Global Gateway

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

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

COUNTRY

CHILE

In the last two decades, the equitable and sustainable energy transition in Chile has been a fundamental axis of the government in the development of public policies and the implementation of climate change planning strategies to reduce socio-economic inequalities, ensure sustainability and promote gender mainstreaming in the energy sector. Historically, senior positions in this sector have been monopolized by men, with little female representation in technical and leadership positions. Women currently make up 21.3% of the workforce in the country's energy industry, an increase from 16.1% recorded in 2022. This analysis presents a chronological review of the main policies for a just energy transition in Chile, the planning and implementation tools available, and the degree of inclusion of the gender dimension in these strategies.

1. Public Policy Review

1.1. National policies for a just and energy transition

* **Roadmap 2050:** the first major strategy for energy transition in Chile was the Roadmap 2050, published in 2015. This document, which was prepared by a committee of 27 experts (including 7 women), laid the foundations for sustainability in the energy sector, promoting low-carbon development and greater citizen participation in decision-making. While it did not include specific measures to reduce gender gaps, the need to ensure equitable access to energy and symmetrical participation of different actors in the transition process was mentioned.

* **Energy Agenda 2022-2026:** published in 2022, incorporated the concept of fair transition as a central axis of public policy. Among its main objectives, it highlighted the decarbonization of the country, the inclusion of indigenous peoples in the design of energy policies and the creation of green jobs with gender equity.

* **National Energy Policy - Energy Transition 2050:** in the update of the National Energy Policy 2050, a just transition and gender equity approach was included for the first time with concrete targets such as managerial parity and pay equity by 2040, as well as the inclusion of women in renewable energy projects. In addition, monitoring tools were developed to assess equity in access to sustainable jobs and ensure a fair transition for vulnerable communities.

* **National Policy on Gender Equality in Science, Technology, Knowledge and Innovation:** specifically dedicated to promoting the inclusion of women in STEM higher education, has achieved remarkable success in increasing the number of women in selected academic areas, as well as in awarding scholarships and places.

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1.2. Planning instruments and tools to promote the integration of women into green jobs

- **4th National Plan for Equality between women and men 2018-2030**: framework plan for equality created to address the challenges generated by COVID-19 in the country. Incorporates a women's economic rights approach by linking specific targets based on national situation analysis and an indicator-to-time relationship.

- **Local Action Plans for a Fair Energy Transition**: developed in municipalities affected by the closure of coal-fired power plants to generate sustainable employment opportunities.

- **Tocopilla's Fair Socio-ecological Transition Plan**: energy conversion plan in line with the update of the NDC in 2020, from which the Plan for the Tocopilla region was drawn up in 2022.

- **Energy Information System**: database for monitoring gender equity in the energy sector, providing data disaggregated by gender to assess labour inclusion.

- **Permanent Council on Energy Policy**: space for monitoring and supervising progress in gender equity and fair transition.

- **SMART indicators on gender equity**: measure the effectiveness of inclusion policies and monitor women's participation in the sector.

- **Programme "Energy + Women**: an initiative that promotes the training and participation of women in green jobs, promotes gender equity in the energy sector through awareness-raising activities, training and access to employment. By 2024, it has integrated 72 media to promote diversity and inclusion.

- **Gender and Human Rights Office of the Ministry of Energy (2022)**: supported by UN Women promotes equity in the energy sector and develops policies with a gender perspective.

- **National Electromobility Strategy (2021)**: includes programs for the training of women in maintenance and operation of electric vehicles.

- **National Green Hydrogen Strategy (2023)**: promotes the inclusion of women in green hydrogen projects and ensures quotas for female participation in emerging technologies.

- **Renewable Energy Training Programme for Women (2024).**

- **Access to Energy Fund (FAE):** funds projects led by women in vulnerable communities.

- **Gender Management Improvement Programme (GMP):** a monetary incentive instrument that is applied in the public services of Chile according to the degree of compliance with management objectives. It incorporates a total of 3 measures aimed at implementing the gender approach, such as training for the inclusion of a gender perspective in public programmes and policies.

