

Employment in Facility Services: The EU and the US

Alexander Redlein
Vienna University of Technology

Eva Stopajnik
Vienna University of Technology

There is a lack of reports on the Facility Services (FS) sector. This article tries to close that gap by analyzing and comparing employment in FS in the EU and the US. The analysis is based on European norms and the statistical classification systems in the EU (NACE) and the US (NAICS).

Results show that in the EU in 2019, more than 14 million employees work in the FS sector. In the US, there are more than 9 million. In the EU, this is almost 11% of all employees in the business economy; in the US, this is more than 9%.

Keywords: facility services, facility management, employment, US, EU

INTRODUCTION

Facility Services (FS) are services that are needed to keep buildings up and running. FS are defined as "support provided to the primary activities of an organization, delivered by an internal or external provider" in the European Norm EN 15221 (British Standards 2007). This same norm contains a fourth part (EN 15221-4) which lists all services that are regarded as FS (British Standards 2012).

There is a lack of reports about the FS sector. The reason is that FS are not listed as one whole sector in the classification systems for economic activities in the EU or the US. The classification system in Europe is called NACE - Statistical classification of economic activities in the European Community, and the North American system is called NAICS - North American Industry Classification System. Both systems are hierarchical structures that present detailed economic activities on the lowest level, which are aggregated on higher levels to form fewer combined sectors (Eurostat 2008 and United States Census Bureau 2022a). Most industry reports are based on those systems. As the FS are spread over different aggregated combined sectors instead of representing one whole sector by itself, it is often not listed in industry reports. This leads to a lack of transparency in the market, and less or no recognition of this sector. To get more insights into the FS market, the research questions are:

- How large is the size of the FS sector in terms of employment in the US?
- What is the difference between the US and the EU regarding the FS sector in terms of employment?

BACKGROUND AND LITERATURE REVIEW

As there is almost no macroeconomic reporting and analyses about the FS sector, there is also not so much literature on the FS sector precisely. However, there is literature on the service sector in general.

Fuchs' analysis showed that the service sector grew enormously in terms of employment in the US between 1929 and 1965. Fuchs deeply researched the reasons for that growth. He discovered that it was only driven to a small part by the growth of other sectors that included new businesses that needed professional services. One reason for the growth was that the necessary work for receiving a certain output decreased more in industry and agriculture than in the service sector. Furthermore, in the industry sector, the demand for skilled employees increased much faster than in the service sector. The wages in the industry also reflect this development. It is assumed that in the industry sector, there were also more technological changes than in the service sector.

Fuchs also investigated fluctuations and short-term trends and revealed that output and employment were more stable in the service sector compared to other sectors. Other sectors are directly affected by the demand of customers. Services cannot be stored; this enhances the stability of output. Besides, many employees in the service sector are either self-employed or have flexible wages as they are paid according to their output or receive commissions, tips, or profit shares. So, their working hours are fixed while their wages are not.

In the service sector, small and owner-managed businesses are prevalent, while in other sectors like the construction sector, large profit-seeking companies dominate. There are many part-time workers in the service sector as well as women and older people. The consumer is crucial in services and strongly influences productivity (Fuchs 1968).

Even during times of recession, the service sector kept growing and consequently stabilized the economy (Fuchs 1986, Urquhart 1981). Therefore, also Urquhart investigated the cyclical insensitivity of the service sector. He also concluded that the service sector is rather stable. His research showed that business services even increased by 68% in the US from 1948 to 1980. Only a tiny part of that growth was explained by outsourcing. Suppose services were rendered by external service companies instead of internally. In that case, the employees who accomplished the tasks are registered in the service sector and not in the sector the company is operating in.

Among all the different services, business services turned out to be extraordinarily stable during recessions. However, the influence of the service sector on the whole economy was not measured and therefore cannot be rated from this analysis (Urquhart 1981).

