

Occupational sex segregation and working time

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Occupational Sex Segregation and Working Time: Regional Evidence from Germany

Summary: This paper provides descriptive evidence for declining occupational sex segregation on the German labor market, especially concerning the regional differences between the former East and West Germany. I use segregation measures and long-run social security data for the decade of 1992 to 2004. While segregation has declined over time, it remains higher for the eastern part of Germany. Although this finding is observable for full-time and part-time work, segregation is always lower in part-time employment.

Key words: Gender, Segregation, Germany.

JEL: J16, J23.

In this descriptive paper, I analyze the trends in occupational sex segregation between men and women in Germany. In general, segregation is measured as the ratio of men and women in given occupations. Following the earlier work for Germany by Thomas Hinz and Thomas Schübel (2001), Susanne Falk (2002), and Miriam Beblo, Anja Heinze, and Elke Wolf (2008), I use the regional file of the Institute for Employment Research (IAB) Employment Sample (IABS-R04) to replicate the results for the time span of 1992 to 2004. In this paper, the trends in segregation are presented separately for full- and part-time employment. Because of the specific situation after the unification in 1990, segregation is analyzed for the former East and West Germany.

I present three key results. First, segregation declines over time. Second, segregation is still higher for eastern Germany. There is no observable trend in convergence between eastern Germany and western Germany. Finally, these results hold for both full-time and part-time employment, while segregation is always lower for those working part-time.

The subsequent paper is structured as follows. In the next section, I present a review of the literature findings. In Section 2, I compare two measures of occupational sex segregation. Section 3 provides a data description of the regional file of the IAB Employment Sample (IABS-R04). In Section 4, the descriptive trends are presented. The paper concludes with a summary and discussion of the findings in Section 5.

1. Findings in the Literature

In surveys, Richard Anker (1997) and Jo Anne Preston (1999) show that both supply-side and demand-side factors determine occupational sex segregation. The supply-side factors may be based on different decisions regarding human capital accumulation and family formation. The demand-side factors may be based on the effects of taste or statistical discrimination. These lead to inequality in wages between men and women. However, there is strong evidence that in industrialized and developing countries, in the long run, segregation declines and female labor participation increases. See for example the UK (Martin Watts and Judith Rich 1993), Finland, Norway and Sweden (Helinä Melkas and Anker 1997), Spain (Coral del Río and Olga Alonso-Villar 2010), the USA (Donald Tomaskovic-Devey et al. 2006; Alonso-Villar, Del Río, and Carlos Gradín 2012; Francine D. Blau, Peter Brummund, and Albert Yung-Hsu Liu 2013), Canada (Bradley Brooks, Jennifer Jarman, and Robert M. Blackburn 2003), Australia (Watts 2003), Israel (Shoshana Neuman 1998) and Brazil (Paola Salardie 2012). One exception is Turkey, where Rich and Serap Palaz (2008) show an increase in segregation. Paul A. Swanson (2005) presents cross-sectional results for 29 different countries worldwide.

Hinz and Schübel (2001) use the German Establishment Panel (IAB Betriebspanel) for the year 1994 for western Germany. They show that occupational sex segregation generally exists in Germany. Women are less equally distributed over jobs than men, and women in part-time employment are less segregated than women in full-time employment. Since reunification in 1990, the former two countries still differ in many respects. Falk (2002) uses the waves 1991 to 2000 of the German Mikrozensus (MZ) to show the differences in segregation between eastern and western Germany. She shows that, immediately after reunification, women in the former German Democratic Republic (GDR) were strongly clustered in administrative and service jobs, and especially in the public sector. On the contrary, men were less clustered in typically male jobs, such as technicians and engineers, because of the political will of a high female proportion. This statistical artifact persists and women in eastern Germany are less equally distributed over jobs than women in western Germany. However, Annemette Sørensen and Heike Trappe (1995) and Rachel A. Rosenfeld, Trappe, and Janet C. Gornick (2004) discuss the idea that the leading socialist party in the former GDR did not fulfill the political will for equality in all parts of social life.