1.3. Inclusion of the gender dimension in public policies

The gender approach has gone from being a tangential mention in 2015 to becoming a fundamental pillar of Chile's energy policy by 2022. Key strategies include:

- Quotas of female participation in renewable industries.
- Gender-sensitive training and retraining programmes.
- Strategies to reduce the wage gap in the energy sector.
- Equitable participation in decision-making.

2. Recommendations to improve the inclusion of gender in public policies

This policy review in the context of the energy transition in Chile shows significant progress in the incorporation of the gender approach and in the creation of tools for its implementation, as well as in the investment made to promote the Just Transition and green employability.

However, in our view, some challenges remain that require strengthening monitoring mechanisms and generating incentives to ensure the equitable participation of women in the sector. The consolidation of a just transition will depend on the continuity of these policies and their effective long-term implementation.

In order to advance this gender integration and just transition, it is considered important for the government to consider the following actions:

- Rules of Operation for projects with a gender perspective.
- Expand technical and STEM training programmes for women.
- Strengthen gender equity monitoring mechanisms.
- Incorporate quotas and incentives for female participation in new industries such as hydrogen.
- Identify green projects to generate jobs in marginalized areas.
- Promote the entrepreneurial vision of women's groups through training, counselling and support.
- Promote the interpretation of women's groups with entrepreneurial vision, to work green projects with each region.

Practices to highlight

- **Sustainable Education-Kindergarten Program** to reduce unconscious biases from childhood and promote knowledge in energy and STEM program in secular education to foster interest in science in technology in girls and young people. This is fundamental to building the society of the future.

- **Programme Energy+ Woman**; public-private program that seeks to increase female participation in the Chilean energy sector, Promotes the inclusion of women in technical and leadership roles and establishes partnerships with companies in the sector to promote pay equity and improve employment conditions for women.

- **The "Human Capital" Education Programme**, which includes quotas for female participation in highly masculinized educational sectors.

- **Gender and Human Rights Office of the Ministry of Energy**, established in 2022 to mainstream a gender and human rights approach in policy formulation in the energy sector. Promotes an inclusive energy transition by ensuring the participation of women and develops mechanisms for monitoring gender gaps in energy.

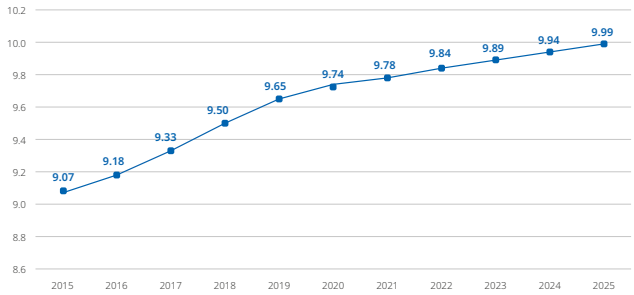
- **Gender and Human Rights Office of the Ministry of the Environment supported by UN Women** (announcement 2022). Seeking to incorporate the January perspective into Chile's environmental policies will not only enhance the gender approach in the policies and culture of the ministry, but also "address the challenges of feminist and green government, which puts on the table the importance of achieving gender equality and empowering girls and women in decision-making related to climate change, environment and disaster risk reduction" María Noel Vaeza, UN Women Regional Director.

