

1. *Name of database*

EDU1: Formal education of the Danish workforce

2. *Owner of data in database*

The IKE-group, Aalborg University

3. *DRUID contact*

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4. *Brief verbal description of database*

The database consists of matrices distributing the Danish workforce according to industry of employment and education.

The data on education are compiled by combining the statistical education register, the civil register (CPR) and the population and housing count of 1970. The statistical education register covers all individuals. Once a year all schools, universities and other centres of education report new students, graduates, and students who are transferred to other institutions etc. The information on education is linked with the individuals business of employment through RAS (the register of employment statistics). RAS draws on a number of administrative and statistical registers (tax, unemployment, working place etc.).

5. *Population*

All employed persons in the workforce above the age of 20.

6. *Number of cases in database per time unit*

N.A.

7. *Total number of cases in database*

N.A.

8. *Number of variables in database*

N.A.

9. *Spatial coverage*

Denmark

10. *Temporal coverage*

Annual data 1980-1992.

11. *Sectoral coverage*

All economic activities

12. *Size coverage*

Employees above the age of 20.

13. *Accessible on the Internet?*

No.

14. *Update planned?*

No.

15. *References to publications where the database has been used*

Drejer, I. (1996), *The Knowledge Structure of the Danish Economy - Does Formal Education Matter in Production?*, paper prepared for the DRUID winter conference, Snekkersten, 8-10 January 1997.

Drejer, I. (1998), *Technological Interdependence in the Danish Economy - A Comparison of Methods for Identifying Knowledge Flows*, paper presented at the Twelfth International Conference on Input-Output Techniques, New York, 18-22 May 1998.

16. Source of further information

(Only available in Danish)

Danmarks Statistik, *Statistiske Efterretninger, Uddannelse og kultur 1995:7*, 19. juli 1995.

Danmarks Statistik, *Statistiske Efterretninger, Uddannelse og kultur 1995:12*, 1. september 1995.

17. List of attachments

Classification of educations (in English and Danish)

Classification of industries (in English and Danish)

SAS-IML programme for reading the data

Classification of educations

(Below the education groups are listed. The translation may not be very informative - some notes to clarify: *basic education*, *apprentice* and *basic exam* are equal in focus (skilled labour) and it is only due to technical reasons, that they are not added to one category. *Advanced studies (medium)* equals BA level, while *advanced studies (long)* equals MA level).

0000 Unknown
0005 Nursery class
1005 Primary school 1st year
1010 Primary school 2nd year
1015 Primary school 3rd year
1020 Primary school 4th year
1025 Primary school 5th year
1030 Primary school 6th year
1035 Primary school 7th year
1040 Primary school 8th year
1045 Primary school 9th year
1050 Primary school 10th/11th year
1055 Continuation school 8th.-10. Year
2010 Grammar school 2nd year ("Gymnasium")
2015 Grammar school 3rd year ("Gymnasium")
2025 Higher preparatory exam 2nd year (equals 3rd year of Grammar school)
2029 Admission courses, engineering school
2035 2nd year, Grammar school (supplementary courses)
2050 3rd year, Grammar school (supplementary courses)
4105 Basic education, trade and office
4110 Basic education, metal industry
4115 Basic education, chemo-technical
4120 Basic education, construction
4125 Basic education, graphical industry
4130 Basic education, services
4135 Basic education, foodstuffs and housekeeping
4140 Basic education, farming and fishing
4142 Basic education, transportation and communication
4205 apprentice, trade and office
4210 apprentice, metal industry
4220 apprentice, construction
4225 apprentice, graphical industry
4230 apprentice, services
4235 apprentice, foodstuffs and housekeeping
4240 apprentice, farming and fishing
4245 apprentice, health/medical
4305 Basic exam, trade and office
4310 Basic exam, metal industry
4315 Basic exam, chemo-technical
4320 Basic exam, construction
4325 Basic exam, graphical industry
4330 Basic exam, services
4335 Basic exam, foodstuffs and housekeeping
4340 Basic exam, farming and fishing
4350 Basic exam, transportation and communications
4355 Basic exam, health/medical
5005 advanced studies (short), pedagogical
5010 advanced studies (short), humanistics and theology

