



The EU Mutual Learning Programme in Gender Equality

Gender segregation in the labour market and education

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Gender segregation in the labour market and education in Portugal

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1. Introduction: relevant country context

1.1. Gender, labour market and education in Portugal: developments and critical issues

In 2014, the female employment rate (aged 20-64) in Portugal was 64.2 %, slightly above the European average (63.4 %), despite the downward trend since 2008, motivated by the financial, economic and labour crisis and aggravated by the fiscal consolidation programme that had been in place since 2011 (Casaca, 2012; Ferreira, 2014). The women's employment rate in Portugal has remained relatively high in the European context, contrary to the general situation in Southern European countries (Casaca and Damião, 2011).¹ The highest employment rates are found among those with the highest levels of education (ISCED levels 5-8), with the lowest gender gap also to be found in this group (77.9 % for women and 81.9 % for men, in 2014). Labour market participation is lower among those with a lower educational background; among those with less than primary, primary or lower secondary education (ISCED levels 0-2), for example, the employment rate is markedly lower and the gender gap particularly high (55.7 % for women and 68.1 % for men, also in 2014).² Despite the relatively high employment rates among women in general, their vulnerability in the labour market has been a persistent trend, as they are particularly exposed to precarious jobs and unemployment, and are over-represented in those occupations characterised by low status, poor pay and limited career prospects. According to official national statistics, the gender pay gap in the country is 17.8 % (basic wages), but it increases even further among the most educated workers: women holding a tertiary degree earn 29.2 % less than men in the same circumstances).³

Services have been absorbing an increasing number of employees, albeit at a slower pace and at a considerably later date than the most advanced European economies. It is a female-dominated sector; in 2014, about two thirds (67.5 %) of the total number of employees had a job in services, approximately 78.7 % of all employed women and 56.9 % of all employed men.⁴ On the contrary, the percentage of men employed in manufacturing was twice that of women (32.2 % versus 15 %), and was also higher in agriculture (10.9 % versus 6.3 %,

¹ Source: Eurostat. Labour Force Survey; accessed on 31/08/2015.

² Source: Eurostat. Labour Force Survey; accessed on 31/08/2015.

³ Data report for 2013, available at:

http://www.cite.gov.pt/pt/destaques/complementosDestqs/dis_entidades.pdf

⁴ Source: INE – National Statistical Institute (Labour Force Survey).

respectively). Women and men continue to be concentrated in different sectors of activity with different occupations. Women are over-represented in education, healthcare and public administration, while men are the predominant workforce in the construction and transport sectors (Casaca, 2012). The gender segregation index is 25.6 % for occupations and 21.5 % for economic sectors (above the European average (EU-28) in both situations, where the figures are 24.4 % and 18.9 %, respectively) (E.C., 2015: 56).

The number of university graduates has been increasing in Portugal. Viewed in relation to the beginning of the 21st century, this number increased from 54,255 in 2000 to 80,899 in 2013. Nevertheless, feminisation declined throughout that same period, falling from a female representation of 65.6 % to 59.4 % in terms of the total number of graduates⁵. The reforms related to the Bologna process generated an outstanding increase in the number of people with postgraduate qualifications. The number of people receiving Master's degrees increased from 1,953 (in 2000) to 5,323 (in 2007) and 17,316 (in 2013).⁶ Here, a reverse trend is to be found: the feminisation rate has increased over the years (in 2000, women represented 54.3 % of those holding Master's degrees, whereas they now represent 65.3 %).⁷ The same pattern is found in relation to PhD holders, whose number increased from a total of 860 (in 2000) to 1,476 (in 2007) and 2,668 in 2013; throughout this period, feminisation also became more pronounced, rising from 44.2 % to 54.8 % (2000 - 2013), meaning that women now outnumber men in all the highest levels of education. Despite women's investment in education, they tend to lack favourable employment conditions, such as job stability and satisfactory opportunities for career development. (Casaca and Chagas Lopes, 2011).