3. Statistical data

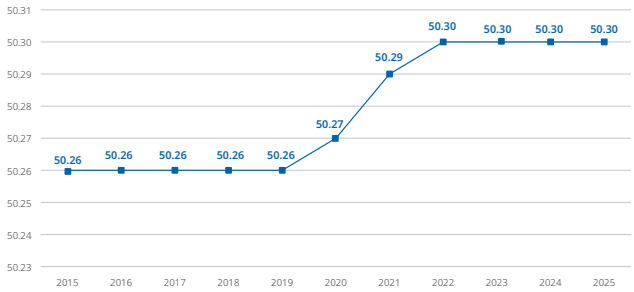
A. Demographic data

Population distribution statistics

Number of woman, millions

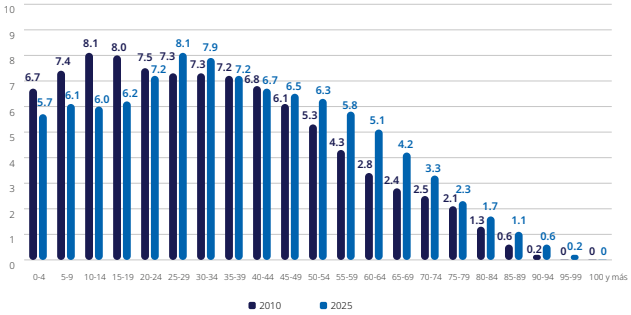


Percentage of woman



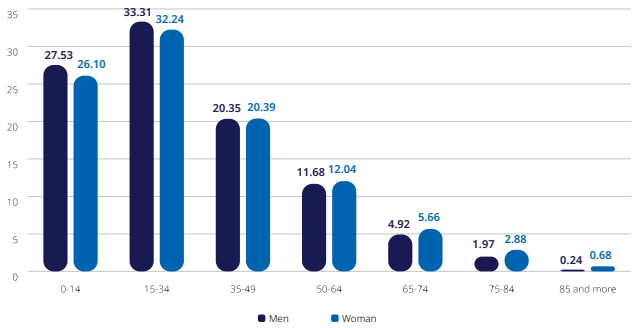
Age distribution statistics

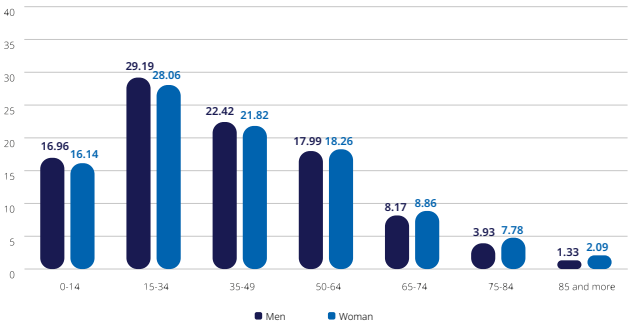
Age distribution of the female population



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	26.1	16.14	-9.96	27.53	16.96	-10.57
15-34	32.24	28.06	-4.18	33.31	29.19	-4.12
35-49	20.39	21.82	1.43	20.35	22.42	2.07
50-64	12.04	18.26	6.22	11.68	17.99	6.31
65-74	5.66	8.86	3.2	4.92	8.17	3.25
75-84	2.88	4.78	1.9	1.97	3.93	1.96
85 and more	0.68	2.09	1.41	0.24	1.33	1.09

Interpretation of demographic data

Distribution of the population by age and sex (2000 vs. 2025): In Chile, demographic dynamics show an accelerated process of population aging. In 2000, 26.1% of women and 27.5% of men were in the 0-14 age group. By 2025, these values will decrease to 16.1% and 17.0% respectively, with a fall of about 10 percentage points, the largest among the countries compared.

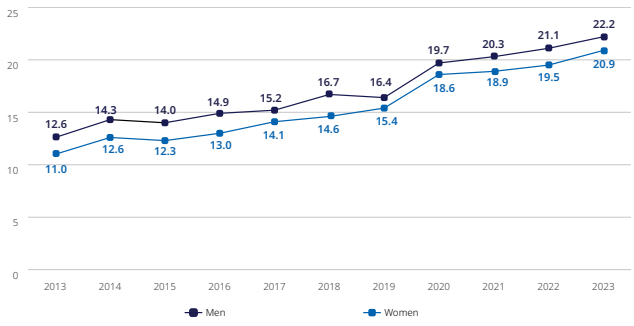
At the same time, the older age groups, particularly 50-64, 65-74 and 75+, show notable increases. The female 50-64 age group will increase from 12.0% to 18.3%, and the 65-74 age group from 5.7% to 8.9%. This population ageing poses increasing challenges for pension systems, geriatric care and long-term public policies.

