

wisat
women in global science & technology



THE ELSEVIER FOUNDATION

NATIONAL ASSESSMENT OF GENDER, SCIENCE, TECHNOLOGY AND INNOVATION (STI)

FRAMEWORK FOR GENDER EQUALITY AND THE KNOWLEDGE SOCIETY (GEKS)

Brazil - Qualitative Report Alice Abreu

Rio de Janeiro, Brazil, January 2012

TABLE OF CONTENTS

INTRODUCTION

CATEGORY I - KNOWLEDGE SOCIETY INPUTS: WOMEN'S POTENTIAL FOR PARTICIPATION

Dimension 7 - Enabling policy environment

Dimension 1 - Health

Dimension 2 - Social status

Dimension 3 - Economic status

Dimension 4 - Access to resources

Dimension 5 - Agency

Dimension 6 - Opportunity and capability

CATEGORY II - KNOWLEDGE SOCIETY OUTCOMES: INDICATORS OF WOMEN'S PARTICIPATION IN THE KNOWLEDGE SOCIETY

Dimension 1 – Knowledge society decision making

Dimension 2 – Participation in the knowledge economy

Dimension 3 – Participation in science and technology

Dimension 4 – Lifelong learning

National assessment of gender, science, technology and innovation (STI): Framework for Gender Equality and the Knowledge Society (GEKS)¹

Brazil - Qualitative Report

Alice Abreu²

INTRODUCTION

This report is the qualitative assessment of the Brazilian case of the project “National Assessment of Gender, Science, Technology and Innovation: Framework for Gender Equality and the Knowledge Society” of the Organization for Women in Science for the Developing World (OWSDW).

The main aim of the project is to chart the policies, factors and actors in national STI systems which affect the participation of women and girls, and ³The framework on Gender Equality and the Knowledge Society applies a gender lens to the major indices of science, technology and innovation (STI), information and communication technology (ICT) and the knowledge society. Its objective is to call attention to the level of opportunity and participation of women in a national innovation society, as well as to pinpoint key areas of strength and weakness in comparison with other countries and regions.

The framework incorporates indicators relating to the ability of women and men to participate in STI: access to science and technology education, access to and use of technology, decision making in knowledge society sectors, participation in science, technology and innovation systems, and access to lifelong learning. It also assesses the base conditions for socioeconomic and political development which determine the ability of both women and men to contribute to the knowledge society: health status, social and economic status, level of opportunities available, level of political participation, access to resources and enabling policy environment.

The specific objectives of the assessment are: (i) To come to a comparative and descriptive analysis of the current situation of women in the STI and knowledge-related sector in the country by reviewing data, policy, programming and support mechanisms for women and girls; (ii) To develop a comparison and analysis of key factors and points of support; (iii) To compare STI and knowledge participation to gender equality factors in the country; (iv) To put the assessment in a socioeconomic and cultural context to understand varying strategies for improving women's representation in the sector; (v) To develop an understanding of and guidelines to key leverage, intervention and investment points for policy makers in government and education.

The assessment will have a quantitative and a qualitative data collection and analysis.⁴ According to the Terms of Reference, the qualitative data and analysis will assess and contextualize the collected data, as well as provide anecdotal cases, examples, and snapshots of the situation in the country *vis a vis* the main elements of the framework. The qualitative report will also provide an

¹ Project sponsored by OWSDW and WIGSAT.

² Emeritus Professor, Federal University of Rio de Janeiro, Brazil.

³ Based on the recommendations of the report by Huyer and Hafkin (2007), *Engendering the Knowledge Society: Measuring Women's Participation*.

⁴ The quantitative analysis is under the responsibility of Prof. Maria Coleta de Oliveira, NEPO, UNICAMP.

assessment of relevant and related policies at the national and regional level in the country. It will therefore provide: (i) An analysis of the national policy framework relating to the GEKS framework; (ii) Comments on the relations between trends in the different sectors and indicators represented in the framework; (iii) Examples and models of initiatives highlighting some of the trends reflected in both the quantitative analysis.

This qualitative report will follow the organization suggested by the framework, with one exception. It will be divided into the two major categories, inputs and outputs, and with the suggested dimensions within each of them. The order of the inputs dimensions will, however, be changed. The report will start with Dimension 7 Enabling Policy Environment, which could be seen as an introduction, giving the broader context in which the other dimensions, more closely related to the quantitative indicators, should be understood.

In each of the other dimensions, both of inputs and outputs, it will be indicate which are the related quantitative indicators, but this qualitative report will have a wider approach to be able to conform to the terms of references as mentioned above.

I - KNOWLEDGE SOCIETY INPUTS: WOMEN'S POTENTIAL FOR PARTICIPATION

DIMENSION 7. ENABLING POLICY ENVIRONMENT

(PE.1. Inclusion of gender issues in the national knowledge society policies on science and technology, ICT, labor and education; PE.2 . Existence of gender-specific policies on childcare, equal pay, flexible work and transport for women ; PE.3. Country is signatory to CEDAW; PE.4 Existence of gender budgeting initiatives; PE.5. Institutionalization of inter-ministerial relations on gender)

In the last twenty years, Brazil has advanced considerably towards a full fledged democracy and progressed significantly in addressing social issues and reducing social inequalities. With a steady economic growth and contained inflation since 1994, Brazil has managed to lift 35% of its poorest inhabitants out of poverty and has vastly increased the size of its middle class. It is also today a predominantly urban country, with 85% of its population living in urban areas – 30% in metropolitan areas. It is a thriving democracy, with free universal elections for president every four years and an active Congress, both at the lower house and the Senate. The election of the first female president in 2010 brought the issue of gender to the forefront of political life and, as we will see, greatly changed the participation of women at higher levels of the federal administration.

The first decade of the 21st century was also a decade of reducing inequalities and increasing employment and income. A recent report by IPEA⁵ (Neri, 2010) shows the impressive list of programs and policies put in place by the federal government to achieve these goals. Many of these have a direct impact on women, such as the Bolsa Familia and the paid maternity leave, although they are universal programs. These policies, allied to sustained growth in the formal labor market, have resulted in a notable decrease of poverty. Neri (2010) says that [...]“Long-term poverty movements show that Brazil has succeeded in accomplishing the first MDG goal by reducing extreme poverty by more than 50% in less than twenty-five years.”⁶

⁵ Neri, Marcelo C. (2010) The decade of falling income inequality and formal employment generation in Brazil. IPEA Centro de Políticas Sociais and EPGE Fundação Getúlio Vargas. <http://www.oecd.org/dataoecd/16/45/45284971.pdf>.

⁶ Neri (2010), p.4.

Table 2.1. Public budget devoted to income transfers in 2005

Areas	Main programs and actions	Number of beneficiaries	Expenditure (in % of GDP)
Social security (mainstream system)	Retirement benefits and pensions – rural areas	7.8 million	7.0
	Retirement benefits and pensions – urban areas	15.2 million	
	Sick pay, maternity paid leave and other payments	1.7 million	
Social security (public service system)	Retirement benefits and pensions – Federal government	978 thousand	4.3
	Retirement benefits and pensions – states	1.5 million	
	Retirement benefits and pensions – municipalities	552 thousand	
Social assistance	Social assistance law (continuous cash benefit) elderly disabled person	3.4 million	1.0
	Youth inclusion national program	400 thousand young people	
	Bolsa Familia program	11.6 million families	
Employment and worker's rights	Unemployment benefit	6.9 million	0.4

source: IPEA.

Brazil has also shown positive trends in regard to issues specifically related to gender. A World Bank report of 2002 notes four major advances in this respect:

- (a) Women's access to and use of contraception has increased enormously which has resulted in a sharp drop in the fertility rate and size of households in all regions of the country. Female sterilization has become the most frequent form of contraception.
- (b) Since 1988, women's rights have expanded within the household, in the work place and in terms of land rights and personal safety. The 1988 Constitution also created short-term paternal leave.
- (c) Female education has increased to the point that women now have more schooling on average than men.
- (d) Although men still predominate in the labor market, women's participation has steadily increased over the two last decades. The wage gap between men and women has also narrowed.⁷

Ten years later, these trends have strengthened, and seen from a broader perspective Brazil is a free society, where the rule of the law is prevalent and civil rights respected, where the presence of women in all areas of society is strong and where democracy has been solidified with free and universal elections. Women have also made important inroads in education and in research.

⁷ World Bank 2002, p. 37.

The 1988 Federal Constitution brought important advances in the protection of women and the integration of productive and reproductive spheres.

The Constitution of 1967 had already established the principle of equality between men and women and included measures against discrimination in the labor force. The 1988 Constitution advances social rights⁸ and expands the definition of the family in its recognition of both the stable union and many other arrangements, such as female-headed households. It also ended the principle of the “*Pátrio Poder*”, or primary authority of the father within the family.

Much progress has also been seen in the world of labor. Women make up today 44% of the workers in the labor force. Women’s activity rates in the labor force increase substantially with education. In 2000, women with university degrees had an 82.3% activity rate, while the average rate for all women is 45.2%. This was still lower than male activity rates – 90.6% for those holding university degrees and 72.6% on average – but they are exceptional in Latin America and the Caribbean.⁹

The Brazilian university system has grown significantly over the last decade, but research is concentrated in the public system, represented by the federal and state universities, and a small number of religious institutions. The public sector universities represent around 30% of higher education institutions.

Brazil also distinguishes itself in the region for its science and technology system, established over the last sixty years.

In 1951 two central institutions were created, which continue as major players in the science and technology system today. The first is the National Research Council (CNPq – *Conselho Nacional de Desenvolvimento Científico e Tecnológico*) with the mandate to support scientific research in the universities. The second was CAPES (*Coordenação de Aperfeiçoamento de Pessoal de Ensino Superior*), at the Ministry of Education, an institution focused on the graduate training of university teachers but that has developed a very efficient evaluation system for all graduate programs in the country.

The Ministry of Science and Technology was created in 1985 and coordinates four national agencies linked to S&T: the Brazilian Space Agency, the National Commission of Nuclear Energy, the National Council for Scientific and Technological Development (CNPq); and the Agency for Financing Studies and Projects (FINEP). FINEP is the innovation agency and has been the agency that controls and coordinates the sectoral funds of the Ministry. The Ministry also oversees 26 national research institutions.

The budget for the Ministry has increased substantially in the last ten years, by almost 300%, so that today Brazil makes the largest investment in science and technology in Latin America and the Caribbean – about 1.4% of its GDP.

The Ministry of Science, Technology and Innovation is the Secretary of the highest committee for science and technology in the country, the Council for Science and Technology (CCT), presided over by the President of the Republic. The first CCT was created in 1975, but has been upgraded and altered several times. Since 2007 it has been directly linked to the Presidency and has 27

⁸ Several specific legislation regarding the family are in place: stability of work for pregnant women; maternity leave (120 days with a possibility of extending it to more 60 days); breaks for women workers to feed their baby; support for daycare until the baby is 6 months old; paternity leave (5 days after the birth).

⁹ Bruschini (2000). p. 152.

members. Thirteen are ministers (*Ciência e Tecnologia, Casa Civil; Gabinete de Segurança Institucional da Presidência da República; Comunicações; Defesa; Desenvolvimento, Indústria e Comércio Exterior; Educação; Fazenda; Integração Nacional; Planejamento, Orçamento e Gestão; Relações Exteriores; Saúde; Agricultura, Pecuária e Abastecimento*); eight are representatives of producers and users of science and technology, while six are representatives of the education and research sector.

The Ministry organizes the National Conference of Science Technology and Innovation, a weeklong countrywide event, now in its fourth year.

A major capacity building effort was financed by the government for the last fifty years, with a notable increase in investment in the last decade. In the 90s, CNPq and CAPES awarded around 40,000 scholarships per year in total. Over the last decade, both institutions granted 60,000 scholarships in 2001 and around 90,000 scholarships in 2008 (Figures 2 and 3). If you add to that the scholarships granted at the state level, the number is even larger. In 2004, for example, FAPESP granted an additional 5,000 PhD and MSc scholarships for the State of São Paulo alone.¹⁰

Over the last fifty years a national system of graduate programs was consolidated and many international tier institutions were created. In 2007 2,568 graduate programs were evaluated of which 1,320 were PhD programs¹¹.

In 2008 the system graduated 30,000 MScs and 10,000 PhDs¹². This capacity building effort has effectively created a significant research community in Brazil. The database of CNPq, the Census of Research Groups, initiated in 1993, shows a significant expansion over the years. The database registers approximately 23,000 active research groups, in 422 institutions, comprising 104,000 researchers, of which approximately 67,000 hold PhDs.¹³

One good example of national investment in science and technology is the National Institutes of Science and Technology, which are funded for ten years. Based on a former smaller program of the Millennium Institutes of Science and Technology, the Ministry of Science and Technology launched the National Institutes of Science and Technology Program (INCT) in 2008, *“a powerful tool for promoting science, technology and innovation in the country. With 122 approved projects in different research areas, such as health, biotechnology, nanotechnology and energy, the Program aims to mobilize and aggregate in networks the best research groups in frontier areas of science and in strategic areas for the sustainable development of the country.”*¹⁴

As well, the Brazilian Congress has an active Science and Technology Commission, both in the House of Representatives and the Senate.

There are also solid science and technology institutions in the non-governmental sector. The Brazilian Academy of Sciences is one of the oldest, founded in 1916, while the Brazilian Society for the Advancement of Science was established in 1949. An impressive number of scientific

¹⁰ The system in Brazil grants MSc and PhD scholarships for all students that are accepted in the graduate programs of excellence; the percentage decreases at the lower levels of evaluation. Scholarships are granted to all accepted students, irrespective of nationality.

¹¹ CAPES has a grading system that goes from 3 to 7, seven being the excellence programs of international level. Below 3 the program is not allowed to give titles and has to restructure, or face closure.

