

Conditions of Entry and Residence of Third Country Highly Qualified and Highly Skilled Workers: the Situation in Germany

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Conditions of Entry and Residence of Third Country Highly Qualified and Highly Skilled Workers

The Situation in Germany

By Barbara Heß and Lenore Sauer

Study in the framework of the European Migration Network

**Small Scale Study III:
Conditions of entry and residence of Third Country Highly-Skilled Workers in the EU**

German National Contact Point



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1. Executive summary

In recent years, public debate in Germany has repeatedly focussed on inflows of highly qualified migrants. In view of Germany's demographic development, the fact that educational attainment in the tertiary sector is – though improving – still below the OECD average, and the growing demand for qualified workers, it can be assumed that Germany will in future be facing a shortage of highly qualified labour. Political and legal reforms have already been implemented in response. As of 1st January 2005, the new Immigration Act has taken effect, which aims at regulating migration inflows in accordance with the economic and labour market interests of the Federal Republic of Germany.

In order to describe migration inflows of third-country nationals to Germany who are either “highly qualified” workers (defined by their formal qualification) or “highly skilled employees” (defined by their actual occupation, irrespective of their formal qualification), we have analysed data provided by the Federal Labour Agency (BA) and the Central Register on Foreigners (AZR). The BA does only compile data on employment within the scope of national insurance (insurable employment). The AZR, on the other hand, comprises data on all (employed or self-employed) third country nationals, but without differentiating between occupation groups.

As a classification of the labour force in accordance with ISCO standards (International Standard Classification of Occupations) is not available for Germany, it has been necessary to carry out such a classification. The scope of this study has been limited to the following major groups of the ISCO classification: major groups 1 (Legislators, senior officials and managers), 2 (Professionals) and 3 (Technicians and associate professionals) As German statistics do generally only differentiate between Germans (German citizenship) and Foreigners (non-German citizenship), it has not been possible to provide information on persons with a migration background.

The legal basis for migration inflows of highly qualified or highly skilled workers to Germany is formed by § 19 Par. 1 AufenthG, which offers the possibility of granting a settlement permit to highly qualified third-country applicants. Other highly qualified third-country nationals who do not fulfil the criteria defined by § 19 AufenthG have the possibility of being granted a limited residence permit in accordance with § 18 AufenthG. For several occupation groups, this permit is granted without having to obtain the approval of a government employment agency, for example for executive personnel (§ 4 Ordinance on the Admission of Foreigners for the Purpose of Taking up Employment / Employment Ordinance - BeschV), persons working in science, research and development (§5 BeschV), journalists (§8 BeschV). Other occupations require formal approval by government employment agencies, for example IT specialists and persons with an academic degree (§27 BeschV), senior employees and specialists (§ 28 BeschV), as well as qualified staff entering the country in the context of international exchange programmes (§31 BeschV). Highly qualified workers intending to be self-employed are first granted a limited residence permit (in accordance with §21 AufenthG), which – after a period of three years – can be converted into an unlimited settlement permit.

However, programmes or organisations for systematically recruiting highly qualified or highly qualified labour do not exist. In contrast to university students, who are being catered for by a large number of exchange programmes conducted by universities or foundations, hardly any programmes exist for employees. The primary goal of the existing organisations is to provide contacts and employment for highly qualified German and non-German workers, and to give support to highly qualified non-Germans intending to return to their home countries.

The legal status of third-country nationals and their family members who live in Germany is determined by the purpose for which a legal residence title has been granted. According to § 29 Par. 5 AufenthG, family members joining third-country nationals who already are residents of Germany are granted the same employment entitlements as this family member. As far as taxation is concerned, highly qualified third country nationals are not granted any preferred status.

Apart from the so-called Green Card Initiative for IT specialists, which has led to significantly smaller inflows of qualified specialists than had originally been intended, Germany has little experience with recruitment programmes for highly qualified labour. However, a detailed analysis of the data of the Central Register on Foreigners (AZR) is planned and maybe can give a deeper insight into labour migration.

On the basis of the data that the Federal Labour Agency provides on employees who are subject to national insurance contributions, it can be said that - within major groups 1, 2 and 3 of the ISCO classification - a total of 215,000 foreign nationals were employed in Germany in the year 2005. The proportion of non-German labour in ISCO groups 1-3, which stands at slightly less than 4 %, is thus lower than the proportion of non-German workers in the entire labour force (which stands at about 7 % for all occupational groups taken together).

If one differentiates the data for male and female employees, it can be seen that the proportion of male non-German employees in ISCO groups 1-3, which stands at 52.1 %, is slightly higher than the respective figure for male German employees (50.2 %). Especially in the occupations grouped together in the ISCO 1 category, the differences between male employees of non-German and German nationality is conspicuous (69.1 % vs. 63.4 %). In the occupational groups classified as ISCO 3, on the other hand, the proportion of male non-German employees is lower than the respective figure for male German employees (37.4 % vs. 39.1 %).

If one differentiates the data according to the country of origin of employees, it can be seen that more than 39 % of the approximately 215,000 non-German workers in ISCO groups 1-3 come from one of the EU-14 countries. Approximately 8.7 % originate from EU-10 countries, whereas almost 53 % are third-country nationals. The proportion of employees originating from third countries has remained stable in recent years. The proportion of EU-10 nationals, on the other hand, has increased from 7.4 % in the year 2000 to 8.7 % in the year 2005, whereas the proportion of EU-14 nationals has decreased. In relation to the total number of all employees, the proportion of employees in ISCO groups 1-3 was higher between the years 2000 and 2005 for EU-14 nationals (at approximately 15 %) and EU-10 nationals (at 16 %) than for third-country nationals. The proportion of the latter stood at approximately 10 %.

Between 2000 and 2005, the main country of origin for third-country nationals was Turkey, with the proportion of Turkish nationals – compared to all third-country nationals in ISCO groups 1-3 – falling from slightly less than 24 % to slightly more than 21 %. A similar decrease (from 14 % to 9 %) has been witnessed for nationals of the (former) Yugoslavia, the second most important country of origin. Approximately 6 % to 7 % of the third-country nationals in ISCO groups 1-3 originate from Croatia and the United States of America. A remarkable fact in this respect is that the percentage of US employees in ISCO groups 1-3, which stands at about 30 % in relation to all US employees, is very high indeed. For Croatian nationals, on the other hand, the respective figure amounts to no more than 10 %. The respective figure for Turkish nationals, at 5 %, is particularly low. This low proportion can be explained by the Turkey's economic level of development, which is significantly lower than that of the US, and the different economic structure, especially concerning the sectors of the economy.

Within the occupational groups categorised as ISCO 1, the high proportion of employees from the Russian Federation and the USA is noticeable. The ISCO 2 occupations are marked by a high proportion of Russian chemists, physicists and mathematicians, as well as physicians and pharmacists. In the ISCO 3 groups, one remarkable fact is the high proportion of Turkish and (former) Yugoslavian nationals among technicians, mechanical engineering technicians, security personnel and health-service workers. Within these occupational groups, nationals from these two countries make up more than 40 % of all third-country employees.

An additional analysis of the data provided by the Central Register on Foreigners has shown that out of the 279 settlement periods for highly qualified workers which were granted in accordance with § 19 AufenthG during the first seven months of the year 2006, 40 were allocated to nationals of the Russian Federation,

followed by the United States (26), Turkey (23), and China (15). Additional data has shown that in about 60 % of cases, highly qualified workers have entered the country as specialists and executives. A further 30 % have entered Germany as science professionals with special expertise and, in 10 % of cases, as teaching professionals. As far as the regional distribution among the German federal states is concerned, the majority of highly qualified workers has settled down in the largest German states: Baden-Württemberg, Bavaria and North-Rhine Westphalia. With the exception of Saxony, hardly any highly qualified workers have moved to the newly-formed states in former Eastern Germany.

2. Introduction: Third-country highly qualified and highly skilled workers in Germany

In recent years, public debate has increasingly focussed on migration inflows of specialists and other highly qualified workers. The current situation on German as well as on international labour markets is characterised by high levels of unemployment accompanied by a simultaneous shortage of experts and specialised personnel. The existing qualification structure of the national labour force potential is not in accordance with the qualification demands of a rapidly changing globalised economy and a national economy undergoing far-reaching structural changes (qualificational mismatch). In spite of considerable efforts to improve qualification levels of employees as well as of unemployed persons, an additional demand for highly qualified experts has to be acknowledged.

The situation is further exacerbated by the demographic changes in the European Union¹ and the tendency that highly qualified workers prefer emigrating to countries like Canada and the USA. In “Strategic Plan for Legal Migration” (2005) the EU Commission has presented proposals for a directive on the entry and residence entitlements for highly qualified workers from third countries. The EU Commission has in this context also raised the question of whether EU-internal mobility should be included in such a proposal, or whether it would be preferable to draft more specific options. The debate has focussed on proposals for an EU work permit, which is to be granted by one member state, but would subsequently be valid for the entire European Union (EU Commission 2005: 8). The Federal Government of Germany has expressed its agreement with the EU Commission on the point that inflows of highly qualified persons on the labour markets of EU member states should be regulated flexibly and unbureaucratically. However, inflows of migration on national labour markets constitute a politically highly sensitive issue, making it necessary to leave some scope for regulation by individual member states.

In this context, the terms “highly qualified”, on the one hand, and “highly skilled”, on the other, are differentiated in the following way: “highly qualified“ refers to the qualification level that a person has attained, whereas “highly skilled“ refers to the occupation that is currently held. This term is used here to differentiate this group from “highly qualified“ personnel, as the group of “highly skilled” personnel does also comprise persons who work in certain occupations even though they have not attained respective educational certificates.

2.1 Aim of the study

In order to concretise the proposals presented by the European Commission, it will be necessary to identify similarities and differences among member states concerning the demand and the conditions of entry for highly qualified workers. The European Commission has therefore commissioned the member states, via the European Migration Network (EMN), to compile the following small-scale study. This study aims at provid-

¹ The EU Commission has based its proposals on EUROSTAT forecasts, according to which the population increase in the EU until the year 2025 will be due primarily to net migration inflows, as the mortality rate will exceed the birth rate from the year 2010 onwards. This development will have an impact on the proportion of the working population, in relation to the total population. If one assumes that the age of retirement will remain unchanged, the respective proportion of the working population will decrease from 67.2 % in 2004 to 56.7 % in 2050 (EUROSTAT press statement; 8th April, 2005).

ing an overview of the legal requirements for the entry of highly qualified third-country nationals and their family members. The study will also focus on rights and obligations of this group of migrants, and provide information on recruitment programmes and respective experiences. The concluding part of the study comprises in-depth statistical information.

2.2 Demand for highly qualified workers

In order to ascertain the demand for highly qualified workers, it is necessary to take both supply and the demand for highly qualified personnel into consideration.

The German population is expected to undergo two fundamental changes: it will first age increasingly and then shrink considerably (Federal Statistical Office 2003). Consequently, the number of people retiring from the labour market will exceed the number of newcomers entering the labour market for the first time. However, these processes could, at least partly, be compensated by an increasing labour participation rate (especially of women) and political decisions to raise the retirement age (Fuchs/Schnur/Zika 2005: 1). The authors just mentioned estimate that there will also be considerable differences between Eastern and Western Germany. Whereas the labour supply in Western Germany will remain relatively stable until the year 2020, Eastern Germany will witness a dramatic decrease (Fuchs/Schnur/Zika 2005: 2f.). The demographic developments will have an impact on the number of qualified younger workers entering the labour market. But – within certain limits – smaller age groups could be compensated by stepping up efforts to improve the qualification structure of the labour force. During the years 1988 to 2004, however, German growth rates in educational participation and in the number of students taking up university studies stayed below the average growth rate among OECD member countries. Whereas participation quotas in educational courses offered by universities and universities of applied sciences rose by 24 % between 1995 and 2004, the total population in these age groups has decreased by 16 % during that period. On the whole, the number of students in the tertiary sector of education increased by only 8 % between 1995 and 2004, whereas the OECD average rose by 49 % during the same period (OECD 2006). In coming years, both developments could lead to a decreasing supply of highly qualified workers (in absolute numbers).

In addition, migration outflows of qualified workers do also play an important role. Traditionally, the issue of migration outflows from Germany has mostly been neglected in migration research. Consequently, only few studies have been published that focus on emigration and its underlying motives. In recent years, there has been increasing interest in the topic, especially in the context of the debate on the global “competition for the brightest minds”, often based on the widespread assumption that massive migration outflows are under way. But one has to keep in mind that there is no reliable data on migration outflows of highly qualified experts leaving Germany. Estimates that have been published are either based on the immigration statistics of other countries or on studies focussing on the careers of specific groups of professionals (Janson/Schomburg/Teichler 2006: 93). For example, a study published in 2005 has come to the conclusion that there has been an increase in the number of H-1B visas issued as well as in the number of highly qualified workers being granted a permanent residence title in the USA. However, respective figures are still quite low in absolute numbers (Diehl/Dixon 2005). Another study, which was also published in the year 2005, has drawn a similar conclusion. On the basis of data provided by the Socio-Economic Panel (SOEP), researchers have found that highly qualified workers are significantly more likely to emigrate, in relation to other groups of German emigrants, even though they do not form a majority in absolute terms (Schupp/Söhn/Schmiade 2005: 289).

Detailed projections of the demand for qualified labour, not to mention of the exact gap between labour supply and demand and the resulting demand for labour-market oriented immigration, are not feasible, neither in general nor specifically for individual occupations, qualification levels or regions. Estimations about the long-term labour demand in Germany are conducted on the basis of the IAB/Prognos model or

IAB/INFORGE labour market projections. The results of these projections depend significantly on the rate of economic growth that can be expected for future years.² A projection published by IAB/Prognos in the year 1999 has drawn the conclusion that high-ranking occupations – including executive positions, organisation and management, research and development, care, counselling and teaching – will dramatically gain in significance in the future (Dostal/Reinberg 1999). Other studies published by the IAB have drawn similar conclusions (Reinberg/Hummel 2003: 5ff.). On behalf of the state governments, the federal and state government commission on educational planning and research promotion (BLK) has since 1978 provided projections of the labour market supply and demand. These analyses, which are also based on the IAB/Prognos projections, are carried out every five years. In its latest projection, which was published in the year 2002, the BLK has reached the conclusion that demand for well and highly qualified labour will increase significantly (BLK 2002: 88ff.). One has to keep in mind, however, that long-term labour market projections are always fraught with major uncertainties (Fuchs/Schnur/Zika 2005: 2).

This situation raises the question if additional sources of information are available in order to detect labour market tendencies that would allow conclusions about difficulties in filling vacancies for highly qualified workers. One source of information can be found in analyses of current labour market trends providing information on the current demand as well as on future trends, which could form the basis of projections of future labour market demand.

On the whole, the labour market for academics has recovered in recent years, both as far as unemployment rates and the number of available jobs are concerned. In September 2005, for example, the number of academics who have been registered as unemployed with the Federal Labour Agency has decreased by 3 %, or 245,325 persons, compared to the previous year. Positive developments on the labour market for highly qualified and highly skilled personnel have thus continued (September 2003: 253,360 academics registered as unemployed; September 2004: 252,699 academics registered as unemployed). In relation to all persons registered as unemployed, the proportion of academics amounted to 5.4 % in September 2005 (Federal Labour Agency - Bundesagentur für Arbeit 2006: 7).

During the year 2005, public and private employers have reported a total of 115,912 job vacancies to local employment agencies, an increase by approximately 17 % over the year 2004 (Federal Labour Agency - Bundesagentur für Arbeit 2006: 4). Not all available job vacancies are reported to local employment agencies. According to a survey, which was carried out by the Association of German Chambers of Industry and Commerce (DIHK) in 2005, 16 % of the companies surveyed reported that they had been unable to fill all job vacancies. Currently, the pharmaceutical industry is facing the greatest difficulties in filling vacancies, with 30 % of the companies surveyed complaining about a shortage of highly qualified personnel. Similar shortages – at 25 % - have been reported by companies specialising in mechanical engineering and vehicle construction (DIHK 2005: 6ff.).

Another indicator for the intensity of labour market demand is the so-called vacancy quota, i.e. the ratio between the number of job vacancies and the current number of employees. If one compares vacancy quotas for the years 2004 and 2005, a generally positive trend on the labour market for academics becomes evident. Whereas the vacancy quota for people with a university degree stood at 2.1 % in 2004, it rose to 3.0 % in 2005 (total) or 2.9 % (without publicly sponsored vacancies), which equals an increase by almost 50 % (Kettner/Spitznagel 2006: 3).

On the whole, current developments on the labour market for academics are clearly positive, with engineers, sales and marketing specialists, IT experts as well as consultants and medical specialists being in particular demand.

² Model calculations of economic development in Germany are based on the following assumptions, among others: economic demand in Germany, economic development of major trading partners, price of mineral oil, development of taxation and national insurance contributions.

2.3 Political and legal developments affecting highly qualified third-country nationals

Since the Ban on Recruiting Foreign Labour took effect in Germany in 1973, third countries nationals have found it almost impossible to migrate to Germany for the purpose of taking up employment. In the late 1980s, however, some sectors of the German economy reported a shortage of suitable job applicants, in spite of generally high levels of unemployment. In response to this shortage, the general Ban on Recruiting Foreign Labour was eased, at least partly (BMI 2006a: 64). The so-called Directive on Exceptions to the Ban on Recruiting Foreign Labour, which was implemented as of December 21, 1990, listed several occupations that would be excluded from the general ban on recruiting non-German labour. As far as highly skilled occupations are concerned, the list of exceptions includes “academics and scientists who are to be employed in research and teaching” (§ 5 No. 1 ASAV - Directive on Exceptions to the Ban on Recruiting Foreign Labour), as well as “specialists with an academic degree - university or university of applied sciences – or comparable qualification, if their employment is in the public interest because of their specific expertise“ (§ 5 No. 2 ASAV).

Since 1998, another possibility to recruit non-German experts has been via company-internal labour markets, a possibility that has been used by international corporations with overseas branches in particular (§ 4 Par. 7 and 8 ASAV). In March 2000, a special recruitment programme was implemented for highly qualified non-German IT and communication technology experts, which was passed in accordance with corporate and trade associations in order to reduce the shortage of qualified specialists in the IT sector. As of August 1, 2000, two foreign-resident and labour law directives took effect (the so-called “Green Card” regulations), which allowed IT experts from countries outside the European Economic Community to take up employment in Germany. As of January 1, 2005, the Green Card regulations were replaced by the new Immigration Act.

In the past, foreign-resident law did not comprise any specific directives for self-employed persons, so that respective applications were processed on the basis of general foreign-resident law regulations on granting residence and work permits. Generally, a residence permit was only granted when regarded in specific public interest. In addition, authorities also based their decisions on the principal of reciprocity, i.e. permits were only granted if the home country of an applicant also allowed residence of German self-employed persons (the legal basis for these decisions was formed by §§ 7, 13 Par. 1, in connection with § 15 or § 28 Par. 1 AuslG – Foreigners Act).

On 1st January 2005, the new Immigration Act took effect in Germany. The key part of this legislation is formed by the Residence Act (AufenthG). The Immigration Act aims, at allowing and regulating migration inflows, provided that they are in accordance with the overall immigration and integration capacity and the economic and labour-market interests of the Federal Republic of Germany (§ 1 AufenthG). Consequently, the legislation upholds the goal of allowing entries of highly qualified workers. It has not, however, codified ethical standards for recruiting non-German labour. A detailed outline of the legal conditions for migration inflows of highly qualified workers can be found in Chapter 4.

3. Methodology and data sources

The data used for this study have been provided by the Federal Labour Agency (Bundesagentur für Arbeit - BA) and the Central Register on Foreigners (Ausländerzentralregister - AZR) which is located at the Federal Office for Migration and Refugees. The Federal Labour Agency does only compile data on employees subject to social contributions. Consequently, this data cannot form the basis for any statements about the economically active population as a whole. The Central Register on Foreigners, on the other hand, comprises data on all (employed or self-employed) third-country nationals that have been granted a legal residence title (cf. Chapter 4), but without differentiating between occupational groups. In order to provide a detailed sur-

vey of highly skilled third-country nationals that have taken up employment in Germany, both data sources have been analysed.

As classifications of the labour force in accordance with ISCO standards (International Standard Classification of Occupations) are not available for Germany, we have re-arranged the data provided by the Federal Labour Agency according to occupational groups (two-digit) and occupational categories (three-digit), in order to make clear in which way the categories used differ from the ISCO classification (“vocational groups mainly categorised as ISCO major group 1” etc.). The classification of occupations has been less problematic for the first three ISCO groups (ISCO 1: Legislators, senior administrators and executives of private enterprises; ISCO 2: scientists and academics; ISCO 3: Technical experts and associate professionals) than for groups 6 to 8, which – at the request of the EMN – were to be included in this study as well (ISCO 6: skilled agricultural and fishery workers; ISCO 7: craft and related trades workers; ISCO 8: plant and machine operators and assemblers). Due to the difficulty of classifying occupations in accordance with the ISCO standard, the huge amount of data available for ISCO groups 1, 2 and 3, and the fact that German statistics do not consider people working in occupations classified as ISCO categories 6, 7 and 8 as highly skilled or highly-qualified labour, we have decided not to include groups 6, 7 and 8 in our analysis.

As German statistics do generally only differentiate between Germans (German citizenship) and Foreigners (non-German citizenship), it has been impossible to provide information on persons with a migration background. The latter group comprises ethnic German immigrants (Aussiedler/Spätaussiedler), naturalised persons as well as children of parents with a non-German nationality. It remains to be seen if the latest statistical data, which has just been published by the Federal Statistical Office (Statistisches Bundesamt 2006: 9), according to which the number of residents with a migration background is approximately twice as high as the number of non-German residents of Germany, can be transferred to the topic at hand. Furthermore, it has not been possible to obtain the requested information on the duration of residence, on the the number of applications submitted by and on the rejections received by highly skilled workers.

The definitions used here for highly skilled or highly qualified workers as well as a detailed description of the available data sets can be found in the following chapters.³

3.1 Data provided by the Federal Labour Agency (BA)

The data based on Federal Labour Agency statistics is derived from two sources: firstly, from data sets that are available to the general public on the Internet site of the agency and, secondly, from a differentiated analysis of the data on the countries of origin of third-country nationals. A differentiation of the data, according to German or non-German male or female employees, has been possible for the first time for the year 2005. For previous years, the only differentiation that has been available is the distinction between total numbers of males and females.

The data sets are based on the official employment statistics which, however, only comprise information on employees that are subject to national insurance contributions-. The figures are registered each year, with June 30 as the date of reference. The basis of the official employment statistics is formed by the Classification of Vocations (Berufsordnung - BO), which is structured around categories of comparable occupations. The classification defines occupation as the currently held occupation, irrespective of vocational or educa-

³ The available data does only include legal employees. Naturally, detailed and reliable data on the number and social structure of illegally resident migrants is not available.

The proportion of non-German employees, in relation to all employees that are subject to national insurance contributions, has been decreasing for ten years now. Probably, this can only to a lesser extent be explained by the fact that non-German employees are being pushed into illicit work. A more likely explanation is that these workers are pushed into self-employment, mini- and mid-jobs, unemployment or they have become discouraged over time from actively looking for work. With regard to general economic development in Germany, illicit work seems to decrease.

tional qualifications. There are only some occupational groups where the classification is not based on the occupation currently held but on the qualification, for example medical doctors and pharmacists (Occupational group 84). Within this group, the Federal Labour Agency only registers people with an academic degree. On the whole, the data on occupations is grouped into 3 occupational areas, 20 occupational fields, 83 occupational groups, and 319 occupational categories.

