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WOMEN AND MEN IN LEADERSHIP POSITIONS IN UKRAINE



WOMEN AND MEN IN LEADERSHIP POSITIONS IN UKRAINE

A STATISTICAL ANALYSIS
OF BUSINESS REGISTRATION
OPEN DATA

SEPTEMBER 2017

This report summarizes the findings of a statistical analysis performed in order to highlight gender distribution of legal entity managers and individual entrepreneurs in Ukraine. It aims at filling certain gaps in gender-disaggregated statistics by analysing government data. Gender-disaggregated data is key to studying gender specifics in economic activities, raising public awareness, and designing efficient policies and programmes for the economic empowerment of women, hence they promote achievement of the Sustainable Development Goals (SDGs), particularly Goal 5 "Gender equality".

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Partners of research:





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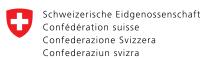
Maps: Serhij Vasylchenko

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LIST OF ABBREVIATIONS

USR	Jniform State Register of Legal Entities and Individual Entrepreneurs		
USREOU	Uniform State Register of Enterprises and Organizations of Ukraine		
ITN	Individual Tax Number		
CEA	Classification of Economic Activities		
CEATSU	tate Classification of Entities of the Administrative-Territorial System of Ukraine		
ILO	nternational Labour Organization		
UN	United Nations		
UNDP	United Nations Development Programme		
IE	Individual Entrepreneur		
SDGs	Sustainable Development Goals		



INTRODUCTION

The United Nations Sustainable Development Summit for the adoption of the post-2015 development agenda, which took place in September 2015 as part of the 70th Session of the UN General Assembly in New York, endorsed new development benchmarks. The outcome document of the Summit "Transforming our world: the 2030 Agenda for Sustainable Development" approved 17 Sustainable Development Goals (SDGs) and 169 targets.

Gender equality features prominently among the SDGs, being vital to achieving the 2030 Agenda for Sustainable Development, which envisions "universal respect for human rights and human dignity" and a world in which "every woman and girl enjoys full gender equality and all legal, social and economic barriers to their empowerment have been removed." The 2030 Agenda asserts gender equality not only as a fundamental human right, but as a necessary foundation for a peaceful, prosperous and sustainable world.

Gender equality aspects are not just the focus of SDG 5. Gender equality concerns are also integrated in other Sustainable Development Goals that are comprehensive and indivisible, ensuring balance of all three sustainable development pillars: economic, social, and environmental.

Empowering women and reducing the gender gap in health, education, labour market and other areas results in lower poverty, higher economic growth, greater agricultural productivity, more resilient communities, etc. Accordingly, failing to address gender inequalities and discrimination against women will hinder achievement of the SDGs. There can be no sustainable development if the tangible and intangible barriers that hold back half the population (53.7%) are not eliminated.

Unfortunately, despite increasing recognition that gender equality is catalytic to sustainable development, gender inequalities persist throughout the world. They include:

- women's unequal access to economic resources and assets, including land and property rights; financial credit; technology development and transfer; natural resources and environmental/climate finance;
- discrimination against women in the workforce, manifesting in unequal pay and opportunity, and vulnerable employment;
- women's disproportionate burden of unpaid work, such as caring for children, the elderly and the sick, etc.;
- · low levels of female participation in decision-making;
- violence against women;
- a disproportionate impact on women of climate change, natural disasters and environmental degradation¹.

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Generally, the specifics of gender issues in Ukraine reflect the disparity in the situations of women and men peculiar to advanced countries. In particular, no notable gender disparity exists in accessibility of basic public services for the population, in education opportunities, or in economic activity realization. At the same time, women have lower average income than men, and perform a larger share of unpaid work concerning family responsibilities in households. Meanwhile, the impact of gender stereotypes entails the spread of phenomena such as occupational segregation of employment by gender, inability to recognize signs of gender-based discrimination, low public awareness on domestic violence forms, and absence of standard practices when victims turn for assistance².

Special attention should be paid to the issue of women's disproportionate representation in decision-making and management positions in institutions, organizations, and enterprises. A series of studies indicate that women's leadership in economic life (business activities) is an important factor of sustainable development and growth at a country, community, or company level³.

Data problem

Lack of gender-disaggregated statistics prevents a full-scale assessment of differences in the standing of men and women in Ukraine's economic life. In particular, authorities do not provide any statistical information about the gender of enterprises' or organizations' owners and managers, hence it is hard to estimate prevalence of female business, dynamic trends in men/women ratio in leadership positions or in organization/enterprise management bodies, etc. At the same time, most European countries apply a gender-based approach to entrepreneurship statistics, inter alia to measure women's activity in business.

Quality gender-disaggregated data is a key factor for designing and implementing a policy of support for equal opportunities in the economic domain, first of all to expand the opportunities for women. Additional statistical data will help measure progress in achievement of the SDGs in a comprehensive way.

Data about female managers and female entrepreneurs are also of extreme importance for building a proper infrastructure of support for female entrepreneurship and occupational activities, particularly women's business associations, designing specialized programmes and providing services to support female entrepreneurship, etc.

² Sustainable Development Goals: Ukraine. 2017 National Baseline Report. Kyiv, Ministry of Economic Development and Trade, 2017.

 $^{^3}$ Women in Business and Management: Gaining Momentum. Global Report. International Labour Organization, 2015.

About this study

In Ukraine, due to substantial progress in opening government data, the data set of the Uniform State Register of Legal Entities, Individual Entrepreneurs (IEs), and Public Organizations (USREOU) – maintained by the Ministry of Justice – is accessible in the open data format.

Statistical analysis based on the USREOU data allows making certain conclusions on gender distribution of enterprise and organization managers as well as individual entrepreneurs, thereby filling some gaps in official statistics. This study attempts to look at the trends of men's and women's leadership in officially registered institutions, organizations and enterprises, including in terms of sectors and activities (as per the CEA-2010 Classification of Economic Activities) as well as regions and settlement types.

In addition to conclusions concerning men and women in leadership positions, the study also demonstrates the possibilities of work with open government data – for non-governmental organizations, business associations, and public authorities.



1. METHODOLOGY

1.1. RESEARCH ISSUES

The issues of gender equality, particularly concerning female entrepreneurship and the role of women and men in leadership positions and in business, have long since been a subject of debate. Concerning gender inequality, mainly the following perceptions exist in Ukraine:

«IT IS A FEMALE ACTIVITY AREA»: women more often work in the areas related to traditionally female activities in housekeeping (child care and education), nutrition (food product growing, cooking), garment making and care, other domestic services, health care for family

«GLASS CEILING»: women work as lowand middle-level employees in many sectors but they rarely become top managers in organizations (governmental or non-governmental) or businesses.

members, organization of recreation.

Leaving aside some legislative provisions that directly discriminate women in terms of access to some forms of employment (particularly, to a great number of military positions), the following questions generally remained unanswered: 1) percentage of women in leadership positions; 2) women's role in business as owners or enterprise managers; 3) women/men imbalance (first of all among managers or owners) by sector or by region in detail.

Hence, the questions we attempted to answer in this study are as follows:

- How strong is the gender disparity among organization managers and entrepreneurs in Ukraine?
- Which sectors and economic activities have more female managers, and what could be a reason for that?
- 3. Are there any regional or geographical peculiarities of the gender distribution of managers and entrepreneurs?
- 4. To what extent does the situation in Ukraine differ from the situation in other countries?
- 5. To what extent are the conceptions of and stereotypes concerning "female activity areas" and the "glass ceiling" applicable to Ukraine, and what is the role of the female leader in economic activity?

