

Chapter 12. Administrative and support service activities

This chapter presents practical guidance as well as main issues and challenges for compiling SPPIs for Employment activities (ISIC 78), Security and investigation activities (ISIC 80), and Cleaning activities (ISIC 812).

12.1. Employment activities (Dorothee Blang, Destatis)

12.1.1. Industry description (78 ISIC)

The provision of employment services plays a particularly central role in the functioning of the labour market, especially during periods of high employment growth. Employment activities are varied and complex and so the measurement of the value of these services, both in current and constant prices, is challenging.

Structure of the market and recent developments

Employment activities comprise all services relating to the search for and selection of candidates, supplying workers to clients' businesses for limited periods of time (*i.e.* temporary employment agencies) and other kinds of human resources provision. These activities have grown at a rapid pace in recent years because they allow businesses more flexibility in adapting to changes in economic conditions. This is particularly true for the services provided by temporary employment agencies which are strongly linked to changes in economic conditions and are often an early indicator of broader economic developments. Thus over the last ten years, the number of temporary workers being placed by agencies has consistently grown, reflecting more flexible patterns of work.

Businesses enterprises engaged in employment activities encounter low barriers to entry in the market and have relatively small capital requirements. As a consequence, there may be a large number of small service producers although the majority of turnover is often generated by large and/or international business enterprises. The existence of a large number of service producers in a market can lead to significant differentiation in the products offered. Large service producers take advantage of their size, length of experience, and international networks while smaller producers often focus on regional, sectorial or occupational "niches". A wide range of services are offered across the division, from staffing to payroll services, outplacement, outsourcing and search and selection.

The industry is sensitive to structural changes in the market; for example, in respect of the ageing population in Europe or changes in the regulation of the labour market. Alongside the more traditional activities of employment placement and temporary employment agencies, new activities have emerged, particularly outsourcing and the services of so-called "umbrella-companies" – both classified within ISIC group 783 - Other human resources provision:

- **Outsourcing:** The client outsources the employment activity to a service producer that supplies workers to the client for a longer period of time. In practice these workers function as regular employees of the client even though they are legally and officially on the service provider's payroll.

Producers of outsourced employment activity services are either legally independent entities (known as Professional Employer Organisations - PEOs) or subsidiaries of business enterprises which transfer the administration of their personnel to this intra-group service producer and subsequently lease them back on a long-term or permanent basis. The service producer therefore becomes the official and legal employer of the workers, even though they remain under the direct supervision of their initial employer - the client.

PEOs often specialise in a single specific sector, such as medical, wholesale or construction, rather than diversifying into several sectors. This allows PEOs to

realise specialisation effects and economies of scale thereby enabling them to offer reduced prices to clients and enhanced benefits and administrative services to personnel.

The importance of intra-group-PEOs has grown in recent times. Many business enterprises, particularly larger ones, have created PEO subsidiaries to outsource the employment of their workers. This allows them to bypass labour agreements particular to the sectors in which the workers are actually engaged, thereby reducing costs.

- Umbrella companies: The activities of so-called “umbrella companies” function as official employers for actual freelancers and supply them to clients on a temporary basis, usually to run a specific project. They provide freelancers with services in implementing employment contracts and payroll accounting. The freelancers benefit fiscally and professionally from being employed by such an umbrella company (as in the case of the U.K.) or can avoid legal burdens concerning their self-employment (as in the case of France).

Price determining factors and pricing mechanisms

Differentiation of products, competitive markets, and the emergence of outsourcing and umbrella companies can make the measurement of price change challenging. The price of employment activities can depend on many factors including, the level of qualification or skill that the workers must possess, the length and type of contracts, the numbers of hours worked, the contract between the employment agency and the client, and the geographical location.

In order to effectively measure the change in prices of employment activities, it is crucial to firstly consider how the workers are paid. Different relationships between the service producer, the worker (*i.e.* the recruited employee), and the client may lead to different pricing mechanisms; reflecting the type of services offered and the way in which the workers are paid.

In this respect, the two following distinct cases should be considered:

1. Workers are employed and paid directly by the client

This case is of particular relevance for placement agencies that provide services in respect of the search for and selection of candidates, and all ancillary services such as skills assessment. These services involve drawing up descriptions of positions to be filled, searching for and selecting candidates. Placement agencies may use advertisements (increasingly online), a direct approach (“headhunting”) or a combination of the two in the search for candidates.

Several pricing mechanisms can be employed by placement agencies, including a fixed price, a price based on a percentage of the salary of the placed workers or re-invoicing of costs with profit. Pricing based on a percentage of the annual salary of the placed worker appears to be the most common mechanism. In this case, the placement agency records only the recruitment costs on which the price charged to the client is based; the salaries of placed workers are paid directly to them by the client and therefore the fees paid to agencies should be treated on a net basis.

2. The client pays the service producer, who in turn pays the worker

This case applies for both the activities of temporary employment agencies and other human resources provision such as outsourcing and umbrella companies. Here, the definition of the output services is an essential part of the SPPI compilation process and should be consistent with national accounting practice.

- The activities of temporary employment agencies relates to the supply of replacement or supplementary workers to clients for limited periods of time. The temporary workers are recruited and remunerated by temporary employment agencies according to the legal conditions in a given country.

The service activity provided by temporary employment agencies to clients is the supply of a defined amount of work according to a certain level of qualification and not the output of the labour performed by the placed workers. The value of output of temporary employment agencies amounts to all payments received by the agency, including those covering the compensation of temporary employees as well as “net fees”.

The pricing mechanism involves applying a multiplier coefficient to the temporary worker's hourly gross salary in order to obtain a price per hour. This hourly salary is negotiable between the temporary employment agency and the client, according to the temporary worker's qualifications and market conditions. All other things being equal, changes in salaries result in changes in prices. The size of the multiplier coefficient is a key pricing consideration for the temporary employment agency. It may depend on a number of factors including the temporary worker's qualifications, the client type or the length of assignment. The longer the assignment or the higher the number of hours to be worked, the lower the multiplier coefficient is - particularly if the work is for unskilled employees.

In the provision of temporary employment services, framework contracts for major/regular clients are common. These contracts specify the hourly rates to be charged according to various categories of worker qualifications. Framework contracts tend to be honoured even when there is a change in the general economic situation. The values of the multiplier coefficients for specific clients appear to remain quite stable over time.

- The pricing mechanism typically employed for the provision of other human resource services can be assumed to be similar to the mechanism employed by temporary employment agencies. In fact umbrella companies, as well as PEOs, mostly receive their remuneration by a multiplier coefficient of the salary of the placed worker.

However, subsidiaries functioning as the intra-group supplier of the workforce may set the price for their services simply by summing the wages with overhead expenses without considering any market price for their activities.

12.1.2. Classification aspects

12.1.2.1. Industry classification

Employment activities, classified under section N - Administrative and support service activities, division 78 Employment activities, of the ISIC classification system, covers the following three classes:

1. 7810 - Activities of employment placement agencies, includes listing employment vacancies and referring or placing applicants for employment, where the individuals referred or placed are not employees of the employment agencies;
2. 7820 - Temporary employment agency activities, includes the supply of workers to clients' businesses for limited periods of time to temporarily replace or supplement the working force of the client;
3. 7830 - Other human resources, are typically provided on a long-term or permanent basis and the units classified here may perform a wide range of human resource and personnel management duties associated with this provision. The units classified here represent the employer of record for the employees on matters relating to payroll, taxes, and other fiscal and human resource issues, but they are not responsible for direction and supervision of employees.

