

PART I
Chapter 1

Measuring Women Entrepreneurship

Women are one of the most relevant untapped resources for entrepreneurship. Very little is known about the economic relevance of women's entrepreneurship, about the policy instruments that are effective in raising entrepreneurship rates among women, and about the economy-wide effects of higher participation of women in entrepreneurial activity. The policy rationale for the development of women's entrepreneurship was traditionally focused on women's equality and empowerment, and social inclusion (Lotti, 2006). Only in the more recent years, it has become clear that women entrepreneurs create new jobs for themselves and others and "[...] can provide society with different perspectives and approaches to management, organisation and business issues" (OECD, 2004).

This chapter presents definitions, data sources and methods for developing international statistics on women's entrepreneurship. Chapter 7 in this publication presents the first results from an original data collection based on this methodological chapter. This work is undertaken within the framework of the OECD Gender Initiative, a high-profile, horizontal activity that involves many OECD Committees and Directorates. The Initiative analyses gender equality in employment, education and entrepreneurship in OECD countries, as well as in emerging and developing economies. The data development discussed in this chapter and in Chapter 7 are analysed in the OECD Report "Gender Equality in Education, Employment and Entrepreneurship: Final Report to the Ministerial Council Meeting 2012". They also contribute to a data portal on gender statistics to be launched by the OECD in 2012. These statistics should provide a solid knowledge base for policy making, until now relying mostly on anecdotal evidence and country-specific studies. The overall goal is to quantify the gender-gap in entrepreneurship along its many dimensions, and to search for relevant explanations of this gap through cross-country comparative analysis.

The development of international data on gender differences in entrepreneurship can rely on the methodologies developed for the OECD/EUROSTAT Entrepreneurship Indicator Programme (EIP). In line with the principles guiding the EIP, this note focuses attention on ways to better exploit and internationally harmonise existing firm-level data available on a yearly basis, business registers above all. Given the difficulties of producing gender disaggregated statistics from business registers in several countries, an investment in the production of indicators on women and men entrepreneurs from population-based data sources (surveys of the labour force) is also suggested. In the longer run, an effort towards the international harmonisation of surveys of entrepreneurs and their enterprises is needed to learn more about motivations behind women and men's choices to start a business, their management strategies, and the constraints and difficulties they face.

1.1. Defining the entrepreneur: Conceptual and measurement issues

The first condition for sound analysis of gender differentials in entrepreneurship is a solid identification of the population of interest. There are two related issues to address:

i) how to distinguish entrepreneurs from other economic agents; ii) how to distinguish women and men enterprises. Neither issues are trivial. The word “entrepreneur” is in fact commonly used to describe very different economic agents, such as the founder of a startup, a member of the directing board of a company, a self-employed person in a inherited business, an innovating manager, etc. There is a large and interdisciplinary literature that tries to determine who entrepreneurs are and why they choose to start-up a business (Blanchflower and Oswald, 1998; Djankov et al. 2005). As summarised by Langlois (2007), different schools have seen the entrepreneurs as a “discoverer”, always alert to new opportunities (Kirzner); as an “evaluator”, with the faculty of judgment in economic organisation; and as an “exploiter” of new opportunities, carrying out new combinations and the creative destruction that results there from (Schumpeter). A general finding in the empirical literature is that entrepreneurs have peculiar characteristics. They are less risk-averse compared to other people (Kihlstrom and Laffont, 1979), have the ability to perform many different tasks (they are “jack of all trades” according to Lazear, 2005), and can rely by inheritance or through their personal efforts on strong and effective social networks (Djankov et al. 2005).

The EIP has proposed the following conceptual definition of entrepreneurs:

Entrepreneurs are those persons (business owners) who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets.

Enterprising human activity, value creation, and novelty (innovation) are thus the three essential requirements of an entrepreneur as defined by the EIP framework (Ahmad and Hoffman, 2008). The strength of this definition is that entrepreneurs are identified not only by their actions and by how they perceive their own work, but also by the outcomes of their activities. They need to make a personal investment (in terms of time, ideas and resources) to put in place an activity involving a degree of risk and uncertainty. The outcome of this activity needs to be “novel”, i.e. characterised by a clear discontinuity with respect to what already existed before the entrepreneur’s investment. Finally, the innovation embodied in the activity needs to generate economic and/or social value to the public.

The EIP conceptual definition helps eliminating several elements of ambiguity, related to size thresholds for the enterprises to be considered, and the requirement of ownership or shareholding. In particular:

- i) *Size issue.* Entrepreneurs and entrepreneurship are not concepts that relate exclusively to small and medium-sized enterprises (SMEs). Large enterprises can also be entrepreneurial, and their performance can be directly related to the activity of identifiable physical persons. Things get more complex at the other end of the spectrum. In fact, one might wonder whether the requirements of “novelty” and “creation of value” imply by necessity a minimum size for the enterprise, i.e. if we need to consider as entrepreneurs only those who employ at least one other person. International comparability reasons related to the coverage of business registers might require that the relevant universe be restricted to employer enterprises. On one hand, the restriction to employer entrepreneurs would allow excluding a large number of “casual businesses”, owned by wage and salary workers to complement their earnings (Fairlie and Robb, 2009). On the other hand, it is increasingly possible to develop an entrepreneurial activity (an activity characterised by risk taking, novelty and

generating value) without employing others, especially during the early stage of the business. If women or other categories of interest are over-represented among non-employer entrepreneurs, then limiting the observation to businesses with employees would yield a biased picture of reality. It is proposed that an explicit distinction be made between employer and non-employer entrepreneurs, and that distinct data are collected for the two whenever possible.

