Integration of gender in Business and Trade Statistics

an example using the Portuguese National Data Infrastructure

Cristina Neves

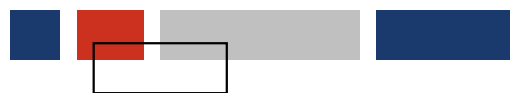Economic Statistics Department

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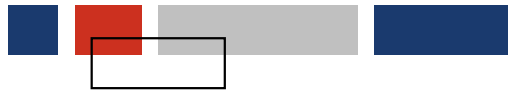
20 September 2023

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- **Multidimensional perspective**

- **Data sources**

- **Data integration:**

  - **National Data Infrastructure**

  - **Gender as a new perspective**

- **Next steps**

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STATISTICS PORTUGAL
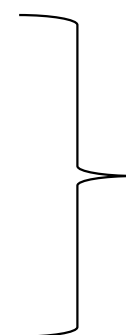
Multidimensional perspective

- ✓ Multidimensional perspective of enterprises' economic performance

- ✓ Micro data linking

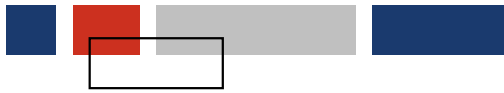- ✓ Integration of data from different data sources

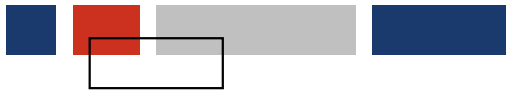Sample surveys

Administrative data
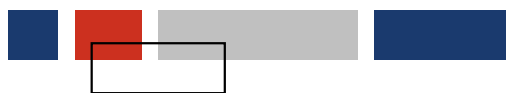
Combination of several data sources

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✓ Focus on harmonisation (concepts, definitions)

✓ Creation of a new Administrative Data Unit (Data Collection and Management Department – Business Data Unit)

✓ Making data integrable:

Quality control

Outlier detection

Estimations (non-response, also on administrative records)

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Data sources

Conventional surveys
(quantitative)

IES/SBI

Other administrative data

New surveys
(qualitative; economic sentiment; forecasts)

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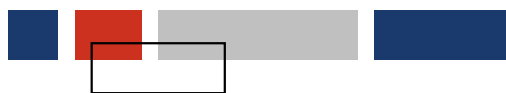
Data from enterprises:

- **IES – SIMPLIFIED BUSINESS INFORMATION**

- **OTHER ADMINISTRATIVE DATA** (growing use)

- **CONVENTIONAL SURVEYS** (Short term statistics - turnover)

- **NEW SURVEYS** (capture mainly qualitative aspects that influence business activity (Survey on Framework Regulation Costs; Management Practices Survey; Survey on Information and Communication Technologies Usage in Entreprises; Community Innovation Survey); get indications on economic sentiment and forecasts (Survey on Perspectives of Exports of Goods))
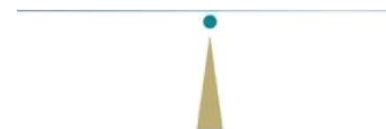
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Four legal requirements from different entities on enterprises, fulfilled in a single report:

IES — Informação Empresarial Simplificada

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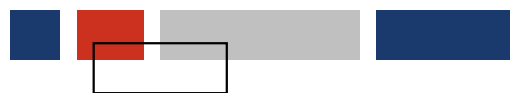STATISTICS PORTUGAL

AT autoridade tributária e aduaneira

MINISTÉRIO DA JUSTIÇA

BANCO DE PORTUGAL
EUROSISTEMA

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Main advantages for Statistics Portugal:

Units covered:

50.000 ➡ 400.000

(≈15%)   (≈100%)

Availability:

12 Months ➡ 6,5 Months

Number of variables:

800 ➡ 5 000

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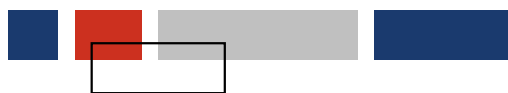
Trade statistics data:

➤ **ITGS:** Intrastat survey (intra-EU trade) and Customs data (extra-EU trade)

➤ **ITSS:** Bank of Portugal

➤ **FATS:** Statistics Portugal and Bank of Portugal

➤ **FDI:** Bank of Portugal

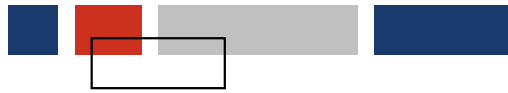➤ **MNE/LCU:** Statistics Portugal

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Other administrative data:

Microdata or highly detailed data from other sources:

➢ Social Security: Single Report; Monthly Statement of Remunerations

➢ Tax Authority: "e-invoice" system; VAT; fiscal declarations (Income taxes, corporation taxes, property taxes…) – business statistics, housing prices and rents (information in high detail for society)

➢ Ministry of Justice: creation and dissolution of enterprises; NACE classification (SICAE).

