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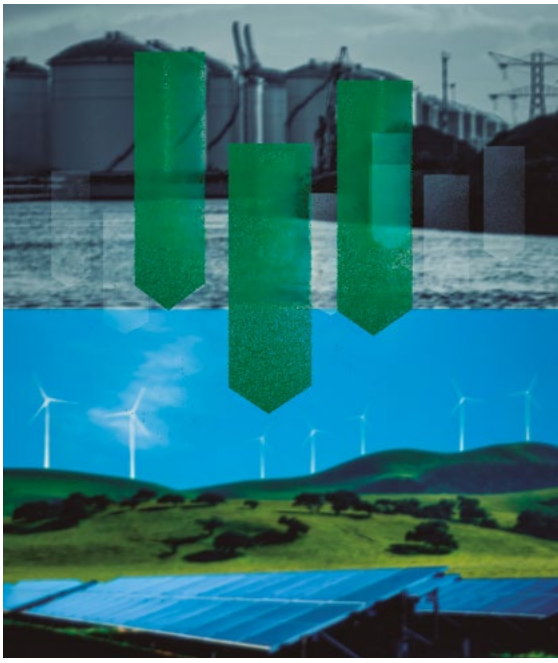
Gender equality, employment and green transition: policies for inclusive development

Argentina in the «Fair transition energy and green job creation» study

COUNTRY

ARGENTINA

Argentina's energy transition is framed within a comprehensive climate policy that seeks to reduce dependence on fossil fuels and promote sustainable development with a focus on social justice. This process responds to international commitments, such as the Paris Agreement (2015), the UN 2030 Agenda for Sustainable Development, Nationally Determined Contributions (NDC, 2021), which set an emissions limit of 349 MtCO2e by 2030 and national regulations such as the 27.520 Law on Minimum Budgets for Adaptation and Mitigation to Climate Change (2019). The climate portfolio at the time of writing this report (June 2025) is divided between three ministries: Foreign Ministry, Economy and Cabinet Head while the Ministry of Women, Gender and Diversity has been dissolved taking over the functions of the Children's Secretariat, Adolescence and Family within the ministry of Human Capital. While some domestic policies have reduced support for renewable energy, international agreements have been established that could drive sustainable projects in the future.



1. Public Policy Review

1.1. National policies for a fair energy transition

- According to the First Biennial Transparency Report of Argentina (IBT1, 2024 IBT1 (2024) and the National Action Strategy for Climate Empowerment (ENACE, 2023), the main objectives of the just energy transition in Argentina include:

  - Progressive decarbonization: 19% reduction in GHG emissions by 2030 and carbon neutrality by 2050.
  - Diversification of the energy matrix: Increase in renewable sources by 20% by 2025, in compliance with Law 27.191.
  - Strengthening the green hydrogen sector: Argentina has signed investment agreements, such as that of Fortescue Future Industries (2021), to produce green hydrogen on a large scale.
  - Electrification of public transport: implementation of electric corridors and conversion of bus fleets in cities such as Buenos Aires and Cordoba.
  - Implementation of a just transition: Protection of employment in the energy sector, ensuring the training and reintegration of workers into new sustainable industries.

- The 2030 Energy Transition Plan: published in 2023, is a strategic initiative that seeks to transform the country's energy matrix towards more sustainable

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and clean sources. The Plan sets out a long-term vision based on four key dimensions: energy security, social equity, climate change mitigation and technological industrial development. Incorporates the following goals and strategies:

- Diversification of the Energy Matrix: Although the plan projects a continuity in the dependence on fossil fuels until 2030, a gradual incorporation of renewable energies into the energy matrix is envisaged.
- Energy efficiency: Implementation of measures to optimize energy consumption in various sectors, promoting more efficient technologies and practices.
- Development of National Technologies: Promotion of local technological capacities to reduce dependence on foreign technologies and strengthen the domestic industry in the energy sector.
- Resilience of the Energy System: Strengthening the energy infrastructure to ensure its adaptability and resistance to possible crises or natural disasters.
- Low Emission Hydrogen Drive: Development of a national strategy for the production and use of hydrogen as a clean energy vector.
- Sustainable mobility: Promotion of transport systems that reduce greenhouse gas emissions, encouraging the use of electric vehicles and other clean alternatives.
- Just Transition: Ensure that the transformation of the energy sector benefits all society, taking into account social and labour aspects for an equitable transition.

