



THE ELSEVIER FOUNDATION

**National Assessments on
Gender and Science, Technology and Innovation**

Country Results: USA

The National Assessments on Gender and STI project is a collaborative initiative between Women in Global Science and Technology (WISAT), the Organization for Women in Science for the Developing World (OWSD) and futureInnovate.net. The current phase, funded by the Elsevier Foundation, tests the Gender Equality – Knowledge Society (GEKS) framework in six countries and one region: Brazil, India, Indonesia, Republic of Korea South Africa, the USA and the European Union. These countries were chosen because of the size of their STI sector and the existence of an STI policy environment.

The Gender Equality Knowledge Society (GEKS) indicator framework was developed in response to the situation that not only are many women — particularly those in the developing world — on the wrong side of the digital divide, they are on the wrong side of the knowledge divide: worldwide their capacity is grossly under-developed and under-utilized. They are at risk of becoming increasingly marginalized in the knowledge society and related science, technology and innovation systems. Not only do they have less access to information and technology, they are poorly represented in the educational, entrepreneurship and employment opportunities in science, technology and innovation (STI) that base a knowledge society.

The GEKS framework is organized into three sections – Inputs, Outcomes and Enabling Policies, each comprised of key data indicators:

Inputs	Health, social status, economic status, access to resources, agency, opportunity and capability
Enabling Policy Environment	National knowledge society policies; childcare, equal pay, flexible work, infrastructure; CEDAW status; gender mainstreaming in government institutions
Outcomes	Knowledge society decision making; knowledge economy; S&T decision making, STI participation

Results and Findings:

From the national level research and data analysis, preliminary results affirm that women have lower levels of access to the productive resources necessary to support active engagement in the knowledge society – property (land); financing; technology; and education. In turn their representation in employment, entrepreneurship and research is lower in key sectors of the knowledge society, while women in most of the most countries under study are experiencing inequality of opportunity.

Main findings are that the key factors to promote women's participation in national STI and knowledge systems are: economic status, access to resources, and enabling policies.

It is also clear that more consistent and systematic collection of sex-disaggregated data at the national and international levels is necessary to develop the policies that will allow countries to profit from the underutilized potential of their female population.

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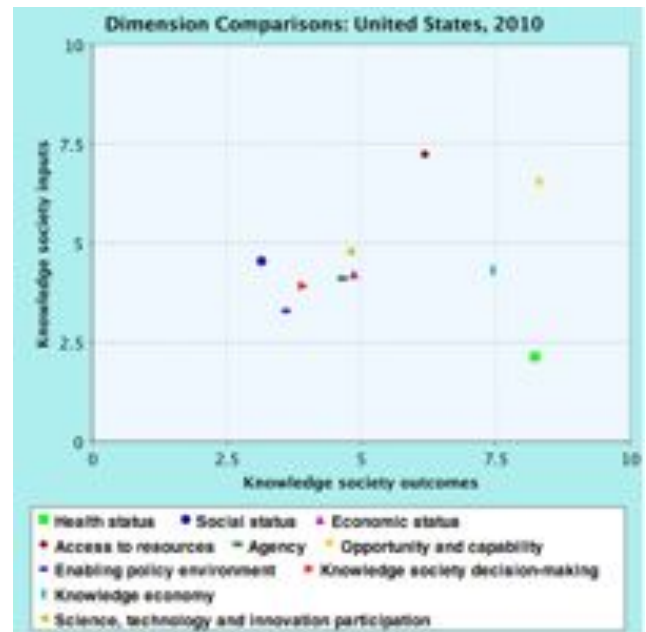
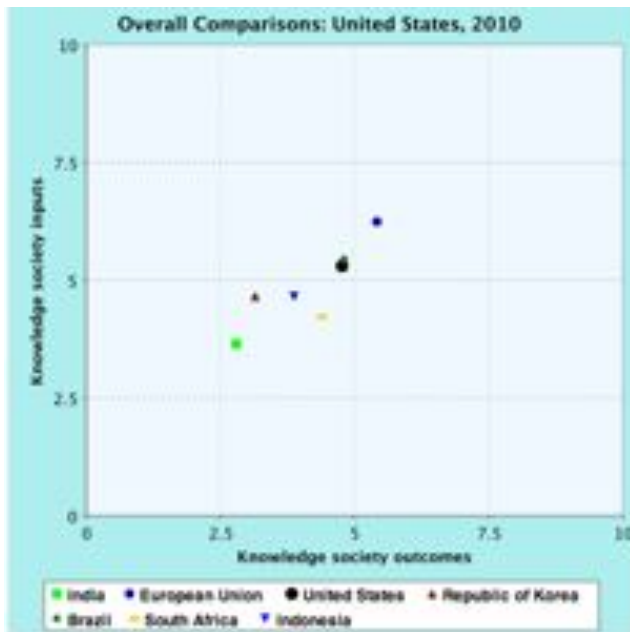
Full papers and key findings are found at www.wisat.org/programs/national-assessments-on-gender-sti/.



