

THE STATUS OF STATISTICS ON WOMEN AND MEN'S ENTREPRENEURSHIP IN THE UNECE REGION

Costanza Giovannelli, Hrund Gunnsteinsdottir, Angela Me¹

Statistical Division, UNECE²

The issue of women and men's entrepreneurship has received growing attention among policy makers in the member states of the UNECE over the last decade or so³. Entrepreneurial activities are an important factor in creating and increasing employment opportunities and fuelling economic growth. Entrepreneurship continues to play a crucial part in the transition process in South Eastern Europe and the CIS, being an important source of job creation and opening career opportunities for men and women. However, as it is reflected in labour market trends in general in the member states of the UNECE, there is a serious gender gap in entrepreneurship in all countries of the region.

The analysis of the role of gender in entrepreneurship requires the availability of data both at national and international level and this paper presents some of the main issues faced in the collection of official, comparable data on the prevalence of women and men's entrepreneurship and relevant demographic and social aspects for the ECE region. The paper draws from the experience that the Statistical Division of UNECE has been gaining in the collection and dissemination of statistics on gender and entrepreneurship in its gender statistics programme and on the basis of a questionnaire that was sent to National Statistical Offices (NSOs) of the region⁴ to collect information on the status of statistics related to women and men's entrepreneurship.

The questionnaire focused primarily on official statistics⁵ and aimed to investigate how statistics have been collected on women and men's ownership and management over Small and Medium Sized Enterprises (SMEs) – as well as larger enterprises than SMEs. The questionnaire had three main sections: i) availability of selected indicators, ii) sources and methods and iii) dissemination.

The questionnaire was sent to 49 countries. 39 countries replied. Among them, 5 countries reported that they did not have statistical data on women and men's entrepreneurship; subsequently, only 34 questionnaires⁶ were processed.

1. Definitions and methodologies

1.1 *A general overview of the main concepts*

There is no internationally recognised definition for entrepreneurship and as a result, “a «women entrepreneur» can refer equally to someone who has started a one-woman business, to someone who is a principal in a family business or partnership, or to someone who is a shareholder in a publicly held company which she runs”⁷ Definitions used by countries to collect and/or disseminate data on women and men's entrepreneurship include concepts such as owners, managers, self-employed, and employers but different approaches are often used when

¹ The opinions expressed by the authors in the paper do not necessary represent the views of the United Nations

² Comments and questions on the paper should be addressed to: angela.me@unece.org

³ This varies depending on states, whereas e.g. women's entrepreneurship became an important topic of research and discussion in the US in the 1970s. The transition from communist states to market based economies has introduced the business entrepreneurial concept to the former communist countries, and since the 1990s entrepreneurship in these countries has received more attention from policy makers.

⁴ Questionnaires were sent to Gender Statistics Focal Points identified in National Statistical Offices. Among the 55 countries of the UNECE region, 49 countries have nominated a gender statistics focal point. No gender statistics focal point was nominated by Andorra, Bosnia & Herzegovina, Liechtenstein, Malta, Monaco and San Marino.

⁵ Although we recognize the importance of academic, non-governmental and private sector sources and their crucial role when it comes to getting a complete picture of the issues around women and men's entrepreneurship, the questionnaire focused primarily on statistics collected and /or disseminated by NSOs.

⁶ Questionnaires from Albania, Armenia, Austria, Belarus, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Macedonia, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia and Montenegro, Slovenia, Spain, Switzerland, Turkmenistan, Ukraine, United Kingdom, Uzbekistan.

⁷ “Women entrepreneurs in SMEs”, OECD, 1998

these concepts are defined and put into the context of entrepreneurship. In Ireland for example, a definition of entrepreneur had been established for the “Business and Entrepreneurship Survey”⁸, carried out in Spring 2003. They define both entrepreneurs and managers in middle position, respectively as *an owner, part-owner and/or the principal manager responsible for the expansion and strategic development of the business* and *a manager who is a person with day-to-day responsibility for staff working under his/her direction who in turn is responsible to someone at a higher level in the organization*. In Finland⁹ entrepreneurs are defined as *persons who have a self-employed person’s pension insurance and who are not unemployed*. If, in addition to having a self-employed person’s pension insurance, the person is in an employment relationship, *it is required that his/her income from entrepreneurship exceeds his/her wage income*.

Implied in any endeavour to measure entrepreneurship is the need for a shared definition to which all member states agree, as a basis for further statistical work.

Many of the surveys on women and men’s entrepreneurship carried out by NSOs and international organisations focus on business entrepreneurship and ownership of Small and Medium Enterprises (SMEs). Recording the sex of an owner of an enterprise is often used as an indicator of the extent to which women and men are involved in entrepreneurial activities. However, this raises important questions as to whether or not registered owners of enterprises are the persons with the main responsibility and decision-making power. For example, if a woman is a registered owner of an enterprise, but she is not engaged in the management of the enterprise, the sex of the owner, and hence the sex of the entrepreneur, has no relevant meaning.