- ii) *Requirement of ownership or shareholding.* The EIP definition makes clear that entrepreneurs are business owners, bearing the risk associated with the activity of enterprise. Managers with no share-holding are not considered entrepreneurs even if they have delegated control over key financial and investment decisions.

The EIP conceptual definition of entrepreneurs needs to be translated into an operational definition, in order to guide measurement and statistical comparisons. This translation presents some obvious difficulties, given that the characteristics of the entrepreneurs and of their activity underlined by the EIP definition are very hard to measure given available data. Information on characteristics of business owners is typically scarce in information collected at the level of the establishment or the enterprise. Similarly, relevant information on the business activity is not available in household and labor force data, which instead provide details on the individual business owners.

The operational definition of entrepreneurs suggested herewith is the following:

Entrepreneurs are persons that have a direct control over the activities of an enterprise, by owning the totality or a significant share of the business. Employer entrepreneurs are those entrepreneurs who employ at least one other person.

The measurement agenda of the EIP has focused over the last years on the production of new and internationally comparable information from business registers. Is it possible to incorporate a gender dimension in this agenda? In other words, is it possible to identify women and men-owned enterprises using business register data, so as to develop gender-disaggregated, yearly measures of enterprise performance that are comparable across countries?

In enterprises with only one owner, the entrepreneur can be simply identified as the *sole-proprietor*. Those enterprises with a sole-proprietor woman at a given time can be defined as “women-owned enterprises”, consistently with the operational definition above. It is important to note that while in some countries sole-proprietorship is a general term covering all the businesses owned by one individual, in other countries (*e.g.* in the United States) sole-proprietorship is a specific legal status associated to enterprises with unlimited personal liability and subjected to a particular tax regime.

The statistical identification of the entrepreneur in enterprises with legal forms other than sole-proprietorship requires the establishment of rules defining a *significant* share of ownership. According to the operational definition, significant means high enough to grant influence and control over the key strategic decisions concerning the functioning and the development of the business. In the contexts of partnerships and corporations, the ownership of a minimum percentage (*e.g.* 25%) of the equity, interest, or stock of the business might be required. Given limited data availability on ownership shares, more discussion is needed to agree on the statistical identification of (not sole-proprietor) entrepreneurs for international data harmonisation.

1.2. Measurement issues, data and options for the development of gender indicators

To develop gender indicators of entrepreneurship, two different sources of existing data are relevant: i) data from labour force surveys and population censuses, and ii) firm-level data from registers, surveys and economic censuses with information on the business owners. As they refer to two different statistical populations, these two data sources are likely to yield significantly different results when used to produce the same indicator. They are, however, highly complementary.

Gender indicators of entrepreneurship from labour force surveys and population censuses

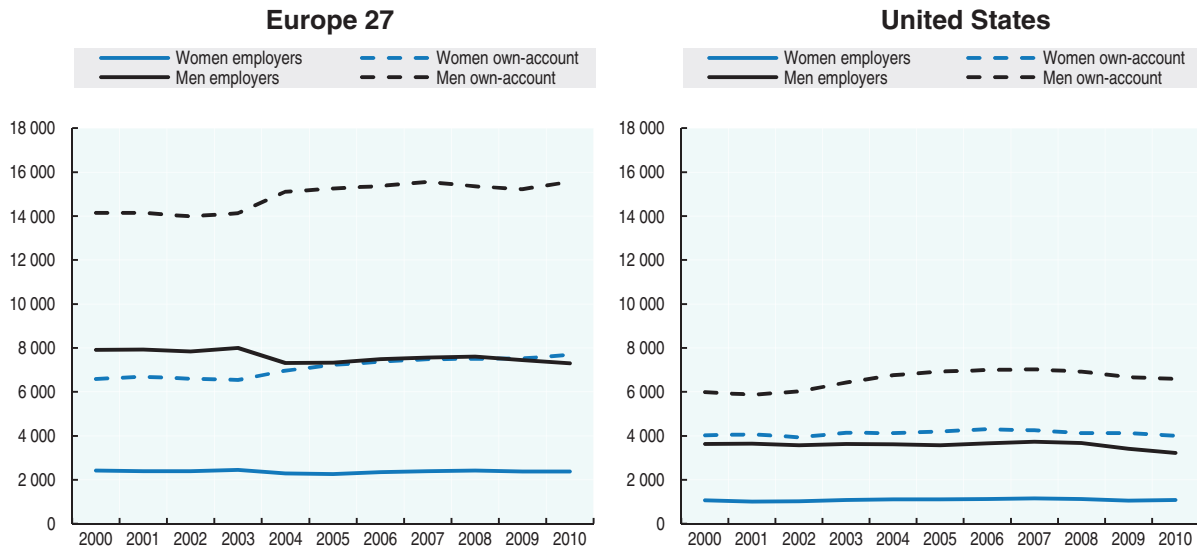
Self-employment is the most widely used measure of business ownership and entrepreneurial activity. It is generally estimated on a yearly basis through labour force surveys. The International Labour Organization (ILO) framework for the labour force surveys has enhanced international harmonisation in data collection. However, international comparability problems still exist, also for the figures on self-employment. They mainly have to do with the treatment of *incorporated* self-employed (owner/managers of incorporated businesses). In some countries these are counted as self-employed while in other countries they are counted as employees (Van Stel, 2004; and Fairlie and Robb, 2009). Moreover, not all the countries producing statistics on self-employment follow the ILO guidelines.

