### Individual Action Plan (2015)

**Economy:** United States

| Ratio of women's representation in leadership* in both the public and private sectors ( * based on each economy’s indicators and definitions, or equivalent to P-5 and above of the UN; see https://careers.un.org/lbw/home.aspx?viewtype=SC) | The followings are the details of the fields and figures of ratio of women's representation in leadership. Indicators related to **1) Women’s representation in leadership in government, primarily in the executive branch:**  

**Women’s representation in the executive branch:**  
- Number of women employed as a percentage of total executive branch employment: 43.5% (2013; U.S. Office of Personnel Management (OPM))  
- Earnings of women compared to men in the executive branch: 87% (2012, OPM)  
- Representation of women in supervisory and managerial positions in the executive branch: 36% (2012, OPM)  
  - Earnings of women compared to men in supervisory and managerial positions in the executive branch: 95.6% (2012, OPM)  
  - Representation of women in the Senior Executive Service: 33.69% (2013, OPM)  
  - Earnings of women compared to men in SES positions: 99.2% (2012, OPM)  

**Women’s representation in the military:**  
- Representation of women in the active-duty force: 14.5% (2011, DOD)  
- Representation of women officers: 16.6% (2011, DOD)  
- Representation of women generals or admirals: 7.1% (2011, DOD) |

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1 [http://cdn.govexec.com/media/gbc/docs/pdfs_edit/041114kl1.pdf](http://cdn.govexec.com/media/gbc/docs/pdfs_edit/041114kl1.pdf)
**Women’s representation in high-level politically-appointed or elected positions:**

- Number of women in Cabinet and Cabinet-level positions: 7 (Obama’s Executive Appointments)
- Number of women in the U.S. Supreme Court: 3 (Women on the U.S. Supreme Court)
- Women in Congress:
  - **Congress**
    - Total: 104
    - U.S. Senate: 20
    - U.S. House: 84
  - (76D, 28R - 19.4% of 535 seats)
  - (14D, 6R - 20% of 100 seats)
  - (62D, 22R - 19.3% of 435 seats)

**Indicators related to and 2) Women’s representation in the private sector, with focus on women in science, technology, education, and math (STEM).**

- Median earnings of women compared to men: 82% (2013, Bureau of Labor and Statistics (BLS))
- Median earnings of women compared to men, for 45- to 54-year olds: 77% (2013, BLS)
- Representation of women in management occupations: 41.19% (2013, BLS)
- Representation of women CEOs: 27.2% (2013, BLS)
- Women comprise 48 percent of the U.S. workforce but just 24 percent of STEM workers. In other words,

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half as many women are working in STEM jobs as one might expect if gender representation in STEM professions mirrored the overall workforce. (Dept of Commerce Aug 2011)

- Women have seen no improvement in some STEM careers since 2001. In 2001 women were 13% of the engineering workforce and 27% of the computing workforce. In 2014 women are 12% of the engineering workforce and 26% of the computing workforce. (Change the Equation, “The Diversity Dilemma,” 2015)

- Earnings of women in STEM jobs compared to women in non-STEM occupations: 133%  
  [www.whitehouse.gov](http://www.whitehouse.gov)

- Percentage of female graduates from tertiary degree education from Science: 40.1% (2012, UNESCO)

- Female students express STEM interest at 14.5% compared to 39.6% for their male counterparts. (MyCollegeOptions).

- Women have plummeted from 28% of the graduates in computer sciences at U.S. schools in 2000 to 17% in 2010, (NSF)

- Women and minorities constitute about 70 percent of college students but earn only 45 percent of STEM degrees (WH 2012 Fact Sheet)

- Fewer than 40% of students who enter college intending to major in STEM completes a STEM degree. Note – if stats on female retention exist it would be great to get them here.

| Voluntary goals of women's representation in leadership in public and private sectors toward by the end of 2020 (%; total target of increasing the share of) | Pay equity: Close the wage gap among men and women in the federal government.  
Workforce diversity: Help agencies strategically recruit, hire, develop, and retain talented women, as part of our efforts to ensure that the Federal workforce |
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women in leadership positions which are based on each economy’s indicators and definitions, or equivalent to P-5 and above of the UN)

- is representative of the general population.
- Workforce diversity: Increase the number of women veterans in the Federal government.
- Leadership Opportunities: Increase women executives (SES) in the federal workforce.
- Leadership Opportunities: Increase women executives in the Private Sector.
- STEM: Close gaps between men and women in STEM fields.