Some studies use the “sex of manager or owner” as an indicator of entrepreneurship, while others look at these separately or at the sex of the manager only. For small enterprises these can be useful indicators, but for medium sized enterprises or enterprises with more than one manager this becomes more problematic. For large enterprises, public sector enterprises or enterprises registered in the stock market, the sex of the owner gives a limited picture. Some surveys have looked at the sex of representatives of committees, executive committees, and chairpersons of such committees. These indicators give a better picture of the decision-making power of men and women within such enterprises. The provision of data on managers, executive directors, central board executives and so on, become even more useful once divided according to sections, i.e. types of industry or business, and education of the men and women in charge, as has been done in some surveys. Other data such as on the duration of enterprises, expansion, salaries of employees, profit, balance sheet of enterprises, and other social and demographic data are very useful when it comes to providing a more holistic picture of the dynamics and gender issues involved in women and men’s entrepreneurship.

Statistical data on who is involved in the setting up of a new business are, in general, scarcely available, even if this is a widely used concept when defining and identifying entrepreneurs. Many factors may affect the decision to become an entrepreneur, since “the actual decision to pursue a new firm start-up reflects a complex interaction between the individuals’ personal background, family and personal context, and trends in regional or national economic situation”¹². Some studies give a broader definition of entrepreneurial activities, referring to those who are not only owners or managers of a business but, more generally, are responsible for its development and were involved in the business establishment. For example, entrepreneurs can be defined as “those who create and grow new enterprises and demonstrate characteristics of risk-taking and innovation”¹³.

1.2 Some results of the UNECE survey

The overview presented in this paper focuses only on data collected and/or disseminated within the framework of official statistics. Countries that currently collect data on entrepreneurship and gender use various sources to do so. In general information can be collected from:

- Households where information for example on status in employment and occupation of the household members can provide data on people who are self-employed, employers, managers or other leading positions

⁸ The survey was commissioned by the National Development Plan - Gender Equality Unit of the Department of Justice, Equality and Law Reform.

⁹ The definition of “entrepreneur” was provided by Statistics Finland, in the context of Census methodologies.

¹⁰ “Women entrepreneurs in SMEs”, OECD, 1998

¹¹ “Women entrepreneurs in SMEs”, OECD, 1998

¹² Global Entrepreneurship Monitor “2002 Summary Report”, London Business School, 2002.

¹³ Goodbody Economic Consultants, “Entrepreneurship in Ireland”, Dublin, 2002.

¹⁴ “Compilation of data on women-owned enterprises in the United States.” Sabrina L. Montes, International Trade Administration, U.S. Department of Commerce (1998).

- Enterprises where information can be collected for example on owners or executive directors

Data collected through households have the advantage of being always sex-disaggregated. Data collected through enterprises are not always sex-disaggregated since the main objective of the data collection is not to look at the people who manage the enterprise but rather to the enterprise itself.

Labour force surveys (LFS) are the main source of data on entrepreneurship but enterprise surveys and registers are also used in countries where they are available. LFS provide data particularly on numbers or percentages of women and men self-employed or in leading position (employers, managers or owners), while data related to enterprises (such as number or percentage of enterprises owned or managed by women and men) are mainly collected from registers or enterprise surveys.

Few countries in the region rely entirely on registries to collect information on gender and entrepreneurship. More often data are collected both from registers and surveys. In countries where registers are not of good quality or do not exist LFS and/or population census are the only sources of data on entrepreneurship limiting the availability of indicators only to those related to employers, self-employed, and sometime managers. These different strategies used to collect data on gender and entrepreneurship reflect the different statistical systems of countries but it also reflect the lack of a common definition on entrepreneurship that prevents the development of a coordinated approach to data collection.

1.2.1. Main key concepts: self-employment, owners and managers

Self-employment is a key indicator for entrepreneurial activities¹⁵. Together with the number and share of women and men employers it is the indicator most used by statistical offices to provide information on women and men's entrepreneurship. This is a concept widely collected in surveys (particularly LFS) and population censuses. As defined by ILO, the concept of self-employment encompasses a variety of jobs, which include employers, own-account workers, members of producers' cooperatives and contributing family workers¹⁶, but there are differences among countries on how this indicator is collected and analysed.

For example, some countries in the region did not collect data on status in employment as defined by the ILO definition, in their sample surveys. In Austria, Finland, Italy, Lithuania, Netherlands, and the US the category "employers" included own-account workers. In Bulgaria and Estonia the category "own-account workers" also included members of producers' cooperatives, while in Luxembourg data on employers, own-account workers and members of producers' cooperatives were not collected separately. In the UK, data for members of producer cooperatives and family workers are not available¹⁷.

Statistics on self-employment do not always distinguish between persons with and without employees. Whether or not self-employment statistics includes the agricultural sector also varies according to the sources of data and the purpose of the analysis. In countries where a large part of the labour force is engaged in agriculture, the statistics on self-employment overestimates entrepreneurship activities. According to ILO standards, women and men engaged in agriculture for own consumption are in fact included in the definition of self-employment. Table 1 shows data on "self-employment" in selected ECE countries as reported by national statistical offices. Data on "employers and own-account workers" are also presented in the table. In almost all the countries, the share of women among the "self-employed" is higher than among "employers and own-account workers". Women appear to be relatively more represented in the categories of "members of producers' cooperatives" and "contributing family workers", which are more involved in the agricultural sector. It should also be noted that countries with the highest labour force participation in the agriculture sector report the highest share of women in self-employment (Table 2).