* Projections towards 2050. Argentina has outlined "Guidelines and Scenarios for the Energy Transition to 2050", which include:

- Greater Incorporation of Renewable Energies: A more significant integration of renewable sources in the energy matrix is expected by 2050.
- Clean Energy Infrastructure Development: Construction of necessary infrastructures to support the expansion of renewable energies and associated technologies.
- International Partnerships: Establishment of collaborations with other countries for the exchange of technologies and knowledge in clean energy.

* The National Plan for Adaptation and Mitigation to Climate Change (PNAyMCC, 2022-2030) under Law 27.520 (2019) systematizes actions and defines implementation instruments. The main strategies outlined in the plan are described below:

- Energy Transition: This strategy promotes both energy efficiency and the transformation towards a cleaner, more resilient matrix.
- Productive Transition: Includes measures to develop national value chains, foster the circular economy, link climate risk management with production planning and drive process innovation.
- Biodiversity and Ecosystem Conservation: Seeks to protect and restore biodiversity and ecosystem services, recognizing their critical role in climate change adaptation and mitigation.
- Resilient Infrastructure Development: Guides the planning and construction of infrastructures that can withstand the impacts of climate change, ensuring the safety and well-being of communities.
- Capacity Building and Climate Governance: Aims to improve institutional capacities and coordination between different levels of government and sectors, promoting active societal participation in climate change decision-making.
- Climate Finance: Establishes mechanisms to mobilize and channel financial resources towards adaptation and mitigation initiatives, ensuring an equitable and efficient distribution of funds.

These integrated strategies seek to reduce greenhouse gas emissions and strengthen the resilience of

communities and promote sustainable and equitable development in Argentina.

1.2. Instruments and Tools for the Implementation of the Energy Transition

Regulatory instruments:

- **Climate Change Law 27.520 (2019):** establishes the minimum budgets for adaptation and mitigation in accordance with article 41 of the National Constitution. The law creates the National Cabinet of Climate Change (GNCC) chaired by the Chief of Cabinet of Ministers, with the function of articulating between the different areas of government the implementation of the National Plan for Adaptation and Mitigation to Climate Change and other related public policies. The GNCC is composed of the highest authorities from areas such as Environment, Energy, Production, Transport, Social Development, Foreign Relations, Education, Health, Science and Technology, Interior, Public Works, Housing, Labor, Economy, Finance, Security and Defense. The law also states that the productive sectors must develop strategies to mitigate and reduce greenhouse gases. While the obligation to submit individual emission reduction plans is not specified, assistance and development of emission reduction strategies are encouraged. boletinoficial.gob.ar

- **Law 27.191 of Renewable Energies**: enacted in 2015, establishes the National Incentive Scheme for the Use of Renewable Energy Sources for the Production of Electrical Energy in Argentina. This legislation extended and amended the previous Law 26.190, with the objective of increasing the share of renewable energies in the country's energy matrix. Establishes a regulatory framework to promote energy generation from renewable sources, with the goal of achieving 20% of the national energy matrix by 2025. Law 27.191 runs until 2025. Its expiry poses challenges for the renewable energy sector, as an update of the legal framework is required to continue promoting investments in this area.

- **Regulatory Decree 1030/2020**: establishes specific mechanisms for inter-ministerial coordination in the implementation of public policies related to climate change.

- **Decree of Necessity and Urgency (DNU) 70/2023**: this decree repealed key articles of the Law 27.424, eliminating incentives and tax benefits aimed at promoting distributed generation of renewable energy. The measure affected funds such as FODIS and FANSIGED, which supported users and manufacturers in adopting clean energy.

Financial instruments

- Green Climate Fund: international financing projects supported by the IDB and the World Bank.

- RenovAr program (2016-2023): it has generated more than 6,000 MW in installed capacity of renewable energies, although since 2023 there have been no announcements of new investments. In this framework by 2025, priority is being given to the exploitation of hydrocarbons (Vaca

Muerta) and nuclear energy, reducing the inventives to renewables.