NASA hiring and workforce representation

- NASA uses benchmarks based on a comparison with the relevant civilian labor force (RCLF). The benchmark for female engineers at NASA (based on aerospace engineers, general engineers, electrical engineers, electronic engineers, and computer engineers in the 2010 civilian labor force) is 11.2%. The representation of women in these engineering positions at NASA is 22.5% (as of April 2015).
  - Goal: NASA will continue its efforts to exceed that benchmark.
- For women in science, the RCLF benchmark (based on physical scientists, physicists, and space scientists) is 35.9%. Women comprise 23.7% of these types of scientists at NASA (as of April 2015).
  - Goal: NASA intends to meet or exceed that benchmark.

NASA promotions of women in leadership positions

- NASA uses internal benchmarks, i.e., the percentage of women in the total workforce under consideration. Women comprise 22.7% of NASA aerospace technologist positions (NASA’s primary STEM occupational category), while they comprise 19% of SES aerospace technologist positions, 11.0% of senior technologists (ST), and 20.7% of other senior level (SL) aerospace technologist
### Federal government programs to promote gender equality:

#### Affirmative Action
- For federal contractors and subcontractors, affirmative action must be taken by covered employers to recruit and advance qualified minorities, women, persons with disabilities, and covered veterans. Affirmative actions include training programs, outreach efforts, and other positive steps. These procedures should be incorporated into the company's written personnel policies. Employers with written affirmative action programs must implement them, keep them on file and update them annually.

#### Equal Pay for Equal Work:
- President Obama signed two executive orders in 2014 aimed at closing the gender pay gap in all sectors of the workforce. The first executive order will protect a federal contractor's right to discuss their pay openly with coworkers. The order will prohibit an employer contracted by the federal government from retaliating against employees who disclose their pay.

### Executive Branch programs to promote women's leadership opportunities:
- On May 10, 2013, President Obama signed a memorandum to the heads of executive
departments and agencies (agencies) on Advancing Pay Equality in the Federal Government and Learning from Successful Practices. OPM subsequently developed a government-wide strategy on advancing pay equality in the federal government.4

- Under the 2015 Recruitment, Engagement, Diversity, and Inclusion (REDI) Roadmap, OPM is working with agencies across the government to help identify and remove the barriers that managers face in recruiting and hiring the diverse talent they need, including women. OPM’s Director has been meeting with groups that work to help women move up in Federal leadership, including one piloting a mentoring program for women. OPM also has established a government-wide mentoring hub and a coaching network.

- In January of 2015, the President issued a Presidential Memorandum encouraging agencies to maximize the use of existing flexibilities. The memorandum directs agencies to advance Federal workers up to six weeks of paid sick leave to care for a new child or an ill family member. He also called on Congress to expand benefits further by passing legislation to give Federal employees six weeks of paid parental leave.

Recruitment for women as prospective government employees:

- Eight reporting agencies use targeted outreach to attract more women as prospective employees. Two agencies maintain relationships with colleges and universities to promote career opportunities. One agency component started a print campaign

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4 http://cdn.govexec.com/media/gbc/docs/pdfs_edit/041114kl1.pdf
targeting country-wide publications geared towards female business professionals in certain markets and increased their social media presence, and made it a point to target women through women specific conferences and symposiums. One agency portrays women in higher-paying occupations in print and online recruitment materials. Another agency sponsors and participates in the Society of Women Engineers annual conference to recruit women for STEM occupations. A different agency conducts activities with particular constituent communities, including those with primary professional women membership. One agency reported that a component created a division wide recruitment team to create a strategic approach to recruiting and selecting future employees, and eliminate any barriers resulting in inequality of employment. The team ensures that all markets, including those that have a majority male representation, are considered when recruiting for qualified candidates to fill the division's mission-critical occupations. Another agency also utilizes recruitment plans for high-level positions. Each recruitment plan is carefully researched to find websites for qualified women and minorities, as part of the overall recruitment plan. The agency has found this to be a low-cost and successful way to reach diverse populations.