¹⁵ The statistical offices in UK and Canada for example focus their data collection on women and men's entrepreneurs only on self-employment

¹⁶ According to ICSE-93, "Employers" are those workers who hold a "self-employment job" and have continuously engaged one or more persons to work for them as employees. "Self-employment jobs" are those jobs where the remuneration is directly dependent upon their profits derived from the goods and services produced. "Own-account workers" are those who hold a "self-employment job" and have not engaged any employees on a continuous basis. "Members of producers' cooperatives" are workers who hold a 'self-employment' job in a cooperative producing goods and services. "Contributing family workers" are those workers who hold a "self-employment job" in a market-oriented establishment operated by a related person living in the same household.

¹⁷ See http://www.unece.org/stats/gender/web/metadata/Meta3_3.htm

Table 1 - Self-employment^(a), employers and own-account workers; women as a percentage of women and men. 2001^(b)

Country	Self-employment ^(a)	Employers and own-account workers	Country	Self-employment ^(a)	Employers and own-account workers
Republic of Moldova	52.1	48.0	Netherlands	34.4	n.a.
Georgia	50.0	33.0	Greece	34.3	25.6
Romania	48.9	31.9	Belarus	34.0	32.9
Russian Federation	43.9	44.9	Canada	33.9	33.4
Kyrgyzstan	43.8	41.7	Turkey	33.9	12.0
Latvia	42.0	37.8	Hungary	33.0	30.9
Portugal	41.0	39.8	Finland	32.6	32.3
The FYR of Macedonia	40.7	21.9	Estonia	32.6	30.2
Poland	40.7	36.4	Norway	30.9	n.a.
Austria	40.5	34.0	Israel	29.7	23.9
Lithuania	40.5	n.a.	Czech Republic	29.6	27.4
Croatia	38.5	30.4	Italy	29.0	24.1
Serbia and Montenegro	38.4	n.a.	Cyprus	28.1	19.9
United States	38.4	n.a.	Slovakia	27.8	26.3
Slovenia	37.2	26.9	Iceland	26.9	26.6
Bulgaria	37.0	34.3	Armenia	26.9	26.9
Belgium	35.2	28.7	United Kingdom	26.0	26.0
Luxembourg	34.6	n.a.	Ireland	18.1	15.7

Source: UNECE - Gender Statistics Database

(a) According to ILO definition, self-employment comprises employers, own-account workers, members of producers' cooperatives and contributing family workers.

(b) 1995 data for Armenia and Portugal; 2000 data for Austria, Belarus, Israel, Kyrgyzstan, Poland and Romania.

Table 2 – Employment by sector, agriculture as a percentage of total employment – 2001 (a)

COUNTRY	AGRICULTURE	COUNTRY	AGRICULTURE
Georgia	62.5	Ireland	7.0
Kyrgyzstan	53.1	Estonia	6.9
Republic of Moldova	51.0	Hungary	6.2
Armenia	44.4	Slovakia	6.1
Romania	42.8	Austria	5.8
Turkey	35.4	Finland	5.7
Poland	18.8	Italy	5.2
Greece	16.0	Cyprus	4.9
Belarus	15.8	Czech Republic	4.7
Croatia	15.6	Canada	2.9
Latvia	15.0	United States	2.3
Portugal	11.5	Israel	2.2
Slovenia	9.8	Belgium	1.6
Bulgaria	9.7	United Kingdom	1.4
Iceland	7.8		

Source: UNECE - Gender Statistics Database

(a) 1995 data for Luxembourg and Portugal; 2000 data for Armenia, Austria, Israel, Kyrgyzstan, Poland and Romania.

Identifying comparable data on **owners and managers** is particularly challenging, since there are not common approaches on how to treat these categories. Despite ILO's provision of a standard definition of managers¹⁸, some other categories can be identified, and some interpretational problems can arise. For example, the statistical

¹⁸ According to ISCO-88, "Managers" are classified within Major Group 1 (Legislators, Senior Officials and Managers) and comprise "corporate managers" and "general managers".

treatment of “owner-managers”¹⁹ is different according to users: some include them in “paid employment” and some in “self-employment”. According to ILO “to classify owner-managers as “employees” will be consistent with their classification in the “System of National Accounts”, while they may be best classified as “employers” or “own-account workers” for labour market analysis”²⁰. Data related to owners and managers may be different if collected through LFS or enterprise surveys. In LFS this category may be classified as employers or own-account workers and in enterprise surveys they may be classified as employees.

2 Availability of data on Women and Men’s Entrepreneurship in the UNECE region

2.1 Employers and self-employed

The two indicators most commonly collected by UNECE member states, according to their responses in the Survey are **the number and relative share of women and men employers** (28 countries²¹) and **the number and relative share of self-employed women and men** (30 countries²²).

