

## BUSINESS DEMOGRAPHY

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*The article offers a statistical overview of the economic units that were born or died in Estonia in the period 2006–2010. It also presents data on the survival rate of enterprises born in 2006 over the period 2007–2010.*

*The recession of 2008–2009 reduced the enterprise birth rate in Estonia and caused the share of dead enterprises among all enterprises to increase in those years. In 2010, the statistics of business demography improved a little.*

*These statistics show how many new enterprises are established each year (newly born enterprises), how many of these survive and continue operating in the following years, and how many cease their activities forever (dead enterprises). To produce statistics on business demography, Statistics Estonia does not burden economic units with yet another statistical questionnaire. Instead, the data of the Business Register for Statistical Purposes are used. This register, which is also the basis for the production of official business statistics, contains the contact details of economic units (registry code, name, address) and characteristics of their operation (main economic activity, size class based on number of employees, and net sales). To monitor changes in the size and composition of the population of economically active units, Statistics Estonia analyses data collected from different information sources using various subsets and combinations.*

*Business demography statistics cover non-financial corporations and financial intermediaries, and sole proprietors with 20 or more persons employed, as they are economically the most significant.*

### Newly born enterprises

*The birth of an enterprise means the creation of a combination of production factors necessary for operation (labour, land, capital) with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. An enterprise is also not considered newly born if it restarts its activity within two years after termination of operation, having been temporarily inactive.*

*In 2010, 7,365 new enterprises were born in Estonia. That year, the average enterprise birth rate – i.e. the share of newly born enterprises in the number of active enterprises – decreased about 3.5 percentage points in Estonia compared to 2006 and reached 12% (Figure 1, p. 86). Enterprise birth rate was the lowest (below 11%) during the recession in 2008 and 2009.*

*The biggest decrease (12 percentage points) occurred in construction where the enterprise birth rate fell from 20.6% in 2006 to 8.3% in 2010. One of the reasons was low demand in the real estate and construction sector, which caused a decrease in the number of newly born construction enterprises in 2010.*

*Trade also experienced a significant fall in birth rate – eight percentage points. Until 2006, the development of the population of trade enterprises was stable, but in 2007 the share of newly born enterprises started to gradually decrease. This decrease was caused by increased unemployment, reduced incomes and greater uncertainty on behalf of consumers. Although its number of newly born enterprises decreased two times, trade is still the economic activity with the biggest number of active and newly born enterprises.*

*In 2010, the birth rate of enterprises in real estate activities was twice as low as Estonia's average. The real estate sector was also affected by the recession, causing the share of newly born enterprises to fall from 14% in 2006 to 6.4% in 2010.*

Compared to the previous years, there were significantly fewer enterprises born in financial and insurance activities in 2010. In this economic activity, the share of newly born enterprises in the total number of enterprises has traditionally been the highest each year. It was also one of the highest in 2010 at 18.3% – most of these new enterprises (75%) offered financial services, 23% were involved in auxiliary activities, and less than 2% were new insurance service providers.

There are also activities where the enterprise birth rate increased in 2006–2010 – these are administrative and support service activities, and other service activities (an increase of 14 and 13 percentage points, respectively). In 2006 the birth rates of these economic activities were 13% and 10% respectively, whereas in 2010 their birth rates were 27% and 23% respectively (Figure 1, p. 86). The high birth rate of administrative and support service providers was caused by an increase in the number of enterprises providing office administrative, office support and other business support services: they accounted for three quarters of all newly born enterprises in this field. Most of the newly born enterprises in other service activities chose between two areas: a tenth of these enterprises decided to repair computers and personal and household goods, while most of them offer other personal services (a fifth offered hairdressing services, 4% focused on physical well-being activities and the biggest share of enterprises registered as astrologers, key cutters, shoe shiners, tattooists etc.).

In 2010, the birth rates of mining and water supply enterprises were below Estonia's average, but a clear upward trend could be noticed. The share of newly born enterprises among all mining and quarrying enterprises increased from 5.7% in 2006 to 11% in 2010. Over the same period, the share of newly born enterprises in water supply, sewerage, waste management and remediation activities increased from 4.5% to 9%.