5015 advanced studies (short), music and esthetics
 5020 advanced studies (short), social sciences
 5025 advanced studies (short), engineering
 5030 advanced studies (short), foodstuffs and housekeeping
 5035 advanced studies (short), farming and fishing
 5040 advanced studies (short), transportation and communication
 5045 advanced studies (short), health/medical
 5050 advanced studies (short), public security
 6005 advanced studies (medium), pedagogical
 6010 advanced studies (medium), humanistics and theology
 6015 advanced studies (medium), music and esthetics
 6020 advanced studies (medium), social sciences
 6022 advanced studies (medium), natural sciences
 6025 advanced studies (medium), engineering
 6030 advanced studies (medium), foodstuffs and housekeeping
 6035 advanced studies (medium), farming and fishing
 6040 advanced studies (medium), transportation and communication
 6045 advanced studies (medium), health/medical
 6050 advanced studies (medium), public security
 7005 advanced studies (long), pedagogical
 7010 advanced studies (long), humanistics and theology
 7015 advanced studies (long), music and esthetics
 7020 advanced studies (long), social sciences
 7022 advanced studies (long), natural sciences
 7025 advanced studies (long), engineering
 7030 advanced studies (long), foodstuffs and housekeeping
 7035 advanced studies (long), farming and fishing
 7045 advanced studies (long), health/medical
 7050 advanced studies (long), public security
 9030 non-vocationally oriented training
 9999 unknown

**Danish translation:
 Uddannelseskategorier**

0000 børnehave (uoplyst)
 0005 Børnehaveklasse
 1005 folkeskolens 1. årg.
 1010 folkeskolens 2. Årg.
 1015 folkeskolens 3. Årg.
 1020 folkeskolens 4. årg.
 1025 folkeskolens 5. årg.
 1030 folkeskolens 6 årg.
 1035 folkeskolens 7. årg.
 1040 folkeskolens 8. årg.
 1045 folkeskolens 9. årg.
 1050 folkeskolens 10./11. Årg.
 1055 efterskolekursus, 8.-10. årg.
 2010 2. gymnasieklasse
 2015 3. gymnasieklasse
 2025 2. HF
 2029 adgangskursus til teknika
 2035 2. år, 2-årigt studenterkursus
 2050 3. år, 2-årigt studenterkursus
 4105 efg, handel- og kontor