¹² Abreu (2010) Figure 4

¹³ Abreu 2010 Table 1

¹⁴ <http://www.cnpq.br/programas/inct/apresentacao/>

associations and societies exist in all disciplinary areas. The CGEE (Center for Governance and Strategic Studies), created in 2000, is an example, a think-tank that has produced a large number of analysis and reports on the S&T system in Brazil.

Other important actors in the S&T system are the agencies which support science and technology at the estate level. The largest and most active is FAPESP, the *Fundação de Apoio à Pesquisa do Estado de São Paulo*, established in 1962 with a budget equivalent to the CNPq budget for the whole country. FAPERJ *Fundação de Apoio à Pesquisa do Estado do Rio de Janeiro* was established in 1980 and is today an important funding agency for the estate of Rio. These state support agencies have been replicated in recent years in many other states.

Inclusion of gender issues in the national knowledge society policies on science and technology, ICT, labor and education

Especially important was the creation of institutions at the federal government specifically focusing on women and women issues. In 1985 the National Council for Women's Rights (*Conselho Nacional dos Direitos da Mulher - CNDM*) was created in the Ministry of Justice, to promote policies to bar discrimination against women and strengthen their participation in the political, economic and cultural activities in the country.

In 2003 it was transformed into the Special Secretariat for Women's Policies with ministerial status, under the Presidency of the Republic.

Every three years a meeting on "Thinking gender and science" is organized, bringing together an existing network of feminist research groups to discuss the issue of gender in science. The Secretary also gives a prize, now in its fifth year, for schools, college and undergraduate students called "Building Gender Equality". Both programs are part of the Second National Plan for Politics for Women, which addresses the issue of "strengthening the participation of women in an equal, plural and multiracial way in spaces of decision making; motivating the participation of women in scientific and technological areas".¹⁵

The Secretary has been very active and has an extensive web portal (<http://www.sepm.gov.br/>) with information and data on women as part of an Observatory on women's issues (<http://www.observatoriodegenero.gov.br/>). It also has developed many programs focusing on specific themes and concerns, with science and technology as one of its priority areas.

Existence of gender-specific policies on childcare, equal pay, flexible work and transport for women

Brazil does have good policies and strong legislation regarding equal pay. Labor law does not, however, authorize flexible work. All formal work contracts are full time. Regarding childcare, every firm that employs a certain number of workers is in principle obliged to offer childcare facilities, but the implementation of this is not widespread. For professional women of higher income groups, childcare is an important component of hired domestic work. There is also a large number of private nursery schools in the large urban areas. For those in lower income groups, the solution is often sought in the extended family, with the grandmother looking after the child during the day, or a young cousin or younger sister coming to live at the house.

¹⁵ Secretaria Especial de Política para Mulheres. II Encontro Nacional de Grupos e Núcleos de Pesquisas Pensando Gênero e Ciência.

There is no specific legislation for transport and gender. A few localized examples exist, such as the “women only” car in Rio de Janeiro suburban trains that seems to be successful.

CEDAW signatory

Brazil is a signatory to CEDAW and is a member of many other regional networks.

The Brazilian Government ratified CEDAW in 1984, but had reservations concerning many articles. In 2002 it agreed to be part of the Additional Protocol to the Convention and has since then been an active participant. In 2005 it presented its Sixth National Periodic Report to CEDAW, covering the 2001-2005 period, which was published in book form in 2008.¹⁶ At this time, Brazil has been represented on the CEDAW Committee as Vice President since 2005. The portal provides many links to CEDAW where the participation of Brazil can be followed.¹⁷

Brazil is also part of the REM (Reunião Especializada da Mulher do Mercosul) Specialized Meeting on Mercosul Women, created in 1998 to analyze the situation of women in the region. Five countries are part of this network: Argentina, Brazil, Uruguay, Paraguay and Venezuela; with five associated countries: Bolivia, Chile, Colombia, Ecuador and Peru. Information on this can be found on the Mercosul website.¹⁸

The Inter American Commission of Women, known by its Spanish acronym of CIM (Comissão Interamericana de Mulheres), and the related mechanism to follow the Belém to Pará convention, MESECVI (Mecanismo de Seguimento da Convenção de Belém do Pará) also have strong Brazilian representation.¹⁹

Established in 1928, the Inter-American Commission of Women (CIM) was the first inter-governmental agency established to ensure recognition of human rights of women. CIM is made up of 33 Principal Delegates, one for each member state, and has become the principal forum for debating and formulating policy on women's rights and gender equality in the Americas.

CIM Delegates are designated by their respective governments, meeting every two years during the Assembly of Delegates. The Assembly is CIM's highest authority and is responsible for establishing policies and approving the Commission's plans and programs of work. The Assembly also elects a nine-member Executive Committee, which meets once or twice a year in order to address routine matters.

¹⁶ Brasil. Presidência da República. Secretaria Especial de Políticas para as Mulheres. VI Relatório Nacional Brasileiro. Convenção pela Eliminação de todas as Formas de Discriminação contra as Mulheres - CEDAW/Organizações das Nações Unidas. Brasília: Secretaria Especial de Políticas para as Mulheres, 2008. 224 p. — (Série Documentos)

¹⁷ Sítio do Comitê: <http://www.un.org/womenwatch/daw/cedaw/committee.htm>

Primeiro Relatório Nacional Brasileiro à CEDAW: <http://200.130.7.5/spmu/docs/cedawbrasil.pdf>

Sexto Relatório Nacional Brasileiro à CEDAW (port):

http://200.130.7.5/spmu/portal_pr/eventos_internacionais/relatorios/2/VI%20Relatório%20CEDAW%20-%20versão%20completa%20revisada%20-%20português%20-%2018-04-2005.doc

Recomendações CEDAW ao I Relatório Brasileiro (port):

http://200.130.7.5/spmu/portal_pr/eventos_internacionais/relatorios/2/Recomendações%20CEDAW%20Traduzido%20e%20Revisado%20-%202026-12-03.doc

Recomendações CEDAW ao VI Relatório Brasileiro (port):

http://200.130.7.5/spmu/portal_pr/eventos_internacionais/ONU/39%20sessão%20CEDAW/Recomendações%20CEDAW%20-%20português.pdf

¹⁸ Portal oficial do Mercosul: <http://www.mercosur.int/msweb/>

Regulamento Interno da REM:

http://200.130.7.5/spmu/portal_pr/eventos_internacionais/relatorios/3/regulamento_interno_rem.doc

¹⁹ Sítio da CIM: <http://portal.oas.org/Default.aspx?tabid=621&language=en-US>

The Regional Women Conference of ECLAC is held every three years. It brings together high level authorities in charge of women's issues in the 33 countries of the region to discuss gender equality policies in Latin America and the Caribbean.²⁰

A proposed gender agenda in the context of the IBAS Dialogue Forum (India, Brazil and South Africa) is currently in development.²¹

Existence of gender budgeting initiatives

While no specific gender budgeting initiatives exist at the federal level, at the municipal level, several interesting experiences with “participative” budgets are in place.

Institutionalization of inter-ministerial relations on gender

Since the creation of the Secretariat for Women’s Policies, the National Council for Women’s Rights/*Conselho Nacional dos Direitos da Mulher* was reactivated and is now part of the Secretariat. It is the best example of inter-ministerial relations on gender since it has a membership of 16 ministries and several civil society organizations. The 2011 composition of the Council is listed below.

The Secretariat for Women’s Policies is not, however, part of the highest Council for Science and Technology.

National Council for Women’s Rights 2011

1. Secretary for Women Policy Secretaria de Políticas para Mulheres– SPM
2. Secretary for the Policies for Promotion of Racial Equality Secretaria de Políticas de Promoção da Igualdade Racial - SEPPIR
3. Secretary for Human Rights of the Presidency of the Republic Secretaria dos Direitos Humanos da Presidência da República – SDH
4. Secretary of the Presidency- Secretaria-Geral da Presidência da República
5. Home Secretary of the Presidency- Casa Civil da Presidência da República– PR
6. Ministry of Culture - Ministério da Cultura – MinC
7. Ministry of Science, Technology and Innovation - Ministério de Ciência, Tecnologia e Inovação MCTI
8. Ministry for Rural Development - Ministério do Desenvolvimento Agrário – MDA
9. Ministry for Social Development - Ministério do Desenvolvimento Social e Combate a Fome – MDS
10. Ministry of Education- Ministério da Educação – MEC
11. Ministry of Justice- Ministério da Justiça – MJ
12. Ministry of Environment - Ministério do Meio Ambiente – MMA
13. Ministry of Planning, Budget and Governance- Ministério do Planejamento Orçamento e Gestão – MPOG
14. Ministry of Health- Ministério da Saúde – MS
15. Ministry of Foreign Relations - Ministério das Relações Exteriores – MRE
16. Ministry of Work and Employment - Ministério do Trabalho e Emprego – MTE

²⁰ Sítio da 2009 Divisão de Assuntos de Gênero da CEPAL: <http://www.eclac.org/cgi-bin/getProd.asp?xml=/mujer/noticias/paginas/1/28701/P28701.xml&xsl=/mujer/tpl/p18f-st.xsl&base=/mujer/tpl/top-bottom.xslt>

²¹ Sítio do IBAS: <http://www.forumibsa.org/interna.php?id=1>

Declaração da III Cúpula de Chefes de Estado (Nova Déli, 2008): http://www.forumibsa.org/publicacoes/2008_10_15_DelhiSummitDIICupula.pdf

Civil Society:

Category A Entities

1. Articulação de Mulheres Brasileiras – AMB
2. Articulação de Ong's de Mulheres Negras – AMNB
3. Associação Brasileira de Mulheres de Carreira Jurídica – ABMCJ
4. Confederação de Mulheres do Brasil – CMB
5. Federação Nacional dos Trabalhadores Domésticos – FENATRAD
6. Fórum Nacional de Mulheres Negras – FNMN
7. Instituto Equit – Gênero, Economia e Cidadania Global
8. Liga Brasileira de Lésbicas –LBL
9. Marcha Mundial de Mulheres – MMM SOF
10. Movimento Articulado de Mulheres da Amazônia – MAMA
11. Movimento de Mulheres Camponesas – MMC
12. Rede Economia e Feminismo – REF
13. Rede Nacional Feminista de Saúde
14. União Brasileira de Mulheres – UBM

Alternate in Category A Entities

- 15 - Federação das Associações de Mulheres de Negócios e Profissionais do Brasil - BPW Brasil

Category B Entities:

- 1 - Associação Brasileira de Pós-Graduação em Saúde Coletiva – ABRASCO
- 2 - Central Única dos Trabalhadores – CUT
- 3 - Confederação Nacional dos Trabalhadores na Agricultura – CONTAG
- 4 - Confederação Nacional dos Trabalhadores em Educação – CNTE
- 5- Central Geral dos Trabalhadores do Brasil – CGTB
- 6- Conselho Federal de Psicologia – CFP
- 7 - União Nacional de Estudantes – UNE

Alternates in Category B

- 8 - Confederação Nacional dos Trabalhadores na Indústria – CNTI
- 9 - Federação dos Trabalhadores na Agricultura Familiar – FETRAF

Councilors as Experts in Gender Issues:

- 1 - Clara Charf
- 2 - Jacqueline Pitanguy

In spite of these advances in Brazilian society, and the strong policy environment regarding gender issues, there are few women in the higher echelons in all sectors of this study. Ministers, senators, deputies, judges, CEOs, full professors, and ambassadors: these positions continue to be predominantly male, which is surprising particularly if the enormous progress in capacity building and training of women in the country is taken into account. This framework will show clearly the important advances of Brazilian women in all areas of society, and their difficulty in reaching high-level decision making positions.

DIMENSION 1: HEALTH

(Indicator I.1 - Ratio: female healthy life expectancy at birth over male value (HALE); Indicator I.2 - Prevalence and Incidence of HIV/Aids by sex. Estimated female population living with HIV/Aids; Indicator I.3 - Incidence of Malaria; Indicator I.4 - Prevalence of Tuberculosis; Indicator I.5 – Incidence of Hepatitis B and C by sex; Indicator I.6 – Incidence of Syphilis (congenital and in pregnancy)).

In relation to health issues, Brazil has the same contrasts as in childcare and other aspects of Brazilian life. Since 1988 a universal public health service was established, SUS *Sistema Único de Saúde*. Within this system all citizens have the right to free health care. The private health care system is complementary, and provides services through contracts and public programs. Several special programs have been very successful, including a universal vaccination program for children which has eradicated polio and contained many childhood diseases. The program for HIV/AIDS is also recognized as a model worldwide, with free distribution of medicines and good coverage in all regions of the country.

A database on health issues, managed by the Ministry of Health, makes health indicators on all relevant issues publicly available. But certainly many issues remain, with unequal coverage between the public and private health sectors.

Regarding women, the PAISM (*Programa “Assistência Integral à saúde da Mulher: bases de ação programática/ Integral assistance to women’s health: basis for programmatic action)* was developed in 1983 and established in 1984. Initially it focused on family planning and provided the framework for these initiatives. It also reflected the female perspective, and although it did not legalize abortion, all other family planning issues were included.

In 2003 a revision of the program led to the establishment of *the Política Nacional de Atenção Integral à Saúde da Mulher - Princípios e Diretrizes/ National Policy for Integral Attention to Women’s Health*, which drew from an evaluation of previous years and established an overarching program in women's health.

These public policies and actions have had a strong impact on the population. The fertility rate has fallen sharply since 1970 with the main influencing factors being changes in reproductive patterns of women, their increased participation in the labor market, and a higher use of contraceptives. Teenage pregnancy, however, has showed a different trend, actually increasing over the last few decades.

Life expectancy has been growing steadily in Brazil over the last twenty years, with female life expectancy maintaining an 8 to 10 year advantage over male. However, it is important to highlight that data by race (skin color) shows a substantial difference between whites and blacks, both for male and female. In spite of this, women, even black women, have a higher life expectancy than men. The table below, is taken from the “Racial Atlas” published by the UNDP in 2004²².