* Energy efficiency subsidies: support programmes for industries to reduce energy consumption through tax credits. Since December 2023, no new programmes of subsidies or tax incentives for energy efficiency have been announced. Currently prioritizing the reduction of public spending and deregulation of the energy market.

Implementation Tools

* **Climate Action Plan 2023-2030**: it was designed to establish concrete measures aimed at reducing greenhouse gas emissions in Argentina, in line with the commitments made in the Paris Agreement. This plan included sectoral strategies to promote the transition to a low-carbon economy and strengthen the country's climate resilience.

* National Strategy for the Use of Carbon Markets (ENUMeC, 2023): implementation of emission offsetting mechanisms for industrial sectors. implemented in 2023, established a framework for developing carbon markets in Argentina. Its objective was to reduce greenhouse gas emissions and promote sustainable development through emission offsetting mechanisms for industrial sectors.

* "Energy Efficiency and Conversion Program": the main objective is to reduce energy consumption in buildings and promote the acquisition of energy-efficient technology, ranging from household appliances to photovoltaic panels and solar heating tanks. To achieve this, the agreement with Banco Nación establishes a credit line with favorable conditions, including preferential rates and the possibility of financing up to 24 interest-free installments on the purchase of selected products in Tienda BNA.

* Agreement with the European Union for the development of renewable hydrogen: in 2024, Argentina and the European Union signed an agreement to cooperate in the development of renewable energies, with a special focus on hydrogen. This agreement includes collaboration between companies in the sector, investment projects and technical assistance in renewable hydrogen, within the framework of the EU-ROCLIMA programme.

1.3. Inclusion of the gender dimension in public policies

The gender dimension in public policies in Argentina has made significant progress over the last decades, with the implementation of laws and institutions aimed at promoting equality that are currently under review.

2. Analysis of opportunities and potential

2.1. Identification of policies that promote the employment of women in green jobs

The extinct Ministry of Environment and Sustainable Development produced the document: "The gender and diversity perspective in Argentina's climate policy: Energy sector" (2023) with the objective of analyzing the relationship between gender and climate change in the energy sector. It proposes methodological tools for mainstreaming a gender perspective into climate policies, highlighting the importance of recognizing gender-differentiated contributions and needs in climate change adaptation and mitigation measures. The Environment and Natural Resources Foundation (FARN) published Recommendations for a Just Energy Transition in Argentina: A Comprehensive Look" (June 2024): which addresses the need for an energy transition that considers social, economic and environmental aspects. Highlights the low participation of women in the energy sector and proposes recommendations to promote their inclusion, especially in non-conventional renewable energies such as wind and solar.

2.2. Recommendations to improve gender inclusion in public policies

1. Include specific gender objectives in energy transition policies, with quantifiable targets and improve the monitoring and evaluation mechanisms of gender equity in energy policies.
2. Strengthen incentives for the employment of women and diversity in the energy sector.
3. Expand training in clean technologies for displaced fossil industry workers, as well as implementation of training programmes for women in STEM and renewable energy-oriented technical and scientific careers.
4. Facilitate access to finance for women-led energy ventures.
5. Promotion of women's leadership in the energy sector, creation of mentoring programmes and access to management positions and leadership in decision-making on energy and climate change.
6. Incorporate a gender perspective in energy investment planning, ensuring that benefits reach all populations equitably.