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Though the existing statistical data sheds some light on the gender aspects in labour as well as female leadership, they are not detailed enough to respond to the above questions. No system for the collection and publication of gender data on business leaders exists in Ukraine.

However, open data and modern approaches to data processing allow making certain conclusions in regard to gender distribution of business leaders, enterprise managers, and IEs. For example, the Ministry of Justice of Ukraine has been publishing open data sets – the USREOU data base (in a slightly abridged version) – on the open data portal (data.gov.ua) since April 2016.⁴

USREOU open data was used as a master data set in the analysis findings of which are presented below. In addition to this, some other data was used for comparison, namely:

- data on economic activity (including employment) of the population in Ukraine (the State Statistics Service of Ukraine, 2016) obtained by means of a regular sample (household) survey on economic activity performed according to the ILO methodology;
- data on the enumerated population of Ukraine (the State Statistics Service of Ukraine, 2013);
- data on economic activity of the population in European countries (EU statistics service – Eurostat).

1.2. BASIC CONCEPTS USED IN THIS RESEARCH

The Uniform State Register of Enterprises and Organizations of Ukraine (USREOU) – a statistical register of enterprises in Ukraine, a computer-aided system for collection, accumulation and processing of data about enterprises and organizations of their form of ownership as well as their stand-alone units – branches, divisions, representations, etc. The Register's legal status is governed by the Regulations on the Uniform State Register of Enterprises and Organizations of Ukraine approved by the Cabinet of Ministers of Ukraine Resolution No. 499 of 22 June 2005. The Register's purpose is to ensure uniform state accounting of enterprises and organizations of all ownership forms.

CEA – Classification of Economic Activities. Classification items consist of a code and a name; the code designation of CEA items has the following structure:

Y – section (Latin alphabet letters); XX.X – group; XX – division: XX.XX – class.

USREOU code – a unique identification number of a legal entity in the Uniform State Register of Enterprises and Organizations of Ukraine. For individual entrepreneurs, an individual tax number (ITN) is used instead of the USREOU code, but ITNs are not published in open data because they are regarded as personal (sensitive) data.

⁴ Since the end of August 2017, the Ministry of Justice of Ukraine expanded the data set and started publishing information about the founders and beneficiaries of legal entities (as part of USREOU open data set). However, at the time of analysis, this information was not yet published.

Status – an economic entity's account status in information systems of the Ministry of Justice. It can have the following values: "registered", "terminated", "being terminated", "registered, state registration certificate invalid", "bankruptcy procedures initiated", "bankruptcy procedures (rehabilitation) initiated". Only entries with the "registered" status, i.e. active ones, were used for the purposes of this study.

Data of the Uniform State Register of Legal Entities, Individual Entrepreneurs, and Public Organizations are published on the Uniform State Open Data Portal as a set in the XML format. Here's how an entry about one legal entity looks like in that set:

```
<RECORD>
<NAME>БЛАГОДІЙНИЙ ФОНД "КРИЛА ДИТЯЧИХ НАДІЙ"</NAME>
<SHORT_NAME />
<EDRPOU>26193516</EDRPOU>
<ADDRESS>10004, Житомирська обл., місто Житомир,
Богунський район, ПР-Т МИРУ, будинок 63, квартира 80</ADDRESS>
<BOSS>ПЄСТОВ ЮРІЙ АНАТОЛІЙОВИЧ</BOSS>
<KVED />
<STAN>в стані припинення</STAN>
</RECORD>
```

Data about an individual entrepreneur:

```
<RECORD>
<FIO>XAMБУР АЛЛА ГЕОРГІЇВНА</FIO>
<ADDRESS>87592, Донецька обл., місто Маріуполь, Іллічівський район, ВУЛИЦЯ ПАПАНІНА, будинок 48-A</ADDRESS>
<KVED>47.11 Роздрібна торгівля в неспеціалізованих магазинах переважно продуктами харчування, напоями та тютюновими виробами</k>
</r>
<STAN>зареєстровано</STAN>
</RECORD>
```

The database contains more than 6 million such entries.

Individual entrepreneur (IE) – a person exercising his/her right to entrepreneurial activities subject to state registration according to a statutory procedure. At the moment of the study, the Ministry of Justice's open data set included the following information about individual entrepreneurs:

last name, first name, patronymic;
core activity according to CEA;
status.

Legal entity – an organization established and registered according to a statutory procedure. Both commercial organizations and state and non-governmental organizations are legal entities. At the moment of the study, the Ministry of Justice's open data set included the following information about legal entities:

- full name; short name;
 - USREOU code; address;
- manager's last name, first name and patronymic;
 core CEA;
- status.

1.3. USREOU DATA PROCESSING

Although the Ministry of Justice's publicly accessible files placed on the data.gov.ua open data portal do not have a separate "gender" field, they contain last names, first names and patronymics of individual entrepreneurs and legal entity managers.

Accordingly, using specialized software enables identifying gender of an individual entrepreneur or legal entity manager from the register by using patronymic suffixes for identification: "-ovych/-ych" for men and "-ivna/-yivna" for women (in case of Ukrainian names); "ogly" for men and "kyzy" for men in case of some Turk names.

The preliminary, most general findings of the analysis of the data set were presented to the wide public and discussed at the All-Ukrainian Business Fest "League of Women's Success" that took place on 19-20 May 2017 in Chernihiv. The results of a more in-depth gender analysis of the USREOU data are presented in this report.

The primary data downloaded from the open data portal was processed for the identification of gender of a legal entity manager or an individual entrepreneur with the aid of the Python programming language using lxml library as well as with the aid of the PostgreSQL database management system.

Processing stages

- Parsing the XLM files downloaded from the Uniform State Open Data Portal (parsing of patronymic suffixes to determine gender as well as parsing of registration addresses into components – oblasts, oblast raions, and settlements) and their conversion into CSV format (to ensure further interoperability).
- 2. Creating CSV files:
 - list of cities of oblast subordination in Ukraine;
 - data about population of cities in Ukraine;
 - auxiliary directories based on the Classification of Economic Activities (CEA-2010) as well as transitional tables from DK 009-96 "Classification of economic activities" and CEA-2005 to CEA-2010.
- 3. Creating a relevant structure of a relational database, and importing the CSV files prepared in previous stages to that database.
- 4. Acquiring data with a specified structure and aggregation level, required to perform the study, based on SQL queries to the established database.

During parsing of the USREOU data made public by the Ministry of Justice, a number of shortcomings were found both in the USREOU database itself and in its limited version published as open data (see the section "On open data of the Ministry of Justice" for more details about the shortcomings). The USREOU open data includes only a core activity (class) as per CEA indicated at registration of a legal entity or an individual entrepreneur as well as the legal entity's or IE's registration address.

Hence, we were able to perform analysis in terms of:

- CEA sections (sectors);
- CEA divisions into which sections are subdivided;
- · CEA classes, or specific economic activities,

as well as in geographic terms:

- registration regions;
- raions;
- settlement type (urban/rural);
- settlement size (population), by adding to the analysis data about every city's population (the State Statistics Service's data "Enumerated population of Ukraine", however for 2013 because there are reasonable doubts as to how adequately data for 2014-2016 reflect internal migration).

Overall, the data set contained 6,051,623 entries as of 27 June 2017. It is worth noting that this figure includes both active entities (with the "registered" account status) and non-active ones, i.e. those with operations already terminated or being terminated. Analysis used a set of only active legal entities and IEs that contained 2,706,837 entries.