As shown in annex A, the ISIC and NACE classifications have the same structure. NAICS has a similar structure although the equivalent of class 7810 is split into two groups namely 561311 - Employment placement agencies, and 561312 - Executive search services. The concordance between ISIC and ANZSIC is less effective since group 721 - Employment services, is separated into two classes only: 7211 - Employment placement and recruitment services, and 7212 - Labour supply services, which consists of units mainly engaged in supplying their own employees to clients' business on a fee or contract basis. Additionally, ISIC class 7830 corresponds to activities classified outside the ANZSIC group 721, such as management advice and related consulting services or office administrative services.

12.1.2.2. Product classification

The corresponding products for ISIC 78 - Employment activities are classified in the CPC classification under group 851 - Employment services. This group is divided into two classes, 8511 - Personal search and referral services and 8512 - Labour supply services, which are defined as follows:

- 8511 - Personal search and referral services which is further split between:
 - 85111 - Executive/retained search services, covering the provision of services such as formulation of job descriptions, specialized search and screening and testing of applicants;
 - 85112 - Permanent placement services, other than executive search services, including the provision of services in respect of the testing, interviewing and referring of candidates.
- 8512 - Labour supply services which is further delineated by the specific nature of contracts between the client and service provider:
 - 85121 - Contract staffing services, consisting of the search for and referral of a candidate to fill a specific position in the client company. Conditions and terms of employment are pre-assigned in the contract between client and staffing company and the service provider maintains legal rights and duties with respect to the individual worker;
 - 85122 - Temporary staffing services including the supply of workforce to clients on a temporary basis in order to resolve shortage of manpower;

- 85123 - Long-term staffing (payrolling) services covering the supply of personnel for extended work assignments. Under the terms of this arrangement, the client may recruit the person or persons hired by the staffing firm and assigned to their place of work, or transfer a portion of their existing workforce to the staffing firm. Long-term employees are placed on the payroll of the staffing firm, which is legally responsible for their actions, but when working they are supervised by the client. This service includes labour leasing, staff leasing, employee leasing, extended employee staffing and payrolling. The services of Professional Employer Organizations (PEOs) are not included;
- 85124 - Temporary staffing-to-permanent placement services covering the supply of personnel for temporary employment with the expectation of permanent work at the end of a trial period with the client. The employee remains on the payroll of the temporary help staffing firm until the hiring decision is made at which time he or she becomes an employee of the client or, if not, returns to the temporary help staffing firm. This service may include training, counselling, assessment, and resume upgrading;
- 85125 - Co-employment staffing services covering the supply of personnel through a staffing arrangement in which a PEO co-employs a client's workforce. The PEO and the client enter into a contractual agreement whereby the rights and responsibilities in respect of co-employees are shared or allocated, with the service provider assuming responsibility for certain activities as agreed with the client. These range from basic to full-service packages.

The CPC does not therefore distinguish the kind of activity the employee is hired out to, but the kind of service the agency is providing to the client. However, as shown in table 2 of the annex, the corresponding products of the CPA classification, namely 78.20 - Temporary employment agency services, and 78.30 - Other human resources provision services, are both further subdivided into the fields of work the employee is hired out to, distinguishing between computer and telecommunications, other office support, commercial and trade, transport, warehousing, logistics or industrial, hotels and restaurants, medical staff, other fields.

Challenges might arise when distinguishing between agencies providing temporary workers and PEOs or intra-group service providers. In order to distinguish between the two, agencies should be asked to identify whether their services involve repeatedly referring and providing workers to clients on a temporary basis or providing staff over a long or open-end period, during which the services provided by the agency are restricted to the administration of the supplied personnel.

Further detail on the structuring of service products in the most common product classifications are presented at the annex B.

12.1.3. Scope of the survey

In theory at least, the ideal survey will track price changes for the full range of services provided to all end users across each of the three groups presented under ISIC division 78. However, in practice a number of features of the industry will influence the scope of the survey.

First, employment services are almost entirely provided to business customers and the provision of these services to private consumers is negligible. Additionally, the share of turnover generated by services for customers abroad is – with about 4% in 2010 in Germany – relatively small compared to other service industries. Therefore, a disaggregation of the SPPI by destination of output may not be necessary and the survey can be compiled solely on a single BtoB basis.

Second, as noted in chapter 1, intra-group services should only be included in the compilation of the SPPI if their prices reflect basic market prices. Non-market prices that do parallel open market prices should be excluded.

Third, the question of a gross or net treatment of prices underlying the SPPI should also be discussed, ideally with the compilers of the national accounts. From a national accounting perspective, a pure net approach is considered to be appropriate when collecting price data for employment placement agencies, since the agency's services ends with the hiring and the placed worker becomes a regular employee of the client company that pays and administrates him. On the other hand, a gross approach is preferred over the net procedure when collecting price data for temporary employment services and other human resources provision. Although the personnel services of companies providing other human resources are also intended to have a permanent or at least long-lasting effect on the client company, the client does not pay the hired-out worker his salary directly, but only pays the agency for its service. This payment therefore consists of the worker's wage and the agency's remuneration. Consequently, the output of the other human resources providing companies has to be calculated by using these gross-fees, as in the sector of temporary employment. These gross and net treatments should be reflected in the weights used to aggregate the index.

12.1.4. Industry vs. Product SPPI based SPPI

Business enterprises classified under ISIC groups 781, 782 or 783 rarely offer secondary activities classified outside division 78, except perhaps consultancy relating to employment services (classified under group 702 - Management consultancy activities *n.e.c.*). However, they often provide a mix of services across a range of employment activities; for example employment placement agencies may also provide human resources services. Therefore the weighting schemes for each of the industry based SPPIs should include a certain percentage of services classified as main activities of the other 3-digit industries within the division.

Product based SPPIs measure the price development of all output of a service product irrespective of the industry in which the service producer is classified. In Germany labour supply services are often produced as secondary activities in the management consultancy, IT and engineering industries. Product based SPPIs will include the price development of human resources services produced by these industries.

12.1.5. Sample design

Business registers often provide the sample frame, even though they may not always provide all of the information needed for a targeted sample selection. Furthermore, business registers might not be fully up to date and some business enterprises may be incorrectly classified, especially in respect of the distinction between temporary employment agency activities and the provision of other human resources.

Therefore as a first step, the content of business registers should be verified with other sources of information on the industry such as industry representative associations. This applies particularly to the largest service producers in the market.

Probability proportional to size (PPS) sampling, perhaps supplemented by stratification, can be recommended, ideally with reference to turnover or number of employees. However, if the sample frame does not contain information on the range of services offered by each unit then a combination of PPS and purposive sampling may yield a sample that comprehensively covers all of the service products offered by the industry. Market information gathered from industry representative associations, respondents and market reports can help to inform the purposive selection.

Another option – if a small number of business enterprises account for a significant share of the total output of the industry (or in other words, if the industry is highly concentrated) - is to include only the largest units based on turnover or number of employees in the sample (cut-off sampling). The employment services industry is often relatively highly concentrated and the largest units may accurately represent the evolution of prices in the industry as whole.

