JOINT ECONOMIC COMMITTEE
CHAIRMAN ERIK PAULSEN (R-MN)
REPUBLICAN STAFF STUDY

Women are Key to Regaining America's Innovative Edge

Addressing the Tech Gender Gap

November 16, 2018

INTRODUCTION

The Joint Economic Committee held three hearings on the subject of innovation and economic growth in 2018. The most recent hearing focused on barriers to capital access for technology companies and, among other things, identified the underrepresentation of women in the technology sector as an area of unrealized potential. Rachel King, CEO and cofounder of the biotech company Glycomimetics, testified before the Committee and attested to the low female representation in the venture capital ecosystem. For example, only about 2 percent of venture capital goes toward women-led initiatives.[1] Furthermore, examining the tech sector more generally, the National Center for Women & Information Technology estimates that only 26 percent of the tech workforce were women in 2017.[2] By 2020, with an estimated 1.4 million jobs in computing fields, women are on track to fill only 3 percent.[3]

On the other hand, women are making substantial and growing contributions in other important professional fields. For example, in 2016, the share of physicians and surgeons who are women grew to more than 34 percent. In the same year, women represented over 58 percent of nurse anesthetists, 54 percent of pharmacists, almost 60 percent of accountants and auditors, and more than 46 percent of legislators.[4]

Key Points:

- ***Women account for a very small percentage of the tech workforce and of high-tech entrepreneurs.***
- ***Women represent a large untapped potential for U.S. innovation and economic dynamism.***
- ***Tech firms likely could attract a larger number of talented women by implementing parental leave policies.***
- ***Women should be encouraged to pursue careers of their choice, including STEM careers.***
- ***An increased number of women in tech will encourage women in the next generation to pursue tech careers.***

[1] Bobby Franklin, CEO of the National Venture Capital Association, said this during a Technet and Politico event that took place on July 17, 2018: https://womenshightech.org/event/women-are-key-to-regaining-americas-innovative-edge/
[2] https://www.ncwit.org/sites/default/files/resources/btn_04042018_web.pdf
[3] https://deloitte.wsj.com/cio/2017/05/01/bridging-technologys-gender-gap/
[4] https://www.dol.gov/wb/occupations_interactive.htm

One compelling reason for addressing the tech gender gap is that increasing diversity in the tech industry could lead to greater success. Firms could benefit from relying more on women, which would, among other benefits, potentially enhance the appeal of products and services for female consumers. Women represent 85 percent[5] of consumer purchases of goods and services and make 80 percent of healthcare decisions.[6] At the formative stage of ideas, women could make important contributions.

More generally, diversity tends to bring a wider perspective and greater capacity for problem solving. The Credit Suisse Gender 3000 report shows that companies with more board diversity realize better stock market returns, controlling for sector and other variables.[7]

The tech environment can often be characterized as highly competitive and demanding long hours that are not compatible with work-life balance.

In short, the small share of women in the tech sector suggests there is untapped potential for more innovation and economic growth.

OBSTACLES TO FEMALE PARTICIPATION IN TECH

The tech environment can be characterized as highly competitive and as demanding long hours that are incompatible with work-life balance.[8] Consequently, women, especially those who are mothers or care for other family members, may be deterred from pursuing science, technology, engineering, and mathematics (STEM) careers. Lending support to this hypothesis are a number of surveys and studies, one of which finds that the dropout rate for STEM jobs is 45 percent higher for women than men.[9] Women who leave these jobs often cite workplace inflexibilities as the reason. A survey conducted of 716 women who dropped out of the tech industry found that only three percent want to return to the field in the future.[10]

Women drop out of STEM jobs at a 45 percent higher rate than men.

The very small proportion of women in historically male-dominated STEM fields also makes these careers less inviting to women. In addition, female entrepreneurs who want to launch their own businesses

[5] https://girlpowermarketing.com/statistics-purchasing-power-women/
[6] https://girlpowermarketing.com/statistics-purchasing-power-women/
[7] https://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=8128F3C0-99BC-22E6-838E2A5B1E4366DF https://www.weforum.org/agenda/2018/01/close-the-tech-gender-gap-gillian-tans/
[8] https://medium.com/tech-diversity-files/if-you-think-women-in-tech-is-just-a-pipeline-problem-you-haven-t-been-paying-attention-cb7a2073b996#.2xw2y2f1s
[9] https://www.forbes.com/sites/quora/2017/02/28/why-women-leave-the-tech-industry-at-a-45-higher-rate-than-men/#740876ad4216
[10] http://fortune.com/2014/10/02/women-leave-tech-culture/

commonly find the decision-making roles at lending institutions and venture capital firms are held by males.[11]

