couses were recorded as just 'engineering'; these were coded as 'General and other engineering' (147).
- Similarly, if a subject was given as just 'management' it was coded as 'Other management' (486).
- 'Leisure' (713) includes sports which people did at evening classes.
- Word processing courses were coded as 'Clerical' (491).

Appendix 2: Summary of the contents of the NCDS5 "Subjects" dataset

```
Portable file: subject.t2.exp
Variables: 26
Number of cases: 8,367
Input file size: 6,821 records (545,680 bytes)
Defined Variables
SERIAL
                  OB13A2
                                   QB21C03 QB21C06 QB21C09 QB21C12 QB21C15 QB22A34
                                  QB21C04 QB21C07 QB21C10 QB21C13 QB21C16 QB22A35 QB21C05 QB21C08 QB21C11 QB21C14 QB22A17 QB22A36
QB05A1
                QB13A3
OB05A2
                 OB21C01
QB13A1
                  QB21C02
Name
                 Position Label
SERIAL
                             1 Serial number
QB05A1
                              2 Subject - Highest qual course since 3/81
3 Subject - 2nd highest qual course since 3/81
OB05A2
                   Subject - Most recent training course since 3/81

Subject - 2nd most recent training course since 3/81

Subject - 3rd most recent training course since 3/81

Subject - Leisure course since 3/81 #1

Subject - Leisure course since 3/81 #2

Subject - Leisure course since 3/81 #3

Subject - Leisure course since 3/81 #4

Subject - Leisure course since 3/81 #4

Subject - Leisure course since 3/81 #6

Subject - Leisure course since 3/81 #7

4 Subject - Leisure course since 3/81 #7

Subject - Leisure course since 3/81 #8

Subject - Leisure course since 3/81 #8

Subject - Leisure course since 3/81 #9

Subject - Leisure course since 3/81 #10

Subject - Leisure course since 3/81 #11

Subject - Leisure course since 3/81 #12

Subject - Leisure course since 3/81 #12

Subject - Leisure course since 3/81 #13

Subject - Leisure course since 3/81 #14

Subject - Leisure course since 3/81 #15

Subject - Leisure course since 3/81 #16

Subject - Leisure course since 3/81 #16

Subject - Leisure course since 3/81 #16

Subject - Other City & Guild qual held

Subject - Other qual held #1
                            4 Subject - Most recent training course since 3/81
OB13A1
QB13A2
QB13A3
OB21C01
QB21C02
OB21C03
QB21C04
QB21C05
QB21C06
QB21C07
QB21C08
QB21C09
QB21C10
QB21C11
QB21C12
QB21C13
QB21C14
QB21C15
QB21C16
                         23 Subject - Other City & Guild qual held
24 Subject - Other qual held #1
QB22A17
OB22A34
                          25 Subject - Other qual held #2
QB22A35
QB22A36
                           26 Subject - Other qual held #3
Data dictionary
Name
SERIAL
                   Serial number
                   Print Format: A7
                   Write Format: A7
QB05A1
                   Subject - Highest qual course since 3/81
                                                                                                                                                       - QB22A36
  Subject - Other qual held #3
                   Print Format: F3
                   Write Format: F3
                   Value
                                   Label
                                    Education
                           2
                                    Teaching methods
                           3
                                   Prog learning
                           4
                                    Audio-vis aids
                                    Other education
                           5
                                    Ed combinations
                           6
                                    Ed & other group
                         10
                                    Pharmacy
                                    Pharacology
                         11
```

- 12 Medicine
- Dentistry 13
- Air Pollution 14
- 15 Cardiography
- 16 Chiropody
- Cleaning Science 17
- 18 Dental nurse
- Dental tech 19
- 20 dietetics
- 21 dispensg asst
- 22 dispense optic
- 23 dispense tech
- 24 Food inspection
- 25 Health visitors
- Manicure/Pedicur 26
- 27 Meat inspection
- 28 Medical cert 29
- Medic lab tech 30 Nursing (med)
- 31
- Nursery nursing
- 32 Nutrition
- 33 Opthalmic optic
- 34 Physiological
- Physiotherapy 35
- 36 Pre-nursing
- 37 Public-Health
- 38 Sanitary insp
- 39 Radiography
- 40 Smoke control
- 41 Speech therapy
- 42 Surgical lab
- 43 Other health 44 Health & Safety
- 45 Health combi
- 46 Health/oth group
- 47 Occupat therapy
- 50 Aeronautical eng
- Aeronautics 51
- 52 Aerodynamics
- 53 Aerostructure
- 54 Aero eng/space
- 55 Aircraft elec
- 56 Air elec devices
- 57 Astronautics
- 58 Flight Control 59
- Guided Missiles
- Agriculture eng 60
- 61 Farm machinery 62 Horticultur mach
- 64 Automobile eng
- 65 Motor bodywork
- 66 MV electrician
- 67 MV engineering
- 68 MV mechanics
- MV technicians 69
- 70 MV painting
- 71 MV repair
- 72 Panel beating 73 V body build
- 74 chem eng & tech
- 75 chem plant ops
- 76 Chem technicians
- 77 Chem technology
- 78 Gas eng
- 79 Process plant
- 80 Civil eng
- 81 Civil eng(gas)
- 82 Municipal eng
- 83 Traffic eng