Life expectancy at birth by sex and color/race
Brazil, 1991-2000

Year	Women		Men	
	White	Black	White	Black
1991	71.8	65.6	64.3	58.1
2000	73.8	69.5	68.2	63.2

Fonte: PNUD, Atlas Racial Brasileiro 2004
http://www.pnud.org.br/publicacoes/atlas_racial/textos_analiticos.php

The data on prevalence rates of malaria, tuberculosis and HIV/AIDS show that the first two do not reflect specifically gendered behaviors, although they are much more prevalent in men than women. The case of HIV/AIDS however, is different. HIV/AIDS was identified in Brazil for the first time in 1980 and increased dramatically until 1998, when 25,000 new cases were registered. According to the Ministry of Health, from 1980 to June 2010 Brazil had about 600,000 registered cases, with an incidence of 20.1 per 100,000 inhabitants.²²

Analysis of the epidemic has shown that although in absolute numbers men are the most affected, the illness seems to be increasing more among women. This proportional increase of AIDS cases among women can be observed by the sex ratio (number of cases in men divided by number of cases in women). In 1989 the sex ratio was about six cases of AIDS among men for each case among women. In 2009 this changed to 1.6 cases in men for one in women.

The incidence of AIDS in both sexes is more prevalent in the 20-59 age group. However, one especially concerning trend is the increase among teenage girls between 13 and 19 years of age, the only age group where the incidence is higher among females. This inverted trend began in 1988, with eight cases in boys for each ten in girls and is usually explained by the early onset of sexual activity for girls with older partners who are more prone to infection.²³

Another important gender issue related to HIV/AIDS is the form of transmission of the illness. The main vector for both sexes is through sexual relations, but while for women 94.9% of registered cases in 2009 were the result of heterosexual relations with an HIV infected partner, for men, heterosexual relations are reported in 42.9% of cases, homosexual relations in 19.7% and bisexual relations in 7.8%. Other forms of transmission are blood transfusion and mother-child contamination.²⁴

While malaria afflicted about six million people every year in the 1940s, today it is confined to the Amazon region which sees 99% of all new cases and affects about 100,000 people. In 2000-2002 the Brazilian Government established a “*Plano de Intensificação das Ações de Controle da Malária* (PIACM – “Intensification Plan for the Control of Malaria”), which drastically reduced the incidence from 600,000 cases in 1999 to 350,000 in 2002. This was not a sustainable program, however, and in 2003 the number of cases of malaria increased to 400,000. Since then a National Program for the Control of Malaria has had good results in terms of reducing the incidence of malaria, which dropped from 64.1 per 100,000 males in 1999 to 62.8 per 100,000 in 2009. For

²² Ministério da Saúde - Secretaria de Vigilância em Saúde - Departamento de DST, Aids e Hepatites Virais . Boletim Epidemiológico - Aids e DST. Ano VI - nº 1 - 27ª a 52ª - semanas epidemiológicas - julho a dezembro de 2008 . Ano VI - nº 1 - 01ª a 26ª - semanas epidemiológicas - janeiro a junho de 2009. ISSN: 1517-1159, and Brasil. Presidência da República. Relatório Nacional de Acompanhamento. Objetivos de Desenvolvimento do Milênio. Março de 2010. Capítulo 6. pp 98-118 .

²³ MS/SVS/Departamento de DST/AIDS e Hepatites Virais

Ministério da Saúde - Secretaria de Vigilância em Saúde - Departamento de DST, Aids e Hepatites Virais . Boletim Epidemiológico - Aids e DST. Ano VI - nº 1 - 27ª a 52ª - semanas epidemiológicas - julho a dezembro de 2008 . Ano VI - nº 1 - 01ª a 26ª - semanas epidemiológicas - janeiro a junho de 2009. ISSN: 1517-1159, and Brasil. Presidência da República. Relatório Nacional de Acompanhamento. Objetivos de Desenvolvimento do Milênio. Março de 2010. Capítulo 6. pp 98-118

women the reduction was greater, from 39.2 per 100,000 in 1999 to 30.4 in 2009. Absolute numbers are still high, however, and in 2009 1,700 million people were infected with malaria, with a prevalence of around 60,000 new cases in men and 30,000 in women.²⁵

Tuberculosis continues to be a health issue in Brazil, and research indicates that this is the result of excessive centralization of interventions, a long treatment period (at least 6 months), a lack of sanitary conditions in the urban periphery with high population density, and, finally, the association of tuberculosis with HIV/AIDS. In Brazil about 25% of AIDS cases have tuberculosis as an associated illness. In more recent years the SUS has developed new policies focusing on these issues and hopes to see a positive impact in the next few years. In 2009 about 400,000 men and 200,000 women had tuberculosis in Brazil, with a prevalence of about 24,000 new cases in men and 15,000 in women.²⁶

The Brazilian quantitative team introduced two other indicators in this section, on hepatitis B&C and syphilis, considered important health issues for women:

*“ **Indicator I.5** refers to Hepatitis B and C. Data show that female incidence rates have increased in the period though relatively more men than women are victimized by them. The gender gap has clearly narrowed between 1999 and 2009. In the case of Hepatitis B, female incidence represented 85.9% of male incidence in 2009, while it used to be only 57.4 % ten years before. For Hepatitis C, female incidence represented 69.1% of male incidence in 2009, much higher than the 52.2% in 1999. Incidence rates for women more than doubled for those diseases in this ten years period, which means that the disease is increasing more rapidly in women than men.*

*The last disease considered in this report is syphilis (**Indicator I.6**). This disease is one of the main targets in pre-natal care in Brazil. Despite that, the data show an increase in the incidence of both congenital syphilis (for the early years of the decade) and of syphilis in pregnancies (for the later years of the period). Apparently vertical contamination has stabilized in the second part of the decade, although syphilis in pregnancy has increased. This may be due to a more efficient pre-natal surveillance and care.”²⁷*

Regarding female genital mutilation, the practice does not exist in Brazil.

²⁵ SUS20anos. Secretaria de Vigilância em Saúde. Ministério da Saúde and Brasil. Presidência da República. Relatório Nacional de Acompanhamento. Objetivos de Desenvolvimento do Milênio. Março 2010. Cap. 6. pp 98-118.

²⁶ Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Análise de Situação de Saúde. Saúde Brasil 2004 – uma análise da situação de saúde / Ministério da Saúde, Secretaria de Vigilância em Saúde, Departamento de Análise de Situação de Saúde. – Brasília: Ministério da Saúde, 2004. 364 p.: il. color. – (Série G. Estatística e Informação em Saúde)

²⁷ Oliveira *et alii* (2011) pp 10-11

DIMENSION 2: SOCIAL STATUS

(Indicator I.7 - OECD- civil liberties; Indicator I.8 - Composite gender equity indices: GEM, GDI, GEI; Indicator I.9 – Sex ratio at birth; Indicator I.10 - Women Self-reported Violence; Indicator I.11 – Police Reports on Violence against Women; Indicator I.12 - Hospital admissions motivated by aggression against women; Indicator I.13 – Female deaths by aggression; Indicator I.14 – Average work time by sex and skin color. Female work time as a % of male according to skin color; Indicator I.15 – Hours dedicated to household tasks per week by sex and skin color; Indicator I.16 – Hours dedicated to household tasks by the employed population by sex and skin color)

Several indicators were calculated using Brazilian census data following the OECD GID Database model (Indicators 1.7; 1.25), and are presented here. They show clearly that Brazil is a free society, with no major institutional/legal obstacle to the development of women. Only two indicators are not zero. The first refers to early marriage, probably associated with a high incidence of teenage pregnancy, with little change in the decade under consideration. The second, related to violence against women, has shown a large improvement in the ten years used as reference.

Indicators following OEC/Gender, Institutions and Development						
Year	Family Code				Civil Liberties	
	Parental Authority	Inheritance	Early marriage (women)	Polygamy acceptance/legality	Freedom of movement	Dress code in public
1999	0	0	0,17	0	0	0
2009	0	0	0,16	0	0	0

Indicators following OEC/Gender, Institutions and Development						
Year	Physical Integrity		Ownership Rights			
	Violence against women/legal indicator	Female Genital Mutilation	Son Preference	Women's access to land	Women's access to bank loans	Women's access to property other than land
1999	0,25	0	0	0	0	0
2009	0,17	0	0	0	0	0

The sex ratio at birth in Brazil follows the same pattern of most countries, with a higher proportion of boys being born, although the indicator is lower than the global average. In higher age brackets, however, women are the majority as they are in the population as a whole, at 51%.

Given this wider framework, many challenges remain in regard to the position of women in the Brazilian society, and there has been a steady investment by the Brazilian Government in setting up an institutional framework that allows these challenges to be addressed.

One such issue is violence against women. It has gained increased public visibility with the approval, in 2006, of the “Lei Maria da Penha”. The law is named after Maria da Penha Fernandes who was rendered paraplegic after two assaults by her husband; the case was taken to the Inter American Commission of Human Rights of the OAS. The law created specific judicial

mechanisms and instituted the *Juizados de Violência Doméstica e Familiar contra as Mulheres* (especial courts for cases of domestic violence against women), reinforced the special police precincts for women, and introduced many other social and policy initiatives to protect, prevent and help women in the situation of domestic violence.

The issue of violence was given special treatment at the National Secretary of Women Policies, with a Sub Secretariat for Confronting Violence against Women, with the specific mission of for emulating policies for confronting violence against women and assisting women in situation of violence, as well as promoting actions and programs at all levels of government to supervise the application of the law.

The Brazilian Senate has measured public knowledge of the law since 2005 through a survey in collaboration with IBOPE. In the fourth version in 2011, 98% of those surveyed had heard of the law compared to 83% in 2009.

As mentioned in the corollary report, however, we could not find national census data on violence against women. Questions on violence were inserted in the 2009 Household Survey (PNAD), but not repeated since then. However, a number of other surveys and research efforts are worth mentioning.

The data from the 2009 household survey on violence shows clear gendered differences. While 42% of women have suffered violence in their own home, 56.4% of men experienced violence in the street. Women also experience violence primarily from people who are close to them: 25.9% of violence is perpetrated by husbands or ex-husbands, 11.3% by other relatives, and 32.2% by friends or acquaintances – a total of 69.4% of women with experience of violence.

Distribution of victims of physical aggression by sex, according to place of aggression. Brazil 2009 (%)		
Place of aggression	Men	Women
Own residence	12.3	43.1
Residence of others	3.6	6.2
Commercial Establishment	11.3	3.8
Public street	56.4	36.8
Schools	9.4	6.9
Public transport	1.2	1.2
Sport Gymnasium or Stadium	1.5	0.3
Other	4.4	1.8
Total	100.0	100.0
Absolute total of people (millions)	1.444	1,082
Source IBGE PNAD . Elaboration: DIEESE 2011		

Distribution of victims of physical aggression by sex, according to their relation to the aggressor. Brazil 2009 (%)		
Relation to the aggressor	Men	Women
Person unknown	46.4	29.1
Policemen or security	6.7	1.5
Husband/wife or ex	2.0	25.9
Relative	5.6	11.3
Friend or acquaintance	39.3	32.2
Total	100.0	100.0
Absolute total of people (millions)	1,444	1,082
Source IBGE PNAD . Elaboration: DIEESE 2011		

Mortality from violence is, however, largely confined to men, especially in the younger age brackets. The numbers presented in the “Map of violence 2006 for young people in Brazil” published by the OEI²⁸, show that for homicides (lethal violence for the population between 15 and 24 years of age), men are the majority, at 93.9%.

The homicide rate for men is 47.2 per 100,000, while for women it is 3.9 per 100,000. International comparisons show that this is a very high rate.

Other indicators that are clearly gendered relate to working hours and domestic work. The data on average hours worked per week by the employed population according to sex show that men, both black and non black, work on average a few hours more than the legal work week of 40 hours, although it decreased from 44.3 in 2001 to 42.4 in 2009. Women however, do not work the full week, at about 35 hours in average with no change over the decade.

One must remember that all work contracts in principle require a full working week. Flexible arrangements are left to agreements between the worker and employer.

Time use data has been highlighted by the feminist movement worldwide since the 70s. In Brazil, official statistical institutions did not generate any data on time use until the 90s and the information available came from sociological studies and research.²⁹

In 1992 the National Household Survey (PNAD) included two questions about time use: one related to domestic work by all family members and the other about time use at home and work. Almost a decade later, in 2001, the PNAD included a question on the average time dedicated weekly to domestic work. With the systematic inclusion of these three questions, time use data could now be made available. This fostered many studies on the balance between productive and reproductive work among women and their precarious insertion in the labor force.

Since 2003 a great advance was made with the creation of the Special Secretary for Policies for Women. With the Second National Plan for Policies for Women, the issue of reproductive work inside the family took on a special focus and the necessity of obtaining more reliable data on time use was emphasized. The Secretary promoted a Seminar in 2008 to develop the proposal of a national survey on time use. It resulted in the appointment of a Technical Committee of Gender and Time Use Studies in the national statistical agencies, and international organization as UNIFEM and ILO. It was given the specific mandate to promote the production of indicators in

²⁸ WAISELFIS Z, J. J. Mapa da violência 2006. Os jovens do Brasil. Brasília, OEI, 2006

²⁹ Neuma Aguiar was one of the pioneers of time use data research in Brazil.

time use and strengthen research to support good public policies for a more balanced relation between work and family life. . It also refers to the importance of instituting satellite data collection at the national level in order to give visibility to domestic work.

The issue of time use data in Brazil has to be analyzed in the framework of changes in family structure over the last four decades. The large decline in the size of families is one such change which is linked to the decline in fertility rates (in 1980 the fertility rate was 4.4, declining to 1.8 in 2008).