1.1.1. Data on male pedagogues

Before the fiscal consolidation plan was implemented in Portugal, a significant investment was made to meet the coverage rates set by the Barcelona target in terms of formal childcare facilities. Existing facilities now cover 35 % of children under three years of age and 86 % of those aged between three and the minimum compulsory school age (data refer to 2012 - E.C., 2015: 43). In principle, such an expansion should generate a greater need for professionals in the field of childhood education; this has not been the case, however, revealing the impact of the austerity programme and the extensive rationalisation of resources in the sector. According to official statistics, the total number of such professionals was 15,972 in 2007/2008 and 14,827 in 2013/2014. There were 577 men (3.6 % of the total workforce) registered as early childhood pedagogues⁸ in 2007/08, but this figure was even lower in the last year for which statistics are available: 120 professionals in 2013/14 (0.8 % of the total workforce). Such figures are very distant from the ones presented in the Comments Paper on Denmark. Data therefore show a trend towards a greater

⁵ Data refer to the first cycle (three-year degree). Source: Pordata (accessed on 31 August 2015).

⁶ Source: Pordata. Data strictly refer to graduates with Master's degrees, excluding the increasing number of people with integrated Master's degrees (7,698 in 2013).

⁷ Source: Pordata. The latest sex-disaggregated data relate to 2012. Again, data refer to graduates with Master's degrees, excluding those with integrated Master's degrees (the representation of women was 52.2 %).

⁸ The Portuguese term is "educadores/as de infância". Data refer to mainland Portugal and do not include the autonomous regions of the Azores and Madeira.

feminisation of this professional group (from 96.4 % to 99.2 %) (GEPE/ME: 2009: 37; DGEEC, 2015: 54).

As for the statistics available about the number of graduates working in the field of childhood education, a prior explanation should be made: with the implementation of the Bologna process, since 2006, only people with a specialisation diploma or a Master's degree, obtained after the first three years of a more general degree course ("licenciatura"), qualify for the profession of early childhood educators (in nurseries and kindergartens). Relying on the data available, two revealing figures can be extracted for the latest academic year available (2012/2013): among those strictly holding a degree in "childhood education" or "pre-school education", men account for only four graduates in a total of 526 (0.76 %, in contrast to the overwhelming representation of women – 99.24 %). There are a few specialised courses giving people the qualifications needed to work in "pre-school education and also basic/elementary education – 1st Cycle" (1st to 4th year). When the number of graduates is added to the previous one, the total number of graduates in 2012-2013 is 1,158, of which only 10 are men (0.86 %).⁹

1.1.2. Data on women in STEM

Despite some small variations in Arts and Humanities (Annex – Figure 1), sex-disaggregated data do not provide any evidence of changes over the last decade. The prevalence of deep-rooted gender assumptions seems to account for this persistent segregation across scientific fields.

Education (like *Health and Welfare*) largely remains a female-dominated scientific field, followed by: *Social Sciences, Business and Law, Arts and Humanities* (to an increasingly lesser extent), *Agriculture, Science, Mathematics and Computing*. On the contrary, women are under-represented in *Science, Engineering, Manufacturing and Construction* and *Services*. Women tend to head to those areas of activity where social skills are seen as more relevant than technical expertise (Casaca, 2006). Technological fields still seem to be considered less attractive by Portuguese women when selecting their areas of further study (Casaca and Chagas Lopes, 2011). The degree of aggregation across the scientific fields may, however, obscure segmentation patterns across gender lines (Saavedra et al., 2011). Services, for instance, comprise a wide range of educational fields – ranging from social and personal services to transport and security (with men representing the largest proportion of graduates in the latter two domains) Besides, Science is also a broad and heterogeneous category, comprising physical sciences and life sciences and chemistry (less and more female-dominated, respectively). Moreover, women are under-represented in Computing (24 % in 2012), but have traditionally been more present in Mathematics and Statistics (60 % in 2012).

Portuguese women have been increasingly choosing scientific occupations and outnumber men in intellectual and scientific occupations. This has been seen as a particular pattern of the country, explained by historical, social, cultural and economic factors (Perista and Silva, 2004; Amâncio, 2005). Most women working in

⁹ Source: <http://www.dgeec.mec.pt/np4/EstatDiplomados/> (accessed on 30 August 2015)

Science and Technology (S&T) have jobs in higher education¹⁰ and work as researchers at public agencies, laboratories and research units, being under-represented in economic and business occupations (Casaca, Chagas Lopes, 2011).