- 84 Land economics
- 85 Electrical eng
- Cable jointing 86
- 87 Elec fitting 88 Elec install
- 89 Electronics
- Electronic eng 90
- 91 Elec servicing
- Illum eng 92
- 93 Radar
- Radio & TV 94
- Rad, TV (amateur) Rad, TV servicing 95
- 96
- 97 Telecommunicat 98
- Marine eng 99 Mech eng
- 100 Steelwork
- 101 Hydraulics
- 102 Mech eng craft
- 103 Mech eng tech
- 104 Mech eng insp
- Rail carr build 105
- 106 Refrigeration en
- 107 Workshop tech
- 108 Naval arch
- 109 Ship building 110 Ship joinery
- Ship plumbing 111
- yacht/boat build 112
- 113 Prod eng
- 114 Prec eng
- 115 Ergonomics
- 116 Materials hand
- 117 Audio vis tec
- 118 General eng
- Combined eng 119
- 120 Control eng
- 121 Blacksmith
- 122 Boiler house
- 123 Boilermaking 124 Corrosion eng
- 125 Eng drawing
- Eng planning 126
- Eng science 127
- 128 Fire eng
- 129 Heating eng
- Industrial eng 130 131
- Indust radio 132 Mill eng/service
- 133 Instrument eng
- 134 Metal finishing
- Metal plate work 135
- 136 Metrology
- 137 Misc eng
- 138 Nuclear eng
- 139 Pipework eng
- 140 Pres tool making 141 Pressure vesse
- 142 Scientific instr
- 143 Sheet metal work 144 Textile eng
- 145
- Watch/Clock manu
- 146 Welding
- 147 Gen other eng
- 148 eng combi
- 149 Eng & tech combi
- 150 eng/other group
- 160 building
- 161 bricklaying

- 162 build economics 163 build foremnship
- build inspection 164
- 165 build technology
- 166 build quantity
- 167 carp and joinery
- clerks of works 168
- concrete pract 169
- 170 concrete tech
- 171 construction 172 furnace brickwrk
- 173 gas fitters work
- 174 glazing
- 175 heating/vents
- highways/works 176
- 177 indust safety
- 178 masonry
- mastic asphalt 179
- 180 paint/decorating
- 181 plasterers work 182 plumb/sanitary
- roadwork 183
- 184 road tiling
- 185 shopfitting
- 186 structural eng
- 187 wall/floor tilin
- Cloth/footwear 188
- 189 Shoe manu/repair
- 190 Dress manufactue
- 191 embroid/lace man
- Hoisery/knitted 192
- 193 Millinery
- 194 Tailoring
- Food tech & manu 196
- 197 Bakery & floor
- 198 Brewing
- 199 Chocolate/sugar 200 Flour milling
- 201 Milk past/dist
- 202 Fuel/petroluem
- 203 Coal processing
- 204 Gas manufacture
- 205 petroluem prods 206 metal technology
- 207 metallurgy
- 208 Foundry tech
- Foundry practice Iron/Steel manu 209
- 210
- metallurgical 211
- nonferrous metal 212 213 patternmaking
- 214 Mining/quarrying
- 215 Colliery elect
- Colliery mech Mineral eng 216
- 217
- 218 Mining eng
- Mining managers Mining geology 219 220
- 221 Offshore eng 222 Print/Book prod
- 223 Printing
- Book production 224
- 225 Book binding
- 226 stereotyping
- 227 Line composition
- 228 lithographic 229
- Monotype caster 230 Monotype comps
- 231 Photo engraving