The family pattern that continues to be prevalent is that of a couple with children sharing the same house; however, its relative position has been declining. In 1993 this family model represented 62.6% of all Brazilian families, in 2008 only 48.2%. In parallel to this trend there is a large increase in single parent and one-person families, and a small increase of couples without children. In these new family patterns women are increasingly identified as breadwinners: in 1993 22.3% of families had a female breadwinner, in 2008 this percentage was 35%. It is interesting to note that in 2008 9.1% of families with both spouses present identified the woman as the breadwinner.³⁰

As we will see in the appropriate sections, these are trends that follow two important changes in Brazilian society: urbanization and higher education rates for women.

All these changes are reflected in the labour market, where women's participation has been increasing steadily for the last four decades. If in 1981 33% of Brazilian women of 10 years and more were economically active, in 2008 this increased to 51%, involving more than 40 million women. In 1978, 69% of the employed workforce was men. In 2008 this percentage had fallen to 57%.

In 2010 the IBGE conducted a national pilot survey on time use, using the diary methodology. This survey showed clearly the importance of gender when looking at time use inside the family. In 2008 86.3 % of women interviewed said they engaged in domestic work, while only 45.3% of men did. Although the time dedicated to household chores is declining for both men and women since the first survey in 2001, this decline is greater for women. The authors of the report from which this information is taken conclude that this shows that changes in technology (access to water, electricity and household equipment) and in lifestyle (such as smaller numbers of children or not returning home for lunch) had a much stronger impact on women. According to the 2001 survey, women dedicated 29 hours a week to domestic work, in 2008 the figure was 23.9 hours. Men continued to work a much smaller number of hours, in 2001 at 10.9 hours a week and in 2008, 9.7 hours.

This correlates with the data presented in the corollary quantitative report, where there is a clear decrease in number of hours dedicated to home work for both men and women between 2001 and 2009 – from 29 hours per week in 2001 to 25.1 in 2009 for women, and from 11 to 10.2 for men.

The above mentioned survey, however, showed that domestic work for men involves completely different activities than for women: this work tends to be external to the house, such as gardening, washing the car, or engaging in sporadic tasks such as those involved in house maintenance..

³⁰ Natália Fontoura, Luana Pinheiro, Marcelo Galiza, Márcia Vasconcelos. “Pesquisas de uso do tempo no Brasil: contribuições para a formulação de políticas de conciliação entre trabalho, família e vida pessoal”. Revista Econômica, Rio de Janeiro, v 12, n 1, junho 2010

Another issue that should be taken into account in time use results is race. The numbers in the quantitative report show that race and activity status influence the average time dedicated to domestic work.

But another very important issue that has to be taken into account in relation to domestic work in Brazil is paid domestic service. As mentioned in two recent articles by Hirata (2008 and 2010), the division of labor inside the home can follow different patterns and/or models:

- Traditional model – where the woman does not work outside the home and is solely responsible for domestic work
- Combined model – the woman enters the work force but continues to be almost entirely responsible for the domestic sphere
- The partnership paradigm – a balanced distribution of domestic work between spouses seems to still be an abstract model, even in developed countries
- The model of delegation – where domestic work is delegated to paid workers. This pattern is increasing even in countries such as France and the US, with the use of immigrants from other regions as paid domestic help.³¹

In Brazil, paid domestic work is clearly a very important reality. In spite of advances in society and the entry of women into the labor market, this entry clearly polarized into two different groups: highly educated and professional women, in contrast to the precarious occupations of less educated and poor women. Paid domestic work is the largest of these precarious occupations, especially for black women: in 2008 6.2 million women were domestic paid workers, representing about 16% of paid workers. In 2009 they made up than 7 million and represented 17% of females in paid employment.

³¹ Hirata 2010 pp270.

DIMENSION 3: ECONOMIC STATUS

(Indicator I.17 - Population aged 10 years and over, according to sex, economic activity status and occupational status; Indicator I.18 – Share of women according to economic activity and occupational statuses; Indicator I.19 – Employment in economic sectors according to sex; Indicator I.20 – Share of women in different economic sectors; Indicator I.21 - Ratio of estimated female-to-male earned income, according to weekly work hours and years of schooling; Indicator I.22 – Women work status as compared to men; Indicator I.23 - Share of women by status of worker; Indicator I.24 - Proportion of persons aged 10 years and over by sex, household per capita income quintile, and selected social characteristics)

A recent report from the Inter-American Commission of Women CIM, entitled “Advancing gender equality in the context of decent work”³², analyzes the situation of women in the Latin American labor market and refers to the massive incursion of women increasing substantially women’s participation over the last few decades. It also notes, however, that this massive entry into the world of labor is fraught with many persistent problems:

- women continue to be disproportionately affected by poverty;
- they carry a greater overall workload because of their responsibility for reproduction and domestic work,
- a persistent gender gap remains in labor force participation despite improvement in recent years;
- women’s unemployment rates are consistently higher than men’s;
- women are more likely to be employed in the informal economy;
- women have less access to social security ;
- women are over-represented in economic sectors with lower productivity, status, and income;
- paid domestic work accounts for a significant portion of the female workforce;
- there is persistent salary discrimination against women;
- a sustained increase has been observed in numbers of households headed by women;
- women’s participation in collective bargaining remains low;
- migration is becoming increasingly feminized.

How does the situation of Brazil compare with this picture? Although Brazil might experience some problems, a lot of progress has been made. All analysts stress a consistent and significant growth in the participation of women in the labor force in the last 20-30 years. This consistent increase can be explained by several important changes in the cultural, social and demographic situation. Bruschini, Ricoldi and Mercado (2008) mention the following:

³² Inter-American Commission of Women. OAS. (2011). Advancing gender equality in the context of decent work. (OEA documentos oficiales ; OEA/Ser.L)(OAS Official Records Series ; OEA/Ser.L). September 2011,

- “the decrease in fertility rates, especially in urban areas, that has reached 2.1 children per women in 2005/ In the more prosperous region of Brazil, the Southeast, it is even lower, 1.9 per women. But even in the poorest regions, such as the Northeast, it was 2.3 in 2005;
- the reduction of the average number of family members: families in Brazil in 2005 had 3.2 members in average, while in 1992 it was 3.7;
- a higher life expectancy for women (75.8 years) compared to men (68.1) which leads to an older female population; and finally
- an increase in the number of female-headed households (with women as breadwinners), which in 2005 represented 30.6% of all Brazilian families in private households.”³³

Brazil has a long tradition of research and data collection on women in the labor force. Since the 70s studies of work have focused on gender issues, and changes in the participation of women in the economically active population are well documented. The last 30 or 40 years have seen a significant increase in the participation of women, although men continue to make up the majority of the labor force. The data given by Bruschini, Ricoldi and Mercado (2008) show that in 1981, 33% of Brazilian women were economically active; in 2008 this percentage increased to 51%, a total of 40 million women. In the same period, the participation of men fell from 75% to 71%. In 1978, 69% of employed persons were men; in 2008 this percentage was 57%.³⁴

More recent data for the last decade as presented in the quantitative report (Indicator I.17), shows the same trend: in 2001 48.9% of Brazilian women aged 10 and over were economically active; in 2009 this number reached 52.7% – almost 44 million women. In the same period, the participation of men remained constant, around 72%.³⁵

The entry of women in strength in the labor market however continues to be marked by a clear gender difference. As mentioned earlier, women not only have more difficulty in entering the labor market, but when they do they occupy more precarious positions. They also are paid less than men for their work, in spite of legal restraints.

It is also harder for women to remain in the labor market. In 2008 their unemployment rate was 9.6%, while this same rate was 5.2% for men. Women also tend to remain unemployed for longer periods. Indicator I.18 shows that the participation of women among the economically active increased to 44% in 2009 from 41.9% in 2001, and their participation among the employed from 40.7% in 2001 to 42.7% in 2009.

The distribution of the employed population in Brazil clearly reflects the intense modernization and urbanization processes seen over the last few decades (Indicators I.19 and I.20). Considering the totality of the workforce, only 17.7% were employed in agriculture, confirming that Brazil is today a country with a high level of urbanization. This is seen in the 58.1% of the population employed in services. But the data also confirm the particularly significant growth of the country

³³ Bruschini, Ricoldi and Mercado (2008), pp17

³⁴ Natália Fontoura, Luana Pinheiro, Marcelo Galiza, Márcia Vasconcelos. Pesquisas de uso do tempo no Brasil: contribuições para a formulação de políticas de conciliação entre trabalho, família e vida pessoal. Revista Econômica, Rio de Janeiro, v 12, n 1, junho 2010.

³⁵ Oliveira *et alii* (2011)

over the last decade, with an increase in those employed in industry from 20.3% in 2001 to 24.2% in 2009. This demonstrates a trend in increased formalization of employment in Brazil.

The rate of increase of formal employment in Brazil in the last ten years is impressive. The official Bulletin of the Ministry of Labor and Employment of December 2010 notes that 2.5 million new jobs with formal contracts were created in 2010. The number of jobs created from 2003 to 2010 was 15 million.

A look at sex distribution by sector makes clear the different distributions of men and women. In 2009, women were preponderantly employed in the service sector: 73.2% of employed women worked in services, where they represented 54.4% of all workers. On the other hand, only 12.6% of women worked in agriculture and 14.2% in industry, where they represented respectively around 30% and 25% of the workforce.

One also sees that women are concentrated in more precarious types of employment (Indicators I:22 and I.23). In 2009, 41.5% of employed women of 10 years+ were in the following types of employment: informal employee (12.8%); informal domestic worker (12.6%); formal domestic worker (4.5%); worker in production for own consumption (5.6%) and unpaid worker (6.0%). In all these occupations women are also the majority of the workforce, with the exception of informal employees, where they represent around 30%. In the case of domestic workers, their presence is overwhelming, reaching 88% in formal domestic service and 94% of informal domestic service.

An explanation is due about the distinction between formal and informal domestic worker. In Brazil, specific labor legislation grants domestic workers some of the rights of the general labor force, such as 30 days of vacation and a thirteenth salary every year, but at the same time instituting a lower contribution rate for social security, both for workers and employers. This has helped to increase formalization of work in the sector – many domestic workers (especially in urban areas) have a formal work contract, with a work record signed by their employer. But these make up less than half of those who work informally with no formal contract and therefore no social security contribution.

One positive trend in the last ten years is the decrease of unpaid work, which has fallen from 7.4% of the workforce in 2001 to 4.4% in 2009. Unpaid work remains a reality for about 6% of employed women, however, which represent around 60% of that category.

Regarding this issue, an important observation was made by Bruschini, Ricoldi and Mercado (2008) that “one must highlight that the numbers of unpaid female workers is not higher because official statistics do not consider unpaid domestic work, done inside your own home, as an economic activity and therefore women that are dedicated only to domestic work are considered unemployed and not as unpaid workers.”³⁶

They also indicate that unpaid work is a reality among women employed in agriculture: in 2008 28.5% of women employed in agriculture were unpaid. Although this represents a decrease from previous years, it is substantial and results from the invisibility of the productive work of women in rural areas. Frequently in small family farms the agricultural work of women is seen as an extension to their reproductive work and they are therefore not considered part of the workforce.

Two additional comments should be made, concerning occupations on the other end of the occupational range: formal occupations, the military and statutory civil servants. Formal

³⁶ Bruschini, Ricoldi and Mercado (2008) pp 23.

employment under a formal work contract established by Brazilian law, increasing in the last decade, remains a masculine domain. 39.2% of men were employed formally, representing more than 60% of workers in that category. While formal employment has also increased among women, with 30% of women workers being in that category, they continue to constitute a minority.

Military and statutory civil servant occupations fall under a different legal framework. Even if the military continues to be predominantly male, the presence of women in the civil service is increasingly important. In 2009, 9.6% of women were in this category, compared to 5.4% men. Females represented almost 60% of that category.

Women were admitted as part of the armed forces in the 80s, and they continue to represent a small proportion of the military. So it is reasonable to say that it is their growing numbers as civil servants that is represented in these percentages. And as we will see in the next sections, this has to do with the increased level of education of Brazilian women, allowing them to compete on equal terms in entry examinations and public competitions for civil servant positions. From university teachers in the Federal University system, to school teachers at different levels, and in municipal, state and federal administrations, women are entering the civil service in growing numbers.

The second comment regarding the indicators of workforce participation is related to income (Indicator I.21). Many authors have indicated a narrowing of the gender gap in earnings, but this is a slow process and in 2009 women earned 67.1% of men's income. Taking into account the number of hours worked per week, it is demonstrated that the group the most likely to approach the earning levels of men is women working between 40 and 44 hours a week, i.e., a full work week (84.2%). Taking into account number of years of schooling, produces more discouraging results, since this group approaches the male salary average only with between 9 to 11 years of schooling – to earn 60.3% of a man's wage.

Women are therefore undermined at both ends of the spectrum. On the lower side, being heavily concentrated in precarious occupations, their income is very low by definition. On the higher side, even when they work long hours or have long years of study, they are not able to bridge the gender gap in the workforce. It is only in the middle range, when competition seems to be more level, are they able to approach the salary of men.

Many of these issues are confirmed by Indicator I.24, showing the different characteristics of women and men in the poorest quintile of per capita income. The quantitative report calls attention to several changes worth highlighting:

Comparing 2001 and 2009, the education profile of the Brazilian population stands out. Educational upgrade in the poorest quintile (i.e. First quintile) has meant that a not negligible part has attained secondary education, especially women (19.2% in 2009 and 7.6% in 2001).

...Another important characteristic of women in the poorest quintile (i.e. First quintile) is their vulnerability to unemployment. Although the majority of the economically active women were employed both in 2001 and in 2002, proportions of non-employed women were larger than men's at both dates. Despite the increase in job opportunities in this decade, unemployment has grown among the poorest women, reaching almost 1/4 of the economically active poorest women in 2009.