As this study focuses on highly skilled employees, the majority of whom are classified by ISCO into major groups 1, 2 and 3, we have chosen those occupations from the occupational groups that are identical or similar to the occupations classified by ISCO. On the whole, the classification of the Federal Labour Agency uses a similar structure for occupational groups as the ISCO classification. However, some of the groups in the BA classification comprise occupations that have been categorised under a different heading in the ISCO classification. In these cases, occupations have been classified in accordance with the ISCO classification by the prevailing characteristics of respective occupational groups.

Table 1 gives a summary of the various occupational groups and classifications.

Table 1: Occupational groups surveyed in this study (according to Federal Labour Agency classification)

Occupational groups mainly categorised as ISCO 1 (Legislators, senior officials and managers)

76	Legislators and senior officials	761	Legislators, government ministers and state secretaries, elected officials
		762	Senior government officials and administrative experts
		763	Senior officials of special-interest organisations
75	Entrepreneurs, corporate managers, certified accountants	751	Directors and chief executives
		752	Business consultants, general managers
		753	Certified accountants, tax consultants

Occupational groups mainly categorised as ISCO 2 (Professionals):

61	Chemists, physicists, mathematicians	611	Chemists; chemical engineers
		612	Physicists, physical engineers, mathematicians
60	Engineers	601	Engineers in mechanical engineering and vehicle construction
		602	Electrical engineers
		603	Architects, Civil engineers
		604	Surveying engineers
		605	Mining, foundry and metallurgical engineers
		606	Other engineers in manufacturing
		607	Other engineers
88	Occupations in humanities and natural sciences, not elsewhere classified	881	Economists, social scientists, not elsewhere classified
		882	Humanities scholars, not elsewhere classified
		883	Natural scientists, not elsewhere classified
84	Medical doctors, pharmacists	841	Physicians
		842	Dentists
		843	Veterinarians
		844	Pharmacists
87	Teaching professionals	871	University and higher education teaching professionals
		872	Grammar school teachers
		873	Secondary and special education teachers
		874	Technical and vocational school teachers, handicraft teachers.
		875	Teachers for musical education, not elsewhere classified
		876	PE teachers
		877	Other teachers
81	Legal professionals	811	Judges
		812	Legal professionals
		813	Lawyers and legal consultants
		814	Legal enforcement
82	Publicists, interpreters, librarians	821	Publicists
		822	Interpreters, translators
		823	Librarians, archivists, conservators

83	Artists and related vocational groups	831	Musicians
		832	Performing artists
		833	Sculptors, painters and related artists
		834	Decorators, sign painters
		835	Artistic vocations, stagecraft, film and audio engineering
		836	Interior decorators, advertisement artists
		837	Photographers
		838	Artistes, professional athletes, supporting artists

Occupational groups mainly categorised as ISCO 3 (Technicians and associate professionals)

62	Technicians	621	Mechanical engineering technicians
		622	Electrical engineering technicians
		623	Civil engineering technicians
		624	Surveying technicians
		625	Mining and metallurgical technicians
		626	Chemical and physical science technicians
		627	Other manufacturing technicians
		628	Other technicians
		629	Technicians with a master's certificate
63	Other qualified technicians	631	Other biological and related qualified technicians
		632	Other physical, mathematical and related qualified technicians
		633	Chemical laboratory assistants
		634	Photographical laboratory assistants
		635	Draughtspersons
03	Estate managers, advisers in agriculture and livestock breeding	031	Estate managers, advisers in agriculture and livestock breeding
		032	Agricultural engineers, agricultural advisers
30	Precision mechanics and related professionals	301	Precision mechanics, not elsewhere classified
		302	Gold-, silversmiths and related professionals
		303	Dental technicians
		304	Optometrists and opticians
		305	Musical instrument makers
		306	Puppet makers, model makers, taxidermists
85	Other health associate professionals	851	Alternative practitioners
		852	Physiotherapists and related associate professionals
		853	Qualified nursing staff, midwives
		854	Practical nurses
		855	Dieticians, nutritionists and medical-technical assistants
		856	Doctor's receptionists
		857	Medical laboratory assistants
80	Security-related professionals	801	Professional soldiers, Customs and border inspectors, police officers
		802	Professional fire-fighters
		803	Security inspectors
		804	Qualified chimney sweepers
		805	Consumer and health protection professionals
89	Clergy and pastoral care	891	Clergy
		892	Members of religious orders, without occupational title
		893	Pastoral care, pastoral assistants

Source: Federal Labour Agency

3.2 Data from the Central Register on Foreigners (AZR)

When the new Immigration Act took effect on January 1, 2005, it also expanded the scope for analyses based on the AZR data, as several new categories were added to the data sets. For example, it has been possible since 2005 to carry out queries on the stated purpose of migration in cases where legal residence titles have been granted, in accordance with respective paragraphs of the Residence Act. As for migrants from third countries, it is thus possible to differentiate between migration for the following purposes: for education, for taking up employment, under international law, for humanitarian or political reasons, for family reasons or for other reasons. Residence titles granted for the purpose of taking up employment can be further differentiated according to § 18 (general employment), § 19 (highly qualified labour) and § 21 (self-employment, cf. Chapter 4). In the context of this study, highly qualified workers that have been categorised in accordance with § 19 AufenthaltG are of particular interest. In addition, categories formed in accordance with § 18 and § 21 AufenthaltG are also relevant. As § 18 refers to dependent employees in general and § 21 refers to all self-employed persons without making any further differentiations, the percentage of highly qualified or highly skilled labour within these groups cannot be ascertained. The following analyses do thus focus on § 19. One has to keep in mind, though, that the highly qualified labour category which has been formed in accordance with § 19 does only include a fraction of the vocational groups comprised by ISCO groups 1, 2 and 3, as the criteria for the classification according to § 19 are much more stringent (cf. Chapter 4).

3.3 Summary

In the following, a summary of the main findings so far:

- The available data only includes information on foreign residents, but not on “persons with a migration background”.
- The most detailed data is available for employment subject to national insurance contributions.
- As the available data is not structured in accordance with the ISCO classification, vocational categories have been assigned to ISCO groups 1, 2 and 3.
- Even though the data contained in the Central Register on Foreigners (AZR) comprises information on all third-country nationals, and since 2005 also allows a more detailed analysis of labour migration, it does not provide any information on individual occupational groups.
- The data available on “highly qualified” persons, which has been categorised in accordance with § 19 AufenthaltG, does only include a fraction of the vocational groups that have been defined as “highly skilled” labour for the purpose of this study.
- No data is available on the duration of residence of highly skilled or highly qualified labour in Germany.
- Likewise, no data is available on the number of residence applications and rejections of highly skilled or highly qualified labour.

4. National legislation regarding conditions of entry and residence of highly qualified and highly skilled labour to Germany

The Residence Act (AufenthG), which has been passed as Article 1 of the new Immigration Act, comprises regulations on residence, employment and the integration of foreign nationals in the Federal Republic of

Germany. As far as labour migration is concerned, it includes the following residence titles: visas, the (limited) residence permit and the (unlimited) settlement permit.

Compared to the previous legal situation, one of the most significant amendments of the legislation concerns the regulation that – in accordance with the concept of one-stop government – only one application has to be submitted with local foreign-resident authorities in order to be granted a legal residence title, as opposed to previous regulations, which mandated that two administrative permits (one for residence, another for employment) were indispensable (§ 4 Par. 2, § 18 Par. 2 in connection with § 39 AufenthG – Residence Act). Work permits are now granted by means of inter-administrative co-operation, i.e. foreign-resident authorities forward applications to local employment agencies which are responsible for granting approval. In cases where a negative impact on local labour markets is not to be expected, the respective approval is not mandatory. Further details are regulated in the Employment Ordinance (BeschV), which lists the following forms of employment:

- Employment where – in order to simplify administrative procedures – *prior approval* by local employment agencies is not mandatory, as it can be expected that respective applicants will not have a negative impact on the employment opportunities of German job-seekers or non-German job seekers with comparable entitlements (Marx 2005: 3). If respective legal requirements are fulfilled, the following occupational groups do not require prior approval, in accordance with §§ 2 - 16 Employment Ordinance (BeschV): migrants entering Germany for the purpose of university studies and internships, employment of highly qualified labour, executives, occupations in science, research and development, management positions, employment of journalists and related occupations, predominantly charitable work, as well as limited forms of employment where residence titles are not necessary.
- *Prior approval is required* for the employment of non-qualified occupational groups: (§18 Par. 3 Residence Act, in connection with §§ 17 - 24 Employment Ordinance). These include seasonal employment, employment of fairground helpers, au-pairs, domestic helpers, employment in the areas of culture and entertainment, as well as internships needed for the recognition of non-German degrees.
- *Prior approval is required* for the employment of certain qualified occupational groups: (§18 Par. 4 Residence Act in connection with §§ 25 - 31 Employment Ordinance). These include: language teachers, speciality chefs, IT specialists, academics, administrative staff and specialists, social workers, nursing staff, as well as foreign nationals entering the country for the purpose of international staff exchange programmes and international projects.
- *Prior approval is required* for several additional forms of employment (§§ 32 - 37 Employment Ordinance). In these cases, prior approval is not linked to the qualification status of applicants, but to their legal status, specific country of origin or to specific forms of employment. These include ethnic Germans, persons with certain nationalities, as well as construction workers that have been sent to the Federal Republic of Germany by non-German companies for constructing prefabricated houses, as well as dependent employees transferred to Germany on a long-term basis.

The question as to whether prior approval by the Federal Labour Agency, or a review of the current labour market situation and prior entitlements of other applicants, is necessary therefore depends on the type of employment sought by third-country nationals. According to § 39, Par. 2 Residence Act (AufenthG). The Federal Labour Agency can thus approve an application to take up employment in accordance with § 18 Residence Act if German employees as well as non-German employees who have comparable legal entitlements for taking up employment, or other foreign nationals who, in accordance with European Union law, have prior labour-market-access entitlements, are not currently available (§ 39 Par. 2 No. 1b AufenthG).

Germany has not passed any immigration quotas for occupational groups.

Applications by academics are subject to the general regulations on qualified specialists with an academic degree or a comparable qualification, according to § 18 Par. 4 Residence Act (AufenthG) and, if they can provide proof of outstanding qualifications, the regulations for highly qualified labour, in accordance with § 19 AufenthG. In addition, § 21 AufenthG contains specific regulations for the immigration of self employed persons.

According to § 19 Par. 1 AufenthG (AufenthG), highly qualified applicants can in special cases be granted a settlement permit. It is thus possible for highly qualified applicants and their family members, if their residence is considered to be in the economic or public interest of the country, to be granted an unlimited residence title, in the form of the permanent settlement permit, right from the start. This special case diverges from the usual practice of § 9 Par. 2 No. 1 AufenthG. The aim of these regulations is to enable these applicants to conduct the necessary "long-term planning". According to § 19 Par. 1 AufenthG, a settlement permit can be granted if

- a specific job offer is available (§ 18 Par. 5 AufenthG),
- it can be expected that the integration of the foreign national into German society will be unproblematic (§ 19 Par. 1 AufenthG),
- and if there is not doubt that applicants can earn their own livelihood and support their family without relying on public assistance (§ 19 Par. 1 AufenthG).

In order to provide additional specifications as to which applicants are to be categorised as highly qualified labour, paragraph 2 of the legislation gives several typical examples for applicants that would under normal circumstances be suitable for an unlimited settlement permit. The examples given refer to academics and scientists with outstanding qualifications, teaching personnel in high-ranking positions, as well as recognised specialists and executive personnel. If the intended employment corresponds with one of the examples mentioned above, granting a settlement permit does not require prior approval by the Federal Labour Agency (§ 3 Employment Ordinance - BeschV):

- As for scientists and academics, outstanding qualifications have been defined by § 19 Par. 2 No. 1 Residence Act as expertise in a specific academic field of particular significance. In cases of doubt, authorities are to obtain a written advisory opinion from qualified scientific or academic institutions or organisations.
- According to § 19 Par. 2 No. 2 AufenthG, the requirements for high-ranking teaching personnel are fulfilled if applicants are either tenured professors or directors of academic institutions. Other scientific or academic personnel can be categorised as high-ranking teaching personnel if they are in charge of scientific projects or head scientific project groups.
- The personnel defined by § 19 Par. 2 No. 3 AufenthG is to be categorised as "highly qualified" if they have the necessary work experience and reached a high-ranking position. In order to prevent that these regulations could be applied or interpreted incorrectly, the law also mandates a minimum income level that applicants have to reach, which has been fixed at 200 % of the contribution assessment ceiling for statutory health insurance funds. This income level has been defined as a regular indication for a high-ranking occupational position and outstanding abilities. For the year 2006, the contribution assessment ceiling for statutory health insurance funds has been fixed at €42,750. Consequently, the minimum income level defined by the law amounts to an annual income of €85,500. The contribution assessment ceiling for statutory health insurance funds is fixed annually at the end of the calendar year in accordance with the development of general income levels.

According to § 3 Employment Ordinance (BeschV), granting a settlement permit to highly qualified applicants under the terms of § 19 Par. 2 AufenthG (AufenthG) does not require prior approval by the Federal

Labour Agency. Consequently, local foreign-resident authorities alone have discretionary power to decide whether the intended employment is in line with the typical examples defined in the legislation. However, foreign-resident authorities have the possibility to send enquiries to the Federal Labour Agency in order to ascertain if the employment does actually not require prior approval. In addition, foreign-resident authorities have to give a prognosis of the applicant's ability to integrate into German society, prior to granting a settlement permit, in order to prevent integration difficulties right from the start. This prognosis has to take the following aspects into consideration: qualification, work experience, age, connection to Germany (for example relatives who already live here or previous employment in Germany), as well as German language skills of the applicant (Storr et al. 2005: 114f.). German language skills, however, are not mandatory.

The residence regulations for migration inflows of highly qualified labour have been controversial right from the start. The report evaluating the Immigration Act has stated that the minimum income level mandated by § 19 Par. 2 No. 3 AufenthG is regarded as too high. In practice, this income level constitutes a substantial obstacle, especially for smaller and medium-sized companies (BMI 2006b: 27). As it can further be assumed that even highly qualified personnel will reach this relatively high income level only at a higher age, the evaluation report on the Immigration Act has suggested that a lower minimum level should be introduced for highly qualified staff younger than 31 or 34 years, respectively. According to this proposal, the income level should be decreased to 150 % of the contribution assessment ceiling for statutory health insurance funds (BMI 2006b: 29).

Another option for highly skilled employees and highly qualified third-country nationals is to apply for a residence permit in accordance with § 18 Residence Act (AufenthG), i.e. a limited residence title. This regulation applies for the following vocational groups, which are listed in §§ 4, 5, 8, 27, 28 and 31 Employment Ordinance (BeschV):

- chief executives (§4 BeschV),
- persons working in science, research and development (§5 BeschV),
- journalists (§8 BeschV),
- IT-specialists and academic professions (§27 BeschV),
- executive personnel and specialists (§ 28 BeschV)
- qualified personnel taking part in international exchange programmes (§31 BeschV).

Other regulations in the Residence Act (AufenthG) aim at facilitating long-term investment by non-German entrepreneurs who have developed a convincing business idea and have already obtained the necessary funding (§ 21 AufenthG). Foreign nationals can be granted a residence permit in order to work as a self-employed person if their occupation is regarded to be of particular economic interest or of particular regional interest (§ 21 Par. 1 S.1 No.1 AufenthG), it can be expected that it will have a positive impact on the economy (§ 21 Par. 1 S.1 No.2 AufenthG), and the applicant has obtained the necessary funding, either by means of equity capital or through lending commitments (§ 21 Par. 1 S.1 No.3 AufenthG). As a general rule, the requirements defined by § 21 Par. 1 S.1 No.1 and 2 can be regarded as fulfilled if the planned investment exceeds the sum of €1 million and if ten new jobs are created (§ 21 S.1 AufenthG). In other cases, authorities have to evaluate the following criteria: the quality of the business idea, the entrepreneurial experience of the applicant, the size of the investment, its impact on the local employment and job training situation, and its contribution to research and innovation. Self-employed applicants can be granted a limited residence permit for a maximum period of three years. Subsequently, they can be granted a permanent settlement permit after three years if they have been successful in realising their business idea and can support themselves without public assistance. The report evaluating the Immigration Act has pointed out that the requirements for self-

employed persons are regarded as too far-reaching. In view of proposals presented by trade associations, and in the context of legislative proposals for implementing European Union directives on residence and asylum law, the regulations defining typical examples for the sum of the required investment and the number of jobs that have to be created are already under review, with a view to lowering respective requirements (BMI 2006b: 32).

Labour from EU member states generally has comparable entitlements to German nationals. Therefore they do not need a special work permit, as EU law based on the general principle of freedom of movement applies to them. According to § 39 Par. 6 Residence Act (AufenthG), labour market access, as far as occupations requiring qualified vocational training are concerned, is possible for nationals of the new EU member states (Czech Republic, Poland, Estonia, Latvia, Lithuania, Hungary, Slovenia and Slovakia). Applicants from these countries can be granted a work permit for qualified occupations in accordance with § 284 Social Security Statutes (SGB III). They thus have prior entitlements, in comparison to third-country nationals entering Germany for the purpose of taking up employment (BMI 2006a: 67). Since May 1, 2004, all entry restrictions have been abolished for nationals of Malta and Cyprus. Similar to citizens of the long-standing EU member states, they do neither require any foreign-national residence title nor an approval by the Federal Labour Agency prior to taking up employment.

Employers cannot take any influence on administrative procedures for granting residence entitlements to non-German labour. The only contribution they can make is to submit the documents required for granting a legal residence status unbureaucratically and without delay. The required documents comprise any proof showing that the criteria defined by §§ 18 and 19 Residence Act (AufenthG) are fulfilled, for example employment contracts (to review the income level) or written advisory opinions by research institutes or universities (providing proof of the scientific significance).

5. Programmes for attracting highly skilled and highly qualified workers

In Germany, there are hardly any national schemes to recruit highly skilled workers from third countries. There are also only very few programmes for establishing contacts as well as for labour exchange. Normally, the existing programmes are not particularly aimed at recruiting labour from third countries, but are rather open to all nationalities. However, there is a wide range of exchange and support programs for university students who also play a role as future highly qualified workers if they take up employment in Germany after their graduation.

Numerous exchange programmes for university students are organised by universities or organisations in Germany. Apart from individual programmes by universities, complementary schemes are offered by the DAAD (German Academic Exchange Service), an organisation of the German institutions of higher education. In addition, there are programmes for academics by foundations, such as the Otto Benecke Foundation, the Fritz Thyssen Foundation or the Volkswagen Foundation. The DFG (German Research Foundation) also provides support for young researchers.

There are a number of large organisations for employees and employers which have the principal task of establishing contacts and providing jobs for German and non-German (highly) qualified workers. They also support (highly) qualified non-German citizens when they return to their country of origin.

The following organisations are dealing with the recruitment of (highly) qualified workers:

Centre for International Migration and Development (Centrum für internationale Migration und Entwicklung, CIM)

The German Technical Cooperation (Gesellschaft für Technische Zusammenarbeit, GTZ) is a commercially organised business company owned by the federal government. It operates as a non-profit organisation. Most

of its tasks are commissioned by the Federal Ministry for Economic Cooperation and Development. In addition, GTZ works for other federal ministries, for governments of other countries, for international clients such as the European Commission, the United Nations or the World Bank as well as business corporations in the private sector.

In cooperation with the Federal Labour Agency (Bundesagentur für Arbeit, BA), the GTZ set up the joint operation “Centre for International Migration and Development (CIM)” to recruit highly skilled and executive personnel, mostly from Germany or other European member states, for employment in developing countries and countries in Central and Eastern Europe. CIM recruits experienced, highly qualified experts and managers for employers in its partner countries.

In addition, CIM supports non-German professionals from developing and transition countries who are currently living in Germany and who wish to return to their respective countries of origin. Recruitment and counselling services for applicants and employers are provided free of charge.

CIM does not engage in the recruitment of foreign professionals to Germany or Europe, they only provide assistance for return.

International Labour Exchange (Internationale Arbeitsvermittlung, ZAV)

Under the umbrella of CIM, the International Labour Exchange (ZAV) provides assistance to professionals from developing and transition countries who are interested in returning. They are supported in their vocational re-integration in their country of origin.

Apart from counselling and recruiting services, interested professionals can obtain financial support, under certain circumstances. ZAV receives these funds from the development fund by the Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, BMZ).

Capacity Building International GmbH, Germany (Internationale Weiterbildung und Entwicklung GmbH, InWEnt)

InWEnt deals with human resources and organisational development in international cooperation. The offered services address professionals, executives and decision-makers in industry, politics, administration and civil society. InWEnt works with partners in developing countries, transition states and industrialised nations.

The programmes are designed on an individual basis in line with the contents required and the timeframe available to the partners. Depending on requirements, InWEnt offers 12-month practice-oriented training courses, for the most part within German companies and sector institutions.

There are special programmes for third country nationals which specially prepare young executives in foreign companies that seek to cooperate with Germany. At the same time, German specialists and junior executives are supported during or after their job training to enhance their mobility and their intercultural competence by undertaking practical training placements in other countries.

Most of its tasks are commissioned by the Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, BMZ). In addition, InWEnt works for other federal ministries, for the German federal states, for international clients such as the European Commission, the United Nations or the World Bank as well as business corporations in the private sector.

Alexander von Humboldt Foundation

The Alexander von Humboldt Foundation is a non-profit foundation that supports international cooperation in research. It was founded by the Federal Republic of Germany. It facilitates long-term research visits in

Germany for highly qualified foreign scientists and supports the academic and cultural links resulting from these visits. The foundation promotes an active network of researchers world-wide. German post-doctoral researchers can in turn obtain support by the foundation to go abroad as fellowship holder to Humboldt visiting researchers.

Konrad Adenauer Foundation

The Konrad Adenauer Foundation is a political foundation that runs two education centers and 16 training centres nationwide. The offices abroad are coordinating more than 200 projects in more than 120 countries. As part of their scholarship programmes, talented and high-achieving young leaders from Germany and abroad are prepared to take over responsibility in politics and economy, in science and the media, in culture or in associations. Beside German students and German postgraduates, the foundation supports also young journalists and artists as well as foreigners.

The listed organisations are the largest of their kind in Germany. In addition, there is a wide range of smaller organisations, some of them offering programmes for special professional groups or selected countries of origin.

In general, the recruitment of highly skilled and highly qualified workers in and to Germany is little developed, with the exception of the universities. A recruitment scheme that is especially targeted to this group does not exist either. The only policy measure that is heading in this direction is the so-called Green Card Initiative that was introduced in 2000. Within this scheme, a maximum of 20,000 IT experts from countries outside the European Economic Area were entitled to work for at most five years in German companies. In order to obtain a work permit within this scheme, the applicant needed to be a graduate of a university or a university of applied sciences with an emphasis on information and communication technology, or he needed to obtain verification of an agreement with the future employer that he will receive a gross income of at least 51,000 Euro. The Green Card regulation was initially in effect until 2003 and was then extended to 2004. In 2005, it was replaced by § 18 Residence Act (AufenthG i.V. m. § 27 Nr. 1 BeschV) as well as by § 19 and § 21 Residence Act (cf. Chapter 4). The GTZ has recruited a total of 1,000 out of the 17,000 Green Card holders.