- 232 Photogravure
- Photo-lithograph 233
- 234 Print admin
- 235 Print ink tech
- 236 Printing tech
- 237 printing whouse
- Pub edit bind 238
- 239 Tech authorship
- 240 Typograph design
- 241 Typography
- 242 Survey/valuation
- 243 Mine surveying
- 244 Quant surveying
- 245 Cartography
- 246 Textile tech/man
- 247 Carpet/Upholster
- 248 Cotton manufact
- 249 silk manufact 250 Synthetic texts
- 251 Textile merchant
- 252 Textile printing
- 253 Textiles, general
- 254 Woolen
- 255 other textile
- 256 General tech
- 257 Acoustics
- 258 Brickmaking
- 259 Ceramics tech
- 260 Cybernetics, Ind
- 261 Furniture manu
- 262 Leather tech
- 263 Leather goods
- Kiln burning 264
- 265 Gemmology
- 266 Gold/silve smith
- Instrument tech 267
- 268 Jewellery manu
- 269 Music inst man
- 270 Paint technology
- 271 Pottery manufact 272
- Paper science
- 273 Paper technology 274 Plastics tech
- 275
- Polish/sanding 276 Rubber workshop
- 277 Rubber tech
- 278 synthetic fibre
- 279 timber tech
- 280 Tobacco process
- 281 Woodcutting
- 282 Other manufact
- Other technology 283
- 284 Technology combi Combi eng/tech
- 285 Agri chemistry 300
- 301
- Agriculture Agri economics 302
- 303 Animal husbandry
- 304 Beekeeping
- 305 Dairying
- 306 Farm records
- 307 Farm management
- 308 gardening 309 Greenkeeping
- 310 Horticulture
- 311 Poultry
- 312 Rural saddlery
- 313 Fish Farming
- Agri biology 314

- 315 Agri biochemist
- 316 Agri botany
- 317 Agri science
- 318 Agri zoology
- Animal genetics 319
- Plant toxonomy 320
- 321 Soil chemistry 322 Soil science
- 323 Forestry
- Arboriculture 324
- 325 Sylviculture
- 326 Forestry mment
- Timber felling 327
- 328 Timber merchant
- 329 Tree nursery wrk 330 Vet sciences
- 331 Animal nursing
- 332 Animal tecnici
- 333 Agri combi
- 334 Agri & other
- 350 Bio sciences
- 351 Applied biology
- 352 App micro bio
- Biology 353
- 354 Bacteriology
- 355 Biological chem
- 356 botany
- 357 Genetics
- 358 Microbiology
- 359 Microscopy
- 360 Physiology
- 361 Pathology
- 362 Zoology
- 363 Biochemistry
- 364 Applied bc
- 365 Medical bc
- 366 Physiological
- 367 Chemistry
- 368 Analytical
- 369 Applied chem
- 370 Cosmetic chem
- 371 Spectroscopy
- 372 Textile chem 373 Textile dyeing
- 374 Polymer chem
- 375 Colour chem
- 376 Tech chem
- 377 Geology
- 378 Geophysics
- 379 Mineralogy
- 380 Mathematics
- 381 App Mathematics
- 382 Arithmetic
- 383 Computer studies
- 384 Decimalisation 385
- Numeric analysis
- 386 Elasticity
- 387 Hydrodynamics
- 388 Probability the
- 389 Statistics
- 390 Theoretic astro
- 391 Technology maths
- 392 Systems intern
- 393 Computer science
- 394 Physics
- 395 Applied physics
- 396 Applied astronom
- 397 Mathemat physics
- 398 Nuclear physics

