

# **Mini-presentation on Turnover and Output for Education (ISIC 85) in Sweden**

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# 1. Descriptions and characteristics of the industry

## 1.1 Definition of the industry

In the UN classification, ISIC Rev.4, all education activities belong to section P *Education*. ISIC section P only includes one division (85), which is divided into four groups: *85.1 Pre-primary and primary education, 85.2 Secondary education, 85.3 Higher education and 85.4 Other education*. At division level ISIC corresponds to the European classification NACE, but at group level NACE has five instead of four groups. The difference lies in group 85.1 which leads to different numbering in all the following groups. In NACE only Pre-primary education is included in 85.1 and Primary education has its own group; 85.2. Table 1 shows all relevant groups and classes for Education from ISIC, NACE and SNI2007 (the Swedish national classification).

**Table 1. Industrial classification by activity for 85 Education in ISIC, NACE and SNI**

| ISIC  | ISIC Description                             | NACE Rev. 2 Group/ Class | SNI2007 5-digit level | NACE and SNI Description                                       |
|-------|--|--------------------------|-----------------------|--|
| 85.1  | Pre-primary and primary education            | 85.1                     | 85.100                | Pre-primary education  |
|       |  | 85.2                     |                       | Primary education  |
| 85.10 | Pre-primary and primary education            | 85.20                    |                       | Primary education  |
|       |  |                          | 85.201                | Compulsory comprehensive school education and pre-school class |
|       |  |                          | 85.202                | Special school primary education                               |
| 85.2  | Secondary education                          | 85.3                     |                       | Secondary education  |
| 85.21 | General secondary education                  | 85.31                    |                       | General secondary education etc.                               |
|       |  |                          | 85.311                | General secondary education                                    |
|       |  |                          | 85.312                | Municipal adult education                                      |
| 85.22 | Technical and vocational secondary education | 85.32                    |                       | Technical and vocational secondary education etc.              |
|       |  |                          | 85.321                | Technical and vocational secondary education                   |
|       |  |                          | 85.322                | Special school secondary education                             |
|       |  |                          | 85.323                | Other secondary education                                      |

| ISIC  | ISIC Description                | NACE Rev. 2 Group/ Class | SNI2007 5-digit level | NACE and SNI Description                   |
|-------|---------------------------------|--------------------------|-----------------------|--|
|       |                                 |                          | 85.324                | School activities for occupational drivers |
| 85.3  | Higher education                | 85.4                     |                       | Higher education                           |
| 85.30 | Higher education                | 85.41                    | 85.410                | Post-secondary non-tertiary education      |
|       |                                 | 85.42                    | 85.420                | Tertiary education                         |
| 85.4  | Other education                 | 85.5                     |                       | Other education                            |
| 85.41 | Sports and recreation education | 85.51                    | 85.510                | Sports and recreation education            |
| 85.42 | Cultural education              | 85.52                    |                       | Cultural education                         |
|       |                                 |                          | 85.521                | Activities of municipal culture schools    |
|       |                                 |                          | 85.522                | Other cultural education                   |
|       |                                 | 85.53                    | 85.530                | Driving school activities                  |
| 85.49 | Other education n.e.c.          | 85.59                    |                       | Other education n.e.c.                     |
|       |                                 |                          | 85.591                | Labour market training                     |
|       |                                 |                          | 85.592                | Folk high school education                 |
|       |                                 |                          | 85.593                | Activities of adult education associations |
|       |                                 |                          | 85.594                | Staff training                             |
|       |                                 |                          | 85.599                | Various other education n.e.c.             |
| 85.5  | Educational support activities  | 85.6                     |                       | Educational support activities             |
| 85.50 | Educational support activities  | 85.60                    | 85.600                | Educational support activities             |

Except for the splitting of group 85.1 into two groups in NACE, ISIC and NACE are identical on group level. The classifications have many similarities when it comes to the class level, but NACE is a bit more

detailed than ISIC. For example, NACE has separate classes for “Tertiary education” (85.42) and “Driving school activities” (85.53).

The Swedish classification (SNI) starts from NACE and further divides the classes into sub-classes at the 5-digit level. In five out of ten classes in NACE, the Swedish classification has a further breakdown. Those are *85.20 Primary education, 85.31 General secondary education, 85.32 Technical and vocational secondary education, 85.52 Cultural education and 85.59 Other education*. The primary focus of this paper will be on NACE 85 (division level).