1.1.3. Policy and Projects developed in the country

The Commission for Citizenship and Gender Equality (CIG), currently answerable to the Secretary of State for Parliamentary Affairs and Equality, has coordinated the implementation of public policies designed to promote gender equality and mainstream gender in various policy domains. The school curriculum and programmes are set by the Ministry of Education (ME) at a central level, but CIG – as the government body in charge of the implementation of public policies in the field of gender equality – has played a vital role in the implementation of gender mainstreaming in the Portuguese education system. The Coeducation Network, for instance, made up of researchers and experts in the field of gender policy, women's studies and education, was set up by the Commission in the 1990s. The 2nd Plan for Gender Equality (2003-2006) included various important measures in education and vocational training, aimed at achieving the full implementation of coeducation at schools and in the training of teachers, as well as the integration of a gender equality perspective in orientation programmes, teaching and pedagogical materials. Since 2007 (3rd Plan for Gender Equality – 2007-2010), financial support has been made available through Priority Axis 7 of the Operational Programme for the Promotion of Human Potential (POPH), under the National Strategic Reference Framework (QREN 2007-2013). Such funding was fundamental for the implementation of the project “Educational Guides for Gender Equality and Citizenship” (see below), as well as for the financial support given to projects developed by NGOs and local authorities (responsible for providing pre-school education and the 1st cycle of education), in cooperation with schools, across the country. Gender mainstreaming in education has been maintained in the recent national action plans – the Fourth Action Plan (2011-2013), although integrating a narrower perspective than the previous ones, and the Fifth Action Plan (2014-2017), which, for instance, provides for the development of a study on women and ICT (Information and Communication Technologies).

1.1.3.1. Good Practices

The *Educational Guides for Gender Equality and Citizenship* – a project that has been coordinated and developed by CIG since 2008-2009 and will be fully completed in the current school year (2015-2016) – is a good practice (and recognised as such by the Council of Europe in its compilation of good practices) (Council of Europe, 2015). The project envisages the production of five *Educational Guides* and has been part of the 3rd, 4th and 5th National Plans (previously mentioned). Four Guides have already been produced and are addressed to: pre-school education; 1st cycle of basic education (1st to 4th year); 2nd cycle of basic education (5th and 6th year); and 3rd cycle of basic education (7th to 9th year) (CIG, 2010a, b, c, d). The last one, which will be addressed to secondary education (10th to 12th year) will be published during the school year of 2015-2016. The main direct target groups are: teachers from nursery level up to secondary education; teacher

¹⁰ This sector includes all universities, institutes of technology and other institutes of higher education.

trainers and vocational guidance counsellors. The Guides are geared towards the intersection of gender equality with key thematic areas in the national curriculum and in education policies. They also cover educational and vocational guidance, aimed at eliminating gender bias, particularly in the Guide addressed to the 3rd cycle of basic education, in which specific sections cover topics such as Gender and ICT, Gender and Leadership, and Gender and Health, for example. Some activities are designed to promote the involvement of families/parents and the wider community in challenging gender stereotypes. The main aims are: “to integrate gender studies and women’s studies in the curricula of basic and secondary education (providing scientific knowledge); to effectively integrate the gender dimension and to promote equality between women and men in teachers’ pedagogical practices and school culture (leading to changes in teaching practices); to place gender equality at the centre of the “Education for Citizenship” national programme, as well as to include it in all curricular subjects (putting gender equality in the practice of the national curriculum)” (Council of Europe, 2015: 77). All the Guides, designed by specialists and researchers in gender and women’s studies from the national “coeducation network”, are followed and validated by the Ministry of Education (ME), from a curricular perspective. They are available online (including in English)¹¹ as well as in a printed book version, and, through them, gender equality has been made part of the compulsory education system and of several programmatic contents and long-term school projects. The design and implementation of the project has involved a large pool of partners: besides CIG and the ME, several schools, universities, polytechnic institutes, municipalities and various associations.

The ME is also involved as a partner in a private initiative led by IBM - EX.I.T.E Camp - Exploring Interests in Technology & Engineering. Under the scope of the project and during the one-week camp, young girls (around 30 per school year, aged 11-13) are encouraged to opt for science and mathematics in high school and to understand technology and engineering as suitable career options. The schools involved in the programme are selected by the ME. The first initiative took place in the country in 2005 and the last one (July 2015) was centred on the theme “Innovate with Technology”¹² There are some similarities between this initiative and the good practice presented for the Netherlands.