- 399 Astrophysics
- 400 Radio astronomy
- 401 Radiation prote
- 402 Environ sciences
- 403 Oceanography
- 404 Meterology
- 405 General science
- 406 Science lab tech
- 407 maths/physics
- 408 Maths, other sc
- 409 combi phys sc
- 410 combi sciences
- 411 sci+oth group 420 Economics
- 421 Econ/statistics
- 422 Economic history
- 423 Economic organ
- 424 Indust economics
- 425 geography
- 426 Law
- 427 legal executives
- 428 Social Sciences
- 429 Sociology
- 430 Humanit/social
- 431 Indust relations
- 432 Social admin
- Social Work 433
- 434 Careers guidance
- 435 Youth/community
- 436 Youth employment
- Psychology 437
- 438 Social anthropo
- 439 Other ec, law
- com of e, law 440
- 441 Account, bank & law
- Accountancy 442
- 443 Book-keeping
- 444 Law accounting 445
- Costs accouting 446 Actuarial stud
- 447 Banking/currency
- 448 Insurance
- 449 Municipal treas
- 450 Stock exchange
- 451 Taxation
- 452 Govt & pub admin
- 453 Civil defence
- 454 Central govt
- 455 Fire service
- 456 Hospital admin
- 457 Inter relat Local govt 458
- 459 Police
- 460 Political sci
- 461 Management/sci
- 462 Admin general
- 463
- busness admin Company secretar 464
- 465 Computer analy
- 466 Cybernetics (MM) 467
- Industrial admin 468 Indust foremansp
- 469 Industrial organ
- 470 Indust training
- 471 information sci
- 472 organisation 473 MM, construction
- 474 MM, estate
- 475 MM, housing

```
476 MM, office
```

- 477 MM, personnel
- 478 MM, production
- 479 MM, works
- 480 MM, sales
- 481 marketing/sales
- 482 Ops research
- 483 Quality control
- 484 Time/motion 485 Work Study
- 485 Work Study 486 other MM stud
- 486 other MM studies 488 Supervisory stud
- 489 Secretarial stud
- 490 Agri secretaires
- 491 Clerical
- 492 Personal Assist
- 493 Shorthand typist
- 494 Typing
- 495 Med secretaries
- 496 Advertising
- 497 Business stud
- 498 Commerce
- 499 Business Machine
- 500 Commercial trav
- 501 Computer lang
- 502 Computer operat
- 503 Computer prog
- 504 Data processing
- 505 Estate agency
- 506 Export practice
- 507 Office studies
- 508 Purchasing
- 509 Salesmanship
- 510 Sales reps
- 511 Shipbroking
- 512 Switchboard
- 513 Travel agency
- 514 Oth social admin
- 515 Combi social
- 516 Combi social+oth
- 517 Computing
- 519 Architecture
- 520 Landscape arch
- 521 Land use
- 522 Town/Country523 Conservation
- 524 resours planning
- 525 Catering mment
- 526 Catering
- 527 Cookery hotel
- 528 Hotel/catering
- 529 Hotel bookkeep
- 530 Institutional mm
- 531 Licenced house 532 Preliminary cook
- 533 Waiters/hotel
- 534 Institutial cat
- 535 Home economics
- 536 DS.Dress/design
- 537 DS.Food/nutritio
- 538 Domestic studies
- 539 Cookery
- 540 Dressmaking
- 541 Home management
- 542 Houseworking
- 543 Millinery, dom
- 544 Needlework
- 545 Tailoring, domest
- 546 Soft furnishings

- 547 Weaving
- 548 Nautical studies
- 549 Fishing
- 550 Nautical caterin
- 551 Nautical science
- 552 Radio-telegraphy
- 553 Seamanship
- 554 Transport
- Air transport Rail transport 555 556
- 557 Road transport
- 558 Shipping
- Wholesale/retail 559
- 560 Retailing
- 561 Flower display
- 562 General dist
- 563 Grocery
- Paper merchant 564
- 565 Retail dist
- 566 Retail MM
- 567 Stationery
- 568 Textile dist 569 Other proff/voc
- 570 Hairdressing
- 571 Laundry
- 572 Journalism
- 573 Libraianship
- 574 Trichology
- 575 Photography
- 576 Liberal studies
- 578 Civics
- Current affairs 579
- 580 Modern studies
- mis proff/voc 581
- 582 combi of 569
- combi 569/oth 583
- 600 English lang/lit
- 601 English foreign
- 602 Gaelic/Celtic
- 603 French
- 604 German
- 605 French/German
- 606 Spanish
- 607 Danish
- 608 Dutch 609 Italian
- 610 Norwegian
- 611 Portugese
- 612 Swedish
- 613 Other West Euro
- 614 Russian
- Other Euro lang 615
- 616 Classical stud
- 617 Orient, Asian, Af
- Other languages 618
- 619 Modern lang
- combi lang cours combi lang/grou 620
- 621 650 Archaeology
- 651 History
- 652 Philosophy
- 653 Moral sciences
- 654 Logic
- 655 Theology
- 656 Arts general
- 657 Combi arts/other
- 669 Art & Design
- 670 Art
- 671 Design