Indicators related to employers and self-employed are often collected through LFS but enterprise surveys and business registers are also used. Finland, for example, is one of the countries where statistics on these indicators are widely based on the use of registers. The main source of information on gender and employment here are register-based Employment Statistics (together with LFS), even though it is, in principle, possible to obtain data on the self-employed from the Business Registers.

In other cases enterprise and business surveys comprise a main source of data on entrepreneurship. In Germany data on employers are collected through the Cost Structure Survey - a sample survey annually carried out among enterprises with more than 19 employees in the manufacturing, mining and quarrying sectors. The survey is significant in particular with regard to the number of active female proprietors in a partnership. In the case of Lithuania availability of information is linked to the participation of the NSO to the Eurostat projects PECO and DOSME²³. Through these projects only data of the sole proprietor or on the main partner in a partnership are available.

Other countries rely on Census data. In Cyprus, for example, data exist only for self-employed and unincorporated enterprises on Census years (Census of enterprises), while there is no information on who controls corporations. Many countries reported to collect these indicators through LFS, and in some of them, several sources are used to produce statistical data on the subject: in Slovenia for example, information on self-employed derives from LFS, from Census and from the Statistical Register of Employment.

2.2 Owners, managers and members of executive boards

In general, sex-disaggregated data on owners of enterprises, members and presidents of executive boards of large enterprises are mainly collected through registers (enterprise registers, business registers) or through enterprise surveys, while information on managers are collected through LFS and enterprise surveys²⁴.

¹⁹ According to ICSE-93 “Owner-managers” of incorporated enterprises are workers who hold a job in an incorporated enterprise, in which they: (a) alone, or together with other members of their families or one or a few partners, hold controlling ownership of the enterprise; and (b) have the authority to act on its behalf as regards contracts with other organizations and the hiring and dismissal of persons in “paid employment” with the same organization, subject only to national legislation regulating such matters and the rules established by the elected or appointed board of the organization.

²⁰ <http://www.ilo.org/>

²¹ Albania, Armenia, Austria, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, Germany, Greece, Iceland, Italy, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Moldova, Norway, Poland, Portugal, Romania, Russia, Slovenia, Spain, Turkmenistan, Ukraine.

²² Albania, Armenia, Austria, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, Greece, Hungary, Iceland, Ireland, Italy, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovenia, Spain, Ukraine, United Kingdom.

²³ In 1995 the PECO PANEL project was launched in some CEECs. Its objective was to try and estimate the creation and/or development of SME since transition and to assess the quality of business registers via various surveys of (new) businesses. In 1998 the follow-up project DOSME started, ending in 2000. A second DOSME project started in 2001.

²⁴ In LFS, the ILO ISCO-88 classification is widely used to identify managers.

According to the UNECE Survey, 13 countries²⁵ had statistical data on **the number and/or percentage of enterprises owned or managed by women and men.**

In some cases, i.e. Denmark, register-based data are only available on ownership but not management. Statistics Iceland maintains data on women and men managers of public and private corporations, based on registers of enterprises and tax registers. Their data on ownership, however, are not available. Data on ownership are also not available in Slovenia, where statistics on women and men managers are maintained in the Statistical Register of Employment, and in Latvia, where statistics on number of managers by sex are available. In Spain the LFS provides the number of women and men managers of enterprises, but no information on the number of owners.

Business surveys may refer only to ownership data, as is the case in Lithuania, where data concern only proprietors or main partners in a partnership, while in Ireland data on both owners and managers by sex are collected through the Business and Entrepreneurship Survey.

Statistics on **the number of women and men owners and/or managers of enterprises by district** are available in 16 of the responding countries²⁶. Data disaggregated by region²⁷ are available in Bulgaria (where data refer to the number of employers), Greece, Hungary, Iceland (no data on ownership), Ireland, Italy, Poland, Portugal and UK. Data are also broken down by region in Canada, where data derive from a sample of Canadian SMEs that made a request for financing.

The number of female and male members of executive boards of large enterprises is collected in 8 countries³⁰, but the definition of “large enterprises” varies among them. In Estonia the collection is made through the LFS and data refer to enterprises with 3 or more managers, but it was also reported that, when large enterprises are defined in terms of number of workers, there might be some differences in the enumeration of the members of executive boards. Data however can also be derived from the Survey of Hourly Wages and Salaries. In Italy the availability is limited to largest enterprises, which are about a hundred. In Spain data are reported in the Annual Report of the Corporate Women Directors International (CWDI), which provides the number of male and female members of executive boards of the 300 most important enterprises of the country. In Ireland the indicator is only partially available through the Business and Entrepreneurship Survey, where information are collected on male dominated, female dominated, or gender-balanced management.

In seven countries³² there are data on **the number of women and men presidents of executive boards of large enterprises.** In Italy the NSO does not collect these data directly, but the data are available from the Chamber of Commerce.