Evolution of the percentage of women in the total population (2015-2025): The proportion of women remains stable at around 50.30% throughout the period under analysis. However, as in other countries of the region, women predominate in the more advanced age groups, which reinforces the need for differentiated policies for old age with a gender focus.

B. Education level data

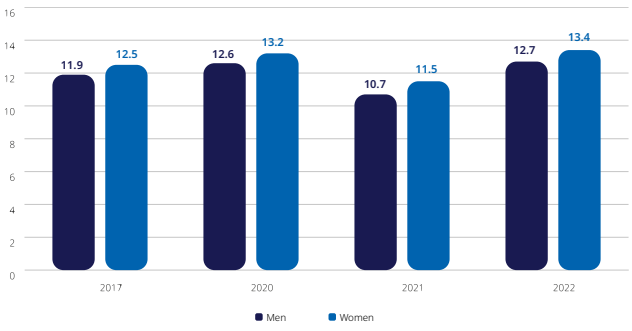
Educational attainment statistics

Percentage of bacherol, population 25+

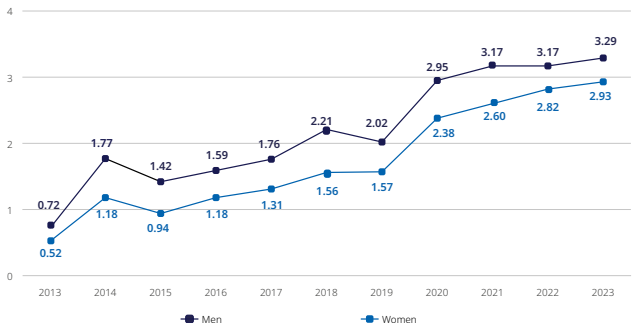


Statistics on years of study

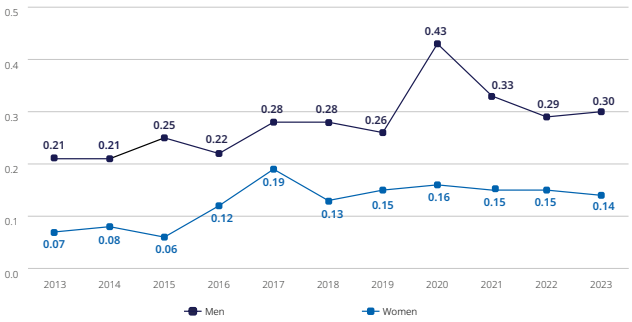
Years of education



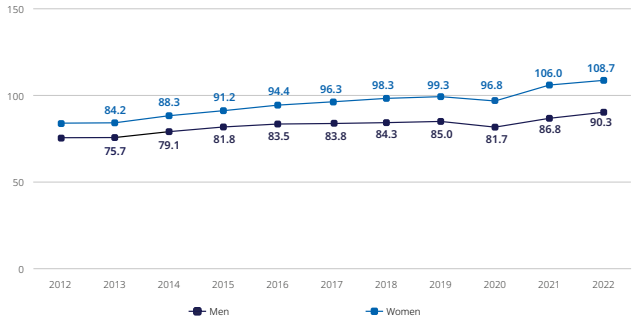
Percentage of master, population 25+



Percentage of PhD, population 25+



Gross tertiary enroment rate, percentage



Interpretation of training data

Access to tertiary education: gross enrolment rates in tertiary education show a sustained increase, with a gap favourable to women. In 2022, the female rate reached 108.7%, surpassing the male rate of 90.3%. This pattern indicates a feminization of access to higher education, although it does not necessarily translate into better working conditions.

