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THE DISTRIBUTION OF EARNINGS IN THE EUROPEAN UNION

Statistics on the Structure of Earnings in all the 15 Member States of the European Union were collected for the first time for 1995 and most of the results are now available. In this note, the results of eleven countries are presented.

The major results are as follows:

- *Gross earnings are higher in the northern Member States than in the south. They are also generally more evenly distributed in these countries, although the United Kingdom is one of the countries with the most unevenly distributed earnings.*
- *Managerial and professional staff earn on average about 30% more than technicians and associate professionals. Clerks and sales workers earn about the same as manual workers. However the best-paid employees in low-paid occupations may earn more than the lowest-paid employees in high-paid occupations.*
- *Employees who completed third level of education usually have considerably higher salaries; finishing upper secondary level of education has a relatively smaller impact on salary differentials. The influence of education on earnings increases considerably with age.*
- *There are no significant difference on average earnings between the two main economic activities, industry and services. With the more detailed level of classification it can be seen, that the best paid branch is in services - financial intermediation - and also is the lowest paid branch - the hotel and restaurant activities.*
- *Earnings tend to rise with age and with length of service, but the patterns vary considerably between Member States so that, for example, length of service has less influence in the northern Member States than in the south.*

This issue is the second in the series presenting the results of the 1995 Structure of Earnings Statistics. The first issue published at the end of 1997 (Statistics in Focus, Population and social conditions, 1997/15) gave the results for Spain, France, Sweden and the United Kingdom.

In this note, Belgium, Ireland, Austria and Portugal are not covered as the complete results are not yet available. Results are not presented for Germany as a whole owing to the difference in the level of earnings. Figures for the Federal Republic as it existed until 3th October 1990, and the new Länder of Germany (including East Berlin), are always presented separately as D¹ and D². In the future, earnings statistics for the two parts of Germany will be integrated. The Greece data refer only to industry.

Later this year there will be more information available in the same series covering the complete set of countries.

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MONTHLY EARNINGS ARE MOST UNEVENLY DISTRIBUTED IN UNITED KINGDOM AND SPAIN

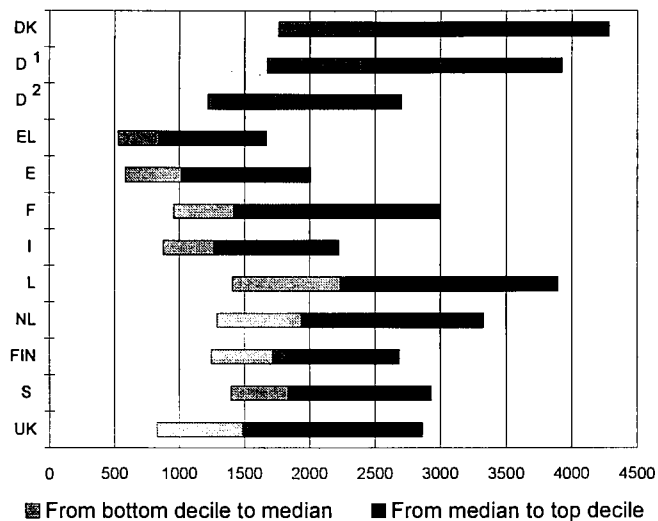
There is relatively small number of very high earners throughout the Member States and the distribution of earnings extends further toward the top end of the earnings than towards the lower end. This means that the overall distribution of earnings is clearly skewed towards the lower levels of pay. The average is higher than the median, since the average is influenced by a relatively small number of people with very high earnings. The median level of earnings is the level above and below which 50% of the employees fall. The largest gap between average and median earnings is in France, where the average monthly earnings are almost 30% higher than median earnings; next come Greece and Spain, 19%. The average earnings are closest to the median in Finland, Denmark, Germany and in the Netherlands: the discrepancy is around ten percent.

Gross earnings per month differ considerably between the Member States. The highest median earnings are found in Denmark (ECU 2542), Germany as it was before 3th October 1990 (ECU 2402), Luxembourg (ECU 2234) and in the Netherlands (ECU 1938); while the lowest are in Italy (ECU 1265), Spain (ECU 1014) and Greece (ECU 842) (Figure 1). A similar order is obtained if other measures are used such as the top decile (the best-paid 10% of employees) or the bottom decile (the lowest-paid 10% of employees). However, caution should be exercised in comparing the levels of earnings in different countries; apart from differences in living costs, an employee's gross earnings are subject to deductions, which vary according to national systems of taxation and social security.