Last but not the least relevant characteristic is family composition. The majority of women in the poorest quintile (i.e. First quintile) live alone with children. This means that they may be the only adult and the only pay check holder in the family. Nevertheless, the proportion of women alone with children went down in the decade, though they continue to be a greater part in this income group.³⁷

The link between female headed households and poverty is the subject of a recent article that analyses the situation of female headed household in the poorest groups.³⁸ The authors argue that although female headed households are indeed the poorest if you take into consideration the income, once you look at more qualitative indicators a different picture emerges: the welfare of children seems to be greater than in other households in the same income group. “In spite of the fact that single parent families have, on average, a lower income than two-parent families where a male is head of the household, the conditions of the housing where they live are better; rates of child labor are lower and, in the case of the Northeast, rates of falling behind in school and illiteracy are lower.”³⁹

This might be linked to a policy to combat poverty which was initiated in the mid 90s through a program called *Bolsa Escola*/School Scholarship. It provided a direct cash transfer to families conditional on school attendance of children. This was restructured and transformed in the first mandate of President Lula into the *Bolsa Família*/ Family Scholarship. This program provides direct cash transfers to families in poverty or extreme poverty. It is part of a wider program, *Fome Zero*/Zero Hunger, that targets the poor population.

The *Bolsa Família*/ Family Scholarship is provided to more than 13 million Brazilian families, covering the entire country. Depending on per capita income, a family may receive from around 20 to 170 US dollars per month. The program places specific conditions for participation such as school attendance and participation in health and social programs by all family members. It also provides complementary actions to help families to develop and progress. Although this is a universal program, women are the direct recipient of the cash transfers in the overwhelming majority of cases: in 93% of cases the female head of household receives the transfer directly.

The enormous success of this program is demonstrated by the decline of persons in extreme poverty, from 12% of the population in 2003 to 4.8% in 2008 (as reported in the Fourth Country Report of the Millennium Development Goals).

DIMENSION 4: ACCESS TO RESOURCES

(Indicator I.25 – OECD/GID Ownership rights; Indicator I.26 – Percentage of women and men using internet; Indicator I.27 - Percentage of women and of men using cell phones; Indicator I.28-A – Mobility Index (trips/person/day) according to sex in the Metropolitan Region of Rio de Janeiro (Brazil); Indicator I.28-B - Mobility Index (trips/person/day) according to sex in the Metropolitan Region of São Paulo (Brazil); Indicator I.29 - Share of women and men in urban and rural areas with access to electricity, according to the type of dwelling materials; Indicator I.30 – Share of women/men in urban and rural areas with access to piped sewerage, according to the type of dwelling materials)

³⁷ Oliveira *et alii* 2011

³⁸ Costa; Sorj; Bruschini & Hirata (2008). “Famílias monoparentais femininas, pobreza e bem-estar das crianças: comparações regionais”. pp 187-205.

³⁹ Sorj, B. & Fontes, A. (2008). Pp 204 (translated by A.Abreu).

As discussed in the quantitative report, data disaggregated by sex on ownership rights to land, houses and other property as well as access to credit, loans and venture capital, are hard to find in Brazil. However one can safely say that from the legal point of view women have full and equal access to all these rights, as mentioned above.

Indicator I.25 shows that women in Brazil experience no restrictions of property rights from the legal perspective. The Constitution of 1988 and the Civil Code of 2002 entrench complete equality between men and women in public and private spheres.

That being said, the government has been attentive to those specific cases where women would need specific incentives or support. One such case is the issue of access to credit and land rights for women in rural areas, as reported in the national report to CEDAW in 2008⁴⁰. In 1999 7% of women had access to the funds distributed by PRONAF (*Programa Nacional de Fortalecimento da Agricultura Familiar*/ National Program to Strengthen Family Agriculture), a national credit program for small family farmers. PRONAF Mulher/PRONAF Woman was created to target women; since 2004 women can access credit separately in their own name, regardless of whether her husband already has a PRONAF contract. The two tables below show that the percentage of female recipients of contracts has increased to 25% in 2005/6 with the percentage of resources to women reaching 15% in the same year.

Evolution of PRONAF contracts. Brazil, 2006		
Harvest year	No of contracts	% of contract with women
2001/2002	97.200	10,41
2002/2003	94.670	10,46
2003/2004	227.700	16,37
2004/2005	322.508	16,58
2005/2006	487.924	25,58
2006/2007	NA	29,60

Evolution of PRONAF credit funds. Brazil, 2006		
Harvest year	Volume of funds lent to women (millions of reais)	% of total credit resources
2001/2002	224	11,17
2002/2003	262	11,03
2003/2004	569	12,65
2004/2005	1.002	14,31
2005/2006	1.237	16,33
2006/2007	NA	17,00

Access to other resources, such as Internet and cell phones, are good indicators of Brazil's recent development.

⁴⁰ Brasil. Presidência da República. Secretaria Especial de Políticas para as Mulheres. VI Relatório Nacional Brasileiro. Convenção pela Eliminação de todas as Formas de Discriminação contra as Mulheres - CEDAW/Organizações das Nações Unidas. Brasília: Secretaria Especial de Políticas para as Mulheres, 2008. 224 p. — (Série Documentos)

Internet use has seen significant growth in the last decade. According to F/Nazca, 81.3 million Brazilians (12 years+) used the Internet⁴¹, while IBOPE/Nielsen tracked 78 million (16 years+ in September 2010). Fecomércio-RJ/Ipsos states that the percentage of Brazilians using the Internet increased from 27% to 48% between 2007 and 2011. Brazilians still use mainly public access (Lan houses) (31%), while 27% do so from their home and 25% from homes of relatives or friends.

The same bulletin using data from NIC.br,⁴² shows that by the end of 2010, 93% of households of class A had a computer. It is also impressive that 76% of class B and almost 40% of class C also had a computer at home in 2010.

Proportion of households with a computer - Brazil 2010		%
Total urban area		39
Family earnings	Up to 1 SM	8
	1 SM - 2 SM	22
	2 SM - 3 SM	43
	3 SM - 5 SM	62
	5 SM - 10 SM	78
	10 SM or +	90
Social Class	A	93
	B	76
	C	36
	DE	6
Source: NIC.br - set/nov 2010		

DIEESE shows that a higher proportion of women used the internet in 2010, a result of high use among young women. Men make up a larger share after 40 years of age. Women between 10 and 24 represented between 50 to 60% of Internet users in 2008. From the age of 24 their participation is lower than that of men, especially in the higher age brackets where they fall to about 9% of users (50 year+).⁴³

Numbers related to cell phones are also impressive.⁴⁴ According to the official telecommunication agency ANATEL, there were 236 million cell phones in Brazil by the end of 2011, with a density of 120.81 cell phones per 100 habitants. Of those, 81.5% used prepaid calling, which shows the predominance of the mobile in lower income groups.

Qualitative studies refer to the importance of cell phones for the self-employed and for daily workers, and this is also true for women. Domestic workers working on a daily basis, self-employed street vendors, or those working in services related to beauty sector such as manicurists and hair stylists, all profit from owning a cell phone and being able to reach or be reached by clients.

Urban transport in Brazil is well developed. São Paulo and Rio both have built underground systems (much larger in São Paulo), suburban trains and urban bus lines. In Rio, the suburban

⁴¹ http://tobeguarany.com/internet_no_brasil.php

⁴² The Núcleo de Informação e Coordenação do Ponto BR –NIC is a civil society organization that since 2005 implements the decisions and projects of the *Comitê Gestor da Internet no Brasil/ Internet in Brazil Management Committee*.

⁴³ Dieese. Anuário 2011 Tabela 104

⁴⁴ <http://www.teleco.com.br/imprimir.asp?pagina=/ncel.asp>

trains include a women-only car which has been in place for some years now. The problem in Brazil is not one of accessibility of transport, but of quality and length of trips to and from work for those living in the periphery of the large urban centres.

In terms of access to basic services, in 2003 a program called Luz para Todos / Light for all was created with the goal of achieving universal access to electricity across the country. Electricity has not been a problem in urban areas for several years, but coverage is not universal in rural areas. The aim is to have full coverage by the end of 2012. The official Ministry website states that more than 14 million persons living in rural areas have obtained access to electricity through the program.

A situation of close to universal access to electricity can be confirmed by data on ownership of household equipment. The table below shows head of household by sex and race, and related ownership of cookers, refrigerators, televisions, freezers, washing machines and cars, divided between "Poor" and "Not Poor". Cookers in Brazil are mainly gas cookers (either from distributed gas or from bottled gas), but refrigerators and televisions certainly indicate access to electricity.

One sees that of those households headed by non-black women among the poor, 99.3% owned cookers, 96.2% owned televisions, and 92.4% owned refrigerators. The equivalent percentages for households headed by black women are 98.7%, 93.7% and 85.8%. What is also interesting in these numbers is that one sees that female headed households tend to have a higher percentage of this basic household equipment compared to male headed households, irrespective of race.

Proportion of private households having selected household equipment by sex and color of head of household divided by poor and not poor income groups Brazil, 2009 (%)				
Selected household equipments	Men		Women	
	Black	Non Black	Black	Non Black
Poor				
Cooker	97,8	98,7	98,7	99,3
Television	90,1	93,5	93,7	96,2
Refrigerator	80,3	88,8	85,8	92,4
Freezer	5,6	11,0	5,4	8,3
Washing machine	12,2	23,4	16,7	29,7
Automotive vehicle	24,4	38,4	12,3	20,9
Non Poor				
Cooker	98,6	99,5	99,4	99,7
Television	95,0	97,8	96,6	98,5
Refrigerator	93,3	98,0	96,0	98,6
Freezer	13,2	24,9	10,8	18,6
Washing machine	39,0	64,1	39,4	64,2

Automotive vehicle	50,3	71,5	31,0	48,7
Source IBGE. PNAD. Elaborated by DIEESE				

A very different issue is basic sewage. Brazil continues to see large inequalities in management of sewage, clean water supply and garbage collection. This is true not only of rural areas but also in urban slums and poor neighborhoods.

In 2010 only about 80% of the urban population had access to piped sewage. This falls to 30% in rural areas. Difference of access between women and men are not significant.

DIMENSION 5: WOMEN'S AGENCY

(Indicator I.31 – Women as legislators; Indicator I.32 - Shares of women as ministers; Indicator I.33 - Women in senior positions or leaders in political parties, trade unions, employer's associations, NGOs and community-based associations; Indicator I.34 - Contraceptive use by women aged 15-49 years, according to age group and type of method used)

Women's effective participation in Brazilian political life started in 1932, when they earned the right to vote in national elections. This right was given only to certain groups of women: married women with the agreement of their husbands, widows and single women who were financially independent (had their own income).⁴⁵ In 1934 these restrictions were abolished, but women's vote was not mandatory as was the male vote. In 1946 the female vote was also made mandatory.

In spite of the right to vote, the election of women for executive and legislative posts has been very slow. Data for recent years have shown slow progress in increasing female representation in elected office, despite significant advances in the workforce and the education system. Brazil also compares poorly internationally, at position 109 in the list of the IPU União Interparlamentar.⁴⁶

Women in senior positions or leaders in political parties, trade unions, employer's associations, NGOs and community-based associations

As noted in the quantitative report, national statistics on women in senior positions are not very easy to come by. A possible indicator is given by DIEESE, which presents the distribution by sex of the supplement Brazilian public servants receive for holding positions of "Diretoria e Assessoramento Superior - DAS", which could be loosely translated as directors and senior advisors – i.e., all decision making positions. As with other indicators, although women represent around 43% of all civil servants receiving the supplement, they make up only 23% of those receiving DAS6, the highest level.

Civil servants with functions of directorship and senior advisory functions by sex and level (%) BRAZIL December 2010		
Levels of DAS functions*	MEN	WOMEN
DAS1	54.6	45.4
DAS2	54.3	45.7
DAS3	54.6	45.4
DAS4	61.9	38.1

⁴⁵ <http://www1.folha.uol.com.br/folha/brasil/ult96u367001.shtml>. Folha. Com 24/02/2008.

⁴⁶ GOMES, Alessandra Soares Muniz. "Sub-representação feminina na política é constatada também nos Secretariados dos Estados e das Capitais", in: Revista do Observatório Brasil da Igualdade de Gênero, Ano I, número 1. Brasília: Secretaria Especial de Políticas para Mulheres, 2009, pp. 82-85.

DAS5	74.4	25.6
DAS6	77.0	23.0
TOTAL	56.8	43.2
SRH/DMP Boletim Estatístico de Pessoal Elaborated by DIEESE in: DIEESE 2011. Graphic 31 pp. 229. (*) DAS6 is the highest levels, for Ministers of States and other high officials.		

Data on elected mayors in 2008 show an equally low proportion of women, 9.1%. Data on female members of chambers at the municipal level are not very encouraging either, around 12%.⁴⁷

Available data on Rectors (Deans and Chancellors of universities) for 2010 show that women made up around 13% of those positions.⁴⁸

Indicator I.34 - Contraceptive use by women aged 15-49 years, according to age group and type of method used

Brazil has seen a sharp decline in fertility in the last 30 or 40 years. The fertility rate has declined from 5.8 in 1968 to 2.3 in the mid 90s. In the 21st century this trend is still seen, although a recent PNAD study shows that in 2009 a slight increase can be detected.

Fertility rates by year - Brazil	
2001	2.33
2002	2.26
2003	2.14
2004	2.13
2005	2.06
2006	1.99
2007	1.95
2008	1.89
2009	1.94
Fonte IBGE ⁴⁹	

Following a similar trend, the demographic growth of Brazil in the 60s was around 3% a year. In the period 1991 to 2000 the average annual growth was 1.6%, in the first decade of 2000 it hovered around 1% and the projection for 2045-2050 is of 0.3% per year.⁵⁰

Many causes for this have been discussed: urbanization, higher education of women, and liberalization of society which influences stronger agency for women within the family.

One explanation for these trends, however, is the large increase in contraceptive use over the last 10 years. As noted earlier, family planning was part of the first health program for women in the 70s, and contraceptive use has been increasing steadily since then. Today about 70% of women between 15 and 49 years of age use some kind of contraceptive. The pill and female sterilization are still the most frequent methods, at around 32%, but the use of the pill has increased while female sterilization has significantly decreased. The use of a condom by the partner, at 23%, has

⁴⁷ DIEESE 2011, Table 124.