Examples at NASA:
- NASA retention of women: NASA compares women’s separation rate with men’s separation rate. The separation rate is determined by dividing the number of separations for each group during the year by the total number of that group at NASA at
the beginning of the year. Both women and men in science and engineering positions at NASA have low separation rates (3.9% vs. 3.7% respectively), based on 10 years of data (FY 04-FY 13).

- **Goal**: despite the low separation rate, NASA intends to better understand the reasons for women departing (via exit interviews) in order to address particular issues through policy and programs.

- NASA recruitment of women: For higher education: NASA conducts targeted outreach and recruitment annually at the Society of Women Engineers National Training Conference and the National Women of Color in STEM Conference, and “NASA Days” at minority serving institutions. NASA promotes the Agency’s One Stop Shopping Initiative (OSSI), a NASA-wide recruiting system for internships, fellowships, and scholarships. For middle school and high school: NASA actively performs outreach to inspire girls through our exciting missions around understanding climate change; new earth-like planet discoveries; exploration on Mars; new breakthroughs in aviation, etc. NASA uses country-wide partnerships such as the one with the Boys and Girls clubs of America to reach a broad audience. Goal: NASA to increase involvement by the Agency’s women engineers and scientists on being a role model for promoting and inspiring girls in STEM, through public speaking events, interactions with interns, supporting conferences with a NASA booth, and social media opportunities (such as the Women@NASA website).

*Examples at the Department of Energy:*
On September 26th, 2011, First Lady Michelle Obama hosted an event in the East Wing of the White House to announce the National Science Foundation’s Career-Life Balance Initiative. This ten-year effort elevates several successful programmatic policies aimed at creating more flexible environments for grant recipients – including no-cost grant extensions, year-long deferrals for child birth or adoption, and increased opportunities for virtual panel reviews – to a Foundation-wide level. These measures seek to address existing barriers that force women to choose between caring for families and continuing their research.

The Department of Energy’s Women @ Energy series (www.energy.gov/womeninstem) has over 300 profiles of women in STEM at Energy, highlighting leadership examples at the agency and recognizing employees publically for their work.

In the series, women who have been nominated by their leadership and peers share their personal stories of what drew them to a STEM career, their tips for others looking to enter their field of work, and advice for engaging underrepresented communities in STEM fields.

They also share their hobbies, showing that they are people with interests outside of work and have the ability to have a work/life balance, a fact that is critically important for women looking at the STEM workforce.

The series was started with inspiration from NASA’s Women@NASA series, and other agencies are looking at following suite to create their own.

The Department of Energy has continued to expand upon Women @ Energy to bring these stories and
the faces of women in our workforce to a wider audience on new platforms. Our STEM Mentoring Café program, hosted in partnership with the Department of Education, Association of Sciences and the faces of women in our workforce to a wider audience on new platforms. Our Women @ Energy and additional STEM mentors to meet with middle school girls and their teacher in speed-mentoring conversations across the country. The #WomeninSTEM video series shares some of the stories in our Women @ Energy series in longer videos. The Women @ Energy Pinterest board targets the large percentage of women online (42 percent) who use Pinterest by sharing many of the profiles on that website. The Office of Economic Impact and Diversity is working on creating a printed publication to highlight stories from the Women @ Energy series for middle school students. Finally, the Women @ Energy site encourages teachers and other organizations to request speakers from the series. Through all of these methods, the Department is working to showcase our own workforce to provide students and young professionals with a diverse array of role models to spark their own energy-focused careers.

