



# AMS Enterprise Survey 2009

Summary of the report on the demand for and dynamic of occupations in  
Austria

Author: Petra Ziegler





# 1 The AMS Enterprise Survey

## 1.1 Background Information on the Survey

The Austrian Public Employment Service (*Arbeitsmarktservice*, AMS) regularly surveys all Austrian enterprises with at least 20 employees (altogether more than 20,000 companies throughout Austria). The questionnaire seeks to gain insight on the development of regional demand for labour and qualifications for specific positions. The results are used for the counselling work of AMS regional agencies. For the third time, the information collected within this ‘AMS *Großbetriebs-Monitoring*’ (AMS Enterprise Survey) was coded with vocational and qualification terms that could be used in statistical analysis. The main results of the statistical analysis regarding the demand for and the dynamics of occupations and qualifications (in the sense of competence, skills, and abilities) are covered by this report.

In the past, approximately one third of the contacted companies answered the questionnaire; this corresponds to 7,000 and 8,000 questionnaires every two years. The last survey was conducted in 2009. Along with questions on trends in occupational and qualification demand, questions are also asked about employment, production and service structure, as well as information on contact persons concerned with human resources and apprenticeship trainings. The polled enterprises reflect the structure of all enterprises with at least medium-size employment.

The questionnaire focuses on aspects regarding the development of occupational demand and qualifications (highest demand in the last two years and within the next 12 months with tangible information about qualifications in these specific professions). Besides that, information is collected on further education and training (within the companies and at external institutions).

The question about the past two years’ new job-engagements in the three most demanded professions was – as done for the first time in 2007 – combined with the following details:

- Question about the number of new job-engagements in the last two years in these most demanded professions;
- Question about the occupational trend in these professions in the enterprise within the next 12 months (with the answering possibilities increasing, stabile, or declining);
- Question about the specifically demanded qualifications in these most demanded professions.

Additionally in 2009, the survey again asked about professions with high increasing or declining demand within the next 12 months, without being named in the three most demanded professions in the last two years. This question primarily seeks to find out about labour market and qualification trends in branch-transversal professions (such as office professions, management professions, or IT-professions), which are underrepresented by the kind of questions on the questionnaire.

The classification of branches on the questionnaire uses the branch classification from the AMS. The codification of professions and qualifications (which the questionnaire only ascertained in an open question) used the classifications for professions and qualification of the AMS (which can be found on the AMS Professions Information System<sup>1</sup> as well as on the AMS Skills Barometer<sup>2</sup>).

Of the approximately 20,000 enterprises to which the questionnaire was sent (either by traditional mail or by e-mail as an online-questionnaire), 7,183 answered and returned the questionnaire to the AMS. This equals a response rate of 35%. It cannot be clearly determined, who personally answered the questionnaire. The quality of answers would indicate that the questionnaire was answered by persons with employment responsibility, such as those holding human resources (HR) or management positions.

Questionnaires could be returned by either traditional mail and online. The number of enterprises answering online is rising rapidly (in 2009, approximately 35% used this possibility), which eases data input and administration of responses. For the future, it could be recommended to develop an online questionnaire that supports the data input based on the classifications on occupations and qualifications; this would reduce the coding of occupations and qualifications based on open questions.

The most important aspects of the questionnaire can be summarized within the following groups of questions:

- \_\_\_ Information about the enterprise (address, year of foundation, branch, type of enterprise, usage of new technologies);
- \_\_\_ Occupational structure (employees in the areas of production, service, office/administration/trade, full-time/part-time work, share of women and men, apprentices (male/female), main qualification structure of employees, main professions of employees);
- \_\_\_ Apprenticeship training;
- \_\_\_ Demand of professions and qualifications (three professions with highest demand in the last two years, demand trends in the next 12 months, professions with raising importance in the enterprise and respective qualifications to all professions covered in this question, professions where it is difficult to find the right or enough applicants);
- \_\_\_ Further education for employees (topics for internal and external further education);
- \_\_\_ Starting salary;
- \_\_\_ Contact with AMS.

The AMS conducted the survey and financed the specific statistical analysis of the survey for diverse reasons (such as the strategic planning of activities in further education or labour-market prognosis).