Practices to highlight

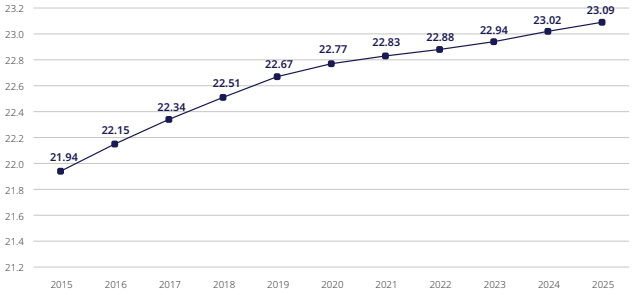
Triangular Cooperation: Argentina-Mexico-Germany: in 2018, a cooperation was established between the Subsecretaría de Ahorro y Eficiencia Energética of Argentina, the National Commission for the Efficient Use of Energy (CONUEE) of Mexico and the German Cooperation for Sustainable Development (GIZ). This alliance sought to transfer the Mexican experience in learning networks into the Argentine context, adapting successful methodologies previously implemented in Mexico with support from Germany. As a result of this cooperation, the first Energy Management Systems Learning Network in Argentina was launched in June 2018. Twelve companies from various industrial sectors participated in this initiative, committing to improve their energy performance through the implementation of management systems based on ISO 50001.

3. Statistical data

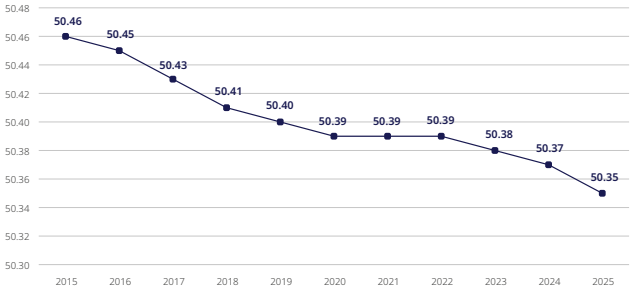
A. Demographic data

Population distribution statistics

Number of woman, millions

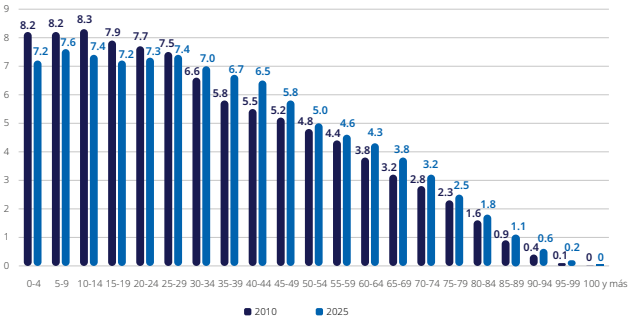


Percentage of woman



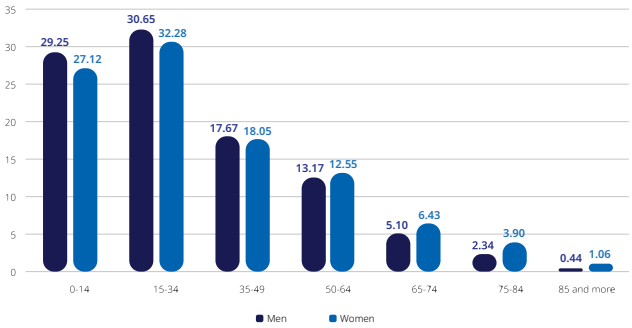
Age distribution statistics

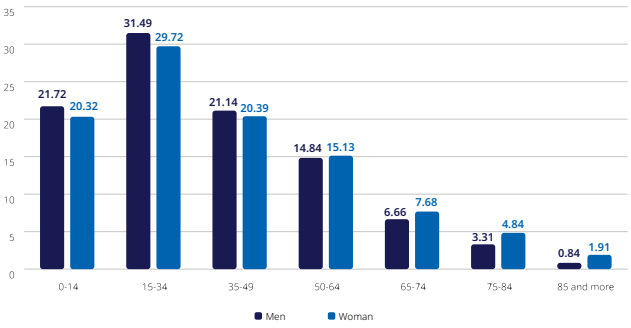
Age distribution of the female population



Population distribution statistics by age

Age distribution by sex, percentage





Ages	Women			Men		
	2000	2025	Difference in percentage points	2000	2025	Difference in percentage points
0-14	27.12	20.32	-6.8	29.25	21.72	-7.53
15-34	30.65	29.72	-0.93	32.28	31.49	-0.79
35-49	17.67	20.39	2.72	18.05	21.14	3.09
50-64	13.17	15.13	1.96	12.55	14.84	2.29
65-74	6.43	7.68	1.25	5.1	6.66	1.56
75-84	3.9	4.84	0.94	2.34	3.31	0.97
85 and more	1.06	1.91	0.85	0.44	0.84	0.4

Interpretation of demographic data

Population distribution by age and sex (2000 vs. 2025): projections indicate a clear process of population ageing. In 2000, 27.1% of women and 29.3% of men were aged 0-14; by 2025, it is estimated that this group will represent only 20.3% and 21.7%, respectively, with a reduction of more than 6.5 percentage points in both cases.