United States 2010-11

Key Indicators

Population	313,085,000
Number of females per 100 males	103
Level of Human Development (HDR) / Rank	High - 4
CEDAW signatory	No
Percentage of government spending on R&D/ST ¹	2.8



The **United States** ranks second overall (after the European Union), but fifth in health, agency, and social status. Its high overall status comes from a primary ranking in the opportunity and capability as well as the knowledge society decision-making dimensions – relating to educational levels of women and their positions in private sector decision-making. The US comes in second in economic status and access to resources but ranks lowest in enabling policies. While it ranks higher in other sectors, this finding indicates that a more favourable policy environment for the US could be an important strategy towards addressing economic competitors in other parts of the world and a strategy for regenerating economic growth after the economic crisis of 2010.

¹ Battelle 2012 Global R&D Funding Forecast

By Dimension



Dimension 1: Health Status. Women have more positive health outcomes than men in the US. Women have higher healthy-life expectancies (72 years vs 68), higher life expectancies in general, and lower rates of malaria, tuberculosis, HIV and AIDS. In 2009, women were expected to live until age 81 and men, age 76. Men are five times more likely than woman to suffer from tuberculosis. Men were also 2.5 times more likely to contract HIV/AIDS than women.

Dimension 2: Social Status. After the US Violence Against Women Act was passed in 2000, violence against women by a domestic partners decreased by more than half over the next eight years. Rape is most prevalent (more than half of all rapes) among young girls and women ages 12-24 years of age. Traditional gender roles still apply in the division of labor. Men work more than women outside the home, and women work more than men in the home. On average, men work almost one hour more daily as employed persons than women and women work about one hour more per day on household activities including caring for and helping other household members. Sex ratio at birth is at the global average.



Dimension 3: Economic Status. Women make about 80 percent of what men earn for equivalent work and are more likely to be unpaid family workers than salaried or self-employed workers. The gap has decreased from 60 percent in 1980, due largely to stagnation in men’s incomes rather than an increase in women’s. The proportion of the workforce that is female has increased since the 1970s: women represented 38 percent of all employed persons in 1970, by 2009, that figure increased to almost 50 percent (47%) of all employed persons. Nevertheless, women are more likely than men to work part-time and to leave the labour force for periods of time to care for children. They are also more likely to live below the poverty level than men, although the gap narrowed between 2008 and 2010 when the economic recession caused an increase in the number of men living in poverty.

Dimension 4: Access to resources. Denying credit or loans on the basis of sex is prohibited in the U.S., but women receive less than 7% of venture capital. The US is one of the few countries with roughly equal internet access between females and males, of both, just over 70% use internet. Slightly lower percentages use wireless internet access, approximately 61% males and 56% females.



Dimension 5: Women’s agency. Women account for only 17 percent of all congress representatives, 22 percent of statewide elected executives, and 25 percent of state legislative positions (2009). The representation of females in congress and state houses has increased slightly since 2002. Almost all U.S. women who are sexually active have used some form of birth control. The most common forms of birth control are the pill, female sterilization, and condoms. Abortion is not available in all states.