**Table 2a. Classification of products for ISIC 85 Education in CPA 2.1 and SPIN2015**

| CPA 2.1  | SPIN2015  | CPA and SPIN description  |
|----------|-----------|---|
| 85.10.10 | 85.100.00 | Pre-primary education services  |
| 85.20.11 | 85.200.01 | On-line primary education services  |
| 85.20.12 | 85.200.02 | Other primary education services  |
| 85.31.11 | 85.310.01 | On-line general lower secondary education services                              |
| 85.31.12 | 85.310.02 | Other general lower secondary education services                                |
| 85.31.21 | 85.310.03 | On-line general upper secondary education services                              |
| 85.31.22 | 85.310.04 | Other general upper secondary education services                                |
| 85.32.11 | 85.320.01 | On-line technical and vocational lower secondary education services             |
| 85.32.12 | 85.320.02 | Other technical and vocational lower secondary education services               |
| 85.32.21 | 85.320.03 | On-line technical and vocational upper secondary education services             |
| 85.32.22 | 85.320.04 | Other technical and vocational upper secondary education services               |
| 85.41.11 | 85.410.01 | On-line post-secondary non-tertiary general education services                  |
| 85.41.12 | 85.410.02 | Other post-secondary non-tertiary general education services                    |
| 85.41.13 | 85.410.03 | On-line post-secondary non-tertiary technical and vocational education services |
| 85.41.14 | 85.410.04 | Other post-secondary non-tertiary technical and vocational education services   |
| 85.42.11 | 85.420.01 | On-line short-cycle tertiary education services                                 |
| 85.42.12 | 85.420.02 | Other short-cycle tertiary education services                                   |

| CPA 2.1  | SPIN2015  | CPA and SPIN description   |
|----------|-----------|--|
| 85.42.21 | 85.420.03 | On-line Bachelor's or equivalent level tertiary education services |
| 85.42.22 | 85.420.04 | Other Bachelor's or equivalent level tertiary education service    |
| 85.42.31 | 85.420.05 | On-line Master's or equivalent level tertiary education services   |
| 85.42.32 | 85.420.06 | Other Master's or equivalent level tertiary education services     |
| 85.42.41 | 85.420.07 | On-line Doctoral or equivalent level tertiary education services   |
| 85.42.42 | 85.420.08 | Other Doctoral or equivalent level tertiary education services     |
| 85.51.10 | 85.510.00 | Sports and recreation education services                           |
| 85.52.11 | 85.520.01 | Dancing schools and dance instructors services                     |
| 85.52.12 | 85.520.02 | Music schools and music instructors services                       |
| 85.52.13 | 85.520.03 | Fine arts schools and arts instruction services                    |
| 85.52.19 | 85.520.04 | Other cultural education services                                  |
| 85.53.11 | 85.530.01 | Car driving school services  |
| 85.53.12 | 85.530.02 | Flying and sailing school services                                 |
| 85.59.11 | 85.590.01 | Language school services   |
| 85.59.12 | 85.590.02 | IT school services   |
| 85.59.13 | 85.590.03 | Vocational education services n.e.c.                               |
| 85.59.14 | 85.590.04 | Home school support courses  |
| 85.59.19 | 85.590.05 | Education services n.e.c.  |
| 85.60.10 | 85.600.00 | Educational support services                                       |
|          |           |  |

The Swedish product classification SPIN2015 is in most parts equal with the CPA classification (CPA Ver. 2.1.). The code structure is slightly different; the first four digits are always the same in SPIN and CPA, but the fifth digit and onwards differ slightly (see table 2a). The first four digits are also identical in CPA and the Swedish classification SNI (compare table 1 and table 2a). In primary-, upper secondary- and higher education (85.20.11-85.42.42 in CPA) the further breakdown in CPA and SPIN separates on-line education from other education.

**Table 2b. Classification of products for ISIC 85 Education in CPC version 2.1**

| ISIC      | ISIC Description                             | CPC group /class level | CPC 5-digit level | CPC Description  |
|-----------|--|------------------------|-------------------|--|
| <b>85</b> | <b>Education</b>                             | <b>92</b>              |                   | <b>Education services</b>  |
| 85.1      | Pre-primary and primary education            | 92.1                   | 92.100            | Pre-primary education services   |
|           |  | 92.2                   | 92.200            | Primary education services   |
| 85.2      | Secondary education                          | 92.3                   |                   | Secondary education services   |
| 85.21     | General secondary education                  | 92.31                  | 92.310            | Lower secondary education services, general                              |
| 85.22     | Technical and vocational secondary education | 92.32                  | 92.320            | Lower secondary education services, technical and vocational             |
|           |  | 92.33                  | 92.330            | Upper secondary education services, general                              |
|           |  | 92.34                  | 92.340            | Upper secondary education services, technical and vocational             |
| 85.3      | Higher education                             | 92.4                   |                   | Post-secondary, non-tertiary education services                          |
|           |  | 92.41                  | 92.410            | Post-secondary, non-tertiary education services, general                 |
| 85.30     | Higher education                             | 92.42                  | 92.420            | Post-secondary non-tertiary education services, technical and vocational |
|           |  | 92.5                   |                   | Tertiary education services  |
|           |  | 92.51                  | 92.510            | First stage tertiary education services                                  |
|           |  | 92.52                  | 92.520            | Second stage tertiary education services                                 |
| 85.4      | Other education                              | 92.9                   |                   | Other education and training services and educational support services   |
|           |  | 92.91                  |                   | Other education and training services                                    |
| 85.42     | Cultural education                           |                        | 92.911            | Cultural education services  |

| ISIC  | ISIC Description                | CPC group /class level | CPC 5-digit level | CPC Description                              |
|-------|---------------------------------|------------------------|-------------------|--|
| 85.41 | Sports and recreation education |                        | 92.912            | Sports and recreation education services     |
| 85.49 | Other education n.e.c.          |                        | 92.919            | Other education and training services n.e.c. |
| 85.50 | Educational support activities  | 92.92                  | 92.920            | Educational support services                 |

The CPC classification is more detailed than both ISIC and NACE. The structure is quite similar to NACE but there are some differences. For example, CPC splits both Secondary and higher education into “General” and “Technical and vocational” and has an additional breakdown of Tertiary education into “First stage...” and “Second stage tertiary education services” compared to NACE. On the other hand, driving school activities are separated in NACE but not in CPC.

