Measuring job satisfaction in surveys: Austria

Comparative analytical report

Questionnaire

Editorial disclaimer

This report has not been subjected to the standard Foundation editorial procedures

This Austrian national report is part of a comparative overview (EF/06/55/EN) of how job satisfaction is measured in national working conditions surveys based on 16 national contributions for the European Working Conditions Observatory (EWCO).

1. Aim and structure of the comparative analytical report questionnaire

The main objective of this comparative analytical report is to assess if and how the job satisfaction issue is dealt with in the national surveys and to bring forward some data and trends on job satisfaction. This comparative analytical report shall reveal how national surveys produce data on job satisfaction, focusing on the methodologies used and shall present available data on job satisfaction.

Thus, the questionnaire is divided into three main sections. The first section is mainly focused on the national surveys dealing with job satisfaction (priority given to the national working conditions surveys) and the methodological frame used. In this section, the national correspondents are basically asked to identify which surveys deal with job satisfaction, what questions are made, how questions are made and what definitions are used in those questions.

The second section is addressed to gather available data on general job satisfaction and job satisfaction broken down by some of its determinants. Whenever it is possible, trends should be identified.

Finally, the last section is focused on the analytical aspects of job satisfaction. In this section, national correspondents are asked to identify correlations between job satisfaction and other variables related to organisational practices that may be present in national surveys data reports and to identify interesting pieces of conceptual or meta analysis of job satisfaction.
Section 1: Survey sources and questions

1 – Is job satisfaction an issue addressed in your national working conditions surveys? Do other national surveys include any questions on job satisfaction?

Job satisfaction is no longer an issue in surveys conducted by the Statistik Austria (Statistics Austria), the main organisation responsible for national surveys. It carries out the Mikrozensus survey, which provides data on employment. Each Mikrozensus survey includes a special survey (Sonderprogramm). The last special survey on job satisfaction dates back to 1976(!). Apart from this, job satisfaction is not an issue in any other survey.

However, the Arbeiterkammer Oberösterreich (Upper Austrian Chamber of Labour) has initiated a project that measures the working atmosphere in Austria. The Institute for Social Research and Analysis (SORA) together with the Institut für Empirische Sozialforschung (Institute for Empirical Social Research – IFES) developed the survey Arbeitsklima-Index (Work Climate Index - AKI). The Arbeitsklima-Index is a tool that measures the job satisfaction of all Austrian employees and changes in it. Job satisfaction is not solely considered as satisfaction with one’s workplace but is understood in a broader sense that also includes more general factors, e.g. Austria’s economic future and changes in the labour market.

The Arbeitsklima-Index survey consists of two different parts. The first is composed of 25 items that are the basis to calculate the Arbeitsklima-Index as such. The second part contains various topics such as income, seniority, working hours, overtime, work at weekends, reconciliation of working life and non-working life, unemployment, pension plans, information on the company (size, sector) and of course questions concerning age, gender and education.

In this respect it is worth mentioning that the indicators of the Arbeitsklima-Index provide the possibility to observe long-term structural changes, such as changes in the employment structure (for example: increases in precarious employment, of second jobs or changes in working time regulations).

Please identify sources and survey methodology (also mention first year of implementation, regularity (periodicity), time frame (e.g. over the last twelve months), population, sample size and frame, data collection methodology, etc.).

The Arbeitsklima-Index survey started in 1997 and is carried out four times a year – in February, May, September and November.

The target population is all employees above 15 years of age. The interviewees come from all over Austria. The sample encompasses approximately 1,000 employees each time the survey is conducted. The selection of the interviewees takes place by means of a multi-layered random process on the basis of all household addresses.

Employees are interviewed on a personal basis with a standardised questionnaire (face-to-face interviews). Since 1997, 37,600 employees have been asked about their working atmosphere.

The Arbeitsklima-Index is calculated twice a year, once in spring and the second time in autumn. The data from the November and February data collections and from the May and September data collections are aggregated to calculate the index. The AKI is therefore based on approximately 2,000 interviews.

Special surveys of certain aspects are analysed and published each time the survey is conducted. The data for these topics is not collected additionally but is part of the regular questionnaire. This year, for example, the focus was on young workers and on unemployment. Last year’s topics
covered working hours, income and reconciliation of working and non-working life. In 2002 and 2003, additionally analysed aspects included job changes, job security, career prospects, fear of job loss. In 2001, the situation of employed women (part-time employment, income, childcare, job security) and a special analysis of sectors focusing on future expectations and occupational burdens were some of the topics. In the previous year, the interesting aspects covered working hours and older workers.