INITIATIVES TO LEVEL ACCESS FOR WOMEN

Some in the venture capital community such as the National Venture Capital Association (NVCA) are making efforts to enhance opportunities for women in tech through their VentureForward initiative. This program seeks to address the low percentage of funding directed to women entrepreneurs by connecting venture capitalists with a more diverse pool of entrepreneurs. The program also conducts research on diversity and inclusion in the venture ecosystem to further develop better strategies that promote an equitable and welcoming environment. Led by its President and CEO, Linda Moore, Technet is also taking steps forward with a board that is currently one-third female.[12]

Companies in traditionally male-dominated fields such as consulting and legal services have taken major steps to attract and retain women with extensive parental leave policies. For example, in 2016 Deloitte announced six months of paid maternity leave,[13] and the DC law firm O'Melveny and Myers offers five months[14] of paid parental leave. Several tech-oriented companies have also implemented leave policies. Amazon and Twitter both announced five months of paid maternity leave in 2015 and 2016, respectively.[15] In fact, many companies offer more paid leave than existing state-mandated paid family leave programs, such as those in California, New Jersey, Rhode Island, and New York.

"Parental leave is a compelling benefit to attract and retain employees . . . Our goal is to attract and retain top talent and we believe this approach helps us do just that."

Fidelity Investments

Several companies have been explicit about offering paid leave as a way to recruit and retain high-performing employees who otherwise may be deterred from working in environments that make work-life balance very difficult. Fidelity Investments, for instance, announced four months of paid maternity leave, explaining that:

> *We recognized that parental leave is a compelling benefit to attract and retain employees, so we took the necessary steps to give parents*

[11] Sherbin, Laura. "6 Things Successful Women in STEM Have in Common." *Harvard Business Review.* April 27, 2018. https://hbr.org/2018/04/6-things-successful-women-in-stem-have-in-common

[12] Linda Moore said this during a Technet and Politico event that took place on July 17, 2018: https://womenshightech.org/event/women-are-key-to-regaining-americas-innovative-edge/

[13] http://www.nationalpartnership.org/research-library/work-family/paid-leave/new-and-expanded-employer-paid-family-leave-policies.pdf

[14] Diana Furchtgott-Roth mentions refers to this company during a JEC hearing on July 12, 2017. The hearing transcript can be accessed at: https://www.jec.senate.gov/public/_cache/files/362d37e3-5606-4bf4-b169-55b1d7bc8834/a-record-six-million-u.s.-job-vacancies-reasons-and-remedies.pdf

[15] http://www.nationalpartnership.org/research-library/work-family/paid-leave/new-and-expanded-employer-paid-family-leave-policies.pdf

> *the time off they need . . . Our goal is to attract and retain top talent and we believe this approach helps us do just that.*[16]

Cases of highly compensated women dropping out of the workforce because of workplace inflexibilities suggest that Fidelity's leave policy has a good chance of success.[17] It is likely that female participation in the tech sector would increase if accommodative leave policies were widely adopted by tech companies. More research would be useful in this area.

On the legislative side, concentrated efforts are being made to advance women in tech. JEC committee member, Representative Barbara Comstock (R-Va.), has advocated on behalf of young girls and women in STEM by introducing H.R. 321, the *Inspiring the Next Space Pioneers, Innovators, Researchers, and Explorers (INSPIRE) Women Act*. The INSPIRE Women Act was signed into law in February 2017, along with the *Promoting Women in Entrepreneurship Act* (H.R. 255), introduced by Representative Elizabeth Esty (D-Conn.). Both pieces of legislation promote women in STEM fields. Rep. Comstock has stated that

> *The INSPIRE Women Act calls on the NASA Administrator to use programs within NASA to put young women and girls on a course toward STEM careers that will further help the space program and American businesses. For the American economy to be successful in the 21st Century, we need to have a skilled labor force that understands innovation and emerging technologies. The INSPIRE Women Act will help create a climate for young girls and women to be successful in STEM and competitive on the world stage, and be great assets to growing the 21st Century economy.*[18]

"For the American economy to be successful in the 21st century, we need to have a skilled labor force that understands innovation and emerging technologies."