6. Rights and obligations of third country highly qualified and highly skilled workers in Germany

There are some important differences regarding the legal situation of third country nationals which result from the purpose for which they obtained the residence title. As opposed to other migrants, the professional activity of highly qualified workers according to § 19 Residence Act (AufenthG) is exempt from approval. In special cases, they might obtain a settlement permit (cf. Chapter 4). The settlement permit is the only unlimited residence title in accordance with the Residence Act. It puts the foreigner in the strongest legal position. It is temporarily and geographically unlimited and should not be subject to collateral clauses. It grants special protection from expulsion to foreigners who have been resident in Germany for more than five years (§ 56 Par. 1 No. 1 AufenthG).

After a period of three years self-employed immigrants can also obtain a settlement permit, if their planned professional activity has been put successfully into practice and they are able to make a living (§ 21 Par. 4 AufenthG).

According to § 18 AufenthG, highly skilled and highly qualified employees can obtain a settlement permit if they have been in possession of a residence permit for five years, if they have employment that assures a livelihood, if they have paid the obligatory contributions to the pension insurance fund for at least 60 months, if they haven't been convicted of a criminal offence and sentenced to imprisonment of at least six months during the past three years, and if they have sufficient German language skills (§ 9 Par. 2 AufenthG).

Immigrating family members of foreigners who have a settlement permit or a residence permit in accordance with § 29 Par. 1 AufenthG as well as sufficient living space, can access the labour market, in accordance with § 29 Par. 5 AufenthG, under the same conditions as the family member who is already living in Germany (Storr et al. 2005: 195).

If non-German employees (§ 18 AufenthG) and foreigners who are self-employed in accordance with § 21 AufenthG have a limited residence title according to § 7 AufenthG and the purpose of their residence expires due to job loss or discontinuation of business, the term of their residence period can be shortened subsequently (§ 7 Par. 2 AufenthG). This is subject to a discretionary decision by the responsible foreign-resident authorities. In case of unemployment, employees who have been registered at the Federal Labour Agency as unemployed and fulfil the required times for prospective entitlement⁴, are entitled to Unemployment Benefit I (ALG I).⁵ ALG I is an insurance benefit which is financed by the contributions to the Public Unemployment Insurance. Foreign employees from third countries are also eligible for benefits. By the time Unemployment Benefit I expires, they might be entitled to Unemployment Benefit II (ALG II). ALG II is defined as basic social contribution for employable persons who cannot assure a livelihood from their own financial means.⁶ ALG II is a social contribution that is financed by tax money. As far as foreign employees have not lived in Germany for five years and are therefore not entitled to special protection from expulsion, drawing Unemployment Benefits II can be a reason for the termination of their stay. This is subject to a discretionary decision by the responsible foreign-resident authorities that has to take the public interest into consideration.

Some return policies also include highly qualified experts who wish to return to their respective countries of origin. In this context, the contributions by the “Centre for International Migration and Development” (CIM) as well as the International Labour Exchange (ZAV) should be mentioned (cf. Chapter 5).

There are no differences concerning taxation of highly qualified workers in accordance with §19 AufenthG or other qualified persons from third countries in comparison to Germans.

7. Experience with third country highly skilled and highly qualified workers

As there are only few programmes and organisations in Germany that deal with the recruitment and approach of highly qualified workers and high-level personnel, experiences with this category of persons are rather marginal. Experiences with the Green Card Initiative (cf. Chapter 5) showed, however, that fewer IT experts came to Germany than originally aspired. From August 2000 until the end of 2004, a total number of only about 18,000 work and residence permits for foreign IT experts were issued. Originally, a ceiling of 20,000 residence permits to be issued had been decided upon. This ceiling was abolished in 2003 due to lacking demand.

The new Immigration Act created the possibility for highly qualified workers to immediately obtain a settlement permit, in accordance with § 19 AufenthG. Creating this more favourable legal position, in comparison to a residence permit, is designed to serve as an incentive for highly qualified workers to immigrate to Germany permanently. However, many highly qualified workers are not interested to obtain a settlement permit if they only plan to stay in Germany for a limited period of time and if they already find adequate conditions when entering the country under § 18 AufenthG. This could possibly be one important reason for the low numbers in inflows in accordance with § 19 AufenthG (2005: about 700-900 persons).

⁴ A person has fulfilled the required time for prospective entitlement according to § 123 SGB III if he has been employed and subject to social contributions for at least 360 days during the two years preceding unemployment.

⁵ The legal basis is the Third Book of the Social Security Statute Book (SGB III).

⁶ The legal basis is the Second Book of the Social Security Statute Book (SGB II).

As the new Immigration Act has only been in force since 2005 and the data retrieval from the Central Register on Foreigners (AZR) is not completely possible (cf. Chapter 3), a detailed analysis on highly qualified workers still needs to be done. First modifications of § 19 are under discussion, mainly focusing on easing the conditions for highly qualified workers in the way of adapting the income ceiling (cf. Chapter 4).

8. Statistical data

On the basis of available data (cf. Chapter 3) we analyse data provided by the Federal Labour Agency (BA) and the Central Register on Foreigners (AZR). The tables for the individual results for the years 2000 to 2005 can be found in the appendix (tables A01 to A16). The 15 most represented third countries were determined on the basis of the numbers for employees in total. Their total numbers for the ISCO groups one, two and three are sometimes presented in a different sequence, as the number of nationalities included in the ISCO groups varies. Attributable to analysing techniques, the 15 most important countries of origin have been respectively determined from the third countries and the (future) EU-10 countries for the years 2000-2003, with the result that Poland and Hungary are also included. As from 2004 (accession of the EU-10 countries) the 15 most important countries of origin are only included for the third countries.

8.1 Data by the Federal Labour Agency (BA): Employees subject to social insurance contribution

The analysis of the data on employees subject to social insurance contribution provided the following important quantitative proportions and developments:

Germans and non-Germans in total

- In total, about 5.6 million employees subject to social insurance contribution were working in the researched professional groups within ISCO 1-3 in Germany in 2000. This is the equivalent of about 20 % of the total labour force (tables A01-A06). Following an increase to more than 5.7 million employees in 2003, their number dropped again and by 2005 reached the same level as in 2000. The proportion of the total labour force, however, rose to 21 % due to a general decline of employment as a whole. More than half of these employees (about 3 million) work in the ISCO 3 groups (Technicians and associate professionals), about 1.8 million are employed in the ISCO 2 groups (professionals). In the ISCO 1 groups (Legislators, senior officials and managers in the private sector) are about 750,000 employees.
- In 2000 about 200,000 non-Germans were employed in the ISCO 1-3 occupational groups, in 2005 the number stood at about 215,000 non-Germans. The population of non-German employees subject to social insurance contribution related to the total number of employees in the ISCO groups 1-3 rose from a total average of 3.6 % in the year 2000 to 3.9 % from the year 2002. Since 2002, the proportion has been stable. As in all occupational groups the proportion of non-German employees amounts to about 7 %, the non-Germans are underrepresented in the ISCO 1-3 groups. This can be traced back to the comparably low level of education and vocational qualification in this group.
- The proportion of non-Germans is largest in those groups belonging to ISCO 2. Here, the proportion continuously rose from 4.1 % in 2002 to 4.9 % in 2003 and has been stable since. In this category, the proportions of the individual Occupational groups are very different though. The largest migrant population can be found among artists (2000: 8.6 %), but this number has dropped slightly during the last years. A strong and continuous increase, on the other hand, can be seen in the groups with the second largest proportion though, namely among chemists, physicists and mathematicians: amounting to 5 % in 2000, it rose to 7.2 % in 2005. There is also an increase of the proportion of natural scientists (group 883: from 7.6 % to 10.8 %) and university professors (group 871: from 8.4 % to 12.3 %). These increases in proportions come along with an absolute increase of employment by about 1,300 non-German employees

among chemists, physicists and mathematicians, 1,760 employees among natural scientists and 2,070 employees among university professors. In total, the employment of non-Germans in the ISCO 2 groups increased from about 73,500 in 2000 to 87,600 in 2005. As the total number of employees in ISCO 2 remained almost stable at about 1.7 million, the number of German employees decreased by 15,000 employees in the same period of time.

- The proportions in the Occupational groups that mainly belong to ISCO 1 have continuously increased, though only slightly. In 2000 the proportion of non-Germans stood at 2.9 % and 2005 at 3.4 %. The total number of employees in this area has slightly decreased (from about 772,000 in 2000 to about 752,000 in 2005). The number of non-German employees, however, rose by more than 3,000 persons (from about 22,200 in 2000 to about 25,800 in 2005). The increase of the proportion and the number of employees happened predominantly between 2000 and 2002, after that the numbers remained relatively stable.
- In the ISCO 3 Occupational groups the number of employees among Germans and non-Germans rose slightly first, but then continued to drop until 2005 down to the level of 2000. With 102,000, the number of employed non-Germans is even smaller in 2005 than it was in 2000 (about 104,000). The size of the migrant population remained relatively stable in most of the groups. A slight increase can be stated for technicians (from 2.5 % to 2.8 %) and clergy and pastoral care (from 4.8 % to 5.9 %), a decrease among precision mechanics (from 3.8 % to 3.3 %) and other health care professions (from 4.0 % to 3.7 %)⁷.

Male and female employees (2005)

- Only since 2005 it has become possible to distinguish according to sex among Germans and non-Germans (table A07). Looking at 2005 it becomes apparent that the proportion of non-German males in the three ISCO groups amounts to 52.1 % on average in total, which is slightly higher than that of German males (50.2 %). In general, the total proportion of males in the ISCO 1 and ISCO 2 groups is higher than the proportion of females. In the ISCO 3 groups it is the other way round.
- In the ISCO 1 groups the difference between non-Germans and Germans is relatively high (69.1 % males among non-Germans, 63.4 % males among Germans).
- In the ISCO 2 groups the average is almost identical (64.3 % of the non-Germans are male, among the Germans the proportion amounts to 64 %). However, there is a wide variance in the individual groups. Whereas the proportion of non-German males in the groups of medical doctors and pharmacists, teaching professionals and artists is about seven percentage points higher than among German males, the proportion of non-German males in the groups of chemists, physicists and mathematicians as well as legal professionals and legal consultants is eight and almost ten percentage points respectively lower than the proportion of German males.
- In the ISCO 3 groups it is striking that amounting to 37.4 %, the proportion of males among non-Germans is smaller than the proportion of males among Germans (39.1 %). Consequently, females are stronger represented in the non-German group. However, there are some groups with a higher proportion of males among non-Germans than Germans, for example the group of other qualified technicians, precision mechanics and clergy and pastoral care.

Countries of origin: EU-14, EU-10, Non-EU

- Among the around 215,000 non-Germans in the ISCO 1-3 groups about 39 % come from EU-14 countries, roughly 8.7 % from EU-10 countries and almost 53 % from third countries in 2005 (tables A10-A15). At the same time, the number of employees from third countries has remained stable in the course

⁷ For more information also see the study „Labour Market Participation of Non-Germans in the Health Sector in Germany“ which was also compiled as part of EMN (English version) and which was published as Working Paper (German version) No 6/2006 by the Federal Office for Migration and Refugees, Nuremberg.

of the years. The number of EU-10 employees, however, has increased by about one percentage point, from 7.4 % in 2000 to 8.7 % in 2005. Correspondingly, the proportion of EU-14 employees dropped.

- Related to the total number of employees, about 15 % of the employees came from EU-14 countries and 16 % of all employees came from EU-10 countries between 2000 and 2005. This means that proportionately the share of employees who work in the ISCO group 1, 2 and 3 and who came from those two regions is higher than those who came from third countries. Regarding third countries, the proportion in the ISCO groups 1-3 amounted to about 10 % only.
- The distribution between the Occupational groups represented in ISCO 1 shows a shift towards third country nationals in group 76 (legislators, administration officials). Whereas only about 46 % came from third countries in 2000, their number rose to about 53 % in 2005. In the ISCO 2 Occupational groups, the groups 61 (chemists, physicists and mathematicians) and 84 (medical doctors, pharmacists) are particularly striking. In Occupational group 61 the proportion of employees from EU-14 countries continuously dropped from 51.5 % in 2000 to 43.8 % in 2005. The proportion of EU-10 and non-EU employees correspondingly increased by about 2 and 5 percentage points respectively. In the Occupational group 84 the proportion of EU-14 employees remained constant, whereas it rose from 8.6 % to almost 15 % among EU-10 employees and dropped from 58 % to 52 % among non-EU employees.

Countries of origin: Individual non-EU countries

- In all years, Turkey is the most important country of origin. However, the proportion of Turks among third country nationals in the ISCO groups 1-3 dropped from almost 24 % (about 25,400 persons) to about 21 % (about 24,200 persons) between 2000 and 2005. The second most important country of origin is Yugoslavia for which a similar drop can be identified: from almost 14 % (14,600 persons) in 2000 the proportion of Yugoslavs among third country nationals decreased to 9 % (10,200 persons) in the ISCO groups 1-3 in 2005. Between 6 % and 7 % of the third country nationals in the ISCO groups 1-3 come from Croatia and the United States. Relating the proportion of employees in ISCO 1-3 to the total number of employees from the United States, their proportion stands roughly at a very high 30 %. For Croatians, this proportion amounts to about 10 % only. A newcomer among the 15 most important countries of origin since 2004 is China. The proportion of Chinese employees in the ISCO 1-3 groups is also very high and amounts to almost 30 %. With a proportion of about 5 % the strongest group (Turkey) only ranks very low.
- In the ISCO 1 groups, the high proportion of employees from the Russian Federation in group 76 (legislators, administration officials), amounting to more than 10 % of the third country nationals in 2005, is striking. The United States also shows a very high proportion (2005: 7.3 % of the third country nationals in group 76 and 14.4 % in group 75 (entrepreneurs, organisers, public accountants)).
- In the ISCO 2 Occupational groups a high proportion among Russian chemists, physicists and mathematicians (Occupational group 61: 18.7 % of the third country nationals) as well as among medical doctors and pharmacists (Occupational group 84: 14.7 % of the third country nationals) can be identified in particular. Teaching professionals (Occupational group 87) and legal professionals (Occupational group 81) also show a very high proportion, amounting to about 13 % of the third country nationals from the United States respectively, and so do publicists, interpreters and librarians (Occupational group 82) with about 17.3 % of the third country nationals from the United States.
- In the ISCO 3 groups a high proportion of Turks and Yugoslavs among technicians, other qualified technicians, precision mechanics, security personnel and in other health care professions (Occupational groups 62, 63, 30, 80 and 85) can be identified. Jointly, both nationalities provide more than 40 % of the

third country nationals and therefore between 20 % and 30 % of non-Germans in the respective Occupational groups in 2005.

8.2 Data from the Central Register on Foreigners (AZR): Highly qualified workers in accordance with § 19 Residence Act (AufenthG)

There is no detailed data on highly qualified workers who come to Germany as employees in accordance with § 18 AufenthG or as self-employed persons in accordance with § 21 AufenthG available (cf. Chapter 3.2). However, we have done an analysis of the Central Register on Foreigners regarding inflows of highly qualified workers from third countries, in accordance with § 19 (table A16). The analysis was restricted though as the foreign-resident authorities (Ausländerbehörden) have not yet maintained and reassessed all data, which means that the data is consequently incomplete. However, first trends can be identified on the basis of the available numbers.

We did an analysis of settlement permits that have been granted in the first seven months of 2006. However, the holders of the settlement permit might have already come to Germany before 2006, which is the case for the majority of the persons.

In total, 279 settlement permits in accordance with § 19 AufenthG have been granted to persons from third countries until and including July 2006. Most settlement permits were granted to persons from the Russian Federation (40), followed by the United States (26), Turkey (23), China (15), India (13) and Croatia (12). The AZR data does not provide information on the practiced professions. However, additional information on 138 highly qualified workers that has been collected by the Federal Office for Migration and Refugees from the foreigners' authorities, showed that about 60 % of the cases were specialists and executive personnel ("managers") with a salary of at least twice as much as the contribution assessment ceiling for the national health insurance (§ 19 Par. 2 No. 3 AufenthG). About 30 % of the cases were scientists with special expertise (§ 19 Par. 2 No. 1) and 10 % were teaching professionals in executive positions (§ 19 Par. 2 no. 2). The managers came primarily from the United States, the scientists from the Russian Federation. The teaching professionals do not primarily come from any specific regions.

Regarding the distribution across the German federal states ("Bundesländer") it can be stated that highly qualified workers have primarily settled in the large federal states Baden Wurttemberg, Bavaria and North Rhine-Westphalia. Noticeable is the very small number of highly qualified workers in the East German federal states. However, this applies also to the total number of non-German employees due to the high unemployment rate. One exception is Saxony with 13 settlement permits to date. As the maintenance and clearing up of the data poses a major problem for Berlin in particular, an additional number of permits can be expected in accordance with § 19.

9. Conclusion

Immigration of highly qualified workers to Germany is currently high on the agenda in the public discourse. Experts assume that the need for highly qualified workers, which can already not be accommodated in some sectors, for example in pharmaceutical industries or in vehicle construction and mechanical engineering, will continue to rise in the years to come. Whereas the unemployment rate is generally high, the job situation for highly qualified experts and executive personnel is relatively good. On the labour market for academics, one can see positive developments. As a consequence of the demographic trends and the increasing educational participation in the tertiary sector, although it is relatively low in an OECD comparison, one can assume that there will be a particular need for engineers, IT experts, medical specialists and academics in the professional field sales and marketing in future.

This gap could be closed by recruiting experts according to particular shortages on the labour market. At the moment, however, there only few organisations in Germany that engage in the recruitment of highly qualified workers or that are implementing special programmes for their promotion. There might be a positive impact by a provision created by the Immigration Act which allows for a permanent residence title for highly qualified workers right from their entry. This regulation is currently under discussion, particularly in consideration of the fact that fewer persons than expected have applied for a residence title in accordance with §§ 19 and 21. More detailed statements on this can only be made after the data has been cleaned up and maintained though. An analysis of the data collected by the Federal Labour Agency shows that both the number of non-Germans subject to social insurance contribution in the ISCO 1-3 Occupational groups has increased, as well as the proportion of non-Germans related to the total number of employed persons in the ISCO 1-3 groups. It also becomes apparent that the proportion of employees in the ISCO 1-3 groups related to all employees in all vocational groups varies significantly between nationalities. This proportion is particularly low among the largest immigrant group from Turkey. As immigration by Turkish nationals will continue as part of family reunion, supporting the education and vocational training of Turkish migrants and their descendants is of particular importance.

As highly qualified immigrants are accredited to have a positive impact on the economic development⁸, the successful recruitment of highly qualified immigrants is an important topic, particularly to reduce special labour market shortages. Here is a need for further research. In addition, the permanent or temporary emigration of highly qualified German nationals has only been marginally researched (Schupp/Söhn/Schmiade 2005: 280). Also regarding the emigration of highly qualified Germans there is a lack of studies and information and a need for further research.

⁸ In the approaches of the endogenous growth theory (see for example Lucas (1988), Romer (1986 und 1999)) human capital is of great significance. On the one hand, an accumulation or its average stock can directly positively influence the growth rate of a national economy. On the other hand, human capital flows to research and development and has indirect effects for the economic growth due to increases in productivity.

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Appendix: Tables

Table A01: Employees subject to social insurance contribution according to vocational groups in Germany as of June 30, 2000

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1									
76 Legislators and senior officials	145.073	141.730	97,7	3.343	2,3	88.611	61,1	56.462	38,9
761 Legislators, government ministers and state secretaries, elected officials	3.122	3.082	98,7	40	1,3	2.145	68,7	977	31,3
762 Senior government officials and administrative expert	122.562	119.550	97,5	3.012	2,5	73.068	59,6	49.494	40,4
763 Senior officials of special-interest organisation	19.389	19.098	98,5	291	1,5	13.398	69,1	5.991	30,9
75 Entrepreneurs, corporate managers, certified accountants	626.886	608.054	97,0	18.832	3,0	420.817	67,1	206.069	32,9
751 Directors and chief executives	391.666	378.864	96,7	12.802	3,3	310.272	79,2	81.394	20,8
752 Business consultants, general managers	86.824	83.039	95,6	3.785	4,4	64.115	73,8	22.709	26,2
753 Certified accountants, tax consultants	148.396	146.151	98,5	2.245	1,5	46.430	31,3	101.966	68,7
In total	771.959	749.784	97,1	22.175	2,9	509.428	66,0	262.531	34,0
Groups primarily categorised as ISCO 2									
61 Chemists, physicists, mathematicians	65.038	61.783	95,0	3.255	5,0	53.588	82,4	11.450	17,6
611 Chemists, chemical engineer	40.992	39.151	95,5	1.841	4,5	32.275	78,7	8.717	21,3
612 Physicists, physical engineers, mathematician	24.046	22.632	94,1	1.414	5,9	21.313	88,6	2.733	11,4
60 Engineers	654.469	633.754	96,8	20.715	3,2	589.149	90,0	65.320	10,0
601 Engineers in mechanical engineering and vehicle constructio	143.908	139.181	96,7	4.727	3,3	137.971	95,9	5.937	4,1
602 Electrical engineers	172.821	165.567	95,8	7.254	4,2	164.439	95,1	8.382	4,9
603 Architects, civil engineer:	142.588	139.702	98,0	2.886	2,0	114.153	80,1	28.435	19,9
604 Surveying engineers	10.721	10.605	98,9	116	1,1	9.036	84,3	1.685	15,7
605 Mining, foundry and metallurgical engineer	7.004	6.726	96,0	278	4,0	6.682	95,4	322	4,6
606 Other engineers in manufacturing	33.118	31.942	96,4	1.176	3,6	29.948	90,4	3.170	9,6
607 Other engineers	144.309	140.031	97,0	4.278	3,0	126.920	88,0	17.389	12,0
88 Occupations in humanities and natural sciences, not elsewhere class.	145.721	138.046	94,7	7.675	5,3	85.488	58,7	60.233	41,3
881 Economists, social scientists, not elsewhere class	72.774	70.401	96,7	2.373	3,3	39.944	54,9	32.830	45,1
882 Humanities scholars, not elsewhere class	33.787	31.478	93,2	2.309	6,8	18.897	55,9	14.890	44,1
883 Natural scientists, not elsewhere class.	39.160	36.167	92,4	2.993	7,6	26.647	68,0	12.513	32,0
84 Medical doctors, pharmacists	204.416	197.808	96,8	6.608	3,2	102.310	50,0	102.106	50,0
841 Physicians	151.701	146.186	96,4	5.515	3,6	89.578	59,0	62.123	41,0
842 Dentists	7.464	7.145	95,7	319	4,3	3.011	40,3	4.453	59,7
843 Veterinarians	7.148	6.996	97,9	152	2,1	3.418	47,8	3.730	52,2
844 Pharmacists	38.103	37.481	98,4	622	1,6	6.303	16,5	31.800	83,5
87 Teaching professionals	404.477	387.579	95,8	16.898	4,2	171.623	42,4	232.854	57,6
871 University and higher education teaching professional	71.768	65.709	91,6	6.059	8,4	44.475	62,0	27.293	38,0
872 Grammar school teachers	42.087	40.662	96,6	1.425	3,4	16.084	38,2	26.003	61,8
873 Secondary and special education teachers	131.442	128.360	97,7	3.082	2,3	28.657	21,8	102.785	78,2
874 Technical and vocational school teachers, handicraft teacher:	57.733	55.641	96,4	2.092	3,6	27.825	48,2	29.908	51,8
875 Teachers for musical education, not elsewhere class	20.317	18.992	93,5	1.325	6,5	9.445	46,5	10.872	53,5
876 PE teachers	33.876	32.311	95,4	1.565	4,6	19.758	58,3	14.118	41,7
877 Other teachers	47.254	45.904	97,1	1.350	2,9	25.379	53,7	21.875	46,3
81 Legal professionals	34.704	34.156	98,4	548	1,6	21.236	61,2	13.468	38,8
811 Judges	3.573	3.488	97,6	85	2,4	1.998	55,9	1.575	44,1
812 Legal professionals	689	624	90,6	65	9,4	266	38,6	423	61,4
813 Lawyers and legal consultants	27.778	27.405	98,7	373	1,3	17.115	61,6	10.663	38,4
814 Legal enforcement	2.664	2.639	99,1	25	0,9	1.857	69,7	807	30,3
82 Publicists, interpreters, librarians	111.982	107.647	96,1	4.335	3,9	49.180	43,9	62.802	56,1
821 Publicists	58.831	57.392	97,6	1.439	2,4	35.058	59,6	23.773	40,4
822 Interpreters, translators	6.636	4.993	75,2	1.643	24,8	2.144	32,3	4.492	67,7
823 Librarians, archivists, conservators	46.515	45.262	97,3	1.253	2,7	11.978	25,8	34.537	74,2
83 Artists and related professional groups	154.103	140.566	91,2	13.537	8,8	88.294	57,3	65.809	42,7
831 Musicians	21.272	18.578	87,3	2.694	12,7	14.704	69,1	6.568	30,9
832 Performing artists	23.033	18.319	79,5	4.714	20,5	12.250	53,2	10.783	46,8
833 Sculptors, painters and related artists	32.774	31.312	95,5	1.462	4,5	15.880	48,5	16.894	51,5
834 Decorators, sign painters	6.760	6.522	96,5	238	3,5	4.376	64,7	2.384	35,3
835 Artistic vocations, stagecraft, film and audio engineering	28.254	26.982	95,5	1.272	4,5	19.603	69,4	8.651	30,6
836 Interior decorators, advertisement artists	19.827	19.353	97,6	474	2,4	8.155	41,1	11.672	58,9
837 Photographers	13.677	13.196	96,5	481	3,5	7.317	53,5	6.360	46,5
838 Artistes, professional athletes, supporting artists	8.506	6.304	74,1	2.202	25,9	6.009	70,6	2.497	29,4
In total	1.774.910	1.701.339	95,9	73.571	4,1	1.160.868	65,4	614.042	34,6