⁴⁸ DIEESE 2011, Table 148.

⁴⁹ <http://g1.globo.com/brasil/noticia/2010/09/ibge-taxa-de-fecundidade-volta-a-crescer-apos-7-anos.html>

⁵⁰ Moreira, Morvan de Mello. (2002) @ <http://www.fundaj.gov.br/tpd/117a.html>

significantly increased from 2001 (7.4%) and moreso in the younger age brackets, where it can reach 50% among 15 to 19 year olds.

Some comments should be made about abortion in Brazil.⁵¹ In spite of a strong mobilization of the women's movement during the voting of the 1988 Constitution, abortion is still illegal in Brazil, except in legally defined situations, e.g., risk for the mother or health problems of the foetus. The strength of the Catholic Church and in recent years of the evangelical community has blocked a genuine public debate as well as any vote in Congress to decriminalize abortion. The prevalence of illegal abortion, however, is high. A study in 2010 shows that one in five Brazilian women between 18 and 39 years of age living in urban areas has had an abortion. Abortions are more prevalent in women with lower levels of education, while religion does not seem to influence the rate of abortions: two thirds of women who had an abortion were Catholic, and one fourth Protestant or Evangelical, reflecting the religious distribution of the population.⁵²

DIMENSION 6: OPPORTUNITY AND CAPABILITY

(Indicator I.35 – Literacy rates of population aged 15 years and more by sex; Indicator I.36 - Shares of women enrolled in school; Indicator I.37 - Ratio of female/male population aged 25-64 years enrolled in school)

Formal education is perhaps the area where women in Brazil have showed the greatest progress in the last decades.

Literacy rates are not differentiated by gender, although women show slightly higher illiteracy rates in older age brackets. In the younger age groups, female literacy rates are higher than male.

There is gender parity in primary education enrollment, with a gender imbalance in favour of females at both secondary and tertiary levels. As shown below (Indicator I-36) females not only enter in higher numbers at the secondary and tertiary levels, but also finish their course of studies in greater numbers than males. This of course may be due to the fact that females show higher degrees of success in their studies but that young men leave school in higher numbers to enter the labor market.

Available data indicate that in 2009 56.8% of girls between 15 and 17 years of age attended secondary school, while only 45.3% of boys did.⁵³ This shows that the education problem in Brazil is not only a woman's problem. Only about 50% of young people of appropriate age are in secondary school. However, enrollments at the primary level have greatly increased.

Researchers are therefore calling attention to the fact that the next great challenge in education will be the explosion of demand for secondary education during the next decade, for which the country does not seem to be adequately prepared.

Although no quantitative indicator is available, technical training is an important factor in Brazil. As with other aspects of the educational system, the sector in Brazil is complex and composed of different types of organizations – from federal technical schools to a widespread private system of

⁵¹ http://www.vermelho.org.br/noticia.php?id_noticia=130176&id_secao=8.(26 de Maio de 2010 - 15h08)

⁵² DINIZ, Debora e MEDEIROS, Marcelo. **Aborto no Brasil: uma pesquisa domiciliar com técnica de urna.** *Ciênc. saúde coletiva* [online]. 2010, vol.15, suppl.1, pp. 959-966. ISSN 1413-8123. <http://dx.doi.org/10.1590/S1413-81232010000700002>.

⁵³ DIEESE 2011 tabela 29

training (*sistema nacional de aprendizagem*) linked to different economic areas (industry, commerce, agriculture, etc.) Active since the 40s, this system has trained millions of workers.

Women have certainly benefited from this process, as they have done in the education system as a whole, although their training is likely concentrated in certain skill areas. The SENAI, which is linked to the industrial sector, trained more than 2 million workers in 2010 and claims to have trained more than 50 million workers since its creation. SENAC, linked to commerce, also trained millions of workers in 2010, with a high representation of females.

The National Household Survey included a special supplement on professional training in 2007. The table below, constructed by DIEESE,⁵⁴ shows the number of men and women having attended professional training courses in different areas of the economy in 2007. With the exception of construction and industry, women make up the majority in all areas.

Distribution of persons having attended professional training courses by sex and professional areas. Brazil 2007 (%)		
Areas	Men	Women
Health and Social Well Being	22.4	77.6
Informatics	46.4	53.6
Construction/Building	88.0	12.0
Industry and maintenance	81.3	18.7
Esthetic and Personal appearance	7.6	92.4
Commerce and management	35.9	64.1
Other	41.3	58.7
Source: IBGE PNAD. Professional Education Supplement. DIEESE 2011. Graph 11.		

Brazil also has an extensive and diversified distance learning program, involving all federal universities and several private ones. Distance learning has been established in the country for many years, and the Enade⁵⁵ questionnaire found that there are 930,000 undergraduate students taking distance education courses⁵⁶. The great majority are training as secondary school teachers (426,000 doing “*licenciatura*”); with 235,000 following technological courses and 268,000 pursuing a Bachelor's level degree.

The table below allows us to sketch a profile of distance education students in Brazil. They are older (33 years of age in average); female (women represent almost 70%); from lower income

⁵⁴ DIEESE, or Inter-Union Department of Statistics and Socio-Economic Studies, is a creation of the Brazilian union movement. It was founded 1955 to develop research on which the workers’ demands could be based. Throughout its 50 years of history, the institution has earned itself national and international credibility. They publish reliable data on employment and income and have a yearly bulleting

⁵⁵ Enade is a National Exam of Student Performance (Exame Nacional de Desempenho de Estudantes) that is part of the National Evaluation System of Tertiary Education, and grades the performance of undergraduate students.

⁵⁶ Suplemento Estadão. Edu, Terça-feira 28 de Fevereiro de 2012, pp 6-8

groups (43%), not white (51%), and married (52%) with two or more children (44%). This student also contributes to the family income (39%), while 23% are the main provider of the family.

Profile of Brazilian undergraduate students (*) (%)		
Item	Courses with student present	Distance education courses
Average age of students (**)	26 years of age	33 years of age
Male	44.9	30.8
Female	55.1	69.2
Family income up to 3 minimum salaries	26	43
Family income more than 10 minimum salaries	25	13
Father with secondary or tertiary education	51	18
Mother with secondary or tertiary education	54	24
White	68	49
Married	19	52
Students with 2 or more children	11	44
Working and helping with the family budget	19	39
Main provider of the family	7	23
Source: Suplemento Estadão.Edu, 28/02/2012. Pp 6-8 (*) Socioeconomic Questionnaire of Enade 2008-2009 (**) University Education Census 2010		

CATEGORY II - KNOWLEDGE SOCIETY OUTCOMES

DIMENSION 1: WOMEN IN KNOWLEDGE SOCIETY DECISION-MAKING

(Indicator O.1 – Shares of women as senior officials; Indicator O.2 – Shares of women as legislators; Indicator O.3 – Shares of women in the Judiciary; Indicator O.4 - Shares of women as ministers; Indicator O.5 - Shares of women as ministers and secretaries at state and municipal levels; Indicator O.6 – Shares of women in legal and diplomatic careers; Indicator O.7 – Women’s share in decision-making positions in major businesses

The indicators related to this category, Knowledge Society Outcomes, reveal very clearly the challenges for women in Brazilian society. For in spite of a legal framework of gender equality and the strong inroads women have made in education and science, the outcome indicators show how difficult it is to achieve a significant representation of women in the higher levels of decision making, in the higher levels of the economy, the highest levels of an academic career and in the science and technology system.

The indicators presented in this dimension, Knowledge Society Decision Making, are clear, as many of the observations made in the quantitative report indicate.⁵⁷ Until 2010 no women had reached the highest office in the country, the presidency (indicator O.1). The number of Estate governors and mayors was around 5% in 2000, and 10% in 2010.

This has of course changed dramatically with the election of President Dilma Rouseff for the term 2011-2014. As we will see below, this has also affected the proportion of women ministers in the government.

Regarding participation in the legislature (Indicator O.2), numbers are very low considering the vitality of the Brazilian democratic process and the participation of women in public life. Free elections and a law that obliges all parties to present at least 30% female candidates for each function have not greatly increased the number of women in office. In 2010 the highest percentage of females was among the senators, in the higher chamber of the Brazilian parliament, around 14%. Among Federal deputies, women had not reached ten percent of the total in 2010 (9%), although there was an increase from 2000 (6%).

At the Estate and Municipal levels, the participation of women in the legislative chambers is around 12% and has remained in that level for the last ten years.

Some research has been done to identify the reason for such low levels of representation of women in legislative office⁵⁸. In Brazil the vote is cast for individual candidates and not for a party or a list defined by the party. With politics remaining a very masculine area, relying on large networks of family and local linkages, women candidates experience difficulty establishing their own voter base.

⁵⁷ Oliveira *et alii* (2011) pp 10-11

⁵⁸ <http://www.observatoriodogenero.gov.br/eixo/legislacao/publicacoes>; with special reference to Clara Araújo, “Potencialidades e limites da política de cotas no Brasil”, *Revista Estudos Feministas*, 231. 1/2001; and Mala Htun, “A Política de cotas na América Latina”, *Revista Estudos Feministas*, 225. 1/2001.

Another indicator presented is share of women in the judiciary (Indicator O.3). Women have a high level of representation in law schools, both at undergraduate and graduate levels (more than 50%), while their presence in the higher courts of justice is between 15 and 20%. Again, the strong inroads seen in the educational system have not been converted into a real presence in the higher levels of the profession. The lowest level of female participation is seen in the higher military court, where women represent around 7%.

If one looks at Indicator O.6, however, where data are presented on the representation of women in the legal profession as a whole, one sees that their numbers greatly increase so that they represent about 40% of those working at the Federal level. As mentioned by Oliveira *et alii* (2011), these data reflect participation in a prestigious career in the Brazilian public administration, with specific entry norms and rules that are universal. Women, therefore, enjoy a more level playing field that recognizes excellence and capabilities and, as in many other instances where this is the case, are able to compete on more equal terms.

The same is true of another prestigious career at the federal level, the foreign service. Diplomats in Brazil are recruited through a very difficult two-year course that has in addition a challenging entry exam. Only those approved in the Rio Branco course can then enter the foreign service. As shown in Indicator O6, women have a fairly strong presence in the diplomatic corps as a whole, around 40%. Women ambassadors, however, are not common, although some progress has been made. The number of women reaching Ambassador rank increased from around 5% in 2001 to 17% in 2012.⁵⁹

The presence of women in higher offices of the Executive in Brazil has, as mentioned above, changed drastically with the election of the first woman president. Indicators O.4 and O.5 show that the presence of women ministers was very low during the two terms of Fernando Henrique Cardoso. Under Lula, a slight increase in his first term was not sustained in the second. It is only with the election of Dilma Rousseff that a significant number of women were appointed to the highest positions in the Federal government. At the beginning of her mandate, women made up 26% of ministers. This has increased during her first year in office. It is also worth mentioning that for the first time a woman was appointed as President of Petrobrás, the Brazilian state oil company.

A similar picture is presented regarding the participation of women at senior levels in the private sector. The table presented for Indicator O.7 shows a some improvements during the period 2000-2009 (Oliveira 35 *alii*, 2011). As in other sectors, women represent a large part of the workforce at the lower levels, but make up only 20% of CEOs. However, this represents a substantial increase in numbers, from 13% to a little over 20%.⁶⁰

Data on this issue varies significantly, however. A recent report by McKinsey⁶¹, compares six European countries, the US and the BRIC. It notes that representation of women on corporate boards in 2010 in Brazil was 7%, and on executive committees, 6%. This is based on an analysis of 52 firms linked to BOVESPA, the Brazilian stock exchange. The general conclusion for all countries was that “the results show that women are still underrepresented at board level, despite some improvements in some countries.”

⁵⁹ <http://www.observatoriodegenero.gov.br/menu/noticias/politica-afirmativa-para-mulheres-no-itamaraty-esta-aumentando-numero-de-embaixadoras>; mentioning a book by Viviane Rios, “Diplomata: Substantivo Comum de Dois Gêneros”.

⁶⁰ This data was gathered originally by the Catho Group, a head hunting corporation in Brazil.

⁶¹ McKinsey (2010). *Women Matter 2010. Women at the top of corporations. Making it happen.*

That Brazil is attentive to this issue is confirmed by a program of the Secretariat for Women's Policies. Pro Gender Equity awards a seal of gender equity to those firms that present a program for increasing gender equality in their management policies.⁶² The program is in its fourth phase, and hundreds of firms, both public and private, have participated.

DIMENSION 2: WOMEN IN KNOWLEDGE ECONOMY

(Indicator O.8 – Shares of women in KS, non-agricultural and agriculture occupations; Indicator O.9 – Shares of women in different economics activities; Indicator O.10 – Share of women employed in the non-agricultural sector; Indicator O.11 – Share of women with computer skills; Indicator O.12 – Female participation among technology and information workers; Indicator O.13 – Share of women among undergraduate students by broad groups of education

The data presented in this session are similar from those presented in Dimension 3 Economic Status (Inputs), except for the fact that the focus here is on specific sectors more clearly linked to the knowledge society. Results from two major databases – from the Household Survey and the Ministry of Labor and Employment – confirm the inroads made by Brazilian women in important sectors of the economy. As would be expected they make up the majority in certain sectors, such as services and social, but females also show fairly large participation in many other sectors, such as industry and public administration.

Data by status of worker shows that females remain the majority in paid domestic work, but we also see an increase in self employed work by females and in female employers over the past decade.