1.4. WHAT THE USREOU DATA DOES AND DOES NOT TELL US?

INFORMATION AVAILABLE ABOUT

Number of registered legal entities and individual entrepreneurs

- The fact that a certain activity has been registered as an IE activity
- Gender of managers and registered entrepreneurs
- In which sectors women are managers and registered entrepreneurs to a greater or lesser extent

INFORMATION NOT AVAILABLE ABOUT

- Activity scale (value of a business or number of employees); about the "informal sector" because we only deal with registered organizations and individual entrepreneurs
- Whether a person is actually an entrepreneur and has own business or is an employee legalized as an IE
- Gender of legal entity owners, or interest owned by women; women's participation in management in positions other than managers
- In which sectors more women are employed, and how much they earn



2. GENDER DISTRIBUTION OF MANAGERS AND INDIVIDUAL ENTREPRENEURS

2.1. GENDER STRUCTURE OF EMPLOYMENT IN UKRAINE

Women's employment rate in Ukraine is comparable to the average rate across European countries whereas an employment gap between women and men is lower than the EU's average.

Women's employment rate in Ukraine is close to that in such countries as Croatia (57%), Italy (52%), and Greece (47%), and is lower than the average across the EU countries (65%), according to Eurostat data. However, comparison with the EU statistics is not absolutely correct because information is presented in different age ranges: 15-70 years in Ukraine, and 20-64 years in the EU. The age range in Ukraine covers 11 more years from the periods of youth (15-19) and senior (65-70) ages when a fewer number of people are economically active in general. Without taking these age groups into account the employment rate in Ukraine would be higher.

According to the State Statistics Service data, 44% of women aged 15-70 are economically inactive (not employed and not looking for a job) whereas the same figure for men is only 31%.

Women's lower employment rate is caused by their lower economic activity (particularly in the 25-59 years period).

According to the State Statistics Service of Ukraine, women's employment rate in Ukraine is lower than men's (52% and 62%, respectively)



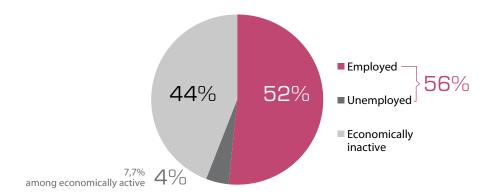


Figure 1. Economic activity of women aged 15-70

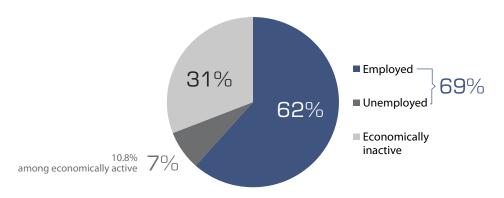


Figure 2. Economic activity of men aged 15-70

The age distribution of the economically inactive population indicates that its largest percentage accounts for age groups of 15-24 years (education period) and 60-70 years (retirement age). 67% of economically inactive men belong to these age groups. According to the State Employment Service data, retirement age and training were main reasons of men's economic inactivity in 2016 (54% and 29%, respectively).

At the same time, among economically inactive women, age groups of 15-24 and 60-70 years account for 57% only (vs. 67% among men), hence 43% of economically inactive women are at the age of 25-59 years. Retirement age is also a main reason of inactivity (52% of women), however performing household duties or living in dependence is the second key reason (29% of women).

Among women, 87% of those employed are employees (vs. 82% among men).

Women in employment are more often employees rather than employers and self-employed persons (compared with men) At the same time, the percentage of self-employed persons among women is lower (12% vs. 16% among men) as is that of employers (0.8% vs. 1.5%).

Hence, women account for 42% of all self-employed persons and for 32% of employers.

The employment statistics partially confirms the "glass ceiling" idea (meaning that women may work on lower and middle levels but are less likely to take up leadership positions). At the same time, one-third of all employers are women.

Data from the State Statistics Service and the State Employment Service, though shedding some light on gender aspects of labour and women's business leadership, is not sufficiently detailed. For example, gender statistics on sectoral and settlement levels are not publicly available. Here is where the Ministry of Justice open data – the USREOU set – comes in useful.

2.2. WHAT THE USREOU DATA SHOWS

The findings of the USREOU data analysis are close to the data of national employment statistics: the percentage of female managers in general (among all active economic entities) is 40%.

However, this level has been mainly achieved due to IEs who make up 63% of all economic entities: women account for 46% among individual entrepreneurs. At the same time, the percentage of female managers at legal entities is lower: women are heads of 30% of enterprises and organizations.

Women account for 42% of all self-employed persons and for 32% of employers

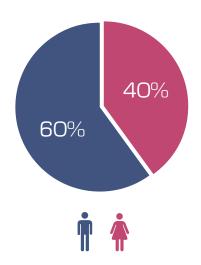


Figure 3. Percentage of men and women among legal entity managers and IEs according to USREOU code

Overall in the data set, the percentage of women is 40% but mainly due to IEs (who account for 63%). At the same time, among legal entities, women head only 30% of enterprises and organizations. This means that in Ukraine, women are able to conduct their own business as individual entrepreneurs (IEs) on almost equal footing with men, however it is much less likely for a woman to lead an enterprise or organization (including governmental and various non-governmental organizations).

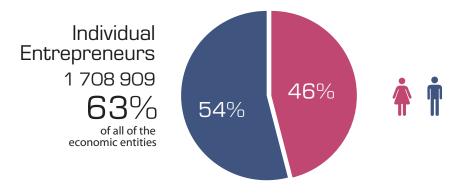


Figure 4. Percentage of women among active individual entrepreneurs

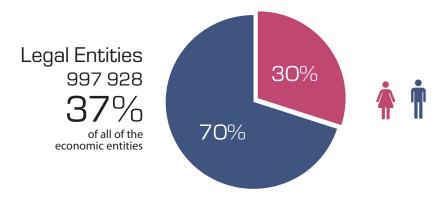


Figure 5. Percentage of women among legal entity managers

This said, it is important to take into account that women's employment rate in Ukraine is lower than men's because of women's lower economic activity. Due to the availability of data about a legal entity or IE's core activity in the Uniform State Register, we can analyse which sectors (CEA sections) and activities are predominantly led by women, which ones are led mainly by men, and which ones are gender-balanced.

Gender distribution of managers and IEs in each section of CEA



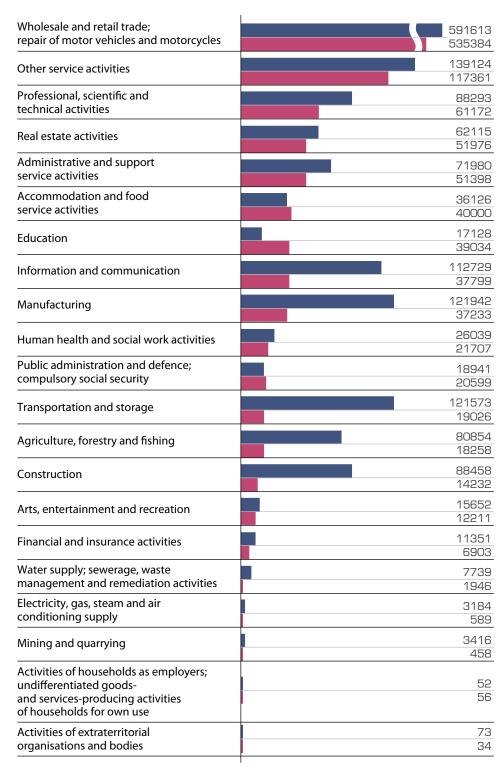


Figure 6. Gender distribution of managers and IEs in each section of CEA

2.3. SECTORS WHERE MAINLY WOMEN ARE MANAGERS

Gender distribution of legal entity managers by sector

Generally (among legal entities and IEs altogether), education is the only sector where most managers (69%) are women. Sectors with a high share of female managers also include the "Public administration and defence; compulsory social security" and the hotel and restaurant business ("Accommodation and food service activities"). However, the percentage of female managers in these sectors is 52-53%, which describes them as rather gender-balanced.