## 1.2 Market conditions and constraints

Education services are mainly conducted within the public sector in Sweden, but since the mid-1990s the number of market producers in the education area has increased gradually. In this paper only market producers in education activities are included.

Section P *Education* accounted for 2.6 percent of the number of enterprises and employees, 0.8 percent of net turnover and 1.6 percent of the value added in the Swedish business sector in 2020.

Table 3a and 3b show some basic information from Structural Business Statistics for the year 2020 regarding NACE 85 *Education*.

**Table 3a. Number of enterprises and employees in NACE 85 Education 2020**

| Variable                  |        |
|---------------------------|--------|
| Number of enterprises     | 30 095 |
| Number of employees (FTE) | 75 508 |

Source: Statistics Sweden, Structural Business Statistics 2020. Statistical unit Enterprise

**Table 3b. Net turnover, value added, total assets and net investments in NACE 85 Education 2020**

| Variable        | SEK million | MEUR  |
|-----------------|-------------|-------|
| Net turnover    | 68 985      | 6 578 |
| Value added     | 42 647      | 4 067 |
| Total assets    | 61 352      | 5 850 |
| Net investments | 1 116       | 106   |

Source: Statistics Sweden, Structural Business Statistics 2020. Statistical unit Enterprise

NACE 85 *Education* consisted of approximately 30 100 enterprises with 75 500 employees in 2020. The net turnover for these enterprises amounted to approximately 68 990 SEK million or 6 580 MEUR and value added amounted to 42 650 SEK million (4 070 MEUR). Education enterprises had total assets of 61 350 SEK million (5 850 MEUR) and invested slightly over 1 100 SEK million (100 MEUR) in tangible assets the same year.

Table 4 shows number of enterprises, employees and net turnover divided by size classes for NACE 85 in 2020.

**Table 4. Number of enterprises, employees, and net turnover by size class in NACE 85 Education 2020**

| Size class (number of employees) | Number of enterprises | Number of Employees (FTE) | Net turnover, SEK million |
|----------------------------------|-----------------------|---------------------------|---------------------------|
| 0-9                              | 28 813                | 15 534                    | 16 805                    |
| 10-19                            | 618                   | 8 017                     | 5 783                     |
| 20-49                            | 443                   | 13 318                    | 10 757                    |
| 50-249                           | 196                   | 15 900                    | 13 854                    |
| 250+                             | 25                    | 22 739                    | 21 787                    |
| <b>Total</b>                     | <b>30 095</b>         | <b>75 508</b>             | <b>68 985</b>             |

Source: Statistics Sweden, Structural Business Statistics 2019. Statistical unit Enterprise



Most of the enterprises (96 percent) within NACE 85 are small. Micro-enterprises with 0-9 employees employed approximately 15 500 persons, or 20.5 percent of the total workforce in education enterprises in 2020. Net turnover in this size class amounted to 16 800 SEK million, which is approximately 1 600 MEUR, and 24 percent of the total in this industry. There were only 25 enterprises with more than 250 employees, but they employed in total more than 22 700 persons or 30 percent of the total number of employees in 2020. The largest enterprises had a net turnover of 21 800 SEK million, which is approximately 2 080 MEUR. The medium-sized enterprises with between 50 and 249 employees employed 15 900 persons and had a net turnover of 13 850 SEK million or 1 320 MEUR in 2020.

Table 5 shows a time series for number of enterprises and employees from 2010 to 2020.

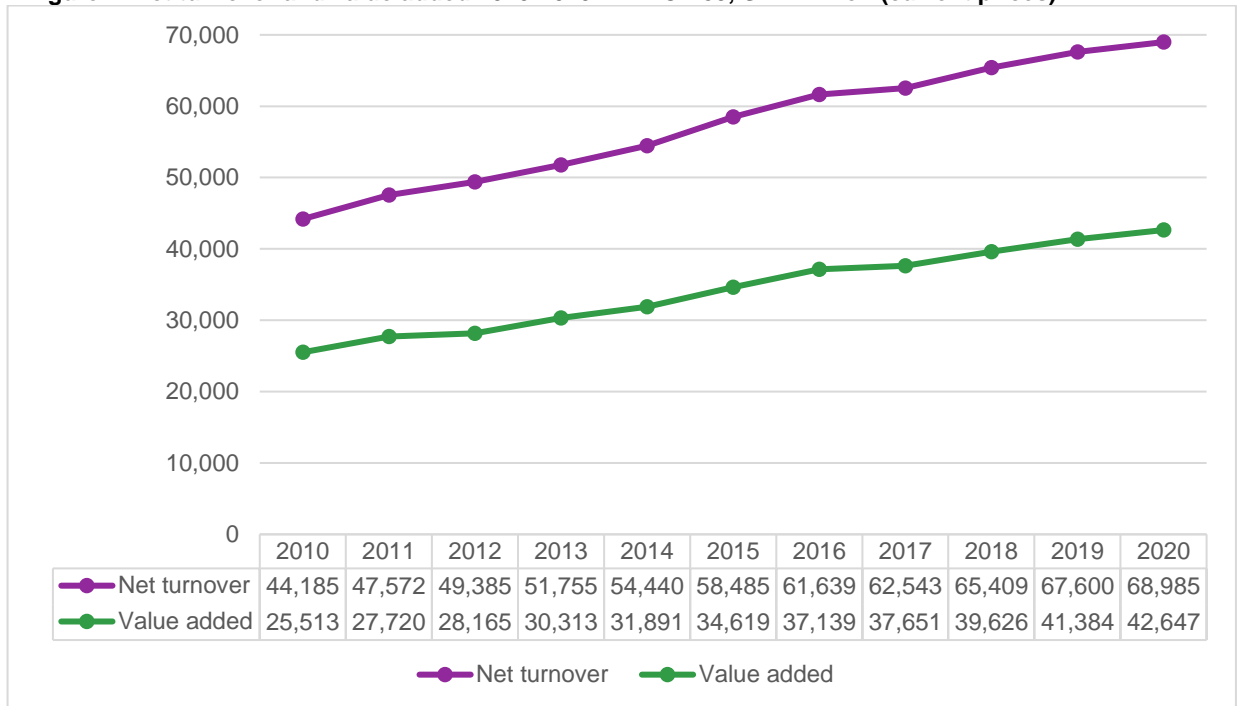
**Table 5. Number of enterprises and employees in NACE 85 Education 2010-2020**