Beblo, Heinze, and Wolf (2008) show three stylized facts for German firms. Firms with a high proportion of female workers, a high proportion of part-time workers or a high proportion of highly skilled workers are always less segregated than other firms. The authors use linked employer-employee data (LIAB) for the years 1996, 2000 and 2005. In the second step, they decompose the decline in segregation over time into gender and job effects. On one hand, the ratio between males and females in a given job may change. On the other hand, the job structure, the number of workers in a given job, may change as well. The authors describe both effects as being able to drive a change in occupational segregation. While in western Germany both effects lower segregation in the same direction, the very slight decline in segregation for eastern Germany is driven by an increase in the gender structure and a decrease in the job structure. Analyzing age- and gender-specific differences in the hir-

ing of western Germans, Stephan Humpert (2013) uses the IAB data used in this paper for the longer time span of 1974 to 2004 to show that younger and middle-aged males have better chances of changing their occupations than female and older persons. Barbara Hahnel and Regina T. Riphahn (2012) use different waves of the German Mikrozensus to show that eastern German mothers with young children have a 20 percent higher probability of finding work than mothers in the western part of Germany. Between 1996 and 2004, low- and medium-skilled mothers in eastern Germany lowered their labor supply, while highly skilled mothers did not. Alice Guyot, Stefan Berwing, and Maria Lauxen-Ulbrich (2009) give an example of male-female employment relations in one of the western German federal states. Here they use federal employment data (BA Beschäftigungspanel) for the case of Baden-Württemberg¹. Stefan Bauernschuster and Helmut Rainer (2012) use different waves of a German social survey (The German General Social Survey - ALLBUS) to show that the gender roles concerning family and work differ statistically significantly between East and West Germany. Reconciliation of family and work life is still preferred in the eastern part of Germany.

See Tables 1 and 2 for the employment and unemployment rates of East and West German men and women since 1991.

Table 1 Employment Rates in Germany

Years		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Germany	Men	81.8%	80.8%	80.2%	80.1%	79.5%	79.3%	79.3%	79.2%	79.2%	78.8%	79.0%	79.0%	79.2%	79.3%
	Women	60.7%	61.0%	60.8%	61.4%	61.1%	61.3%	61.8%	62.0%	62.7%	62.9%	63.9%	64.3%	65.1%	65.2%
West Germany	Men	81.1%	81.1%	80.9%	80.7%	79.8%	79.6%	79.5%	79.2%	79.2%	79.0%	79.2%	79.2%	79.4%	79.4%
	Women	57.2%	58.3%	58.6%	59.0%	58.6%	58.9%	59.5%	59.7%	60.8%	61.3%	62.3%	62.8%	63.6%	63.6%
East Germany	Men	84.5%	79.4%	77.1%	77.9%	78.4%	78.2%	78.4%	78.9%	79.0%	78.3%	78.3%	77.8%	78.3%	78.5%
	Women	74.8%	72.0%	70.1%	71.6%	71.6%	71.5%	71.8%	71.7%	71.2%	70.3%	70.6%	70.8%	71.4%	72.0%

Source: German Federal Statistics².

Table 2 Unemployment Rates in Germany

Years		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Germany	Men	6.4%	7.1%	8.6%	9.5%	9.6%	11.0%	12.2%	11.9%	11.3%	10.5%	10.4%	11.3%	12.4%	12.5%
	Women	8.5%	10.2%	11.3%	12.0%	11.4%	12.1%	13.3%	12.8%	12.2%	10.9%	10.2%	10.3%	10.8%	10.8%
West Germany	Men	5.6%	6.0%	7.8%	9.0%	9.1%	10.1%	11.0%	10.4%	9.7%	8.5%	8.3%	9.1%	10.2%	10.3%
	Women	7.0%	7.1%	8.3%	9.1%	9.0%	9.7%	10.5%	10.2%	9.6%	8.3%	7.7%	7.8%	8.3%	8.4%
East Germany	Men	8.7%	10.6%	11.3%	11.3%	11.3%	14.1%	16.7%	17.5%	17.3%	17.8%	18.5%	19.5%	20.6%	20.6%
	Women	11.9%	18.5%	19.9%	20.4%	18.5%	19.2%	21.6%	21.0%	20.2%	19.3%	19.0%	18.9%	19.6%	19.5%

Source: German Federal Employment Agency³.