2.3 Size of the enterprise

When data on women and men managers and/or owners are related to size of enterprise (in terms of number of employees and production output) data collected through enterprise surveys tend to be more reliable than data collected through household surveys.

In 14 countries³³ information on **the size of enterprises owned and/or managed by women or men, measured in terms of number of employees** is available. For this indicator many different sources were also reported: Canada uses the Survey on the Financing of Small and Medium Enterprises, while in Ireland information is collected through the Business and Entrepreneurship Survey; LFS are used in Croatia, Greece and Poland, and registers are the source of data on owners of enterprise in Denmark and Slovenia, where statistics are based on the Register of Employment. In Cyprus data are provided in the Census of Enterprises and some data are collected in Portugal but not of good quality.

²⁵ Albania, Austria, Bulgaria, Canada, Denmark, Iceland, Ireland, Italy, Latvia, Lithuania, Norway, Slovenia, Turkmenistan.

²⁶ Albania, Bulgaria, Canada, Denmark, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Norway, Poland, Portugal, Slovenia, Turkmenistan, United Kingdom.

²⁷ At least NUTS II regions.

²⁸ Albania, Bulgaria, Canada, Denmark, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Norway, Poland, Portugal, Slovenia, Turkmenistan, United Kingdom.

²⁹ At least NUTS II regions.

³⁰ Bulgaria, Estonia, Iceland, Ireland, Italy, Norway, Spain and United Kingdom.

³¹ Albania, Estonia, Iceland, Norway, Spain, Turkmenistan, United Kingdom.

³² Albania, Estonia, Iceland, Norway, Spain, Turkmenistan, United Kingdom.

³³ Albania, Austria, Bulgaria, Canada, Croatia, Denmark, Greece, Iceland, Ireland, Italy, Norway, Poland, Slovenia, Turkmenistan.

Only four countries (Denmark, Iceland, Ireland and Norway), collect data on **the size of enterprises owned and/or managed by women or men, measured in terms of production output**. Main sources of data are registers for Denmark, Iceland and Norway, where the size of enterprises is measured in terms of turnover. In Denmark there is no information on managers, while in Iceland there is no data on owners.

3. Data sources

The chief sources for official statistics on entrepreneurship are official surveys and administrative records/registers. These statistics are the most comprehensive and come closest to covering the entire economy. Ideally, they are also subject to rigorous checks and are produced in the frame of a reliable methodology. These sources include censuses, such as economic, population and agriculture censuses; labour force surveys and other household surveys, enterprise surveys, as well as surveys on the gender of owners of businesses, characteristics of business owners; administrative records and various registers such as tax registers, business registers, pension registers, etc.

There are other specialized studies carried out by the private sector, or academic and non-governmental institutions, but they often do not have a national dimension and are only ad hoc activities not included in the regular statistical programme of countries. These studies, however, can provide useful data, which are more up-to-date and targeted at answering more current, specific questions than official sources. Experience from the US shows for example that they can be an important supplement to official statistics on women and men's ownership of businesses. This is for example by providing inter-census estimates of the number and growth of women-owned businesses, financing, international trade and technology use. Sources like these can also point to areas where changes in official statistics are needed³⁴.

3.1 Registers

National registers such as business, tax, insurance, and pension registers are important sources to analyse the different aspects of entrepreneurship, particularly in gathering information on the links between entrepreneurs and enterprises. Many of the countries that reported the availability of data on size of enterprises owned and/or managed by women and men are those that obtained data from registers.

Countries that have reported the use of registers to collect sex-disaggregated data on entrepreneurship are Albania, Armenia, Canada, Denmark, Finland, Germany, Iceland, Norway, Slovenia, Spain and Turkmenistan. Registers of Enterprises are used in Armenia and Iceland (where a unique ID code is used), Tax registers³⁵ in Albania, Canada, Denmark, Finland, Iceland and Turkmenistan, and Registers of Employment in Slovenia and Finland. From January 2003 Germany collected sex-disaggregated data from the "business notification". Finland also uses pension and insurance records. Armenia extracts sex-disaggregated data from the Register of Enterprises only for individual enterprises, but this register is not structured to provide sex-disaggregated data for cooperatives.

Although Italy does not extract data on women and men's entrepreneurship through registers some possible sources can be identified: the Chambers of Commerce (to collect data on presidents of executive boards), business registers, social security, and industrial accidents insurance, to name a few. Plans to use business registers to collect data on women and men's entrepreneurship in the future have been reported both by the Ukraine and Norway. In the latter no data on entrepreneurship are currently published, but they are planning to use Business Registers (Central Register of Enterprises and Establishments), and a register that contains information about the owner in sole proprietorship, owners in general partnership and in general partnership with shared liability. This register also contains information on directors and members of the board and on managers; Statistics Norway is also planning to combine register data with other information about age, education, and previous work experience from other statistical areas. The Netherlands is also planning to link different sources – i.e. business and tax registers - to merge information on entrepreneurs and enterprises.