| Year | Number of enterprises | Number of employees (FTE) |
|------|-----------------------|---------------------------|
| 2010 | 19 864                | 53 578                    |
| 2011 | 21 656                | 58 772                    |
| 2012 | 23 092                | 62 138                    |
| 2013 | 24 235                | 62 649                    |
| 2014 | 25 207                | 64 463                    |
| 2015 | 26 254                | 67 350                    |
| 2016 | 27 245                | 76 345                    |
| 2017 | 27 857                | 72 671                    |
| 2018 | 28 718                | 73 832                    |
| 2019 | 29 424                | 73 991                    |
| 2020 | 30 095                | 75 508                    |

Source: Statistics Sweden, Structural Business Statistics. Statistical unit Enterprise

The number of education enterprises increased by 51 percent and the number of employees by 41 percent between 2010 and 2020. The number of enterprises increased the most in the beginning of the 10-year period with increases of 5-7 percent yearly. Towards the end of the period (2018-2020) the growth in number of enterprises was more moderate, with only 2-3 percent per year. The number of employees increased the most in 2011 and 2016 when the number increased by 10 and 13 percent, respectively. 2017 was the only year with a decrease. In 2017 the number of employees dropped by 5 percent compared to 2016.

**Figure 1. Net turnover and value added 2010-2020 in NACE 85, SEK Million (current prices)**



Source: Statistics Sweden, Structural Business Statistics. Statistical unit Enterprise

Net turnover in education enterprises increased by 56 percent and the value added by 67 percent between 2010 and 2020 (see figure 1). Both variables had a similar development as the number of employees with high growth in 2011. The growth in 2011 was 8 percent for net turnover and 9 percent for value added compared to 2010. The drop in employees in 2017 had effect on both turnover and value added and both values increased with only 1 percent. 2015 was a good year for value added with an increase of almost 9 percent compared to 2014. Net turnover grew with 7 percent during the same period.

The net turnover is broken down on products in the Swedish SBS. Table 5 shows the variables that are used to distribute net turnover on products.

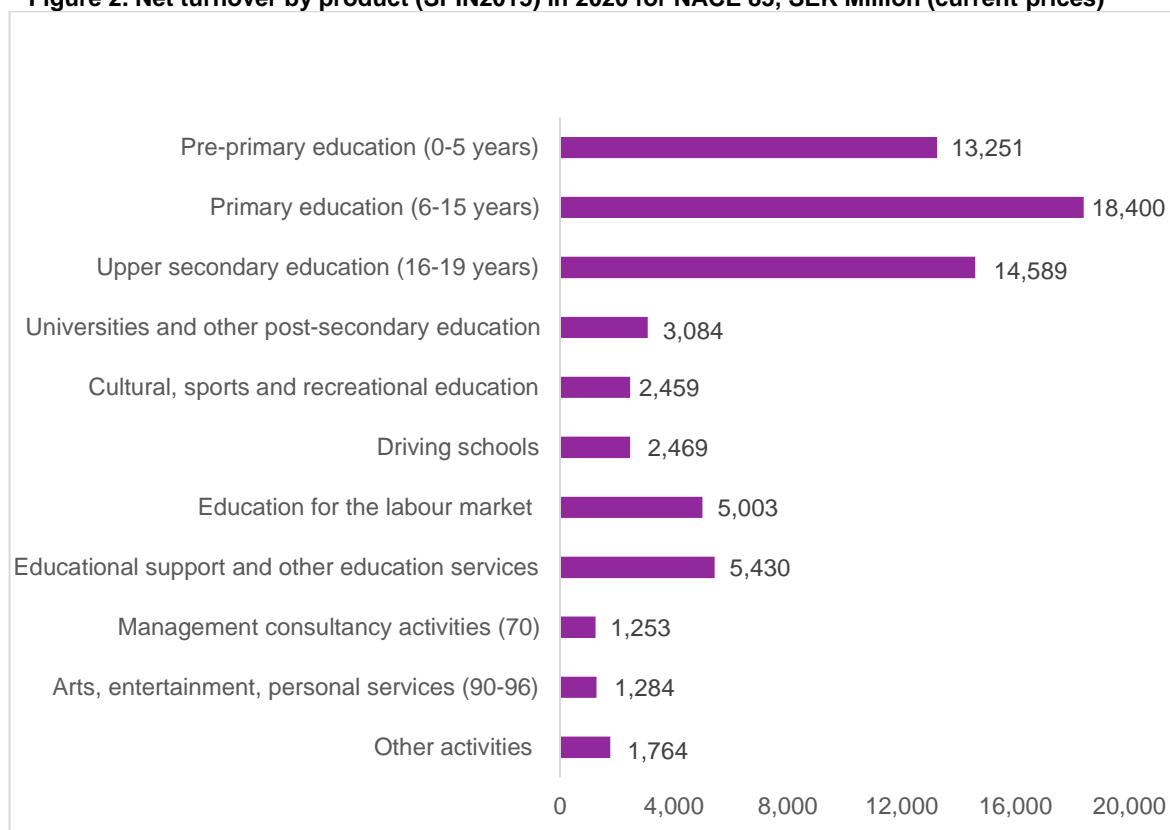
**Table 5. Variables in Swedish SBS survey for NACE 85 Education**