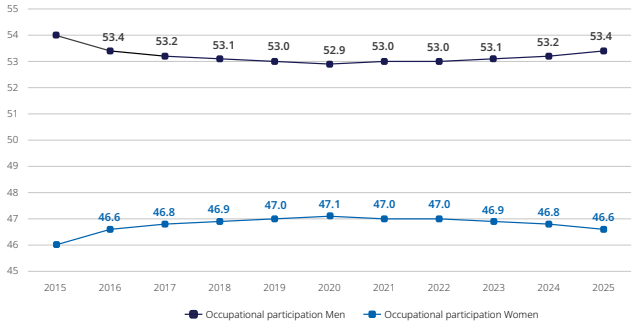
Level of education attained (bachelor's, master's, doctorate): women have outperformed men in obtaining bachelor's degrees since 2013 and this gap has been consolidated over time. They also have advantages in master's degrees, especially as of 2017 when their completion rates consistently exceed those of men. In doctorates (PhD), although the difference is smaller, women also achieve comparable or higher levels.

Average years of formal education: Average years of formal education also reflect important progress. In 2022, women exceeded 13.4 years of schooling while men reached 12.7 years. This parity or female advantage is consistent with the trend in other countries of the region.

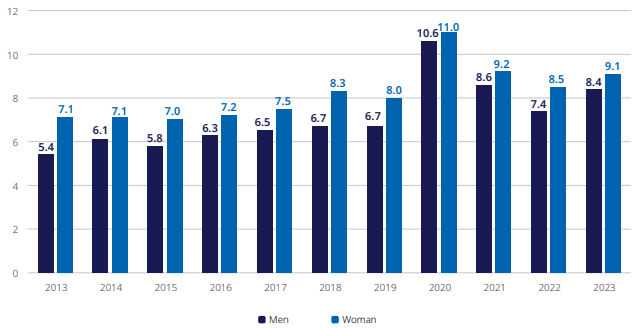
C. Employment data

Employment statistics

Economic participation rate, percentage

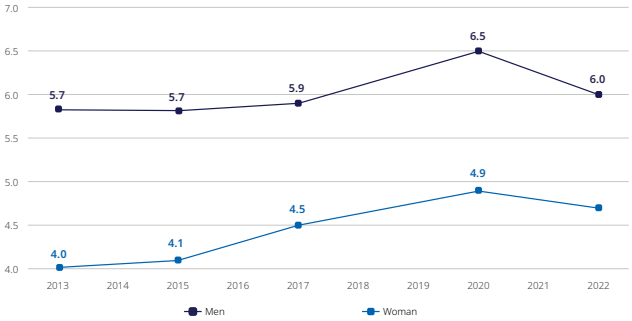


Unemployment rate, percentage

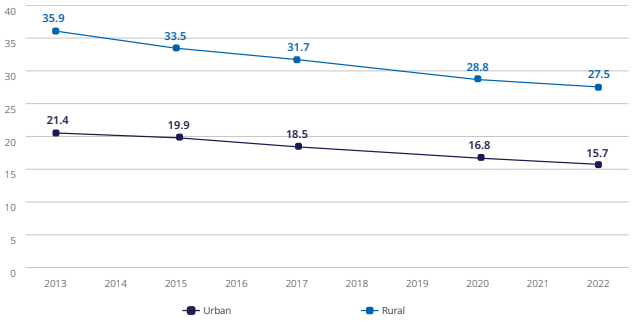


Income Statistics

Average income, in multiples of the poverty line



Percentage of adult women dedicated exclusively to unpaid work



Interpretation of employment data

Economic participation rate: despite educational advances, female participation in the Chilean labour market is still lower than male. By 2025, women's participation is projected to be 46.6 per cent compared with 53.4 per cent for men. This structural difference of almost 7 percentage points reflects persistent barriers such as the unequal distribution of domestic work and gender stereotypes.

Unpaid work: in 2021, 15.7% of adult women in urban areas declared to be engaged exclusively in unpaid work. In rural areas, this figure was 28.8%. This phenomenon, with no significant male counterpart, continues to be one of the main factors limiting women's economic participation and professional development.