The relatively small number of countries that reported the use of registers to collect data on entrepreneurship reflects two kinds of problems, one related to the lack of reliable registers on enterprises (particularly in CIS and countries in South East Europe) and one related to the difficulties of extracting relevant data from existing

³⁴ "Compilation of data on women-owned enterprises in the United States." Sabrina L. Montes, International Trade Administration, U.S. Department of Commerce (1998).

³⁵ VAT-records, PAYE-records, corporate and personal taxation data.

registers. Business or enterprises registers have traditionally been developed for use in economic statistics where gender has never been a primary issue. This often prevents the use of these registers to collect or disseminate sex-disaggregated data. Registers such as tax records, insurance or pension records are developed and maintained not for statistical purposes and are not designed to provide relevant statistical information. They are also maintained by administrations outside the statistical office, which makes their use more difficult particularly for merging records from different registers. In countries where data collection systems are based on a unique ID number this operation is less problematic but it still presents some difficulties³⁶.

3.2 Surveys

Household surveys are a common source of information on women and men's entrepreneurship, particularly in countries where registers are not of good quality or are not designed to provide sex-disaggregated data. LFSs are the most common type of surveys used to obtain information on women and men self-employed, managers, and employers, but other types of household surveys are also used. Italy for example uses the Multipurpose Social Survey and the EU-SILC to collect sex-disaggregated data on entrepreneurship; in Albania some data are derived from the Living Standard Measurement Survey; in Canada the Survey of Labour and Income Dynamics and the Survey of Self-employment are important sources of information, while in Austria some data are collected through Microcensus.

Data on gender and entrepreneurship can also be collected in **population censuses** where there is always a section on employment characteristics. In the ECE region, Canada, Kyrgyzstan, Italy, Luxembourg, and Slovenia have reported the population census as one of the data sources on women and men entrepreneurs.

Enterprise surveys are used to collect sex-disaggregated data in Albania, Bulgaria, Canada, Cyprus, Estonia, Italy, Latvia, Lithuania, Poland and Turkmenistan. SME surveys are also used in Canada³⁷, in Italy and in Lithuania, within the framework of the Eurostat projects PECO (panel on newly created enterprises) and DOSME (demography of SME)³⁸. The annual Cost Structure Survey is used in Germany to collect information on female owners and women partnership, while in Estonia data are collected in the Survey of Hourly Wages and Salaries, which provides, among other information, the proportion of women's average hourly gross wages and salaries on the men's average hourly gross wages and salaries. In Turkmenistan a sample survey on the conditions of development of private enterprises is carried out.

3.3 An example of a special survey on gender and entrepreneurship: the Business and Entrepreneurship Survey in Ireland

The Business and Entrepreneurship Survey was carried out in spring 2003 in Ireland. It was commissioned by the NDP Gender Equality Unit of the Department of Justice, Equality and Law Reform, and it was conducted by a private consultant. Although the survey was only an ad hoc activity and was not part of the regular data collection programme of the statistical office, it is worth mentioning as it provides a useful example of how data on gender and entrepreneurship can be collected.

The survey was carried out to study the extent to which women who own SMEs face particular problems. According to the NDP Gender Equality Unit in fact "women head up fewer businesses than men, often in non-manufacturing sectors. They can find business finance much more difficult to secure than men because they have less direct ownership of assets and may face particular barriers to growth. They may also experience particular information barriers on regulatory issues, and the availability and criteria for public support, because such information is often communicated informally through men's networks and associations. The lack of gender disaggregated data on women owned businesses, [...] needs to be addressed in this regard"³⁹.

The survey was carried out using two different questionnaires, one addressed to entrepreneurs and another one addressed to managers in middle positions.

³⁶ One of the issues that is still relevant in these cases is for example confidentiality.

³⁷ More specifically, Canada collected entrepreneurship data on a sample of SMEs that made a request for financing in 2001.

³⁸ For more details on these projects, please see page 5.

³⁹ NDP Gender Equality Unit, "Gender Equality in Enterprise Development and Research", Dublin, 2001

The first questionnaire collected information on both entrepreneurs (sex, age, nationality, marital status, family condition, education) and the type of enterprise they run or own (“What is the main product or service provided by your business?”). The information collected through this questionnaire included:

- Environmental conditions, which helped the entrepreneur to decide to set up the business (“When first setting up your business, what sources did you gain advice from?”). This question was intended to assess whether there was a particular support system of friends, family or State bodies. It also investigated the source of seed capital used to set up the enterprise.
- Characteristics of the business (number of employed, financial turnover, existence of a web site, use of the internet to conduct business transactions, availability of flexible work practices).
- Overview of the business experience, including the implementation of plans for growth and expansion and main difficulties encountered in setting up the business. In this section, respondents were also asked to report the sex of the banker in their lending institution. Work conditions of the entrepreneur. It was asked whether he/she works mainly at home or in office, how many working hours he/she performs every week, if the enterprise is his/her main source of income, if the decision of starting-up a new business was rather a necessity or an opportunity.
- Personal characteristics of the entrepreneur, which included family composition and background, previous business, and enterprises, set up or run by parents.
- Barriers encountered in running the business, with a particular highlight on gender perspective. This area of the Survey explored the existence of negative stereotypes, related to gender, age, class, nationality, race or disability. It also collected information on wage gaps among people of opposite sex doing similar work of equal value.