The most relevant shortcoming when equating entrepreneurs with the self-employed is the very broad meaning of self-employment, and consequently the heterogeneity of actors that are assigned to this category. In fact, counts of the self-employed generally include many “types” of workers, such as taxi drivers, baby-sitters, etc. who are closer in terms of activities and profile to employees rather than to entrepreneurs. Another issue is that self-employment is generally self-assessed, i.e. people are counted as self-employed if they say that they are. This implies that it is easy to find in these counts, for example, consultants who work for an agency, but do not perceive themselves as employees of the agency. Finally, it is not straightforward to make inferences on the number of enterprises from statistics on self-employment, given that single enterprises might be co-owned by several self-employed, and that many entrepreneurs might not be counted as self-employed if they have another primary occupation.


In order to reduce the heterogeneity of the professional figures counted under the category of “self-employed”, one possibility would be to focus on the sub-category of self-employed with employees (“employers”). Employers are more likely to be individuals who work on an entrepreneurial project they can expand or change as market opportunities emerge. Moreover, gender differences are generally more marked when focusing on employers. The number of men and women employers has remained fairly stable over the last decade in European countries (Figure 1.1). There has been a moderate increase in the number of both women and men own-account workers in Europe. Interestingly, while the number of men working on own-account is about double the number of women, men employers are more than three times the number of women employers. In the United States, the fraction of self-employed who have paid employees is lower among women than among men. Differences in the gender composition of employers and own-account workers tend to be more pronounced in emerging and developing countries (Peña Parga and Mondragon-Vélez, 2009).

Figure 1.1. Trends in employers and own account workers

Thousands



Source: Eurostat Labour Force Survey, 2000-10 for European Countries, and Current Population Survey annual averages for outgoing rotation groups for the United States (estimated numbers in thousands). For the United States, data include both incorporated and unincorporated self-employed. The number of incorporated self-employed with and without employees has been estimated on the basis of data from the Contingent and Alternative Work Arrangements Surveys.

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The main issue with the development of distinct indicators for employers and own-account workers is the limited number of self-employed women and men with employees in the surveys' samples. When this small number is disaggregated according to some characteristics of the women employers (to study, for example, the distribution of women employers across industries), there is a serious risk of obtaining figures that are below the thresholds applied by countries for ensuring the statistical reliability of the estimates. This is particularly the case for labour force surveys with relatively small samples and for surveys which do not classify incorporated business owners as self-employed. The percentage of women with paid employees among the unincorporated self-employed is generally low (only 8.9% of the unincorporated self-employed women in the United States had paid employees in 2009 (Hipple, 2010)). While conceptually it makes sense to develop distinct indicators for employers and for own-account workers, concerns about the statistical reliability of the survey estimates suggest aggregating all the self-employed (with and without employees) into one single category.

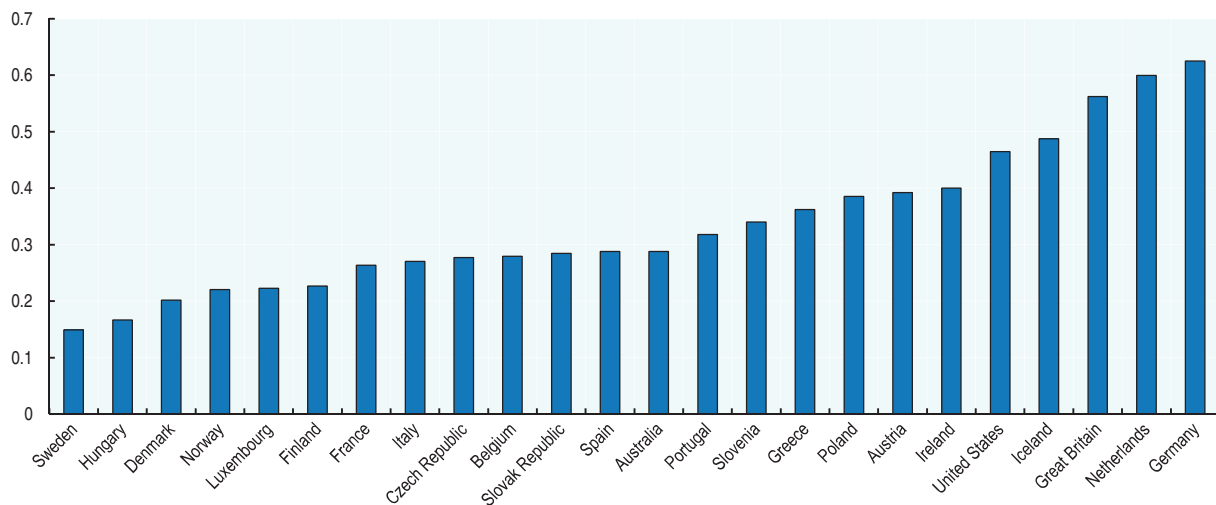
Using labour force surveys (LFS) from OECD and non-OECD countries, it is possible to build comparable indicators on trends in the distribution of self-employed men and women by size of their firms (number of employees) and by industry sectors. Moreover, the questionnaires of the labour force surveys generally include information on the 1) tenure in the activity, 2) age, 3) share of foreign-born, 4) education level, 5) hours worked, 6) investments in training, for self-employed men and women. Covering the whole population in working age, LFS enable relevant cross-country comparisons of the self-employed with those working for a salary.