1 <http://www.ams.at/bis>

2 <http://www.ams.at/qualifikationen>

This report on the statistical analysis of the survey in 2009 will be published in the 'AMS-Forschungsnetzwerk<sup>3</sup>', the results will also be used in the different online information tools of the AMS, such as the above mentioned AMS Professions Information System or the AMS Skills Barometer. Especially in the AMS Skills Barometer, regional labour market information from this survey and other sources is connected to information from analysis of labour market advertisements, as well as qualitative labour market information (for example, from expert interviews) with the objective of broad information on labour market developments. In particular, the regional analysis could be given more consideration at the new regional sites within the AMS Skills Barometer (online since June 2010); the dynamic professions are already part of the new regional sites<sup>4</sup>.

## 1.2 Response and Quality of Data

In the following table, the specific response of the questionnaire of the 'AMS Enterprise Survey' is compared to total enterprises in different branches (taken from Statistics Austria, number of enterprises in 2001, see Table A). In relation to the employment, the AMS Survey 2009 covered enterprises with approximately 650,000 employees. This equals more than 20% of all Austria employees (see Table B). The results of the AMS survey especially show very high validity in producing branches. This is also true for the regional coverage of the response to the survey (see Table C).

<sup>3</sup> [www.ams-forschungsnetzwerk.at](http://www.ams-forschungsnetzwerk.at)

<sup>4</sup> see regional sites at: [www.bis.ams.or.at/qualibarometer/bundeslaender.php](http://www.bis.ams.or.at/qualibarometer/bundeslaender.php)

Table A

Comparison response with the total of enterprises in branches and groups of employees' size

Branch	Response rate per group of employees			Response rate
	0-49	50-249	> 250	
Mining, energy and water supply	2.3%	15.0%	31.3%	3.6%
Chemicals, synthetics and pharmaceuticals	7.9%	28.1%	20.3%	11.0%
Building, construction and wood	2.2%	32.4%	34.9%	3.3%
Machine and mechanical engineering, metal, electric and electronic industry	4.5%	43.8%	32.3%	7.2%
Printing and paper industry	1.3%	23.3%	18.4%	2.8%
Leather, fashion, textile	1.6%	30.3%	13.2%	2.9%
Food industry	2.5%	46.0%	38.0%	4.3%
Glass and ceramics	1.0%	14.7%	17.9%	2.2%
Wholesale and mail-order trade	1.0%	20.6%	27.5%	1.4%
Retail trade, maintenance and repair	0.4%	11.9%	30.4%	0.5%
Bank, insurance, real estate	1.0%	33.2%	47.1%	1.6%
Administration	2.4%	11.6%	6.0%	3.4%
Tax consulting and law	0.2%	1.5%	2.8%	0.2%
Data processing	0.6%	51.8%	21.7%	1.1%
Media and publicity	0.4%	22.5%	21.7%	0.6%
Cleaning and housekeeping	2.5%	61.1%	500%*	5.6%
Traffic and transmission	1.1%	15.7%	7.7%	1.6%
Tourism, hotel business, restaurants	1.0%	62.9%	133.3%*	1.3%
Healthcare, social care, education	1.3%	15.3%	24.4%	1.8%
Total	1.1%	24.9%	25.9%	1.7%

Source: 3s analysis of the AMS Enterprise Survey 2009, comparison of AMS branches with NACE branches in the 'Arbeitsstättenzählung' of Statistics Austria 2001.

\*) Number of responding enterprises in these branches higher than shown in the 'Arbeitsstättenzählung', which shows a different allocation of enterprises to branches in 2001 and 2009.

Although some branches are underrepresented, some professional fields are highly represented. Despite the under-representation of specific branches with many small enterprises, analysis for professional fields in these branches are valid.

Some branches are overrepresented, such as:

- \_\_\_ Production of chemicals, synthetics and pharmaceuticals;
- \_\_\_ Machine and mechanical engineering, metal, electric and electronic industry;
- \_\_\_ Cleaning and housekeeping.

On the other hand, some branches are underrepresented, such as:

- \_\_\_ Wholesale and mail-order trade;
- \_\_\_ Retail trade, maintenance and repair;
- \_\_\_ Bank, insurance, real estate;
- \_\_\_ Law and tax consulting;
- \_\_\_ Data processing;
- \_\_\_ Media and publicity;
- \_\_\_ Traffic and transmission;
- \_\_\_ Tourism, hotel business, restaurants;

\_\_\_ Health care, social care, education.