The questionnaire addressed to managers contained information to a large extent similar to the one addressed to entrepreneurs, but there is an additional highlight on gender, asking about the existence of measures in the organization introduced to enhance the awareness and visibility of female staff (Equal opportunity policy, training on equal opportunity policy, mentoring of female staff). The questionnaire also inquired whether the management team in the organization was male dominated, female dominated or gender balanced.

The results of the survey will be made available on the NDP Gender Equality Unit web site⁴⁰.

4. Summary of problems and gaps emerged from the UNECE Survey

While not exhaustive⁴¹, the information collected through the questionnaire sent to national statistical offices, gives a useful picture of the data available on gender and entrepreneurship and on the problems related to their collection and dissemination. In summary we can say that various statistics are currently available on women and men’s entrepreneurship in many of the member states of the UNECE. However, these statistics have been produced largely in a fragmented manner, and suffer from lack of comparability within and between countries. Some NSOs have carried out surveys relevant to women’s entrepreneurship, as well as relevant gender statistics on the work force. By the same token, the academic, private and non-governmental sectors have carried out numerous ad hoc surveys and research on the issue. In return, there is considerable expertise existing on the issue in the member states, and sophisticated methodologies to measure women and men’s entrepreneurship have been developed in some countries, such as the US and Scandinavia. However, there is an urgent need to co-ordinate the collection and dissemination of these data and to build expertise in countries that have little or no experience in the production of such statistics. Many challenges still remain at national and international level to improve the availability, quality and comparability of data on women and men’s entrepreneurship. These can be summarized as follows:

- Information on gender and entrepreneurship are often produced using a puzzle of data coming from several sources. While these may improve the availability of the data, it also presents problems of data comparability and coverage.
 - When data are presented based on both enterprise and household surveys there are **coverage** issues because samples of households and enterprises are based on two different universes and as result they provide different data coverage. We would expect for example that data on the

⁴⁰<http://www.ndpgenderequality.ie/>

⁴¹ 39 out of the 55 countries of the region answered our questionnaire.

number of women and men managers collected through enterprise surveys be different from the number of managers collected in household surveys. Enterprise surveys are in fact designed to represent enterprises and not their employees as it is the case of household surveys.

- The use of different classifications in different data collections prevents in many cases the **comparability** of the data. Mention was made of the problems related to the collection of data on owner-managers where two different categories are used according to the purpose of the data collection. An example of differing classifications was also reported by Poland, where the classification of the status in employment used in the enterprise survey is different from the one used in the LFS (Table 3).

Table 3 – Definitions adopted in the Enterprise Survey and in the Labour Force Survey. Poland

Enterprise survey	Labour Force Survey
Data on employment concerns persons performing work that provide earnings or income and include:	The classification of the status in employment is based on the International Classification of Status in Employment (ICSE-93), which defines:
1) employees hired on the basis of an employment contract	1) employees, as workers who hold a "paid employment job"
2) employers and own-account workers, i.e.: <ul style="list-style-type: none"> a) <i>owners, co-owners, and leaseholders of private farms in agriculture (including contributing family workers), i.e., working on private farms, on private agricultural plots, individual owners of livestock who do not possess agricultural land</i> b) <i>owners and co-owners (including contributing family workers; excluding partners in companies who do not work in them) of entities conducting economic activity other than that related to private farms in agriculture</i> 	2) employers, as workers who hold a "self-employment job" and have continuously engaged one or more persons to work for them as employees
3) outworkers	3) own-account workers, as those who hold a "self-employment job" and have not engaged any employees on a continuous basis.
4) agents (including contributing family workers and persons employed by agents)	4) members of producers' cooperatives, as those who hold a "self employment" job in a cooperative producing goods and services
5) members of agricultural production co-operatives (agricultural producer's co-operatives, other co-operatives engaged in agricultural production and agricultural farmers' co-operatives);	5) contributing family workers, as those who hold a "self-employment job" in a market-oriented establishment operated by a related person living in the same household
6) clergy fulfilling priestly obligations	

Source: Central Statistical Office, Poland

- There is no doubt that registers of enterprises, tax records or insurance records can provide relevant information on women and men entrepreneurs on a regular basis if properly structured. However business registers are often organized according to the type of enterprises and data need to be extracted from different registers in order to cover as much as possible all the enterprises. Depending on how a country organizes its data collection, this can be a problematic operation particularly when registers are organized differently, are overlapping or do not cover together all the enterprises. We have already cited the examples of Iceland that can provide data on who controls the company only for public and private corporations, and Cyprus, which, as it cannot provide data on corporations, has only data on self-employed and unincorporated enterprises available.
- With regard to the countries in Southeastern Europe and the CIS, where the **informal economy** is often of substantive size, sources such as business and tax registers may be of limited use. Furthermore, the lack of statistical capacity in some of the NSOs in these countries means that crucial sources such as labour force surveys are not conducted on a regular basis. With regard to informal sector activities, this is an area that still needs to be substantially developed. Due to its relevance for entrepreneurial activities, in particular in the transition economies, it requires special attention.
- Indicators that seem to be more problematic are those related to **owners** and **managers**. Countries such as Latvia and Iceland do not have data on ownership and countries such as Denmark and Lithuania do not