RESEARCH METHODS

To answer the research questions, the following methodology was applied: In the first step the size of the FS market in terms of employees in Europe and European countries was estimated. The list of FS from the EN 15221-4 was compared to the list of all economic activities from NACE on the lowest hierarchical level. The relevant industries for FS from NACE were then identified and grouped into "Typical Facility Services" and "General Facility Services" for business and residential buildings. Typical Facility Services include industries like cleaning, catering, janitorial and security services. General Facility Services are, for example, water supply, sewerage, and waste management, which are supporting not only the buildings but the building infrastructure in general. Altogether those two groups were combined to form "Total Facility Services". To reconfirm the validity of the selection of services, typical FS were compared to the selected sectors used in the report by Thomzik et al. (2010).

In the second step, the available data sources were analyzed to find valid and reliable data for the calculation. Suitable data was found in Structural Business Statistics from Eurostat. Eurostat is the official database of the European Commission (Eurostat 2019a). Structural Business Statistics uses the NACE structure and includes detailed enterprise statistics with data on employment,

turnover, profits, investments, and many others. The data is accessible on the lowest level of NACE. All economic sectors of the business economy are included in Structural Business Statistics except for agriculture and personal services. Business economy is a term used by the European Commission for industry, trade, construction, and services. Public administration and non-market services such as health and education are not covered for the most part, either. The data presented are collected by the national statistical offices in the EU member countries from companies, administrative sources, registers, or utilizing surveys (Eurostat 2019b, Eurostat 2019c).

To answer the research question, data on employment for the relevant economic activities and the business economy was selected, and the size of the FS sector was estimated. To facilitate comparisons, the FS sector is put concerning the business economy as a whole. Data was chosen for the years 2008 – 2019 for the EU28 (with the UK until 2018) and the EU27 (without the UK from 2017-2019). In addition, an in-depth analysis of the countries Germany, Italy, Spain, and Austria was performed. The reason is that Germany, Italy, and Spain are the largest countries in the EU measured by GDP, and more than 45% of employees in the business economy work in one of those countries. France also ranks among the largest economies in the EU, but due to too much missing data, France is not shown. Austria was selected as it is the home country of the authors.

Many different plausibility checks were performed on the data: The time series was analyzed, key figures were calculated (e.g., value added at factor cost per employee), and minimum, maximum, average, and median were calculated. Outliers and their causes were investigated carefully. Furthermore, data were checked for missing values. The decision was made to only display countries or years (except the EU) if missing subindustries of FS were less than 0.3% of the total business economy in the previous or following years to avoid incorrect dips in the time series. The data turned out to be plausible, there were only too many missing values for the financial sector, so the financial sector was excluded.

Then the study was transferred to the US. First, the available data sources were examined, and relevant and reliable data was found on the official website of the United States government by the United States Census Bureau. The United States Census Bureau displays the data on employment according to NAICS and also offers tables of concordances between NAICS and NACE (United States Census Bureau 2022a and 2022b). So, the relevant industries for FS from NACE were matched with the NAICS systems, and the relevant FS industries in the US were selected. Of course, each of the descriptions of the relevant industries was also checked conscientiously. Then the industry size was estimated in terms of employment.