However, using Eurostat data, Karl Brenke (2011) contends that not only family-related aspects count for part-time employment. While around 51 percent of employed women in Germany work part-time because of the need to care for children

¹ The federal states located in the South-West of Germany have a tradition of low female employment rates, especially for married women. A similar situation of a male-breadwinner model is described for example by Angela Cipollone, Marcella Corsi, and Carlo D'Ippoliti (2011) for the case of Italy.

² <https://www.destatis.de/EN/FactsFigures/NationalEconomyEnvironment/LabourMarket/Employment/Employment.html>

³ <http://statistik.arbeitsagentur.de/Navigation/Statistik/Statistik-nach-Themen/Arbeitsmarkt-im-Ueberblick/zu-den-Daten/zu-den-Daten-Nav.html>

and relatives, 19 percent do so because of the lack of any full-time job offers. Most males (38 percent) prefer to change towards full-time employment as well. Compared with the average of the EU-27, fewer women but more men would like to change to full-time employment in Germany.

2. Measuring Occupational Sex Segregation

This paper deals with horizontal segregation, the ratio of men and women in specific occupations. Vertical segregation, however, deals with individual careers, such as the glass ceiling effect of non-promotion.

In the literature concerning segregation, there is a broader discussion of proper measurement. Surveys like those by Watts (1998) or Michael R. Ransom (2000) show the development and composition of relevant indicators. A long-time gold standard in measuring segregation is the Dissimilarity Index D , defined by Otis D. Duncan and Beverly Duncan (1955). The index is generally interpreted as measuring the proportion of the female workforce that would be required to shift between occupations in order to equalize female and male observations across different occupations. It can be visually interpreted as the maximum distance between the equality line and the segregation curve. See Equation (1) for D :

$$D = \frac{1}{2} \sum_i^n \left| \frac{F_i}{F} - \frac{M_i}{M} \right|. \quad (1)$$

While F_i and M_i are the number of female and male workers for any given job $i = 1, \dots, n$, F and M are the total number of females and males in the entire workforce. The index D is scaled from zero to one, where zero means an equal and one an unequal distribution. As a similar type of measure, Robert M. Hutchens (2001, 2004) composed the so-called Hutchens Square Root Segregation Index H . Again, the H Index is scaled from zero to one, where zero means no segregation and one total segregation. See Equation (2) for H :

$$H = \sum_{i=1}^n \left[\left(\frac{F_i}{F} \right) - \sqrt{\frac{F_i}{F} * \frac{M_i}{M}} \right]. \quad (2)$$

In contrast to this more common type of segregation measurement, the H Index satisfies a set of seven properties for good measurement of segregation instead of four⁴.

3. Data

The IAB Employment Sample (IABS-R04) is a rich data set provided by the German Federal Employment Agency. It is a 2 percent random sample based on administrative data on German social security. The full data include the working careers of

⁴ See Hutchens (2004) for the mathematical proof.

more than 1.36 million individuals with around 25 million observations for the years from 1974 to 2004. These are working people covered by the social security legislation and the unemployed who receive public unemployment transfers. A much more detailed description of the data set is given by Nils Drews (2008).