- Each year, the President recognizes extraordinary individuals outside the Federal government who have demonstrated remarkable abilities as mentors in the fields of science, engineering, and math. Among the chief qualifications of the roughly 15 annual recipients of the Presidential Award for Excellence in Science, Math, and Engineering Mentoring (PAESMEM) is demonstrated success in engaging underrepresented groups, including girls, in these technical fields.
Launched in March 2011, the Department of Energy's Mentoring Program offers monthly mentoring activities that connect women engineers and scientists throughout the DOE with female undergraduates.

Federal government programs to foster greater gender equality in the private sector:

**Foster stronger STEM education:**

- Federal agencies have developed a range of programs over the years in order to advance STEM education, but recognize the need for continued improvement. In 2014, the President's Budget proposed a framework for delivering STEM education to more students and more teachers more effectively. According to the White House, a range of programs over the years in order to advance STEM education, but recognize the need for continued improvement. In 2014, the President's Budget proposed a framework for delivering STs an annual increase by 34%.

- The Administration has also published a Federal STEM Education Five-Year Strategic Plan to help align the framework with key goals and strategies. The major areas of priority for this plan include: improving pre-kindergarten-through-grade-twelve (pre-K-12) STEM instruction; increasing and sustaining youth and public engagement in STEM; enhancing the STEM experience of undergraduate students; better serving groups historically underrepresented in STEM; and designing graduate education for tomorrow's STEM workforce. The President has also published a Federal STEM Education Five-Year Strategic Plan.

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5 [http://www2.ed.gov/about/overview/budget/budget15/crosscuttingissues/stem.pdf](http://www2.ed.gov/about/overview/budget/budget15/crosscuttingissues/stem.pdf)
to help align the framework with key goals and strategies. The major areas of priority for this plan include: improving pre-kindergarten to enter STEM. In January 2014, the Department of Energy joined 100kin10, a United States’ multi-sector network to train 100,000 additional STEM teachers by 2021, preparing students to fully participate in our democracy and to understand and respond to complex domestic and global challenges. [https://100kin10.org](https://100kin10.org) We are one of three agency members to understand and respond to complex domestic and global challenges each year.

- The Department of Energy has introduced **Energy Literacy** tools to help undergraduate teachers understand and teach the fundamental concepts for energy, explaining the role and nature of energy in the world, our daily lives, and ways to apply this understanding to answer questions and solve problems. [http://energy.gov/eere/education/energy-literacy-essential-principles-and-fundamental-concepts-energy-education](http://energy.gov/eere/education/energy-literacy-essential-principles-and-fundamental-concepts-energy-education).

- With the Energy 101 framework[^6], which builds on the energy literacy principles to create an outline for teaching an interdisciplinary Energy 101 course, the Department of Energy is providing resources for teachers who are investing in these empirically validated teaching practices and equipping their students for success. The Department offers a variety of STEM focused internships, fellowships and programs for young students -- from the STEM Mentoring program, which matches undergraduate students to federal employees in STEM fields, to the Mickey Leland Energy Fellowship, which increases

opportunities for women and underrepresented minorities pursuing degrees in STEM.
http://energy.gov/stem

- The United States is working to close the gender gap in clean energy leadership with C3E, the Clean Energy Education and Empowerment Women’s Initiative. C3E is a program of the international Clean Energy Ministerial that strives to increase women’s participation in clean energy careers worldwide. This three-part program is built around an annual C3E Symposium to build a community of professional women advancing clean energy; annual C3E Awards for mid-career leadership and achievement; and the ongoing engagement of the C3E Ambassadors, a group of distinguished senior professionals who serve as spokespersons and champions. At the 4th Clean Energy Ministerial meeting in New Delhi, the C3E initiative launched C3Enet.org, an online network to connect women around the world.

✓ The voluntary goals will be reviewed by each economy in the process of developing Interim report.

http://www1.eere.energy.gov/education/energy_101.html