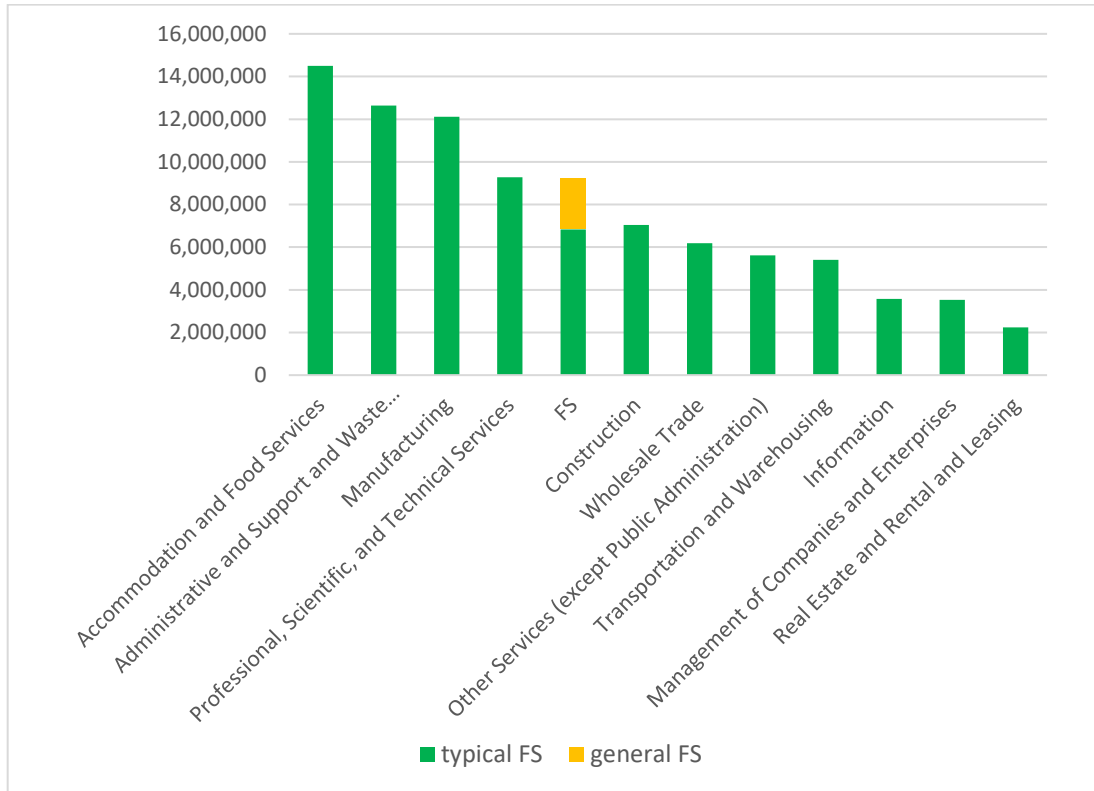
RESULTS

Employment in the US and the EU

Figure 1 shows a comparison of all sectors in the US in 2019 in terms of employment. It is visible that the most significant sectors are accommodation and food services, administrative and support and waste management and remediation services, and manufacturing. FS take fifth place. The green column of FS shows typical FS, and the yellow part is general FS, together they form the total FS.

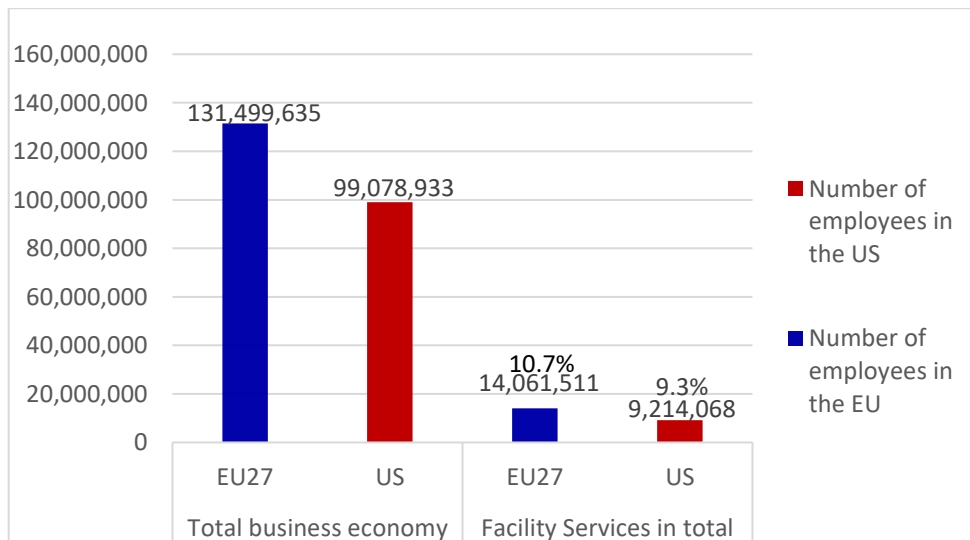
Figure 2 shows the number of employees in FS and the total non-financial business economy in the US and the EU. In the US, about 99 million employees are working in the business economy, and more than 9 million are in FS. That is about 9.3%. In the EU, there are about 131 million employees in the business economy, of which 10.7% or 14 million work in FS.