Dimension 6: Opportunity and capability: Females enroll in secondary, postsecondary, and adult education courses at higher levels than men. While they generally have slightly higher reading literacy scores, males perform slightly better in quantitative literacy (2003). From 2005-2009, gross enrollment ratio for girls was 101% percent at the primary level compared to 102 percent for boys. At secondary level, the rates are 96.5 for girls and 95.5 for boys, while at the tertiary level, ratios for women are substantially higher than for men, at 111% vs 79%. Women are more likely to enroll in adult education and to engage in lifelong learning, and less likely than men to enroll in apprenticeship programs. Women visit libraries more and use the Internet at about the same rate as men.



Dimension 7: Enabling Policy Environment. U.S. laws prohibit gender discrimination in school enrollment, in hiring and pay, in automatic preferences for males to receive inheritances, in property ownership, and in denying credit. It is illegal to exclude students on the basis of their sex from any program or activity that receives federal assistance. Moreover, the U.S. government has recently established a federal Council on Women and Girls, located in the White House, to ensure that all presidential advisors and the agencies they oversee consider how their policies and programs impact women and girls. Men no longer control women’s rights to own property or make decisions regarding property. Women are the majority of beneficiaries of the two federal health insurance programs (Medicare and Medicaid) because they are more likely to be the sole caregivers of dependent children and because they live longer than men. The US first passed a federal Violence against Women Act in 1994 with subsequent renewals through the present. Although U.S. laws show a commitment to end discrimination against women, the U.S. has not ratified the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW).

Dimension 8: Knowledge Society Decision Making. The US ranks first in knowledge society decision making, although participation overall is low. It shows medium levels of membership in science academies at 8.5% (lower than South Africa, Brazil and Indonesia), high levels of participation in management participation (43% in 2008), and comparatively high levels – at 17 and 22% – of participation on corporate boards and university and research leadership.

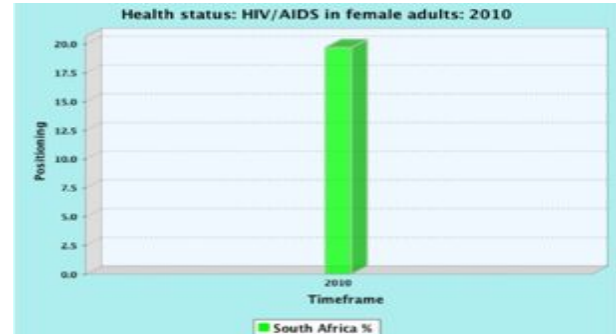
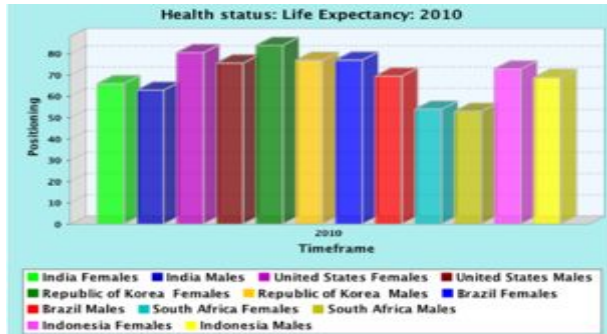


Dimension 9: Women in the knowledge economy. Women comprise just over half of the the professional and technical workforce (57%) and the administrative and managerial workforce (58 percent), figures consistent since the beginning of the decade, but are significantly more likely to be in administrative positions than managerial or director positions. They make up ¼ of the IT workforce, dropping from 30% in 2003.