12.1.6. Collection of information and specification of the service

It is recommended that the compiler establishes on-going cooperation with the industry representative organisation in order to develop a better understanding of the organisation of the industry and to encourage sampled units to participate in the survey. However, as in other industries, some respondents can be hesitant in divulging sensitive price information.

The appropriate level of specification of services and their price-determining characteristics are dependent on the main activity of the respondent. Different pricing mechanisms are employed for different service activities and these will determine the most appropriate pricing method and way in which services should be specified.

In Germany, although the very first request for reporting of prices is conducted by mail, telephone advice and assistance are also provided. Telephone contact with the reporting unit can help to identify the “best” contact person. Respondents then receive a questionnaire which details the service products for which prices are to be reported on an ongoing basis. Respondents are requested to supplement the products specifications (thereby providing transaction specifications) and to notify the corresponding prices for the current and previous reporting period.

Employment placement agencies

Respondents should be facilitated in reporting prices according to the pricing mechanisms that they typically employ. Information on the appropriate pricing mechanisms and the information required to support on-going pricing should be collected during the respondent initialisation process. Respondents should also be asked to provide information on the share of their total turnover generated by different employment service activities, if this information is not already available to the compiler.

Employment placement agencies use various pricing models. The price of a service is often set as a percentage of the annual salary for a given post. Alternatively, the price may be calculated on the basis of the hourly rate of the employee who provides the employment service and the number of hours needed for the recruitment process. The questionnaire is therefore customised to the pricing method employed by the respondent.

Temporary employment agency activities and other human resources provision

From the perspective of price data collection and the price determining characteristics required, the difference between temporary employment activities and other human resources provision is primarily in respect of the length of contracts. Provision of personnel other than on a temporary basis mainly occurs between clients and intra-group service providers. Thus, it might be necessary to identify if the service provider is active in the market (if the price of the service is negotiated between agency and customer), or if it is only an internal price.

Both types of agencies also offer on-site management services. Usually these services are included in the price of providing the hired-out worker. Nevertheless it should be clarified if on-site management is part of the service, if it is invoiced separately and if so, the share of turnover it accounts for.

For temporary employment services and other human resources provision the specification of services and their price determining characteristics also depend on the underlying product classification. As the CPA classification system is used in Germany, for temporary and long-term staffing services the profession and qualification of the provided employee is an important feature of the price. The prices of provided services are usually established on the basis of gross hourly rates which differentiate between different types of workers. As the temporary worker is paid by agency, the final fee for the provided service covers the associated hourly wage rate including the social insurance contribution, other overheads of the agency and the margin of agency. The margin is usually set as a percentage of the gross hourly rate of the temporary worker.

12.1.7. Main pricing methods

As previously noted, the pricing mechanisms employed by service providers will vary depending upon the industry subsector and the nature of the services and these will determine the most appropriate pricing method.

12.1.7.1. Employment placement agencies

Employment placement agencies usually set the price of the service as a percentage of the annual salary for a given post. As noted previously, the price may also be calculated on the basis of the hourly rate of the employee who provides the employment services and the number of hours needed for the recruitment process. Fees are often paid by instalment, reflecting the progression of the placement through the different stages of the recruitment process, rather than on the basis of the final outcome of the recruitment process.

The most commonly used pricing methods are the charge-out rate, percentage fee and direct use of prices of repeated services where the survey aims to capture prices of employment placement agencies.

The direct use of prices of repeated services is the appropriate method when standard net-fee prices are available. Alternatively, when prices are based on a commission net-fee, which is a proportion of the recruited employee's salary, the percentage fee method can be employed. However, commission net-fees are less straightforward because salaries vary among recruited workers and as a result it may be necessary to average earnings for different categories of occupation. The percentage fee applied generally remains stable and price changes usually result from movements in average earnings for the occupation group used as a reference. Therefore, earnings (or average earnings) must be measured in

addition to percentage fees. It is important that the average earnings for occupation groups, used in the calculation of service transaction prices, match the types of positions placed by the employment placement agencies.

Finally, the pricing method based on working time could also be employed. Under this method, the hourly rate of the agency's employee (the person responsible for providing the specified service) is multiplied by the number of hours needed for providing the service.

12.1.7.2. Temporary employment agencies

The charge-out rate method is commonly used in the measurement of price change for temporary employment services. Hourly invoicing rates are calculated with reference to the level of qualification of the place worked, the client industry/sector, gross hourly salaries and multiplier coefficients. In all cases, the price of employment services is heavily influenced by the type of temporary worker and their rate of pay. However, it is important that each service transaction is sufficiently well specified to ensure constant quality pricing. Given that the price of employment services may be negotiated between the agency and client depending on specific parameters, these should also be taking into account. Prices are mainly influenced by the following factors:

- Underlying collective labour agreement;
- Type and salary of actual work performed;
- Level of required qualifications – the more qualified worker the higher price;
- Geographical location – *e.g.* placement in capital cities or wealthier regions may attract higher rates;
- Kind of advertised post depending on the rate of pay (if fixed) – the higher the rate of pay, the higher the price;
- Performed hours (in case of temporary employment) – the more hours performed, the lower price;
- Relationship between the agency and client (employer) – one-off contracts attract higher prices relative to longer-term agreements;
- Margin of the agency;
- Length of contract – the longer the contract, the lower the price;
- Bonus at the end of the year;
- General economic conditions.

Representative placements are selected taking account of the level of qualification required, the client sector/industry and the relationship between agency and client. An average charged hourly rate is calculated based on the number of hours invoiced. These data should be readily available from the management information systems used by larger temporary employment agencies. However, small or medium sized respondents may not compile these data for their own purposes and in such cases the hourly prices charged might be calculated by relating the total transaction price to the total quantity of the transaction, *i.e.* the number of workers or performed hours.

Alternatively a single representative average wage rate could be used to track the average rates for similar types of work, if it can reasonably be assumed that changes in this average wage rate adequately represent changes in charge-out rates.

In general, only qualifications and clients that are representative of the temporary employment company's business should be monitored. Furthermore, the compiler must ensure that these types of services can be monitored in subsequent survey periods (regular client, qualification typically required by this client).

12.1.7.3. Other human resources provision

The pricing mechanisms employed for the provision of other human resource services are similar to those used for the provision of temporary employment services. Therefore similar pricing methods can be applied. The charge-out rates and percentage fee methods can also be applied for the human resources provision services of PEOs and umbrella companies. However, when PEOs and umbrella companies provide workers on a long-term or permanent basis, the direct use of prices of repeated services or the contract pricing method could also be applied.

For monitoring prices for intra-group services it is necessary to consider how the supplying subsidiaries determine their prices, *i.e.* if they are supposed to generate revenue or not. It can be assumed that in many cases such intra-group providers of employment services are reimbursed only for the wages they pay to the supplied workers and some overhead costs. If the development of the supplied workers' wages is expected to be similar to changes in the regular workers' salaries, then the usage of national wage indices of a specific sector could be considered.

12.1.8. Quality issues

As discussed previously, the output of temporary work and other human resources services is defined as the provision of labour and not the result of the labour performed by the placed workers. Consequently, prices of working hours of temporary workers do not need to be quality adjusted. In particular, changes in the productivity of place workers do not require quality adjustments of the services produced by the employment agency.