2. Transferability issues

2.1. The Danish good practice

Opportunities for transferability

Some elements of the Danish case (five pilot projects) could help to increase the number of men involved in professions related to early childhood education in Portugal. The statistical evidence (presented above) could be the basis for raising awareness about the need for action. Regarding the financial resources, some

¹¹ The English versions of the Guides are available at:
http://www.cig.gov.pt/pdf/2014/Education_Guide_Pre_school.pdf
http://www.cig.gov.pt/pdf/2014/Education_Guide_3rd_Cicle.pdf

¹² Some photos of the last camp are available at:
https://www.facebook.com/IBMPortugal/photos_stream?tab=photos_albums

opportunities for pilot projects may be found in the current framework (“Portugal 2020”) and in the specific funding intermediated by CIG for the promotion of gender equality. It would be interesting to have pilot projects in place in different parts of the country. The involvement of local municipalities is a very positive aspect of the Danish “good” practice, but other key stakeholders could be involved at a local level – such as associations of families and parents/guardians, but also schools (all levels), as well as educational, vocational and career guidance counsellors. As previously reported, in Portugal, the number of men in the respective educational fields is absolutely marginal; therefore, any project should also take into account the need to stimulate young men to opt for a degree in early childhood education. It would also require a comprehensive approach, so that the wider community and particularly families (parents) would be involved as a target group to challenge the deep-rooted assumption that women are *naturally* more competent for caring and for undertaking educational activities.

Limitations and constraints

The Danish “good” practice seems to contain some critical elements. The focus on diversity – rather than on gender equality – and on the complementary roles undertaken by women and men as pedagogues is quite problematic (as clearly found in “The Forest Man” and “A Man at any Prize” projects, for instance, at least in the initial phase of the projects). The transferability of the practice to Portugal would require revision of the focus on “gender differences”, as it may even reinforce gender-stereotypical assumptions, expectations and behaviours. Projects need to be embedded in a coherent and comprehensive gender mainstreaming approach.

2.2. The Dutch good practice

Opportunities for transferability

The policy designed by the Dutch government for the stimulation of STEM participation among girls is particularly relevant and its (partial) transferability is seen as highly recommended. The two lines of policy (general STEM stimulation and general women’s rights policy) seem to be complementary and to work well. The first has been designed to increase the participation of women in STEM in two fundamental and complementary areas: education and the labour market. A very positive element of the good practice (and of this specific policy) is that it results from a nationwide agreement, a Pact involving key social actors and stakeholders. Furthermore, the activities undertaken by VHTO (a non-profit organisation), as well as the materials produced and disseminated to encourage girls and women for STEM, seem to be well coordinated, designed and implemented. The results described are also encouraging. A further positive aspect is that the interventions are geared towards almost all levels of education, from primary to tertiary education. It would also be important to include the pre-school level. Some of the reported activities are also being undertaken in Portugal, as part of the project “Educational Guides for Gender Equality and Citizenship”, including the STEM stimulation among girls. A highly innovative initiative with great transferability potential is the involvement of the tertiary level of education and all the activities undertaken with tertiary level teachers and students, and career guidance counsellors.

Limitations and constraints

The National Pact defining the STEM stimulation policy in the Netherlands could be difficult to replicate in Portugal, where such a culture of participation and partnership is more incipient and not yet so consolidated. However, there are a few good examples and all stakeholders should be mobilised to put in place a joint agreement on this matter, involving the Government, the national mechanisms for gender equality, the trade unions and the business associations, the schools and universities, the local municipalities, NGOs, key national and local associations (including associations of families and parents/guardians).

The total delegation to a non-governmental organisation of the implementation of the Dutch Government policy for STEM participation of girls and women may be questionable, particularly in some contexts. This would impose constraints on a long-term approach to the planning of activities and resources. The range of activities undertaken under this good practice are highly recommended but should be embedded in the national action plan for gender equality and not remain dependent on project-based subsidies. The overall coordination should be in the hands of the national mechanism in charge of the implementation of gender equality policies (CIG, in Portugal), in close partnership with CITE (the Commission for Equality in Work and Employment), and the Ministry of Education and Science, and implemented in cooperation with NGOs, local municipalities, schools, universities and research centres, laboratories, social partners (employers and trade unions), professional, youth and families/parents' associations.