2 – The questions regarding job satisfaction in national surveys are single-item questions? Or multi-facet questions? Are there ‘indirect’ job satisfaction questions in the survey, e.g. scale questions of the type ‘Your job gives you the feeling of work well done’?

As mentioned above, the calculation of the Arbeitsklima-Index is based on 25 items. These are aggregated to 16 sub-dimensions, which are themselves summarised in four indices. These four indices are given different weightings in the Arbeitsklima-Index. The four indices are society, company, expectations and work. “Society” encompasses two sub-dimensions: societal status and societal optimism. The items on “satisfaction with the social position as worker in the total population” and “satisfaction with one’s rights as an employee vis-a-vis employers” are part of the former sub-dimension. The only item in the “societal optimism” sub-dimension is the “economic future of Austria”.

The “company” index consists of the “economic future” sub-dimension and its item on the “economic future of the company”, of the “image” sub-dimension and its item on “satisfaction with the company’s reputation”, of the “management style” sub-dimension and its item on “satisfaction with the management style of the managers” and finally of the “social benefits” sub-dimension and its item on “satisfaction with the company’s social benefits”.

The third index, “expectations”, covers two sub-dimensions, “career” and “chances on the labour market”. The first sub-dimension consists of two different items: “satisfaction with opportunities of advancement and development” and “satisfaction with training opportunities”. The item in the sub-dimension on “chances on the labour market” is “chances of finding an acceptable job again”.

The last index, “work”, includes eight sub-dimensions: general job satisfaction, general satisfaction with one’s life, allocation of time, income, social integration, mental stress, physical stress and stress caused by innovation. Two items, “satisfaction with one’s occupation overall” and “choose the same occupation in the same company again”, belong to “general job satisfaction”. The sub-dimension on “general satisfaction with one’s life” is composed of the item “satisfaction with life overall”. The sub-dimension on “allocation of time” consists of “reconciliation of working life and non-working life” and “satisfaction with working hours”. The two items of the sub-dimension on “income” are “satisfaction with income” and “assessment, whether income is sufficient”. The sub-dimension on “social integration” is composed of “satisfaction with relationship to colleagues” and “stressed by loneliness and isolation in the work place”. “Mental stress” consists of the items “stressed by pressure of time” and “mentally stressed work”. The sub-dimension “physical stress” encompasses “unhealthy working conditions” and “accident risk/risk of injury”. The last sub-dimension “stress caused by innovations” consists of the items “stress caused by technical and organisational changes” and “stress caused by permanent changes in work flow and job requirements”.

- Please specify how questions are formulated (i.e. the text of the questions used in the surveys) and, if applicable, identify different facets used.

Without a copy of the Arbeitsklima-Index questionnaire it has not been possible to provide exact questionnaire formulations. But the 25 items listed above give a good impression of what is asked in this particular survey.
However, there is some information on the development of the questions: some questions were developed by the two research institutes themselves and some questions were transferred from other questionnaires.

As far as the responses are concerned, only prescribed answers are possible. The categories of answers range from “very satisfied” to “not satisfied at all” and from “very stressed” to “not stressed at all”. Nearly all items are based on five-point scales, the remainder being based on four-point scales.

- **If possible, briefly mention the evolution in questions used in national surveys: which questions were added, which questions were removed, etc.**

No questions concerning the items to calculate the *Arbeitsklima-Index* were added or removed, but some questions in the second part were. These concern topics such as career breaks or double workload and so on.

- **Is there a scale being used? What kind of scale?**

Due to lack of access to the questionnaire, it is not possible to determine the answers to the questions exactly. But as the categories of answers already suggest, most questions are on an interval scale and some questions are on an ordinal scale.

3 – **If definitions of overall job satisfaction/job satisfaction facets are used in questions in national surveys, please give them.**

There is no specific definition of job satisfaction in the *Arbeitsklima-Index* survey. But it is assumed that interviewees compare their wishes and expectations on aspects covered in the questionnaire with reality. This comparison determines the extent of their satisfaction.