The percentage of female managers at educational institutions decreases proportionally by pupil age: women are managers in 98% of cases for pre-primary education, in 87% for primary education, and in 68% for secondary education

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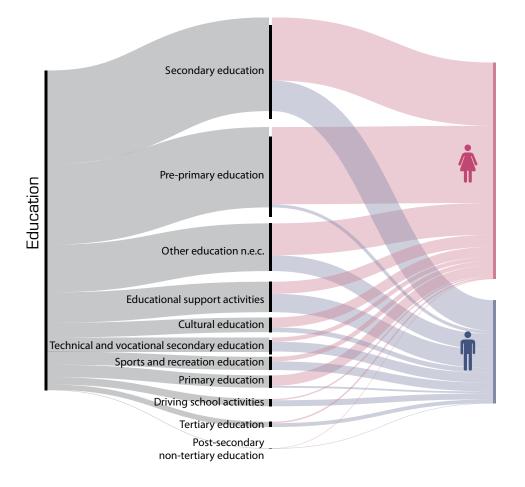


Figure 7. Percentage of men and women among legal entity managers in education sector

Among legal entities, education is the only sector headed mainly by women (71% female managers); it includes 44 thousand enterprises and organizations.

Some activities where organizations are managed predominantly by women are accounting and audit, tourism, beauty treatment, concert halls, trade unions, and social assistance facilities.

Table 1. Economic activities of legal entities where women-managers prevail

Percentage of female managers	Total number of legal entities	Activity (CEA class)
61%	1959	Tour operator activities
62%	3979	Travel agency activities
62%	25062	Activities of trade unions
62%	4526	Accounting, bookkeeping and auditing activities; tax consultancy
66%	1349	Operation of arts facilities
66%	1431	Cultural education
68%	1825	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security
68%	16575	General secondary education
77%	1689	Hairdressing and other beauty treatment

As regards the most common activities (the CEA code that is a core one for more than 5,000 legal entities), female managers substantially prevail (over 60%) only in pre-primary and general secondary education and in activities of trade unions.

Percentage of women among individual entrepreneurs by sector

As far as IEs are concerned, the sector "Other service activities" is large in terms of the number of entities (114,000 IEs) where women are in majority (65%). Apart from the hotel and restaurant business (about 60,000 IEs), "Wholesale and retail trade, repair of motor vehicles and motorcycles" is another gender-

Female managers substantially prevail (over 60%) only in pre-primary and general secondary educatio

Percentage of women among managers of legal entities and Individual Entrepreneurs in the structure of sections, sectors and classes of CEA

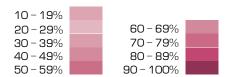
997 928 Legal Entities both men and women

Legal Entities
30%
womenmanagers

1 708 909 Individual Entrepreneurs

The width of each "flow" corresponds to the number of legal entities or IEs in the relevant category

The intensity of colour shows % of women among managers of legale entities and IEs:



Data Source: USREOU open data (United State Register of Legal Entities, Individual Entrepreneurs and Public Organizations of Ukraine), published on data.gov.ua on 27 June 2017. Individual Entrepreneurs

46% women IEs

share of IEs in CEA section G (895 951 individuals) women in this group: 53% (477 938 individuals)

nformation and
trade
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Distribution between managers of legal entities and Individual Entrepreneurs

Structure of CEA sections by number of legal entities and Individual Entrepreneurs. The intensity of colour shows % of women in each sub-group. Line's width corresponds to the number of individuals.

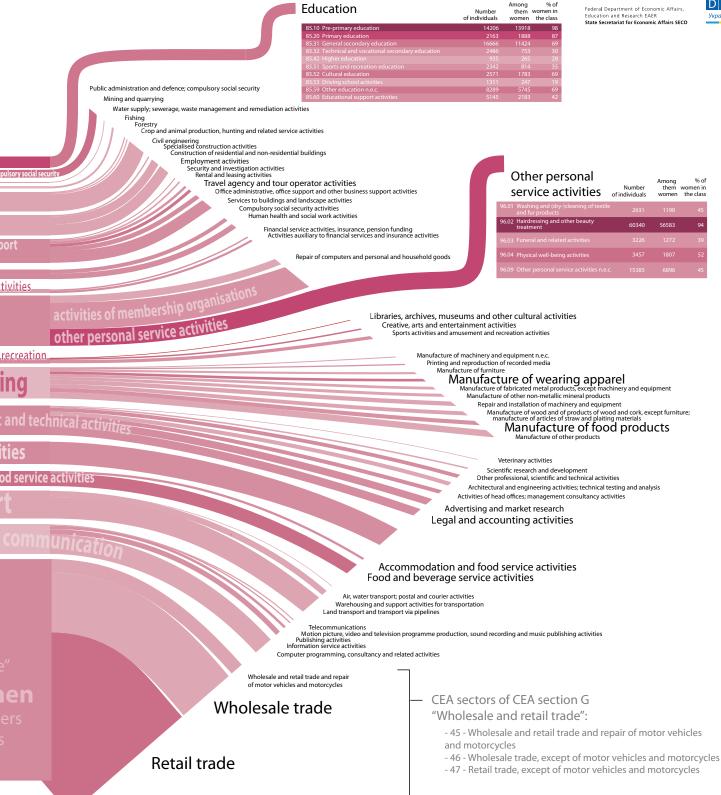
Economic sector by r of registered legal en and IEs (for which ma CEA code belongs to corresponding sec



Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO





Education

number tities Розділи КВЕД - більш детальні види діяльності, з яких складаються секції КВЕД. iin Ширина лінії: кількість зареєстрованих ФОПів та юросіб. Інтенсивність кольору: % жінок серед керівників та ФОПів у відповідному виді діяльності.

tion



WOMEN AND MEN IN LEADERSHIP POSITIONS IN UKRAINE neutral sector with a slight dominance of women (53%). Due to a great number of IEs in this sector (about 900,000 persons), its profile to a large extent determines the overall gender distribution among them (IEs).

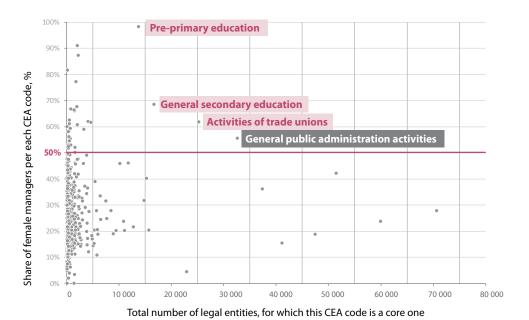


Figure 8. The most widespread economic activities of legal entities where women-managers prevail

Wholesale and retail trade is a core activity for 53% of Ukraine's individual entrepreneurs. Meanwhile, it is important to understand that "Wholesale and retail trade" for IEs is mainly retail trade, with a substantial dominance of women.