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 3									
62 Technicians	924.893	901.421	97,5	23.472	2,5	811.481	87,7	113.412	12,3
621 Mechanical engineering technician	101.092	98.475	97,4	2.617	2,6	96.579	95,5	4.513	4,5
622 Electrical engineering technician	162.441	157.554	97,0	4.887	3,0	153.475	94,5	8.966	5,5
623 Civil engineering technician	59.791	58.467	97,8	1.324	2,2	54.860	91,8	4.931	8,2
624 Surveying technicians	29.353	28.976	98,7	377	1,3	21.792	74,2	7.561	25,8
625 Mining and metallurgical technician	11.712	11.489	98,1	223	1,9	11.311	96,6	401	3,4
626 Chemical and physical science technician	30.524	29.601	97,0	923	3,0	19.058	62,4	11.466	37,6
627 Other manufacturing technicians	37.182	36.094	97,1	1.088	2,9	29.411	79,1	7.771	20,9
628 Other technicians	360.053	350.991	97,5	9.062	2,5	299.782	83,3	60.271	16,7
629 Technicians with a master's certificat	132.745	129.774	97,8	2.971	2,2	125.213	94,3	7.532	5,7
63 Other qualified technicians	287.761	279.893	97,3	7.868	2,7	139.820	48,6	147.941	51,4
631 Other biological and related qualified technician	26.838	26.311	98,0	527	2,0	10.002	37,3	16.836	62,7
632 Other physical, mathematical and related qualified technician	28.785	27.726	96,3	1.059	3,7	22.511	78,2	6.274	21,8
633 Chemical laboratory assistants	58.446	56.861	97,3	1.585	2,7	27.096	46,4	31.350	53,6
634 Photographical laboratory assistants	16.765	15.600	93,1	1.165	6,9	7.516	44,8	9.249	55,2
635 Draughtspersons	156.927	153.395	97,7	3.532	2,3	72.695	46,3	84.232	53,7
03 Estate managers, advisers in agriculture and livestock breeding	14.605	14.368	98,4	237	1,6	11.362	77,8	3.243	22,2
031 Estate managers, advisers in agriculture and livestock breeding	2.576	2.519	97,8	57	2,2	1.968	76,4	608	23,6
032 Agricultural engineers, agricultural adviser	12.029	11.849	98,5	180	1,5	9.394	78,1	2.635	21,9
30 Precision mechanics and related professionals	106.467	102.456	96,2	4.011	3,8	47.341	44,5	59.126	55,5
301 Precision mechanics, not elsewhere class	4.859	4.311	88,7	548	11,3	3.967	81,6	892	18,4
302 Gold-, silversmiths and related professional	8.092	7.778	96,1	314	3,9	3.554	43,9	4.538	56,1
303 Dental technicians	56.553	54.399	96,2	2.154	3,8	25.354	44,8	31.199	55,2
304 Optometrists and opticians	30.334	29.709	97,9	625	2,1	9.837	32,4	20.497	67,6
305 Musical instrument makers	4.298	4.035	93,9	263	6,1	3.576	83,2	722	16,8
306 Puppet makers, model makers, taxidermists	2.331	2.224	95,4	107	4,6	1.053	45,2	1.278	54,8
85 Other health associate professionals	1.634.319	1.568.206	96,0	66.113	4,0	185.779	11,4	1.448.540	88,6
851 Alternative practitioners	3.704	3.549	95,8	155	4,2	1.155	31,2	2.549	68,8
852 Physiotherapists and related associate professional:	116.787	112.957	96,7	3.830	3,3	26.220	22,5	90.567	77,5
853 Qualified nursing staff, midwife	677.995	650.568	96,0	27.427	4,0	92.090	13,6	585.905	86,4
854 Practical nurses	220.599	204.537	92,7	16.062	7,3	55.359	25,1	165.240	74,9
855 Dieticians, nutritionists and medical-technical assistant	46.455	45.626	98,2	829	1,8	1.081	2,3	45.374	97,7
856 Doctor's receptionists	485.464	469.951	96,8	15.513	3,2	3.408	0,7	482.056	99,3
857 Medical laboratory assistants	83.315	81.018	97,2	2.297	2,8	6.466	7,8	76.849	92,2
80 Security-related professionals	48.180	47.352	98,3	828	1,7	38.552	80,0	9.628	20,0
801 Professional soldiers, customs and border inspectors, police officer:	9.615	9.498	98,8	117	1,2	3.845	40,0	5.770	60,0
802 Professional fire-fighters	12.263	12.093	98,6	170	1,4	12.075	98,5	188	1,5
803 Security inspectors	6.203	6.020	97,0	183	3,0	4.991	80,5	1.212	19,5
804 Qualified chimney sweeper:	9.433	9.420	99,9	13	0,1	9.024	95,7	409	4,3
805 Consumer and health protection professionals:	10.666	10.321	96,8	345	3,2	8.617	80,8	2.049	19,2
89 Clergy and pastoral care	35.580	33.877	95,2	1.703	4,8	19.710	55,4	15.870	44,6
891 Clergy	16.394	15.203	92,7	1.191	7,3	11.859	72,3	4.535	27,7
892 Members of religious orders, without occupational title	1.433	1.339	93,4	94	6,6	442	30,8	991	69,2
893 Pastoral care, pastoral assistants	17.753	17.335	97,6	418	2,4	7.409	41,7	10.344	58,3
In total	3.051.805	2.947.573	96,6	104.232	3,4	1.254.045	41,1	1.797.760	58,9
IN TOTAL (all vocational groups)	5.598.674	5.398.696	96,4	199.978	3,6	2.924.341	52,2	2.674.333	47,8

Source: Federal Labour Agency, own illustration

Table A02: Employees subject to social insurance contribution according to vocational groups in Germany as of June 30, 2001

corrected results (as of May 2002)

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1									
76 Legislators and senior officials	148.573	144.611	97,3	3.962	2,7	90.389	60,8	58.184	39,2
761 Legislators, government ministers and state secretaries, elected officials	3.317	3.273	98,7	44	1,3	2.324	70,1	993	29,9
762 Senior government officials and administrative expert	126.295	122.680	97,1	3.615	2,9	75.007	59,4	51.288	40,6
763 Senior officials of special-interest organisation	18.961	18.658	98,4	303	1,6	13.058	68,9	5.903	31,1
75 Entrepreneurs, corporate managers, certified accountants	630.978	610.352	96,7	20.626	3,3	420.366	66,6	210.612	33,4
751 Directors and chief executives	385.455	372.072	96,5	13.383	3,5	304.239	78,9	81.216	21,1
752 Business consultants, general managers	93.856	89.312	95,2	4.544	4,8	68.643	73,1	25.213	26,9
753 Certified accountants, tax consultants	151.667	148.968	98,2	2.699	1,8	47.484	31,3	104.183	68,7
In total	779.551	754.963	96,8	24.588	3,2	510.755	65,5	268.796	34,5
Groups primarily categorised as ISCO 2									
61 Chemists, physicists, mathematicians	65.155	61.400	94,2	3.755	5,8	53.445	82,0	11.710	18,0
611 Chemists, chemical engineer	40.884	38.819	94,9	2.065	5,1	32.060	78,4	8.824	21,6
612 Physicists, physical engineers, mathematician	24.271	22.581	93,0	1.690	7,0	21.385	88,1	2.886	11,9
60 Engineers	664.544	640.635	96,4	23.909	3,6	596.830	89,8	67.714	10,2
601 Engineers in mechanical engineering and vehicle constructio	144.682	139.376	96,3	5.306	3,7	138.381	95,6	6.301	4,4
602 Electrical engineers	179.677	170.870	95,1	8.807	4,9	170.056	94,6	9.621	5,4
603 Architects, civil engineer	138.844	135.947	97,9	2.897	2,1	110.279	79,4	28.565	20,6
604 Surveying engineers	10.594	10.480	98,9	114	1,1	8.857	83,6	1.737	16,4
605 Mining, foundry and metallurgical engineer	6.755	6.479	95,9	276	4,1	6.427	95,1	328	4,9
606 Other engineers in manufacturing	32.500	31.274	96,2	1.226	3,8	29.338	90,3	3.162	9,7
607 Other engineers	151.492	146.209	96,5	5.283	3,5	133.492	88,1	18.000	11,9
88 Occupations in humanities and natural sciences, not elsewhere class.	153.535	144.667	94,2	8.868	5,8	89.250	58,1	64.285	41,9
881 Economists, social scientists, not elsewhere class	79.001	76.206	96,5	2.795	3,5	43.657	55,3	35.344	44,7
882 Humanities scholars, not elsewhere class	34.532	31.989	92,6	2.543	7,4	18.894	54,7	15.638	45,3
883 Natural scientists, not elsewhere class.	40.002	36.472	91,2	3.530	8,8	26.699	66,7	13.303	33,3
84 Medical doctors, pharmacists	208.213	201.162	96,6	7.051	3,4	103.192	49,6	105.021	50,4
841 Physicians	154.465	148.606	96,2	5.859	3,8	90.455	58,6	64.010	41,4
842 Dentists	7.572	7.205	95,2	367	4,8	2.984	39,4	4.588	60,6
843 Veterinarians	7.481	7.319	97,8	162	2,2	3.371	45,1	4.110	54,9
844 Pharmacists	38.695	38.032	98,3	663	1,7	6.382	16,5	32.313	83,5
87 Teaching professionals	414.819	395.046	95,2	19.773	4,8	174.533	42,1	240.286	57,9
871 University and higher education teaching professional	75.470	68.208	90,4	7.262	9,6	46.061	61,0	29.409	39,0
872 Grammar school teachers	44.508	42.285	95,0	2.223	5,0	16.906	38,0	27.602	62,0
873 Secondary and special education teachers	135.004	131.567	97,5	3.437	2,5	29.139	21,6	105.865	78,4
874 Technical and vocational school teachers, handicraft teacher	57.982	55.561	95,8	2.421	4,2	27.921	48,2	30.061	51,8
875 Teachers for musical education, not elsewhere class	20.227	18.877	93,3	1.350	6,7	9.421	46,6	10.806	53,4
876 PE teachers	35.026	33.400	95,4	1.626	4,6	20.207	57,7	14.819	42,3
877 Other teachers	46.602	45.148	96,9	1.454	3,1	24.878	53,4	21.724	46,6
81 Legal professionals	39.862	39.175	98,3	687	1,7	23.802	59,7	16.060	40,3
811 Judges	4.936	4.816	97,6	120	2,4	2.727	55,2	2.209	44,8
812 Legal professionals	677	623	92,0	54	8,0	266	39,3	411	60,7
813 Lawyers and legal consultants	31.533	31.053	98,5	480	1,5	18.916	60,0	12.617	40,0
814 Legal enforcement	2.716	2.683	98,8	33	1,2	1.893	69,7	823	30,3
82 Publicists, interpreters, librarians	115.189	110.369	95,8	4.820	4,2	50.856	44,2	64.333	55,8
821 Publicists	62.226	60.455	97,2	1.771	2,8	36.601	58,8	25.625	41,2
822 Interpreters, translators	6.620	4.958	74,9	1.662	25,1	2.106	31,8	4.514	68,2
823 Librarians, archivists, conservators	46.343	44.956	97,0	1.387	3,0	12.149	26,2	34.194	73,8
83 Artists and related professional groups	155.851	141.606	90,9	14.245	9,1	89.104	57,2	66.747	42,8
831 Musicians	21.014	18.206	86,6	2.808	13,4	14.403	68,5	6.611	31,5
832 Performing artists	21.811	16.978	77,8	4.833	22,2	11.521	52,8	10.290	47,2
833 Sculptors, painters and related artists	34.984	33.321	95,2	1.663	4,8	17.036	48,7	17.948	51,3
834 Decorators, sign painters	6.723	6.498	96,7	225	3,3	4.295	63,9	2.428	36,1
835 Artistic vocations, stagecraft, film and audio engineering	29.063	27.724	95,4	1.339	4,6	20.099	69,2	8.964	30,8
836 Interior decorators, advertisement artists	19.410	18.904	97,4	506	2,6	7.864	40,5	11.546	59,5
837 Photographers	13.352	12.860	96,3	492	3,7	7.111	53,3	6.241	46,7
838 Artistes, professional athletes, supporting artists	9.494	7.115	74,9	2.379	25,1	6.775	71,4	2.719	28,6
In total	1.817.168	1.734.060	95,4	83.108	4,6	1.181.012	65,0	636.156	35,0

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised in ISCO 3									
62 Technicians	928.590	902.988	97,2	25.602	2,8	814.371	87,7	114.219	12,3
621 Mechanical engineering technician	100.516	97.714	97,2	2.802	2,8	96.047	95,6	4.469	4,4
622 Electrical engineering technician	166.694	161.268	96,7	5.426	3,3	157.269	94,3	9.425	5,7
623 Civil engineering technician	57.222	55.857	97,6	1.365	2,4	52.409	91,6	4.813	8,4
624 Surveying technicians	28.155	27.771	98,6	384	1,4	20.756	73,7	7.399	26,3
625 Mining and metallurgical technician	10.653	10.380	97,4	273	2,6	10.233	96,1	420	3,9
626 Chemical and physical science technician	29.948	29.008	96,9	940	3,1	18.594	62,1	11.354	37,9
627 Other manufacturing technicians	36.218	35.120	97,0	1.098	3,0	28.629	79,0	7.589	21,0
628 Other technicians	367.961	357.694	97,2	10.267	2,8	307.029	83,4	60.932	16,6
629 Technicians with a master's certificat	131.223	128.176	97,7	3.047	2,3	123.405	94,0	7.818	6,0
63 Other qualified technicians	283.282	275.212	97,2	8.070	2,8	138.226	48,8	145.056	51,2
631 Other biological and related qualified technician	26.959	26.361	97,8	598	2,2	9.884	36,7	17.075	63,3
632 Other physical, mathematical and related qualified technician	28.583	27.529	96,3	1.054	3,7	22.328	78,1	6.255	21,9
633 Chemical laboratory assistants	58.427	56.796	97,2	1.631	2,8	26.809	45,9	31.618	54,1
634 Photographical laboratory assistants	16.973	15.792	93,0	1.181	7,0	8.164	48,1	8.809	51,9
635 Draughtspersons	152.340	148.734	97,6	3.606	2,4	71.041	46,6	81.299	53,4
03 Estate managers, advisers in agriculture and livestock breeding	13.875	13.640	98,3	235	1,7	10.873	78,4	3.002	21,6
031 Estate managers, advisers in agriculture and livestock breeding	2.528	2.468	97,6	60	2,4	1.939	76,7	589	23,3
032 Agricultural engineers, agricultural adviser	11.347	11.172	98,5	175	1,5	8.934	78,7	2.413	21,3
30 Precision mechanics and related professionals	106.747	102.658	96,2	4.089	3,8	46.714	43,8	60.033	56,2
301 Precision mechanics, not elsewhere class	4.840	4.275	88,3	565	11,7	3.937	81,3	903	18,7
302 Gold-, silversmiths and related professional	7.664	7.351	95,9	313	4,1	3.334	43,5	4.330	56,5
303 Dental technicians	56.564	54.392	96,2	2.172	3,8	25.013	44,2	31.551	55,8
304 Optometrists and opticians	31.109	30.451	97,9	658	2,1	9.831	31,6	21.278	68,4
305 Musical instrument makers	4.342	4.066	93,6	276	6,4	3.562	82,0	780	18,0
306 Puppet makers, model makers, taxidermists	2.228	2.123	95,3	105	4,7	1.037	46,5	1.191	53,5
85 Other health associate professionals	1.657.406	1.589.014	95,9	68.392	4,1	189.995	11,5	1.467.411	88,5
851 Alternative practitioners	3.937	3.765	95,6	172	4,4	1.199	30,5	2.738	69,5
852 Physiotherapists and related associate professional	122.381	118.564	96,9	3.817	3,1	27.114	22,2	95.267	77,8
853 Qualified nursing staff, midwife	681.468	653.275	95,9	28.193	4,1	92.749	13,6	588.719	86,4
854 Practical nurses	227.969	211.038	92,6	16.931	7,4	57.748	25,3	170.221	74,7
855 Dieticians, nutritionists and medical-technical assistant	48.591	47.669	98,1	922	1,9	1.103	2,3	47.488	97,7
856 Doctor's receptionists	489.729	473.870	96,8	15.859	3,2	3.511	0,7	486.218	99,3
857 Medical laboratory assistants	83.331	80.833	97,0	2.498	3,0	6.571	7,9	76.760	92,1
80 Security-related professionals	47.529	46.656	98,2	873	1,8	37.908	79,8	9.621	20,2
801 Professional soldiers, customs and border inspectors, police officer	9.534	9.400	98,6	134	1,4	3.825	40,1	5.709	59,9
802 Professional fire-fighters	12.052	11.888	98,6	164	1,4	11.857	98,4	195	1,6
803 Security inspectors	6.163	5.946	96,5	217	3,5	4.936	80,1	1.227	19,9
804 Qualified chimney sweeper	9.123	9.102	99,8	21	0,2	8.695	95,3	428	4,7
805 Consumer and health protection professionals	10.657	10.320	96,8	337	3,2	8.595	80,7	2.062	19,3
89 Clergy and pastoral care	35.470	33.714	95,0	1.756	5,0	19.642	55,4	15.828	44,6
891 Clergy	16.240	15.025	92,5	1.215	7,5	11.756	72,4	4.484	27,6
892 Members of religious orders, without occupational title	1.267	1.191	94,0	76	6,0	362	28,6	905	71,4
893 Pastoral care, pastoral assistants	17.963	17.498	97,4	465	2,6	7.524	41,9	10.439	58,1
In total	3.072.899	2.963.882	96,5	109.017	3,5	1.257.729	40,9	1.815.170	59,1
IN TOTAL (all vocational groups)	5.669.618	5.452.905	96,2	216.713	3,8	2.949.496	52,0	2.720.122	48,0

Source: Federal Labour Agency, own illustration

Table A03: Employees subject to social insurance contribution according to vocational groups in Germany as of June 30, 2002

Preliminary results

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1									
76 Legislators and senior officials	153.046	148.650	97,1	4.396	2,9	92.706	60,6	60.340	39,4
761 Legislators, government ministers and state secretaries, elected officials	3.567	3.523	98,8	44	1,2	2.533	71,0	1.034	29,0
762 Senior government officials and administrative expert	130.779	126.724	96,9	4.055	3,1	77.344	59,1	53.435	40,9
763 Senior officials of special-interest organisation	18.700	18.403	98,4	297	1,6	12.829	68,6	5.871	31,4
75 Entrepreneurs, corporate managers, certified accountants	633.350	611.926	96,6	21.424	3,4	418.238	66,0	215.112	34,0
751 Directors and chief executives	379.495	366.036	96,5	13.459	3,5	298.827	78,7	80.668	21,3
752 Business consultants, general managers	96.698	91.804	94,9	4.894	5,1	70.441	72,8	26.257	27,2
753 Certified accountants, tax consultants	157.157	154.086	98,0	3.071	2,0	48.970	31,2	108.187	68,8
In total	786.396	760.576	96,7	25.820	3,3	510.944	65,0	275.452	35,0
Groups primarily categorised as ISCO 2									
61 Chemists, physicists, mathematicians	65.609	61.396	93,6	4.213	6,4	53.423	81,4	12.186	18,6
611 Chemists, chemical engineer	41.146	38.825	94,4	2.321	5,6	31.974	77,7	9.172	22,3
612 Physicists, physical engineers, mathematician	24.463	22.571	92,3	1.892	7,7	21.449	87,7	3.014	12,3
60 Engineers	663.244	637.921	96,2	25.323	3,8	594.590	89,6	68.654	10,4
601 Engineers in mechanical engineering and vehicle constructio	144.673	138.953	96,0	5.720	4,0	138.104	95,5	6.569	4,5
602 Electrical engineers	177.383	168.239	94,8	9.144	5,2	167.799	94,6	9.584	5,4
603 Architects, civil engineer:	135.087	132.256	97,9	2.831	2,1	106.600	78,9	28.487	21,1
604 Surveying engineers	10.501	10.366	98,7	135	1,3	8.757	83,4	1.744	16,6
605 Mining, foundry and metallurgical engineer	6.464	6.177	95,6	287	4,4	6.125	94,8	339	5,2
606 Other engineers in manufacturıng	31.527	30.323	96,2	1.204	3,8	28.382	90,0	3.145	10,0
607 Other engineers	157.609	151.607	96,2	6.002	3,8	138.823	88,1	18.786	11,9
88 Occupations in humanities and natural sciences, not elsewhere class.	159.836	149.869	93,8	9.967	6,2	91.761	57,4	68.075	42,6
881 Economists, social scientists, not elsewhere class	81.285	78.369	96,4	2.916	3,6	44.491	54,7	36.794	45,3
882 Humanities scholars, not elsewhere class	36.196	33.342	92,1	2.854	7,9	19.452	53,7	16.744	46,3
883 Natural scientists, not elsewhere class.	42.355	38.158	90,1	4.197	9,9	27.818	65,7	14.537	34,3
84 Medical doctors, pharmacists	212.800	205.153	96,4	7.647	3,6	104.095	48,9	108.705	51,1
841 Physicians	158.154	151.719	95,9	6.435	4,1	91.395	57,8	66.759	42,2
842 Dentists	7.618	7.258	95,3	360	4,7	2.898	38,0	4.720	62,0
843 Veterinarians	7.834	7.659	97,8	175	2,2	3.433	43,8	4.401	56,2
844 Pharmacists	39.194	38.517	98,3	677	1,7	6.369	16,2	32.825	83,8
87 Teaching professionals	417.851	397.802	95,2	20.049	4,8	175.564	42,0	242.287	58,0
871 University and higher education teaching professional	78.247	69.928	89,4	8.319	10,6	47.104	60,2	31.143	39,8
872 Grammar school teachers	44.537	42.938	96,4	1.599	3,6	16.969	38,1	27.568	61,9
873 Secondary and special education teachers	134.230	130.972	97,6	3.258	2,4	28.839	21,5	105.391	78,5
874 Technical and vocational school teachers, handicraft teacher:	58.085	55.723	95,9	2.362	4,1	27.951	48,1	30.134	51,9
875 Teachers for musical education, not elsewhere class	20.286	18.933	93,3	1.353	6,7	9.434	46,5	10.852	53,5
876 PE teachers	35.988	34.333	95,4	1.655	4,6	20.563	57,1	15.425	42,9
877 Other teachers	46.478	44.975	96,8	1.503	3,2	24.704	53,2	21.774	46,8
81 Legal professionals	42.586	41.799	98,2	787	1,8	25.083	58,9	17.503	41,1
811 Judges	5.473	5.318	97,2	155	2,8	2.971	54,3	2.502	45,7
812 Legal professionals	741	678	91,5	63	8,5	290	39,1	451	60,9
813 Lawyers and legal consultants	33.697	33.175	98,5	522	1,5	19.991	59,3	13.706	40,7
814 Legal enforcement	2.675	2.628	98,2	47	1,8	1.831	68,4	844	31,6
82 Publicists, interpreters, librarians	115.647	110.949	95,9	4.698	4,1	50.830	44,0	64.817	56,0
821 Publicists	62.718	61.039	97,3	1.679	2,7	36.604	58,4	26.114	41,6
822 Interpreters, translators	6.576	4.940	75,1	1.636	24,9	2.072	31,5	4.504	68,5
823 Librarians, archivists, conservators	46.353	44.970	97,0	1.383	3,0	12.154	26,2	34.199	73,8
83 Artists and related professional groups	154.892	141.189	91,2	13.703	8,8	88.241	57,0	66.651	43,0
831 Musicians	21.015	18.380	87,5	2.635	12,5	14.296	68,0	6.719	32,0
832 Performing artists	21.738	17.039	78,4	4.699	21,6	11.480	52,8	10.258	47,2
833 Sculptors, painters and related artists	35.351	33.736	95,4	1.615	4,6	16.989	48,1	18.362	51,9
834 Decorators, sign painters	6.508	6.282	96,5	226	3,5	4.167	64,0	2.341	36,0
835 Artistic vocations, stagecraft, film and audio engineering	28.544	27.277	95,6	1.267	4,4	19.831	69,5	8.713	30,5
836 Interior decorators, advertisement artists	18.624	18.188	97,7	436	2,3	7.486	40,2	11.138	59,8
837 Photographers	13.058	12.608	96,6	450	3,4	6.883	52,7	6.175	47,3
838 Artistes, professional athletes, supporting artists	10.054	7.679	76,4	2.375	23,6	7.109	70,7	2.945	29,3
In total	1.832.465	1.746.078	95,3	86.387	4,7	1.183.587	64,6	648.878	35,4