**Section 2: Survey data and trends**

4 – **Provide data, including trends if possible, on general job satisfaction.**

The *Arbeitsklima-Index* measures the general job satisfaction. As the survey started in 1997, the index points of the first survey equal 100 and the following surveys are calculated on the basis of the first index points. Changes of the index points are significant when the index points are at least two points higher or lower than in previous surveys. The index points of both sub-dimensions and items range between 0 and 100, though it is important to underline that the results of different sub-dimensions or items are not directly comparable.
Graph 1. Development of the *Arbeitsklima-Index*, 2000 to 2005, in index points

In spring 2000 as well as in autumn 2005 job satisfaction was at 108 points (see graph 1). So job satisfaction was much higher in spring 2000 and autumn 2005 than it was in 1997. But within this period of time people were more or less satisfied with their jobs. Significant changes have taken place between the spring survey 2001 and the spring survey 2002 (decrease from 109 points to 106 points) and again between autumn 2003 and spring 2004 (decrease from 107 points to 105 points). In 2004, job satisfaction rose from 105 to 108 points. Since then it has remained the same.

Please also provide the latest data available on the following possible job satisfaction correlates:

- gender

Women are more satisfied with their job than men (see graph 2). The last survey revealed that women’s job satisfaction amounts 108 points and is slightly (but not significantly) higher than that of men (107 points).
Graph 2. Development of the *Arbeitsklima-Index* by gender, 2000 to 2005, in index points

Apart from spring 2000 and autumn 2001, women have always been more satisfied with their jobs than men. Besides, in some years women were much more satisfied than men. This was the case in autumn 2000 and 2002, in spring 2001, 2003 and 2004 (three points) and in autumn 2003 (four points). Only recently has women and men’s satisfaction with their jobs been roughly parallel.

- age (use, if possible, the Labour Force Survey age classes: 15 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64 and 65 years old or more)

Graph 3 shows clearly that the older the employees are, the less satisfied they are with their jobs. The index points for the two younger age cohorts are 110 and 111 in the autumn 2005 survey. The 36 to 45 year-old age group has 107 index points. The index points for the oldest age group (45 years of age and older) are much lower (only 103 points) and they are thus less satisfied.

This tendency also corresponds with the previous years. Only the autumn survey for 2000 and the spring survey for 2002 reveal that either the oldest age group was more satisfied than the 36 to 45 year-olds (autumn 2000) or the youngest age group was less satisfied than the 26 to 35 year-olds (spring 2002).
Graph 3. Development of the Arbeitsklima-Index by age, 2000 to 2005, in index points

Source: Institute for Social Research and Analysis (SORA)

- marital status

The autumn survey for 2005 shows that, at 107 points, job satisfaction is highest for singles (see table 1). But also married people or people living with partners are very satisfied with their jobs (106 points). Interestingly, divorced or separated people are less satisfied than widows or widowers (101 points to 104 points).

Table 1. Arbeitsklima-Index by marital status, autumn 2005, in index points

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Index Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>107</td>
</tr>
<tr>
<td>Married / cohabitation</td>
<td>106</td>
</tr>
<tr>
<td>Divorced / separated</td>
<td>101</td>
</tr>
<tr>
<td>Widowed</td>
<td>104</td>
</tr>
</tbody>
</table>

Source: Institute for Social Research and Analysis (SORA)

- parenting/number of children

Table 2 shows the job satisfaction of employees according to their number of children. People with one child are more satisfied with their jobs (109 points) than people are with two or more or no children. Employees with two children rank second, with 108 points. An interesting fact is that
job satisfaction of those with no children and of people with more than two children is the same (107 points).

**Table 2. Arbeitsklima-Index by number of children, autumn 2005, in index points**

<table>
<thead>
<tr>
<th>No children</th>
<th>One child</th>
<th>Two Children</th>
<th>More than two children</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>109</td>
<td>108</td>
<td>107</td>
</tr>
</tbody>
</table>

*Source: Institute for Social Research and Analysis (SORA)*

- **education**

Job satisfaction is higher for people with higher education (see graph 4). The index of people who graduated from college or university is 110 points compared to 109 points for people who graduated from technical school, 107 points for people who completed an apprenticeship and 102 points for those who have completed the nine years of compulsory school.

This tendency also applies to the last six years, but the ranking between these four different education levels sometimes differs from this trend. Thus in autumn 2000 people who graduated from technical school were more satisfied with their job than graduates from college or university (110 to 108 points), as was also the case in autumn 2004 and spring 2005 (111 to 110 points and 112 to 111 points). In spring 2002 the above described tendency did not apply, as secondary-school graduates were more satisfied than were people who had completed an apprenticeship.
Self-employed people are not part of the sample used for the Arbeitsklima-Index, so it is not possible to compare employees with self-employed people.