In terms of specific CEA codes, there are more activities where female entrepreneurs prevail. Their largest number work in beauty treatment (58,000 IEs, 94% of them being women) and provide accounting and audit services (8,600 IEs, 82% being women).

Women account for 60-76% of IEs in many retail sale categories (first of all retail sale of food).

Women account for 60-76% of IEs in many retail sale categories

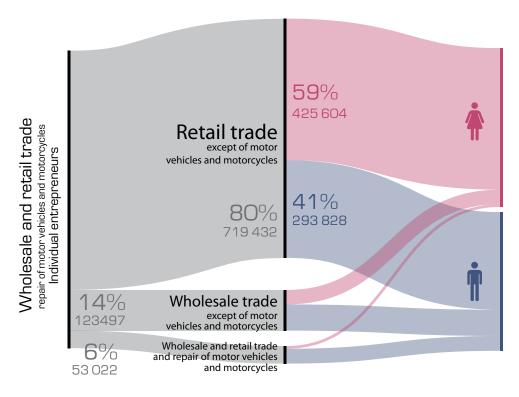


Figure 9. Percentage of women and men among IEs in wholesale and retail

Table 2. Economic activities of IEs where women prevail

Percentage of female IEs	Total number of IEs	Activity (CEA class)
82%	8608	Accounting, bookkeeping and auditing activities; tax consultancy
87%	45	Primary education
91%	325	Child day-care activities
91%	615	Pre-primary education
94%	58651	Hairdressing and other beauty treatment
97%	808	Social work activities without accommodation for the elderly and disabled

Table 3. Types of retail trade where women-IEs prevail

Percentage of female IEs	Total number of IEs	Activity (CEA class)
60%	91335	Other retail sale in non-specialised stores
62%	55291	Retail sale via stalls and markets of food, beverages and tobacco products
62%	128020	Retail sale in non-specialised stores with food, beverages or tobacco predominating
74%	30976	Retail sale of clothing in specialised stores
76%	80788	Retail sale via stalls and markets of textiles, clothing and footwear

WOMEN AND MEN IN LEADERSHIP POSITIONS IN UKRAINE In addition to this, there are more than 60% of women among the IEs are engaged in tourism, manufacturing of apparel and textiles, event catering and other food services, and translation services.

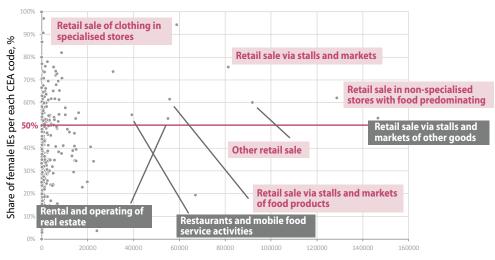
Table 4. Other economic activities of IEs where women prevail

Percentage of female IEs	Total number of IEs	Activity (CEA class)
65%	4953	Other food service activities
70%	2831	Translation and interpretation activities
71%	8832	Repair of other personal and household goods
72%	6034	Travel agency activities
76%	4963	Manufacture of other outerwear
76%	5101	Other education n.e.c. (not elsewhere classified)
78%	2382	Manufacture of other apparel and accessories

The percentage of women among those IEs who indicated "Repair of other personal and household goods" as their core activity under CEA during registration is more than 70%. Obviously, it stands for tailor shops. Incidentally, it is the only activity class in a respective section ("Repair of computers and personal and household goods") where women substantially prevail. Other classes in this section – such as repair of footwear, watches, clocks, computers, equipment or furniture – are purely "male", with men's percentage being between 87% and 94%.

However, if talking generally about the areas of labour where female entrepreneurs are in the majority, then some types of retail trade and beauty treatment services are the largest activities in terms of the number of entrepreneurs (more than 20,000 individual entrepreneurs).

Activities of female managers and entrepreneurs are indeed more often related to the areas for which a woman was traditionally responsible Repair of footwear, watches, clocks, computers, equipment or furniture – are purely "male"



Total number of individual entrepreneurs, for which this CEA code is a core one

Figure 10. The most widespread economic activities of IEs where women prevail

in a household and community: child care, food cooking, manufacturing of clothing (as well as retail sale of food and clothing), beauty care, housekeeping and reception of guests, leisure (arts and recreation), accounting (rather Ukrainian

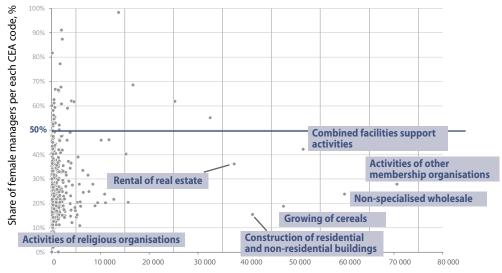


specific), community assistance and well-being (social assistance, trade unions).

Nevertheless, 30-40% of organization managers (except at educational institutions) and 10-40% of entrepreneurs in these sectors and activities are male.

2.4. SECTORS MAINLY MANAGED BY MEN

Sectors where an overwhelming majority (more than 80%) of managers are men include transport, construction, agriculture, extractive industry, and power engineering.



Total number of legal entities, for which this CEA code is a core one

Figure 11. The most widespread economic activities of legal entities where men-managers prevail

As regards specific economic activities in various sectors, men predominantly lead legal entities in wholesale trade, growing of cereals, construction, and combined facilities' support activities. Besides, men lead most non-governmental organizations and almost all religious organizations.

Table 5. Economic activities of legal entities where men-managers prevail

Percentage of men	Total number of legal entities	Activity (CEA class)
78%	28881	Transportation and storage
81%	69289	Agriculture, forestry and fishing
84%	69999	Construction
85%	3668	Electricity, gas, steam and air conditioning supply
89%	3728	Mining and quarrying

However, even in such purely "male" sectors, 12-18% of managers are women. Data about female managers of legal entities in predominantly "male sectors" are provided below.

Table 6. Percentage of women-managers of legal entities in sectors where men-managers prevail

Percentage of men	Total number of legal entities	Activity (CEA class)
		Sector: Construction
20%	1485	Construction of other civil engineering projects n.e.c.
21%	451	Other building completion and finishing
21%	5834	Development of building projects
		Sector: Transport
20%	1267	Other passenger land transport n.e.c.
20%	1572	Warehousing and storage
20%	9384	Freight transport by road
28%	8376	Other transportation support activities

A larger percentage of the man-headed legal entities accounts for wholesale and retail trade, processing industry, agriculture, and construction.

Meanwhile, among the legal entities managed by women there is a larger share of educational institutions, state government and administration bodies, service and health care facilities.

As regards the individual entrepreneurs, a larger share of female entrepreneurs are engaged in wholesale and retail trade and other services whereas male IEs feature a larger (compared to women) percentage of those engaged in information and telecommunications, processing industry, and transport.

"Wholesale and retail trade and services (namely "other services") are the largest gender-balanced sectors (having 45-55% of female managers) in terms of the number of IEs.

Among legal entities, public administration is the largest sector with balanced "Wholesale and retail trade and services (namely "other services") are the largest genderbalanced sectors (having 45-55% of female managers) shares of female and male managers. Besides, such sectors as "Arts, entertainment and recreation" and hotels and restaurants ("Accommodation and food service activities") are close to the gender balance.

In terms of specific activities, the largest activity areas with a gender balance of legal entities' managers include general public administration, retail sale of food, and restaurants.

Among IEs, the largest gender-neutral sectors are "Professional, scientific and technical activities" and "Administrative and support service activities".