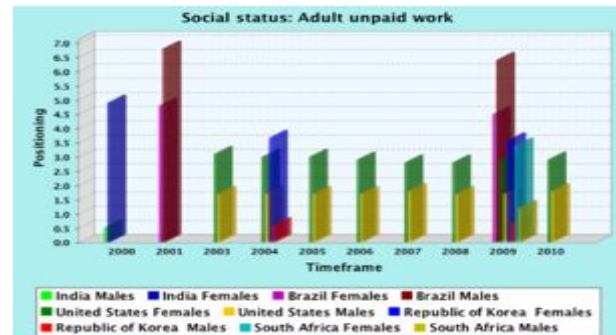
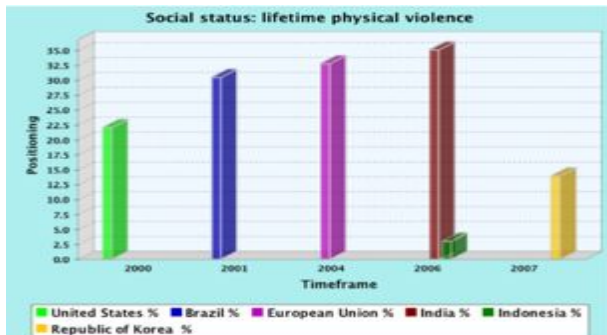
Dimension 10: Women in S&T innovation systems. Women represent less than 50 percent of those working in most science and engineering fields and in fields that require high-level computer skills. Women who work in science and engineering are more likely to be employed by the government than by colleges/universities or businesses. In universities and colleges, women are less likely than men to be tenure track faculty, and they publish at slightly lower rates than men. However, women employed at highly ranked research universities in STI fields publish at the same rate as men. While brain drain among highly educated American women is insignificant, the US does benefit from immigration of foreign-born women biological and life scientists, physical scientists, computer scientists, and engineers. Women are much less likely than men to be entrepreneurs, comprising 16% of owners of businesses employing more than 1 person, and 7% of nascent business owners in 2010.

Detailed results by dimension

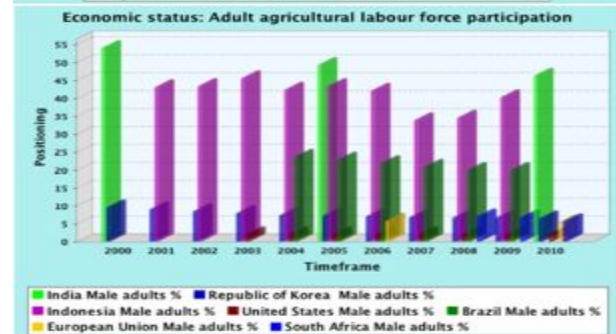
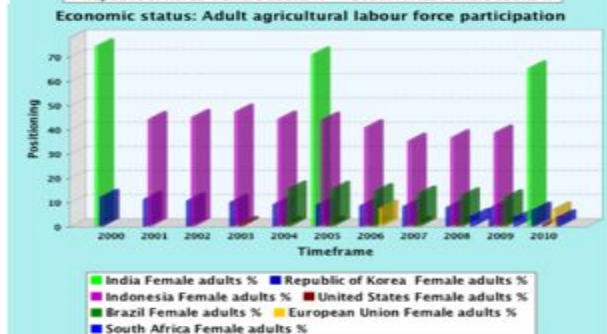
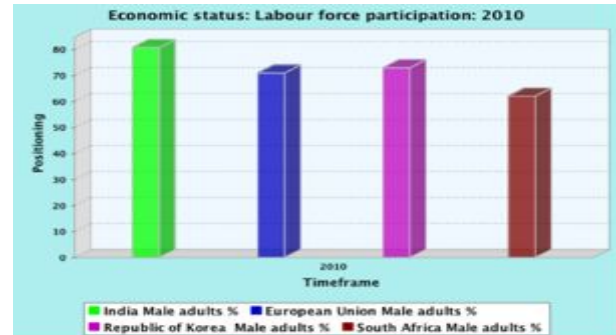
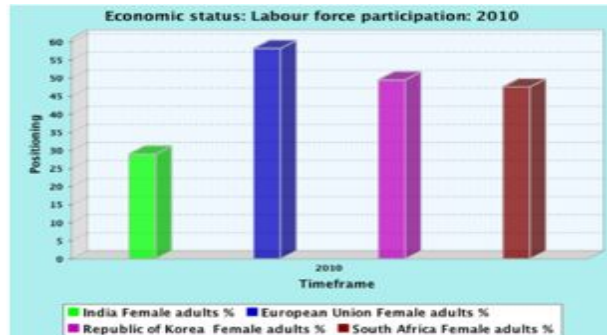
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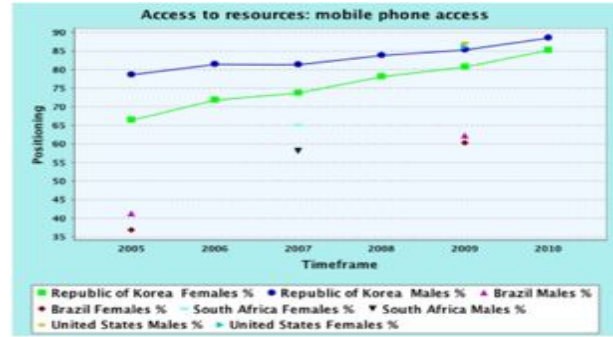
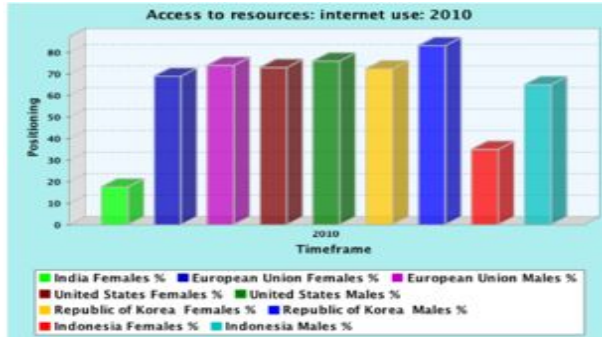
SOCIAL STATUS