One limitation of LFS data as a source of information on entrepreneurs is that they rarely include questions about motivations for a particular career choice, about satisfaction in the current job or about problems faced in the current occupation. It is thus hard to


conclude, from labour force surveys, whether the lower propensity of women to work as a business owner is due to lower preferences (“motivations”) of women for an entrepreneurial career. Limited evidence on preferences for self-employment can be produced by looking at job-transitions of men and women, or at the type of employment sought for by the currently unemployed.¹

A further limitation is that it is still not feasible to provide international figures on earnings from self-employment from most of the available labour force survey data. Other household surveys with detailed modules on earnings, assets and wealth, are more suited than LFS to assess the relative returns from entrepreneurial activity for women and men. Figure 1.2 uses data from different household surveys with detailed earning modules. It shows that profits (or losses) net of taxes from self-employment tend to be significantly lower for women. The derivation of a good measure of returns from self-employment activities is highly complex, and further harmonisation in household surveys is needed before this crucial piece of information can be made available and comparable for all OECD countries.²

Figure 1.2. **Median earnings gap of self-employed women and men, 2008**



Source: Estimates from European Union Statistics on Income and Living Conditions (EU-SILC), 2008 wave Survey of Income and Program Participation 2008 for United States, Household, Income and Labour Dynamics in Australia (HILDA) 2008 wave.

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Statistics on the self-employed from population surveys or censuses are relevant for comparative analysis of trends in entrepreneurial activity, given their information content and their wide cross-country availability. However, they can only be of limited use to assess how owner characteristics relate to enterprise performance. Significant progress in this direction can only be achieved through novel use and extensions of firm-level statistics.

Gender indicators of entrepreneurship from firm-level data sources

Comparing women and men enterprises using business registers and economic censuses

Business registers linked with administrative sources on individuals (population registers or tax records) and representative business survey data are more suited than population surveys to the analysis of how heterogeneous outcomes of the firms relate to characteristics of

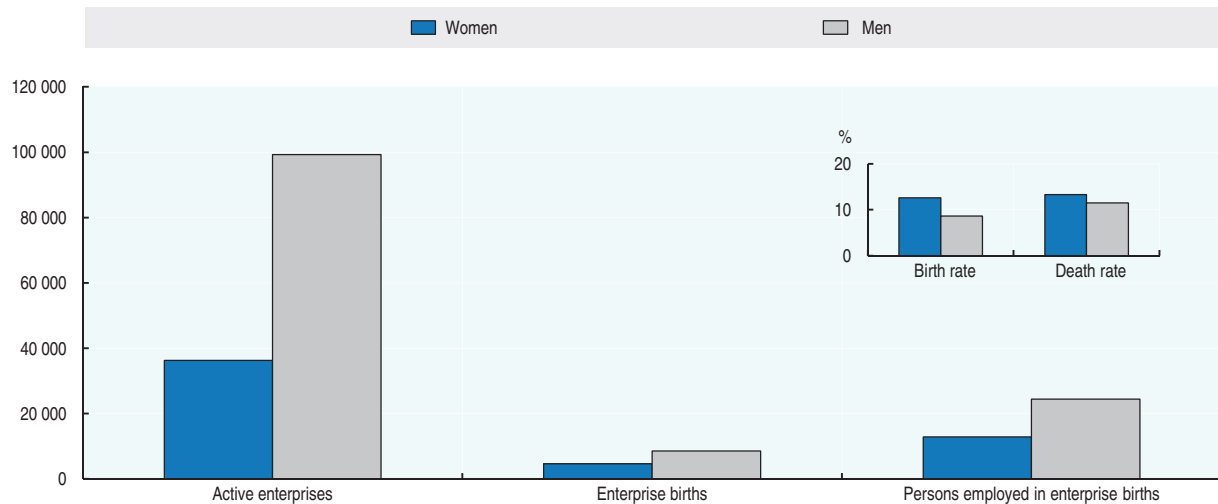
their owners. The range of individual characteristics that are recorded in these linked registers varies a lot across countries, but it is generally possible to obtain information about the gender of at least the primary enterprise owner. The coverage and availability on a yearly basis of business registers make them an essential resource for the comparative analysis of dynamics in women and men-owned enterprises. Countries using economic censuses instead of registers can generally monitor changes over five years in the number, size, industry, employment and financial variables for establishments owned by men and by women.

There are two main issues related to the use of business registers for cross-country, comparative analysis of women and men enterprises. The first is the difficulty of producing, in several countries, even basic business statistics with a breakdown by characteristics of the owners. Besides countries in Northern Europe, exercises in linking business and individual registers have been undertaken in Austria, Italy, New Zealand, Portugal, Spain and the United States. The second issue is the difficulty of assigning a 'gender' to enterprises with other legal forms than sole-proprietorship. When there is more than an individual owner, additional information is needed in order to assess whether women or men are responsible for the enterprise and control its activities. Data on the shares of the business stocks, assets or interests owned by the different individuals can enable the identification of men-owned enterprises (enterprises where one or more men control more than 50% of the shares), women-owned enterprises (enterprises where one or more women control more than 50% of the shares) and enterprises with mixed ownership.³ Unfortunately, data on shareholdings are rarely integrated into business registers. An alternative to shareholding data is represented by the linkage of business registers with tax data. The main owners of the enterprise can be identified by comparing the levels of declared revenues of the different individuals participating in the business.

