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Statistics on New Enterprises, Entrepreneurs and Survival of Start-Ups

THE DANISH EXPERIENCE

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STATISTICS ON NEW ENTERPRISES, ENTREPRENEURS AND SURVIVAL OF START-UPS: THE DANISH EXPERIENCE

Peter Bøegh Nielsen
STI Working Paper Series

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The paper describes the methodology elaborated and used by Statistics Denmark to produce statistics on new enterprises. Statistics Denmark has developed its statistical monitoring of new enterprises based solely on the use of administrative registers. The paper also lists the indicators developed for measuring the new enterprises, the persons behind these enterprises – the new entrepreneurs, both men and women – and their qualifications. The ultimate goal of any policy targeting new enterprise start-ups is not only the creation but also the survival of the new enterprises in order to create new job possibilities and new products and services in today’s rapidly changing economy. Statistics Denmark has developed a longitudinal database as an analytical tool enabling policy makers to evaluate the programmes for new enterprises. It includes all new enterprises and enables the identification and modelling of indicators that are significant for the survival of new enterprises.

* Statistics Denmark (e-mail: pbn@dst.dk).
1. Introduction

Entrepreneurship is one of the key elements in the new economy, and new enterprises contribute to the creation of a dynamic business environment through economic growth, the opening of new job opportunities, and innovation in production processes and products. Questions concerning issues such as the magnitude, survival and numbers of jobs created by new enterprises have been an important element in Danish business policy since the early 1990s. Even if the contribution of new enterprises to economic and employment growth is limited in the start-up phase, new enterprises play a central role through their contribution to greater flexibility and innovation in the economy.

Since 1998, the Danish Government has given special emphasis to creating more women-owned start-ups, as women entrepreneurs are seen as a source for future growth and innovation in the Danish economy which has yet to be fully tapped. The ambition is that the share of female entrepreneurs should equal the proportion of women in the Danish labour force.

In order to develop and formulate an effective policy for the creation of more (female) start-ups, basic statistical information on the number of new enterprises, their distribution by economic activity and the number of jobs created is essential. This is why in 1990 Statistics Denmark began to develop a methodology to produce statistics on the births of new enterprises.

The performance of new enterprises cannot be evaluated properly by limiting the analysis to traditional enterprise data. There is a strong coincidence between a new enterprise and the owner behind it – the entrepreneur – especially as the vast majority of new enterprises start up without any employees. To ensure that policies targeting the creation of better framework conditions for new entrepreneurs have a sound basis, questions on the gender and age of the new entrepreneurs, their education levels and other competencies need to be answered by statistics. Statistics Denmark has therefore developed statistics on the qualifications of the new entrepreneurs.

The ultimate goal of any policy targeting enterprise start-ups is not only the creation, but also the survival of new enterprises in order to create new job possibilities and new products and services in today’s rapidly changing economy. To enable policy makers to evaluate programmes for new enterprises, Statistics Denmark has developed a longitudinal database that includes all new enterprises started in 1990, 1994 and 1996.

The above-mentioned statistics are part of the continuous monitoring of new enterprises in Denmark. However, for policy-making purposes, more detailed information concerning the entrepreneurs may be necessary. Therefore, specially designed ad-hoc surveys have been used as well. Financed by the Danish Agency for Trade and Industry, Statistics Denmark has carried out a survey on motivations and barriers for women entrepreneurs in order to supplement the annual quantitative data with more qualitative in-depth information.

This paper describes the different statistical tools developed by Statistics Denmark, as summarised in Box 1. The indicators are introduced and their relevance discussed, particularly in relation to the information needs for formulating a policy targeting women entrepreneurs. Official statistics on new enterprises and the entrepreneurs behind them exist in only a minority of countries, and no international statistics have been collected on a harmonised basis. This paper, illustrating the Danish experiences, should therefore be seen as an input to the discussion on the needs and possibilities for internationally harmonised statistics on new enterprises and entrepreneurs. Finally, the paper makes proposals for a number of statistical indicators for new enterprises and entrepreneurs.
## Summary of indicators developed by Statistics Denmark

**The enterprise-related indicators are:**

1. Number of new enterprises, broken down by:
   - Economic activity
   - Size class (turnover and employment)
   - Legal form
2. The number of real enterprise births as a percentage of the total enterprise stock
3. The number of enterprise births as per thousand of the working-age population (16-66 years)
4. The number of enterprise births as per thousand of the number of unemployed persons
5. Public sector employment as a share of total employment