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Data integration – National Data Infrastructure

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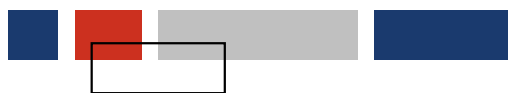
Integration of statistical data from surveys and administrative data:

Surveys:

Survey on Framework Regulation Costs; Management Practices Survey; Survey on Perspectives of Exports of Goods

Intrastat, Short Term Statistics, CIS, IVNE, CIS, Survey on ICT Usage in Entreprises, ...

Other data sources:

Integrated Business Accounts System

Single Report – Social Security

Monthly Statement of Remunerations

E-invoice system, VAT, fiscal declarations (income and corporation taxes, property taxes...)

Creation and dissolution of enterprises; NACE classification (SICAE)

Enable Statistics Portugal:
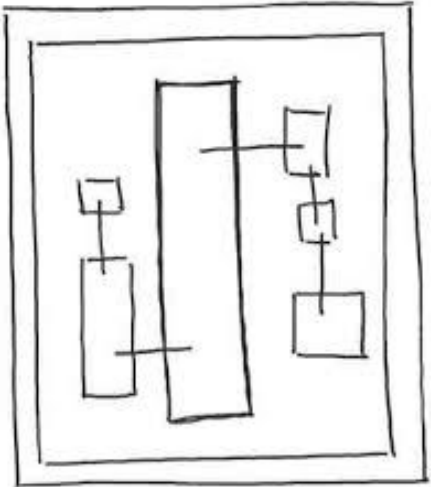
- Data security
- Statistical confidentiality
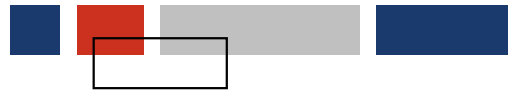
Powerful enterprise database

Stats Business

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National Data Infrastructure

Data integration

Stats Business

ICT
CIS
Other surveys
Single Report
Other sources
PRODCOM
ITGS
IES — Informação Empresarial Simplificada

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Stats Business

➢ One of the most advanced enterprise databases in international terms;

➢ Its analytical exploration is still under development from three perspectives:

✓ exploitation for a more efficient production of existing official statistics (e-invoice: useful during pandemic, for Intrastat and Tourism);

✓ design of new official statistics which are made available at an early stage as experimental statistics (*Stats Lab*) (innovation and size; management and performance; new: gender analysis);

✓ support for scientific research (contrafactual analysis).
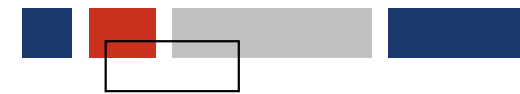
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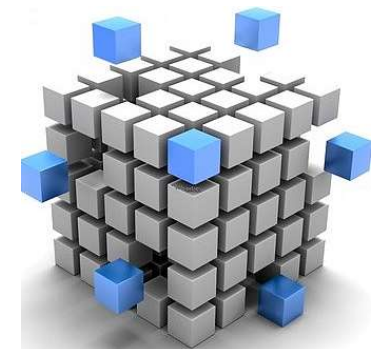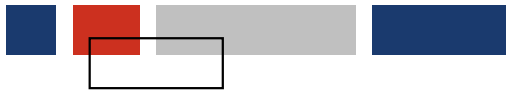
Data integration – Gender as a new perspective

# Single Report (Personnel charts) – Social Security

The data in the Single Report (Personnel Charts) provides information on:

- ❖ Business Structure
- ❖ Employment (specific characteristics)
- ❖ Duration of Work
- ❖ Remuneration

The reference period is October of each year, and the geographical scope is the country. Data available for the reference periods 1985-2021.

This statistical operation is of the census type and is the result of an administrative procedure.