Following the German reunification in 1990, the eastern part, the former German Democratic Republic, has been included in the data since 1992. Therefore, the time span is limited to the years from 1992 to 2004. The data provide information for about 130 occupations, aggregated from the German system of job classifications compiled in 1988 (in German: Klassifikation der Berufe 1988). However, I use only 129 of them, because of non-identifiable job information in the last category. This limitation arises because category no. 130 includes people who work in a non-agricultural family business or in any other business that is not part of the other 129 categories. See Table 4 in the Appendix for the list of jobs. To compare the results of segregation with other German studies, e.g. Hinz and Schübel (2001), or Beblo, Heinze, and Wolf (2008), only employed individuals who work full-time or part-time on the cut-off date of June 30th are observed. It should be noted, however, that part-time employment is not measured by working contracts, but by working hours. The limit is set to 18 working hours a week. It is obvious that full-time work is dominated by males and part-time work by females. Anker (1997) presents a compendium of stereotypes of male- and female-dominated jobs. Anne Busch (2013) discusses male-, female- and neutral-attributed tasks in Germany.

See Table 3 for descriptive statistics of the female labor supply over time.

Table 3 Descriptive Statistics - IABS-R04

Years		1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
West: full-time	Share women	34.46%	34.51%	34.55%	34.51%	34.72%	34.53%	34.41%	34.54%	34.70%	34.99%	35.27%	35.18%	35.36%
	Obs.	384,545	378,589	361,276	361,941	347,122	337,572	339,355	342,546	347,786	349,181	340,650	327,174	320,844
West: part-time	Share women	92.11%	91.85%	91.43%	91.41%	91.02%	89.40%	88.71%	81.42%	79.96%	79.59%	79.88%	83.56%	83.15%
	Obs.	54,472	56,681	56,149	57,932	58,009	59,914	61,738	77,755	82,438	85,546	86,730	77,022	78,172
East: full-time	Share women	43.24%	42.51%	41.61%	41.55%	41.60%	41.27%	41.87%	41.57%	42.03%	42.61%	43.15%	42.79%	42.63%
	Obs.	92,386	88,914	85,955	87,316	81,439	76,766	75,142	73,596	71,250	68,543	65,234	62,520	60,524
East: part-time	Share women	91.17%	92.13%	86.94%	88.02%	89.28%	89.27%	87.20%	84.12%	82.86%	82.55%	83.19%	84.67%	84.19%
	Obs.	7,228	7,950	9,806	10,581	10,307	10,526	11,762	13,260	13,605	13,735	13,745	13,133	13,684

Source: Own calculation.

Since the German unification, the shares of female part- and full-time work have slightly changed towards equality. In 1992, women accounted for over 90 percent of part-time employment. Then eastern German (91%) and western German women (92%) had similar shares. In full-time work, the shares differed. While 43 percent was carried out by women in the eastern part of Germany, only 34 percent was conducted by women in the western part. Since 2004, the distributions for full-time working women have remained rather constant. Over 42 percent of full-time work in eastern Germany is carried out by women, while in western Germany the figure is 35 percent. This shows that full-time work is still dominated by men. How-

ever in the eastern part, because of a tradition for higher female and maternal employment, the shares are higher.

The changes over time for part-time work are larger. In 2004, the shares of female part-time employment declined to 84 percent in the East and 83 percent in the West. This shows two implications. First, part-time employment is still a women-specific field, but second, more and more men are resorting to part-time employment.

4. Results

Before turning to the detailed results, I present the long-run differentials. Between 1992 and 2004, occupational sex segregation declined for German women. For western Germany, the values of the *D* Index declined from 0.613 to 0.574, while the values of the *H* Index declined from 0.313 to 0.270. Similar results are computed for eastern Germany. Here, the overall segregation declined from 0.622 to 0.616 (*D* Index), and respectively, from 0.325 to 0.310 (*H* Index).

Figures 1 and 2 show occupational sex segregation over the time span, separated into full-time and part-time employment in the East and in the West. See Figure 1 for the distributions computed by the *D* Index and Figure 2 for the *H* Index. It is obvious that both types of measures show rather identical distributions.