- 672 Jewel design
- 673 Antiques
- 674 Ceramics
- 675 Fashion design
- 676 Furn design
- 677 Graphic design
- 678 Handicrafts
- 679
- 680
- History of art Indust design indust glass des 681
- 682 interior design 683 lettering
- Painting 684
- 685 Sculpture
- Stained glass 686
- Textile design 687
- Window dressing 688
- 689 Woodcarving 699 Drama/entertain
- 700 drama
- 701 Speech
- 702 Cinema & film
- 703 music
- music,dram nec 704
- 705 music, drama co
- Subject given no sub given 706
- 707
- 708 More than 1 cse
- GHS unacceptable 709
- 710 Alternative med
- 711 Driving qualif
- 713 Leisure
- 715
- First Aid Sign language 716
- 717 Security
- 718 in-house train

Appendix 3: Comments on Coding

The following comments on the coding have been supplied by the University of Manchester:

"COMMENTS ON CODING OF SUBJECTS FOR NCDS5 (AD:8/94)

The coding of subjects followed in general the NCDS subject code frame, however, if there was a need for some new categories of qualifications to be created for those subjects which did not appear to fit in the coding frame; these new classifications are given below:

In the listing files, serial numbers 513081Q, 630022B, 987084U 090011Q were listed twice in the files, however, in each case the subject given was the same.

ADDITIONAL CLASSIFICATIONS

GHS Unacceptable code 709

Subjects were coded as 709, if they were listed as unacceptable in the General Household Survey.

Alternative Medicine code 710

This included the following qualifications; hypnotherapy, art therapy, aromatherapy, massage, reflexology, homeopathy, drama therapy.

Building/Construction/Driving code 711

HGV, Fork-lift Truck licence, PSV, Driving instructor, motor cycle licence, side load driver, mercury training.

Leisure code 713

RS 1 rally sports1 Physical training Basketball referee Certificate of movement and dance British canoe union instructors award County swimming teaching certificate day skipper certificate British amateur gym association Mountain Walker leader County rock climbing foundation Fellowship in dancing YMCA aerobics teacher training course Cricket Coaching Qualified weight training instructors course British Sport therapist Senior instructor on Kayak Rugby league coach swimming coach yacht master British Wheel of Yoga Other sports

FIRST AID CODE 715

Life saving Off-shore survival St Johns Certificate Red Cross

Social and Caring qualifications code 716 Sign language

Security code 717

alarm fitting, security guards, use of pistols and fire arms.

In-house qualifications code 718

assertiveness training, public speaking, report writing skills, evaluation and assessing staff. problem solving negotiation skills presentation skills

Not applicable code 900

Cases where the subject was given as na, were coded as 900, to make it possible to differentiate between no subject given (707), GHS unacceptable (709) and na (900).

GENERAL NOTES ON THE CODING OF SUBJECTS

Many cases were labelled just 'engineering'; these were coded as general or other engineering. Similarly, if a subject was given as just 'management' it was coded 'other management' 486,

For the evening class subjects, 713 includes sports which people did at night classes.

Word processing courses were coded as clerical (491).

PROBLEM CASES

Question 5

The following serial numbers were found in the listing files qb05a1.txt and qb05a2.txt but were not in the serial numbers which were used for checking the data to make sure that it matched correctly. These have been coded but do not map into the NCDS5 database that we are using. These are:

| QB05A1.TXT | QB05A2.TX1 |
|------------|------------|
| 092345H | 092345H |
| 092480P | 092480P |
| 482004C | 986117B |
| 986117B | 987084U |
| X80179J | X80179J |
| X90016K | |

Ouestion 13

The following serial numbers were in the listing files but again not in our NCDS5 database.

290030K 482004C 825060W 937006Q X46046U X80179J X90016K Y00502U Y00503W

Question 21

092480P 290030K 482004C 630022B 950157N 986117B X90016K Y00403S

The check to make sure that if a respondent had given a second qualification, they had a first qualification gave the following serial numbers as having a second and not a first:

010130W, 110191A.

There are duplicate entries for the files for q5,q13 and q22. $630022B \ AND \ 987084U."$

Centre for Longitudinal Studies
Bedford Group for Lifecourse and
Statistical Studies
Institute of Education
20 Bedford Way

London WC1H 0AL Tel: 020 7612 6900 Fax: 020 7612 6880

Email cls@cls.ioe.ac.uk

Web http://www.cls.ioe.ac.uk