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 3									
62 Technicians	919.677	893.740	97,2	25.937	2,8	807.028	87,8	112.649	12,2
621 Mechanical engineering technician	99.350	96.596	97,2	2.754	2,8	94.896	95,5	4.454	4,5
622 Electrical engineering technician	164.132	158.884	96,8	5.248	3,2	154.996	94,4	9.136	5,6
623 Civil engineering technician	54.555	53.164	97,5	1.391	2,5	49.836	91,4	4.719	8,6
624 Surveying technicians	27.377	27.023	98,7	354	1,3	20.160	73,6	7.217	26,4
625 Mining and metallurgical technician	9.863	9.619	97,5	244	2,5	9.476	96,1	387	3,9
626 Chemical and physical science technician	29.504	28.565	96,8	939	3,2	18.114	61,4	11.390	38,6
627 Other manufacturing technicians	34.854	33.792	97,0	1.062	3,0	27.626	79,3	7.228	20,7
628 Other technicians	370.684	359.857	97,1	10.827	2,9	310.549	83,8	60.135	16,2
629 Technicians with a master's certificat	129.358	126.240	97,6	3.118	2,4	121.375	93,8	7.983	6,2
63 Other qualified technicians	277.385	269.487	97,2	7.898	2,8	135.347	48,8	142.038	51,2
631 Other biological and related qualified technician	27.436	26.808	97,7	628	2,3	9.825	35,8	17.611	64,2
632 Other physical, mathematical and related qualified technician	27.928	26.936	96,4	992	3,6	21.805	78,1	6.123	21,9
633 Chemical laboratory assistants	58.664	56.999	97,2	1.665	2,8	26.543	45,2	32.121	54,8
634 Photographical laboratory assistants	16.010	14.874	92,9	1.136	7,1	8.002	50,0	8.008	50,0
635 Draughtspersons	147.347	143.870	97,6	3.477	2,4	69.172	46,9	78.175	53,1
03 Estate managers, advisers in agriculture and livestock breeding	13.234	13.010	98,3	224	1,7	10.398	78,6	2.836	21,4
031 Estate managers, advisers in agriculture and livestock breeding	2.472	2.415	97,7	57	2,3	1.873	75,8	599	24,2
032 Agricultural engineers, agricultural adviser	10.762	10.595	98,4	167	1,6	8.525	79,2	2.237	20,8
30 Precision mechanics and related professionals	107.815	103.763	96,2	4.052	3,8	46.421	43,1	61.394	56,9
301 Precision mechanics, not elsewhere class	4.624	4.072	88,1	552	11,9	3.771	81,6	853	18,4
302 Gold-, silversmiths and related professional	7.186	6.907	96,1	279	3,9	3.128	43,5	4.058	56,5
303 Dental technicians	57.196	55.059	96,3	2.137	3,7	25.066	43,8	32.130	56,2
304 Optometrists and opticians	32.123	31.452	97,9	671	2,1	9.842	30,6	22.281	69,4
305 Musical instrument makers	4.352	4.075	93,6	277	6,4	3.558	81,8	794	18,2
306 Puppet makers, model makers, taxidermists	2.334	2.198	94,2	136	5,8	1.056	45,2	1.278	54,8
85 Other health associate professionals	1.700.424	1.632.177	96,0	68.247	4,0	196.252	11,5	1.504.172	88,5
851 Alternative practitioners	4.135	3.955	95,6	180	4,4	1.252	30,3	2.883	69,7
852 Physiotherapists and related associate professional	129.031	125.326	97,1	3.705	2,9	28.042	21,7	100.989	78,3
853 Qualified nursing staff, midwife	690.458	663.077	96,0	27.381	4,0	93.840	13,6	596.618	86,4
854 Practical nurses	237.730	220.338	92,7	17.392	7,3	61.400	25,8	176.330	74,2
855 Dieticians, nutritionists and medical-technical assistant	51.167	50.174	98,1	993	1,9	1.172	2,3	49.995	97,7
856 Doctor's receptionists	503.735	487.543	96,8	16.192	3,2	3.845	0,8	499.890	99,2
857 Medical laboratory assistants	84.168	81.764	97,1	2.404	2,9	6.701	8,0	77.467	92,0
80 Security-related professionals	48.024	47.130	98,1	894	1,9	38.164	79,5	9.860	20,5
801 Professional soldiers, customs and border inspectors, police officer	9.764	9.619	98,5	145	1,5	3.975	40,7	5.789	59,3
802 Professional fire-fighters	11.808	11.643	98,6	165	1,4	11.613	98,3	195	1,7
803 Security inspectors	6.410	6.171	96,3	239	3,7	5.153	80,4	1.257	19,6
804 Qualified chimney sweeper	9.233	9.216	99,8	17	0,2	8.766	94,9	467	5,1
805 Consumer and health protection professionals	10.809	10.481	97,0	328	3,0	8.657	80,1	2.152	19,9
89 Clergy and pastoral care	35.648	33.843	94,9	1.805	5,1	19.682	55,2	15.966	44,8
891 Clergy	16.254	14.966	92,1	1.288	7,9	11.689	71,9	4.565	28,1
892 Members of religious orders, without occupational title	1.166	1.107	94,9	59	5,1	368	31,6	798	68,4
893 Pastoral care, pastoral assistants	18.228	17.770	97,5	458	2,5	7.625	41,8	10.603	58,2
In total	3.102.207	2.993.150	96,5	109.057	3,5	1.253.292	40,4	1.848.915	59,6
IN TOTAL (all vocational groups)	5.721.068	5.499.804	96,1	221.264	3,9	2.947.823	51,5	2.773.245	48,5

Source: Federal Labour Agency, own illustration

Table A04: Employees subject to social insurance contribution according to vocational groups in Germany as of June 30, 2003

Preliminary results

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1									
76 Legislators and senior officials	154.054	149.309	96,9	4.745	3,1	93.235	60,5	60.819	39,5
761 Legislators, government ministers and state secretaries, elected officials	3.742	3.695	98,7	47	1,3	2.682	71,7	1.060	28,3
762 Senior government officials and administrative expert	131.667	127.287	96,7	4.380	3,3	77.732	59,0	53.935	41,0
763 Senior officials of special-interest organisation	18.645	18.327	98,3	318	1,7	12.821	68,8	5.824	31,2
75 Entrepreneurs, corporate managers, certified accountants	618.093	596.934	96,6	21.159	3,4	404.527	65,4	213.566	34,6
751 Directors and chief executives	364.694	351.307	96,3	13.387	3,7	286.731	78,6	77.963	21,4
752 Business consultants, general managers	95.086	90.460	95,1	4.626	4,9	69.098	72,7	25.988	27,3
753 Certified accountants, tax consultants	158.313	155.167	98,0	3.146	2,0	48.698	30,8	109.615	69,2
In total	772.147	746.243	96,6	25.904	3,4	497.762	64,5	274.385	35,5
Groups primarily categorised as ISCO 2									
61 Chemists, physicists, mathematicians	65.280	60.729	93,0	4.551	7,0	52.822	80,9	12.458	19,1
611 Chemists, chemical engineer	40.771	38.295	93,9	2.476	6,1	31.420	77,1	9.351	22,9
612 Physicists, physical engineers, mathematician	24.509	22.434	91,5	2.075	8,5	21.402	87,3	3.107	12,7
60 Engineers	654.076	628.044	96,0	26.032	4,0	586.092	89,6	67.984	10,4
601 Engineers in mechanical engineering and vehicle constructio	144.118	138.033	95,8	6.085	4,2	137.364	95,3	6.754	4,7
602 Electrical engineers	173.239	164.127	94,7	9.112	5,3	163.908	94,6	9.331	5,4
603 Architects, civil engineer:	128.306	125.659	97,9	2.647	2,1	101.185	78,9	27.121	21,1
604 Surveying engineers	10.268	10.129	98,6	139	1,4	8.496	82,7	1.772	17,3
605 Mining, foundry and metallurgical engineer	6.245	5.957	95,4	288	4,6	5.881	94,2	364	5,8
606 Other engineers in manufactur	30.366	29.167	96,1	1.199	3,9	27.262	89,8	3.104	10,2
607 Other engineers	161.534	154.972	95,9	6.562	4,1	141.996	87,9	19.538	12,1
88 Occupations in humanities and natural sciences, not elsewhere class.	160.866	150.400	93,5	10.466	6,5	91.390	56,8	69.476	43,2
881 Economists, social scientists, not elsewhere class	81.506	78.580	96,4	2.926	3,6	44.184	54,2	37.322	45,8
882 Humanities scholars, not elsewhere class	35.738	32.839	91,9	2.899	8,1	19.004	53,2	16.734	46,8
883 Natural scientists, not elsewhere class.	43.622	38.981	89,4	4.641	10,6	28.202	64,7	15.420	35,3
84 Medical doctors, pharmacists	214.909	206.428	96,1	8.481	3,9	104.241	48,5	110.668	51,5
841 Physicians	160.720	153.419	95,5	7.301	4,5	91.813	57,1	68.907	42,9
842 Dentists	7.598	7.240	95,3	358	4,7	2.842	37,4	4.756	62,6
843 Veterinarians	8.021	7.832	97,6	189	2,4	3.355	41,8	4.666	58,2
844 Pharmacists	38.570	37.937	98,4	633	1,6	6.231	16,2	32.339	83,8
87 Teaching professionals	408.077	387.092	94,9	20.985	5,1	171.684	42,1	236.393	57,9
871 University and higher education teaching professional	76.531	67.533	88,2	8.998	11,8	45.629	59,6	30.902	40,4
872 Grammar school teachers	43.553	41.862	96,1	1.691	3,9	16.693	38,3	26.860	61,7
873 Secondary and special education teachers	129.034	125.611	97,3	3.423	2,7	28.051	21,7	100.983	78,3
874 Technical and vocational school teachers, handicraft teacher:	58.149	55.811	96,0	2.338	4,0	27.783	47,8	30.366	52,2
875 Teachers for musical education, not elsewhere class	20.039	18.686	93,2	1.353	6,8	9.312	46,5	10.727	53,5
876 PE teachers	35.513	33.923	95,5	1.590	4,5	20.240	57,0	15.273	43,0
877 Other teachers	45.258	43.666	96,5	1.592	3,5	23.976	53,0	21.282	47,0
81 Legal professionals	44.637	43.840	98,2	797	1,8	26.056	58,4	18.581	41,6
811 Judges	6.307	6.118	97,0	189	3,0	3.390	53,7	2.917	46,3
812 Legal professionals	690	638	92,5	52	7,5	283	41,0	407	59,0
813 Lawyers and legal consultants	35.067	34.546	98,5	521	1,5	20.623	58,8	14.444	41,2
814 Legal enforcement	2.573	2.538	98,6	35	1,4	1.760	68,4	813	31,6
82 Publicists, interpreters, librarians	112.534	107.969	95,9	4.565	4,1	49.196	43,7	63.338	56,3
821 Publicists	60.687	59.065	97,3	1.622	2,7	35.226	58,0	25.461	42,0
822 Interpreters, translators	6.330	4.730	74,7	1.600	25,3	2.012	31,8	4.318	68,2
823 Librarians, archivists, conservators	45.517	44.174	97,0	1.343	3,0	11.958	26,3	33.559	73,7
83 Artists and related professional groups	150.317	137.097	91,2	13.220	8,8	85.193	56,7	65.124	43,3
831 Musicians	20.937	18.289	87,4	2.648	12,6	14.060	67,2	6.877	32,8
832 Performing artists	21.656	16.982	78,4	4.674	21,6	11.316	52,3	10.340	47,7
833 Sculptors, painters and related artists	34.164	32.661	95,6	1.503	4,4	16.275	47,6	17.889	52,4
834 Decorators, sign painters	6.018	5.837	97,0	181	3,0	3.890	64,6	2.128	35,4
835 Artistic vocations, stagecraft, film and audio engineering	28.343	27.073	95,5	1.270	4,5	19.616	69,2	8.727	30,8
836 Interior decorators, advertisement artists	16.884	16.495	97,7	389	2,3	6.699	39,7	10.185	60,3
837 Photographers	12.206	11.786	96,6	420	3,4	6.285	51,5	5.921	48,5
838 Artistes, professional athletes, supporting artists	10.109	7.974	78,9	2.135	21,1	7.052	69,8	3.057	30,2
In total	1.810.696	1.721.599	95,1	89.097	4,9	1.166.674	64,4	644.022	35,6

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 3									
62 Technicians	895.888	870.708	97,2	25.180	2,8	786.085	87,7	109.803	12,3
621 Mechanical engineering technician	97.206	94.486	97,2	2.720	2,8	92.693	95,4	4.513	4,6
622 Electrical engineering technician	157.549	152.638	96,9	4.911	3,1	148.838	94,5	8.711	5,5
623 Civil engineering technician	51.482	50.216	97,5	1.266	2,5	46.937	91,2	4.545	8,8
624 Surveying technicians	26.450	26.101	98,7	349	1,3	19.445	73,5	7.005	26,5
625 Mining and metallurgical technician	8.967	8.749	97,6	218	2,4	8.597	95,9	370	4,1
626 Chemical and physical science technician	28.824	27.911	96,8	913	3,2	17.589	61,0	11.235	39,0
627 Other manufacturing technicians	33.387	32.355	96,9	1.032	3,1	26.485	79,3	6.902	20,7
628 Other technicians	367.010	356.286	97,1	10.724	2,9	308.388	84,0	58.622	16,0
629 Technicians with a master's certificat	125.013	121.966	97,6	3.047	2,4	117.113	93,7	7.900	6,3
63 Other qualified technicians	268.314	260.738	97,2	7.576	2,8	131.217	48,9	137.097	51,1
631 Other biological and related qualified technician	27.440	26.812	97,7	628	2,3	9.717	35,4	17.723	64,6
632 Other physical, mathematical and related qualified technician	27.405	26.432	96,4	973	3,6	21.402	78,1	6.003	21,9
633 Chemical laboratory assistants	58.793	57.088	97,1	1.705	2,9	26.335	44,8	32.458	55,2
634 Photographical laboratory assistants	14.944	13.906	93,1	1.038	6,9	7.786	52,1	7.158	47,9
635 Draughtspersons	139.732	136.500	97,7	3.232	2,3	65.977	47,2	73.755	52,8
03 Estate managers, advisers in agriculture and livestock breeding	12.709	12.478	98,2	231	1,8	9.984	78,6	2.725	21,4
031 Estate managers, advisers in agriculture and livestock breeding	2.351	2.294	97,6	57	2,4	1.802	76,6	549	23,4
032 Agricultural engineers, agricultural adviser	10.358	10.184	98,3	174	1,7	8.182	79,0	2.176	21,0
30 Precision mechanics and related professionals	106.109	102.392	96,5	3.717	3,5	45.315	42,7	60.794	57,3
301 Precision mechanics, not elsewhere class	4.386	3.909	89,1	477	10,9	3.567	81,3	819	18,7
302 Gold-, silversmiths and related professional	6.585	6.356	96,5	229	3,5	2.829	43,0	3.756	57,0
303 Dental technicians	56.421	54.460	96,5	1.961	3,5	24.672	43,7	31.749	56,3
304 Optometrists and opticians	32.397	31.740	98,0	657	2,0	9.752	30,1	22.645	69,9
305 Musical instrument makers	4.324	4.044	93,5	280	6,5	3.531	81,7	793	18,3
306 Puppet makers, model makers, taxidermists	1.996	1.883	94,3	113	5,7	964	48,3	1.032	51,7
85 Other health associate professionals	1.721.437	1.653.258	96,0	68.179	4,0	198.370	11,5	1.523.067	88,5
851 Alternative practitioners	4.062	3.873	95,3	189	4,7	1.188	29,2	2.874	70,8
852 Physiotherapists and related associate professional	133.928	130.210	97,2	3.718	2,8	28.413	21,2	105.515	78,8
853 Qualified nursing staff, midwife	695.427	668.298	96,1	27.129	3,9	94.747	13,6	600.680	86,4
854 Practical nurses	240.152	222.633	92,7	17.519	7,3	62.390	26,0	177.762	74,0
855 Dieticians, nutritionists and medical-technical assistant	51.679	50.702	98,1	977	1,9	1.156	2,2	50.523	97,8
856 Doctor's receptionists	512.132	495.866	96,8	16.266	3,2	3.757	0,7	508.375	99,3
857 Medical laboratory assistants	84.057	81.676	97,2	2.381	2,8	6.719	8,0	77.338	92,0
80 Security-related professionals	48.110	47.224	98,2	886	1,8	38.106	79,2	10.004	20,8
801 Professional soldiers, customs and border inspectors, police officer	10.000	9.851	98,5	149	1,5	4.120	41,2	5.880	58,8
802 Professional fire-fighters	11.693	11.531	98,6	162	1,4	11.498	98,3	195	1,7
803 Security inspectors	6.340	6.060	95,6	280	4,4	5.096	80,4	1.244	19,6
804 Qualified chimney sweeper	9.346	9.328	99,8	18	0,2	8.846	94,7	500	5,3
805 Consumer and health protection professionals	10.731	10.454	97,4	277	2,6	8.546	79,6	2.185	20,4
89 Clergy and pastoral care	36.193	34.300	94,8	1.893	5,2	19.627	54,2	16.566	45,8
891 Clergy	16.108	14.777	91,7	1.331	8,3	11.527	71,6	4.581	28,4
892 Members of religious orders, without occupational title	1.147	1.066	92,9	81	7,1	352	30,7	795	69,3
893 Pastoral care, pastoral assistants	18.938	18.457	97,5	481	2,5	7.748	40,9	11.190	59,1
In total	3.088.760	2.981.098	96,5	107.662	3,5	1.228.704	39,8	1.860.056	60,2
IN TOTAL (all vocational groups)	5.671.603	5.448.940	96,1	222.663	3,9	2.893.140	51,0	2.778.463	49,0

Source: Federal Labour Agency, own illustration

Table A05: Employees subject to social insurance contribution according to vocational groups in Germany as of June 30, 2004