A first data collection is ongoing within the EIP programme to assess the feasibility of building comparable indicators of business demography for individual (sole-proprietor) enterprises, using data from business registers.⁴ Statistics are being collected by gender of the sole-proprietor for the following indicators: i) number; ii) number of persons employed; iii) turnover; iv) birth rates; v) death rates; vi) three-year survival rates; vii) employment growth in surviving enterprises. Consistently with the other EIP data collections, the indicators are calculated for employer enterprises, i.e. enterprises with at least one employee. The definitions of the indicators are derived from the OECD/Eurostat Manual on Enterprise Business Demography. The result from this data collection would provide the first international statistics on the number, economic weight and sectoral distribution of women and men-owned enterprises from official business statistics. Cross-country comparisons based on these data might also provide relevant insights on the dynamics of women's entrepreneurship, as captured by birth, death and survival rates. In Austria for example, women represent a minority of active sole-proprietor enterprises in 2009, but the birth rate of women-owned enterprises has also been relatively higher (Figure 1.3). Importantly, the death rate of women-owned enterprises has also been higher compared to that of men-owned enterprises.

The international comparability of these indicators crucially depends on the consistency of the definition of "sole-proprietorship" across countries. As mentioned, in some countries sole-proprietorship is a general term covering all the businesses owned by one individual, while in other countries (e.g. in the United States) sole-proprietorship is a specific legal status associated to enterprises with unlimited personal liability and subjected to a particular tax regime. If there are specific incentives to register one's enterprise as a sole-proprietorship, and these incentives vary across countries, then international comparability

Figure 1.3. **Austria: Births, birth and death rates of sole-proprietor enterprises by gender of owner, 2009**

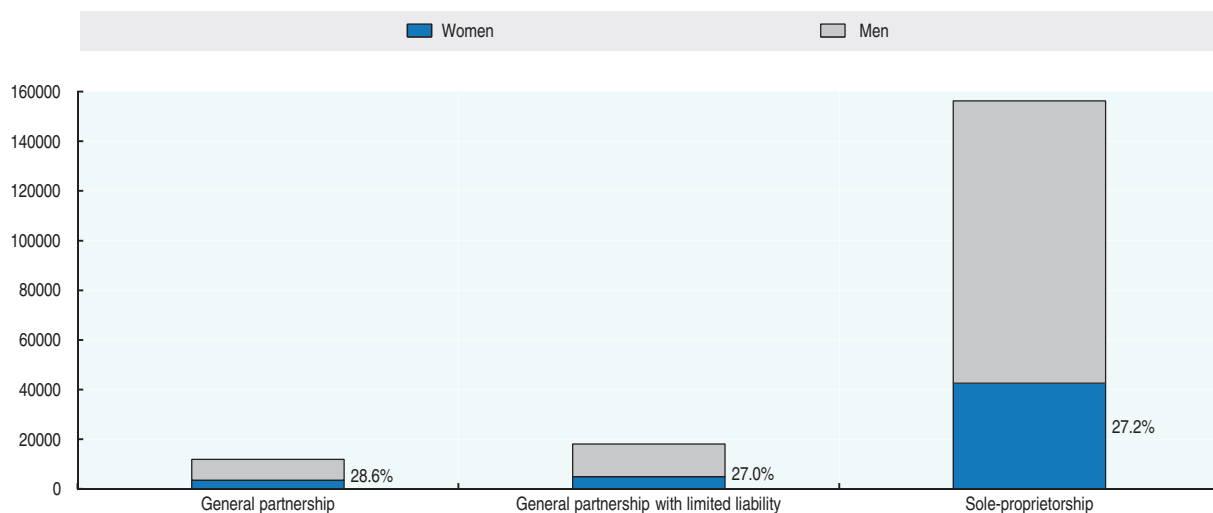


Source: Selected Statistics from Statistics Austria Employer Enterprise Demography.

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might be hampered. Moreover, the difference by gender observed for sole-proprietor enterprises might be more or less marked when the focus shifts to other legal forms of enterprises. Current OECD work is assessing these differences across countries by comparing the legal regimes, the relative presence of sole-proprietorships across countries, as well as the presence of women in enterprises of different legal forms in a sample of countries with available data. In Norway, for instance, sole proprietorship is much more prevalent than partnership, and the distribution of women owners across three different legal types of enterprises is fairly homogenous (Figure 1.4).

Figure 1.4. **Norway: Enterprises by ownership type and gender of owner, 2010**
Number and share



Source: Statistics Norway, Ownership and roles in business enterprise sector.

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Another relevant conceptual issue is how and whether to account for changes in ownership in the derivation of the demographic indicators. Within the EIP framework, the interpretation of “birth” as the generation of a completely new enterprise suggests to not equate shifts in ownership (a man purchasing the enterprise of a woman, or *vice versa*) with births of women or men enterprises, but rather to try to capture ownership changes through a specific indicator in a later stage. According to the same line of reasoning, the production of the survival and growth indicators should be based on the legal status of the enterprise at the first year of observation. An enterprise with a woman sole-proprietor in t and surviving until $t+3$ is included in the count of surviving enterprises even if it changes legal status between t and $t+3$.

Of course, even the most developed linked registers do not provide information on key characteristics of the entrepreneurs, such as motivations to start the business, self-assessment of business conditions and business development, and satisfaction at work. This information can be only provided by specially designed surveys.