Employing the percentage fee method for placement agencies can however be problematic where reliable and frequent time series of average earnings by detailed occupational group are not available. The use of indices of wage rates at more aggregate levels may result in a reduced quality index. This can be a particular problem for executive recruitment or "head hunting" services.

12.1.9. Weighting and aggregation

The SPPI for the employment services industry represents the average price development of all employment activities covered by the survey. To reflect the relative importance of each service product in the price index, each individual price observation should, where possible, be weighted. This may require a dedicated survey of turnover by service product, which is often conducted as part of the respondent initialisation process.

During the development of the SPPI survey in Germany, respondents were required to provide detail on the types of services produced and the share of turnover attributed to them. These data allowed for the calculation of respective weights for the services of employment placement services and provision of personnel services. Additionally, for

search and placement services, weights were also formed for each of the pricing mechanisms– minimum fee, percentage fee or commission charged on gross salaries.

For EU member states, the supplementary survey to the structural statistics on business services “Turnover by product type and residence of client” offers an excellent data source for revenue share of products for business enterprises in the industry. Additional data may only be needed therefore in respect of the relative importance of the various pricing mechanisms.

Germany publishes SPPIs for group 781 and the sum of groups 782 and 783. These indices are aggregated to a division level index, on the basis of their respective share of total turnover for the division. The sum of groups 782 and 783 has a relatively high weight in the overall index due to the fact that the wages of placed workers are included in the measurement of turnover.

12.1.10. Specific aspects

An increasing number of business enterprises outsource the tasks of personnel management to subsidiaries or contractors. In some cases, placed workers are not paid on hourly basis. Instead, fixed-price contracts are concluded for specific work and as a result, the employment services agency must provide the client with not only the working hours but also successful completion of the work. These service contracts help to circumvent certain employment regulations and thereby facilitate a more flexible workforce - including workers from non-EU countries. Although the supply of temporary workers to the construction sector is permitted only on a very limited basis, this restriction can be circumvented by specific service contracts. The growth in importance of these types of contracts will pose new challenges for price measurement.

12.1.11. Overview of national methods

Austria

Austria uses a combination of model pricing, direct use of prices of repeated services and charge-out rates. The survey covers activities of employment placement agencies, temporary employment agency activities and “try & hire” activities in different fields of application, *i.e.* crafts and trades, industry and transport or trade. Weighting information is provided by the trade association for all levels of aggregation.

France

In France, the contract pricing and charge-out rate methods are the main methods used to measure the evolution of prices of employment activities. About 85% of the turnover of the division is generated by the activities of temporary employment agencies. This group is highly concentrated (with eight service providers accounting for 80% of the activity), allowing for a small sample of the largest producers. On the other hand, the number of business enterprises classified under other employment activities is growing in France. These business enterprises are mainly subsidiaries of large groups or large corporations and only support the payment of employees within their parent corporation. Thus far, the only solution found for monitoring the prices of other employment activities is to monitor indicators of wage levels in the industries of the parent corporations.

Japan

Japan compiles price indices for temporary employment agency services including the recruitment of part-time workers and the provision of personnel services. The unit

value method is the most commonly employed pricing method. Under this approach an average monthly rate for specified occupation, region and type of contract is monitored. Service types are stratified into multiple categories based on government regulations. A wide range of service types such as the provision of workers engaged in bookkeeping, software development and manufacturing are covered.

United States

In the U.S., the employment agency industry is divided into three main groupings. Since many U.S. firms offer services classified in two or more of these industries, a single sample of employment placement, temporary help, and executive search firms was used to create SPPIs for each of these service lines, similar to the strategy described in section 12.1.4 (Industry vs. Product based SPPI).

The delineation between employment placement services (formerly contingency payment recruiting) and executive search services (formerly retained executive recruiting) is no longer based on method of payment as was the case in NAICS 2002. While both services provide for the placement of applicants in permanent employment positions in exchange for a commission based on salary, Executive search services only provide for the placement of senior level executive positions.

For employment placement services, the U.S. approach combines elements of model pricing and the percentage fee method. During the initial data collection period a particular placement is selected and in subsequent periods the respondent estimates the price they would charge if they were to make a similar placement with a similar client. Since prices are typically set as a percentage of the value of the first-year compensation of the placed employee, respondents must estimate both the current market compensation for the selected type of worker and the percentage commission fee they would charge. Many respondents had difficulty in providing updated estimates, particularly for the market compensation. To assist respondents with this effort, the U.S. introduced a procedure to update the value of the workers' compensation based on Bureau of Labour Statistics (BLS) employment cost data. These estimates are then presented to the respondents on the survey forms and they are asked to confirm the estimates or update them based on their knowledge of local market conditions. With this approach price variation resulting from the switching of clients is excluded.

For temporary help services, the U.S. collects unit value prices from the largest companies. For these respondents, prices are calculated by dividing the total monthly turnover received for the provision of all temporary workers within a specified job classification by the total number of these labour hours billed. With this methodology, it is essential that the job classification code is defined as narrowly as possible to avoid changes in client or worker mix being shown as price change.

12.2. Security and investigation activities (Anne-Sophie Fraisse, OECD)

12.2.1. Industry description (80 ISIC)

This division includes security-related services such as: investigation and detective services; guard and patrol services; picking up and delivering money, receipts, or other valuable items with personnel and equipment to protect such properties while in transit; operation of electronic security alarm systems, such as burglar and fire alarms, where the activity focuses on remote monitoring these systems, but often involves also sale, installation and repair services. The security and investigation industry has grown

strongly over the past decade or so, and continues to do so, giving rise to a wide and varied range of economic activities in both the government domain and the business sector.

In recent years the industry appears to be increasingly overlapping with public law enforcement and national security as governments has become significant customers. Increasingly, specialised firms are providing governments with security services including activities traditionally produced by police forces. The industry will continue to grow as this trend continues although in many countries it will necessitate legislative changes, as well increasing regulation of the industry (OECD, 2004).

Subcontracting of security service activities by business enterprises has also contributed to the growth of the industry.

The main consumers of security and investigation services are other business enterprises and government and the turnover of the whole industry comes almost entirely from the services bought by them. Households account for only a minor part of the industry's total output although the increasing range of services offered is contributing to growing demand.

Despite the strong growth of the industry, its market structure has remained relatively stable. At a national level the industry usually comprises of a few large and medium-size firms and a host of small operators. The larger firms generate a considerable proportion of the total turnover of the industry. They are often major international business enterprises and market leaders in the countries in which they operate. The smaller firms are usually minor local operators. Larger firms offer a more diverse range of services while the smaller firms tend to provide more traditional investigation and security services. Significant changes in market share are relatively rare and often a consequence of business take-overs. Consequently the five-year cycle for reviewing weights employed by many compilers can generally be regarded as satisfactory.

The main services provided by the industry involve the guarding of people and property, which generate the vast majority of its turnover. The total share of industry turnover generated by the provision of investigation services is very small, although smaller firms may specialise in providing these activities. This section focuses on the measurement of price development for security activities as it accounts for the bulk of industry output.

12.2.2. Classification aspects

12.2.2.1. Industry classification

In recent years, advances in technology have allowed the services produced by the industry to develop significantly. Larger firms in particular have exploited technological advances effectively, for example through the provision of emergency call centre services covering extensive geographical areas. Smaller local operators are unable to provide services of similar scale because of the substantial fixed costs involved. Partly for this reason many smaller firms have concentrated on providing specialised services over much smaller geographic areas. The development of the industry has not, thus far, resulted in the provision of service activities classified to other industries.