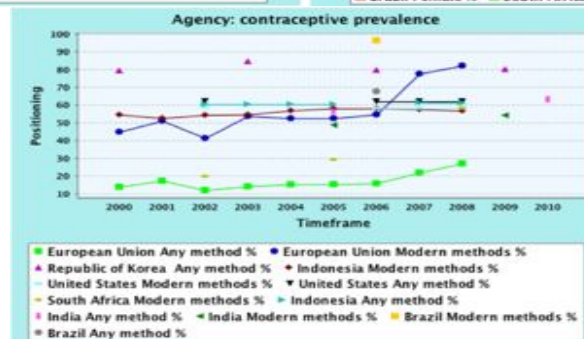
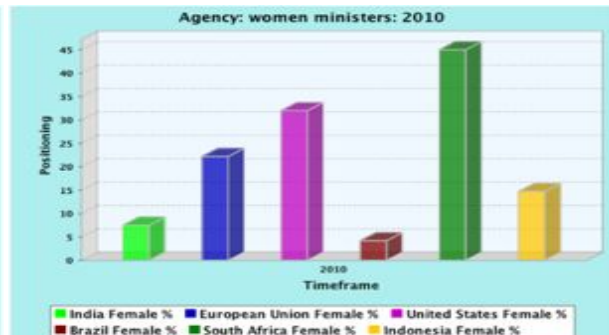
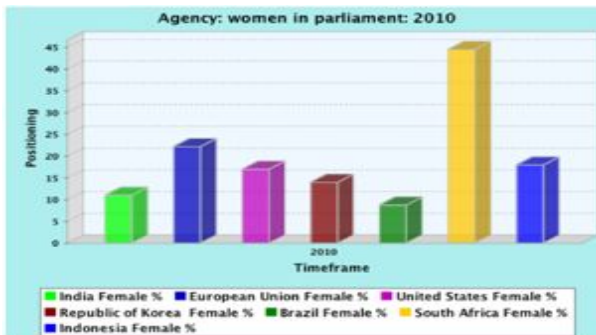
ECONOMIC STATUS