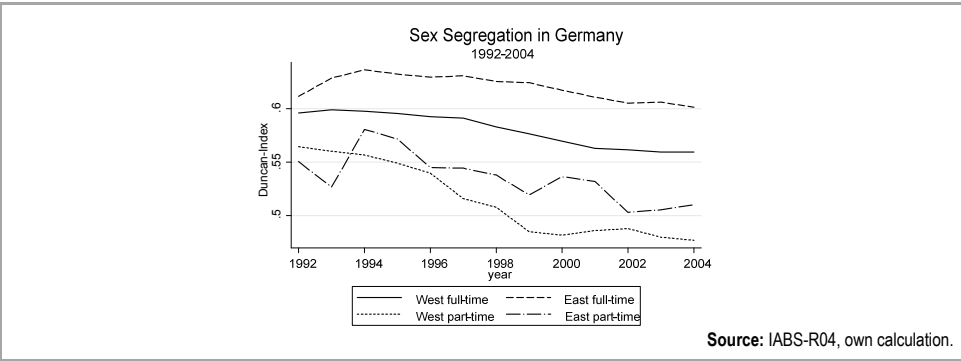


Figure 1 Duncan Index *D*

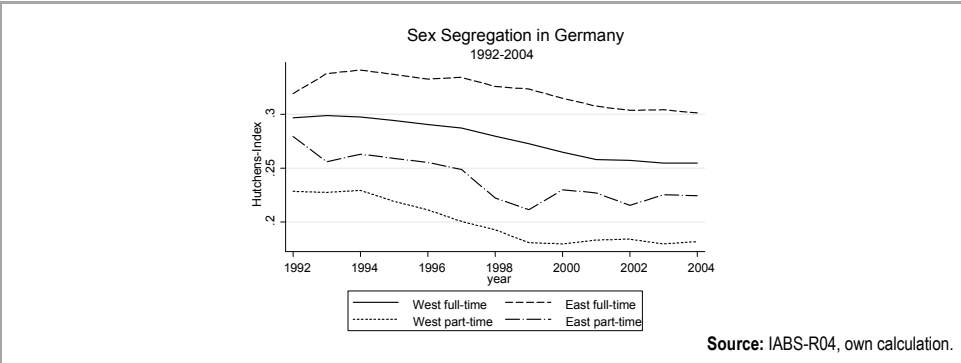


Figure 2 Hutchens Index *H*

Segregation has declined over time in both parts of Germany. For full-time employment, the results are the following. The highest values are observed in western Germany in 1993, when the D Index is 0.598 and the H Index 0.298. In eastern Germany, the highest values appear in 1994. The D Index is 0.636 and the H Index 0.341. For western Germany, the lowest values are in 2003, while the D Index is 0.559, the H Index is 0.255. In eastern Germany, the highest values are in 2002, while the D Index is around 0.605, the H Index is around 0.304. These results are in line with Falk (2002), who calculates, *inter alia*, D Indices that increase in eastern Germany between 1991 and 1996, and decrease until 2000. She interprets the early increase with the maximum in 1996 as an effect of a continuing economic transition, and not as an effect of a former socialist planned economy.

As discussed by Hinz and Schübel (2001), occupational sex segregation is lower in part-time employment. Although Beblo, Heinze, and Wolf (2008) report only slight differences between working time regimes, I present long-run shifts in segregation for part-time employment. For western Germany, the highest D Index is 0.564 in 1992, while the H Index is 0.229 in 1994. In eastern Germany, the highest values are in 1994. The D Index is 0.580 and the H Index 0.263. For western Germany, the lowest D Index is 0.477 in 2004, while the H Index is 0.180 in 2003. In eastern Germany, the lowest values are in 2002. The D Index is around 0.503 and the H Index 0.215. In the year 2000, there is a temporary re-increase for eastern Germany only.