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Retail sale via stalls and markets of other goods (except food and clothing), rental of real estate, and restaurants are the largest activities in terms of the number of IEs, where the quantity of female and male entrepreneurs is balanced.

2.5. REGIONAL PECULIARITIES OF GENDER DISTRIBUTION OF ENTERPRISE MANAGERS AND IES

In general, regional differences between women and men in their percentages among managers in Ukraine are rather minor, except in Kyiv that stands out notably both in terms of the number of registered IEs and legal entities and in the percentage of men – 66% compared to Ukraine's average 60%.

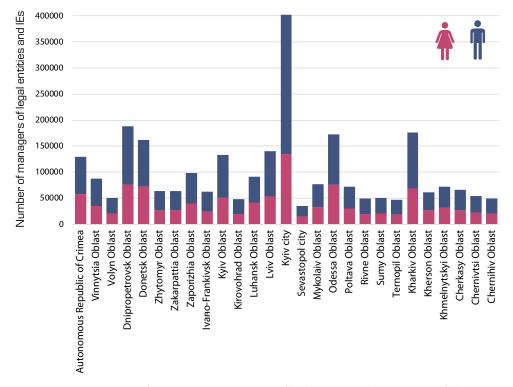
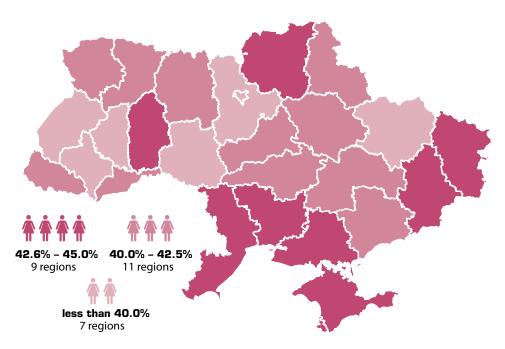


Figure 12. Percentage of women among managers of legal entities and IEs in regions of Ukraine

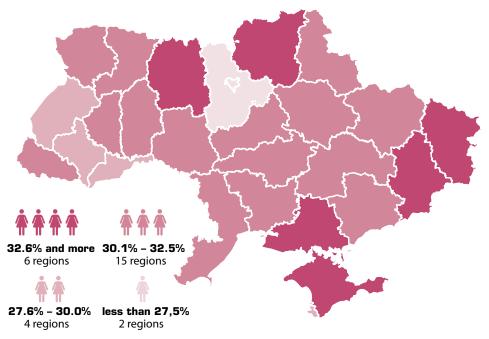
This is due first of all to the fact that Kyiv city differs extremely from other regions of Ukraine in terms of the legal entities and IEs ratio. Whereas the percentage of legal entities among all economic entities is 33% in Ukraine generally, it is 58% in the capital. However, even among legal entities registered in Kyiv, the percentage of female managers is substantially (by 4 percentage points) lower than in other regions on average (namely 27% compared to 31%).

Percentage of legal entities among all economic entities is 33%



Map 1. Percentage of women among managers of legal entities and IEs in oblasts of Ukraine

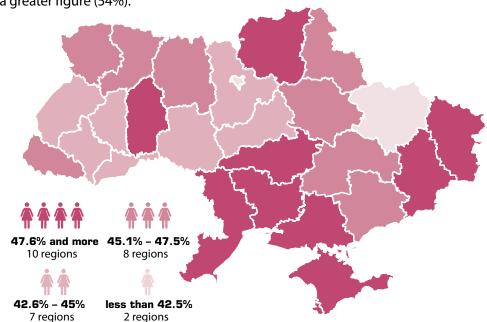
Certain regional differences in the women/men ratio among IEs and legal entity managers do exist: values of the percentages vary within 8 percentage points for individual entrepreneurs and 9 percentage points for legal entities. Although differences between neighbouring oblasts are sometimes relatively small, we may carefully speak about certain regional patterns.



Map 2. Percentage of women among managers of legal entities in oblasts of Ukraine

For example, Kyiv and Kyiv oblast have the lowest percentage of women managers in legal entities while this percentage is the highest in Donetsk oblast. In addition to this, Kyiv has the lowest percentage share of women among individual entrepreneurs, the highest figure being in Luhansk oblast. In our opinion, a high percentage of women among IEs in Khmelnytskyi oblast is explained, inter alia, by the fact that the oblast has a relatively high percentage of the IEs whose core economic activity is retail trade where, as said above, women prevail. Their percentage in Khmelnytskyi oblast is 53%; only Luhansk oblast shows a greater figure (54%).

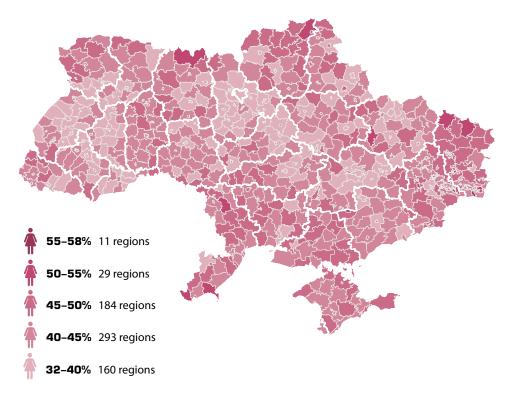
Kyiv and Kyiv oblast have the lowest percentage of women managers in legal entities



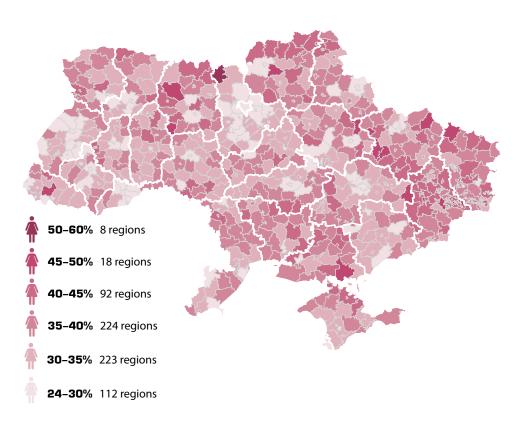
Map 3. Percentage of women among IEs in oblasts of Ukraine

Donbas and Crimea in open data

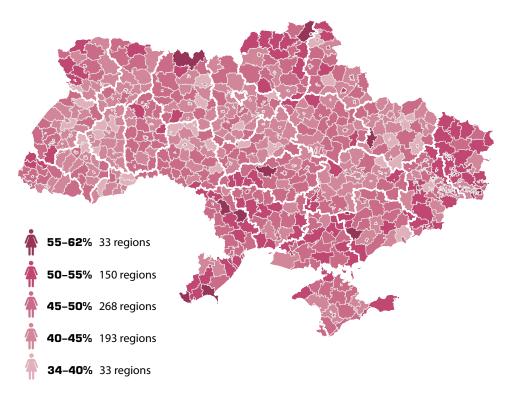
The Ministry of Justice open data displays information about the Autonomous Republic of Crimea, Sevastopol city, and the non-government controlled areas (NGCA) of Donetsk and Luhansk oblasts. In fact, new economic entities are not being registered in those areas but those which were registered previously and did not apply for closure are shown in the register as active and registered in a respective region.



Map 4. Percentage of women among managers of legal entities and IEs in raions and cities of oblast subordination of Ukraine



Map 5. Percentage of women among managers of legal entities in raions and cities of oblast subordination of Ukraine



Map 6. Percentage of women among IEs in raions and cities of oblast subordination of Ukraine

2.6. TRENDS IN GENDER DISTRIBUTION OF MANAGERS BY SETTLEMENT SIZE

Findings of analysis of the percentage of women and men among legal entity managers and IEs by the type of settlement type (urban/rural, city/town category in terms of population size) where the enterprises and IEs are registered proved interesting.