**FIGURE 1
EMPLOYMENT IN THE US IN 2019**



Source: Own calculation following Birca 2017 based on data collected from SUSB Annual Data and NAICS Concordances (United States Census Bureau 2022b and 2022c, Birca 2017)

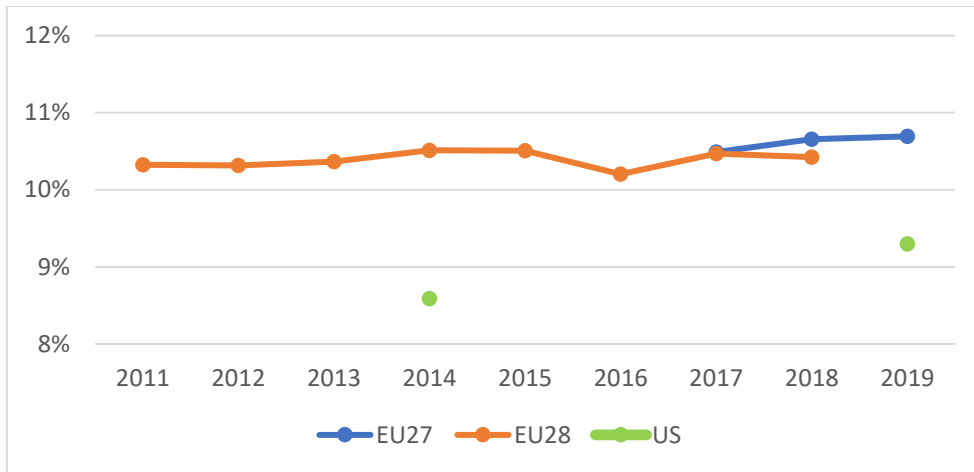
**FIGURE 2
FACILITY SERVICES IN THE EU AND THE US IN 2019**



Source: Own calculation following Birca 2017 based on data collected from SUSB Annual Data and NAICS Concordances (United States Census Bureau 2022b and 2022c, Birca 2017) and from annual detailed enterprise statistics (Eurostat 2022)

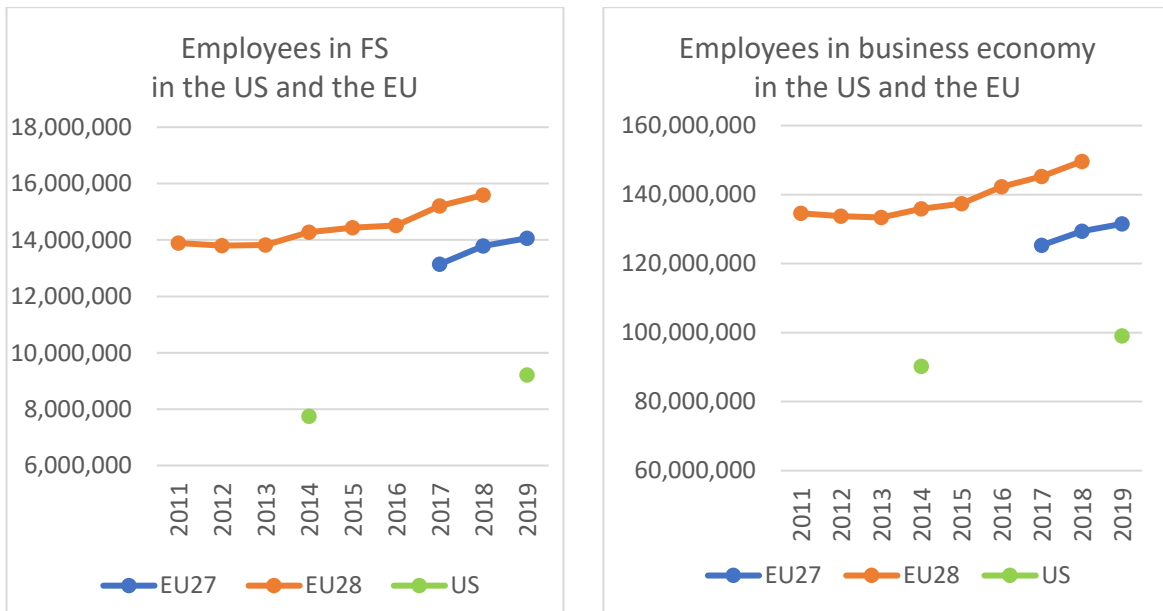
Figure 3 shows the share of employees in FS in the US and EU28 and EU27. The EU28 is the EU, including the United Kingdom, and the EU27 excludes the United Kingdom. In 2014 about 8.6% of employees in the business economy were working in FS in the US. This share increased to 9.3% in 2019. In the EU, the percentage of FS employees in the business economy is very stable and increased slightly. The dip in 2016 is due to missing values. The share of the EU27 is slightly higher in 2018 than the share of the EU28. For a deeper analysis, absolute numbers are necessary.