Relative differentials may also be expressed as a comparison of the highest decile earnings with the lowest decile earnings (interdecile ratio) or as a comparison of the upper quartile earnings with the lower quartile earnings (interquartile ratio). While deciles divide the population into ten equally-sized groups, quartiles divide it into four groups.

Measured by interdecile ratios, monthly earnings are most unevenly distributed in United Kingdom and Spain: the ratio is 3.4 (Figure 2). The interdecile ratio is around 3.1 in Greece and France. Earnings are most equally distributed in Sweden, Finland and the new Länder of Germany, where the top decile is only just over twice the bottom decile figure.

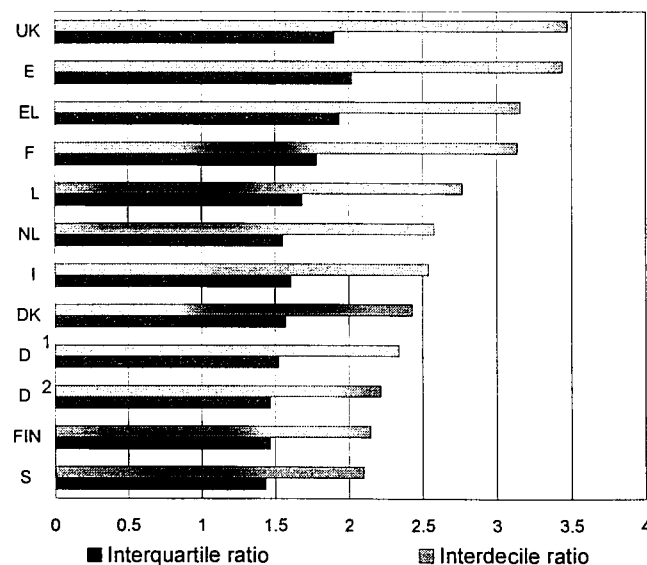
Figure 1: Distribution of monthly earnings by Member States in 1995 in ECUs



Source: Eurostat, Structure of Earnings Statistics



Figure 2: Interdecile and interquartile ratio of monthly earnings by Member States in 1995