| <b>SBS Variable</b> | <b>Description</b>   | <b>SPIN2015</b>                    |
|---------------------|--|------------------------------------|
| v2579               | Pre-primary education (kindergarten) services                                      | Part of 85.100.00                  |
| v2407               | Primary education services (6-15 years)  | Part of 85.100.00, 85.200.01-02    |
| v2411               | Primary education services for pupils with special needs                           | Part of 85.200.02, 85.310.03       |
| v2415               | Upper general secondary education services   | Part of 85.310.03, 85.310.04       |
| v2419               | Technical and vocational upper secondary education services                        | Part of 85.320.03, 85.320.04       |
| v2891               | Vocational upper secondary education services for occupational drivers             | Part of 85.320.04                  |
| v2423               | Upper secondary education services for pupils with special needs                   | Part of 85.320.04                  |
| v2427               | Other upper secondary education services   | Part of 85.320.03-04               |
| v2443               | Municipal adult education services   | Part of 85.320.01-04, 85.310.01-04 |
| v2435               | Post-secondary non-tertiary general education services                             | 85.410.01-04                       |
| v2431               | Universities and Colleges  | 85.420.01-06                       |
| v2872               | Sports and recreation education services   | 85.510.00                          |
| v2463               | Municipal cultural education services  | Part of 85.520.01-04               |
| v2871               | Other cultural education services (dancing, music and fine arts schools)           | Part of 85.520.01-04               |
| v2929               | Driving school services  | 85.530.01-02                       |
| v2459               | Education for staff paid for by employers  | Part of 85.590.01-03               |
| v2447               | Education for the labour market (not included within the general education system) | Part of 85.590.03                  |
| v2451               | Folk high school   | Part of 85.590.03                  |
| v2455               | Other education services   | Part of 85.590.03                  |
| v2892               | Other education services n.e.c.  | 85.590.01-04                       |
| v2467               | Educational support services   | 85.600.00                          |

Source: Statistics Sweden, Structural business statistics 2020

The Swedish SBS survey to enterprises within *Education* has in total 21 distinct variables connected to the Swedish product classification SPIN2015 as shown in table 5. In figure 2 the variables have been grouped together to highlight different types of education. To get total net turnover from education enterprises, products outside NACE 85 have also been included.