4110 efg, jern- og metal
 4115 efg, kemo-teknisk
 4120 efg, bygge- og anlæg
 4125 efg, grafisk
 4130 efg, service
 4135 efg, levnedsmiddel og husholdning
 4140 efg, jordbrug og fiskeri
 4142 efg., transport og kom.tek.
 4205 lærling, handel og kontor
 4210 lærling, jern og metal
 4220 lærling, bygge og anlæg
 4225 lærling, grafiske
 4230 lærling, service
 4235 lærling, levnedsmiddel og husholdning
 4240 lærling, jordbrug og fiskeri
 4245 lærling, sundhed
 4305 grundl. eksamen, handel og kontor
 4310 grundl. eksamen, jern og metal
 4315 grundl. eksamen, kemoteknisk
 4320 grundl. eksamen, bygge og anlæg
 4325 grundl. eksamen, grafisk
 4330 grundl. eksamen, service
 4335 grundl. eksamen, levnedsmiddel og husholdning
 4340 grundl. eksamen, jordbrug og fiskeri
 4350 grundl. eksamen., transport og kom.tek.
 4355 grundl. eksamen, sundhed
 5005 kort videreg., pædagogisk
 5010 kort videreg., humanistisk og teologisk
 5015 kort videreg., musisk og æstetisk
 5020 kort videreg., samfundsvidenskabelig
 5025 kort videreg., teknisk
 5030 kort videreg., levnedsmiddel og husholdn.
 5035 kort videreg., jordbrug og fiskeri
 5040 kort videreg., transport og kom. tek.
 5045 kort videreg., sundhed
 5050 kort videreg., udd. Vedr. off. sikkerhed
 6005 mellemlang videreg., pædagogisk
 6010 mellemlang videreg., humanistisk og teologisk
 6015 mellemlang videreg., musisk og æstetisk
 6020 mellemlang videreg., samfundsvidenskabelig
 6022 mellemlang videreg., naturvidenskabelig
 6025 mellemlang videreg., teknisk
 6030 mellemlang videreg., levnedsmiddel og husholdn.
 6035 mellemlang videreg., jordbrug og fiskeri
 6040 mellemlang videreg., transport og kom.tek.
 6045 mellemlang videreg., sundhed
 6050 mellemlang videreg., udd. vedr. off. sikkerhed. m.v.
 7005 lang videreg., pædagogisk
 7010 lang videreg., humanistisk og teologisk
 7015 lang videreg., musisk og æstetisk
 7020 lang videreg., samfundsvidenskabelig
 7022 lang videreg., naturvidenskabelig
 7025 lang videreg., teknisk
 7030 lang videreg., levnedsmiddel og husholdn.
 7035 lang videreg., jordbrug og fiskeri

7045 lang videreg., sundhedsudd.
7050 lang videreg., udd. Vedr. off. sikkerhed m.v.
9030 ikke erhvervsrettede udd.
9999 ukendt forspalte nummer

Classification of industries

00000 Unknown
11101 Agriculture
11103 Horticulture
11109 Fur farming, etc.
11200 Agricultural services
12000 Forestry and logging
13000 Fishing
20099 Extraction of coal, oil and gas
29000 Other mining
31113 Slaughtering etc. of pigs and cattle
31117 Poultry killing, dressing, packing
31121 Dairies
31123 Processed cheese, condensed milk
31124 Ice cream manuf.
31130 Processing of fruit and vegetables
31140 Processing of fish
31151 Oil mills
31152 Margarine manuf.
31153 Fish meal manuf.
31160 Grain mill products
31171 Bread factories
31173 Cake factories
31174 Bakeries
31180 Sugar factories and refineries
31190 Chocolate and sugar confectionery
31210 Manuf. of food products n.e.c.
31229 Manuf. of prepared animal feeds
31310 Distilling and blending spirits
31338 Breweries
31400 Tobacco manuf.
32118 Spinning, weaving etc., textiles
32120 Manuf. of made-up textile goods
32130 Knitting mills
32158 Cordage, rope and twine industries
32200 Manuf. of wearing apparel
32300 Manuf. of leather products
32400 Manuf. of footwear
33100 Manuf. of wood products, excl. furniture
33200 Manuf. of wooden furniture etc.
34110 Manuf. of pulp, paper, paperboard
34128 Manuf. of paper containers, wallpaper
34210 Reproducing and composing services
34221 Book printing
34222 Offset printing
34223 Other printing
34230 Bookbinding
34240 Newspaper printing and publishing
34291 Book and art publishing
34292 Magazine publishing
34293 Other publishing
35110 Manuf. of basic industrial chemicals