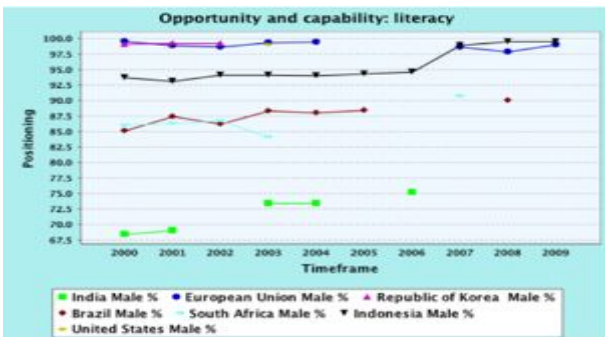
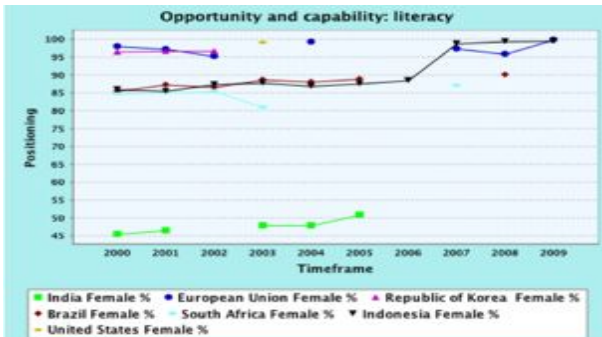
ACCESS TO RESOURCES

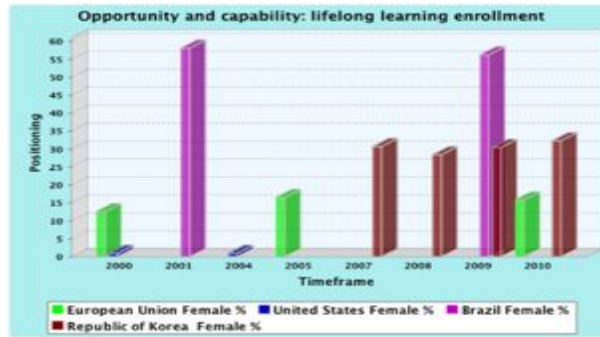
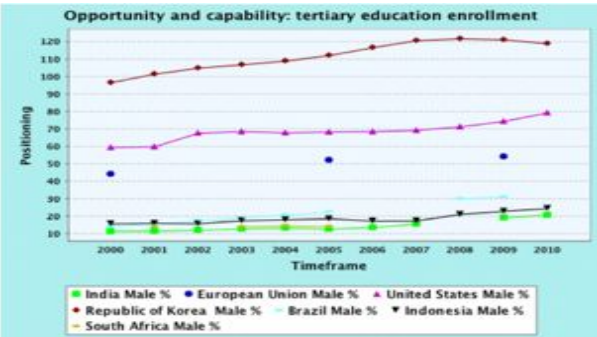
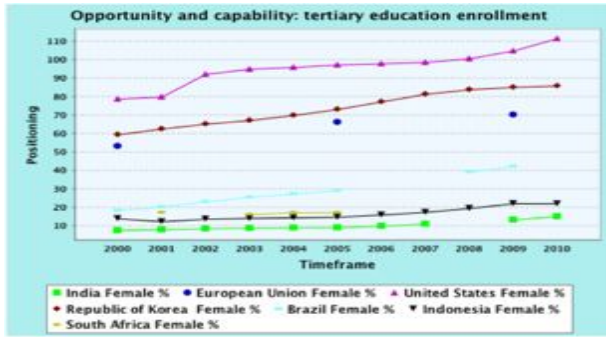


AGENCY

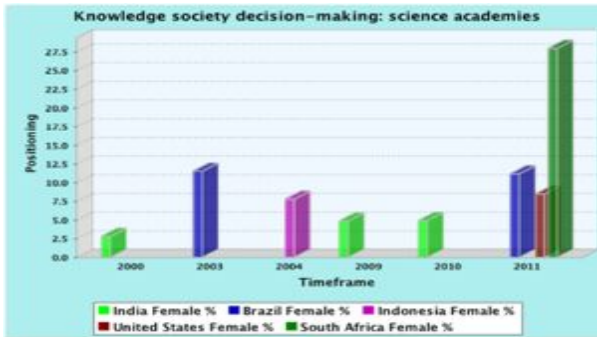
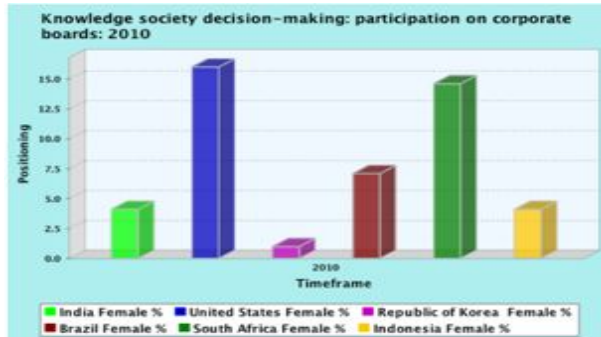