**Figure 2. Net turnover by product (SPIN2015) in 2020 for NACE 85, SEK Million (current prices)**

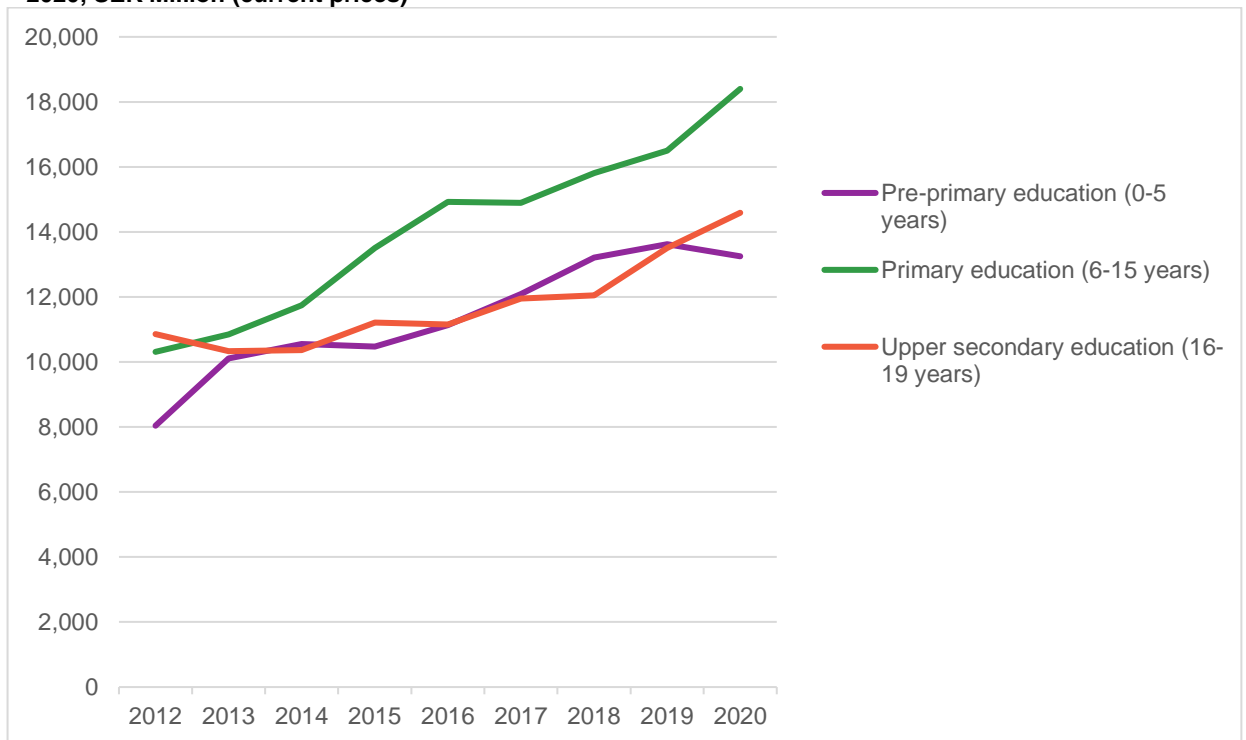


Source: Statistics Sweden, Structural business statistics 2020. Statistical unit: Kind-of-Activity-Unit (KAU)

The largest part of net turnover in education enterprises were generated from Primary education activities for children between 6 and 15 years of age. These activities gave a net turnover of 18 400 SEK Million, while Upper secondary education generated 14 589 SEK Million in turnover. The third largest product group was Pre-primary education (0-5 years) with 13 251 SEK Million in net turnover 2020. Almost all higher education services are conducted within the public sector in Sweden, but market producers still generated 3 084 SEK Million in net turnover from universities and other post-secondary education in 2020. Educational support and other education services generated 5 430 SEK Million and Education for the labour market 5 003 SEK Million in turnover. Driving schools had a total net turnover of 2 469 SEK Million 2020.

Education enterprises also had some income from products outside NACE 85. For example, net turnover from Management consultancy activities amounted to 1 253 SEK Million and turnover from Arts, entertainment, and personal services to 1 284 SEK Million in 2020.

**Figure 3. Net turnover from the three largest product groups in Education enterprises (NACE 85) 2012-2020, SEK Million (current prices)**

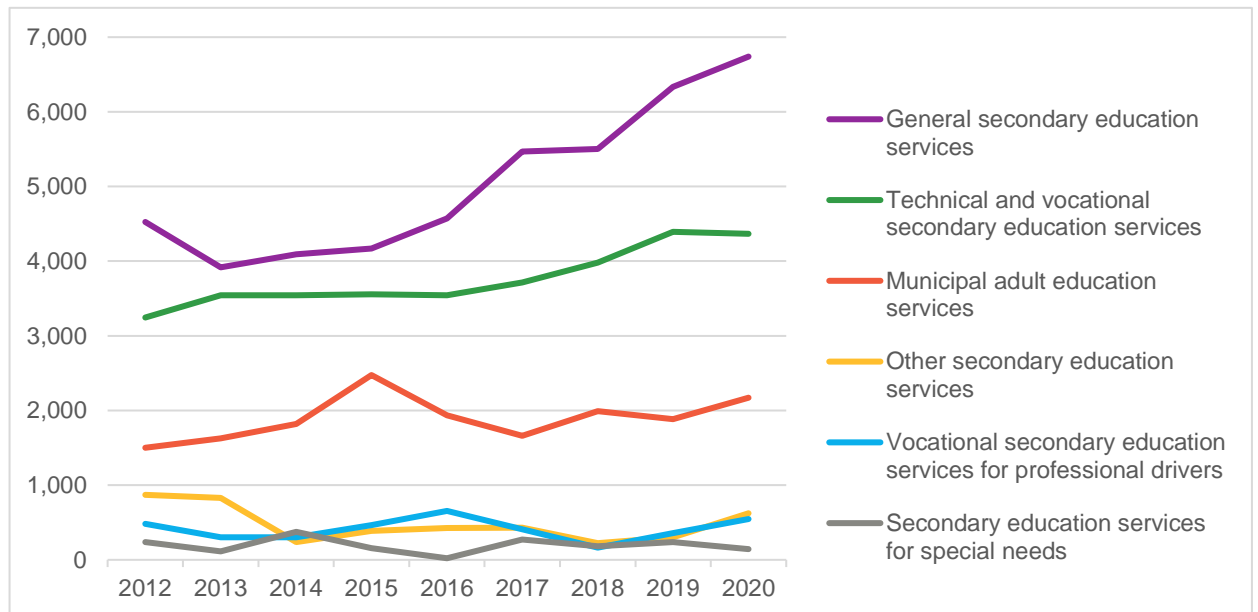


Source: Statistics Sweden, Structural business statistics. Statistical unit: Kind-of-Activity-Unit (KAU)

In figure 3 we study the development of net turnover for the three largest product groups within education enterprises over a period of eight years, from 2012 to 2020. Activities in the group “Pre-primary education” belongs to the NACE group 851 (ISIC 851), activities in “Primary education” to NACE 852 (ISIC 851) and activities in “Upper secondary education” belongs to NACE 853 (ISIC 852).