35120 Manuf. of fertilizers and pesticides
35130 Manuf. of basic plastic materials
35210 Manuf. of paints and varnishes
35220 Manuf. of drugs and medicine
35230 Manuf. of soap and cosmetics
35290 Manuf. of chemical products n.e.c.
35300 Petroleum refineries
35400 Manuf. of asphalt and roofing materials
35510 Tyre and tube industries
35590 Manuf. of rubber products n.e.c.
35600 Manuf. of plastic products n.e.c.
36100 Manuf. of earthenware and pottery
36200 Manuf. of glass and glass products
36910 Manuf. of structural clay products
36920 Manuf. of cement, lime and plaster
36993 Concrete products and stone cutting
36998 Non-metallic mineral products n.e.c.
37101 Iron and steel works
37102 Iron and steel casting
37201 Non-ferrous metal works
37202 Non-ferrous metal casting
38121 Manuf. of metal furniture
38138 Manuf. of structural metal products
38191 Manuf. of metal cans and containers
38198 Manuf. of other fabricated metal products
38220 Manuf. of agricultural machinery
38238 Manuf. of industrial machinery
38280 Repair of machinery
38293 Manuf. of household machinery
38298 Manuf. of refrigerators, accessories
38320 Manuf. of telecommunication equipment
38330 Manuf. of electrical home appliances
38392 Manuf. of accumulators and batteries
38398 Manuf. of other electrical supplies
38410 Ship building and repairing
38438 Railroad and automobile equipment
38498 Manuf. of cycles, mopeds, etc.
38500 Professional and measuring equipment
39010 Manuf. of jewellery, etc.
39098 Manuf. of toys, sporting goods, etc.
41010 Electric light and power
41020 Gas manufacture and distribution
41030 Steam and hot water supply
42000 Water works and supply
50000 Construction
61000 Wholesale trade
62000 Retail trade
63000 Restaurants and hotels
71118 Railway and bus transport etc.
71138 Other land transport
71210 Ocean and coastal water transport
71230 Supporting services to water transport
71300 Air transport
71509 Services allied to transport, etc.
72000 Communication
81000 Financial institutions
82000 Insurance
83110 Dwellings
83509 Business services

93109 Education, market services
93300 Health, market services
94000 Recreational and cultural services
95130 Repair of motor vehicles
95229 Household services
95400 Domestic services
97099 Private non-profit institutions
98099 Producers of government services
99999 "Resting" companies, international organisations

Danish translation:

Branchekategorier

00000 Uoplyst for personer med beskæftigelse
11101 Landbrug
11103 Gartneri
11109 Pelsdyravl mv.
11200 Landbrugsservice
12000 Skovbrug
13000 Fiskeri og dambrug
20099 Brunkulslejer, råolie og naturgas
29000 Udvinning af grus, sten og salt mv.
31113 Svine- og kreaturslagterier
31117 Fjerkræslagterier
31121 Mejerier
31123 Smelteost- og mælkekond.fabrikker
31124 Konsumisfabrikker
31130 Grønt- og frugtkonservesfabrikker
31140 Fisketilberedning
31151 Oliemøller
31153 Margarinefabrikker
31160 Fiskemelsfabrikker
31170 Fremst. af mel, gryn mv.
31171 Brødfabrikker
31173 Kagefabrikker
31174 Bagerier
31180 Sukkerfabrikker
31190 Chokolade- og sukkervarefabrikker
31210 Fremst. af kartoffelmel, madpræp. mv.
31229 Fremst. af foderstoffer
31310 Sprit- og likørfabrikker
31338 Bryggerier
31400 Tobaksfabrikker
32118 Spinderier, væverier og tæppefabr.
32120 Tekstilvarefremst. excl. beklædning
32130 Trikotagefabrikker
32158 Rebslagerier, fiskenetfabr. mv.
32200 Beklædningsfremstilling
32300 Fremst. af lædervarer excl. fodtøj
32400 Fremst. af fodtøj
33100 Træforarbejdning excl. møbler
33200 Fremst. af træmøbler mv.
34110 Papir- og papfabrikker
34128 Papiremballage- og tapefremst. mv.
34210 Reproduktionsanstalter og sætterier
34221 Bogtrykkerier
34222 Offsettrykkerier