Business enterprises engaged in investigation and security service activities can be adequately and exhaustively classified according to ISIC. It is the most frequently used classification, which many countries have adapted and improved to suit the special

national characteristics of different industries. These national adaptations must always be thoroughly taken into account in the compiling and reviewing of a price index for the industry.

Security and investigation activities, classified under section N - Administrative and support service activities, division 80 of the ISIC classification system include security-related services such as:

- Surveillance, guarding and other security services;
- Transport of valuables;
- Body guarding;
- Surveillance and street patrolling of residential buildings, offices, factories, construction sites, hotels, theatres, amusement venues, sport stadiums, shopping centres, etc.;
- Public transport safety procedures, such as security checking of luggage and passengers at airports and security guarding of trains and underground trains;
- Store detective services;
- Operation of service telephone lines or the like for remote monitoring of mechanical equipment;
- Screening of alarms (to identify false alarms) and calling of police, fire or ambulance services as necessary;
- Consultancy on household and public sector security systems, including background security vetting of individuals;
- Destruction of data from any data carrier;
- Private investigation activity.

Providers of investigation and security services usually specialise in specific service activities, supplying almost exclusively only those services that relate to their own industry. This makes the classification of service providers relatively straightforward. Division 80 of ISIC is split into three groups:

1. 8010 - Private security activities (*e.g.* security guard, bodyguard, armoured car services);
2. 8020 - Security systems service activities (*e.g.* monitoring of burglar and fire alarms);
3. 8030 - Investigation activities (*e.g.* detective, private investigators).

The other international industry classification systems by activity (NACE, NAICS, and ANZSIC) are broadly comparable in the area of security activities with the ISIC classification. As shown in the annex, NACE provides the same structure of the sector as ISIC, with the industry split into three classes. It should be noted that NAICS structures the sector into two main classes: 56161 - Investigation, guard, and armoured car services, and 56162 - Security systems services, but makes finer delineations within these industries and identifies particularly two separate industries for security systems services: 561621 - Security systems services (except Locksmiths), and 561622 - Locksmiths. The

ANZSIC classification doesn't distinguish between different types of service and investigation activities and provides a lower level of detail than ISIC.

12.2.2.2. Product classification

The corresponding products for security and investigation activities (division 80 of ISIC) are classified under group 852 - Investigation and security services, of the CPC classification. As shown in annex B, the CPA classification is similar to the CPC. However, differences occur for security consulting services: the CPC classification includes security consulting services whereas the CPA classification includes these under 74.9 - Other professional, scientific and technical services *n.e.c.*

The NAPCS classification generally follows a similar breakdown for the group 1, investigation and security services. In addition a second group for investigation and security related products is identified (see group 2 Related products below). The NAPCS product list for NAICS 5616 is as follows:

- 1 - Investigation and security services:
 - 1.1 - Investigation services;
 - 1.2 - Security guard and patrol services;
 - 1.3 - Bodyguard services;
 - 1.4 - Armored car services;
 - 1.5 - Building security system monitoring services;
 - 1.6 - Building security system and lock installation and repair services;
 - 1.7 - Other security system and lock services.
- 2 - Related products:
 - 2.1 - Security consulting services;
 - 2.2 - Security training services;
 - 2.3 - Reselling services for merchandise, retail;
 - 2.4 - Rental of locks, security systems, safes, and other security equipment;
 - 2.5 - Architectural armoring services;
 - 2.6 - Vehicle armoring services;
 - 2.7 - Cash handling and management services for business;
 - 2.9 - Other related products.

Each of the international product classifications is very detailed.¹ When compiling statistical data according to such detailed structures, the survey sample size is large enough to generate reliable results. It is unlikely that SPPIs for each detailed product will be published. Instead compilers may publish aggregated indices.

12.2.3. Scope of the survey

Naturally, the ideal starting point is to capture price changes in the security and investigation division as a whole, namely ISIC groups 8010, 8020 and 8030. The decision

on full or partial coverage of the division should be made with reference to the market structure in the country. Indeed, most countries focus on the first ISIC group 801 - Private security services, which usually generate the vast majority of the turnover for the division. It is noted that the availability of price data for money transport services maybe an issue. Furthermore, only a few countries, such as the U.K. and Sweden, include investigation and security system services.

Business and government are the main end users of security and investigation services. As households account for only a minor part of the industry's total demand the survey could be produced on a BtoB basis.

12.2.4. Industry vs. Product SPPI based SPPI

Conceptually, product based SPPI for security and investigation services is the preferred approach, ensuring better coverage of secondary activities where relevant. Security and investigation companies sometimes offer services classified to other industries such as cleaning services. Where secondary activities are significant a product-based SPPI can be recommended.

The detailed product classifications for the industry facilitate the compilation of a product based SPPI. However, it is advisable to collect the price information via survey used to collect turnover data for the security and investigation services.

12.2.5. Sample design

In many countries the investigation and security services industry is comprised of a large number of smaller firms and a much smaller number of medium and large sized firms. The collection of price data from smaller firms is often minimised, for reason of response burden, so cut-off sampling can be used to reduce the size of the sampling frame. For example a cut-off threshold of one per cent could be applied, that is all the firms with turnover accounting for less than one per cent of the total turnover of the industry are excluded from the frame. However, it should be noted this will mean that the sample is not representative of the entire industry. However, in practice this may not give rise to significant unrepresentativeness. Nevertheless, smaller firms that are close to the threshold and growing in size could be included in the sample.

Either stratified sampling according to company size or PPS sampling are typically employed for this industry. These methods allow for selection of different sized firms. The size of the sample is, in practice, determined according to statistical methods and/or available resources.

Non-probability and probability sampling methods can often be successfully combined. For example, if an industry is dominated by a small number of firms, these can be formed into a single stratum from which all units are selected. The remaining firms form the other stratum to which either PPS or random sampling is applied. If necessary, a sampling design with more than one dimension can be used. If, for example, regional differences in price development are observed, stratification according to region may be considered.

Sampling can be conducted on several levels. For example, a sample may have been drawn first from enterprises, then from representative services and finally from contracts.

12.2.6. Collection of information and specification of the service

In order to ensure the provision of accurate, representative and complete data it is important that responding firms assign survey contact duties to appropriately qualified staff. The experts representing the industry must be from upper management of companies, commanding a broad overview of the services concerned and of the industry as a whole. This will ensure high quality and representativeness of the index for the industry.

In order to ensure constant quality pricing, the following information should be collected about the representative service transactions selected for pricing:

- Type of service activity;
- Customer type;
- The time and the location of the service is provided;
- Details of staff: skills, experience and equipment, transportation (e.g. guard type and professional level, age, experience, training, skills, equipment (armed/unarmed));
- Details of equipment;
- Special conditions of contracts;
- Possible quality changes.

In practice however, respondents should not be subjected to excessive burden as this can endanger the quality of the reported data. It may not be possible therefore in all cases to capture in full the ideal set of data on an on-going basis. It may be necessary to prioritise collection of certain data over others, perhaps on a case-by-case basis.

12.2.7. Main pricing methods

The choice of pricing method must take into account the pricing mechanisms employed in the industry. Long-term contracts for provision of very specific service activities tailored to customer needs are typical in the investigation and security service industry. These negotiated contracts are especially prevalent among larger firms.