Table B

Comparison response with the total of enterprises in relation to employees in branches, response rate for Austria

Branch	Employees in AMS survey*	Employees overall**	Response rate compared to employee number
Agriculture, forestry	1,438	18,084	8.0%
Mining, energy and water supply	8,729	34,384	25.4%
Production of chemicals, synthetics and pharmaceuticals	18,122	57,887	31.3%
Building, construction and wood	127,583	303,227	42.1%
Machine and mechanical engineering, metal, electric and electronic industry	120,738	285,324	42.3%
Printing and paper industry	8,501	40,481	21.0%
Leather, fashion, textile	9,087	20,603	44.1%
Food industry	21,672	70,805	30.6%
Glass and ceramics	4,865	31,591	15.4%
Wholesale and mail-order trade	27,662	181,302	15.3%
Retail trade, maintenance and repair	23,700	336,757	7.0%
Bank, insurance, real estate	45,250	139,537	32.4%
Administration	24,851	538,021	4.6%
Tax consulting and law***	3,969	161,588	2.5%
Data processing	10,821	38,987	27.8%
Media and publicity***	10,698	44,364	24.1%
Cleaning and housekeeping***	15,702	11,597	135.4%
Traffic and transmission	31,080	217,028	14.3%
Tourism, hotel business, restaurants	37,950	178,723	12.2%
Healthcare, social care, education	72,619	299,858	24.2%
Other public and private services***	29,088	157,392	18.5%
Total	654,125	3,167,540	20.7%

Source: 3s analysis of the AMS Enterprise Survey 2009, comparison of AMS branches with NACE branches in the employment statistics of the 'Hauptverband der Sozialversicherungsträger' 2009

\*) Employees in enterprises that responded in the survey

\*\*) Employees in branches in the employment statistics of the BALIweb 2009

\*\*\*) Summarized service industry: Tax consulting and law; media and publicity; other public or social services

Table C

Comparison response rate of total enterprises in relation to employees, per region

Region	Employees in AMS survey*	Employees overall**	Response rate compared to employee number
Burgenland	10,204	89,995	11.3%
Carinthia	26,368	204,707	12.9%
Lower Austria	91,716	556,767	16.5%
Upper Austria	114,836	595,966	19.3%
Salzburg	34,838	235,052	14.8%
Styria	68,502	467,083	14.7%
Tyrol	43,560	298,644	14.6%
Vorarlberg	32,922	144,390	22.8%
Vienna	231,179	782,694	29.5%

Source: 3s analysis of the AMS Enterprise Survey 2009, comparison of AMS branches with NACE branches in the employment statistics of the 'Hauptverband der Sozialversicherungsträger' 2009

\*) Employees in enterprises, which responded in the survey

\*\*) Employees in branches in the employment statistics of the 'Hauptverband der Sozialversicherungsträger'

### 1.3 Future Development of Statistical Analysis of the AMS Enterprise Survey

The recent statistical analysis (for the AMS Enterprise Survey 2009) was made in a way to be comparable with future surveys on labour market development. Comparisons to the surveys from 2007 and 2005 are – due to differing questions in both surveys – only possible for the development of new job-engagements of professions and the respective dynamics (see Table 3.50 in the report in German).

Starting with the data from 2007, comparisons regarding the qualifications should be possible. However, due to mistakes filling in the questions on qualifications, which could not be linked to a single occupation in 2007, comparisons on qualifications can only start from 2009. In 2009, problems with filling in the questionnaire have been reduced due to increasingly routine answering of the questionnaire. Therefore, in the future, professions as well as qualifications will be analysed in longitudinal studies.

Another difficulty regarding long-term analysis is changes and redefinitions of occupations within the AMS Profession Information System. Due to new labour market trends, these changes and redefinitions can also be expected for the future. Besides this, based on the experiences from the last survey in 2009, one can expect that long-term comparisons on occupations and qualifications should be possible in the future.



## 2 Main Results of the Statistical Analysis

The following section will provide an overview on main results of the AMS Enterprise Survey 2009 to ensure that the most prominent results can be quickly and easily understood.

One major trend, which was observed in the statistical analysis from the surveys 2007 and 2005<sup>5</sup>, was confirmed in the data from 2009: a surprisingly high demand for professions with low qualification levels, so-called assistant professions or on-the-job-trained professions. However, already the analysis of demand, on the one hand, and professional dynamics, on the other hand, shows that this demand on professions with low qualification level is a phenomenon of high employment-fluctuations in this field and not a structural characteristic of employment demand in Austria. Especially in professions with highly dynamic development (see Chapter 4 of the German report), one can more frequently find professions with higher qualification levels.