Preliminary results

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1									
76 Legislators and senior officials	153.023	148.180	96,8	4.843	3,2	92.193	60,2	60.830	39,8
761 Legislators, government ministers and state secretaries, elected officials	3.676	3.630	98,7	46	1,3	2.643	71,9	1.033	28,1
762 Senior government officials and administrative expert	131.183	126.695	96,6	4.488	3,4	77.088	58,8	54.095	41,2
763 Senior officials of special-interest organisation	18.164	17.855	98,3	309	1,7	12.462	68,6	5.702	31,4
75 Entrepreneurs, corporate managers, certified accountants	604.665	584.018	96,6	20.647	3,4	392.762	65,0	211.903	35,0
751 Directors and chief executives	352.151	339.058	96,3	13.093	3,7	276.340	78,5	75.811	21,5
752 Business consultants, general managers	94.511	90.020	95,2	4.491	4,8	68.405	72,4	26.106	27,6
753 Certified accountants, tax consultants	158.003	154.940	98,1	3.063	1,9	48.017	30,4	109.986	69,6
In total	757.688	732.198	96,6	25.490	3,4	484.955	64,0	272.733	36,0
Groups primarily categorised as ISCO 2									
61 Chemists, physicists, mathematicians	64.421	59.882	93,0	4.539	7,0	51.865	80,5	12.556	19,5
611 Chemists, chemical engineer	40.337	37.852	93,8	2.485	6,2	30.872	76,5	9.465	23,5
612 Physicists, physical engineers, mathematician	24.084	22.030	91,5	2.054	8,5	20.993	87,2	3.091	12,8
60 Engineers	647.082	621.391	96,0	25.691	4,0	578.996	89,5	68.086	10,5
601 Engineers in mechanical engineering and vehicle constructio	143.064	136.993	95,8	6.071	4,2	136.072	95,1	6.992	4,9
602 Electrical engineers	169.477	160.634	94,8	8.843	5,2	160.428	94,7	9.049	5,3
603 Architects, civil engineer:	123.038	120.638	98,0	2.400	2,0	96.489	78,4	26.549	21,6
604 Surveying engineers	9.912	9.794	98,8	118	1,2	8.185	82,6	1.727	17,4
605 Mining, foundry and metallurgical engineer	6.084	5.801	95,3	283	4,7	5.721	94,0	363	6,0
606 Other engineers in manufacturing	29.396	28.229	96,0	1.167	4,0	26.355	89,7	3.041	10,3
607 Other engineers	166.111	159.302	95,9	6.809	4,1	145.746	87,7	20.365	12,3
88 Occupations in humanities and natural sciences, not elsewhere class.	159.203	148.776	93,5	10.427	6,5	89.394	56,2	69.809	43,8
881 Economists, social scientists, not elsewhere class	82.610	79.565	96,3	3.045	3,7	44.162	53,5	38.448	46,5
882 Humanities scholars, not elsewhere class	33.388	30.744	92,1	2.644	7,9	17.504	52,4	15.884	47,6
883 Natural scientists, not elsewhere class.	43.205	38.467	89,0	4.738	11,0	27.728	64,2	15.477	35,8
84 Medical doctors, pharmacists	217.895	208.748	95,8	9.147	4,2	104.866	48,1	113.029	51,9
841 Physicians	163.619	155.564	95,1	8.055	4,9	92.541	56,6	71.078	43,4
842 Dentists	7.620	7.274	95,5	346	4,5	2.770	36,4	4.850	63,6
843 Veterinarians	8.115	7.928	97,7	187	2,3	3.328	41,0	4.787	59,0
844 Pharmacists	38.541	37.982	98,5	559	1,5	6.227	16,2	32.314	83,8
87 Teaching professionals	389.921	369.674	94,8	20.247	5,2	163.668	42,0	226.253	58,0
871 University and higher education teaching professional	70.305	61.786	87,9	8.519	12,1	41.573	59,1	28.732	40,9
872 Grammar school teachers	42.341	40.587	95,9	1.754	4,1	16.241	38,4	26.100	61,6
873 Secondary and special education teachers	123.443	120.006	97,2	3.437	2,8	27.255	22,1	96.188	77,9
874 Technical and vocational school teachers, handicraft teacher:	56.673	54.406	96,0	2.267	4,0	26.931	47,5	29.742	52,5
875 Teachers for musical education, not elsewhere class	19.847	18.536	93,4	1.311	6,6	9.216	46,4	10.631	53,6
876 PE teachers	34.002	32.570	95,8	1.432	4,2	19.427	57,1	14.575	42,9
877 Other teachers	43.310	41.783	96,5	1.527	3,5	23.025	53,2	20.285	46,8
81 Legal professionals	46.673	45.827	98,2	846	1,8	26.984	57,8	19.689	42,2
811 Judges	7.287	7.065	97,0	222	3,0	3.882	53,3	3.405	46,7
812 Legal professionals	647	600	92,7	47	7,3	264	40,8	383	59,2
813 Lawyers and legal consultants	36.422	35.881	98,5	541	1,5	21.258	58,4	15.164	41,6
814 Legal enforcement	2.317	2.281	98,4	36	1,6	1.580	68,2	737	31,8
82 Publicists, interpreters, librarians	111.396	106.973	96,0	4.423	4,0	48.571	43,6	62.825	56,4
821 Publicists	60.251	58.704	97,4	1.547	2,6	34.766	57,7	25.485	42,3
822 Interpreters, translators	6.283	4.696	74,7	1.587	25,3	1.995	31,8	4.288	68,2
823 Librarians, archivists, conservators	44.862	43.573	97,1	1.289	2,9	11.810	26,3	33.052	73,7
83 Artists and related professional groups	147.369	134.701	91,4	12.668	8,6	83.004	56,3	64.365	43,7
831 Musicians	20.257	17.668	87,2	2.589	12,8	13.626	67,3	6.631	32,7
832 Performing artists	21.402	16.775	78,4	4.627	21,6	11.120	52,0	10.282	48,0
833 Sculptors, painters and related artists	34.383	32.965	95,9	1.418	4,1	16.401	47,7	17.982	52,3
834 Decorators, sign painters	5.866	5.709	97,3	157	2,7	3.760	64,1	2.106	35,9
835 Artistic vocations, stagecraft, film and audio engineering	27.927	26.790	95,9	1.137	4,1	19.263	69,0	8.664	31,0
836 Interior decorators, advertisement artists	15.905	15.531	97,6	374	2,4	6.276	39,5	9.629	60,5
837 Photographers	11.619	11.227	96,6	392	3,4	5.971	51,4	5.648	48,6
838 Artistes, professional athletes, supporting artists	10.010	8.036	80,3	1.974	19,7	6.587	65,8	3.423	34,2
In total	1.783.960	1.695.972	95,1	87.988	4,9	1.147.348	64,3	636.612	35,7

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 3									
62 Technicians	876.049	851.328	97,2	24.721	2,8	769.285	87,8	106.764	12,2
621 Mechanical engineering technician	96.021	93.325	97,2	2.696	2,8	91.519	95,3	4.502	4,7
622 Electrical engineering technician	153.686	148.925	96,9	4.761	3,1	145.303	94,5	8.383	5,5
623 Civil engineering technician	48.980	47.756	97,5	1.224	2,5	44.630	91,1	4.350	8,9
624 Surveying technicians	25.582	25.264	98,8	318	1,2	18.731	73,2	6.851	26,8
625 Mining and metallurgical technician	8.416	8.216	97,6	200	2,4	8.077	96,0	339	4,0
626 Chemical and physical science technician	28.294	27.401	96,8	893	3,2	17.185	60,7	11.109	39,3
627 Other manufacturing technicians	32.591	31.588	96,9	1.003	3,1	25.878	79,4	6.713	20,6
628 Other technicians	361.593	350.995	97,1	10.598	2,9	304.726	84,3	56.867	15,7
629 Technicians with a master's certificate	120.886	117.858	97,5	3.028	2,5	113.236	93,7	7.650	6,3
63 Other qualified technicians	261.246	254.111	97,3	7.135	2,7	128.380	49,1	132.866	50,9
631 Other biological and related qualified technician	27.373	26.763	97,8	610	2,2	9.687	35,4	17.686	64,6
632 Other physical, mathematical and related qualified technician	27.046	26.108	96,5	938	3,5	21.161	78,2	5.885	21,8
633 Chemical laboratory assistants	58.865	57.245	97,2	1.620	2,8	26.129	44,4	32.736	55,6
634 Photographical laboratory assistants	13.845	12.915	93,3	930	6,7	7.627	55,1	6.218	44,9
635 Draughtspersons	134.117	131.080	97,7	3.037	2,3	63.776	47,6	70.341	52,4
03 Estate managers, advisers in agriculture and livestock breeding	12.306	12.073	98,1	233	1,9	9.654	78,4	2.652	21,6
031 Estate managers, advisers in agriculture and livestock breeding	2.244	2.185	97,4	59	2,6	1.704	75,9	540	24,1
032 Agricultural engineers, agricultural advisers	10.062	9.888	98,3	174	1,7	7.950	79,0	2.112	21,0
30 Precision mechanics and related professionals	105.865	102.262	96,6	3.603	3,4	45.180	42,7	60.685	57,3
301 Precision mechanics, not elsewhere class	4.188	3.749	89,5	439	10,5	3.404	81,3	784	18,7
302 Gold-, silversmiths and related professional	6.126	5.905	96,4	221	3,6	2.624	42,8	3.502	57,2
303 Dental technicians	57.712	55.766	96,6	1.946	3,4	25.232	43,7	32.480	56,3
304 Optometrists and opticians	31.913	31.278	98,0	635	2,0	9.545	29,9	22.368	70,1
305 Musical instrument makers	4.204	3.940	93,7	264	6,3	3.462	82,4	742	17,6
306 Puppet makers, model makers, taxidermists	1.722	1.624	94,3	98	5,7	913	53,0	809	47,0
85 Other health associate professionals	1.722.548	1.656.556	96,2	65.992	3,8	198.457	11,5	1.524.091	88,5
851 Alternative practitioners	4.111	3.931	95,6	180	4,4	1.170	28,5	2.941	71,5
852 Physiotherapists and related associate professional	135.190	131.586	97,3	3.604	2,7	28.062	20,8	107.128	79,2
853 Qualified nursing staff, midwife	696.039	669.755	96,2	26.284	3,8	95.618	13,7	600.421	86,3
854 Practical nurses	236.498	219.756	92,9	16.742	7,1	61.969	26,2	174.529	73,8
855 Dieticians, nutritionists and medical-technical assistant	52.567	51.609	98,2	958	1,8	1.169	2,2	51.398	97,8
856 Doctor's receptionists	514.469	498.609	96,9	15.860	3,1	3.810	0,7	510.659	99,3
857 Medical laboratory assistants	83.674	81.310	97,2	2.364	2,8	6.659	8,0	77.015	92,0
80 Security-related professionals	48.400	47.482	98,1	918	1,9	38.251	79,0	10.149	21,0
801 Professional soldiers, customs and border inspectors, police officer	10.385	10.226	98,5	159	1,5	4.444	42,8	5.941	57,2
802 Professional fire-fighters	11.530	11.380	98,7	150	1,3	11.333	98,3	197	1,7
803 Security inspectors	6.286	5.956	94,8	330	5,2	5.020	79,9	1.266	20,1
804 Qualified chimney sweeper	9.534	9.518	99,8	16	0,2	9.010	94,5	524	5,5
805 Consumer and health protection professionals	10.665	10.402	97,5	263	2,5	8.444	79,2	2.221	20,8
89 Clergy and pastoral care	34.081	32.102	94,2	1.979	5,8	18.429	54,1	15.652	45,9
891 Clergy	14.593	13.202	90,5	1.391	9,5	10.486	71,9	4.107	28,1
892 Members of religious orders, without occupational title	1.089	1.011	92,8	78	7,2	341	31,3	748	68,7
893 Pastoral care, pastoral assistants	18.399	17.889	97,2	510	2,8	7.602	41,3	10.797	58,7
In total	3.060.495	2.955.914	96,6	104.581	3,4	1.207.636	39,5	1.852.859	60,5
IN TOTAL (all vocational groups)	5.602.143	5.384.084	96,1	218.059	3,9	2.839.939	50,7	2.762.204	49,3

Source: Federal Labour Agency, own illustration

Table A06: Employees subject to social insurance contribution according to vocational groups in Germany as of June 30, 2005

Preliminary results

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1									
76 Legislators and senior officials	152.950	147.912	96,7	4.992	3,3	91.329	59,7	61.621	40,3
761 Legislators, government ministers and state secretaries, elected officials	3.297	3.248	98,5	48	1,5	2.275	69,0	1.022	31,0
762 Senior government officials and administrative expert	132.074	127.397	96,5	4.634	3,5	77.033	58,3	55.041	41,7
763 Senior officials of special-interest organisation	17.579	17.267	98,2	310	1,8	12.021	68,4	5.558	31,6
75 Entrepreneurs, corporate managers, certified accountants	598.746	577.854	96,5	20.771	3,5	386.514	64,6	212.232	35,4
751 Directors and chief executives	344.650	331.506	96,2	13.063	3,8	269.835	78,3	74.815	21,7
752 Business consultants, general managers	96.997	92.239	95,1	4.738	4,9	69.480	71,6	27.517	28,4
753 Certified accountants, tax consultants	157.099	154.109	98,1	2.970	1,9	47.199	30,0	109.900	70,0
In total	751.696	725.766	96,6	25.763	3,4	477.843	63,6	273.853	36,4
Groups primarily categorised as ISCO 2									
61 Chemists, physicists, mathematicians	63.770	59.188	92,8	4.563	7,2	50.948	79,9	12.822	20,1
611 Chemists, chemical engineer	39.973	37.472	93,7	2.487	6,2	30.326	75,9	9.647	24,1
612 Physicists, physical engineers, mathematician	23.797	21.716	91,3	2.076	8,7	20.622	86,7	3.175	13,3
60 Engineers	645.422	619.119	95,9	26.143	4,1	575.989	89,2	69.433	10,8
601 Engineers in mechanical engineering and vehicle constructio	140.621	134.505	95,7	6.059	4,3	133.420	94,9	7.201	5,1
602 Electrical engineers	167.319	158.662	94,8	8.617	5,2	158.172	94,5	9.147	5,5
603 Architects, civil engineer	117.885	115.651	98,1	2.206	1,9	91.910	78,0	25.975	22,0
604 Surveying engineers	9.605	9.490	98,8	113	1,2	7.899	82,2	1.706	17,8
605 Mining, foundry and metallurgical engineer	5.968	5.692	95,4	276	4,6	5.593	93,7	375	6,3
606 Other engineers in manufacturing	28.181	27.077	96,1	1.098	3,9	25.204	89,4	2.977	10,6
607 Other engineers	175.843	168.042	95,6	7.774	4,4	153.791	87,5	22.052	12,5
88 Occupations in humanities and natural sciences, not elsewhere class.	158.751	148.304	93,4	10.398	6,5	87.948	55,4	70.803	44,6
881 Economists, social scientists, not elsewhere class	83.168	79.982	96,2	3.162	3,8	43.826	52,7	39.342	47,3
882 Humanities scholars, not elsewhere class	31.736	29.240	92,1	2.483	7,8	16.416	51,7	15.320	48,3
883 Natural scientists, not elsewhere class.	43.847	39.082	89,1	4.753	10,8	27.706	63,2	16.141	36,8
84 Medical doctors, pharmacists	219.395	210.070	95,7	9.271	4,2	104.538	47,6	114.857	52,4
841 Physicians	164.717	156.530	95,0	8.143	4,9	92.348	56,1	72.369	43,9
842 Dentists	7.568	7.209	95,3	357	4,7	2.653	35,1	4.915	64,9
843 Veterinarians	8.222	8.036	97,7	184	2,2	3.261	39,7	4.961	60,3
844 Pharmacists	38.888	38.295	98,5	587	1,5	6.276	16,1	32.612	83,9
87 Teaching professionals	379.778	360.090	94,8	19.543	5,1	157.118	41,4	222.660	58,6
871 University and higher education teaching professional	66.049	57.883	87,6	8.132	12,3	38.582	58,4	27.467	41,6
872 Grammar school teachers	43.335	41.553	95,9	1.765	4,1	16.585	38,3	26.750	61,7
873 Secondary and special education teachers	121.301	117.860	97,2	3.409	2,8	26.707	22,0	94.594	78,0
874 Technical and vocational school teachers, handicraft teacher	54.886	52.655	95,9	2.206	4,0	25.681	46,8	29.205	53,2
875 Teachers for musical education, not elsewhere class	19.008	17.743	93,3	1.254	6,6	8.696	45,7	10.312	54,3
876 PE teachers	33.225	31.925	96,1	1.288	3,9	18.821	56,6	14.404	43,4
877 Other teachers	41.974	40.471	96,4	1.489	3,5	22.046	52,5	19.928	47,5
81 Legal professionals	47.506	46.598	98,1	895	1,9	27.108	57,1	20.398	42,9
811 Judges	7.353	7.121	96,8	230	3,1	3.740	50,9	3.613	49,1
812 Legal professionals	605	576	95,2	29	4,8	246	40,7	359	59,3
813 Lawyers and legal consultants	37.376	36.755	98,3	611	1,6	21.650	57,9	15.726	42,1
814 Legal enforcement	2.172	2.146	98,8	25	1,2	1.472	67,8	700	32,2
82 Publicists, interpreters, librarians	110.986	106.618	96,1	4.323	3,9	48.272	43,5	62.714	56,5
821 Publicists	60.840	59.287	97,4	1.524	2,5	34.787	57,2	26.053	42,8
822 Interpreters, translators	6.223	4.618	74,2	1.601	25,7	1.920	30,9	4.303	69,1
823 Librarians, archivists, conservators	43.923	42.713	97,2	1.198	2,7	11.565	26,3	32.358	73,7
83 Artists and related professional groups	145.552	133.007	91,4	12.490	8,6	81.355	55,9	64.197	44,1
831 Musicians	19.459	16.908	86,9	2.540	13,1	13.026	66,9	6.433	33,1
832 Performing artists	20.788	16.215	78,0	4.562	21,9	10.871	52,3	9.917	47,7
833 Sculptors, painters and related artists	35.809	34.314	95,8	1.484	4,1	16.965	47,4	18.844	52,6
834 Decorators, sign painters	5.783	5.623	97,2	159	2,7	3.721	64,3	2.062	35,7
835 Artistic vocations, stagecraft, film and audio engineering	27.807	26.650	95,8	1.145	4,1	19.155	68,9	8.652	31,1
836 Interior decorators, advertisement artists	15.256	14.892	97,6	362	2,4	5.885	38,6	9.371	61,4
837 Photographers	11.156	10.763	96,5	392	3,5	5.680	50,9	5.476	49,1
838 Artistes, professional athletes, supporting artists	9.494	7.642	80,5	1.846	19,4	6.052	63,7	3.442	36,3
In total	1.771.160	1.682.994	95,0	87.626	4,9	1.133.276	64,0	637.884	36,0

Occupational group Occupational category	Employees in total	Germans		non-Germans		males		females	
		in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 3									
62 Technicians	864.161	839.409	97,1	24.615	2,8	759.316	87,9	104.845	12,1
621 Mechanical engineering technician	96.384	93.643	97,2	2.730	2,8	91.946	95,4	4.438	4,6
622 Electrical engineering technician	151.496	146.771	96,9	4.697	3,1	143.171	94,5	8.325	5,5
623 Civil engineering technician	46.765	45.589	97,5	1.168	2,5	42.539	91,0	4.226	9,0
624 Surveying technicians	24.800	24.496	98,8	301	1,2	18.142	73,2	6.658	26,8
625 Mining and metallurgical technician	8.138	7.950	97,7	185	2,3	7.810	96,0	328	4,0
626 Chemical and physical science technician	27.874	26.941	96,7	927	3,3	16.782	60,2	11.092	39,8
627 Other manufacturing technicians	31.926	30.904	96,8	1.019	3,2	25.308	79,3	6.618	20,7
628 Other technicians	359.664	348.983	97,0	10.623	3,0	303.851	84,5	55.813	15,5
629 Technicians with a master's certificat	117.114	114.132	97,5	2.965	2,5	109.767	93,7	7.347	6,3
63 Other qualified technicians	257.440	250.543	97,3	6.850	2,7	126.147	49,0	131.293	51,0
631 Other biological and related qualified technician	27.542	26.940	97,8	597	2,2	9.487	34,4	18.055	65,6
632 Other physical, mathematical and related qualified technician	27.073	26.121	96,5	948	3,5	21.164	78,2	5.909	21,8
633 Chemical laboratory assistants	59.410	57.775	97,2	1.625	2,7	26.035	43,8	33.375	56,2
634 Photographical laboratory assistants	13.112	12.234	93,3	874	6,7	7.553	57,6	5.559	42,4
635 Draughtspersons	130.303	127.473	97,8	2.806	2,2	61.908	47,5	68.395	52,5
03 Estate managers, advisers in agriculture and livestock breeding	11.888	11.669	98,2	216	1,8	9.289	78,1	2.599	21,9
031 Estate managers, advisers in agriculture and livestock breeding	2.222	2.166	97,5	55	2,5	1.686	75,9	536	24,1
032 Agricultural engineers, agricultural adviser	9.666	9.503	98,3	161	1,7	7.603	78,7	2.063	21,3
30 Precision mechanics and related professionals	99.973	96.681	96,7	3.276	3,3	42.688	42,7	57.285	57,3
301 Precision mechanics, not elsewhere class	4.033	3.649	90,5	384	9,5	3.270	81,1	763	18,9
302 Gold-, silversmiths and related professional	5.847	5.847	96,5	202	3,5	2.463	42,1	3.384	57,9
303 Dental technicians	53.852	52.124	96,8	1.721	3,2	23.675	44,0	30.177	56,0
304 Optometrists and opticians	30.627	29.996	97,9	623	2,0	9.084	29,7	21.543	70,3
305 Musical instrument makers	4.061	3.808	93,8	253	6,2	3.338	82,2	723	17,8
306 Puppet makers, model makers, taxidermists	1.553	1.460	94,0	93	6,0	858	55,2	695	44,8
85 Other health associate professionals	1.741.159	1.676.674	96,3	64.093	3,7	198.954	11,4	1.542.205	88,6
851 Alternative practitioners	4.087	3.902	95,5	184	4,5	1.127	27,6	2.960	72,4
852 Physiotherapists and related associate professional	138.485	134.944	97,4	3.516	2,5	27.883	20,1	110.602	79,9
853 Qualified nursing staff, midwife	703.775	678.313	96,4	25.347	3,6	96.721	13,7	607.054	86,3
854 Practical nurses	234.982	219.021	93,2	15.843	6,7	61.521	26,2	173.461	73,8
855 Dieticians, nutritionists and medical-technical assistant	55.101	54.105	98,2	985	1,8	1.201	2,2	53.900	97,8
856 Doctor's receptionists	520.610	504.588	96,9	15.919	3,1	3.899	0,7	516.711	99,3
857 Medical laboratory assistants	84.119	81.801	97,2	2.299	2,7	6.602	7,8	77.517	92,2
80 Security-related professionals	48.917	47.976	98,1	936	1,9	38.508	78,7	10.409	21,3
801 Professional soldiers, customs and border inspectors, police officer	10.622	10.444	98,3	178	1,7	4.636	43,6	5.986	56,4
802 Professional fire-fighters	11.447	11.302	98,7	144	1,3	11.251	98,3	196	1,7
803 Security inspectors	6.557	6.221	94,9	336	5,1	5.259	80,2	1.298	19,8
804 Qualified chimney sweeper	9.579	9.562	99,8	17	0,2	9.019	94,2	560	5,8
805 Consumer and health protection professionals	10.712	10.447	97,5	261	2,4	8.343	77,9	2.369	22,1
89 Clergy and pastoral care	33.358	31.401	94,1	1.954	5,9	18.094	54,2	15.264	45,8
891 Clergy	14.706	13.285	90,3	1.418	9,6	10.502	71,4	4.204	28,6
892 Members of religious orders, without occupational title	1.002	930	92,8	72	7,2	304	30,3	698	69,7
893 Pastoral care, pastoral assistants	17.650	17.186	97,4	464	2,6	7.288	41,3	10.362	58,7
In total	3.056.896	2.954.353	96,6	101.940	3,3	1.192.996	39,0	1.863.900	61,0
IN TOTAL (all vocational groups)	5.579.752	5.363.113	96,1	215.329	3,9	2.804.115	50,3	2.775.637	49,7

Source: Federal Labour Agency, own illustration

Table A07: Employees subject to social insurance contribution according to vocational groups and sex in Germany as of June 30, 2005