**The entrepreneur-related indicators are:**

6. Age of entrepreneur
7. Nationality
8. Family status
9. Number of children under 7 years (pre-school age)
10. Highest level of education
11. Total work experience
12. Previous branch experience
13. Entrepreneur’s relation to labour market the year before enterprise start-up
14. Gross income the year before enterprise start-up

**The indicators related to the survival of new enterprises are:**

1. Economic activity of the new enterprise (indicator 1a)
2. Previous branch experience (indicator 12)
3. Age of entrepreneur (indicator 6)
4. Highest level of education (indicator 10)

These indicators can be broken down by gender, although Statistics Denmark’s strategy has been to use only those indicators covering both women and male entrepreneurs. Statistics Denmark believes that it is important not to develop gender-specific indicators but general indicators which can be used for measuring the performance of both women and male entrepreneurs. This allows the output of the analysis, i.e. the statistics produced, to reflect whether a certain indicator is gender sensitive and might lead to special political considerations with a view to improving the framework conditions for women entrepreneurs.
2. New enterprises in Denmark, 1990-98

Statistics Denmark has developed a method enabling the identification of the total amount of new enterprises in Denmark. It is based on the usage of administrative sources only, i.e. it does not entail launching new surveys which would increase the respondent burden for new enterprises. A new enterprise is defined as:

“A business unit which has not been conducted by another owner, in another type of ownership, under another firm or by a personal owner who are already registered for activities liable to VAT.”

Over the years, Statistics Denmark has elaborated a range of indicators for measuring entrepreneurship in pure quantitative terms (Box 2). These indicators are used to measure the dynamics, economic importance and job creation of new enterprises (indicators 1 and 2), indicate the potential number of entrepreneurs (indicator 3), point to the possible “push effect” of entrepreneurs (indicator 4) and the illustrate cultural influence (“employee culture”) (indicator 5).

Box 2. Structural Indicators on new enterprises

1. Number of new enterprises, broken down by:
   - economic activity
   - size class (turnover and employment)
   - legal form
   - gender.

2. The number of real enterprise births as a percentage of the total enterprise stock.

3. The number of enterprise births per thousand of the working-age population (16-66 years).

4. The number of enterprise births per thousand of the number of unemployed persons.

5. Public sector employment as a share of total employment.

* It should be noted that the gender of the owner of the enterprises registered in the Danish Business Register is only available for personally owned enterprises, not for companies. In principle, this has been developed as one of the indicators related to the personal qualifications of the entrepreneurs, see Section 3 below.

As mentioned above, Statistics Denmark has produced statistics on new enterprises since 1990 (Figure 1). In the period 1990-98, just under 137 000 new enterprises were established in Denmark. The annual number of enterprise births has been between 14 200 (1990) and 16 200 (1997), with no clear trend. In some countries, such as France, the Netherlands and Sweden, where comparable statistics on new enterprises are compiled, the trend seems to be relatively similar to the Danish situation, with small fluctuations in the annual number of new enterprises.
When the population of new enterprises is broken down by economic activity, it becomes clear that the new enterprises reflect the general development towards a service- and knowledge-based economy; the share of manufacturing industry has declined from 9% (1990) to a mere 6% of all new enterprises in 1998. Moreover, business services constitute around one-third of all new enterprises, with IT consultancy services as the dominant single activity – growing from around 800 new enterprises in 1990 to some 1 400 in 1998.

To obtain a better understanding of the dynamics of the different sectors, the number of new enterprises is compared with the existing stock of enterprises (Figure 2). The highest share of new enterprises is found within business services, with almost 10%, followed by retail trade (8%). The share of new enterprises within IT consultancy services was 12.5% in 1992, rising to an impressive 21.8% in 1998. At the other end of the scale, new manufacturing enterprises account for only around 4% of the total stock.
The share of new enterprises in the enterprise stock is a useful indicator for international comparisons as the level in absolute figures is difficult to compare across countries. Compared with France, the Netherlands and Sweden, the share is relatively low in Denmark (Figure 3).

![Figure 3. New enterprises as a share of the stock of enterprises in Denmark, France, Netherlands and Sweden, 1996](image)

The need for exercising caution in making international comparisons in the complex field of enterprise demography can be illustrated by the use of another indicator, namely the number of enterprise births per thousand of the working-age population. The comparison with the potential stock of new entrepreneurs is an alternative way of analysing the national level of entrepreneurship, and the result differs somewhat from the first indicator – in this case, Denmark does relatively well (Figure 4).