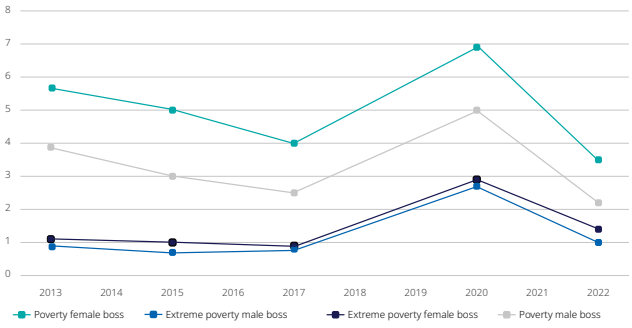
Unemployment rate: over the last decade, women have consistently faced higher rates of unemployment than men. In 2023, the female rate was 11.0%, compared to 7.4% for males. This gap is accentuated in times of crisis and reflects the increased vulnerability of women to employment.

Earnings: the gender pay gap persists. In 2023, male earnings exceeded 4.7 times the poverty line while female incomes were around 4.0. This difference is not only unfair, but also reflects an undervaluation of women's work, even among those with equivalent levels of education.

D. Poverty data

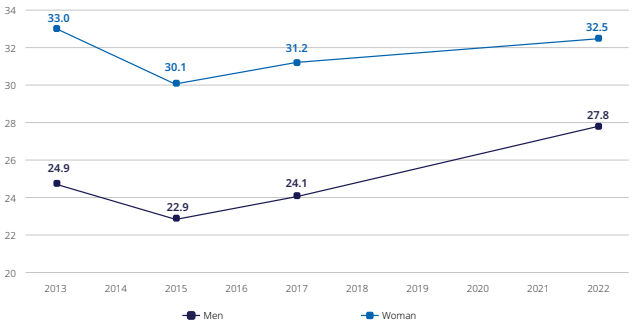
Statistics on poverty and extreme poverty

Poverty gap coefficient, percentage

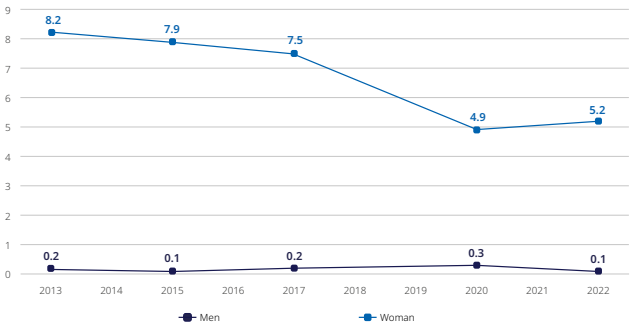


Employment and vulnerability statistics

Total employed in low-productivity jobs, percentage of urban employed population



Employment in domestic work, percentage



Interpretation of poverty and vulnerability data

Low productivity jobs: women are over-represented in low productivity jobs. In 2022, 41.3% of urban employed women were in such jobs, compared to 39.8% of men. This precarious job placement affects the quality of women's employment and limits access to social security.

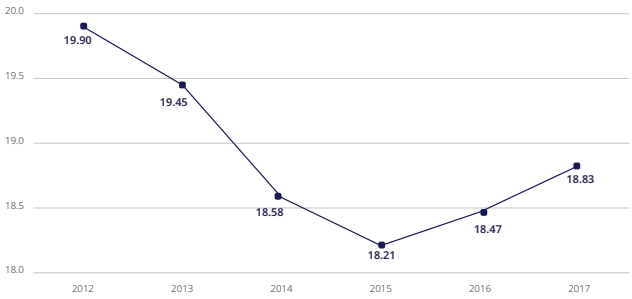
Poverty gaps by type of household head: female-headed households have higher rates of poverty and extreme poverty. This feminization of poverty is explained by a combination of several factors: reduced access to formal jobs, excessive unpaid work and structural wage gaps.

Employment in paid domestic work: Paid domestic work is one of the main female occupations, reaching 5.2% in 2022, compared to only 0.3% for men. This employment, characterized by informality and the lack of full labour rights, contributes to keeping many women in economically vulnerable conditions.