Preliminary results													
Occupational group Occupational category	Employees in total	Germans		German males		German females		non-Germans		non-German males		non-German females	
		in total	in %	in total	in %	in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 1													
76 Legislators and senior officials	152.950	147.912	96,7	88.082	59,6	59.830	40,4	4.992	3,3	3.218	64,5	1.774	35,5
761 Legislators, government ministers and state secretaries, elected official:	3.297	3.248	98,5	2.252	69,3	996	30,7	48	1,5	22	45,8	26	54,2
762 Senior government officials and administrative expert	132.074	127.397	96,5	74.047	58,1	53.350	41,9	4.634	3,5	2.959	63,9	1.675	36,1
763 Senior officials of special-interest organisation:	17.579	17.267	98,2	11.783	68,2	5.484	31,8	310	1,8	237	76,5	73	23,5
75 Entrepreneurs, corporate managers, certified accountants	598.746	577.854	96,5	371.831	64,3	206.023	35,7	20.771	3,5	14.594	70,3	6.177	29,7
751 Directors and chief executive:	344.650	331.506	96,2	259.324	78,2	72.182	21,8	13.063	3,8	10.446	80,0	2.617	20,0
752 Business consultants, general manager:	96.997	92.239	95,1	66.251	71,8	25.988	28,2	4.738	4,9	3.213	67,8	1.525	32,2
753 Certified accountants, tax consultants:	157.099	154.109	98,1	46.256	30,0	107.853	70,0	2.970	1,9	935	31,5	2.035	68,5
In total	751.696	725.766	96,6	459.913	63,4	265.853	36,6	25.763	3,4	17.812	69,1	7.951	30,9
Groups primarily categorised as ISCO 2													
61 Chemists, physicists, mathematicians	63.770	59.188	92,8	47.616	80,4	11.572	19,6	4.563	7,2	3.317	72,7	1.246	27,3
611 Chemists, chemical engineer:	39.973	37.472	93,7	28.631	76,4	8.841	23,6	2.487	6,2	1.684	67,7	803	32,3
612 Physicists, physical engineers, mathematician	23.797	21.716	91,3	18.985	87,4	2.731	12,6	2.076	8,7	1.633	78,7	443	21,3
60 Engineers	645.422	619.119	95,9	553.307	89,4	65.812	10,6	26.143	4,1	22.540	86,2	3.603	13,8
601 Engineers in mechanical engineering and vehicle constructio	140.621	134.505	95,7	127.871	95,1	6.634	4,9	6.059	4,3	5.495	90,7	564	9,3
602 Electrical engineers	167.319	158.662	94,8	150.506	94,9	8.156	5,1	8.617	5,2	7.627	88,5	990	11,5
603 Architects, civil engineer:	117.885	115.651	98,1	90.116	77,9	25.535	22,1	2.206	1,9	1.773	80,4	433	19,6
604 Surveying engineers:	9.605	9.490	98,8	7.805	82,2	1.685	17,8	113	1,2	93	82,3	20	17,7
605 Mining, foundry and metallurgical engineer	5.968	5.692	95,4	5.342	93,9	350	6,1	276	4,6	251	90,9	25	9,1
606 Other engineers in manufacturing	28.181	27.077	96,1	24.238	89,5	2.839	10,5	1.098	3,9	961	87,5	137	12,5
607 Other engineers	175.843	168.042	95,6	147.429	87,7	20.613	12,3	7.774	4,4	6.340	81,6	1.434	18,4
88 Occupations in humanities and natural sciences, not elsewhere class.	158.751	148.304	93,4	82.020	55,3	66.284	44,7	10.398	6,5	5.894	56,7	4.504	43,3
881 Economists, social scientists, not elsewhere classifie	83.168	79.982	96,2	42.245	52,8	37.737	47,2	3.162	3,8	1.568	49,6	1.594	50,4
882 Humanities scholars, not elsewhere classifie	31.736	29.240	92,1	15.014	51,3	14.226	48,7	2.483	7,8	1.392	56,1	1.091	43,9
883 Natural scientists, not elsewhere classifie	43.847	39.082	89,1	24.761	63,4	14.321	36,6	4.753	10,8	2.934	61,7	1.819	38,3
84 Medical doctors, pharmacists	219.395	210.070	95,7	99.432	47,3	110.638	52,7	9.271	4,2	5.069	54,7	4.202	45,3
841 Physicians	164.717	156.530	95,0	87.648	56,0	68.882	44,0	8.143	4,9	4.668	57,3	3.475	42,7
842 Dentists	7.568	7.209	95,3	2.503	34,7	4.706	65,3	357	4,7	148	41,5	209	58,5
843 Veterinarians	8.222	8.036	97,7	3.156	39,3	4.880	60,7	184	2,2	104	56,5	80	43,5
844 Pharmacists	38.888	38.295	98,5	6.125	16,0	32.170	84,0	587	1,5	149	25,4	438	74,6
87 Teaching professionals	379.778	360.090	94,8	147.524	41,0	212.566	59,0	19.543	5,1	9.517	48,7	10.026	51,3
871 University and higher education teaching professional	66.049	57.883	87,6	33.882	58,5	24.001	41,5	8.132	12,3	4.678	57,5	3.454	42,5
872 Grammar school teachers:	43.335	41.553	95,9	15.953	38,4	25.600	61,6	1.765	4,1	623	35,3	1.142	64,7
873 Secondary and special education teacher	121.301	117.860	97,2	25.435	21,6	92.425	78,4	3.409	2,8	1.265	37,1	2.144	62,9
874 Technical and vocational school teachers, handicraft teacher	54.886	52.655	95,9	24.835	47,2	27.820	52,8	2.206	4,0	835	37,9	1.371	62,1
875 Teachers for musical education, not elsewhere classifie	19.008	17.743	93,3	8.112	45,7	9.631	54,3	1.254	6,6	578	46,1	676	53,9
876 PE teachers	33.225	31.925	96,1	17.928	56,2	13.997	43,8	1.288	3,9	882	68,5	406	31,5
877 Other teachers	41.974	40.471	96,4	21.379	52,8	19.092	47,2	1.489	3,5	656	44,1	833	55,9
81 Legal professionals	47.506	46.598	98,1	26.679	57,3	19.919	42,7	895	1,9	426	47,6	469	52,4
811 Judges	7.353	7.121	96,8	3.625	50,9	3.496	49,1	230	3,1	115	50,0	115	50,0
812 Legal professionals	605	576	95,2	233	40,5	343	59,5	29	4,8	13	44,8	16	55,2
813 Lawyers and legal consultants	37.376	36.755	98,3	21.361	58,1	15.394	41,9	611	1,6	286	46,8	325	53,2
814 Legal enforcement	2.172	2.146	98,8	1.460	68,0	686	32,0	25	1,2	12	48,0	13	52,0
82 Publicists, interpreters, librarians	110.986	106.618	96,1	46.379	43,5	60.239	56,5	4.323	3,9	1.869	43,2	2.454	56,8
821 Publicists	60.840	59.287	97,4	33.909	57,2	25.378	42,8	1.524	2,5	859	56,4	665	43,6
822 Interpreters, translators	6.223	4.618	74,2	1.291	28,0	3.327	72,0	1.601	25,7	628	39,2	973	60,8
823 Librarians, archivists, conservators	43.923	42.713	97,2	11.179	26,2	31.534	73,8	1.198	2,7	382	31,9	816	68,1
83 Artists and related professional groups	145.552	133.007	91,4	73.570	55,3	59.437	44,7	12.490	8,6	7.747	62,0	4.743	38,0
831 Musicians	19.459	16.908	86,9	11.408	67,5	5.500	32,5	2.540	13,1	1.611	63,4	929	36,6
832 Performing artists	20.788	16.215	78,0	8.439	52,0	7.776	48,0	4.562	21,9	2.425	53,2	2.137	46,8
833 Sculptors, painters and related artists	35.809	34.314	95,8	16.075	46,8	18.239	53,2	1.484	4,1	822	59,4	602	40,6
834 Decorators, sign painters	5.783	5.623	97,2	3.600	64,0	2.023	36,0	159	2,7	121	76,1	38	23,9
835 Artistic vocations, stagecraft, film and audio engineerin:	27.807	26.650	95,8	18.348	68,8	8.302	31,2	1.145	4,1	798	69,7	347	30,3
836 Interior decorators, advertisement artist:	15.256	14.892	97,6	5.695	38,2	9.197	61,8	362	2,4	188	51,9	174	48,1
837 Photographers	11.156	10.763	96,5	5.444	50,6	5.319	49,4	392	3,5	235	59,9	157	40,1
838 Artists, professional athletes, supporting artists	9.494	7.642	80,5	4.561	59,7	3.081	40,3	1.846	19,4	1.487	80,6	359	19,4
In total	1.771.160	1.682.994	95,0	1.076.527	64,0	606.467	36,0	87.626	4,9	56.379	64,3	31.247	35,7

Occupational group Occupational category	Employees in total	Germans		German males		German females		non-Germans		non-German males		non-German females	
		in total	in %	in total	in %	in total	in %	in total	in %	in total	in %	in total	in %
Groups primarily categorised as ISCO 3													
62 Technicians	864.161	839.409	97,1	737.787	87,9	101.622	12,1	24.615	2,8	21.411	87,0	3.204	13,0
621 Mechanical engineering technician:	96.384	93.643	97,2	89.385	95,5	4.258	4,5	2.730	2,8	2.551	93,4	179	6,6
622 Electrical engineering technician:	151.496	146.771	96,9	138.887	94,6	7.884	5,4	4.697	3,1	4.257	90,6	440	9,4
623 Civil engineering technicians:	46.765	45.589	97,5	41.438	90,9	4.151	9,1	1.168	2,5	1.093	93,6	75	6,4
624 Surveying technician:	24.800	24.496	98,8	17.900	73,1	6.596	26,9	301	1,2	240	79,7	61	20,3
625 Mining and metallurgical technician:	8.138	7.950	97,7	7.647	96,2	303	3,8	185	2,3	160	86,5	25	13,5
626 Chemical and physical science technician:	27.874	26.941	96,7	16.157	60,0	10.784	40,0	927	3,3	622	67,1	305	32,9
627 Other manufacturing technician:	31.926	30.904	96,8	24.514	79,3	6.390	20,7	1.019	3,2	791	77,6	228	22,4
628 Other technicians:	359.664	348.983	97,0	294.920	84,5	54.063	15,5	10.623	3,0	8.886	83,6	1.737	16,4
629 Technicians with a master's certificat	117.114	114.132	97,5	106.939	93,7	7.193	6,3	2.965	2,5	2.811	94,8	154	5,2
63 Other qualified technicians	257.440	250.543	97,3	121.982	48,7	128.561	51,3	6.850	2,7	4.133	60,3	2.717	39,7
631 Other biological and related qualified technician:	27.542	26.940	97,8	9.249	34,3	17.691	65,7	597	2,2	238	39,9	359	60,1
632 Other physical, mathematical and related qualified technician:	27.073	26.121	96,5	20.375	78,0	5.746	22,0	948	3,5	785	82,8	163	17,2
633 Chemical laboratory assistants:	59.410	57.775	97,2	25.217	43,6	32.558	56,4	1.625	2,7	812	50,0	813	50,0
634 Photographical laboratory assistants:	13.112	12.234	93,3	6.977	57,0	5.257	43,0	874	6,7	572	65,4	302	34,6
635 Draughtspersons:	130.303	127.473	97,8	60.164	47,2	67.309	52,8	2.806	2,2	1.726	61,5	1.080	38,5
03 Estate managers, advisers in agriculture and livestock breeding	11.888	11.669	98,2	9.105	78,0	2.564	22,0	216	1,8	181	83,8	35	16,2
031 Estate managers, advisers in agriculture and livestock breeding:	2.222	2.166	97,5	1.637	75,6	529	24,4	55	2,5	48	87,3	7	12,7
032 Agricultural engineers, agricultural advisers:	9.666	9.503	98,3	7.468	78,6	2.035	21,4	161	1,7	133	82,6	28	17,4
30 Precision mechanics and related professionals	99.973	96.681	96,7	40.718	42,1	55.963	57,9	3.276	3,3	1.957	59,7	1.319	40,3
301 Precision mechanics, not elsewhere classified:	4.033	3.649	90,5	2.957	81,0	692	19,0	384	9,5	313	81,5	71	18,5
302 Gold-, silversmiths and related professional:	5.847	5.644	96,5	2.331	41,3	3.313	58,7	202	3,5	131	64,9	71	35,1
303 Dental technicians:	53.852	52.124	96,8	22.652	43,5	29.472	56,5	1.721	3,2	1.016	59,0	705	41,0
304 Optometrists and opticians:	30.627	29.996	97,9	8.848	29,5	21.148	70,5	623	2,0	231	37,1	392	62,9
305 Musical instrument makers:	4.061	3.808	93,8	3.126	82,1	682	17,9	253	6,2	212	83,8	41	16,2
306 Puppet makers, model makers, taxidermist:	1.553	1.460	94,0	804	55,1	656	44,9	93	6,0	54	58,1	39	41,9
85 Other health associate professionals	1.741.159	1.676.674	96,3	190.722	11,4	1.485.952	88,6	64.093	3,7	8.162	12,7	55.931	87,3
851 Alternative practitioners:	4.087	3.902	95,5	1.058	27,1	2.844	72,9	184	4,5	69	37,5	115	62,5
852 Physiotherapists and related associate professional:	138.485	134.944	97,4	26.762	19,8	108.182	80,2	3.516	2,5	1.118	31,8	2.398	68,2
853 Qualified nursing staff, midwife:	703.775	678.313	96,4	93.425	13,8	584.888	86,2	25.347	3,6	3.281	12,9	22.066	87,1
854 Practical nurses:	234.982	219.021	93,2	58.572	26,7	160.449	73,3	15.843	6,7	2.904	18,3	12.939	81,7
855 Dieticians, nutritionists and medical-technical assistant:	55.101	54.105	98,2	1.153	2,1	52.952	97,9	985	1,8	47	4,8	938	95,2
856 Doctor's receptionists:	520.610	504.588	96,9	3.636	0,7	500.952	99,3	15.919	3,1	261	1,6	15.658	98,4
857 Medical laboratory assistants:	84.119	81.801	97,2	6.116	7,5	75.685	92,5	2.299	2,7	482	21,0	1.817	79,0
80 Security-related professionals	48.917	47.976	98,1	37.786	78,8	10.190	21,2	936	1,9	717	76,6	219	23,4
801 Professional soldiers, customs and border inspectors, police officer:	10.622	10.444	98,3	4.519	43,3	5.925	56,7	178	1,7	117	65,7	61	34,3
802 Professional fire-fighters:	11.447	11.302	98,7	*	*	*	*	144	1,3	*	*	*	*
803 Security inspectors:	6.557	6.221	94,9	5.024	80,8	1.197	19,2	336	5,1	235	69,9	101	30,1
804 Qualified chimney sweeper:	9.579	9.562	99,8	*	*	*	*	17	0,2	*	*	*	*
805 Consumer and health protection professional:	10.712	10.447	97,5	8.126	77,8	2.321	22,2	261	2,4	213	81,6	48	18,4
89 Clergy and pastoral care	33.358	31.401	94,1	16.549	52,7	14.852	47,3	1.954	5,9	1.542	78,9	412	21,1
891 Clergy:	14.706	13.285	90,3	9.246	69,6	4.039	30,4	1.418	9,6	1.253	88,4	165	11,6
892 Members of religious orders, without occupational title:	1.002	930	92,8	277	29,8	653	70,2	72	7,2	27	37,5	45	62,5
893 Pastoral care, pastoral assistants:	17.650	17.186	97,4	7.026	40,9	10.160	59,1	464	2,6	262	56,5	202	43,5
In total	3.056.896	2.954.353	96,6	1.154.649	39,1	1.799.704	60,9	101.940	3,3	38.103	37,4	63.837	62,6
IN TOTAL (all vocational groups)	5.579.752	5.363.113	96,1	2.691.089	50,2	2.672.024	49,8	215.329	3,9	112.294	52,1	103.035	47,9

Source: Federal Labour Agency, own illustration

Table A08: New registered job openings posted according to vocational groups

	2000	2001	2002	2003	2004	2005
Groups primarily categorised as ISCO 1						
76 Legislators	96	110	93	68	59	56
75 Entrepreneurs, certified accountants	2.384	2.398	2.149	1.930	1.829	2.507
In total	2.480	2.508	2.242	1.998	1.888	2.563
Groups primarily categorised as ISCO 2						
61 Chemists, physicists, mathematicians	434	436	282	240	210	253
60 Engineers	4.760	4.495	3.155	2.768	2.503	3.159
88 Occupations in humanities and natural sci	2.244	2.041	1.346	1.207	1.044	1.139
84 Medical doctors, pharmacists	1.205	1.369	1.044	795	614	622
87 Teachers	2.781	2.542	1.968	1.985	1.481	1.763
81 Legal professionals	269	281	200	186	155	202
82 Interpreters, librarians	719	739	512	418	408	677
83 Artists, related professions	1.779	1.516	1.113	768	696	853
In total	14.191	13.419	9.620	8.367	7.111	8.668
Groups primarily categorised as ISCO 3						
62 Technicians	3.001	2.905	2.359	2.113	1.931	2.332
63 Other qualified technicians	1.814	1.889	1.379	997	838	970
03 Estate managers, advisers (agriculture)	128	162	201	188	161	680
30 Precision mechanics, related professionals	1.006	980	680	681	502	382
85 Other health associated professionals	9.341	9.983	8.459	6.208	4.638	5.809
80 Security-related professionals	198	274	192	260	127	293
89 Clergy and pastoral care	43	29	23	15	11	77
In total	15.531	16.222	13.293	10.462	8.208	10.543
IN TOTAL (all vocational groups)	32.202	32.149	25.155	20.827	17.207	21.774

Source: Federal Labour Agency, own illustrations

Table A09: Stock of registered job openings according to vocational groups

	2000	2001	2002	2003	2004	2005
Groups primarily categorised as ISCO 1						
76 Legislators	155	182	199	134	89	72
75 Entrepreneurs, certified accountants	5.393	5.455	5.388	4.126	3.343	5.070
In total	5.548	5.637	5.587	4.260	3.432	5.142
Groups primarily categorised as ISCO 2						
61 Chemists, physicists, mathematicians	1.149	1.149	850	537	366	510
60 Engineers	13.227	12.791	10.354	8.136	6.816	8.746
88 Occupations in humanities and natural sci	5.132	4.570	3.356	2.391	1.754	1.996
84 Medical doctors, pharmacists	4.021	4.520	4.982	3.621	2.352	2.068
87 Teachers	5.003	4.959	4.831	4.624	3.557	3.801
81 Legal professionals	589	553	464	345	243	283
82 Interpreters, librarians	1.149	1.218	895	556	469	1.075
83 Artists, related professions	2.202	1.823	1.414	1.208	1.026	1.446
In total	32.472	31.583	27.146	21.418	16.583	19.925
Groups primarily categorised as ISCO 3						
62 Technicians	7.345	7.266	6.473	4.811	3.681	4.844
63 Other qualified technicians	3.681	3.970	3.200	1.917	1.210	1.548
03 Estate managers, advisers (agriculture)	203	241	318	258	179	1.164
30 Precision mechanics, related professionals	2.634	2.602	2.228	1.523	1.125	689
85 Other health associated professionals	18.496	21.221	23.274	14.642	7.897	9.917
80 Security-related professionals	556	628	683	1.083	626	679
89 Clergy and pastoral care	63	48	48	35	20	194
In total	32.978	35.976	36.224	24.269	14.738	19.035
IN TOTAL (all vocational groups)	70.998	73.196	68.957	49.947	34.753	44.102

Source: Federal Labour Agency, own illustrations

Table A10: Employees subject to social insurance contribution in Germany, according to selected vocational groups and selected nationalities as of June 30, 2000

Nationality	In total (all vocational groups)	In total (Vocational groups ISCO 1-3)	Share 3rd column (ISCO 1-3) at 2nd column (all vocational groups) in %	Groups primarily categorised as ISCO 1:		Groups primarily categorised as ISCO 2										Groups primarily categorised as ISCO 3					
				76	75	61	60	88	84	87	81	82	83	62	63	03	30	85	80	89	
				Legislators, senior officials	Entrepreneurs, corporate managers, certified accountants	Chemists, physicists, mathematicians	Engineers	Occupations in humanities and natural sciences, not elsewhere classified	Medical doctors, pharmacists	Teaching professionals	Legal professionals	Publicists, interpreters, librarians	Artists and related professions	Technicians	Other qualified technicians	managers, advisers in agriculture and livestock	Precision mechanics and related professionals	Other health associated professionals	Security-related professionals	Clergy and pastoral care	
In total	27.825.624	5.598.674	20,1	145.073	626.886	65.038	654.469	145.721	204.416	404.477	34.704	111.982	154.103	924.893	287.761	14.605	106.467	1.634.319	48.180	35.580	
Germans	25.862.004	5.398.696	20,9	141.730	608.054	61.783	633.754	138.046	197.808	387.579	34.156	107.647	140.566	901.421	279.893	14.368	102.456	1.568.206	47.352	33.877	
non-Germans	1.956.248	198.924	10,2	3.313	18.754	3.243	20.630	7.647	6.534	16.822	543	4.287	13.470	23.334	7.823	236	3.986	65.784	824	1.694	
no categorisation possible	7.372	1.053	14,3	30	78	12	85	28	74	76	5	48	67	138	45	*	25	329	4	9	
EU-15 (without Germany)	645.599	79.360	12,3	1.563	10.710	1.670	11.506	3.281	2.203	6.848	254	2.321	4.426	12.440	3.220	144	1.460	16.588	335	391	
EU-10	96.929	14.551	15,0	210	728	145	820	464	564	1.189	30	202	2.090	1.067	506	18	304	5.972	47	195	
Non-EU	1.213.720	105.013	8,7	1.540	7.316	1.428	8.304	3.902	3.767	8.785	259	1.764	6.954	9.827	4.097	74	2.222	43.224	442	1.108	
of which																					
Turkey	556.498	25.037	4,5	273	1.620	82	1.476	403	354	1.833	66	301	635	3.223	1.342	13	637	12.421	186	172	
Yugoslavia	208.579	14.452	6,9	88	583	42	487	127	155	492	22	143	436	1.631	710	7	426	8.869	95	139	
Croatia	59.007	8.003	13,6	82	336	66	387	219	293	524	13	94	950	590	297	12	173	3.787	26	154	
Bosnia and Herzegovina	57.458	6.076	10,6	44	344	30	261	99	67	222	15	64	210	604	300	*	148	3.569	16	83	
Russian Federation	27.111	2.816	10,4	11	75	3	89	37	46	83	*	25	98	184	77	*	61	1.997	14	16	
Romania	24.216	4.640	19,2	146	272	256	365	377	332	642	12	109	575	293	156	*	85	994	10	16	
United States	24.184	1.645	6,8	16	47	22	107	76	15	151	*	14	126	148	53	*	36	797	14	23	
Morocco	22.502	6.589	29,3	124	1.001	130	661	430	116	1.275	39	309	995	721	120	*	34	535	21	78	
Vietnam	21.073	5.007	23,8	69	280	78	819	182	787	256	5	67	115	512	165	6	144	1.503	5	14	
Ukraine	20.689	1.151	5,6	17	46	23	135	27	42	59	9	13	68	151	201	69	277	*	14		
Islamic Republic Iran	19.395	3.188	16,4	22	92	68	222	83	192	279	4	25	436	206	144	*	98	1.261	5	51	
Iraq	13.091	2.084	15,9	35	109	14	125	54	62	203	5	37	352	128	56	3	60	820	11	10	
China	12.864	307	2,4	4	25	*	15	6	4	14	*	5	12	28	28		6	141	3	16	
Kazakhstan	12.415	2.333	18,8	47	147	31	188	87	101	268	9	38	448	168	80	*	40	664	5	12	
Afghanistan	10.943	873	8,0	10	51	3	55	9	79	25	*	26	13	50	28	*	34	487	3		

*) For reasons of data protection and reasons of statistical secrecy numbers smaller than 3 and data which allow the calculation of the difference, are made anonymous with *.