![Figure 4. Number of enterprise creations per thousand working-age population (16-66 years) in Denmark, France, the Netherlands and Sweden, 1996](image)
One of the indicators used in Danish statistics, and which is a focus of this paper, is the gender of the new entrepreneurs. The share of female entrepreneurs has remained stable at around one-third of new enterprises over the period 1990-98. In 1998, nearly 3 800 of the new enterprises set up as sole proprietorships were started by women entrepreneurs. When new enterprises are broken down by sector, a clear difference between male and female entrepreneurs is found (Figure 5).

Figure 5a. Women entrepreneurs broken down by sector

Figure 5b. Male entrepreneurs broken down by sector

Women entrepreneurs are concentrated in two main sectors: distributive trade; and business services – 80% of all women entrepreneurs start up in these two sectors, compared with 66% of men. On the other hand, sectors such as construction and transport are male-dominated. Women entrepreneurs show a preference for starting up in retail trade (34% of all women entrepreneurs). One-third of female start-ups in business services are in the low-knowledge activity of industrial cleaning, compared with 10% in each of the more knowledge-based activities such as management consultancy, auditing and bookkeeping and translation services. Within other services, approximately one-third of the female start-ups consist of hairdressing salons.
3. The entrepreneurs and their qualifications

Since nearly 80% of all new enterprises start up without employees, the entrepreneur and his/her qualifications constitute a very important part of the attributes of the enterprise. It was therefore regarded as important to investigate whether traditional enterprise data could be supplemented with statistical information on the persons behind the new enterprises – the entrepreneurs. By using and matching enterprise and personal data, Statistics Denmark has been able to develop a database containing information on individual entrepreneurs, including their competencies and qualifications.

The first step in this work has been the development of a number of indicators considered important for further analysis of the performance of new enterprises and for establishing a solid knowledge base for decisions on future policies for new enterprises. Box 3 shows the indicators which have been developed.

<table>
<thead>
<tr>
<th>Box 3. Indicators related to personal qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) Age of entrepreneur</td>
</tr>
<tr>
<td>7) Nationality</td>
</tr>
<tr>
<td>8) Family status</td>
</tr>
<tr>
<td>9) Number of children under 7 years (pre-school age)</td>
</tr>
<tr>
<td>10) Highest level of education</td>
</tr>
<tr>
<td>11) Total work experience</td>
</tr>
<tr>
<td>12) Previous branch experience</td>
</tr>
<tr>
<td>13) Entrepreneur’s relation to the labour market the year before enterprise start-up</td>
</tr>
<tr>
<td>14) Gross income the year before enterprise start-up</td>
</tr>
</tbody>
</table>

Statistics that include these socio-demographic indicators are produced annually by Statistics Denmark. In particular, the indicators relating to family status (indicator 8) and the number of pre-school children (indicator 9) have been developed with special consideration for gender. The variable relating to branch experience is especially important for understanding the performance and survival possibilities of new enterprises. In order to illustrate the information obtained from these indicators, the population of new entrepreneurs in 1995 and 1996 is broken down by a selected number of variables and compared by gender and the characteristics of the total working-age population in Denmark.
Figure 6. New entrepreneurs and the working-age population (16-66 years), broken down by age group

More than 60% of the new entrepreneurs are aged between 30 and 49 (Figure 6). A relatively large share of women entrepreneurs is between 30 and 39 years old. Relatively few women entrepreneurs are under 30, possibly due to reasons related to fertility. Women entrepreneurs are also relatively scarce among the oldest age classes, probably because the participation of these age classes in the labour market has been more limited.

Figure 7. New entrepreneurs and the working-age population (16-66 years), broken down by relationship to the labour market in the year before start-up of the enterprise

Relatively more women entrepreneurs start their own business from unemployment or come from outside the labour force (Figure 7). Male entrepreneurs, on the other hand, mainly start up from existing jobs.
Not surprisingly, the share of women entrepreneurs with an annual gross income larger than DKK 400,000 is considerably smaller than that of males (Figure 8). It should be noted that the new entrepreneurs generally have relatively high income levels, indicating that the level of earnings before enterprise start-up cannot unambiguously be interpreted as a push factor. The potential income of an entrepreneur might potentially be seen as a pull factor (see Section 5). On the other hand, the share of women entrepreneurs starting up from a very low annual income is larger than for male entrepreneurs. However, for both gender groups, the share equals the overall share of the lowest income group.