According to the World Tourism Organization, tourism increased all over the world in 2010, and this was also reflected in Estonia's tourism statistics. Thus, in 2010, accommodation and food service activities were among the few activities where the enterprise birth rate increased compared to 2006 (by 2.5 percentage points).

In the remaining economic activities, the enterprise birth rate did not change much between 2006 and 2010 and fell by up to 2.7 percentage points in these four years.

In 2010, the number of newly born enterprises was the biggest in trade, and they accounted for 23% of all the enterprises born that year (in 2006, the same share was 40.5%). Most of the newly born trade enterprises (46%) were wholesale trade enterprises, 42% were retail enterprises, and 12% started operating in the wholesale and retail trade and repair of motor vehicles and motorcycles. Many new enterprises were born in construction, but the share of construction enterprises in all newly born enterprises also decreased from 17% in 2006 to 9% in 2010. The newly born enterprises in professional, scientific and technical activities and in administrative and support service activities each accounted for 15% of all the enterprises born in 2010. Electricity supply, mining and quarrying, and water supply all accounted for less than 0.5% of enterprises born in 2010.

63% of all enterprises that started their activity in 2010 were born in Harju county. Thus, Harju county (which includes the capital Tallinn) played the biggest role in the country's average. 75% of the enterprises were based in cities and only 25% in rural municipalities.

In 2010, the most new enterprises were born in Järva, Rapla, Jõgeva and Põlva counties: 13 "new-borns" per 100 active enterprises. This rate was the lowest – only 8% of active enterprises – in Saare and Hiiu counties. In Hiiu county, the enterprise birth rate decreased the most, from 14% in 2006 to 8% in 2010.

In 2010, the average number of persons employed in a newly born enterprise was 1.5, which is similar to the previous four years. More than three fifths of the enterprises born in 2010 started their operation without any employees. Most of the remaining enterprises (35%) started with 1–4 employees and only one percent of newly born enterprises hired 10 or more employees in the first year of operation. The remaining three percent of enterprises started with 5–9 employees. In 2006, the situation was also quite similar: of all newly born enterprises, 50–60% started without

any employees, 35% started with 1–4 employees and less than one percent started with 10 or more employees (Figure 2, p. 87).

In 2010, the newly born enterprises in Lääne-Viru and Jõgeva counties had the biggest number of persons employed, with an average of two persons employed per enterprise. On the other hand, the enterprises born in Põlva county were the smallest: their average number of employees in the first year of operation was 1.2. The size of enterprises born in Harju county (incl. Tallinn) was close to the Estonian average.

## Dead enterprises

The death of an enterprise means the dissolution of a combination of production factors necessary for operation (labour, land, capital) with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. An enterprise is also not considered dead if it restarts its activity within two years from the termination of operation.

5,689 enterprises died in 2010. The enterprise death rate increased in the crisis years. In 2006 and 2007, 7% of active enterprises ceased their activity, whereas in 2008–2009 every tenth enterprise ceased to operate. In 2010, this indicator decreased slightly, to 9.2% (Figure 3, p. 89).

In the early 2000s, the number of new enterprises steadily exceeded the number of dead enterprises, but this trend was reversed in 2009: the number of dead enterprises exceeded the number of newly born enterprises by slightly more than a hundred.

The highest death rate (10–14%) in 2010 was recorded in accommodation and food service activities, administrative and support service activities, construction, and financial and insurance activities.

Due to low demand, the situation in the construction market did not improve in 2010. This meant that the death rate of construction enterprises grew from 7% in 2006 to 13% in 2010. Every second enterprise in building construction ceased its activity, mainly due to the decreased residential construction volumes in the domestic market. In administrative and support service activities and in financial and insurance activities, the death rate of enterprises also rose by four percentage points over the same period.

The situation was more stable in energy (electricity, gas, steam and air conditioning supply) and human health and social work activities: in these economic activities, less than 3% of active enterprises ceased their activity in 2010.