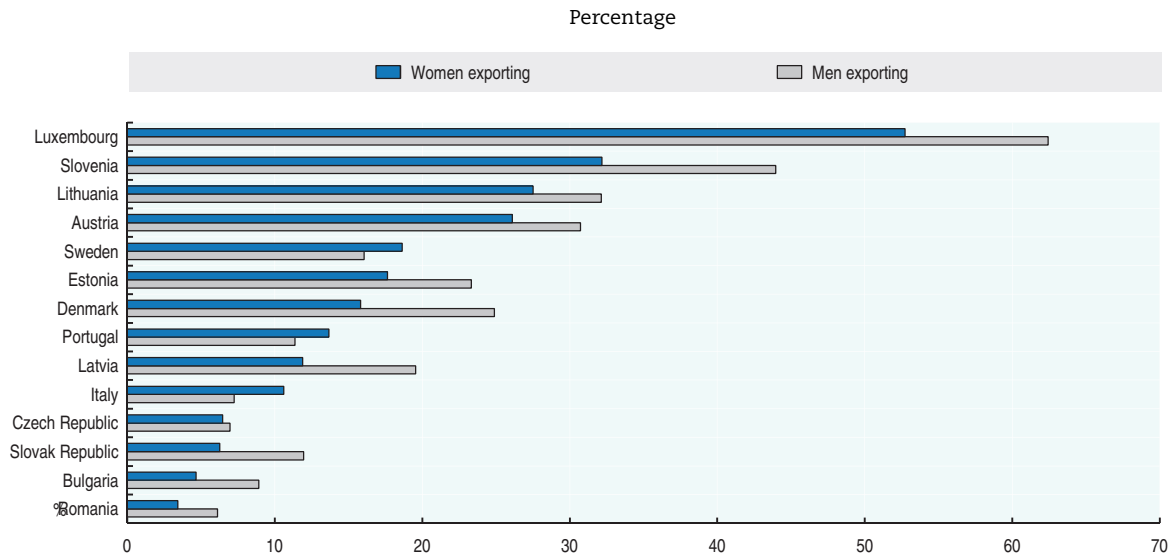
Comparing women and men enterprise using firm-level surveys

The use of firm-level survey data for the construction of statistics on entrepreneurship by gender is hampered by the lack of a common international framework for the design of business surveys. There are relatively few surveys that collect information on the owners. Among the few ones available, comparability is made difficult by i) the fact they refer to different populations of enterprises (often focusing on SMEs but with different size thresholds for inclusion in the sample), ii) their focus on particular categories of enterprises (start-ups/recently created enterprises, firms in high-technology industries), iii) differences in questions related to ownership, with related problems concerning the definition of women enterprises.

The only known example of international data collection of enterprise data with a focus on the “individuals behind the business” is the Factor of Business Success (FOBS), co-ordinated by EUROSTAT and implemented by 15 European countries. The FOBS focuses on newly born enterprises and characteristics of their founders. It was conducted as a one-off survey, within the framework of the data collection on business demography, on a sample of enterprises in the business registers stratified by activity and employee size. Using a relatively light questionnaire, the FOBS managed to collect comparable information on key elements of enterprise performance and on owners’ characteristics, motivations, and subjective evaluation of the business. The results of the survey are very informative. For instance, it appears that across European countries, enterprises founded by men tend to be relatively more involved in export activities, with the exception of enterprises founded in Italy, Portugal and Sweden (Figure 1.5).

The FOBS survey is similar in content, design and focus to the *Repertoire SINE in France*. SINE surveys a sample of entrepreneurs from businesses in the SIRENE register at the date of the creation of the firm, and three and five years after the creation. Different panels of young firms (created in 1994, 1998, 2002, 2006 and 2010) in SINE allows the monitoring over time of entrepreneurs’ conditions and strategies at the start and in the first years of entrepreneurial activity. A key strength and uniqueness of the SINE surveys is their longitudinal design.⁵ Using SINE data referring to enterprises born in 2006, it is possible to observe that the survival rates of newly created women and men enterprises are highly dependent on the experience in the business activity of the founder before the start-up (Figure 1.6). Once we control for the founders’ experience (50% of men founders have three

Figure 1.5. Europe: Firms exporting by gender of the founder, 2005



Source: EUROSTAT Factors of Business Success Survey.


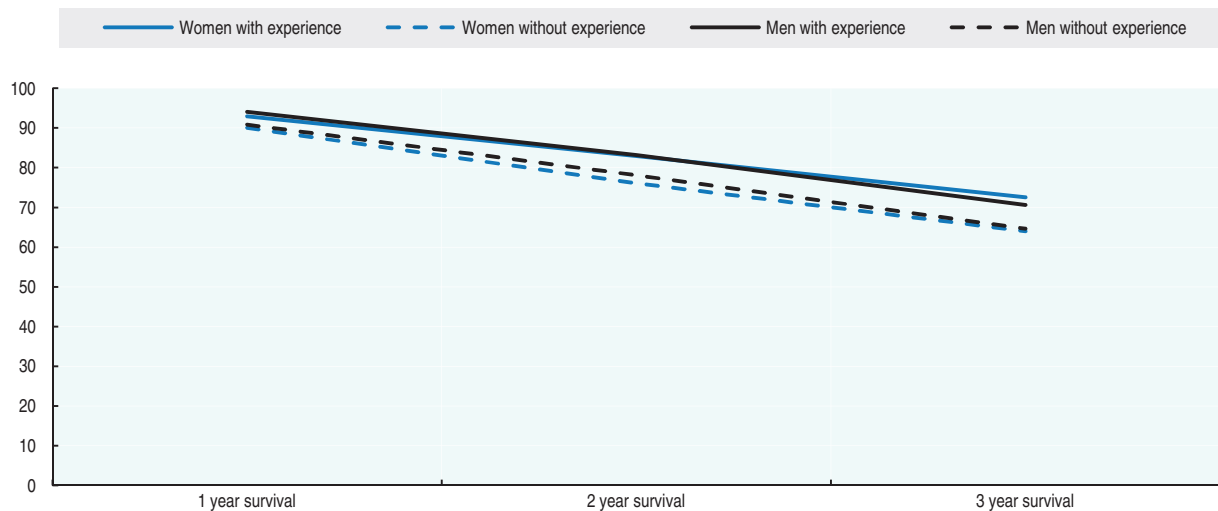

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Figure 1.6. France: Survival rates of enterprises created in 2006 by gender of the founder