It is compulsory for all entities with employees to submit their establishment plan, with the exception of central, regional and local administrations and public institutes (for these entities it only applies to employees under individual employment contracts) and employers of domestic service workers.
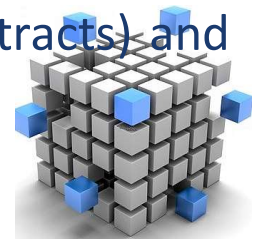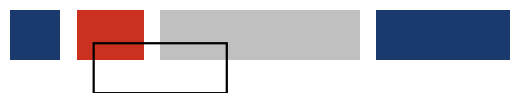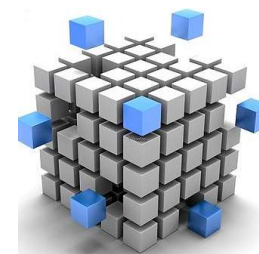
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Business and Trade Statistics by Gender – Main outputs:

Business and Trade Statistics by Gender, 2021

	Total
Number of employees - Men	53,4%
Number of employees - Women	46,6%

✓ The majority of the employees are men.

Source: Statistics Portugal, Community Innovation Survey, Integrated Business Accounts System and ICT Usage
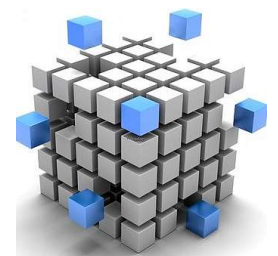
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Business and Trade Statistics by Gender – Main outputs:

Business and Trade Statistics by Gender, 2021

	Exporters	Non-exporters	Total
Number of employees - Men	57.2%	50.5%	53,4%
Number of employees - Women	42.8%	49.5%	46,6%

✓ The majority of the employees are men, both in exporting and non-exporting firms;

✓ The share of women is higher in the non-exporting firms.

Source: Statistics Portugal, Community Innovation Survey, Integrated Business Accounts System and ICT Usage
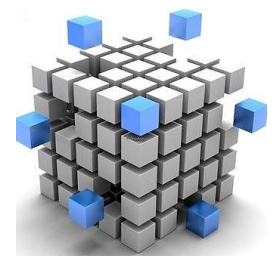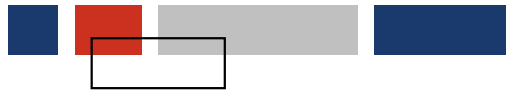
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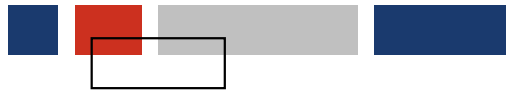
Business and Trade Statistics by Gender – Main outputs:

Business and Trade Statistics by Gender, 2021

	Exporters
Average monthly remuneration - Men	1.5 higher in exporting enterprises
Average monthly remuneration - Women	1.4 higher in exporting enterprises

✓ Exporting firms pay higher wages:

❖ the average monthly remuneration is higher in exporting firms, both for men and women (compared to that in non-exporting firms);

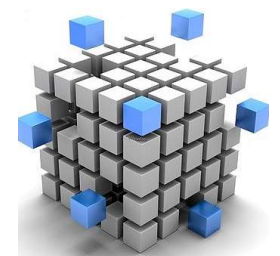   ❖ 1.5 times in the case of men;

   ❖ 1.4 times for women.

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Business and Trade by Gender – Main outputs:

Business and Trade Statistics by Gender, 2021

	Exporters	Non-exporters	Total
Average monthly remuneration - Men vs Women	+1.24	+1.11	+1.20

✓ Average monthly remuneration is always higher for men, compared with women;

✓ The gender wage gap is higher in exporting firms.

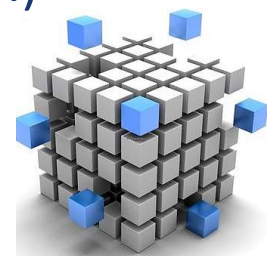Source: Statistics Portugal, Community Innovation Survey, Integrated Business Accounts System and ICT Usage

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Business and Trade by Gender – Main outputs:

Business and Trade Statistics by Gender, 2021

	Exporters	Non-exporters	Total
Men in leadership positions	6.4%	12.7%	9.8%
Women in leadership positions	3.5%	6.3%	5.2%

- ✓ The proportion of men in leadership positions (compared to the total men employed) is always higher than in the case of women;

- ✓ The difference is higher in the non-exporting firms (+6.4 p.p.) and lower in the exporting firms (+2.9 p.p.).