Falk (2002) and Rosenfeld, Trappe, and Gornick (2004) both discuss the hypothesis of convergence of the eastern and western parts of Germany. While the segregation gap for full-time work rose in 1992 and then remained stable over time, the variation for part-time work seems to be more affected by cyclical effects. However, in fact, as Falk (2002) shows, a trend in convergence in occupational sex segregation is still not observable.

5. Conclusion

In the early years after the German unification in 1990, a tremendous change happened regarding the former East German economy. Large parts of the industry were sold to companies in western Germany, while plants were closed because of non-competitive technology, old infrastructure and low capital endowment. This downturn of industrial workplaces increased the local unemployment rates and raised the migration to western Germany. While the macroeconomic situation between the former two countries converged over time because of massive public transfers, the two parts still differ in many respects, such as gender roles or maternal employment.

In this descriptive paper, I reassess the topic of occupational sex segregation for the areas covered by the former East Germany and West Germany. I use data from the regional file of the IAB Employment Sample (IABS-R04) to replicate the existing findings for the case of Germany for the longer time span of 1992 to 2004. Following the papers of Hinz and Schübel (2001), Falk (2002), and Beblo, Heinze, and Wolf (2008), I present three key results. First, segregation has declined over time. Second, segregation is still higher in the eastern part of Germany. There is no

observable trend of convergence between East and West. Finally, these results hold for both full-time and part-time employment, while segregation is always lower for those working part-time.

Future research should turn towards long-term analysis of the interior differences in the occupational structure. There may be a nexus between the ratio of industrial workplaces in the eastern and western parts of Germany and the size of occupational sex segregation. Policy makers, however, should continue to generate equal opportunities on the labor market, such as closing the gap in pay between men and women.

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Appendix

Table 4 List of Jobs

1	Farmers/Winegrowers/Animal breeders/Fishermen/Managers in agriculture and animal breeding/Agricultural engineers, agriculture advisers/Milkers/Family-member land workers, n.e.c./ Animal keepers and related occupations
2	Land workers
3	Gardeners, garden workers
4	Garden architects, garden managers/Florists/Forestry managers, foresters, hunters/Forest workers, forest cultivators
5	Miners/Mechanical, electrical, face workers, shot firers/Stone crushers/Earth, gravel, sand quarries/Oil, natural gas quarries/Mineral preparers, mineral burners
6	Stone preparers/Jewel preparers/Stoneware, earthenware makers/Shaped brick, concrete block makers
7	Ceramics workers/Frit makers/Hollow glassware makers/Flat glass makers/Glass blowers (lamps)/Glass processors, glass finishers
8	Chemical plant operatives/Chemical laboratory workers
9	Rubber makers, processors/Vulcanization
10	Plastics processors
11	Paper, cellulose makers/Packaging makers/Book binding occupations/Other paper product makers
12	Type setters, compositors/Printed goods makers/Printers (letterpress)/Printers (flat, graver)/Special printers, screens/Copiers/Printer's assistants
13	Wood preparers/Wood molders and related occupations/Wood product makers/Basket and wicker product makers
14	Iron, metal producers, melters/Rollers/Metal drawers
15	Molders, core-makers/Mold casters/Semi-finished product fettlers and other mold-casting occupations
16	Sheet metal pressers, drawers, stampers/Wire molders, processors/Other metal molders (non-cutting deformation)
17	Turners
18	Drillers/Planers/Borers/Metal grinders/Other metal-cutting occupations
19	Metal grinders
20	Metal polishers/Engravers, chasers/Metal finishers/Galvanism, metal colorists/Enamelers, zinc platers and other metal surface finishers
21	Welders, oxy-acetylene cutters/Solderers/Riveters/Metal bonders and other metal connectors
22	Steel smiths/Container builders, copper-smiths and related occupations/Sheet metal workers/Pipe, tubing fitters
23	Plumbers
24	Locksmiths, not specified/Building fitters/Sheet metal, plastics fitters
25	Engine fitters
26	Plant fitters, maintenance fitters
27	Steel structure fitters, metal shipbuilders
28	Motor vehicle repairers
29	Agricultural machinery repairers/Aircraft mechanics/Precision mechanics
30	Other mechanics/Watch- and clock-makers
31	Toolmakers
32	Precision fitters n.e.c./Precious metal smiths/Dental technicians/Ophthalmic opticians/Musical instrument makers/Doll makers, model makers, taxidermists
33	Electrical fitters, mechanics
34	Telecommunications mechanics, craftsmen
35	Electric motor, transformer fitters/Electrical appliance fitters/Radio, sound equipment mechanics
36	Electrical appliance, electrical parts assemblers
37	Other assemblers
38	Metal workers (no further specification)
39	Spinners, fiber preparers/Spoolers, twistors, rope-makers/Weaving preparers/Weavers/Tufted goods makers/Machined goods makers/Felt makers, hat body makers/Textile processing operatives (braiders)
40	Cutters/Laundry cutters, sewers/Embroiderers/Hat, cap makers/Sewers, n.e.c./Other textile processing operatives/Textile dyers/Textile finishers
41	Clothing sewers
42	Leather makers, catgut string makers/Shoemakers/Footwear makers/Coarse leather goods finishers, truss makers/Fine leather goods makers/Leather clothing makers and other leather processing operatives/Hand shoemakers/Skin processing operatives
43	Bakery goods makers/Confectioners (pastry)
44	Butchers/Meat, sausage goods makers/Fish processing operatives
45	Cooks/Ready-to-serve meals, fruit, vegetable preservers, preparers
46	Wine coopers/Brewers, maltsters/Other beverage makers, tasters/Tobacco goods makers/Milk, fat processing operatives/Flour, food processors/Sugar, sweets, ice-cream makers
47	Bricklayers
48	Concrete workers
49	Carpenters/Scaffolds
50	Roofers
51	Paviors/Road makers/Track-layers/Explosives men (except shot-firers)/Land improvement, hydraulic engineering workers/Other civil engineering workers
52	Building laborers, general
53	Earth movers/Other building laborers, building assistants, n.e.c.