1) From 2000 to 2003: coming from Non-EU and (future) EU-10 countries

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Table A11: Employees subject to social insurance contribution in Germany, according to selected vocational groups and selected nationalities as of June 30, 2001

Nationality	In total (all vocational groups)	In total (Vocational groups ISCO 1-3)	Share 3rd column (ISCO 1-3) at 2nd column (all vocational groups) in %	Groups primarily categorised as ISCO 1:		Groups primarily categorised as ISCO 2										Groups primarily categorised as ISCO 3					
				76	75	61	60	88	84	87	81	82	83	62	63	03	30	85	80	89	
				Legislators, senior officials	Entrepreneurs, corporate managers, certified accountants	Chemists, physicists, mathematicians	Engineers	Occupations in humanities and natural sciences, not elsewhere classified	Medical doctors, pharmacists	Teaching professionals	Legal professionals	Publicists, interpreters, librarians	Artists and related professions	Technicians	Other qualified technicians	managers, advisers in agriculture and livestock	Precision mechanics and related professionals	Other health associated professionals	Security-related professionals	Clergy and pastoral care	
In total	27.817.114	5.669.618	20,4	148.573	630.978	65.155	664.544	153.535	208.213	414.819	39.862	115.189	155.851	928.590	283.282	13.875	106.747	1.657.406	47.529	35.470	
Germans	25.809.052	5.452.905	21,1	144.611	610.352	61.400	640.635	144.667	201.162	395.046	39.175	110.369	141.606	902.988	275.212	13.640	102.658	1.589.014	46.656	33.714	
non-Germans	1.980.663	210.498	10,6	3.835	20.248	3.712	23.609	8.732	6.839	18.434	676	4.513	13.835	25.163	7.884	231	3.945	66.278	839	1.725	
no categorisation possible	27.399	6.215	22,7	127	378	43	300	136	212	1.339	11	307	410	439	186	4	144	2.114	34	31	
EU-15 (without Germany)	643.092	83.086	12,9	1.685	11.228	1.797	12.598	3.651	2.345	7.306	345	2.399	4.562	13.114	3.257	136	1.410	16.508	329	416	
EU-10	105.568	16.219	15,4	264	925	177	1.090	573	583	1.398	36	248	2.170	1.185	520	21	320	6.458	50	201	
Non-EU	1.232.003	111.193	9,0	1.886	8.095	1.738	9.921	4.508	3.911	9.730	295	1.866	7.103	10.864	4.107	74	2.215	43.312	460	1.108	
of which																					
Turkey	553.504	25.859	4,7	292	1.869	95	1.675	410	376	1.820	70	295	680	3.563	1.319	9	665	12.353	199	169	
Yugoslavia	196.609	13.878	7,1	98	570	48	563	155	162	472	21	144	390	1.635	625	4	393	8.384	83	131	
Croatia	63.394	8.896	14,0	113	421	81	503	271	310	628	16	117	968	655	291	15	186	4.138	27	156	
Bosnia and Herzegovina	62.795	6.947	11,1	44	417	33	339	133	73	283	19	74	240	768	307	3	159	3.943	20	92	
Russian Federation	30.364	3.129	10,3	15	99	3	131	50	51	100	3	32	103	248	83	3	60	2.124	7	17	
Romania	28.659	5.604	19,6	198	335	335	502	477	431	763	14	131	606	364	190	5	82	1.146	15	10	
United States	24.289	1.830	7,5	25	48	23	212	89	22	160		11	125	178	65		35	800	15	22	
Morocco	22.865	6.804	29,8	142	1.087	129	704	421	114	1.303	48	348	942	806	118	*	35	514	23	70	
Vietnam	21.096	3.554	16,8	43	111	100	344	122	194	338	5	29	461	229	162	3	88	1.262	5	58	
Ukraine	20.926	4.756	22,7	76	277	68	785	175	695	252	7	76	85	487	156	6	145	1.448	8	10	
Islamic Republic Iran	20.535	1.114	5,4	23	59	24	141	37	38	65		14	66	145	176	*	59	249	*	11	
Iraq	14.548	2.367	16,3	43	141	16	170	80	63	249	4	45	405	139	62	4	66	853	13	14	
China	13.116	2.514	19,2	47	188	39	241	99	98	296	12	42	435	195	80	*	38	683	7	14	
Kazakhstan	12.713	2.931	23,1	56	141	69	306	171	220	305	5	48	295	264	113	*	58	861	7	12	
Afghanistan	12.087	307	2,5	*	24	4	17	6	5	13		8	17	28	30		6	133	*	16	

*) For reasons of data protection and reasons of statistical secrecy numbers smaller than 3 and data which allow the calculation of the difference, are made anonymous with *.

1) From 2000 to 2003: coming from Non-EU and (future) EU-10 countries

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Table A12: Employees subject to social insurance contribution in Germany, according to selected vocational groups and selected nationalities as of June 30, 2002

Nationality	In total (all vocational groups)	In total (Vocational groups ISCO 1-3)	Share 3rd column (ISCO 1-3) at 2nd column (all vocational groups) in %	Groups primarily categorised as ISCO 1:		Groups primarily categorised as ISCO 2										Groups primarily categorised as ISCO 3					
				76	75	61	60	88	84	87	81	82	83	62	63	03	30	85	80	89	
				Legislators, senior officials	Entrepreneurs, corporate managers, certified accountants	Chemists, physicists, mathematicians	Engineers	Occupations in humanities and natural sciences, not elsewhere classified	Medical doctors, pharmacists	Teaching professionals	Legal professionals	Publicists, interpreters, librarians	Artists and related professions	Technicians	Other qualified technicians	managers, advisers in agriculture and livestock	Precision mechanics and related professionals	Other health associated professionals	Security-related professionals	Clergy and pastoral care	
In total	27.571.147	5.721.068	20,8	153.046	633.350	65.609	663.244	159.836	212.800	417.851	42.586	115.647	154.892	919.677	277.385	13.234	107.815	1.700.424	48.024	35.648	
Germans	25.611.194	5.499.804	21,5	148.650	611.926	61.396	637.921	149.869	205.153	397.802	41.799	110.949	141.189	893.740	269.487	13.010	103.763	1.632.177	47.130	33.843	
non-Germans	1.949.463	218.855	11,2	4.326	21.155	4.186	25.056	9.886	7.567	19.795	772	4.616	13.589	25.670	7.826	223	4.020	67.495	883	1.790	
no categorisation possible	10.490	2.408	23,0	70	269	27	267	81	80	254	15	82	114	267	72	*	32	752	11	15	
EU-15 (without Germany)	618.212	84.732	13,7	1.789	11.606	1.908	13.216	3.833	2.517	7.618	383	2.450	4.353	13.228	3.178	136	1.384	16.368	342	423	
EU-10	110.279	17.601	16,0	299	1.109	227	1.230	770	664	1.568	42	248	2.065	1.262	576	22	342	6.911	48	218	
Non-EU	1.220.972	116.522	9,5	2.238	8.440	2.051	10.610	5.283	4.386	10.609	347	1.918	7.171	11.180	4.072	65	2.294	44.216	493	1.149	
of which																					
Turkey	534.521	26.360	4,9	322	1.997	100	1.811	458	446	1.700	71	277	688	3.698	1.273	5	683	12.437	194	200	
Yugoslavia	183.488	13.140	7,2	96	577	50	565	158	160	459	29	135	366	1.593	565	6	378	7.792	83	128	
Croatia	66.611	9.654	14,5	134	526	100	571	369	328	728	20	125	894	685	334	17	179	4.449	27	168	
Bosnia and Herzegovina	66.099	7.711	11,7	53	470	37	409	148	93	283	23	82	245	888	334	*	165	4.363	25	93	
Russian Federation	33.497	3.509	10,5	28	109	8	161	46	68	118	8	27	99	310	89	4	68	2.331	11	24	
Romania	32.070	6.437	20,1	257	397	404	522	583	543	850	18	163	623	410	185	4	112	1.332	17	17	
United States	23.609	1.826	7,7	37	58	23	213	99	17	153	17	125	167	69	32	12	32	781	19	21	
Morocco	22.335	7.008	31,4	149	1.314	148	775	441	120	1.354	53	337	880	690	128	*	35	498	18	68	
Vietnam	21.707	3.872	17,8	63	123	123	385	200	225	371	7	25	462	264	155	*	92	1.324	7	46	
Ukraine	20.119	4.434	22,0	62	276	74	701	176	625	264	6	69	79	450	147	3	132	1.354	9	7	
Islamic Republic Iran	20.104	1.076	5,4	26	71	26	123	55	36	59	7	17	54	151	160	7	69	212	*	10	
Iraq	15.000	2.550	17,0	43	156	25	196	99	81	261	5	40	407	138	64	*	88	926	8	13	
China	14.390	3.503	24,3	90	160	101	346	216	288	358	6	60	315	272	134	*	67	1.068	8	14	
Kazakhstan	13.089	2.677	20,5	57	233	57	260	138	112	318	5	42	401	214	75	3	40	701	7	14	
Afghanistan	12.788	411	3,2	3	20	5	47	12	65	30	2	16	9	49	32	*	13	110	*	*	

*) For reasons of data protection and reasons of statistical secrecy numbers smaller than 3 and data which allow the calculation of the difference, are made anonymous with *.

1) From 2000 to 2003: coming from Non-EU and (future) EU-10 countries

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Table A13: Employees subject to social insurance contribution in Germany, according to selected vocational groups and selected nationalities as of June 30, 2003

Nationality	In total (all vocational groups)	In total (Vocational groups ISCO 1-3)	Share 3rd column (ISCO 1-3) at 2nd column (all vocational groups) in %	Groups primarily categorised as ISCO 1:		Groups primarily categorised as ISCO 2										Groups primarily categorised as ISCO 3					
				76 Legislators, senior officials	75 Entrepreneurs, corporate managers, certified accountants	61 Chemists, physicists, mathematicians	60 Engineers	88 Occupations in humanities and natural sciences, not elsewhere classified	84 Medical doctors, pharmacists	87 Teaching professionals	81 Legal professionals	82 Publicists, interpreters, librarians	83 Artists and related professions	62 Technicians	63 Other qualified technicians	03 managers, advisers in agriculture and livestock	30 Precision mechanics and related professionals	85 Other health associated professionals	80 Security-related professionals	89 Clergy and pastoral care	
In total	26.954.686	5.671.603	21,0	154.054	618.093	65.280	654.076	160.866	214.909	408.077	44.637	112.534	150.317	895.888	268.314	12.709	106.109	1.721.437	48.110	36.193	
Germans	25.080.747	5.448.940	21,7	149.309	596.934	60.729	628.044	150.400	206.428	387.092	43.840	107.969	137.097	870.708	260.738	12.478	102.392	1.653.258	47.224	34.300	
non-Germans	1.860.476	219.466	11,8	4.639	20.820	4.514	25.653	10.334	8.371	20.596	771	4.469	13.092	24.867	7.485	224	3.681	67.205	873	1.872	
no categorisation possible	13.463	3.197	23,7	106	339	37	379	132	110	389	26	96	128	313	91	7	36	974	13	21	
EU-15 (without Germany)	585.160	84.665	14,5	1.831	11.386	1.982	13.602	3.932	2.700	7.708	371	2.379	4.244	13.013	3.090	141	1.263	16.250	341	432	
EU-10	108.662	18.231	16,8	319	1.139	255	1.323	830	954	1.699	55	251	1.901	1.218	549	18	309	7.138	61	212	
Non-EU	1.166.654	116.570	10,0	2.489	8.295	2.277	10.728	5.572	4.717	11.189	345	1.839	6.947	10.636	3.846	65	2.109	43.817	471	1.228	
of which																					
Turkey	502.303	25.574	5,1	348	1.941	112	1.824	431	467	1.633	86	285	642	3.527	1.157	8	593	12.151	174	195	
Yugoslavia	165.255	12.215	7,4	94	523	56	550	161	182	419	11	123	338	1.452	513	4	325	7.270	68	126	
Croatia	66.924	10.119	15,1	148	536	115	626	416	486	805	24	121	864	667	315	14	151	4.635	35	161	
Bosnia and Herzegovina	66.446	8.143	12,3	70	494	38	433	169	104	262	26	89	233	898	339	*	162	4.702	29	95	
Russian Federation	34.802	3.650	10,5	31	125	9	181	47	66	110	9	25	89	292	102	*	72	2.448	15	29	
Romania	33.161	6.717	20,3	299	402	448	554	616	645	888	16	159	589	398	185	5	99	1.376	18	20	
United States	22.207	1.786	8,0	47	53	28	213	98	27	163	*	14	108	163	62	32	14	726	22	30	
Morocco	21.493	4.049	18,8	91	141	137	396	211	264	403	12	27	425	258	148	3	95	1.381	7	50	
Vietnam	21.222	6.812	32,1	164	1.229	156	767	438	116	1.356	40	310	856	683	111	4	34	455	18	75	
Ukraine	19.182	988	5,2	27	64	33	122	49	36	61	*	16	47	132	144	55	190	12	12		
Islamic Republic Iran	17.766	3.890	21,9	68	259	71	608	160	489	234	6	73	67	383	117	3	109	7.225	10	8	
Iraq	15.394	3.796	24,7	110	188	106	349	236	343	423	7	57	326	273	128	*	68	1.159	4	19	
China	13.992	2.595	18,5	47	170	36	198	100	141	282	8	42	345	132	57	*	87	925	12	13	
Kazakhstan	13.806	436	3,2	4	23	5	42	10	91	35		16	8	44	38	*	15	102	3	*	
Afghanistan	12.103	2.600	21,5	49	227	54	259	138	129	331	11	43	365	187	70	*	38	676	8	15	

*) For reasons of data protection and reasons of statistical secrecy numbers smaller than 3 and data which allow the calculation of the difference, are made anonymous with *.

1) From 2000 to 2003: coming from Non-EU and (future) EU-10 countries

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Table A14: Employees subject to social insurance contribution in Germany, according to selected vocational groups and selected nationalities as of June 30, 2004

Nationality	In total (all vocational groups)	In total (Vocational groups ISCO 1-3)	Share 3rd column (ISCO 1-3) at 2nd column (all vocational groups) in %	Groups primarily categorised as ISCO 1:		Groups primarily categorised as ISCO 2										Groups primarily categorised as ISCO 3					
				76	75	61	60	88	84	87	81	82	83	62	63	03	30	85	80	89	
				Legislators, senior officials	Entrepreneurs, corporate managers, certified accountants	Chemists, physicists, mathematicians	Engineers	Occupations in humanities and natural sciences, not elsewhere classified	Medical doctors, pharmacists	Teaching professionals	Legal professionals	Publicists, interpreters, librarians	Artists and related professions	Technicians	Other qualified technicians	managers, advisers in agriculture and livestock	Precision mechanics and related professionals	Other health associated professionals	Security-related professionals	Clergy and pastoral care	
In total	26.523.982	5.602.143	21,1	153.023	604.665	64.421	647.082	159.203	217.895	389.921	46.673	111.396	147.369	876.049	261.246	12.306	105.865	1.722.548	48.400	34.081	
Germans	24.718.592	5.384.084	21,8	148.180	584.018	59.882	621.391	148.776	208.748	369.674	45.827	106.973	134.701	851.328	254.111	12.073	102.262	1.656.556	47.482	32.102	
non-Germans	1.796.551	215.892	12,0	4.778	20.426	4.509	25.425	10.343	9.082	19.999	834	4.345	12.588	24.487	7.071	227	3.580	65.325	910	1.963	
no categorisation possible	8.839	2.167	24,5	65	221	30	266	84	65	248	12	78	80	234	64	6	23	667	8	16	
EU-15 (without Germany)	560.230	83.402	14,9	1.856	11.171	1.967	13.610	3.974	2.949	7.653	376	2.325	4.070	12.632	2.982	138	1.222	15.687	345	445	
EU-10	108.162	18.349	17,0	357	1.130	280	1.327	830	1.221	1.649	58	259	1.847	1.216	505	16	313	7.052	55	234	
Non-EU	1.128.159	114.141	10,1	2.565	8.125	2.262	10.488	5.539	4.912	10.697	400	1.761	6.671	10.639	3.584	73	2.045	42.586	510	1.284	
of which																					
Turkey	478.299	24.539	5,1	345	1.931	100	1.688	403	474	1.510	102	264	536	3.473	1.101	16	560	11.625	190	221	
Yugoslavia	152.733	11.394	7,5	86	500	51	509	160	183	365	18	107	264	1.322	459	6	290	6.878	78	118	
Croatia	67.072	8.290	12,4	74	476	47	461	158	110	257	26	82	223	957	332	*	167	4.802	29	89	
Bosnia and Herzegovina	35.533	3.747	10,5	29	165	12	221	53	71	117	9	28	74	310	97	*	78	2.444	15	24	
Russian Federation	34.666	6.950	20,0	279	413	448	560	624	695	892	27	173	620	415	203	4	102	1.452	21	22	
Romania	21.384	4.031	18,9	99	152	153	405	226	297	383	12	21	418	241	126	5	94	1.348	5	46	
United States	21.278	1.676	7,9	42	49	26	180	88	20	147	11	89	160	65	34	11	34	711	20	34	
Morocco	20.662	6.660	32,2	177	1.185	149	735	411	120	1.321	55	307	813	714	106	3	24	451	13	76	
Vietnam	18.759	909	4,8	35	62	23	115	44	37	52	4	12	40	136	105		50	183	*	11	
Ukraine	16.312	3.947	24,2	108	196	117	361	248	384	411	8	64	344	253	115		78	1.231	8	21	
Islamic Republic Iran	15.725	3.360	21,4	77	224	56	521	144	401	226	6	59	59	308	101	*	103	1.056	12	7	
Iraq	14.006	438	3,1	6	31	*	40	16	77	30		13	17	50	22	*	14	113	5	4	
China	12.256	3.414	27,9	203	250	206	710	559	115	718	13	53	63	320	49	*	*	137	11	7	
Kazakhstan	11.656	702	6,0	6	28	4	18	13	65	44	*	3	22	51	18		27	392	3	4	
Afghanistan	11.322	803	7,1	4	40	*	35	17	74	15		13	13	41	24		33	494	*	*	

*) For reasons of data protection and reasons of statistical secrecy numbers smaller than 3 and data which allow the calculation of the difference, are made anonymous with *.

Table A15: Employees subject to social insurance contribution in Germany, according to selected vocational groups and selected nationalities as of June 30, 2005

Nationality	In total (all vocational groups)	In total (Vocational groups ISCO 1-3)	Share 3rd column (ISCO 1-3) at 2nd column (all vocational groups) in %	Groups primarily categorised as ISCO 1:		Groups primarily categorised as ISCO 2										Groups primarily categorised as ISCO 3					
				76	75	61	60	88	84	87	81	82	83	62	63	03	30	85	80	89	
				Legislators, senior officials	Entrepreneurs, corporate managers, certified accountants	Chemists, physicists, mathematicians	Engineers	Occupations in humanities and natural sciences, not elsewhere classified	Medical doctors, pharmacists	Teaching professionals	Legal professionals	Publicists, interpreters, librarians	Artists and related professions	Technicians	Other qualified technicians	managers, advisers in agriculture and livestock	Precision mechanics and related professionals	Other health associated professionals	Security-related professionals	Clergy and pastoral care	
In total	26.178.266	5.579.752	21,3	152.950	598.746	63.770	645.422	158.751	219.395	379.778	47.506	110.986	145.552	864.161	257.440	11.888	99.973	1.741.159	48.917	33.358	
Germans	24.422.876	5.363.113	22,0	147.912	577.854	59.188	619.119	148.304	210.070	360.090	46.598	106.618	133.007	839.409	250.543	11.669	96.681	1.676.674	47.976	31.401	
non-Germans	1.749.425	215.329	12,3	4.992	20.771	4.563	26.143	10.398	9.271	19.543	895	4.323	12.490	24.615	6.850	216	3.276	64.093	936	1.954	
no categorisation possible	5.965	1.310	22,0	46	121	19	160	49	54	145	13	45	55	137	47	3	16	392	5	3	
EU-15 (without Germany)	543.202	84.082	15,5	1.974	11.265	1.999	14.053	4.006	3.066	7.632	419	2.309	4.101	12.561	2.947	131	1.150	15.697	334	438	
EU-10	112.879	18.600	16,5	386	1.207	305	1.391	832	1.388	1.567	76	255	1.790	1.272	492	24	304	7.036	52	223	
Non-EU	1.093.344	112.647	10,3	2.632	8.299	2.259	10.699	5.560	4.817	10.344	400	1.759	6.599	10.782	3.411	61	1.822	41.360	550	1.293	
of which																					
Turkey	458.243	23.908	5,2	347	1.932	105	1.709	397	462	1.401	98	273	523	3.496	1.024	13	493	11.197	197	241	
Yugoslavia	134.621	10.088	7,5	84	448	42	423	120	160	294	15	104	250	1.129	382	6	239	6.229	67	96	
Croatia	68.653	8.668	12,6	87	540	45	515	162	110	267	26	81	219	1.028	317	4	147	4.989	42	89	
Bosnia and Herzegovina	37.159	3.866	10,4	31	178	19	231	56	64	110	5	25	82	356	99	3	73	2.486	19	29	
Russian Federation	34.309	6.914	20,2	272	438	446	590	611	706	861	37	153	612	402	195	3	103	1.439	25	21	
Romania	21.700	3.954	18,2	103	144	146	421	223	303	366	8	30	402	238	131	*	66	1.325	10	38	
United States	20.430	6.628	32,4	189	1.194	144	740	437	112	1.337	51	305	765	703	105	3	27	424	15	77	
Morocco	20.415	1.604	7,9	47	57	21	172	74	24	147	*	12	76	179	54	31	653	23	34		
Vietnam	18.714	884	4,7	29	57	23	109	57	33	45	*	13	40	136	111	*	42	179	10		
Ukraine	16.515	4.104	24,9	125	228	127	357	254	388	419	18	61	342	262	129	*	68	1.298	6	22	
Islamic Republic Iran	13.871	2.962	21,4	77	195	53	437	124	361	209	6	57	60	290	77	*	81	920	9	6	
Iraq	12.818	412	3,2	9	42	*	37	16	72	31	16	16	12	40	18	*	11	101	3	4	
China	12.769	3.463	27,1	218	306	199	742	534	83	649	10	63	72	362	58	*	*	147	13	7	
Kazakhstan	11.375	689	6,1	13	30	7	23	16	64	43	3	4	24	61	22	*	25	349	5	*	
Afghanistan	10.797	782	7,2	8	51	*	39	17	62	10	8	8	10	49	20	*	23	482	*	3	

*) For reasons of data protection and reasons of statistical secrecy numbers smaller than 3 and data which allow the calculation of the difference, are made anonymous with *.

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**Table A16: Settlement permit in accordance with § 19 Residence Act
as of July 31, 2006**

Nationality	permits issued in 2006 so far
Bosnia and Herzegovina	3
Bulgaria	7
Croatia	12
Serbia and Montenegro	5
Yugoslavia	5
Macedonia	2
Romania	9
Russian Federation	40
Turkey	24
Czech Republic	1
Ukraine	9
Belarus	5
Ageria	1
Nigeria	2
Congo, Democratic Republic	1
Morocco	2
Cameroon	1
South Africa	5
Somalia	1
Tunesia	1
Egypt	1
Argentina	1
Brazil	3
Chile	1
Ecuador	1
Canada	8
Columbia	1
Mexico	1
Peru	1
United States	42
Afghanistan	1
Georgia	3
Vietnam	4
India	13
Indonesia	1
Iraq	2
Iran, Islamic Republic	6
Japan	10
Jordan	1
Kirgistan	1
Lebanon	1
Mongolia	1
Nepal	1
Bangladesh	1
Pakistan	3
Taiwan	1
Korea, Republic of	1
Syria, Arabian Republic	2
Thailand	3
Uzbekistan	2
China	15
Australia	5
without nationality	1
unknown	2
In total	279

German federal state	permits issued in 2006 so far
Baden Wurttemberg	36
Bavaria	67
Berlin	10
Bremen	3
Hamburg	9
Hesse	37
Lower Saxony	16
North Rhine-Westphalia	69
Rhineland Palatinate	10
Saarland	2
Schleswig-Holstein	2
Brandenburg	2
Mecklenburg- Western Pommerania	1
Saxony	13
Saxony-Anhalt	2
Federal Republic of Germany	279