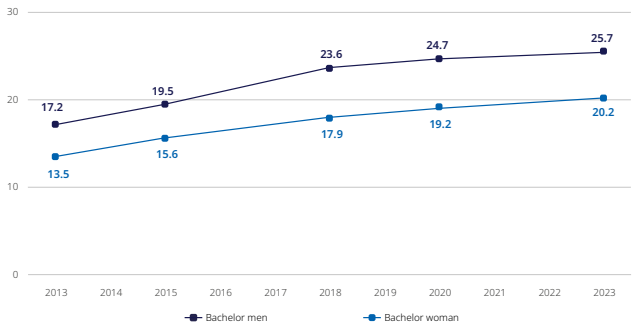
In contrast, the proportions in the older age groups, particularly 50-64, 65-74 and 75+, show significant increases. This phenomenon is more marked in women, who historically have a longer life expectancy, a situation that poses challenges in terms of long-term care, pensions and specialized health services.

Evolution of the percentage of women in the total population (**2015-2025**): the proportion of women in the total population remains stable, with a slight decrease from 50.46% in 2015 to 50.30% in 2025. Despite this stability, the age structure shows a concentration of women in older age groups, reaffirming the need for differentiated policies for women's old age.

B. Education level data

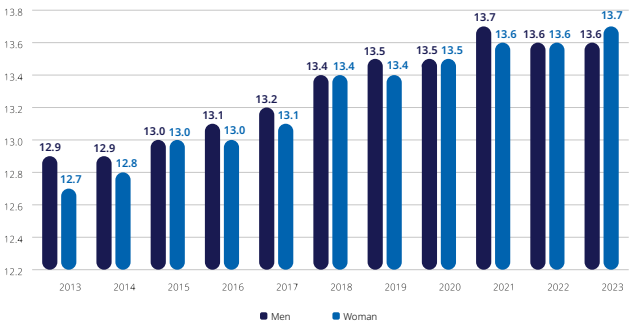
Educational attainment statistics

Percentage of bacherol, population 25+

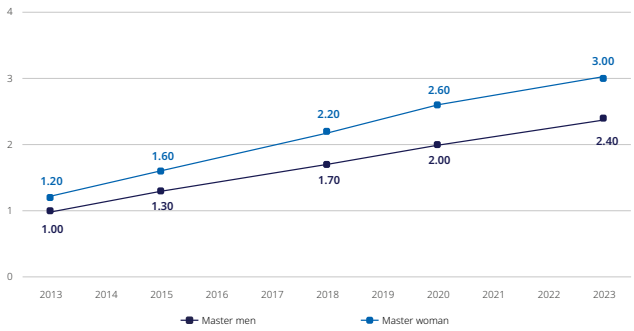


Statistics on years of study and enrollment rate

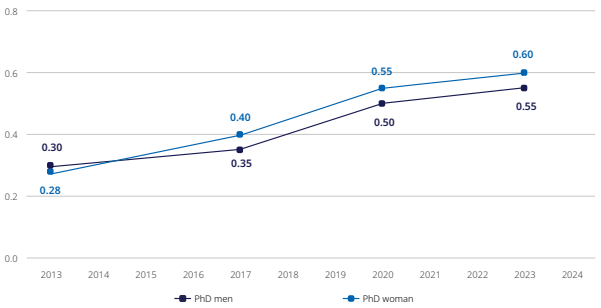
Years of education



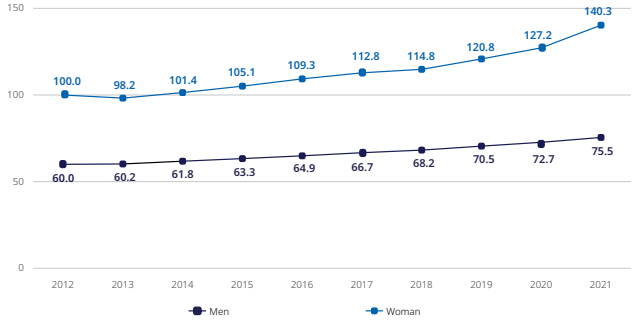
Percentage of master, population 25+



Percentage of PhD, population 25+



Gross tertiary enroment rate, percentage



Interpretation of training data

Access to tertiary education: the gross enrolment rate in tertiary education shows an upward trend for both sexes between 2012 and 2022. However, women consistently outnumber men, reaching a rate of 140.3% in 2022, compared to 75.5% for men. This positive gap for women has been consolidated over the last decade.