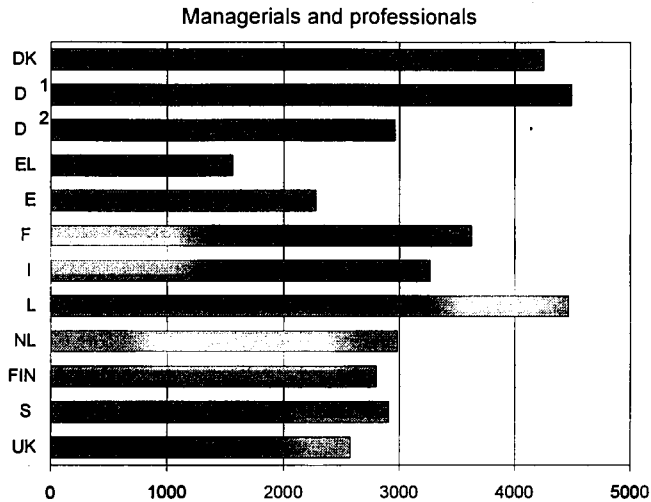


Source: Eurostat, Structure of Earnings Statistics

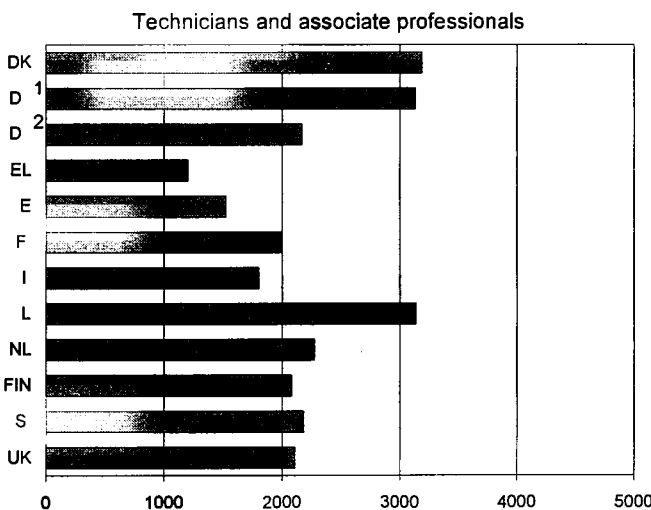


Figure 3: Gross monthly earnings by occupation by Member States in 1995 in ECUs

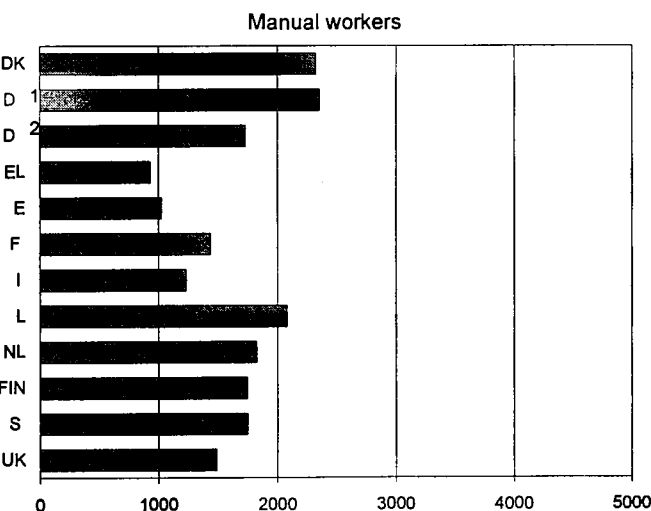
IN ITALY MANAGERS AND PROFESSIONALS EARN OVER TWICE AS MUCH AS AN AVERAGE EMPLOYEE



On average, managers and professionals are the best paid employees followed by technicians and associate professionals (Figure 3). In Italy and France average earnings for the first group are over 80% higher than for the latter group. Among most of the countries the discrepancy is around 30 percent.



The average earnings of an Italian manager are over twice as much (120%) and in France, Spain and Luxembourg just under twice as much as the earnings of an average employee. The comparison is not totally exact, due to the different national classification practices on occupations. However, the figures support the conclusion that, by occupations, earnings are most evenly distributed in the Netherlands, Sweden and Finland. In those countries managers earnings are just over 40% more than those of the average employee.



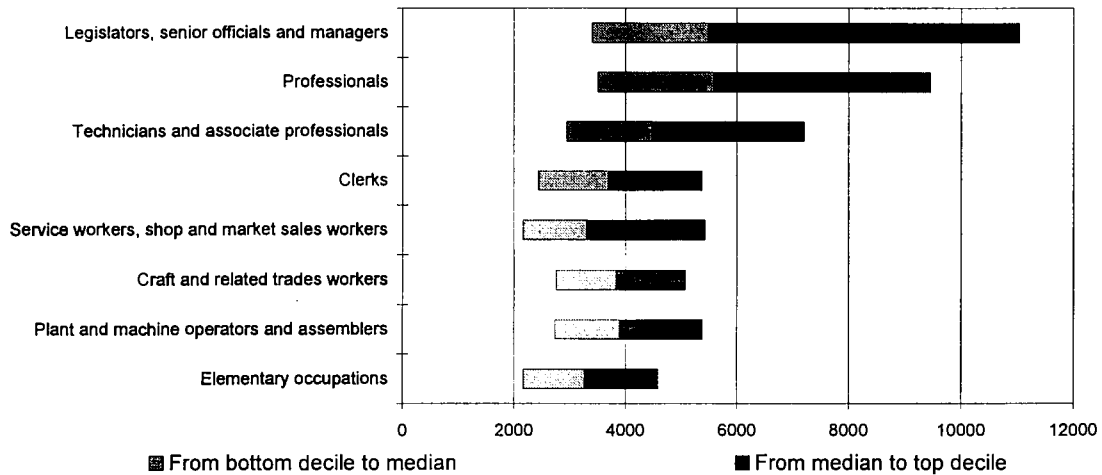
The other two main occupational groups, that is clerical and sales workers, and manual workers, include the least well paid employees. They receive approximately similar average earnings. In Italy, Germany (old and new Länder) and Luxembourg, manual workers have slightly lower and elsewhere slightly higher average earnings than clerks and sales workers.

Using the percentile approach with the Netherlands in figure 4 shows that the dispersion of monthly earnings is broader among the high earning managers and professionals than the other groups. At the same time the distributions of the earnings overlap from one occupation to another. This means that the best-paid employees in low-paid occupations may earn more than the lowest-paid employees in high-paid occupations.