Source: Statistics Portugal, Community Innovation Survey, Integrated Business Accounts System and ICT Usage
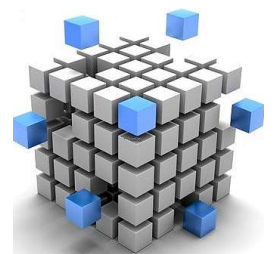
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Business and Trade by Gender – Main outputs:

Business and Trade Statistics by Gender, 2021

	Exporters	Non-exporters	Total
Men in leadership positions (% of total persons in leadership positions)	71.0%	67.2%	68.3%
Women in leadership positions (% of total persons in leadership positions)	29.0%	32.8%	31.7%

✓ The proportion of men in total number of persons in leadership positions is always higher than in the case of women;

✓ In the exporting firms, 71.0% of the leaders are men;

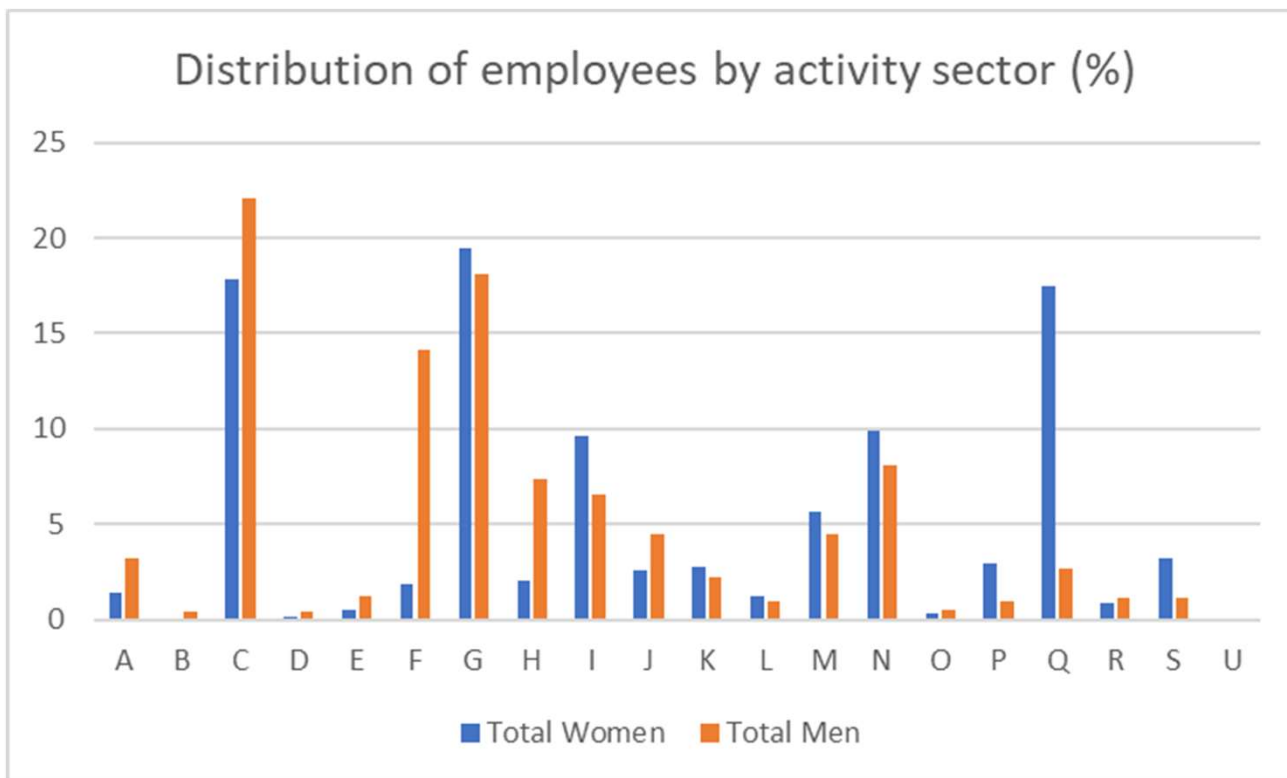✓ The difference is higher in the exporting firms (+42.0 p.p.).