Unfortunately, there is only data from the 1999 Arbeitsklima-Index survey for people who have a permanent or a fixed-term contract. In that particular year people having a permanent contract were more satisfied (105 index points) than those with a fixed term contract (103 index points).

But we can provide recent data on people working full-time or part-time.

Looking at part-time and full-time employed people (see graph 5), one can say that those who work part-time are more satisfied than those working full-time. In autumn 2005, the index points for part-timers were 109 compared to 107 for full-timers.
In the last six years, people employed part-time were more satisfied with their job than those working full-time. The spring 2000 survey, but also the spring 2001 and the autumn 2002 survey are noteworthy as the difference between part-timers and full-timers is four index points (111 to 107 index points, 112 to 108 index points and 110 to 106 index points).

- **occupational background (current job)**

Graph 6 shows the index for blue-collar workers, white-collar workers and civil servants. White-collar workers’ job satisfaction ranks highest, with 111 index points (autumn 2005). The job satisfaction of civil servants is much lower, at 104 index points. This is not very different from the job satisfaction of blue-collar workers, whose index is 103 points.

Especially between the spring and the autumn survey of 2005 the index of blue-collar workers and that of civil servants converged as the civil servants’ index decreased from 107 points in spring 2005 to 104 points in autumn 2005.
In addition, white-collar workers have always been more satisfied over the last six years than blue-collar workers and civil servants have. In some years their index is higher by as much as eight points (spring 2000 and 2001) or seven points (autumn 2002) than that of civil servants.

- sector of employment/major industry (use, if possible, the standard NACE classification, 1 digit)

Table 3 shows job satisfaction according to industry of the autumn survey 2005. The list does not conform to the NACE classification.

People who work in the finance or insurance industry are most satisfied with their job (115 points). Second come employees working in real estate or the computer industry or in the research branch, with 113 index points. Still very satisfied are people who work in the electricity or water supply industry or in education, health or social work, who have either 110 or 109 index points. People working in the four branches with 108 index points can also be considered as satisfied with their job. These are the industries of recreational, cultural and sporting activities, of chemicals manufacturing, manufacturing of food products, beverages and tobacco and the retail trade. Several branches have an index of 107 or 106 points (public administration and compulsory social security, wholesale, manufacturing of metals or electrical equipment, hotels and restaurants and other business activities).
Table 3. *Arbeitsklima-Index*, by industry, 2005, in index points

<table>
<thead>
<tr>
<th>Industry</th>
<th>Index Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance/insurance</td>
<td>115</td>
</tr>
<tr>
<td>Real estate, computers, research</td>
<td>113</td>
</tr>
<tr>
<td>Electricity/water supply</td>
<td>110</td>
</tr>
<tr>
<td>Education</td>
<td>109</td>
</tr>
<tr>
<td>Health, social work</td>
<td>109</td>
</tr>
<tr>
<td>Recreational, cultural and sporting activities</td>
<td>108</td>
</tr>
<tr>
<td>Manufacturing of chemicals</td>
<td>108</td>
</tr>
<tr>
<td>Manufacturing of food products, beverages and tobacco</td>
<td>108</td>
</tr>
<tr>
<td>Retail trade</td>
<td>108</td>
</tr>
<tr>
<td>Public administration/compulsory social security</td>
<td>107</td>
</tr>
<tr>
<td>Wholesale</td>
<td>107</td>
</tr>
<tr>
<td>Manufacturing of metals/electrical equipment</td>
<td>106</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>106</td>
</tr>
<tr>
<td>Other business activities</td>
<td>106</td>
</tr>
<tr>
<td>Paper manufacturing</td>
<td>105</td>
</tr>
<tr>
<td>Agriculture/forestry</td>
<td>105</td>
</tr>
<tr>
<td>Timber production</td>
<td>104</td>
</tr>
<tr>
<td>Construction</td>
<td>104</td>
</tr>
<tr>
<td>Textiles</td>
<td>102</td>
</tr>
<tr>
<td>Mining</td>
<td>100</td>
</tr>
<tr>
<td>Transportation/Information</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Institute for Social Research and Analysis (SORA)

Paper manufacturing, agriculture and forestry, timber production, construction, textiles, mining, transportation and information are ten or more index points below the highest scored. In particular, those working in the mining industry or in transportation and information can be considered as not satisfied with their jobs, as their index points equal the base level of the first survey in 1997.