Source: Eurostat, Structure of Earnings Statistics



Figure 4: The percentiles of monthly earnings by occupation in Netherlands in 1995 in Guilder



Source: Eurostat, Structure of Earnings Statistics



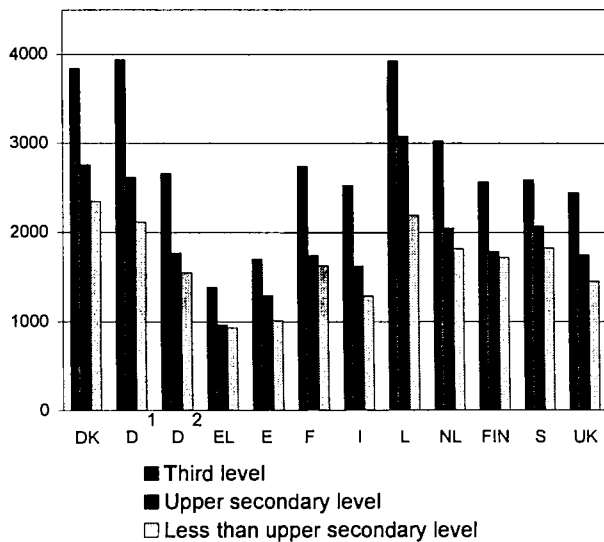
HIGHER LEVEL OF EDUCATION – HIGHER LEVEL OF EARNINGS

Average gross monthly earnings are clearly higher for those people whose level of education is higher (Figure 5). In France, employees who have finished the third-level of education (university or corresponding) have 57% higher average earnings than the employees who have completed upper secondary level of education. In Italy the difference is 55% and in Germany (old and new Länder) 50%. Generally, the average earnings in the first group are 30-40% higher than in the latter group.

In Luxembourg the difference of the average earnings between the two lower-qualified groups is on the contrary greatest, 41%. In Spain it is 28% and in Italy 26%. The discrepancy in the average earnings of these two educational groups is smallest in Finland (4%) and in France (7%).

The variations within the different categories are generally greater the longer the period of education. Employees who have had a longer period of education tend to take up occupations with greater career opportunities, and this increases the spread of earnings.

Figure 5: Gross monthly earnings by education by Member States in 1995 in ECUs



Source: Eurostat, Structure of Earnings Statistics



The influence of education on earnings increases with age. For example, Finnish employees aged between 25 and 29 with a university degree earned 32% more than employees with only first stage of secondary or lower education. But employees with a university degree in the over-54 age group earned twice as much as those who had only completed the first stage of secondary or lower education.

EARNINGS IN INDUSTRY AND SERVICES ARE SIMILAR

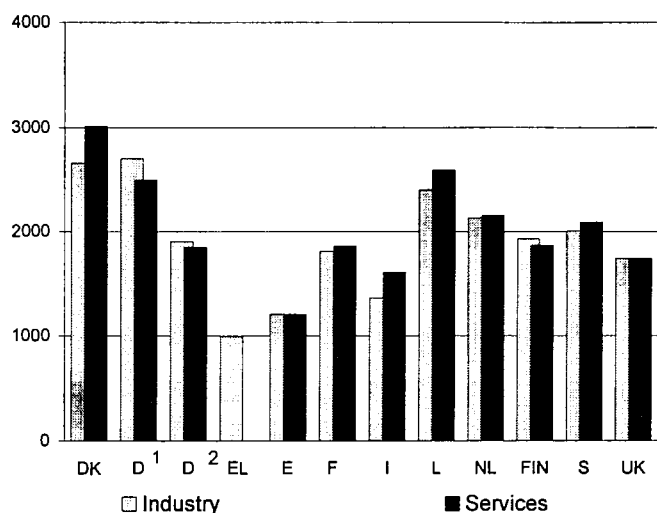
Comparing the two main economic branches, industry and services, the differences in average earnings are not very significant. In the old Länder of Germany, average earnings in industry are 8% higher, and in the new Länder of Germany and in Finland 3% higher than in services (Figure 6). In Spain and in United Kingdom average earnings in industry are almost identical with those in services. In the rest of the countries, average earnings in services are higher than in industry. In Italy average earnings in service sector are

18% higher and in Denmark 13% higher and in Luxembourg about 7% higher than in industry.