Source: Own calculations based on INSEE Système d'information sur les nouvelles entreprises, 2006 wave.

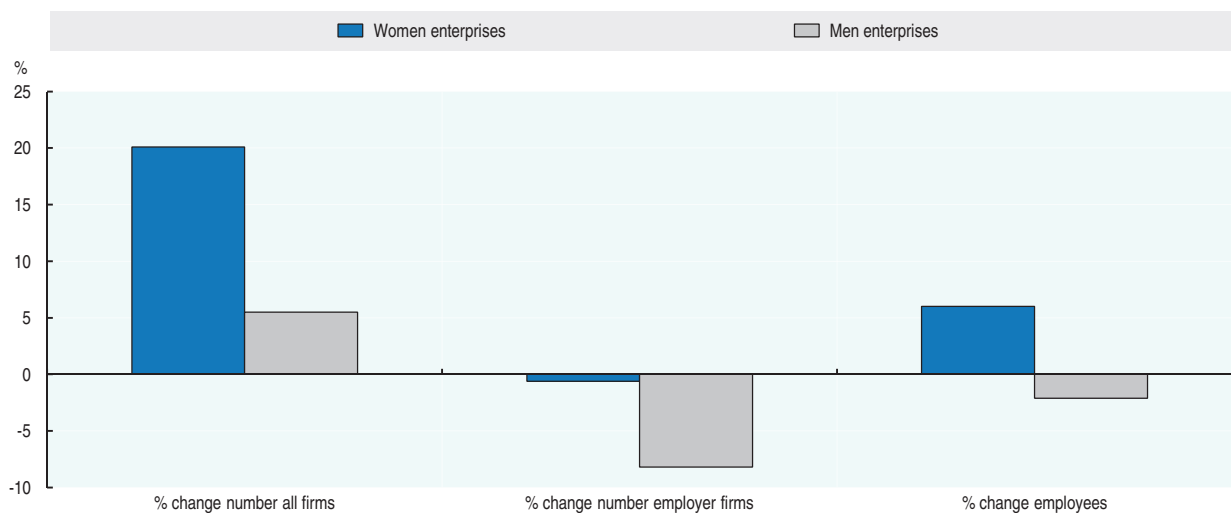
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years or more experience, while only 40% of women have this level of experience), statistically significant differences in survival rates by gender are no longer observed. This example shows how the combination of information on characteristics of the enterprise and on characteristics of the founder can yield significant insights on drivers and policy levers for entrepreneurship.⁶


A different example of survey providing information that can be disaggregated by gender is the Survey of Business Owners (SBO) in the United States. The SBO is conducted every five years by the US Census Bureau (the last available data refer to 2007). Its universe comprises all the operating firms with receipt of USD 1 000 or more that filed tax forms as

individual proprietorship, partnership or any type of corporation. Data can be tabulated by gender, ethnicity and race, on the basis of the characteristics of the owners that possessed 51% or more of the stock or equity in the business. Two other characteristics of the SBO are worth mentioning. First, it includes information on business inheritance, business ownership among family members, and owner's experience in working for a family business. This allows disentangling the role of family-factors behind the entrepreneurial decisions (possibly differentiating “exploiter” of existing activities from “creators” of a new business). Second, the universe for sampling takes into account estimated probabilities that businesses are minority or women-owned.⁷ In the United States, the number of women enterprises increased more markedly than the number of men enterprises between 2002 and 2007 (Figure 1.7). This positive change is due to a large increase in the number of non-employer firms, as the estimated number of men and women employer enterprises decreased during the period. Figure 1.7 also shows that the number of workers employed by women enterprises increased during the period, while it decreased for men enterprises.

Figure 1.7. **United States: Changes in number and employment of enterprises by gender of owner, 2002-07**



Source: Selected statistics from US Census Survey of Business Owners 2007, summary of main findings, www.census.gov/econ/sbo/get07sof.html?12.

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In the medium and long run, knowledge on the relationship between characteristics of entrepreneurs and the performances of their enterprises could be advanced through a harmonised survey, implemented at regular intervals by National Statistical Institutes. The examples presented above show that an international survey, based on a light and harmonised questionnaire, could be a technically feasible and policy-relevant undertaking. Further discussions should verify the sustainability of the costs related to the implementation of a new survey. Moreover, an open question is whether this collection of information should focus on newly founded enterprises (start-ups) and their founders, or on the existing population of enterprises and their owners. The response burden on enterprises from a new survey can be reduced by integrating it closely to the standard collection of business demography statistics. This means that surveyed enterprises must

be sampled from the business registers, so that information on employment, turnover, industry, etc. can be extracted directly by the registers. This integration would allow the monitoring of measures of enterprise performance (exit, employment and turnover growth) in the years following the initial survey without the need of a longitudinal design, since information from the business registers can be used.