12.2.7.1. Contract pricing

Contract pricing is the most commonly employed pricing method for this industry. Representative contracts are selected in cooperation with respondents. Well selected contracts give an accurate picture of real transaction price movements. Compilers must however, ensure that the selection of contracts adequately represent price development over time.² Furthermore, compilers may have to quality adjust renewed contracts when the specific services provided for under the contract have changed.

A drawback of the contract pricing method is that it requires a considerable initial effort from the respondent to ensure that representative contracts are selected in a statistically correct and efficient manner. In addition, all of the price determining characters must be specified in the sample contracts. On the other hand, once the contracts have been selected the contract pricing method does not involve a significant burden for the respondent or compiler.

12.2.7.2. Direct use of prices of repeated services

The direct use of prices of repeated services using list prices may also be employed. List prices, if available, are often the quickest and least labour-intensive way to obtain prices for service activities. In practice however, the list prices published by service producers may not represent the actual real prices they receive. Large customers may be able to negotiate lower prices. Discounts may also be offered in order to win new business. However, smaller customers may expect to pay close to list prices.

12.2.7.3. Other pricing methods

As shown in table 12.2.1. below, model pricing and time based methods can also be employed for certain security and investigation activities. In the case of time-based methods, it is necessary to divide the staff into different categories according to professional level, skills, experience, age, training and equipment (armed/unarmed).

Table 12.2.1. Example of pricing methods in Security and investigation activities

Pricing method	Example	Sub Group
Contract pricing	Cash delivery of all subsidiaries of the client; 538 stops per month 1 stop is calculated at 5 minutes, 2 employees	Armoured car
Contract pricing	Uniformed guards, mobile site costumer x 2 visit per night, 7 days a week, price per week	Security guard
Model pricing	Security of building A Object: 2 exits, 20 people working Activities: opening & closing rounds Time: 7:00-19:00 total price:	Security of building
Time based methods	Average price per hour for bodyguard	Guard security
Prices of repeated services	Investigation for private customer for one tracking	Investigation

12.2.8. Quality issues

In the investigation and security service industry, changes in quality mainly arise from variation in the composition of the agreed services. Constant quality service transactions are required for on-going pricing and changes to the quality of service transactions should be quality adjusted.

Ideally, when a contract expires or changes it should be substituted for by a new contract for identical service activities. In this case care should be taken to avoid a possible 'sales bias' in the replacement contract.³ Substitute contracts for identical services can often be found for standard contracts. However, it is generally the case that very large contracts contain such detailed specifications that finding substitutes for them may be difficult or even impossible.

It may also be possible to quantify a change in the quality of a service. If a contract is revised, it is sometimes possible to quantify and adjust for the change in quality of the service provided. If the revised contract is for the same service activities but a quantifiable factor has been changed (such as size of premises, number of hours or number of guards), a quantity conversion can be performed. In this case, the revised contract can be used, but only after an adjustment has been made for the change in the quantifiable factor. Another option is to use differences in production costs, (particularly

labour costs given the nature of the industry) for quality adjustment. In practice, however, quality changes can be difficult to quantify.

12.2.9. Weighting and aggregation

Ideally, product level turnover data collected by surveys should be used in the aggregation of the survey. Most compilers use structural business statistics turnover data (turnover data by products from annual surveys) while other sources of data include turnover data from business registers, dedicated SPPI turnover surveys, administrative data (such as taxation records) or expert/industry representative information. Where alternative sources of information are used for the aggregation of the index it is recommended that these are supplemented, as necessary, with additional information collected from respondents.

Many countries use a five year cycle for updating the weights because of the relatively stable structure of the market.

12.2.10. Specific aspects

The industry tends to be highly concentrated, that is, a few large firms account for a considerable proportion of the total turnover of the industry. Smaller firms are numerous, but individually they have very minor shares of the total turnover of the industry. Major contracts are usually awarded among the largest firms, because they can offer a broad range of services. Long-term contracts are also characteristic of this industry. The duration of contracts is often relatively long, because the quality of the service activities remain stable for and the demand for the services is continuous.

Labour is the largest input into investigation and security service activities and therefore labour costs are the main determinant of price development. Wages and salaries tend to be rigid and, often change only annually. For this reason for services provided under contract often change annually - as a result of pay reviews. In order to ensure that the index is representative of current market conditions it is important to achieve a balance between older and new contracts.

12.2.11. Overview of national methods

Czech Republic

The Czech Republic collects contract prices from approximately 30 respondents. The SPPI for the industry is published monthly. For the moment price data are collected for only one service, which therefore represents the whole industry. When changes to specific service transactions are reported, respondents are asked to estimate the proportion of the change in the service price resulting from the change in quality and the proportion that represents genuine price change.

Finland

In Finland, data on real contract prices are collected from the largest companies in the industry who collectively account for the majority of the turnover of the industry. These companies primarily offer only guarding services. Prices are monitored quarterly and the index is calculated as a chained Laspeyres type index.

Israel

In Israel, a time-based method (the hourly rate) is most commonly employed. The specific components of services, including the customer and customer field of activity, location, guards' professional level and type of equipment are kept fixed. The index is compiled quarterly using a Laspeyres type formulation.

Japan

Japan compiles an SPPI for the industry using contract prices. The collected service prices are inclusive of an excise duty. The index calculated using a Laspeyres formulation and published monthly. Quality changes are dealt with on a case-by-case basis using the method most appropriate to the particular situation.

United Kingdom

The U.K. SPPI for security services is compiled using prices collected from four broad security categories: manned security; CCTV; secure transport; and other. Manned security is the largest component of the index with a weight of around 70%. This in turn is split between: static uniform, mobile uniform, aviation security; and operation/response. The U.K. first published an SPPI for security services in 2000. The main methods of price collection are contract prices and discounted list prices.

United States

In the U.S., the SPPI is compiled with reference to charge out rates. Respondents determine the charge-out rates for specific, well specified contracts. Each contract specifies characteristics such as the level of skill of personnel, benefits, equipment and transportation needs. The charge-out rates are hourly rates. The index is compiled on a monthly basis

Portugal, France, New Zealand, Mexico and Australia also calculate SPPIs for the investigation and security service industry. The contract price method is employed in France, New Zealand and Australia, whereas Mexico uses mark-up pricing.

12.3. Cleaning activities (Marcel Spanjaard, Statistics Netherlands)

12.3.1. Industry description (812 ISIC)

This industry group includes the activities of general interior cleaning of all types of buildings, exterior cleaning of buildings, specialised cleaning activities for buildings or other specialised cleaning activities, cleaning of industrial machinery, cleaning of the inside of road and sea tankers, disinfecting and extermination activities for buildings and industrial machinery, bottle cleaning, street sweeping, snow and ice removal.

The relative size of the industry group, and its structure, are largely determined by the level of outsourcing of cleaning activities. In countries where outsourcing of cleaning is commonplace, the industry is relatively significant. Where outsourcing is less important, cleaning personnel are often employed directly by property owners and the cleaning industry is therefore smaller.

The type of labour used also differs between countries: in some countries workers are directly employed by cleaning firms, while in other countries a larger share of workers is hired from temporary employment agencies.

The industry has become increasingly professionalised and organised. There is a higher degree of comparability between the service products of the industry relative to some other business services. Increasing professionalism within the industry has led to the introduction of standards, norms and professional codes, including advanced quality assessment and control systems.