- 54 Stucco workers, plasterers, rough casters/Insulators, proofers/Tile setters/Furnace setter, air heating installers/Glaziers/Screed, terrazzo layers
- 55 Room equippers/Upholsterers, mattress makers
- 56 Carpenters/Model, form carpenters/Cart-wrights, wheelwrights, coopers/Other wood and sports equipment makers
- 57 Painters, lacquers (construction)
- 58 Goods painters, lacquers/Wood surface finishers, veneers/Ceramics, glass painters
- 59 Goods examiners, sorters, n.e.c.
- 60 Packagers, goods receivers, dispatchers
- 61 Assistants (no further specification)
- 62 Generator machinists/Winding engine drivers, aerial rope-way machinists/Other machinists/Crane drivers/Earth-moving plant drivers/Construction machine attendants/Machine attendants, machinists' helpers/Stokers/Machine setters (no further specification)
- 63 Mechanical, motor engineers
- 64 Electrical engineers
- 65 Architects, civil engineers
- 66 Survey engineers/Mining, metallurgy, foundry engineers/Other manufacturing engineers
- 67 Other engineers
- 68 Chemists, chemical engineers/Physicists, physics engineers, mathematicians/Building technicians
- 69 Mechanical engineering technicians
- 70 Electrical engineering technicians
- 71 Measurement technicians/Mining, metallurgy, foundry technicians/Chemistry, physics technicians/Remaining manufacturing technicians
- 72 Other technicians
- 73 Foremen, master mechanics
- 74 Biological specialists/Physical and mathematical specialists/Chemical laboratory assistants/Photo laboratory assistants
- 75 Technical draughtswomen
- 76 Wholesale and retail trade buyers, buyers
- 77 Salespersons
- 78 Publishing house dealers, booksellers/Druggists, chemists (pharmacy)/Pharmacy aids/Service-station attendants
- 79 Commercial agents, travelers/Mobile traders
- 80 Bank specialists/Building society specialists
- 81 Health insurance specialists (not social security)/Life, property insurance specialists
- 82 Forwarding business dealers
- 83 Tourism specialists/Publicity occupations/Brokers, property managers/Landlords, agents, auctioneers/Cash collectors, cashiers, ticket sellers, inspectors
- 84 Railway engine drivers
- 85 Railway controllers, conductors
- 86 Motor vehicle drivers
- 87 Navigating ships officers/Technical ships officers, ships engineers/Deck seamen/Inland boatmen/Other water transport occupations/Air transport occupations
- 88 Post masters/Radio operators/Telephonists
- 89 Postal deliverers
- 90 Warehouse managers, warehousemen
- 91 Transportation equipment drivers
- 92 Stowers, furniture packers/Stores, transport workers
- 93 Entrepreneurs, managing directors, divisional managers
- 94 Management consultants, organizers/Chartered accountants, tax advisers
- 95 Members of Parliament, ministers, elected officials/Senior government officials/Association leaders, officials
- 96 Cost accountants, valuers
- 97 Accountants
- 98 Cashiers
- 99 Data processing specialists
- 100 Office specialists
- 101 Stenographers, shorthand-typists, typists
- 102 Data typists
- 103 Office auxiliary workers
- 104 Factory guards, detectives/Watchmen, custodians/Soldiers, border guards, police officers/Firefighters/Safety testers/Chimney sweeps/Health-protecting occupations/Arbitrators/Judicial administrators/Legal representatives, advisers/Judicial enforcers
- 105 Doormen, caretakers
- 106 Domestic and non-domestic servants
- 107 Journalists/Interpreters, translators/Librarians, archivists, museum specialists
- 108 Musicians/Artists' agents/Visual, commercial artists/Scenery, sign painters/Artistic and assisting occupations (stage, video and audio)/Interior, exhibition designers, window dressers/Photographers/Performers, professional sportsmen, auxiliary artistic occupations
- 109 Physicians/Dentists/Veterinary surgeons/Pharmacists
- 110 Non-medical practitioners/Masseurs, physiotherapists and related occupations
- 111 Nurses, midwives
- 112 Nursing assistants
- 113 Dietary assistants, pharmaceutical assistants/Medical laboratory assistants
- 114 Medical receptionists