34223 Serigrafiske trykkerier mv.
34230 Bogbinderier
34240 Dagblade
34291 Bog- og kunstforlag
34292 Ugeblade og magasiner
34293 Annonceblade og tidsskrifter
35110 Fremst. af kemiske råstoffer
35120 Fremst. af kunstgødning mv.
35130 Fremst. af basisplast mv.
35210 Farve- og lakfabrikker
35220 Medicinalvarefabrikker
35230 Sæbe- og kosmetikfabrikker
35290 Fremst. af rensedmidler, lim mv.
35300 Olieraffinaderier
35400 Asfalt- og tagpapfabrikker mv.
35510 Vulkaniseringsanstalter
35590 Gummifabrikker
35600 Fremst. af plastvarer
36100 Fremst. af porcelæn og keramik
36200 Glasværker og glasbearbejdning
36910 Teglværker mv.
36920 Cementfabr., kalk- og mørtelværker
36993 Betonvarefabrikker, stenhuggerier
36998 Fremst. af isoleringsmaterialer mv.
37101 Jern- og stålværker
37102 Jernstøberier
37201 Metalværker
37202 Metalstøberier
38121 Metalmøbelfabrikker
38138 Fremst. af byggematerialer af metal
38191 Metalemballagefabrikker
38198 Fremst. af værktøj, køkkenredsk. mv.
38220 Fremst. af landbrugsmaskiner
38238 Fremst. af industrimaskiner
38280 Smede- og maskinrep.værksteder
38293 Fremst. af husholdningsmaskiner
38298 Fremst. af køleanlæg, komponenter mv.
38320 Fremst. af telemateriel
38330 Fremst. af el-husholdningsartikler
38392 Akkumulator- og tørelementfabrikker
38398 Fremst. af elmotorer og kabler mv.
38410 Skibsværfter og skibsmotorfabrikker
38438 Banemateriel- og karosserifabr. mv.
38498 Fremst. af cykler og knallerter mv.
38500 Fremst. af måleinstrumenter mv.
39010 Guld- og sølvvarefremst.
39098 Fremst. af legetøj, fritidsudstyr mv.
41010 Elforsyning
41020 Gasforsyning
41030 Fjernvarmeforsyning
42000 Vandforsyning
50000 Bygge- og anlægsvirksomhed
61000 Engroshandel
62000 Detailhandel
63000 Hoteller og restauranter

71118 Jernbane- og busdrift mv.
71138 Turist-, taxi- og fragtvognmænd mv.
71210 Søtransport
71230 Hjelpevirksomhed for søtransport
71300 Luftransport og lufthavne
71509 Tjenester i forb. med transport
72000 Postvæsen og telekommunikation
81000 Finansiell virksomhed
82000 Forsikringsvirksomhed
83110 Boligbenyttelse
83509 Forretningsservice
93109 Privat undervisning
93300 Privat sundhedsvæsen
94000 Forlystelser, kulturelle aktiviteter
95130 Autoreparation
95299 Husholdningsservice
95400 Arbejdstagere i priv.husholdninger
97099 Priv. velfærdinst., foreninger mv.
98099 Offentlige tjenester
99999 Hvilende selskaber, int.org.

How to read the data

At Department of Business Studies, Aalborg University, the data can be found on busi1 ([\\busi1\database\edu](http://busi1.database.edu)). The following SAS-IML programme shows how to read the data:

```
%macro get(year);  
  
/* creates a macro labelled "get" for reading the variable "year" */  
  
libname educa "\\busi1\database\edu";  
  
/* creates a reference (a 'libname') to the physical library where the data are stored */  
  
proc iml;  
  
/* starts the SAS-IML module*/  
  
reset storage=educa.edu;  
  
/* opens the storage edu.sc2 (=the file where the education matrices are stored) */  
  
load edu&year;  
  
/* reads the education matrices for the years indicated in the macro (see below) */  
  
show storage;  
  
/* shows the content of the matrix-storage educa.edu */  
  
quit;
```

```
/* terminates the IML-procedure */
```

```
%mend get;
```

```
/* terminates the macro "get" */
```

```
%get(80);
```

```
%get(92);
```

```
/* indicates which years the macro should read */
```