Each year, the biggest number of enterprises is born and dies in trade, which is a relatively unstable sector. Nevertheless, the share of dead enterprises in trade was stable: it varied only by one or two percentage points in 2006–2010 and in 2010 was equal to Estonia's average (9%).

About 65% of all enterprises that ceased their activity in Estonia in 2010 died in Harju county. The share of dead enterprises among all active enterprises was also the highest in this county at 9.7%. Based on death rate, Harju county was followed by Valga county, where the share of dead enterprises was above Estonia's average – 9.6%. Valga county also had the biggest increase in death rate – five percentage points compared to 2006. In 2010, the enterprise death rate was the lowest in Võru county, where a little over 6% of enterprises ceased their activity.

In 2010, the average number of persons employed in a dead enterprise was 1.7. Traditionally, manufacturing enterprises had the biggest number of employees in their last year of operation. In recent years, their average number of employees has decreased from 5.4 to 4.1. In construction and in accommodation and food service activities, the enterprises ceasing their activity had more than three employees on average.

A clear trend can be noticed in the period 2006–2010: the number of enterprises operating without any employees in the last year of operation is gradually increasing. In 2006, the share of these enterprises was 40% of all dead enterprises, whereas this share has increased each year

and amounted to almost 50% in 2010 (Figure 4, p. 90). In the given period, there was a decrease in the number of enterprises that had employees until the termination of activities. In 2006, every second dead enterprise had 1–4 employees – in 2010, the share of these enterprises was 44%.

Between 2006 and 2010, the share of enterprises with 5–9 employees among dead enterprises fell from 7% to 5%. In 2010, the share of dead enterprises with 10 or more employees was 3.5% (Figure 4, p. 90).

The average size of a dead enterprise varied a great deal across counties: from 3.7 employees in Rapla county to 1.5 employees in Võru county.

## Survival rate of enterprises

53.8% of the enterprises born in 2006 were still active in their fifth year of operation in 2010 (Figure 5, p. 91). In case of enterprises whose main activity is electricity, gas or water supply and who were born in 2006, five out of six had survived.

Enterprises operating in human health and social work activities had a quite good survival rate: almost 70% of these enterprises born in 2006 were still active in 2010. The development and stability of health services in this period shows that people care about their health and well-being.

Transportation and storage enterprises and manufacturing enterprises have survived relatively well, with 64% of those born in 2006 still operating in 2010. In mining and quarrying and in professional, scientific and technical activities, three fifths of the enterprises established in 2006 had survived by 2010. A similar survival rate was recorded for service enterprises and accommodation and food service enterprises. Enterprises operating in education, information and communication, and arts, entertainment and recreation had a 59% survival rate in 2010. The survival rate of administrative and support service suppliers was close to the country's average.

The survival rate was relatively low in the activities that suffered the most in the recession – construction, trade and real estate activities, where only half of the enterprises born in 2006 had survived by 2010.

The lowest survival rate was recorded for water supply enterprises and financial and insurance services enterprises: less than 45% of them survived after five years in business.

## High-growth enterprises

In 2007 Statistics Estonia participated in the business demography pilot project co-ordinated by the Statistical Office of the European Communities (Eurostat). Enterprises with at least one employee and high-growth enterprises were studied.

According to business demography statistics, 41,623 Estonian enterprises operating in the tertiary and secondary sectors<sup>a</sup> and active already in 2007 had survived by 2010. 11,480 of these (i.e. 28%) had five or more employees.

The enterprise/employer demography project studied high-growth enterprises, i.e. enterprises whose average annualised growth was greater than 20% per annum (measured by number of employees or by turnover) over the three-year period 2007–2010. The results show that the number of enterprises with a high growth in turnover (872 enterprises) was twice as big as the number of enterprises with a high growth in the number of employees (392 enterprises).

In 2010, almost a fifth of the high-growth enterprises operated in manufacturing. Trade enterprises accounted for 16% of high-growth enterprises based on both turnover and number of employees. The share of construction enterprises among high-growth enterprises was 11% based on number of employees and 13% based on turnover. A similar share (about one tenth) can be attributed to transportation and storage enterprises. Mining and quarrying and energy

<sup>a</sup> Tertiary sector – trade, services, etc.; secondary sector – mining and quarrying, manufacturing, electricity, gas and water supply, and construction.

were the economic activities with the lowest share among high-growth enterprises – under one percent (Figure 6, p. 92).