The entrepreneurs are characterised by being somewhat better educated than the working-age population aged between 16 and 66. This is partly due to the younger age profile of the entrepreneurs (Figure 6). Entrepreneurs, and female entrepreneurs in particular, have a relatively high share of persons with a vocational education (Figure 9). On the other hand, the share of women entrepreneurs with long-cycle higher (university-level) education is barely half the male share.
In general, new entrepreneurs have a family background as spouses or cohabitants (Figure 10). Given their high average age, this comes as no surprise. Women entrepreneurs in particular are often living as spouses, as would be expected from their higher average age compared to men. More detailed profiles of both women and men entrepreneurs are shown in Tables 1 and 2, showing some interesting differences by gender and sector.

### Table 1. Profile of women entrepreneurs, broken down by sector

<table>
<thead>
<tr>
<th>Category</th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Car trade</th>
<th>Wholesale trade</th>
<th>Retail trade</th>
<th>Hotels and restaurants</th>
<th>Transport, telecomm</th>
<th>Business services</th>
<th>Other services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 15-39 years</td>
<td>- -</td>
<td>- -</td>
<td>+ +</td>
<td>+ -</td>
<td>- -</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>- -</td>
</tr>
<tr>
<td>Single</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>Foreign nationality</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>- -</td>
<td>+ +</td>
</tr>
<tr>
<td>Vocational education</td>
<td>- -</td>
<td>+ +</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>+ +</td>
<td>- -</td>
</tr>
<tr>
<td>University-level education</td>
<td>+</td>
<td>- -</td>
<td>+</td>
<td>- -</td>
<td>- -</td>
<td>+ -</td>
<td>+ -</td>
<td>+ +</td>
<td>- -</td>
</tr>
<tr>
<td>General work experience: 6+ years</td>
<td>- -</td>
<td>+ +</td>
<td>-</td>
<td>+ -</td>
<td>- -</td>
<td>+ -</td>
<td>+ -</td>
<td>+ +</td>
<td>- -</td>
</tr>
<tr>
<td>Previous branch experience</td>
<td>- -</td>
<td>+</td>
<td>- -</td>
<td>- -</td>
<td>+ +</td>
<td>- -</td>
<td>+ +</td>
<td>- +</td>
<td>+ +</td>
</tr>
<tr>
<td>Unemployed year before start-up</td>
<td>+ +</td>
<td>- -</td>
<td>+ +</td>
<td>- -</td>
<td>+ +</td>
<td>- -</td>
<td>+ +</td>
<td>- +</td>
<td>+ +</td>
</tr>
<tr>
<td>Gross income DKK 200,000+ year before start-up</td>
<td>- -</td>
<td>+ +</td>
<td>-</td>
<td>+ -</td>
<td>- -</td>
<td>+ -</td>
<td>+ +</td>
<td>- +</td>
<td>+ +</td>
</tr>
</tbody>
</table>

**Key:**

- - - if the index is more than 30 points below average (less than 70)
- - if the index is 10 to 30 points below average (70 to 90)
- if the index is less than 10 points below the average (> 90)
+ if the index is not more than 10 points above the average (< 110)
+ + if the index is 10 to 30 points above the average (110 to 130)
+ + + if the index is more than 30 points above the average (> 130)
### Table 2. Profile of male entrepreneurs, broken down by sector

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Car trade</th>
<th>Wholesale</th>
<th>Retail trade</th>
<th>Hotels and restaurants</th>
<th>Transport, telecomm.</th>
<th>Business services</th>
<th>Other services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 15-39 years</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Single</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Foreign nationality</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vocational education</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>University level education</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>General work experience:</td>
<td>+ +</td>
<td>+ +</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>6+ years</td>
<td>-</td>
<td>+ +</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Specific branch experience</td>
<td>-</td>
<td>+ +</td>
<td>+ +</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unemployed year before start-up</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Gross income DKK 200,000+ year before start-up</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

**Key:**

- - - if the index is more than 30 points below average (less than 70)
- - if the index is 10 to 30 points below the average (70 to 90)
- if the index is less than 10 points below the average (> 90)
+ if the index is not more than 10 points above the average (< 110)
++ if the index is 10 to 30 points above the average (110 to 130)
+++ if the index is more than 30 points above the average (> 130)

### 4. Survival of new enterprises

In order to judge the contribution to, and importance of, the new enterprises for economic growth, it is necessary to follow enterprises for a longer period than the year of start-up. Not all new activity is sustainable, and a proportion of the new enterprises will fail. The establishment of a new enterprise is not in itself a criterion of success; the decisive element is the contribution of the new enterprises to the creation of value added and employment. An analysis of the role played by new enterprises in the dynamics and development of the economy calls for knowledge on the survival rates and growth of the enterprises in the years after start-up.