From 2013 and onwards the group “Primary education” has been the largest, while the other two activities have taken turns to hold second and third places over the years. Net turnover from Primary education activities has grown the most and increased by 78 percent between 2012 and 2020. The development for net turnover from Pre-primary education activities was 65 percent and for Upper secondary education activities 34 percent during the same period.

**Figure 4. Net turnover by product for upper secondary education activities (NACE 853) 2012-2020, SEK Million (current prices)**



Source: Statistics Sweden, Structural business statistics. Statistical unit: Kind-of-Activity-Unit (KAU)

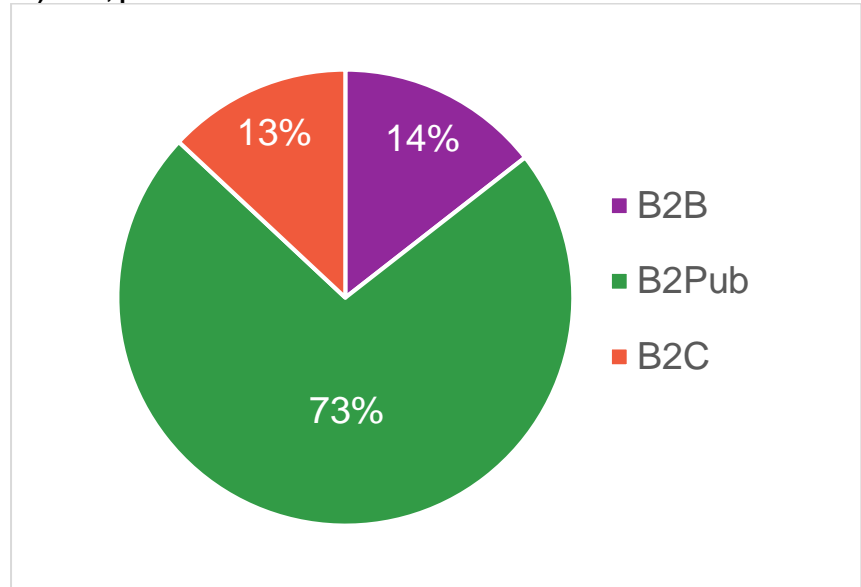
Figure 4 describes the different kinds of products that generates net turnover in the upper secondary education area. As expected, “General secondary education services” is the most common type, followed by “Technical and vocational secondary education services”. Those activities contributed with 46 and 30 percent respectively to total net turnover from upper secondary education in 2020. General secondary education also was the product that increased the most (+49 percent) during the period 2012-2020. In Sweden “Municipal adult education services” are rather common and contributed with 15 percent to net turnover in 2020. Those activities increased its turnover by 45 percent from 2012 to 2020. Net turnover from “Vocational secondary education services for professional drivers” have increased in recent years and stood for 4 percent of the total in 2020.

### 1.3 Specific characteristics of the industry

In addition to dividing net turnover by product, all enterprises in the sample for SBS are obliged to divide net turnover by type of customer. The survey has 15 variables for this purpose, for example Sales to Swedish group companies, Sales to households and individuals within Sweden, Sales to municipalities within Sweden and 11 others. In figure 5 these variables have been grouped together based on whether the customer is a business (B2B), a consumer (B2C) or belongs to the public sector (B2Pub). B2B consists of all sales to other enterprises, B2C consists of households, individuals, and households’ non-profit

organisations, and B2Pub consists of the public sector including municipalities and county councils.

**Figure 5. Net turnover by type of customer in education activities (NACE 85) 2020, percent**



Source: Statistics Sweden, Structural business statistics 2020. Statistical unit: Kind-of-activity unit (KAU)

Figure 5 shows that almost three quarters of net turnover in education enterprises in Sweden comes from the public sector and that other businesses and consumers contributes with 14 and 13 percent of the turnover, respectively. Examples of net turnover in the B2B-market are “Education for the labour market”, and “Educational support and services”. The B2C-part of net turnover comes for example from “Driving schools” and “Cultural-, sports- and recreational education”.

As mentioned previously under section 1.2, the number of market producers in the education area has increased gradually over the years. When conducting primary- and upper secondary education activities, the market producers get compensation from the municipalities through a special “school fee” that is paid according to the number of pupils. This is a way to reimburse the market producers for pupils that are not attending a public school. For the families, both primary-, secondary and higher education is free of charge because of the system with “school fees”.

Private schools have been a topic for political debate for many years in Sweden. In some cases, risk capitalists have invested in schools, which has led to discussions about limitations in the possibilities for market producing schools to gain high profits. Some of the political parties want to regulate the school market, to make sure that private education

enterprises reinvest their profit into the schools, instead of dividing profit to shareholders.