Use of Internet and Internet skills are also increasing among females. As mentioned by Oliveira et alii, *“Changes in access to computer skills are noteworthy, both for women and for men. Abilities have been extended to more users among those who had ever used a computer (59% of the urban population aged 10 and over in 2010, compared to 41% in 2005). Men and women have experienced similar increases, but for more complex skills, women still lag behind. Nevertheless, the five-year comparison and the impressive differences in such a short period of time, for both sexes, suggest that forces of change are already set in motion. If this supposition proves to be correct, men and women will enlarge their command over computing in the coming years.”*

These positive trends do not appear so clearly, however, in the Ministry of Labor and Employment data on technology and information workers (Indicator O.12). Female participation in categories such as “technology and information managers”, “engineering and technological research”, and “information technology analyst” is at around 20%. Occupations related to biology and biotechnology have, however, a significant female majority.

⁶² <http://www.proequidadedegenero.net.br/> and <http://www.sepm.gov.br/subsecretaria-de-articulacao-institucional-e-acoestematicas/pro-equidade>

DIMENSION 3: WOMEN IN S&T AND INNOVATION SYSTEMS

(Indicator O.14 – Share of women among undergraduate students by fields of education; Indicator O.15 – Women among PhD degree grantees by broad knowledge area; Indicator O.16 – Shares of women employed in science and technology occupations; Indicator O.17 – Distribution of researchers by sex and leadership condition; Indicator O.18-A – Sex ratio of Brazilian researchers by leadership condition; Indicator O.18-B – Sex ratio of Brazilian researchers by leadership condition (Graph); Indicator O. 19 – Shares of women as grantees of Research Productivity Scholarships; Indicator O. 20-A – Sex ratio of Research Productivity grantees according to grant level; Indicator O. 20-B – Sex ratio of Research Productivity grantees according to grant level (Graph); Indicator O.21 – Brazilian skilled migrants residing in OECD countries by sex and migration rates; Indicator O.22 – Entrepreneurship measures by gender; Indicator O.23 – Entrepreneurs by sex)

Over the last few decades it has become increasingly recognized that scientific capacity is essential to the national development of a country. Science, technology, engineering and innovation are seen as leading elements for social and economic development as well as the driving force behind the knowledge-based economy.⁶³

It is also increasingly recognized that developing countries need to create the indigenous scientific capacity to understand, engage in and contribute to international scientific research and innovation, so that they can gain the capacity to create, apply and adapt science and technology for knowledge-based development.

But to do this, it is important to engage all citizens. Democracy and sustainable development cannot be achieved without the full and equal participation of both women and men. A growing body of research has identified progress to date and the remaining challenges for full integration of women in SCIENCE AND TECHNOLOGY development. Although women today can make up the majority of students at the tertiary level in many Western countries, the limited participation of women in certain disciplinary fields can still be seen, particularly in higher levels of the science and technology system. A large number of international reports have been produced in recent years⁶⁴, and their findings bring together the knowledge available in this field in many countries and regions of the world.

This session will provide a brief snapshot of the situation of women in science in Brazil, assessing the achievements of the last ten years and remaining challenges. Brazil is an interesting case study, since it has a well-established science and technology system, strong women's representative organizations (both governmental and nongovernmental) and a policy structure for S&T development.

Women in science in Brazil

As discussed in Dimension 7, Enabling Policy Environment, a steady investment in science and technology has resulted in a strong and growing S&T system in the country. One example is the

⁶³ For a thorough discussion of the issue see OAS (2005).

⁶⁴ IAC 2006; OECD 2006; EC 2008; UNESCO 2007; EC 2009 and 2009a.

growth scientific publications in the country: in 2008, about 30.000 papers were published in scientific journals, representing 2.6% of global publications.⁶⁵ (Figure 5).

What do we know about the position of women in this robust S&T system and what trends can be detected?

Overall, Brazil has progressed significantly in addressing gender issues and reducing gender gaps in this sector. Women today make up 44% of workers in the labor force, and their activity rates increase substantially with education. In 2000, women with university degrees had an 82.3% labour force participation rate, while the average rate for all women is 45.2%. This was still lower than masculine activities rates at 90.6% for those holding university degrees and 72.6% on average, but they are exceptional if compared to other countries in Latin America and the Caribbean.⁶⁶

Women made up 55% of all university students in 2008, with 60% finishing a university degree (Table 2). The distribution of women students by discipline follows the pattern seen in other countries: a large majority female representation in the humanities, equal status or a small majority in social sciences and health sciences, and a minority in exact sciences and engineering. In the Brazilian university system all university courses in the Federal and State system are free, although there are stiff entry examinations for the most prestigious. This may partly account for the comparatively high percentage of female students at the tertiary level.

Number of students enrolled and concluding in undergraduate courses (tertiary level) by sex - Brazil 2008				
	Total	Men	Women	% Women
Enrolled	5.080.056	2.307.228	2.772.828	54,58
Concluding	800.318	321.650	478.668	59,81
Source: MEC/INEP/DEED, CEFET/IFET - Centro Federal de Educação Tecnológica e Instituto Federal de Educação, Ciência e Tecnologia. In: Abreu 2010				

With respect to teaching staff, in 2008 women represented 45% of university teachers at the national level (Table 3). No data on the proportion of women reaching the highest level of full professor are available. Given that in Brazil the recruitment for public sector universities is by public competition and that the Full Professorship is also by public competition, it will be important to know whether this process has resulted in a higher number of female faculty compared to other countries.

Teaching functions in universities by sex - Brazil 2008				
	Total	Men	Women	% Women
Brazil	338.890	186.720	152.170	44,90
Public	119.368	67.443	51.925	43,50
Private	219.522	119.277	100.245	45,67
Source: MEC/INEP/DEED, CEFET/IFET - Centro Federal de Educação Tecnológica e Instituto Federal de Educação, Ciência e Tecnologia				
Note: The numbers do not correspond to individuals, since the same teacher can exert a teaching function in one or				

⁶⁵ Abreu 2010, Figure 5

⁶⁶ Bruschini (2000), p. 152.

more institutions.

Two case studies are worth mentioning. The first is a case study of the Federal University of Rio de Janeiro in 1990 which showed that there were no female full professors at the Engineering School; and that at the School of Medicine only 14.29% of full professors were female.⁶⁷

The advances of recent decades are reflected in a study of one of the large state universities of São Paulo, UNICAMP. In 2006 women represented 34% of the total number of teachers. However, while females made up 42% of those holding a PhD, they made up only 23.2% of full professors. This is nevertheless a substantial increase from 1994, when only 10.3% of full professors were female.⁶⁸

Research in S&T

More information is available on research in S&T as a result of the census of research groups undertaken by CNPq. The Census of Research Groups collects information on active research groups beginning in 1993. This information is voluntary and provided by research group leaders. The database shows a substantial increase in the participation of female researchers, who represented 39% of all researchers in 1997, increasing to 49% in 2010 (Indicator O.17). Among research leaders women accounted for 45%.

As can be expected, however, differences in the different research areas remain. In 2008, the last year for which data are available, women make up a majority (around 60%) in arts and linguistics; health sciences and human sciences, and participate at around 50%, in applied social and biological sciences. Surprisingly perhaps, women make up approximately one third of researchers in engineering; exact and earth sciences; and agrarian sciences.

CNPq Census of Research Groups % of women researchers by scientific area Brazil 2008	
Scientific Area	% of Women
TOTAL	48.89
Engineering and Computer Sciences	27.31
Exact Sciences and Earth Sciences	33.73
Agrarian Sciences	37.86
Applied Social Sciences	47.69
Biological Sciences	53.29
Human Sciences	59.27
Health Sciences	60.40
Arts and Linguistics	66.46
Source: CNPq, Census of Research Groups. In: Abreu 2010	

Participation of women as research leaders also varied among disciplinary areas. Representing 45% of all leaders in 2010 and 44% in 2008, the distribution by area in 2008 shows that female participation varied from around 60% of research leaders in the areas where women make up a

⁶⁷ Tabak, F. (2002).

⁶⁸ Vasconcelos, E. C. C. e Brisolla, S.N. (2009).

majority of researchers, to almost parity in applied social sciences and biological sciences. In exact and earth sciences and applied social sciences, the leadership representation of women is more or less equal with their participation in those areas, around 30%. In engineering and computer sciences, however, female leadership is well below their participation as researchers, at 20% .

CNPq Census of Research Groups % of Women Group Leaders by Scientific Areas 2008	
Scientific Areas	% Women Group Leaders
Engineering and Computer Sciences	21.90
Exact Sciences and Earth Sciences	28.21
Agrarian Sciences	32.29
Applied Social Sciences	44.20
Biological Sciences	51.26
Health Sciences	55.44
Human Sciences	56.37
Arts and Linguistics	66.49
TOTAL	44.52
Source: CNPq. Census of Research Groups	

In the CNPq database, each research group lists not only researchers but also all students linked to each project. Analysis of sex distribution of students in 2008 shows females make up the majority at all levels: they represent almost 60% of all students, as well as 55% of PhD students and 57% of MSc students.

CNPq census of research groups percentage of women students in research groups – by level 2000 to 2008					
	% of Women				
Level of Students in Research Groups	2000	2002	2004	2006	2008
PhD	49.12	51.79	52.76	54.37	55.12
MSc	52.23	55.06	55.74	56.73	57.66
Undergraduate	58.18	58.09	57.38	58.52	59.51
Total	54.11	55.68	55.97	57.25	58.20
Source: CNPq. Census of Research Groups					

PhD programs and capacity building

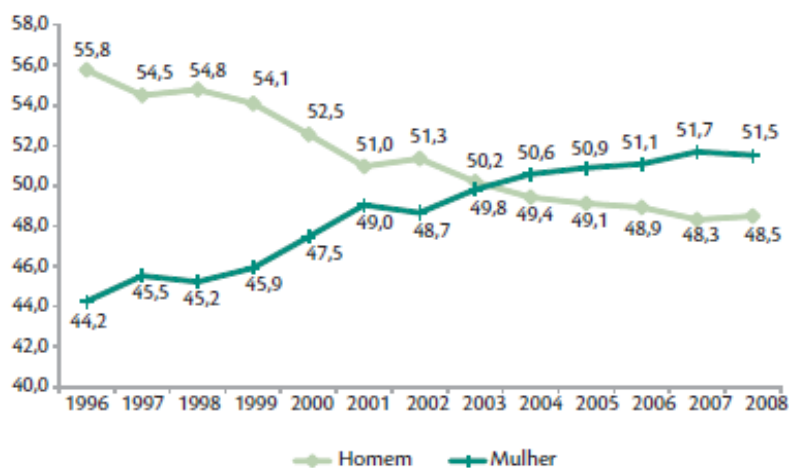
These findings are confirmed by another set of data, based on information gathered by CAPES from 2500 national graduate programs. Every graduate course in Brazil submits an annual report which serves as the basis for the evaluation and program grading process. CGEE 2010, explored

this data in great detail and provides a clear picture of the PhDs graduates in Brazil between 1996 and 2008.

During that period more than 87,000 students received their PhD in Brazil. As mentioned above, in 2008 more than 10,000 PhDs were awarded, which represents 3.8 times the number of PhDs awarded in 1996 (2,800).

Since 2004, the majority of PhDs have been awarded to women; in 2008 they represented 51.5% of all PhDs, as can be seen in the figure below.

Distribution of PhDs by sex – Brazil 1996-2008



Source: Coleta CAPES (CAPES, MEC). In: CGEE 2010 p.101.

Comparing 1996 to 2008, we see an increase of women PhDs in all scientific areas. The only area with a decrease is the already highly feminine arts and linguistics, which saw over 60% females among PhDs in 2008. Even in engineering and exact and earth sciences, the percentage of women PhDs is near or over one third.

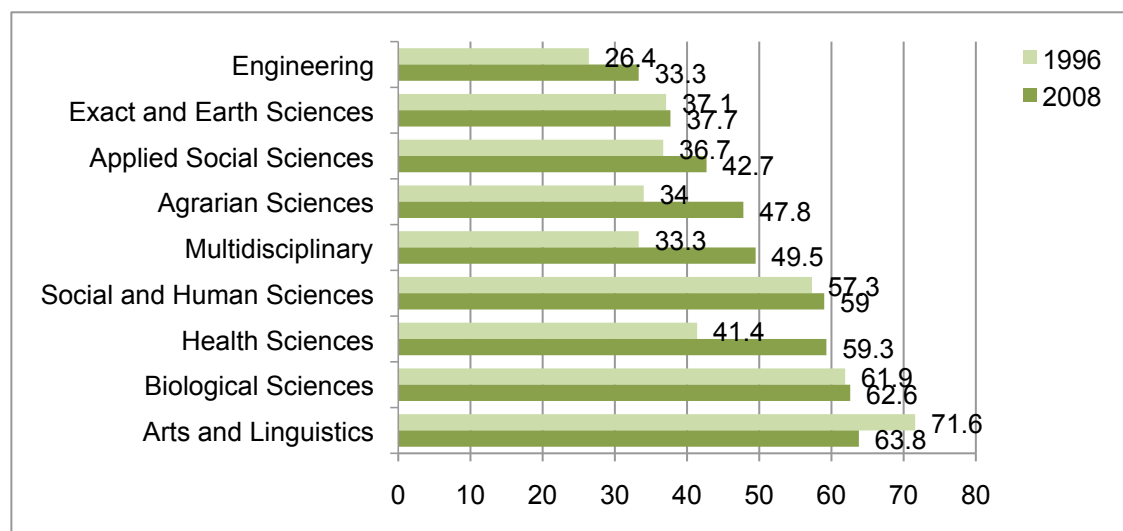
To understand which areas continue to graduate fewer female PhDs, one must look at the statistical annex that lists specific disciplinary areas.⁶⁹ In the engineering disciplines of mechanical, electrical and naval engineering less than 20% of PhDs are awarded to females in the period considered; other engineering disciplines, however, show an impressive percentage of female PhDs, such as chemical and sanitary engineering, which may even show a majority of women in some of the years considered.

In exact and earth sciences, astronomy and physics graduate less than 20% female PhDs, while mathematics and computer science see a representation of between 20 and 30% females in the same period.