Average earnings within industry and services vary considerably. The activity with the highest monthly earnings

is to be found in services, that is financial intermediation. It is either the highest remunerated activity or at least it is among the three highest remunerated activities in each country. But the branch with the lowest average earnings is also in services - namely the hotel and restaurant activity.

Figure 6: Gross monthly earnings in industry and in services by Member States in 1995 in ECUs



Source: Eurostat, Structure of Earnings Statistics



In the following annex you will find more detailed results of the Structure of Earnings Statistics. The mean monthly earnings in ECUs for full-time employees are broken down according to the following classifications:

- by occupation
- by economic activity of employer
- by education
- by local unit size
- by age
- by length of service

Mean gross monthly earnings in ECUs (full-time employees) 1995



	DK	D ¹	D ²	EL	E	F	I	L	NL	FIN	S	UK
TOTAL	2 844	2 646	1 886	996	1 208	1 836	1 469	2 515	2 142	1 901	2 044	1 740
by occupation												
Managers	4 574	4 897	3 186	2 003	2 603	3 737	4 596	6 018	3 083	3 312	3 264	2 617
Professionals	4 025	4 293	2 780	1 369	2 028	3 469	2 527	4 145	2 858	2 534	2 640	2 495
Technicians and associate professionals	3 189	3 129	2 169	1 202	1 525	1 997	1 799	3 137	2 274	2 081	2 182	2 107
Clerks	2 687	2 591	1 933	926	1 091	1 448	1 465	2 305	1 788	1 653	1 654	1 276
Service and sales workers	2 179	2 049	1 468	886	868	1 235	1 169	1 729	1 648	1 468	1 615	1 061
Total non-manual	3 245	3 008	2 155	1 131	1 415	2 197	1 697	2 907	2 358	2 049	2 250	1 893
Crafts and related trades workers	2 504	2 495	1 773	963	1 082	1 463	1 164	2 199	1 845	1 837	1 800	1 635
Plant and machine operators	2 259	2 406	1 769	946	1 095	1 477	1 349	2 248	1 882	1 773	1 758	1 465
Elementary occupations	2 176	1 962	1 528	772	789	1 153	1 152	1 556	1 588	1 491	1 503	1 198
Total manual	2 322	2 353	1 730	930	1 025	1 436	1 232	2 078	1 824	1 743	1 747	1 485
by economic activity												
Mining and quarrying	3 488	2 726	2 269	1 222	1 416	2 090	1 257		3 350	1 735	2 132	2 310
Manufacturing	2 628	2 711	1 841	965	1 227	1 842	1 336	2 603	2 109	1 924	1 991	1 709
Electricity, gas and water supply	3 225	2 997	2 239	1 136	1 738	2 018	1 723		2 634	2 127	2 221	2 134
Construction	2 682	2 578	1 900		1 042	1 613	1 441	2 106	2 073	1 936	2 012	1 754
All industry	2 657	2 701	1 900	996	1 207	1 810	1 364	2 401	2 129	1 929	2 005	1 741
Wholesale and retail trade; repair of motor vehicles	2 698	2 352	1 673		1 015	1 712	1 185	1 999	1 940	1 757	1 943	1 507
Hotel and restaurants	2 408				906	1 312	1 127	1 593	1 735	1 494	1 668	1 131
Transport, storage and communication	2 957				1 335	1 570	1 670	2 717	2 158	1 876	1 977	1 765
Financial intermediation	3 403	2 926	2 202		1 653	2 328	2 170	3 508	2 530	2 063	2 544	2 135
Real estate, renting and business activities	3 214				1 274	2 133	1 487	2 571	2 327	1 982	2 247	1 950
All services	3 012	2 488	1 840		1 208	1 861	1 607	2 589	2 152	1 867	2 089	1 740

D¹ = the territory of the Federal Republic before 3th October 1990

D² = the new Länder together with East Berlin

Source: Eurostat, Structure of Earnings Statistics

ECU conversion rates in 1995:	DKK	DEM	DEM	GRD	ESP	FRF	ITL	LUF	NLG	FIM	SEK	GBP
1 ECU =	7.33	1.87	1.87	302.99	163.00	6.58	2130.14	38.55	2.10	5.71	9.33	0.83