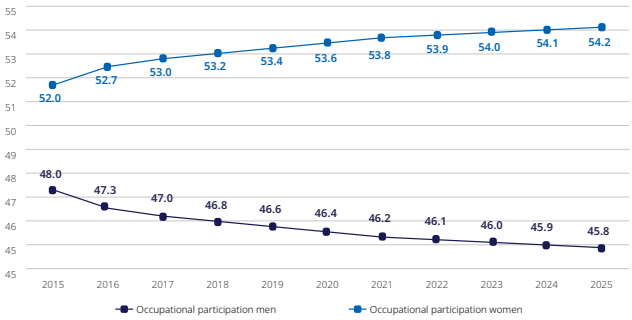
Level of education achieved (bachelor's, master's, doctorate): the percentage of women with a bachelor's degree exceeds that of men in the whole series 2013-2023. This trend is mirrored in master's degrees, although with a smaller margin. However, in doctorates (PhD), men still have a slight advantage, suggesting the existence of invisible barriers to access to more advanced academic training.

Average years of formal education: Since 2016, women have equaled or slightly outperformed men in average years of formal education. By 2023, both series are around 13.6 years old, which suggests parity in quantitative terms, although not necessarily in terms of return to work.

C. Employment data

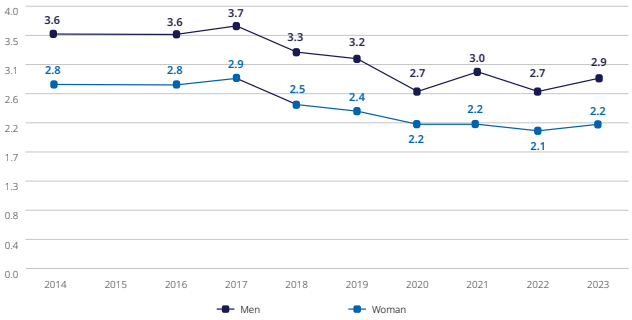
Employment statistics

Economic participation rate, percentage

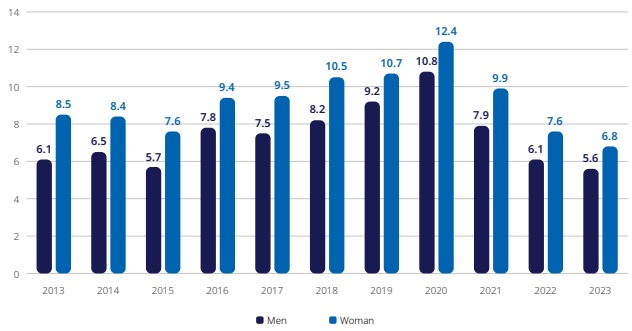


Income Statistics

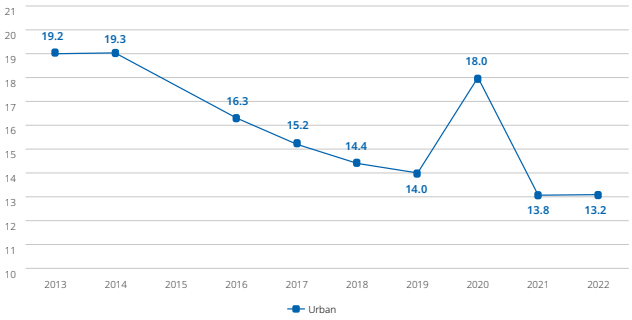
Average income, in multiples of the poverty line



Unemployment rate, percentage



Percentage of adult women with exclusive dedication to unpaid work



Interpretation of employment data

Economic participation rate: women continue to have lower labour market participation rates: in 2025, 45.8% for women compared with 54.2% for men. This structural gap reflects persistent barriers to women's access to employment, related both to the labour market and to the distribution of domestic and care work.