2.3. The Northern Irish good practice

Opportunities for transferability

The good practice presented for Northern Ireland, particularly the initiatives related to the STEM chart and STEM networking, seems to be promising and I would recommend its transferability to Portugal. The planned study on Women and the ICT sector (one of the measures stated in the current national Action Plan 2014-2017, as mentioned above) could also be an opportunity to bring the topic to the forefront of public debate and to obtain the commitment of the Portuguese business sector. Furthermore, despite the high level of involvement of women in scientific occupations in Portugal, they are clearly under-represented in the business sector. Therefore, in order to promote gender equality in the labour market and in STEM domains in an effective and sustainable way, the involvement of the business sector is a fundamental pre-condition. Some companies in Portugal have signed a charter expressing their commitment to the promotion of gender equality (a process led by CITE – The Commission for Equality in Work and Employment), and are involved in a network – a Forum (I-Gen). Their task consists of the recruitment, retention and advancement of women in occupations where they are under-represented. A specific focus on STEM could be recommended and integrated into the range of initiatives being developed by the companies involved in this Forum. Moreover, as some of them operate in technological domains, it would be advisable to encourage cooperation between schools in order to stimulate young girls to participate in STEM and create a database of female role models by, for instance, expanding the essence of the above-mentioned EX.I.T.E initiative.

Limitations and constraints

Studies have shown that the predominant organisational culture in these particular sectors of activity is embedded in an idealised model of performance that relies on 24-hour/round the clock availability, with informal working practices that are neither family-friendly nor gender inclusive (Casaca, 2006). Therefore, sustainable and effective changes towards gender equality in STEM require a coherent, comprehensive and transformational approach that includes the revision of organisational cultures, working models and management practices. Also in higher education, public agencies, laboratories and research units, the organisational structure and culture sustaining the leaky pipeline, the obstacles that highly-qualified women face in their career advancement and the persistent glass-ceiling phenomenon need to be addressed through the adoption of specific action plans.

3. Conclusions

It is important to prioritise a gender mainstreaming approach at all levels of the education system and in teacher training, as well as in vocational training and labour market policies, in a coherent and comprehensive way. The official national machineries for gender equality have played a crucial role in the overall coordination of the implementation of gender mainstreaming and of the wide range of public policies designed to promote gender equality. Such a role should not be transferred into the hands of other institutions, despite their important role as active agents in the development of projects that support the implementation of these same public policies. It is highly recommended to intensify and enlarge the partnerships established with key actors – such as local authorities and municipalities, schools, universities, associations, social partners (employers and trade unions), employment agencies, youth associations, professional associations, NGOs and families/parents associations – in order to ensure the long-term sustainability of the actions in place.

Effective, solid and sustainable outcomes are only possible if sectoral initiatives and projects are embedded in a wider comprehensive policy framework, with coherent work planning and relying on a long-term perspective in terms of the identification, allocation and management of the appropriate technical and financial resources. Better monitoring and systematic evaluation is also recommended.

As for Portugal in particular, the recommendations were made in the previous sections, where the transferability issues were addressed. We should also add to these the need to continue with the full dissemination of the *Educational Guides* and the completion of all the associated activities. In the next Action Plan for Gender Equality, the tertiary level of education should also be considered as a target sector. More initiatives should be planned to cover associations of families and parents/guardians in order to challenge gender stereotypes, avoid them in children's socialisation and allow educational and career options free from gender stereotypical assumptions. Furthermore, in collaboration with universities, professional associations and schools, initiatives should be expanded to ensure that all educational, vocational and career counsellors are aware of the need to guide girls' and boys' options free from gender bias. As a follow-up to the future study on Women and the ICT sector, which is shortly to be carried out, a nationwide

campaign should be launched, focusing on the caring and educational skills of men and on women's skills as engineers, physical scientists or computer and IT specialists.

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Annex

Figure 1 - Proportion of women in total graduates, by scientific field

	Total	Education	Arts and Humanities	Social Sciences, Business and Law	Science, Mathematics and Computing	Engineering, Manufacturing and Construction	Agriculture	Health and Welfare	Services
2000	66	84	70	65	59	34	57	78	55
2003	67	87	67	64	59	34	61	80	57
2007	61	84	64	65	56	28	58	80	57
2010	60	85	61	63	54	31	58	78	46
2013	59	83	60	62	55	32	61	79	48

Source: Pordata