Rep. Barbara Comstock

To the extent that women may be underrepresented in tech because they do not receive the same opportunities as their male counterparts, enabling young women interested in STEM to pursue a STEM education and career can make a difference in mitigating the gender gap for the next generation of working women.

Furthermore, the *Tax Cuts and Jobs Act* of 2017 encourages companies to offer paid parental leave by providing a tax credit for employers who offer paid family and medical leave to low- and middle-income workers.[19]

[16] https://www.businesswire.com/news/home/20160315005879/en/Fidelity%C2%AE-Enhances-Employee-Benefits.
[17] Stone, Pamela. 2007. *Opting Out? Why Women Really Quit Careers and Head Home.* Berkeley: University of California Press.
[18] "Comstock's INSPIRE Women Act Passes House." Representative Barbara Comstock Press Release. March 22, 2016. https://comstock.house.gov/media-center/press-releases/comstock-s-inspire-women-act-passes-house
[19] https://www.irs.gov/newsroom/section-45s-employer-credit-for-paid-family-and-medical-leave-faqs.

GENDER-RELATED PREFERENCES

In explaining the various factors that contribute to the tech gender gap it is important to note that differences in preferences may also play a role in women pursuing non-STEM careers. Blindly pushing women into STEM careers would be inappropriate and ignores the role of individual preferences in guiding schooling and career choices. However, if women choose non-STEM careers because they perceive that STEM jobs are not women- or family-friendly, the resulting gender gap may represent more than different preferences and may indicate inequities that should be considered.[20] Ultimately, the focus should not be on encouraging one type of work over another, but on mitigating conditions that discourage women from freely pursuing their interests and developing their talents. As Joint Economic Committee member Representative Karen Handel (R-Ga.) noted at a women's empowerment event, "Every single woman in this room needs to be audacious about what it is you want to achieve as a person and woman."[21]

Addressing the tech gender gap is important inasmuch as the gap results from unequal opportunities for women.

"Every single woman in this room needs to be audacious about what it is you want to achieve as a person and woman."

Rep. Karen Handel

Striving for equality of opportunity is an important goal for a society, and by ensuring that women have access to opportunities in the tech sector—as well as the options necessary to sustain a tech career—society would make progress towards this goal. However, as advocates of women's rights and concerned policy makers unite to address the tech gender gap, a comprehensive explanation and proposed solution for the problem should not disregard the role of preferences in guiding career choices.

[20] If a woman has a child, this will likely be an interruption to her career at the time of childbirth, and be an additional employment constraint for years thereafter. This is in spite of the remarkable progress that women made during the latter part of the 20th century, so that today prime-age women's labor force participation is over 70% and women graduate college in higher numbers than men (Goldin et al., 2006: https://www.jstor.org/stable/pdf/30033687.pdf?refreqid=excelsior%3Af55bb94fd3ca8553ac79f24b7243ed1c). Still, women generally still bear most of the home responsibilities (Bertrand, 2010: http://www.fiwi.uni-jena.de/wfwmedia/Lehre/GenderEconomics/Bertrand+2011+New+Perspectives+on+Gender+In+Handbook+of+Labor+Economics+4+B-p-454.pdf). This reality has implications for women's career choices because working women must juggle professional and home responsibilities. Women may take this into account when they decide on what schooling and career to pursue, and this may lead to observed differences in career choices.

[21] "Handel encourages women to 'walk the walk.' October 26, 2017. At the annual Women Who Walk the Walk event hosted by the Alpharetta Chamber of Commerce. https://handel.house.gov/media/in-the-news/handel-encourages-women-walk-walk

CONCLUSION

Addressing the extremely low representation of women in the tech sector is important for several reasons, not the least of which is revitalizing economic growth in the United Sates. By removing obstacles to STEM education for young women who are interested in pursuing tech careers, and by promoting policies that allow for work-life balance even in highly competitive work environments, U.S. innovation and dynamism likely would be enhanced.

Tech companies should review their paid leave as a more family-friendly workplace may enable more women to pursue a career in tech fields while simultaneously raising a family. There is a large untapped human-resource potential in women who have much to offer in technology development and innovation.

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