## **2. Turnover/output measurement**

### **2.1 General Framework**

#### **Short-Term Statistics (STS)**

Turnover in the service sector falls under the new European Business Statistics Regulation (EU) 2019/2152 aiming to measure market activities in the business sector. The statistical unit as well as the unit of collection in STS is the kind-of-activity unit (KAU). The sections covered when measuring output in STS are B-D (excl. D353), F, H, I, J, L, M (excl. M701, M72 and M75) and N. Education activities are not part of the EU-regulation but are included in the Swedish survey for National Accounts (NA) purposes. The observation variable varies depending on NACE code. For enterprises in NACE 85 the observation variable is domestic turnover excluding VAT. NA use the STS in the calculations of private consumption and Gross Domestic Product (GDP).

#### **Structural Business Statistics (SBS)**

The new European Business Statistics Regulation (EU) 2019/2152 also comprises the Structural Business Statistics from the reference year 2021 and forwards. For the reference year 2020 the former "Regulation (EC) No. 295/2008 [...] concerning structural business statistics" is still valid. The statistical unit in the regulations is enterprise but the Swedish SBS also includes the unit KAU for NA purposes. The SBS survey is carried out annually. Detailed results (much more detailed than demanded in the above-mentioned regulations) of the survey are delivered to the National Accounts. The SBS has been produced in its current format since 2003. A redesign of the survey is planned to be implemented from the reference year 2022.



## 2.2 Measurement issues

### Short-Term Statistics

The base for the STS is Administrative VAT data, combined with a sample survey. The sample survey is conducted monthly and aims to have 90% coverage of turnover in each strata. The total number of enterprises surveyed in the service sector lies around 7 500. The un-weighted response rate is approximately 85 per cent while the weighted response rate is approximately 90 per cent.

### Structural Business Statistics

Information is collected on enterprise level or in some cases KAU level for the entire non-financial business sector.

The survey is based on administrative data, more precisely on income statements and balance sheets from the Swedish Tax Authority. The administrative data is, at least in theory, available for the entire population of around 1 200 000 enterprises. Non-response in administrative data (15 percent un-weighted, 4 percent weighted) are dealt with through mean value imputations based on industry and size class. This material is used for what is called the common variables within the income statement and balance sheet, such as turnover, other operating income, depreciation costs, personnel costs and total assets.

In addition to the administrative data, two separate sample surveys (specification of income statement and specification of investments) are carried out to provide information in more detail.

The survey regarding specification of income statement consists of pre-printed values from the administrative data that the respondents have to distribute in specifications of turnover by product, detailed costs and personnel costs. A sample of approximately 16 700 enterprises is used for this part of the survey, allocated in 300 strata based on the demands of NA. The sample method used is  $\pi$ ps, i.e. probability proportional to size. The response rate in this survey was in 2020 around 83 percent un-weighted and 91 percent weighted. The survey regarding specification of investments is similar to the specification of the income statement but is less detailed and thus demand lower sample sizes. Approximately 2 900 enterprises receive the investment questionnaire.

The 450 most significant enterprises, based on importance in each strata, are surveyed independently of the tax data. This is due to their importance to the business sector (roughly one-third of value added) and their often complex organisations. These enterprises are asked to complete a questionnaire consisting of a detailed income statement (including turnover by product and detailed costs), a balance sheet and a specification of investments. The response rate for these enterprises has been 98-100 per cent in recent years.

## **2.3 Descriptions of methods for measurement**

### **Short-Term Statistics**

The Swedish STS survey is collected monthly on the kind-of-activity (KAU) level. Monthly VAT-data is used for the service production index and quarterly data for the production value index. Turnover in the service sector is published monthly in Sweden. The results are presented as development indices both in current and constant prices (calendar adjusted and seasonally adjusted). Results are published 35 days after the end of the reference period.

### **Structural Business Statistics**

The Swedish SBS survey is collected annually on KAU level. In addition to the survey, administrative data is used to achieve enterprise level statistics as well. Preliminary results are compared with STS and other short-term indicators for consistency. Preliminary results are transmitted to Eurostat 10 months and final results 18 months after the end of the reference period. Final detailed results are transmitted to NA 13 months after the end of the reference year. Preliminary and final results are also published in on-line databases, 11 months and 16 months after the end of the reference year respectively. Results are published on enterprise (institutional) level as well as KAU (functional) level and for some variables local KAU (regional) level. The regional information is produced via a model-based approach.

## **2.4 Evaluation of comparability of Output data with Price data**

### **Structural Business Statistics**

Besides being an important input to the NA calculations, the collection of turnover by product is also an important input to the Business Register and to Prices. The detailed information makes it possible to detect any change in activity within the enterprises, and thus keep the Business Register as updated and correct as possible. Prices use the turnover by product as input in the sampling of enterprises for the SPPI survey. However this is not the case for Education, since this NACE is not covered by SPPI.

## **4. Evaluation of measurement**

The new Eurostat regulation EBS (applies from reference year 2021) have influenced both the STS and the SBS. The STS are now working according to EBS, and the SBS are preparing for the changes.

With the implementation of the statistical unit enterprise in the SBS a

new design of the Swedish SBS will take place 2020-2023 to further develop accurate and cohesive statistics.