⁶⁹ CGEE 2010, p. 171 to 177,

Interestingly, two disciplines in the humanities and social sciences also see a lower participation of women – philosophy and political science. In the applied social sciences, economics and law continue to graduate a larger number of male PhDs.

Distribution of Brazilian PhDs by % of females in scientific areas Brazil 1996 and 2008



Source: Coleta CAPES (CAPES, MEC). In: CGEE 2010 p.103.

Advancement in the research career

Another set of data can help us to understand the place of women in the Brazilian research system: information on scholarships granted by CAPES and CNPq. Both agencies award a large number of scholarships on a competitive basis at all levels of training. Since 2002 women have made up the majority of students receiving undergraduate research and MSc scholarships. In 2008 they also represented the majority of PhD scholarships. In all these categories there has been a consistent increase in the participation of women over the last five years. This confirms the findings of the other database used in the two previous sections, that there is a significant increase in the participation of women in the training and capacity building system in the country.

However, information on a different type of scholarship will provide a glimpse of what happens after the long training process of a scientific career, i.e., what happens after the PhD for those who remain in the research and education track..

The Senior Research Fellowships program awards around 6000 scholarships on an extremely competitive basis to the best researchers in the country. This is the only category in which the participation of women has remained more or less stable over the last decade, with around 32 to 33% of fellowships awarded to female researchers.

The Senior Research Fellowships define five levels of excellence ranging from 2, the initial entry point, to 1D, 1C, 1B and 1A. At the highest level of 1A, women have represented only 22 to 23% of grantees over the last 10 years.

CNPq – Total number of scholarships awarded by category Percentage of women – 2002 -2008				
Category of Scholarship	% Women			
	2002	2004	2006	2008
Undergraduate (IC)	54	54	55	57
MSc (GM)	52	50	52	52
PhD (GD)	49	49	50	51
Post Doc (PD)	39	48	52	51
Senior Research Fellowship (PQ)	32	33	33	34
Total	48	48	48	49
Total Number of Scholarships	45.348	48.596	55.004	58.869
Source: CNPq/AEI Table 29.1 Sexo_Mod_Pais Ext_0108_n°				

Analysis of why this is the case is hard to find, but an interesting recent article looks at Senior Research Fellowships in physics from 2003 to 2007. The authors conclude that “the average number of publications of the female researchers is 72% higher than the same number for the male researchers at the entrance level, indicating that it is harder for young female scientists to enter into the research system”.⁷⁰

Much analysis around the issue of women's advancement in scientific careers refers to the small number of women on high level committees and commissions. The Senior Research Fellowships are awarded based on recommendations of 50 advisory committees in different disciplinary areas. It is possible to analyze the composition of these committees for the Fellowships awarded in December 2009, a total of 5,826. The 50 committees were made up of 238 scientists, of which 24% were women. The proportion of women varied greatly, however, according to area: they made up 50% of committee members in humanities and applied social sciences; 22% in life sciences; and 5% in engineering, exact sciences and earth sciences. Seventeen committees had no female members at all.

CNPq – Membership of advisory committees for the selection of senior research fellowships - % of women by scientific area. December 2009			
Scientific Area	Total Number of Members	Number of Women	% of Women
Humanities and Applied Social Sciences	57	29	50%
Health Sciences	98	23	22%
Engineering, Exact Sciences and Earth Sciences	83	6	5%

⁷⁰ Cotta, M.A.C.; Caldas, M.J.; and Barbosa, M.C. (2009)

Total	238	58	24%
Source: CNPq webpage			

As another possible indicator of women's participation in the higher levels of the system, data were gathered from the 112 National Institutes of Science and Technology concerning a program that awards substantial funding for five to ten years to high profile institutes in all disciplinary areas. A search of the websites of 109 institutes⁷¹ identified 120 leaders, of which 21 are women (25%). Thirteen institutes show women as vice leaders.

Civil society and academic institutions

The participation of women in the most prestigious scientific institution in Brazil, the Brazilian Academy of Sciences, is not high, although it compares favorably with academies of science in other countries, particularly in the developed world. An analysis of membership in October 2009 shows that, overall women represent 13.3% of members. This figure has not changed substantially from the beginning of the decade. As expected, representation varies within the different disciplines of the Academy, from 38% in the recently accepted discipline of social sciences, to 3.8% in engineering (Table 11). Over its long history, the Academy has never elected a female president. On the present Board, all directors are men, but among the six regional vice presidents there is one woman.

Nevertheless, the Academy has developed several important initiatives related to gender. It sponsors, to my knowledge, the only non-governmental program supporting young women scientists in Brazil – a partnership with the L'Oreal-UNESCO Women for Science program. Now in its fifth year, the program awarded seven one year fellowships/grants for young women researchers in Brazilian institutions in 2009. The program includes four disciplines: physical sciences; chemical sciences; biological, biomedical and health sciences; and mathematics.

Brazilian Academy of Science – Membership by sex and scientific area – October 2009			
Scientific Area	Men	Women	% Women
Agrarian Sciences	17	4	23,5
Biological Sciences	21	7	33,3
Biomedical Sciences	85	15	17,7
Engineering Sciences	26	1	3,9
Health Sciences	20	2	10,0
Earth Sciences	40	2	5,0
Physics	66	4	6,1
Mathematics	46	3	6,5
Chemical Sciences	42	7	16,7
Social Sciences	13	5	38,5

⁷¹ The webpage of 3 institutes were not accessible. Several institutes identified more than one leader.

TOTAL	376	50	13,3
Source: ABC special compilation September 2009			

The other large scientific institution, the Brazilian Society for the Advancement of Science (SBPC), has a history of greater gender equity from the 80s onwards. It has had two women presidents, from 1986 to 1989 and from 1999 to 2003. The current president is female, in office since 2011. From the mid 80s on, women have been members of the board of directors in different functions.

There is no consolidated information on the many scientific disciplinary societies and associations that are active in Brazil, but an informed guess would be that women scientists have a strong presence in these institutions. This is another set of data that should be explored.

DIMENSION 4: WOMEN AND LIFELONG LEARNING

(Indicator O.24 – Share of women among directors of municipal public libraries)

The way the two original indicators were expressed, “Women as users of (village) knowledge centers” and “Women as managers of (village) knowledge centers” has little direct application in Brazil. With 85% of its population living in urban areas, the process of “building open learning communities with the support of ICT and based on locally relevant content” would need to be inserted in an urban environment and probably for poor communities in the peripheries of the major cities or, as in Rio de Janeiro, interspaced in the urban environment as a whole.

The Observatório de Favelas (“Slum Observatory”)⁷², might be a useful resource here. It is a social organization that undertakes research, consultancy and public action to produce knowledge and develop political proposals focused on slums and urban issues. Founded in 2001, it is a non-governmental organization with headquarters in Maré, Rio de Janeiro, operating throughout Brazil. The founders and current members are researchers and professionals whose own roots lie in the slums.

The Observatório’s mission is to develop concepts, projects, programs and practices that contribute to the formulation, monitoring and evaluation of public policies designed to overcome social inequalities. To be effective, these policies must be designed to extend rights, encourage participatory citizenship and guarantee human rights in the slums. It has projects and actions in three institutional areas: territorial development, communication and culture, and human rights.

An interesting proxy indicator was provided in the quantitative report: the proportion of women as directors of municipal public libraries. “Data come from the first National Census of Municipal Public Libraries (BPMs), conducted under the auspices of the Ministry of Culture of Brazil in 2009, and covering the 5,565 existing municipalities. It shows that, in 2009, 79% of Brazilian municipalities had at least one open public library, which represents 4,763 municipal libraries in 4,413 municipalities.” The presence of women here is very strong, reaching 80% in all regions of the country, 56% with university-level education.⁷³

⁷² <http://www.observatoriodefavelas.org.br/observatoriodefavelas/en/home/index.php>

⁷³ <http://www.cultura.gov.br/site/2010/04/30/primeiro-censo-nacional-das-bibliotecas-publicas-municipais/>

BIBLIOGRAPHY

- Abreu, A. R. de P. 2010. "Women for Science in Brazil". International Sociological Association E-Bulletin. Number 16, July 2010. pp 64-89
- Brasil. Ministério da Saúde - Secretaria de Vigilância em Saúde - Departamento de DST, Aids e Hepatites Virais. (2009) *Boletim Epidemiológico - Aids e DST*. Ano VI - nº 1 - 27ª a 52ª - semanas epidemiológicas - julho a dezembro de 2008 . Ano VI - nº 1 - 01ª a 26ª - semanas epidemiológicas - janeiro a junho de 2009. ISSN: 1517-1159.
- Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Análise de Situação de Saúde. (2004) *Saúde Brasil 2004 – uma análise da situação de saúde /* Ministério da Saúde, Secretaria de Vigilância em Saúde, Departamento de Análise de Situação de Saúde. – Brasília: Ministério da Saúde, 2004. 364 p.: il. color. – (Série G. Estatística e Informação em Saúde)
- Brasil. Ministério de Trabalho e Emprego. (2010). *Boletim do Observatório do Mercado de Trabalho*. Resumo dos Principais Indicadores do Mercado de Trabalho No 10. Dados CAGED. Dezembro 2010.
- Brasil. Presidência da República. (2010) *Relatório Nacional de Acompanhamento. Objetivos de Desenvolvimento do Milênio*. Março de 2010. Capítulo 6. pp 98-118
- Brasil. Presidência da República. Secretaria Especial de Políticas para as Mulheres. (2008) VI *Relatório Nacional Brasileiro*. Convenção pela Eliminação de todas as Formas de Discriminação contra as Mulheres - CEDAW/Organizações das Nações Unidas. Brasília: Secretaria Especial de Políticas para as Mulheres, 2008. 224 p. — (Série Documentos)
- Bruschini, C.; Riboldi, A.M. & Mercado, C.M. (2008). "Trabalho e Gênero no Brasil até 2005: uma comparação regional." In: Costa; Sorj; Bruschini & Hirata (2008). pp. 15-33.
- Costa, A. de O.; Sorj, B.; Bruschini, C. & Hirata, H. Orgs. (2008). *Mercado de Trabalho e Gênero. Comparações Internacionais*. Rio de Janeiro, Editora FGV.
- Dedecca, C.S. (2008). "Regimes de trabalho, uso do tempo e desigualdade entre homens e mulheres". In: Costa; Sorj; Bruschini & Hirata (2008). pp 280-297
- DIEESE (2011). *Anuário das mulheres brasileiras*. São Paulo, DIEESE. 300p. ISSN 2236-238X
- Diniz, Debora & Medeiros, Marcelo. (2010) "Aborto no Brasil: uma pesquisa domiciliar com técnica de urna." *Ciênc. saúde coletiva* [online]. 2010, vol.15, suppl.1, pp. 959-966. ISSN 1413-8123. <http://dx.doi.org/10.1590/S1413-81232010000700002>.
- Hirata, Helena. (2010) "Emprego, responsabilidades familiares e obstáculos socio-culturais à igualdade de gênero na economia". Revista do Observatório Brasil da Igualdade de Gênero. 1ª Impressão. Brasília: Secretaria Especial de Políticas para as Mulheres, 2010. Pp 45

- Hirata, Helena; & Kergoat, Daniele. (2008). “Divisão sexual do trabalho profissional e doméstico: Brasil, França, Japão”. In: Costa; Sorj; Bruschini & Hirata (2008). Pp 263-279.
- Huyer, S. and Hafkin, N. (2007). *Engendering the Knowledge Society: Measuring Women’s Participation*.
- Inter-American Commission of Women. OAS. (2011). *Advancing gender equality in the context of decent work*. (OEA documentos oficiales ; OEA/Ser.L) (OAS Official Records Series ; OEA/Ser.L). September 2011
- Lombardi, M.R. (2008). “Engenheira e gerente: desafios enfrentados por mulheres em posições de comando na área tecnológica”. In: Costa; Sorj; Bruschini & Hirata (2008).pp387-402
- McKinsey (2010). *Women Matter 2010. Women at the top of corporations. Making it happen*. http://www.mckinsey.com/locations/swiss/news_publications/pdf/Women_Matter_2010_4.pdf
- Moreira, Morvan de Mello. (2002). “Mudanças estruturais na distribuição etária brasileira: 1950-2050.” Fundação Joaquim Nabuco. Trabalho para Discussão no. 117/2002. Maio 2002
- Natália Fontoura, Luana Pinheiro, Marcelo Galiza, Márcia Vasconcelos.(2010) “Pesquisas de uso do tempo no Brasil: contribuições para a formulação de políticas de conciliação entre trabalho, família e vida pessoal”. Revista Econômica, Rio de Janeiro, v 12, n 1, junho 2010
- Neri, Marcelo C. (2010) “The decade of falling income inequality and formal employment generation in Brazil”. IPEA Centro de Políticas Sociais and EPGE Fundação Getúlio Vargas. <http://www.oecd.org/dataoecd/16/45/45284971.pdf>
- Oliveira, Maria Coleta; Marcondes, Glaucia dos Santos; Vieira, Joice Melo & Aparício, Rosário (2011) *National Assessments on Gender and STI, Brazil, Quantitative Report*. December.
- Rizavi, S.S. & Sofer, C. (2008) “Trabalho doméstico e organização do tempo dos casais, uma comparação internacional”. In: Costa; Sorj; Bruschini & Hirata (2008). P 107-124
- Sorj, B. & Fontes, A. (2008). “Famílias monoparentais femininas, pobreza e bem-estar das crianças: comparações regionais”. In: Costa; Sorj; Bruschini & Hirata (2008). Pp 187-205.
- Waiselfisz, J. J. (2006). *Mapa da violência 2006. Os jovens do Brasil*. Brasília, OEI, 2006.
- World Bank (2002). “Brazil Gender Review. Issues and Recommendations.” The World Bank Report no. 23442-BR. Brazil Country Management Unit. Poverty Reduction and Economic Management Unit. Latin America and the Caribbean Region. January 23, 2002.