Source: Statistics Portugal, Community Innovation Survey, Integrated Business Accounts System and ICT Usage
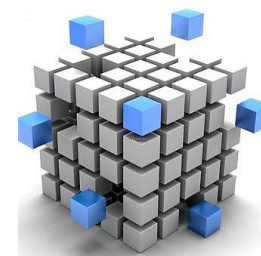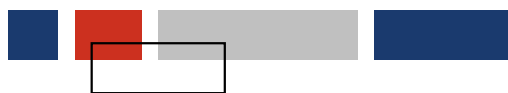
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Business and Trade by Gender – Main outputs:

Distribution of employees by activity sector (%)

Total Women ■ Total Men ■

✓ Women work in sectors that are less engaged in trade

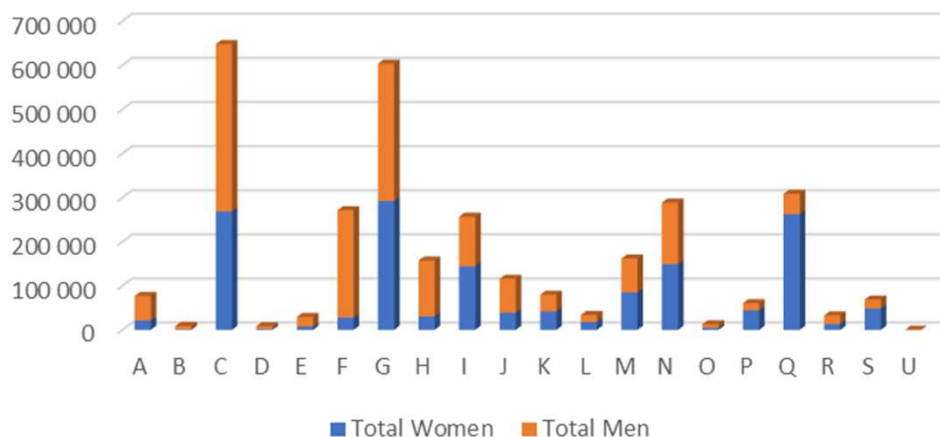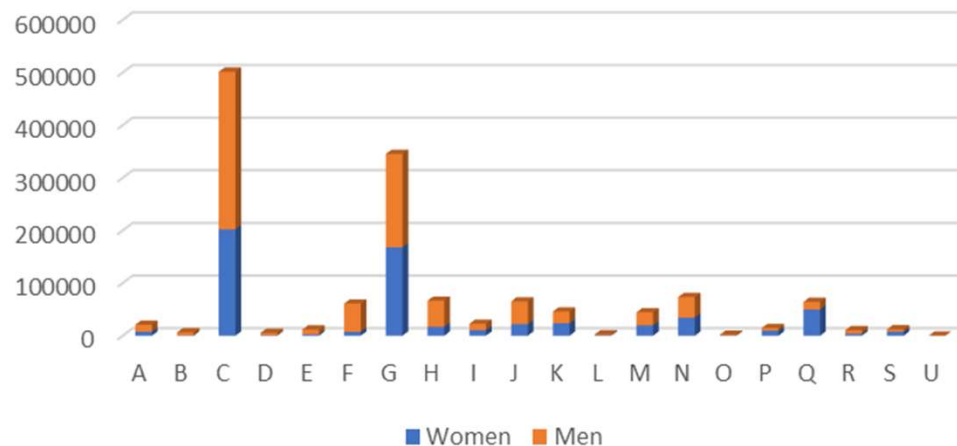INSTITUTO NACIONAL DE ESTATÍSTICA
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Business and Trade by Gender – Main outputs:

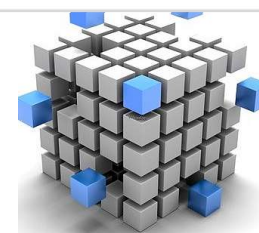Number of employess, by activity and by gender - total enterprises

Number of employees by activity and by gender, exporters

✓ Women work in sectors that are less engaged in trade

Source: Statistics Portugal, Community Innovation Survey, Integrated Business Accounts System and ICT Usage

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Next steps:

➢ Additional analysis with new dimensions:

✓ Innovative and non-innovative enterprises

✓ ICT usage (technological intensity related with gender)

✓ ICT expertise (men/women)

✓ Management practices (leadership men/women)

✓ Education degree (men/women)

✓ Duration of work

✓ Firm age and size

✓ Business demography
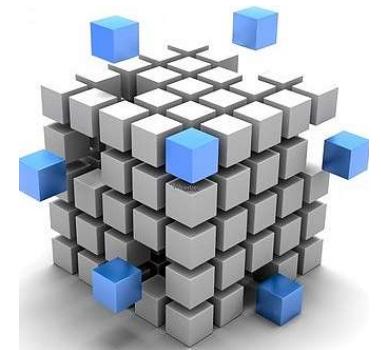
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Thank you for your attention!

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