In addition, the comparison between professions with high demand and the unemployment statistics in these professions (see Table D) shows a higher unemployment in professions with low qualification compared to professions with higher qualifications. This clearly indicates high employment fluctuations in low-qualified professions. If one differentiates the professions with high unemployment regarding those who show low open-job vacancies and those who show high open-job vacancies, one can see that there are several professions that have high unemployment rates and high open-job vacancies as well: Restaurant specialist, retailer, unskilled kitchen helper, metalworker, parlour maid and carpenter. This clearly supports the thesis on high fluctuation in these professions. Occupations with high unemployment and low open-job vacancies show low job vacancies compared to the registered unemployed. Anyway, high fluctuation can also be observed due to the high unemployment rates in these professions (such as unskilled worker, commercial driver, unskilled worker in manufacturing, warehouseman, clerk, brick layer, unskilled worker in construction, and bank clerk).

<sup>5</sup> Stefan Humpl: AMS-Großbetriebs-Monitoring 2007. Auswertung der Betriebserhebung 2007. 3s Unternehmensberatung, Wien 2009. Stefan Humpl, Claudia Plaimauer: Auswertung des AMS-Betriebsordners und Möglichkeiten der Integration der Ergebnisse in das AMS-Qualifikationsbarometer. Pilotstudie. 3s Unternehmensberatung, Wien 2006.

Table D

Contrasting unemployment in highly demanded professions and professions demand in the AMS Enterprise Survey 2007

Highly demanded professions in the survey with low unemployment* and high open-job vacancies**	Highly demanded professions in the survey with high unemployment* and low open-job vacancies**
Cleaner	Unskilled worker
Nurse	Commercial driver
Care worker	Unskilled worker in manufacturing
Sales agent	Warehouseman
Accountant	Clerk
Receptionist	Brick layer
Security	Unskilled worker in construction
Cook	Bank clerk
Secretary	
Mechanical-engineering technician	
Home-assistant	
	Highly demanded professions in the survey with high unemployment* and high open-job vacancies**
	Restaurant specialist
	Retailer
	Unskilled kitchen helper
	Metalworker
	Parlour maid
	Carpenter

Source: 3s analysis of the AMS Enterprise Survey 2009, choice of top 25 demanded professions all over Austria for all professional areas, unemployment 2009: special analysis of AMS statistics 2009

\*) All professions mentioned are part of the top 25 demanded professions all over Austria for all professional areas (see tables in Section 3, Table 3.1). The score 'with low unemployment' is shown when the rate of unemployed in each profession was half the size of the rate of the professions' demand in the survey. The score 'with high unemployment' is shown when the rate of unemployed in each profession is at least 1.5 times higher than the rate of professions' demand in the survey. Only professions are mentioned, in which the number of unemployed was higher than 500 persons.

\*\* Job vacancies for 2009 are taken from the AMS Skills Barometer, see: <http://bis.ams.or.at/qualibarometer>

The survey's context provides a further explanation for the above-average representation of low-qualified professions in highly demanded professions. However, many enterprises think of the AMS as a job-broker for low-skilled and low-qualified workforce, because highly qualified workers are sought through other channels (direct applications, job-advertisements in newspapers and internet-portals, job-broking agencies, etc.). Because the enterprises know that the AMS conducts the survey, many enterprises probably provide their details due to the addressee of the survey. After providing details for the survey, many enterprises expect that the AMS will continue procuring low-qualified personnel.

When considering the above-average demand for low-qualified professions, one should not forget about the higher diversity in high-qualified professions, which also means that they are underrepresented in the AMS Enterprise Survey 2009 due to the type of questioning ('Please name the professions with the highest new job-engagements...'). Even in the surveys in 2007 and 2009, this problem was not satisfactorily solved; the question concerning the future demand for professions,

which is estimated much higher than in the past (introduced in the survey 2007 for the first time), did not identify especially high-qualified professions. Throughout Austria, the following occupations have been mentioned as very dynamic in 2009: cook, cleaner, retailer, and receptionist.

Altogether (all over Austria, including all branches), the question on occupational demand showed that low-skilled professions are primarily mentioned: cleaner, restaurant specialist, unskilled worker, nurse, security, commercial driver, unskilled worker in manufacturing, cook, and warehouseman (see Table 3.1 in the German report).

In regards to dynamic occupations (all over Austria, including all branches), the most frequently named professions are from the health sector, including: home-assistant, caregiver for elderly people, nurse, psychotherapist, health professional, caregiver for disabled people, occupational therapist. These occupations are named within the top twelve of the dynamic occupations (see Table 4.1).

Analysing the qualifications shows that the most demanded qualifications (all over Austria and including all branches) include soft and hard skills. At the top five, one can find relevant work experience, IT-proficiency, university degree, commitment, and reliability (see Table 5.1).