1.3. Future developments

The operational definition of entrepreneurs presented in this chapter can be used as a tool for new analysis of the links between the characteristics of the business owners and the performance of enterprises. This analysis needs to be supported by a co-ordinated international effort of data collection and harmonization. The initial focus on gender is justified by the policy relevance of women's entrepreneurship and by the current lack of quantitative information that is comparable cross-country. However, definitions and methods used for this first analysis can be adapted to extend the focus to other policy-relevant issues, such as migrant entrepreneurship.

Policy-relevant evidence on women's entrepreneurship can be produced by developing indicators organised along three main axes, or pillars:

1. Business demography indicators for women and men-owned enterprises.
2. Characteristics of women and men entrepreneurs.
3. Determinants of women's entrepreneurship.

The development of international statistics along these three pillars will be based on the integration of information from firm-level data (mostly used for pillar 1), population-based data (pillar 2), and secondary data sources on the business and policy environment

Table 1.1. **Data sources on women's entrepreneurship and their use**

Advantages	Limitations	Methodological issues
Business registers		
Possibility to develop yearly indicators of entrepreneurial performance, disaggregated by gender (or other characteristics) of the owner. The economic relevance of women's entrepreneurship can be quantified, and compared across countries.	A limited number of countries have an established system of linked register and population data. Beyond gender and nationality (or citizenship), the information available on the owners is often limited.	The main issue is how to define women and men enterprises when there is more than one owner. Information on the distribution of shares, equity and interests among the owners is needed, but this information is often not available or difficult to integrate in the business registers. For indicators limited to sole-proprietorships, comparability issues arise from different legal definitions of sole-proprietorship across countries and different incentives to incorporate the businesses.
Population surveys		
Rich information on personal characteristics of the self-employed, with and without employees. Trends in entrepreneurial activity of men and women can be described for a large number of countries and over time.	High heterogeneity of the population of self-employed (not all the self-employed are entrepreneurs). Very limited information on characteristics of the business besides its size and industry.	Comparability issues created by the statistical treatment of incorporated self-employed. More harmonisation work needed to derive comparable figures on income from self-employment.
Surveys of businesses and their owners (founders)		
Possibility to study through multivariate analysis the sorting of women and men in different types of entrepreneurial activities. Possibility to analyse the role played by characteristics of the owners (or founders) on the growth cycle of the business. Information on individual motivations, difficulties and expectations can be collected.	The internationally harmonised firm-level surveys already available do not generally collect information about the individual owners or founders. The available surveys crossing information on businesses and owners focus on different populations (start-ups, SMEs or the whole population of active enterprises) and use very different questionnaires.	More work needed to set a strategic platform for the collection of firm-level surveys which are internationally comparable. New solutions, including better integration of information from survey and from business registers, need to be experimented to reduce the burden on respondents and on Statistical Institutes.

(pillar 3). The EIP can contribute to take stock of the different sources of data already available, proposing solutions to reduce the pending methodological and comparability issues.

Analysis based on these new data has the potential of increasing the collective understanding of the state and determinants of entrepreneurship, and of becoming a much needed tool for policy makers. Moreover, this work can guide future developments of statistics on both enterprises and entrepreneurs, through a knowledge sharing on best statistical practices. Such harmonisation in methods can be extremely relevant for developing countries in the process of developing their own statistical knowledge base on entrepreneurship.

Notes

1. Information on the type of employment searched for by the currently unemployed is only available for a subset of labor force surveys for OECD countries (notably, the Eurostat harmonised labor force surveys). These data show that in all European countries with the exception of Luxembourg, unemployed women are less likely than men to search for a job as self-employed. This might indicate that women have either lower preferences for business ownership, or lower expectations to enter in the labor force as self-employed.
2. Measurement of income from self-employment is one of the most difficult areas for income distribution analysis. The EU-SILC provides detailed guidelines on the criteria that should be followed for the calculation of self-employment income. However there are still methodological hurdles that reduce the comparability of the statistics across countries and across times. In fact, the self-employed often have accounting practices which make it difficult for them to provide accurate responses to survey questions. Moreover, their financial and accounting framework does not relate well to that used by statisticians in constructing national accounts or household income analysis (Eurostat, 2010).
3. This residual category can cover enterprises managed by couples, with equal participation of men and women, or with participation of a legal entity so that neither men nor women can claim ownership over the majority of the shares.
4. For Mexico, data on sole-proprietor enterprises are produced using the Economic Census 2009.
5. Some of these surveys have been conducted at the national level by research institutes and private foundations (e.g. the KfW/ZEW start-up survey in Germany and the Kauffman Firm Survey in the United States), and tend to oversample particular types of enterprises, such as those in high-technology sectors.
6. Another relevant example is the *survey on new entrepreneurs undertaken by Statistics Denmark in 1999*. The survey collects information on motivations, barriers for start-up and continuation, framework condition and types of cooperation of the entrepreneur. The survey was meant to complement the data on entrepreneurs made available through the linkages of business and population registers. It focuses only on new enterprises, defined as “a business unit that has not been directed by another owner, has not existed under another type of ownership, has not been a subsidiary of another firm or owned by a person who is already registered for activities liable to VAT” (see Boegh Nielsen, 2001).
7. These estimates are based on the combination of different secondary data sources and techniques (e.g. analysis of word strings in the company name indicating possible minority ownership).

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