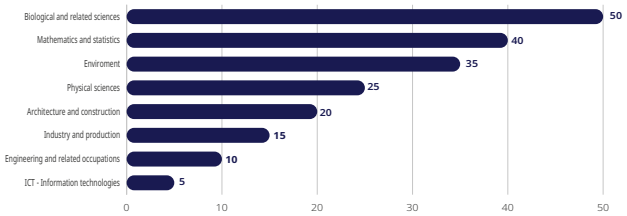
E. STEM education and employment data in the energy and transportation sectors

Graduate Statistics

Percentage of STEM graduates

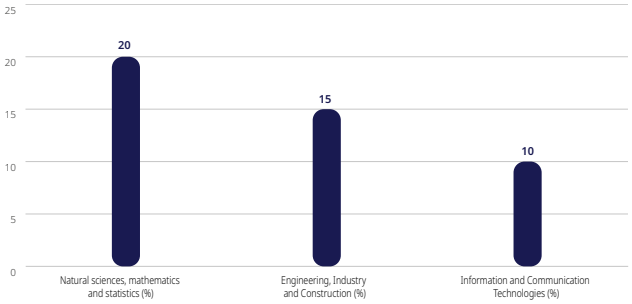


Participation of women in STEM careers (2022)



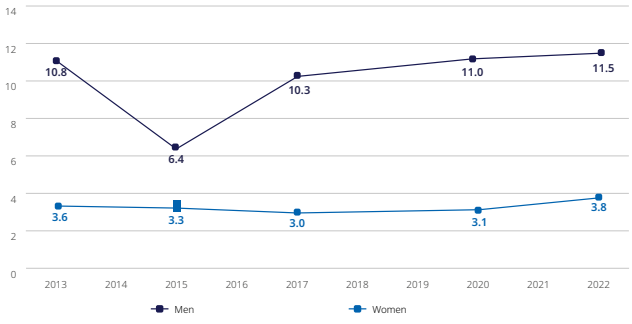
Student statistics by STEM major

Percentage of female graduates by selected STEM majors (2022)



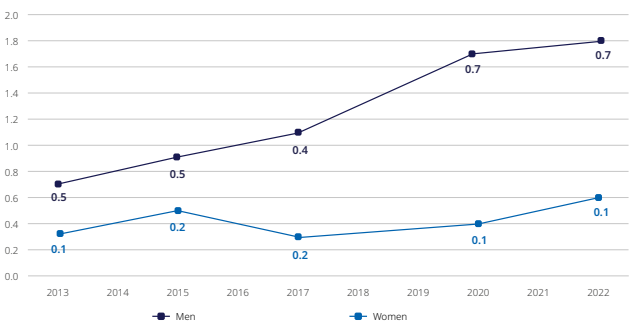
Transportation employment statistics

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: Female participation in STEM careers is low, especially in technological disciplines. In 2022, women accounted for just 10 per cent in engineering and related occupations and 5 per cent in information technology. Although progress has been made, gender stereotypes and the lack of female references continue to limit the inclusion of women in these fields.

Graduates in STEM disciplines: between 2012 and 2017, the percentage of women graduates in STEM disciplines ranged from 18% to 20%, with a slight downward trend. This indicates that, despite efforts, a significant gap persists in access, retention and completion of studies in key areas for the country's technological development.

Employment in strategic sectors (energy and transport): the presence of women in sectors such as energy and transport is marginal. In 2022, only 0.6% of staff employed in the energy sector were women. In the transport sector, the percentage of women employed was 3.8%, showing an almost total exclusion from these strategic sectors for both cultural and institutional reasons.

General conclusions

Persistent structural inequality: despite advances in education, Chilean women face significant barriers to transforming these achievements into work and economic opportunities equivalent to those of men.

Occupational segmentation and sectoral exclusion: women are concentrated in low-productivity or low-paid jobs and underrepresented in strategic sectors such as energy, transport and technology.

Disproportionate burden of care: unpaid work, mainly undertaken by women, is a structural obstacle to their full employment and professional development.

Feminization of poverty: female-headed households have higher levels of poverty, reflecting structural inequality in access to resources, jobs and rights.