In the crisis years, the number of high-growth enterprises decreased three times compared to the previous years. For comparison: in the period 2005–2008, 2,444 enterprises had a high growth in turnover and 996 enterprises had a high growth in employment.

The construction sector suffered the most, as the number of enterprises with a high growth in employment decreased five times: from 203 in 2008 to 41 in 2010 (Figure 6, p. 92). In trade, the number of high-growth enterprises in 2010 was three times smaller than in the pre-crisis years.

By 2010, only 872 enterprises achieved a significant growth in turnover. Most of these enterprises operated in manufacturing (21.5%), trade (16.6%) and transportation and storage (12.6%). Less than one percent of these enterprises operated in mining and quarrying and in arts, entertainment and recreation.

There are seven economic activities where the number of enterprises with a high growth in turnover has decreased more than three times compared to the pre-crisis years. These activities are: mining and quarrying, water supply, construction, trade, accommodation and food service activities, information and communication, and arts, entertainment and recreation. There was also a significant decrease in high-growth enterprises in human health and social work activities: from 62 in 2008 to 38 in 2010 (Figure 7, p. 93).

The project also studied 'gazelles', i.e. enterprises born in 2005 or 2006 and having an average annualised growth greater than 20% per annum in 2007–2010 (high-growth enterprises). These enterprises had to have at least five employees in the first year of operation.

In 2005 and 2006, there were 13,967 enterprises born in the tertiary and secondary sectors in Estonia. Only 804 of them (5.8%) had five or more employees in the birth year.

Among the gazelles, there were also more enterprises with a high growth in turnover (176) than enterprises with a high growth in employment (101) in 2010. The distribution of gazelles by economic activity is similar to the distribution of high-growth enterprises.

Every fifth gazelle born in 2005–2006 was a manufacturing enterprise. The share of construction enterprises among gazelles with a high growth in employment was 18%, and every tenth was a transportation and storage enterprise. There were no gazelles with a high growth in employment in the fields of electricity supply, health, and arts and entertainment (Figure 8, p. 94).

Based on high growth in turnover, there were more gazelles in construction (23%), manufacturing (17%) and trade (14%), while the share of these gazelles was under one percent in real estate activities, arts and entertainment, and electricity supply.

For comparison: the number of gazelles born in 2003–2004 with a high growth in employment in 2005–2008 was twice as big, and the number of gazelles born in 2003–2004 with a high growth in turnover was 30% bigger than in the crisis years. In accommodation and food service activities, trade, and construction, the number of gazelles had decreased four times by 2010.

Over three years, the number of gazelles with a high growth in turnover decreased four times in arts, entertainment and recreation, and five times in accommodation and food service activities. In real estate activities, only one of seven high-growth enterprises born in 2005–2006 had survived by 2010.

## Conclusion

In 2010, the number of newly born enterprises exceeded the number of dead enterprises in the Estonian economic sectors (excl. agriculture). That year, the birth rate of Estonian enterprises was 12%, ranging from 2.2% to 26.8% in different economic activities. The highest birth rate was recorded in trade.

The average number of employees in newly born enterprises was 1.5 in 2010. More than 60% of the newly born enterprises started without any employees.

*The average death rate of Estonian enterprises in 2010 was 9.2%. This rate ranged from 2% to 14% by economic activity. An average dead enterprise in Estonia had 1.7 employees.*

*53.8% of the enterprises born in 2006 were still active in the fifth year of operation (2010). The survival rate was the highest in human health and social work activities, and the lowest in water supply and financial and insurance activities.*

*In 2010, there were 872 enterprises with 5 or more employees that had a high growth in turnover in 2007–2010, but only 392 enterprises that had a high growth in the number of employees in the same period. The corresponding figures for gazelles – enterprises born in 2005 or 2006 and achieving high growth in 2007–2010 – were 176 (growth in turnover) and 101 (growth in the number of employees) in 2010.*