Unpaid work: A significant proportion of adult women (about 19% in urban areas) report full-time unpaid work, according to data up to 2022. This phenomenon has no counterpart in the case of men and shows the overload of care tasks assumed by women, which limits their economic autonomy and professional development.

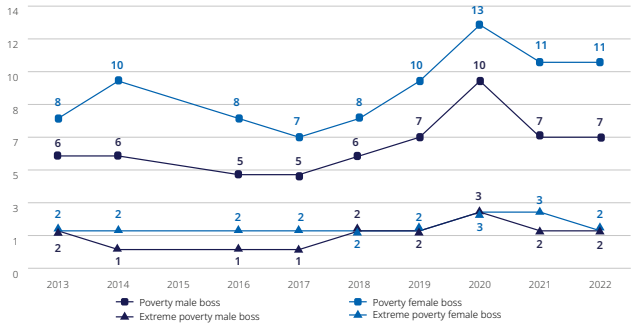
Unemployment rate: Unemployment affects women disproportionately, with rates consistently higher than men over the last decade. This situation is aggravated in contexts of economic crises, consolidating the increased vulnerability of women to employment.

Earnings: In terms of average earnings, women are consistently below men. By 2023, men are earning almost three times the poverty line while women remain below that threshold. This gap persists even among those with similar educational levels.

D. Poverty data

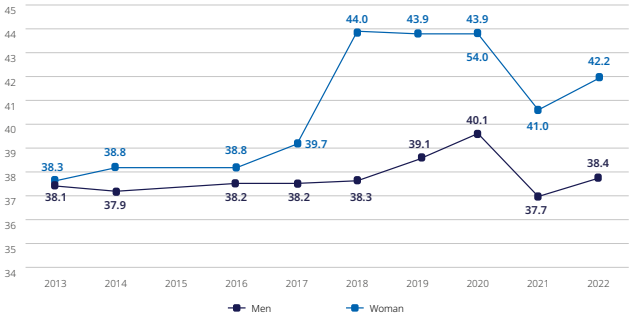
Statistics on poverty and extreme poverty

Poverty gap coefficient, percentage



Employment and vulnerability statistics

Percentage of employed people in low-income jobs



Interpretation of poverty and vulnerability data

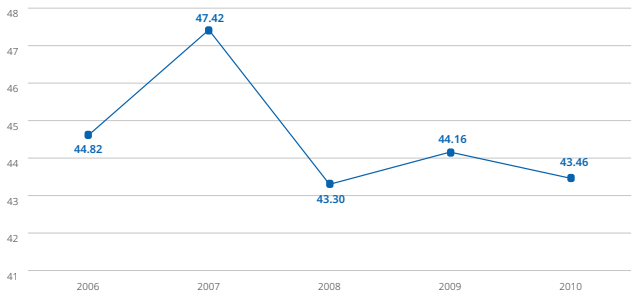
Low productivity jobs: women are over-represented in low productivity jobs. In 2022, 43.9% of employed women belonged to this segment, compared with 38.8% of men. This precarious integration affects their access to social protection, economic security and career advancement.

Poverty gaps by type of household head: female-headed households have higher rates of both poverty and extreme poverty. The feminization of poverty remains a structural phenomenon, linked to inequalities in access to formal employment, the burden of unpaid work and wage discrimination.