have information on managers. Despite ISCO-88 include a standard definition of manager⁴² countries often adopt their own definition in order to better reflect entrepreneurship activities. In the “Business and Entrepreneurship” carried out in Ireland for example, managers in middle position are defined in a more detailed way, as “persons with day-to-day responsibility for staff working under their direction who are in turn responsible to someone at a higher level in the organisation (i.e. excludes Chief Executives and Owner/Operators)”. In addition, both ownership and management are complex concepts that are hardly captured in simple questions on occupation. Ownership information is easier collected through registers, but the challenge here is to have registers designed to provide sex-disaggregated data.

5. Recommendations

5.1 Standard framework for entrepreneurship

One of the main starting points in any endeavour to measure entrepreneurship and collect comparable data should be to agree upon a framework where standard definitions could be developed and adopted according to the needs of countries. Key issues that need to be analysed are related to the role of the entrepreneurs: are they those who are involved in the business start-up, are they the business owners, or those who run the business, or those who develop and grow the business? But other issues need also to be considered such as the business sectors that should be included in the analysis (for example, some studies exclude agriculture) and the type, especially in terms of size, of the enterprises.

Many international organisations and NSOs measure entrepreneurship in the context of SMEs⁴³, which usually includes self-employment. Definitions of SMEs vary between countries and should SMEs be the defining frame for entrepreneurship, a standard definition needs to be agreed upon. Naturally, this would also be the case for any other defining frame for entrepreneurship. The size of enterprises is usually measured either in terms of balance sheet, number of employees or total salaries paid to employees. What constitutes a medium size enterprise based on a number of employees may then also vary between countries. Self-employment usually falls under the definition of SMEs, although this may vary somewhat. It may also vary whether or not self-employment in all sectors falls under the definition of SMEs.

Whether or not SMEs should include *all enterprises* fulfilling the criteria of number of staff, total salaries or balance sheet is also subject to discussion in identifying a standard definition. Entrepreneurial activities inside the agricultural sector are often measured separately, and other similar exceptions exist in different countries. In some cases, entrepreneurial activities are measured also on the basis of enterprises that are larger than SMEs, and the definition of these varies⁴⁴.

5.2 Standard set of regionally specific indicators

In order to have comparable, official statistics, co-ordinated at a regional level, a common set of indicators needs to be agreed upon and established. These indicators need to be broad enough to embrace the varied situations in which women and men are economically active in the region. The characteristics of the economies in the member states vary considerably, from being effectively regulated market systems with a small agricultural sector, to being an economy with a large agricultural sector and undergoing substantive changes towards a market system. Informal sector employment is an issue that needs to be considered specifically, since thousands of people make their living through entrepreneurial activities within this sector, in particular in the former communist states.

⁴² According to ISCO-88 definition, “Corporate managers” are those persons who – as directors, chief executives or specialised managers – manage enterprises requiring a total of three or managers; “General managers” are those persons who manage enterprises on their own behalf, or on behalf of the proprietor, with some non-managerial help and assistance of non more than one other manager.

⁴³ For discussion on definition of size of enterprises, see e.g. *EU – Observatory of European SMEs 2002/No 2, Compilation of data on women-owned enterprises in the United States*, Sabrina L. Montes, International Trade Administration, U.S. Department of Commerce (1998), ILO, *Förysta kvenna í atvinnurekstri og nýsköpun á Íslandi*, Statistical Bureau of Iceland, Eiríkur Hilmarsson, (2002), GEM <http://www.gemconsortium.org/>, *Women Entrepreneurs in Small and Medium Enterprises*, OECD Proceedings, 1998.

⁴⁴ The US has one of the longest experiences in collecting statistics on women and men’s entrepreneurship. Based on this experience, the collection of such data is on the following types of enterprises: sole-proprietorships, partnerships, small corporations (S Corporations) and full Corporations (C Corporations). See “Compilation of data on women-owned enterprises in the United States”, Sabrina L. Montes, International Trade Administration, U.S. Department of Commerce (1998).

5.3 Future developments in official statistics

Together with policy makers and other users, official statisticians should be involved in the processes of reaching an agreement on a working definition or a common framework on entrepreneurship and other relevant key concepts, such as categories of enterprises according to size, to which the definition of entrepreneurship being measured applies. Standard concepts and definition should be based on the Fundamental Principles of Official Statistics⁴⁵. In order to improve the availability and comparability of data, national statistical offices should also be encouraged to identify expertise and best practices in the region, which could be used as a basis for the standard ways in which official statistics on women and men's entrepreneurship will be collected by NSOs in the region.

⁴⁵ <http://unstats.un.org/unsd/goodprac/bpabout.asp>