Comparability of service products and competition in the market has resulted in increases in efficiency and technical developments have also impacted upon the industry. Cleaning brokers can help identify requirements and select service providers, particularly for long term contracts. Long-term contract with occasional price escalation (renegotiation) is the main pricing mechanism employed in the industry.

The largest input is labour costs. Other, less significant, inputs include materials, work clothes and equipment. The price determining factors are the objects to be cleaned (e.g. entire buildings, floors, and windows), the level of cleaning required, type of client, the timing of payment up front compared to delivery of service, and the length of the contract. A large share of services production is generated by the cleaning of buildings, and in particular office buildings.

12.3.2. Classification aspects

12.3.2.1. Industry classification

Cleaning activities are classified under ISIC division 81 - Services to buildings and landscape activities. Other industry groups in this division are 811 - Combined facilities support activities, and 813 - Landscape care and maintenance service activities.

The cleaning activities group is split into two classes:

- 8121 - General cleaning of buildings; and
- 8129 - Other building and industrial cleaning activities.

The NACE classification deviates slightly from ISIC, since there is an extra class, 8122 - Other building and industrial cleaning activities. This leaves 8129 as Other cleaning activities.

The ANZSIC and NAICS classifications both have an extra class in the form of pest control services, while exterminating services are classified under 8129 in both ISIC and NACE.

12.3.2.2. Product classification

The product classifications are very detailed and could be used to identify homogenous groups of service activities pricing.

The CPC classification recognises four classes under group 853 - Cleaning services:

- 8531 - Disinfecting and exterminating services;
- 8532 - Window cleaning services;
- 8533 - General cleaning services;
- 8534 - Specialised cleaning services.

The CPA classification has a different structure; Cleaning services are classified under group 812 and further broken down into:

- 8121 - General cleaning of buildings;
- 8122 - Other building and industrial cleaning services;
- 8129 - Other cleaning services.

Each of these classes in turn is further broken down into more detailed categories and subcategories.

Furthermore, the CPA classification also includes group 811 - Combined facilities services. The services in this group are bundled, such as general interior cleaning, maintenance, trash disposal, guarding and security.

The NAPCS classification provides a very detailed classification. Cleaning services products are mainly covered in industry group 56172 - Cleaning services, which is further broken down into:

- 56172.1 - Residential interior cleaning services;
- 56172.2 - General-purpose and comprehensive commercial cleaning services (with further splits);
- 56172.3 - Cleaning services for window exteriors;
- 56172.4 - Cleaning services for building exteriors;
- 56172.5 - Damage restoration and cleaning services;
- 56172.6 - Hard-surface floor care services;
- 56172.7 - Cleaning services for carpets, rugs, and upholstery (with further splits);
- 56172.9 - Other specialized cleaning services (with further splits).

Furthermore, cleaning services are also found in 56179.12 - Cleaning services for commercial and industrial machinery and equipment, 56179.14 - Cleaning services for parking lots and driveways, and 56179.15 - Cleaning services for aircraft, railcar, and ship interiors. Pest control services are classified under 56171.

12.3.3. Scope of the survey

Cleaning companies typically categorise their customers into three groups: private households, private enterprises and public institutions. Cleaning services for private enterprises and public institutions will account for the majority of total output. Cleaning services for private households are also covered in the CPI and can be quite difficult to measure. Therefore, SPPI measurements usually focus on service activities provided to enterprises. The CPI can provide source data for service activities provided to households where measurement is required.

Ideally, the SPPI for cleaning services should measure the prices of cleaning activities only. However, these services may be bundled with services such as security and therefore correctly classified as group 811 - Combined facility support services. Note however, that groups 811 and 812 will not form a homogenous group in respect of price measurement, and therefore need be treated separately. It is possible that cleaning service activities will in the future be increasingly bundled with other services and therefore classified under group 811. Hence, a price index for group 811 may be a mixture of mostly cleaning and security services activities.

12.3.4. Industry vs. Product SPPI based SPPI

The SPPI for cleaning services should ideally be product based. Many business enterprises classified under cleaning activities will also produce combined facilities support activities and *vice versa*, and a product based SPPIs will capture these secondary production activities. A further advantage of a product based SPPI is the possibility it offers for improved sampling. When establishments can be selected based on all of their activities (rather than on their main activity only), the resultant lower level indices are more homogenous and detailed - and the resulting SPPI will be more robust. A more detailed SPPI, with multiple lower level indices will of course require a sufficiently large sample.

An industry based SPPI will not cover relevant cleaning service activities produced by business enterprises classified under combined facilities support activities.

12.3.5. Sample design

On the one hand, a relatively small sample size can suffice when the market for cleaning activities is both transparent and competitive. On the other hand, different submarkets exist with potentially different price development trends and in some countries the industry is unconcentrated. An explicit choice may have to be made whether to include subcontracting, if it is a large share of production. The specialisation of firms may make it necessary to sample by submarket to ensure the inclusion of respondents offering different types of service activities. Depending on the structure of the industry within a country, PPS sampling or stratified sampling (ideally with turnover as the measure of size) variable can be recommended.

The SPPI for cleaning activities in the Netherlands is product based. The business register, which is supplemented with product level turnover detail collected for structural business statistics, provides the sample frame. The sampling frame of the SPPI is the sample that the turnover statistics use. Units are selected by PPS sampling based on turnover at product level. Respondents may be required to provide prices for more than one service product if they generate sufficient turnover from a number of service products.

The size of the sample for each product activity is determined by:

- The total number of units to be included in the sample for the industry (bearing in mind response burden);
- The weight of the service product type within the industry;
- The variability of prices reported for the industry (where larger variability in prices is observed within a sampling stratum, the size of that sample may be increased).

The Netherlands samples 100 units for the SPPI for cleaning activities. On average each respondents provides prices for four models (or contracts).

12.3.6. Collection of information and specification of the service

The timing of price collection depends on the pricing method used but typically takes place at the end or the midpoint of the measurement period. In case of model pricing, the price of a service model could be asked at the midpoint of the reporting period allowing for early compilation of indices. The choice of pricing method has a significant bearing on the size of respondent burden. Model pricing for example, involves significantly more

time for survey compilation and processing while time based pricing methods takes less time. It is vital that specifications are sufficiently detailed to ensure constant quality pricing over different survey periods. Contract pricing involves a significantly reduced respondent burden, although contracts need to be replaced periodically.

The model pricing method is employed in the Netherlands. An example of a model is presented in box 12.3.1. The example demonstrates the requirement for a very detailed specification of the service transaction.

Box 12.3.1. Model for CPA 8121 - General cleaning of buildings

- Model 1 (office building):
 - Total cleaning area: 4568 m²; from which: 3198 m² offices, 457 m² committee rooms, 457 m² toilets, 228 m², parking, 228 m² canteen;
 - Frequency: parking: 156 days/year, committee rooms: 208 days/year, offices, canteen and toilets: 260 days/year;
 - Amount of employees in building: 121;
 - Year of construction: 2005, Floor type: diverse;
 - Cleaning between: 09.00 hours and 17.00 hours;
 - 15 percent of cleaning personnel are youths.
 - Price for an existing customer

12.3.7. Main pricing methods

Cleaning activities are usually unique. No building, floor or room is exactly the same, and neither are the individual needs of the various customers. The price of a cleaning service depends heavily on cost of labour, except perhaps where large cleaning machines are employed.