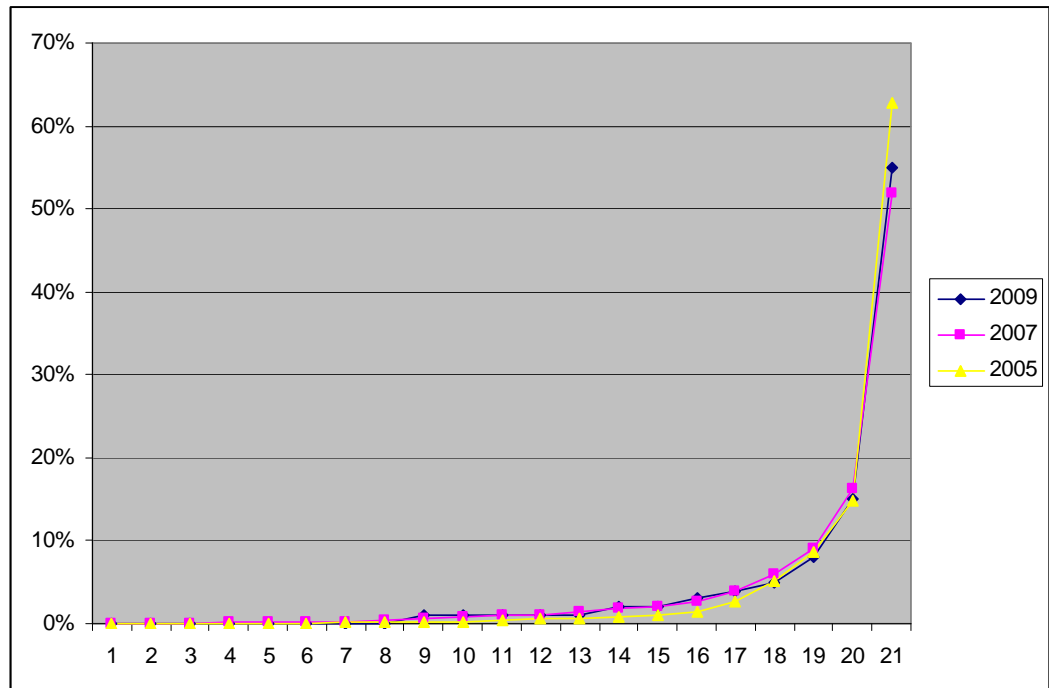
Dynamic qualifications – fitting the dynamic occupations – often include qualifications used in the field of health and social work; for example, nursing and obstetrics, skills in social work and social pedagogy, medical expertise, and high empathy (see Table 6.1).

Based on the better validity of the responses concerning qualifications (demand and dynamic) compared to previous surveys, one can recommend integrating the results more vigorously into the AMS Skills Barometer. The survey in 2009, for the first time, made possible connections between occupations and qualifications. These results on the qualifications could be presented in the AMS Skills Barometer in combination with occupational areas, occupational fields and occupations. Therefore, the AMS Enterprise Survey could be better used as an important source of the AMS Skills Barometer.

Already the statistical analysis of the surveys in 2007 and 2005 identified a connection between a profession's demand in a few specific branches and specific professional areas. Many professional areas showed no connection to a branch-specific demand in the surveys in 2007 and 2005. This trend was continued in the survey in 2009 (see the following Figure A as well as Table 7.1 in the annex of the German report). The slightly steeper curve for the survey in 2005 shows that the demand for professions in different professional areas is spread more regularly in different branches in the survey in 2007. The highest average demand for professions in one branch was 63% of the overall demand in the survey in 2005. In the survey in 2007, the comparison value is only 52%; in 2009, it was 55%; therefore, it is less regularly spread as in 2007, but still more regularly spread than in 2005.

Figure A

Density of professions' demand in professional areas after branches – mean values summarised, comparison of surveys in 2005, 2007 and 2009



Source: 3s analysis of the AMS enterprise surveys 2005, 2007 and 2009 (n = 7,502, n= 7,221, and n= 7,183)

More detailed statistical analyses of the AMS Enterprise Survey 2009 will be used in the representations in the AMS Skills Barometer<sup>6</sup>; regional specific analyses will especially be used in the new regional sites of the AMS Skills Barometer, where the most dynamic professions are presented for every region in Austria.

The results on qualifications could be integrated more prominently into the AMS Skills Barometer due to better validity; therefore, qualifications in combination with occupational areas and fields as well as single occupations could be presented.

<sup>6</sup> <http://www.bis.ams.or.at/qualibarometer> and <http://bis.ams.or.at/qualibarometer/bundeslaender.php>