- 115 Social workers, care workers/Work, vocational advisers
 - 116 Home wardens, social work teachers
 - 117 Nursery teachers, child nurses
 - 118 University teachers, lecturers at higher technical schools and academies/Gymnasium teachers/Technical, vocational, factory instructors/Music teachers n.e.c./Sports teachers/Other teachers
 - 119 Primary, secondary (basic), special school teachers
 - 120 Economic and social scientists, statisticians/Humanities specialists n.e.c./Scientists n.e.c./Nursing staff/Ministers of religion/Members of religious orders without specific occupation/Religious care helpers
 - 121 Hairdressers/Other body care occupations
 - 122 Restaurant, inn, bar keepers, hotel proprietors, catering trade dealers
 - 123 Waiters, stewards
 - 124 Others attending on guests
 - 125 Housekeeping managers/Consumer advisers/Other housekeeping attendants/Employees by household cheque procedure
 - 126 Laundry workers, pressers/Textile cleaners, dyers and dry cleaners
 - 127 Household cleaners
 - 128 Glass, buildings cleaners
 - 129 Street cleaners, refuse disposers/Vehicle cleaners, services/Machinery, container cleaners and related occupations
 - 130* Non-agricultural family assistants n.e.c./Trainees with recognized training occupation still to be specified/Interns, unpaid trainees with recognized training occupation still to be specified/Workforce (job seekers) with occupation still to be specified
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* Excluded because of insecure job information

Source: IABS-R04.