This is why Statistics Denmark developed a methodology to carry out longitudinal analysis of new enterprises. The analysis is based upon a regression model that identifies the marginal effects of the qualifications of the entrepreneur on the survival possibilities of the enterprise. The model identifies the qualifications outlined in Box 4 as the most important qualifications related to the survival of the new enterprises. In this paper, the analysis is supplemented with an indicator of a supposedly more gender-sensitive nature, the number of pre-school children.
Box 4. Indicators related to the survival of new enterprises

1. Economic activity of the new enterprise (indicator 1a)
2. Previous branch experience (indicator 12)
3. Age of entrepreneur (indicator 6)
4. Highest level of education (indicator 10)

The longitudinal analysis of the 15 500 new enterprises that started in 1994 show that after three years 55% had survived. There is a small difference in survival rates between women and male entrepreneurs, with 56% of the new enterprises started by males surviving, compared to 52% of those started by women. The analysis and logistic regression model have shown that previous experience in a particular economic activity (i.e. branch experience) is the crucial factor for raising the possibility of survival. New entrepreneurs starting up in the branch in which they were employed the year prior to start-up have a survival rate of 69%, compared with 51% for entrepreneurs with no previous branch experience. There is little difference in survival rates for women and male entrepreneurs with branch experience (Figure 12), although it should be stressed that in all sectors – except wholesale trade – the survival rate of women entrepreneurs is higher than for their male counterparts. This is especially the case in business services and other services, where the overall survival rate of women entrepreneurs is relatively high.

Figure 12. Survival rates for new entrepreneurs with previous branch experience, broken down by gender

The age of the entrepreneur has a significant influence on the survival rate of the new enterprise – even when such factors as the greater possibility for education or the longer work experience that comes with age are excluded. This is also the case for women entrepreneurs, who are characterised as being older than their male counterparts when starting up an enterprise. The oldest age group of women entrepreneurs (40+) has a survival rate of 61%, compared with 40% for the youngest age group (Figure 13). This pattern can be found across nearly all sectors, the exception being "Other services" where more young than older entrepreneurs survived. This sector has the largest proportion of entrepreneurs under 30 (38% of all female
entrepreneurs in this age group). The largest difference in survival rates can be found in retail trade, where the difference between the youngest and oldest age group is 31 percentage points.

Figure 13. Survival rate of women entrepreneurs, 1994-97, broken down by age group and sector

Only 50% of women entrepreneurs starting up in 1994 had any kind of vocational education, compared with 56% of the male entrepreneurs. In general, women entrepreneurs with a vocational or a short-cycle higher education have a larger survival rate than those with medium- or long-cycle higher education. This is also true for male entrepreneurs. Survival rates vary widely from one sector to another (Figure 14), with other services, in particular, evidencing a high survival rate for women entrepreneurs with vocational education. This sector includes, for instance, hairdressers, and is characterised by having the largest share of new women entrepreneurs with a vocational education.

Figure 14. Survival rate of women entrepreneurs, 1994-97, broken down by education and sector
The longitudinal analysis includes information on the number of pre-school children (under seven). This enables an analysis of the influence of having small children on the start-up of an enterprise. Nearly 30% of women entrepreneurs had children of pre-school age when they started their own enterprise in 1994, compared with 25% for male entrepreneurs. In general, women entrepreneurs with no small children had a slightly higher survival rate – 52% compared to 48% for those with young children (Figure 15). This pattern is different for male entrepreneurs, where those with small children have a higher survival rate than those without pre-school children.

Figure 15. Survival rate of women entrepreneurs, 1994-97, broken down by entrepreneurs with and without pre-school children (age 0-6 years) and by sector

Another approach for analysing the survival of the new entrepreneurs is to investigate the number of jobs created by the surviving enterprises. The number of employees nearly doubled between 1994-96 (from 679 to 1 321) in the enterprises started by women entrepreneurs. At the same time, the male entrepreneurs nearly tripled their employment (from 1 136 to 3 145). To illustrate this growth in comparative terms, the number of employees in the private sector in Denmark experienced growth of 7% over the same period. There are large differences between sectors, but the different starting points should be kept in mind (Figure 16). For instance, women entrepreneurs within wholesale trade experienced very rapid growth in employment, but from a very low starting point – less than 20 employees in total. The two sectors initially having the largest proportion of employees – retail trade and hotels and restaurants – are, on the other hand, those which experienced the lowest growth rates over the observed period. In the year of start-up (1994), women entrepreneurs had on average 0.3 employees per enterprise compared to 0.2 employees for male entrepreneurs. The average size of surviving enterprises in 1996 was 0.6 employees for both women and male entrepreneurs.
5. Women entrepreneurs: motivations and barriers