FIGURE 3
SHARE OF EMPLOYEES IN FACILITY SERVICES



Source: Own calculation following Birca 2017 based on data collected from SUSB Annual Data and NAICS Concordances (United States Census Bureau 2022b and 2022c, Birca 2017) and from annual detailed enterprise statistics (Eurostat 2022)

FIGURE 4
EMPLOYEES IN FACILITY SERVICES AND BUSINESS ECONOMY



Source: Own calculation following Birca 2017 based on data collected from SUSB Annual Data and NAICS Concordances (United States Census Bureau 2022b and 2022c, Birca 2017) and from annual detailed enterprise statistics (Eurostat 2022)

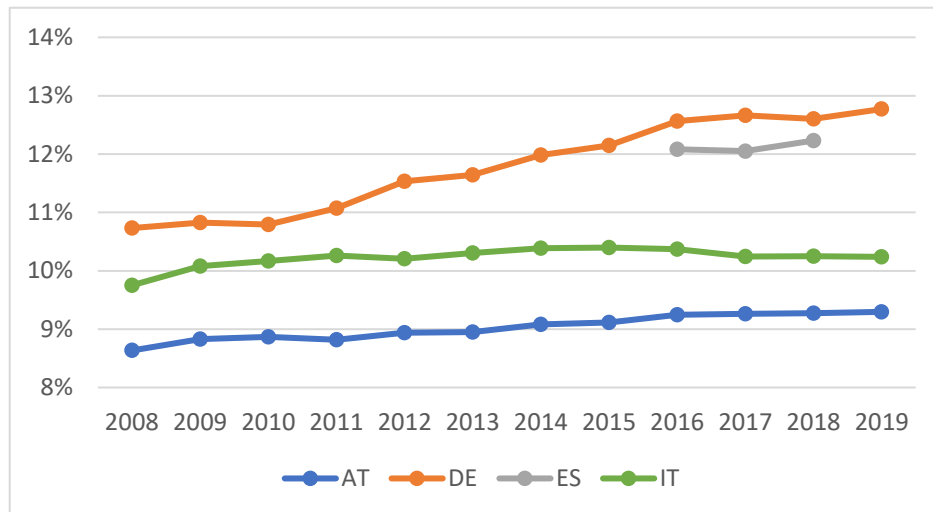
Figure 4 shows the numbers of employees in FS and the business economy in the US and the EU. It is visible that there are upwards trends in both areas. In the US employees in FS increased from 7,749,684 in 2014 to 9,214,068 in 2019. Employees in the non-financial business economy increased from 90,250,345 to 99,078,933. This means that the FS sector increased relatively more compared to the business economy. In the EU FS and business economy also increased from 2013 onwards, FS also increased proportionally more than business economy.