In general, for legal entities and IEs, the percentage of female managers is greater in smaller cities (especially) and villages. Among legal entities, this tendency is clearly pronounced: the smaller the settlement is the more female managers there are. Meanwhile, the percentage of women among IEs is the greatest in cities with population under 100 thousand (but not in villages).

The following trend can be observed among legal entities in many sectors: in large cities, gender composition of managers is more balanced whereas IEs is the greatest in cities with population under 100 thousand

Table 7. Percentage of women among managers of legal entities and IEs by the type and size of settlement

	A	В	c	D	
	City, population > 1 mln people	City, 500,000 – 1 mln people	City, 100,000 – 500,000 people	City, 100,000 people	Village
				—	
Total	36%	39%	41%	44%	41%
Legal entities	28%	29%	29%	32%	34%
				—	
IEs	43%	45%	46%	49%	45%

sectors have a more pronounced gender profile in smaller cities and villages ("more female" and "more male" sectors stand out in a more striking way in terms of a manager's gender).

Table 8. Percentage of women and men among managers of legal entities by the economic activity, type and size of settlement

	Α	В	с	D					
	City, population > 1 mln. people	"City, 500,000 - 1 mln. people"	"City, 100,000 - 500,000 people"	City, <100,000 people	Village	Total number of legal entities	Share from the total number of legal entities		
MORE WOMEN IN SMALLER SETTLEMENTS									
Education	56%	67%	63%	69%	78%	44476	4%		
Human health and social work activities	41%	38%	40%	43%	47%	28828	3%		
Public administration and defence; compulsory social security	35%	40%	37%	49%	56%	39342	4%		
Arts, entertainment and recreation	31%	30%	31%	47%	66%	13169	1%		
Financial and insurance activities	29%	31%	32%	33%	36%	9656	1%		
Information and communication	26%	25%	27%	29%	32%	27551	3%		
Wholesale and retail trade; repair of motor vehicles and motorcycles	24%	25%	24%	26%	29%	231046	23%		
NO UNIDIRECTIONAL TREND									
Accommodation and food service activities	43%	47%	44%	44%	41%	16531	2%	<u></u>	
Administrative and support service activities	38%	40%	39%	42%	36%	79920	8%		

Real estate activities	34%	35%	37%	38%	35%	50294	5%	
Professional, scientific and technical activities	31%	32%	31%	33%	31%	63298	6%	~^
Water supply; sewerage, waste management and remediation activities	19%	16%	16%	15%	23%	7213	1%	/

MORE MEN IN SMALLER SETTLEMENTS									
Other service activities	30%	30%	33%	33%	25%	142439	14%		
Transportation and storage	23%	23%	22%	21%	20%	28881	3%		
Agriculture, forestry and fishing	22%	21%	19%	19%	18%	69289	7%		
Manufacturing	21%	18%	19%	19%	17%	68204	7%	\	
Electricity, gas, steam and air conditioning supply	19%	17%	13%	13%	15%	3668	0.4%		
Mining and quarrying	17%	12%	11%	11%	9%	3738	0.4%		
Construction	16%	15%	15%	15%	15%	69999	7%		

The larger percentage of women among legal entities' managers in smaller settlements is caused by the following factors:

- 1. A higher share of women in smaller cities and villages in the largest (in terms of the number of legal entities) sector "Wholesale and retail trade" that accounts for 25% of all legal entities.
- 2. In larger cities, sectors have more balanced management but men there occupy leadership positions in "more female sectors" more often than women do in "more male ones".

Among IEs, an upward trend in the women's share in smaller settlement emerges mainly due to the "Wholesale and retail trade" sector that accounts for 53% of IEs. In many other sectors, a rather opposite trend is observed – the women's share is greater in larger cities.

In larger cities, sectors have more balanced management

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Table 9. Percentage of women and men among IEs by the economic activity, type and size of settlement

	Α	В	С	D				
	City, population > 1 mln. people	"City, 500,000 - 1 mln. people"	"City, 100,000 - 500,000 people"	City, <100,000 people	Village	Total number of legal entities	Share from the total number of legal entities	
MORE WOMEN IN SI	MALLER SE	TTLEMEN	rs					
Wholesale and retail trade; repair of motor vehicles and motorcycles	47%	51%	53%	56%	54%	895951	52%	
Accommodation and food service activities	51%	54%	56%	56%	56%	59595	3%	
Other service activities	63%	65%	65%	66%	67%	114046	7%	
Education	61%	65%	67%	67%	62%	11686	1%	
Financial and insurance activities	44%	46%	48%	48%	45%	8598	1%	
MORE WOMEN IN B	IGGER CITIE	S				1		1
Human health and social work activities	58%	52%	50%	49%	45%	18918	1%	
Real estate activities	56%	53%	53%	51%	48%	63797	4%	
Administrative and support service activities	50%	45%	47%	47%	39%	43458	3%	
Professional, scientific and technical activities	50%	48%	48%	48%	44%	86167	5%	
Arts, entertainment and recreation	45%	44%	44%	40%	36%	14694	1%	
Manufacturing	30%	27%	28%	27%	22%	90971	5%	_
Agriculture, forestry and fishing	28%	21%	23%	21%	16%	29823	2%	<u></u>
Information and communication	25%	27%	23%	25%	24%	122977	7%	~
Transportation and storage	17%	13%	12%	11%	8%	111718	7%	
Construction	13%	11%	11%	10%	8%	32691	2%	

This can be formulated in a different way: in cities with population under 100 thousand and in villages, 69-71% of female IEs have "Wholesale and retail trade" as their core activity. In middle-size and large cities, the percentage of female entrepreneurs working in other sectors is higher (the activity is more diversified).

Table 10. Main economic activities of women-IEs by type and size of settlement

	А	В	С	D		
	City, population > 1 mln. people	"City, 500,000 - 1 mln. people"	"City, 100,000 - 500,000 people"	City, <100,000 people	Village	
Wholesale and retail trade; repair of motor vehicles and motorcycles	43%	53%	61%	66%	71%	
Professional, scientific and technical activities	10%	7%	5%	4%	3%	
Information and communication	9%	6%	3%	3%	2%	
Real estate activities	9%	6%	5%	3%	2%	
Other service activities	9%	10%	10%	10%	9%	
Administrative and support service activities	4%	3%	3%	2%	1%	
Accommodation and food service activities	4%	4%	4%	4%	4%	
Manufacturing	4%	3%	3%	3%	3%	
Education	2%	1%	1%	1%	0.4%	
Transportation and storage	2%	2%	2%	1%	1%	
Human health and social work activities	1%	2%	1%	1%	1%	
Arts, entertainment and recreation	1%	1%	1%	1%	0.4%	
Financial and insurance activities	1%	1%	1%	0.4%	0.4%	
Construction	1%	0.5%	0.5%	0.4%	0.3%	
Agriculture, forestry and fishing	0.2%	0.2%	0.3%	1%	2%	
Water supply; sewerage, waste management and remediation activities	0.1%	0.1%	0.1%	0.1%	0.1%	
TOTAL	100%	100%	100%	100%	100%	



CONCLUSIONS

The gender disparity is considerable among organization managers and almost absent among individual entrepreneurs.