OPPORTUNITY AND CAPABILITY

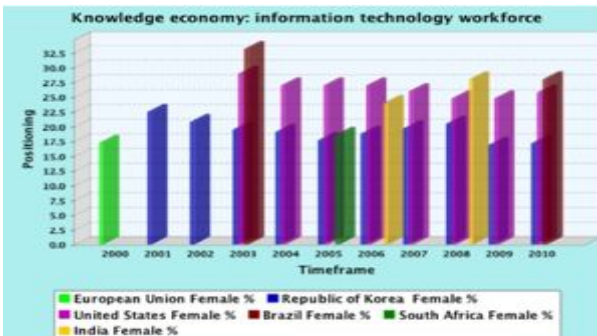
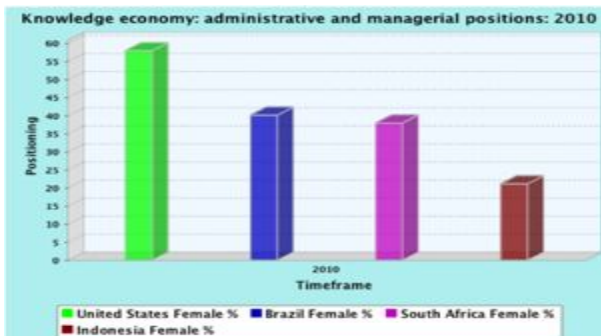




KNOWLEDGE SOCIETY DECISION-MAKING

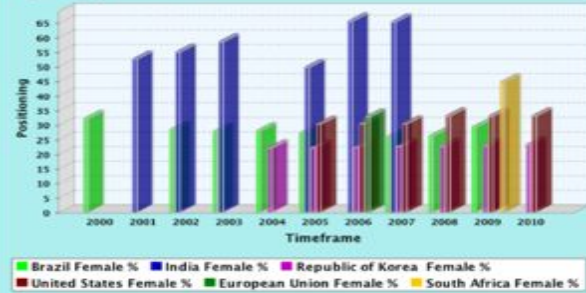


KNOWLEDGE ECONOMY

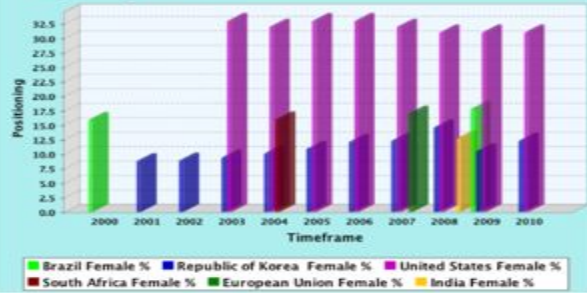


SCIENCE, TECHNOLOGY AND INNOVATION PARTICIPATION

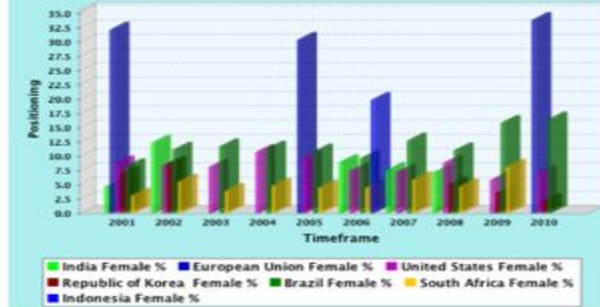
Science, technology and innovation participation: tertiary science and engineering enrollment



Science, technology and innovation participation: science and engineering labour force



Science, technology and innovation participation: entrepreneurship



Summary Data