The previous sections have illustrated the possibilities for the use of administrative registers in the normal annual statistical production in Denmark. Even with this range of indicators, domestic users have argued for more detailed information, especially for more qualitative information, in order to formulate policies targeting female entrepreneurs. As a consequence, Statistics Denmark carried out a questionnaire-based survey in 1999 aimed at entrepreneurs who started in 1995 or 1996 and survived through 1999. The main indicators used in this ad-hoc survey are outlined in Box 5.

For four out of five new entrepreneurs, a desire for independence, a thirst for new challenges and the possibility of a better planning of working hours, are the most important motivations for starting their own business (Figure 17). There are only minor differences between the major motivations for women and male entrepreneurs, although the possibility of better planning of working hours and a better combination of family and work are more important for women than for male entrepreneurs. On the other hand, the possibility for increased earnings is a motivation factor mentioned somewhat more frequently by male entrepreneurs.
Figure 17. **Motivations for starting up one’s own enterprise, broken down by gender**

<table>
<thead>
<tr>
<th></th>
<th>Male entrepreneurs</th>
<th>Women entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“To be one’s own boss”</td>
<td>“To be one’s own boss”</td>
</tr>
<tr>
<td>2</td>
<td>“The need for new challenges”</td>
<td>“The need for new challenges”</td>
</tr>
<tr>
<td>3</td>
<td>“Better organised working life”</td>
<td>“Better organised working life”</td>
</tr>
<tr>
<td>4</td>
<td>“Better combination of family life and work”</td>
<td>“Better combination of family life and work”</td>
</tr>
<tr>
<td>5</td>
<td>“Prospect of earning more”</td>
<td>“Prospect of earning more”</td>
</tr>
<tr>
<td>6</td>
<td>“Getting away from an unsatisfactory work situation”</td>
<td>“Getting away from an unsatisfactory work situation”</td>
</tr>
<tr>
<td>7</td>
<td>“The desire to make a living out of a hobby”</td>
<td>“The desire to make a living out of a hobby”</td>
</tr>
<tr>
<td>8</td>
<td>“To avoid unemployment”</td>
<td>“To avoid unemployment”</td>
</tr>
<tr>
<td>9</td>
<td>“To realise an idea about a new product”</td>
<td>“To realise an idea about a new product”</td>
</tr>
</tbody>
</table>

The most important barriers for establishing a new enterprise cited by both women and male entrepreneurs are administrative burdens such as tax and other accounting procedures (Figure 18). The survey shows that, in general, women entrepreneurs experience the different tasks related to the start-up and running of an enterprise as less problematic than their male counterparts. In fact, the only barrier mentioned more frequently by women entrepreneurs is the use of information technology.

Figure 18. **Barriers for establishing own enterprise, broken down by gender**

<table>
<thead>
<tr>
<th></th>
<th>Male entrepreneurs</th>
<th>Women entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tax, accounting, etc.</td>
<td>Running an enterprise alone</td>
</tr>
<tr>
<td>2</td>
<td>Contact with customers and the market</td>
<td>To raise financing</td>
</tr>
<tr>
<td>3</td>
<td>To price the product</td>
<td>Use of IT</td>
</tr>
<tr>
<td>4</td>
<td>To find a suitable workplace</td>
<td>To find suitable suppliers</td>
</tr>
<tr>
<td>5</td>
<td>To formulate the business concept</td>
<td>To get support from the spouse</td>
</tr>
</tbody>
</table>
Support and backing is essential for the success of the new entrepreneur. Nearly 70% of women entrepreneurs indicated that they experienced sufficient support from their spouse or cohabitant, compared with a just under 60% of males (Figure 19).

Figure 19. **Support given to the new entrepreneurs by their family or other personal relations**

6. **Conclusion**

The paper describes the methodology elaborated and used by Statistics Denmark to produce statistics on new enterprises. Statistics Denmark has developed this statistical monitoring of new enterprises based solely on the use of administrative registers. The paper also lists the indicators developed for measuring the new enterprises and the persons behind these enterprises – the new entrepreneurs – and their qualifications.
NOTES


3. See Note 2.