The overall men/women ratio among organization managers and entrepreneurs is 60% versus 40%. Individual entrepreneurship in Ukraine is close to gender balance (46% of IEs are women) whereas women only make up 30% among legal entity managers⁵.

Considering the State Statistics Service data, we can assume that the disparity is caused both by women's lower economic activity and by the status of working women: they are more often employees whereas the percentage of self-employed ones and managers/employers among them is smaller than among men.

Women manage in the sectors of education whereas men manage in transport, construction, and agriculture. The list of activities managed almost completely either by men or by women is quite limited. However, a man in a managerial position in a more "female" sector is generally more widespread phenomenon than a female manager in a more "male" field.

The only sector managed predominantly by women is education (69% of managers are women). Besides, the "Other services activities" section among entrepreneurs is mainly "female" (women account for 92% of managers in the class 96.02 "Delivery of services by hairdressing and beauty salons").

At the same time, there are predominantly "male" sectors where 80% of managers are men: transport, construction, and agriculture. A number of sectors are gender-balanced (44-55% of managers are women): hotels and restaurants (among all entities); public administration, arts/sports/entertainment (among legal entities); real estate operations, health care, and wholesale and retail trade (among IEs).

In many sectors, there are some activities where female managers are in the majority. The list of these sectors reflects stereotypes concerning women's traditional activities in a household and community: education and child care, social assistance (and trade union activities), hotels, restaurants, retail sale of food and clothing, manufacturing o wearing apparel, beauty treatment, tourism, arts and recreation, managing household budgets (accounting and audit).

In Kyiv, the female percentage among managers is substantially lower. The percentage of male managers and IEs in the capital is generally higher than Ukraine's average – both due to a larger share of legal entities in Kyiv and owing to lower female representation in management of legal entities. The share of female managers and IEs in turn is greater in smaller cities, and among legal entities - in smaller cities and in villages.

⁵Obviously, there is a great number of individual entrepreneurs among legal entities but they cannot be separated in the USREOU data set from other institutions and organizations (state-owned ones, public authorities, non-governmental organizations, etc.).

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Organization management in large cities is more gender-balanced but to a large extent due to the fact that men more often manage more "female" sectors. At the same time, smaller cities and villages show a more pronounced gender profile of sectors. Among entrepreneurs, the female share is greater in smaller cities due to retail trade: this activity dominates among female entrepreneurs in smaller cities and villages. In larger cities, female entrepreneurs diversify their activities, hence their share in other sectors is greater.

"Female activity areas" and "the glass ceiling". There is one predominantly "female" activity area in Ukraine – education. There are also separate "more female" or "more male" economic activities in many other sectors. Men's leadership in "female" sectors is more widespread although the percentage of female managers also reaches 20% in mainly "male" sectors. In smaller cities and villages, women are more likely to lead institutions in traditionally female activities and do business in retail trade. In larger cities, women's leadership demonstrates sectoral diversity but men more often occupy leadership positions in more "female" sectors.

OPEN DATA OF THE MINISTRY OF JUSTICE

Although the already available open data of the Ministry of Justice allow performing statistical analysis in a broad range of areas and making conclusions on distribution of women and men in leadership positions, it is urgently necessary to improve quality of the open data.

Completeness of open data. In view of the indicators applied in European countries, the USREOU sets published as open data are considerably limited compared, for example, with USR⁶ (https://usr.minjust.gov.ua/), that also contains (in addition to one name of a legal entity manager, one name of an IE, and one core activity as per CEA) the following data:

- 3. List of founders (participants) of a legal entity, including last names, first names and patronymics.
- 4. Last name, first name and patronymic, date of election (appointment) of the persons elected (appointed) to the legal entity's management body.
- 5. Full list of economic activities, not only one core activity as per CEA.
- 6. Data received as part of mutual exchange of information from departmental registers of statistical bodies, Ministry of Revenue and Taxes (reformed into the State Fiscal Service by means of transformation according to the Cabinet of Ministers of Ukraine Resolution No. 160 of 21.05.2014 "On establishment of the State Fiscal Service"), and the Pension Fund of Ukraine.
- 7. Data about the authorized capital amount.
- 8. Other indicators that help perform a much more in-depth analysis of gender specifics of entrepreneurship in Ukraine.

 $^{^{6}}$ Uniform State Register of Legal Entities, Individual Entrepreneurs, and Public Associations.

However, USR data are not accessible as open data: first of all, access to them is paid, and, secondly, it is provided only via the application programming interface (API) that ensures search by criteria, not allowing a data set to be downloaded for a comprehensive analysis.

Data tidiness. The USREOU open data is of rather low quality, failing to meet the tidy data standards. Tidy data is clean (no mistakes or misprints, standardized variable values, etc.) and correctly structured data. If data is tidy it can be analysed quickly – even very large sets; if the data is untidy, sometimes it is necessary to spend a great lot of human and time resources to clean it and bring it into a completely machine-readable form.

Location. The data set has only one field for an address, without breakdown into oblast, raion, etc. Accordingly, to analyse data by region, it is necessary to process the data set with special software, create special variables, and bring their values in line with a unified form. Names contain the Latin letter "i", and toponyms sometimes include the Latin "c". Unfortunately, the set has no CEATSU codes which would allow the information search and analysis in regional terms to be much simpler.

Activities. The set sometimes includes entries containing no activity (as per CEA). Their percentage in the database is about 5%.

Gender. As mentioned above, the register has no "gender" parameter (for a person indicated as a legal entity manager or IE). Analysis by gender was performed using patronymic suffixes.

Names. In the register, by far not all Slavonic names have a patronymic, which makes determination of gender according to the above-mentioned algorithm impossible. The sets contain a certain quantity of foreign names, which does not allow determining a person's sex unambiguously. Moreover, about 4% of entries include no names at all.

CEA. Over the past 20 years in Ukraine, there have been three versions of 'the classification of economic activities', each new one superseding the last: DK 009-96, CEA-2005 and CEA-2010 (currently in force). Accordingly, the register contains different forms of economic activity coding, which also complicates research because of the need to bring DK 009-96 and CEA-2005 codes into conformity with CEA-2010.

RECOMMENDATIONS

- Add the "gender" field (for a legal entity manager or IE).
- Separate the "location" field into several ones (index, region, raion, settlement, etc.).
- Add the "CEATSU" field⁷ (for unambiguous identification of a settlement, its type, and place in the administrative-territorial system hierarchy).
- Add the "form of ownership"/ "organizational legal form" field (as per the Classification of Organizational Legal Forms of Economic Activity (KOPFG)).
- Bring DK 009-96 and CEA-2005 into conformity with CEA-2010.
- Correct existing grammatical and spelling errors.

It should be separately noted that the format chosen for publishing the Register's data (XML) in this case is not optimal because it is too complicated for the data. The Register is actually a simple rectangular table and requires no elaborate options such as support of complex data types or support of data hierarchy.

Such an approach complicates data parsing, which adversely affects the speed of development of necessary software and eventually the processing speed for XML files that are also large in size. In addition, XML files have incomprehensible empty lines between nodes. We suggest using the CSV format, which allows reducing the size of files with the Register data two times on average, let alone parsing simplicity.

In addition to this, we deem it reasonable to consider the possibility of access to USR in the open data format (in view of the indicators, important for gender analysis, which are contained in USR but inaccessible for analysis).

 $^{{}^{7}\}mathsf{State}$ Classification of Entities of the Administrative-Territorial System of Ukraine.

FOR NOTES

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WOMEN AND MEN IN LEADERSHIP POSITIONS IN UKRAINE





