Mean gross monthly earnings in ECUs (full-time employees) 1995



	DK	D ¹	D ²	EL	E	F	I	L	NL	FIN	S	UK
by education												
Less than upper secondary level	2 349	2 117	1 549	933	1 012	1 630	1 291	2 190	1 821	1 723	1 828	1 456
Upper secondary level	2 761	2 620	1 774	968	1 295	1 744	1 627	3 085	2 050	1 786	2 072	1 752
Third level (university or otherwise)	3 847	3 946	2 667	1 386	1 705	2 744	2 526	3 930	3 030	2 567	2 593	2 447
by local unit size												
from 10 to 19 employees	2 744	2 294	1 652	741	937	1 666	1 422	2 169	1 822	1 766	1 891	1 610
from 20 to 49 employees	2 786	2 397	1 719	808	1 037	1 695	1 036	2 281	1 991	1 780	1 974	1 654
from 50 to 99 employees	2 841	2 463	1 820	924	1 186	1 783	1 161	2 437	2 066	1 822	2 074	1 665
from 100 to 249 employees	2 903	2 557	1 890	994	1 276	1 833	1 211	2 477	2 186	1 914	2 093	1 743
from 250 to 499 employees	2 881	2 664	2 049	1 087	1 400	1 864	1 332	2 606	2 235	1 981	2 074	1 728
from 500 to 999 employees	3 041	2 768	2 159	1 166	1 507	2 049	1 417	2 706	2 236	1 991	2 168	1 786
Over 1000 employees	2 789	2 964	2 270	1 329	1 585	2 334	1 663	2 910	2 324	1 964	2 193	1 793
by age												
Up to 19 years	1 726	1 675	1 381	482	564	1 013	882	1 450	857	1 217	1 414	909
between 20 and 24 years	2 170	1 922	1 570	620	732	1 196	1 018	1 773	1 384	1 451	1 564	1 275
between 25 and 29 years	2 582	2 266	1 778	754	941	1 560	1 187	2 238	1 766	1 683	1 800	1 639
between 30 and 44 years	3 002	2 709	1 910	997	1 252	1 892	1 475	2 674	2 291	1 948	2 118	1 935
between 45 and 54 years	3 125	2 927	1 967	1 224	1 490	2 279	1 770	2 947	2 639	2 009	2 221	1 911
Over 55 years	3 077	2 952	2 014	1 200	1 402	2 719	2 086	3 281	2 797	1 944	2 108	1 697
by length of service												
Up to 2 years	2 754	2 252	1 683	722	840	1 483	1 164	2 179		1 747	1 897	1 624
between 2 and 5 years	2 774	2 383	1 819	803	1 047	1 787	1 296	2 294		1 915	2 047	1 749
between 5 and 10 years	2 874	2 526	1 948	933	1 235	1 922	1 387	2 534		1 881	2 080	1 827
between 10 and 20 years	3 006	2 803	2 011	1 174	1 372	1 965	1 603	2 798		1 952	2 152	1 914
Over 20 years	3 223	3 087	2 094	1 537	1 537	2 208	1 859	3 243		2 008	2 123	1 820

D¹ = the territory of the Federal Republic before 3th October 1990

D² = the new Länder together with East Berlin

Source: Eurostat, Structure of Earnings Statistics

THE STRUCTURE OF EARNINGS STATISTICS (SES)

Structure of Earnings statistics relating to the year 1995 were collected during 1996 in every Member State of the European Union, together with Norway and Iceland (as exceptions, the reference years for France and Austria are respectively 1994 and 1996). Council Regulation (EC) No. 2744/95 laid down that a sample survey of employers should be conducted by the national statistical services for this purpose, except where equivalent information was available from other appropriate sources. The Regulation was implemented by the national statistical offices of the Member States, each following its own practices in such areas as sample design and the calculation of appropriate weighting factors, but applying the agreed arrangements for implementing the Regulation (available from Eurostat).

The statistics exclude persons who are self-employed or who work in local units employing less than ten people, and also employees in agriculture and fishing, public administration and defence, education, health and social work, other community, social and personal service activities, private households or extra-territorial organisations (together with certain other exceptions on a national basis).

The Structure of Earnings Statistics includes information on hourly, monthly and annual earnings. The monthly figures given here refer only to full-time employees. Persons employed as trainees are excluded here because their lower rates of pay would distort the averages. Overtime payments, and bonuses paid for working shifts or for other reasons, are included in the monthly figures.

The SES may be consulted on-line in Eurostat's New Cronos database, together with a full description of the methodologies used at EU and national levels. Both the data and methodologies may also be obtained from the Eurostat data shops (see below).

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