E. STEM education and employment data in the energy and transportation sectors

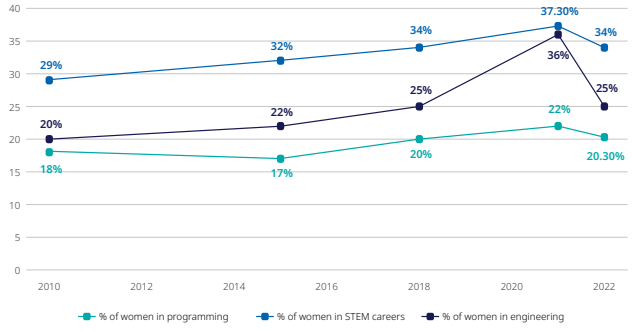
Graduate Statistics

Percentage of STEM graduates

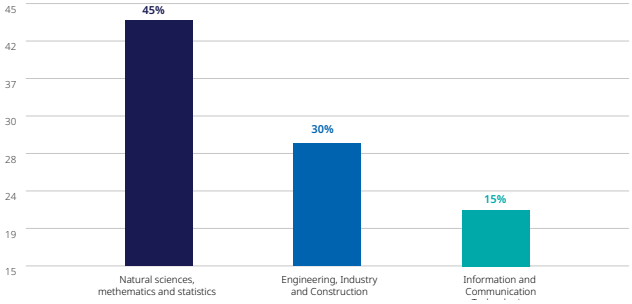


Student statistics by STEM major

Participation of women in STEM careers

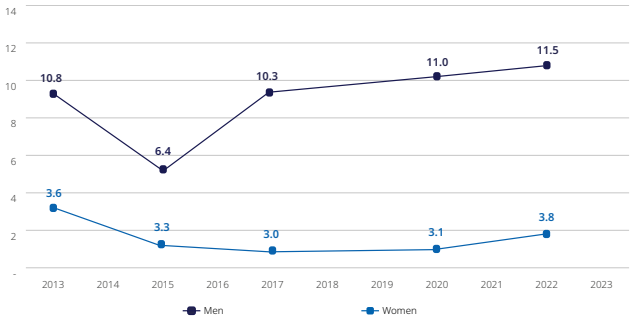


Percentage of female graduates by selected STEM majors



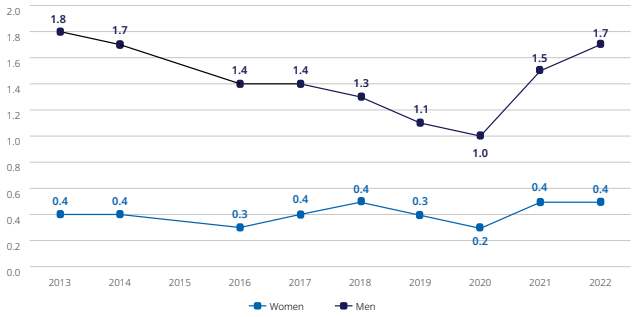
Transportation employment statistics

Population employed in transport, percentage



Energy employment statistics

Population employed in energy, gas and water, percentage



Interpretation of training and employment data in STEM and strategic sectors

Female participation in STEM careers: the participation of women in STEM (science, technology, engineering and mathematics) careers has shown some improvement but remains insufficient. In 2022, only 34% of those pursuing STEM studies were women, down to 22% in programming and 20% in engineering.

Graduates in STEM disciplines: between 2006 and 2010, the percentage of female graduates in STEM areas remained between 43% and 47%. This percentage shows that although women are entering these fields, their presence does not yet reflect substantive equality.

Employment in strategic sectors (energy and transport): the presence of women in sectors such as energy, gas and water is marginal: only 0.4% of total employment in the sector in 2022 corresponds to women. In the transport sector, although the presence of women is slightly higher (~3.8% in 2023), a large gender gap persists. These figures show the systematic exclusion of women in sectors of high economic and technological value.

General conclusions

Persistent structural inequality: women have outperformed men in levels of education and years of schooling, but these advantages do not translate into labour or economic equity.

Occupational and wage segmentation: women are concentrated in lower-productivity and lower-paid jobs, with lower representation in strategic sectors such as technology, energy and transport.

Disproportionate burden of care: unpaid work falls overwhelmingly on women, limiting their opportunities for integration and progress in the labour market.

Feminization of poverty: Economic vulnerability particularly affects female heads of household, exacerbating gender inequality.