12.3.7.1. Contract pricing

Prices for cleaning service activities are typically set, by contract, for a fixed period of time (often a year). The contract pricing method can be employed in such cases. It is important to select contracts that are representative of the business of the respondent.

12.3.7.2. Model pricing

The model pricing method is appropriately employed when service outputs are predominately unique. Statistics Netherlands employs this method in the compilation of the SPPI for cleaning activities. It is important to note that model prices are virtual prices – the model should resemble, or be based on, existing contracts but the price does not have to be paid (as in the case of transaction prices). It is also important to ensure that the model is representative of service activities produced by the respondent in the specified period. A model should reflect an activity for which a contract would normally be signed. Furthermore, all the price determining parameters should be specified in the model.

12.3.8. Time-based methods

Time-based methods could, at least in theory, also be employed for cleaning activities since prices may be heavily influenced by changes in wage rates. In fact, the wage rate itself (for cleaning services) could be used to approximate price change in this industry in the absence of an SPPI for the industry. The disadvantage of the time-based method is that “quality change” and “productivity change” are not accounted for. Quality and productivity changes are not likely to significantly on this industry as it is largely “labour based”. However, there are some mechanised cleaning service activities and these may display different price development to labour-based cleaning activities. Therefore the time-based method cannot be recommended for all cleaning service activities.

12.3.9. Quality issues

Quality change and productivity change are not significant issues in the compilation of SPPIs for cleaning activities, especially when contract pricing or model pricing methods are employed. However, productivity change must be considered for cleaning activities that become mechanised or when machinery becomes more efficient.

The quality of cleaning activities delivered on the basis of a contract is assumed to be fixed. However, when contracts are revised or replaced, or new contracts are secured quality adjustment will be required. Whenever a model contract is becomes outdated and is therefore no longer representative a replacement model must be introduced. Techniques such as the overlap method or comparable replacement method can be employed in these cases.

When using a time-based method (such as hourly charge-out rates or realised hourly rates), appropriate treatment of quality change is important. Adjustment may be required for example, for the differing levels of experience of workers and the changes in the types of cleaning activity.

Respondents may have difficulty in pricing out-dated services and so it is important to contact them to identify replacement service transactions as necessary. Respondents should also be contacted to confirm and provide explanations for reported large price changes.

12.3.10. Weighting and aggregation

Turnover data is commonly used in the aggregation of SPPIs. Ideally these data should be used at the service transaction level and for all additional levels of aggregation. Typically turnover data is not available at product level but can be collected as part of the respondent initialisation process

Statistics Netherlands does not employ weighting at the service transaction level and price changes in each service activity group for individual respondents are averaged by the use of a geometric mean. Turnover data, usually provided by a structural business statistics survey, is used to weight at the business enterprise and subsequent levels. Lowest level weights are updated each year while higher level weights are updated every five years. Cleaning services is one of many service industries that are further aggregated to a total SPPI covering a broad range of service industries.

12.3.11. *Specific aspects*

Exports are not very relevant for cleaning services. Potentially, large international enterprises are represented by cleaning ‘outlets’ at a national level.

The price development of cleaning service activities are more easily measured than those for more complex service activities produced by professionals such as engineers and lawyers. Similarly, it is easier for clients to compare tenders and this can lead to increased competition. For example, a client can exactly compare tenders for cleaned single well defined service product. It is much harder to make a full comparison between the services provided by different lawyers. There is a higher pressure to increase productivity in less complex industries; a cleaning firm will try to deliver a defined service in as few hours’ work as possible, whereas professionals may simply try to sell as many billable hours as possible.

As previously mentioned, cleaning activities are heavily reliant on labour and therefore changes to wage rates have a significant impact on price development in the industry. In the Netherlands, employees in the cleaning industry are subject to a collective employment agreement. This agreement affixes annual wage increases and therefore has a direct impact on the price index.

12.3.12. *Overview of national methods*

Austria

In Austria, data on NACE 81.2 - Cleaning activities, are collected from business enterprises operating in all three subclasses of this group. Prices are collected for general cleaning, chimney sweeping and specialised cleaning services. Model pricing and the direct use of prices of repeated services methods are employed. Survey questionnaires were designed in cooperation with the relevant industry representative associations. In the case of specialised cleaning services customised survey questionnaires were developed in cooperation with respondents who provided information on the pricing mechanisms they employ.

France

The French SPPI for cleaning activities is based on prices of representative contracts. The panel of 130 respondent firms was selected according to a stratified sample (with firms stratified according to turnover). A total of 917 prices are collected in each survey period. Prior research suggested that it can be difficult for respondents to provide ongoing prices for a representative model contract; they prefer to provide prices for an existing contract.

The timing of billing compared to delivery is a price determining factor; prices can change as a consequence of a change in the timing of payment. Service producers can offer discounts of up to 20% to acquire new contracts. Once a contract has been secured, the price for a specific service product then rises stepwise towards the normal market price. This business strategy can make SPPI compilation difficult.

Contracts are split into categories based on client type and object type according to:

- Total cleaning, 8120 ISIC (sum of 8121, 8122, 8129):

Breakdown by type of client:

- Cleaning in public sector (8120);

- Cleaning in private sector (8120).
- Detailed disseminated indices:
 - Breakdown by type of object
 - Offices (8121);
 - i. Public (8121);
 - ii. Private (8121);
 - Manufacturing:
 - i. Manufacturing equipment (8121);
 - ii. Manufacturing, standard (8121);
 - iii. Manufacturing, sensitive areas (8122);
 - Commercial property (8121);
 - Public space (8121);
 - Communal areas in dwellings (8121);
 - Specialised cleaning (health equipment, incinerators, chimneys) (8122);
 - Industrial disinfection, rat control, insect control (8122).

The various types of cleaning contracts are assigned different weights. Respondent level weights are based on turnover figures measured in a separate survey.

INSEE collects transaction prices of long running contracts. The contracts are distinguished according to the above specified objects. Respondents can distinguish between general price change and price changes result from changes to the quality/conditions of service transactions. INSEE usually contacts respondents by phone to verify prices changes of more than 10% in a quarter. Large price changes often result from changes to the terms of the contract (such as a change in the size of the area to be cleaned). Prices are often lower during the summer time because of vacancies.

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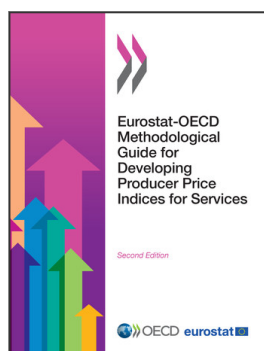
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Notes

1. The NAPCS provides more detailed products separating out types of investigation, security guard, armored car, monitoring systems and other services. A full list of products is available at:
http://www.census.gov/eos/www/napcs/finalized/web_5616_final_reformatted_edited_US052009.pdf
2. See chapter 2.
3. See chapter 2.



From:
**Eurostat-OECD Methodological Guide for
Developing Producer Price Indices for Services**
Second Edition

Access the complete publication at:
<https://doi.org/10.1787/9789264220676-en>

Please cite this chapter as:

OECD/Eurostat (2014), “Administrative and support service activities”, in *Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services: Second Edition*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264220676-16-en>

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