Section 3: Secondary analysis of survey data on job satisfaction

5 – Is there any assessment of the relationship between job satisfaction and other variables related to organisational practices/independent work-related practices in national surveys data analysis/reports? Briefly mention the main findings on the cross-tabulation between the following factors and job satisfaction: job autonomy, working time and WLB issues, and worker participation/involvement.

Note: In case you do not have any available information on the cross-tabulations referred to above, please try to provide data on the relationship between the following factors and job satisfaction: work-related stress and income/salary.

The *Arbeitsklima-Index* questionnaire does not include questions concerning job autonomy and worker participation and, so far, there is no analysis concerning job satisfaction and work-related stress. The special survey of autumn 2004, however, focuses on job satisfaction and working hours, reconciliation of working and non-working life and income. The main result is that job satisfaction is highly influenced by working hours: the fewer hours people work a week the higher is their job satisfaction. People working less than 30 hours a week have an *Arbeitsklima-Index* of 110 to 111 points, whereas people working between 30 and 40 hours a week have only 107 points. Additionally, the index points for people whose weekly working time exceeds 40 hours amount to only 106.
Concerning the reconciliation of working and non-working life, the survey reveals that employees working less than 35 hours a week are much more satisfied than those working more hours a week. Satisfaction with time allocation is 81 index points for people working up to 35 hours weekly, but only 76 index points for those working up to 45 hours a week.

Additionally, satisfaction with one’s income increases with rising working hours. Employees working up to ten hours a week are very dissatisfied with their income. Their index points are 47 only, whereas those of people working 35 hours a week equal 59. Highest rank employees whose working time exceeds 45 hours a week: Their income satisfaction index equals 65 index points.

6b – Are there any examples of interesting survey approaches to quantifying and measuring job satisfaction – methodological aspects of capturing job satisfaction data in surveys?

Please summarise the main findings.

It should be mentioned that the target of developing the Arbeitsklima-Index was to measure different aspects of satisfaction on different dimensions. Even though the focus was on aspects like job satisfaction and stress factors, topics regarding the company and societal framework were included in the Arbeitsklima-Index. As a consequence, not only the present situation but also future perspectives were of interest.

International surveys, but also concepts developed by IFES (Institute of Empirical Social Research), have been included in selecting the indicators and their operationalisation. In addition, new questions were designed so that, for the test phase, the questionnaire encompassed 75 items. These items needed to be reduced to a set of indicators that both represents all dimensions that are regarded as relevant and, at the same time, does not exceed interviewees’ capabilities. To accomplish this target two pre-tests were conducted beginning in September 1996, for which 2000 employees and unemployed persons above 16 years of age were interviewed. Based on factor and regression analyses, two thirds of the questions in the comprehensive questionnaire were removed to reduce the Arbeitsklima-Index survey to 25 items.

All items are standardised between zero and one by subtracting the minimum of the value and by dividing that value by the difference of maximum and minimum. For example, the answer is 3 in a five-point scale. Then 1 as minimum value is subtracted from 3, which equals 2. The difference of the maximum and the minimum in a five-point scale is 5 minus 1, which equals 4. Now 2 is divided by 4 and thus the standardised value equals 0.5.

The weighting of the items, indices and sub-dimensions for the calculation of the overall index is a very delicate procedure. IFES and SORA have chosen a normative approach requiring a continuous discussion with experts. This also means that the weighting must be made transparent and be the subject of validation as regards content. Thus, items belonging to one sub-dimension are given equal weight. If, for instance, one sub-dimension consists of two items then both are given the weight 0.5. Each of the four indices is also calculated as arithmetic mean of the sub-dimensions. Only the overall index is not given equal weight. The index “work” is weighted 0.4, whereas the other three indices are weighted 0.2.

In 2000, SORA and IFES organised a workshop with experts on job satisfaction, the target of which was to “evaluate” the Arbeitsklima-Index. The experts regret that resignative job satisfaction is not considered in the Arbeitsklima-Index. This concept takes into account that, under specific conditions, high job satisfaction can emerge from a high proportion of resignative job satisfaction, i.e. those who report positive job satisfaction based principally on habituation to a particular working environment and consequent lowered expectations. Thus, the two research institutes developed an additional index on resignative job satisfaction.
In addition to resignative job satisfaction, the two research institutes have also developed a gender index and are currently working on a health index. Both have to be understood as additional tools of the Arbeitsklima-Index. It is also worth mentioning that the Arbeitsklima-Index was transformed into a tool that measures working atmosphere within private companies and public organisations. This index can be compared with the Arbeitsklima-Index so that employers can access the results for their company, a feature they highly appreciate.

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