Employment in FS in European Countries

Figure 5 shows the employees in FS as a percentage of employees in a non-financial business economy in Austria (blue line), Germany (red line), Spain (green line), and Italy (orange line). In Austria and Germany, constant increases can be observed. In Germany, the increases are immense. In Germany and Spain, the share of employees in FS is very high with more than 12%, in Italy and Austria it is lower.

From 2008 to 2009 the graphic also shows an increase. As this was the time of the financial crisis the situation will be analyzed in detail in the following graphic showing absolute numbers.

**FIGURE 5
SHARE OF EMPLOYEES IN FACILITY SERVICES IN EUROPEAN COUNTRIES**

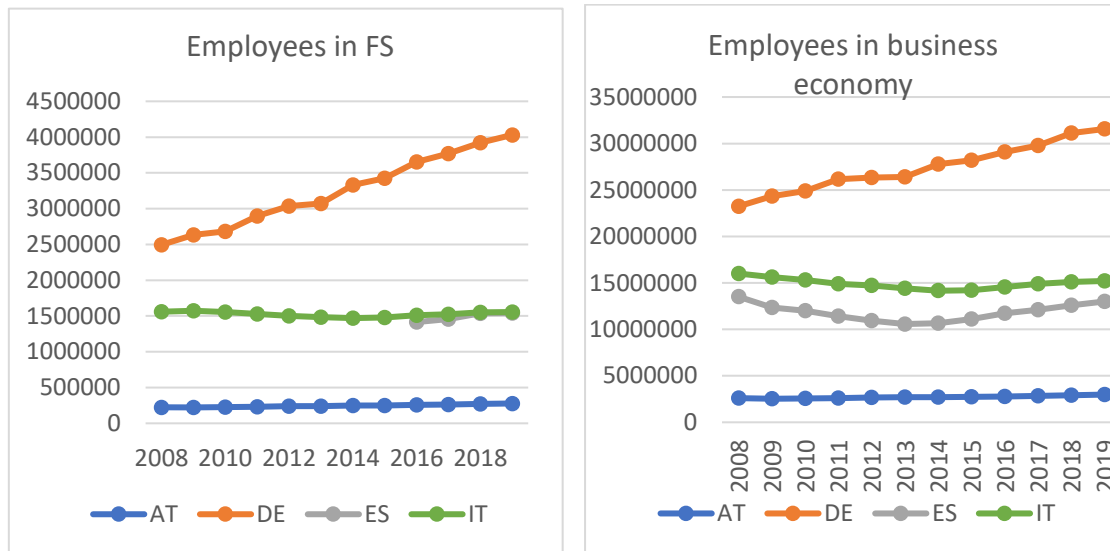


Source: Own calculation based on annual detailed enterprise statistics (Eurostat 2022)

Figure 6 shows the employees in FS and the business economy in European countries. The constant steep upwards trend in Germany is also visible in absolute numbers. In Austria numbers also increased constantly bit by bit, only the business economy declined in 2009 during the recession. In Italy FS also increased from 2008 to 2009, while the business economy decreased. In the years after the crisis, the economy in Italy and Spain declined for years. The recovery started in 2014 and 2015.

This leads to the assumption that during a crisis FS are rather stable and also stabilize the economy. Many activities like maintaining equipment have to be done, no matter if there is a crisis.

FIGURE 6
EMPLOYEES IN FACILITY SERVICES AND BUSINESS ECONOMY IN EUROPEAN COUNTRIES



Source: Own calculation based on annual detailed enterprise statistics (Eurostat 2022)

CONCLUSION

The FS sector is the fifth largest sector in the US. In the US the FS sector employs more than 9 million employees, in the EU there are more than 14 million employees in the FS sector. In the EU and the US, the share of employees in FS increased in the past years. During the recession of 2008/09 employment in FS remained quite stable. This leads to the assumption that FS are a very stable sector and stabilises the economy as a whole.

The data available is not include the years of and after the COVID pandemic. As a next step, an analysis of the impact of COVID-19 on employment in FS would be interesting. It would be interesting to analyze if the trend to stabilize the economy also can be found in these years although most of the offices were closed due to the pandemic.

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