

A woman in a futuristic, glowing suit holding a tablet displaying a phone number.

<women in  
technology>

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## History

A brief history of women who excelled in technology fields.

## Pay Gap

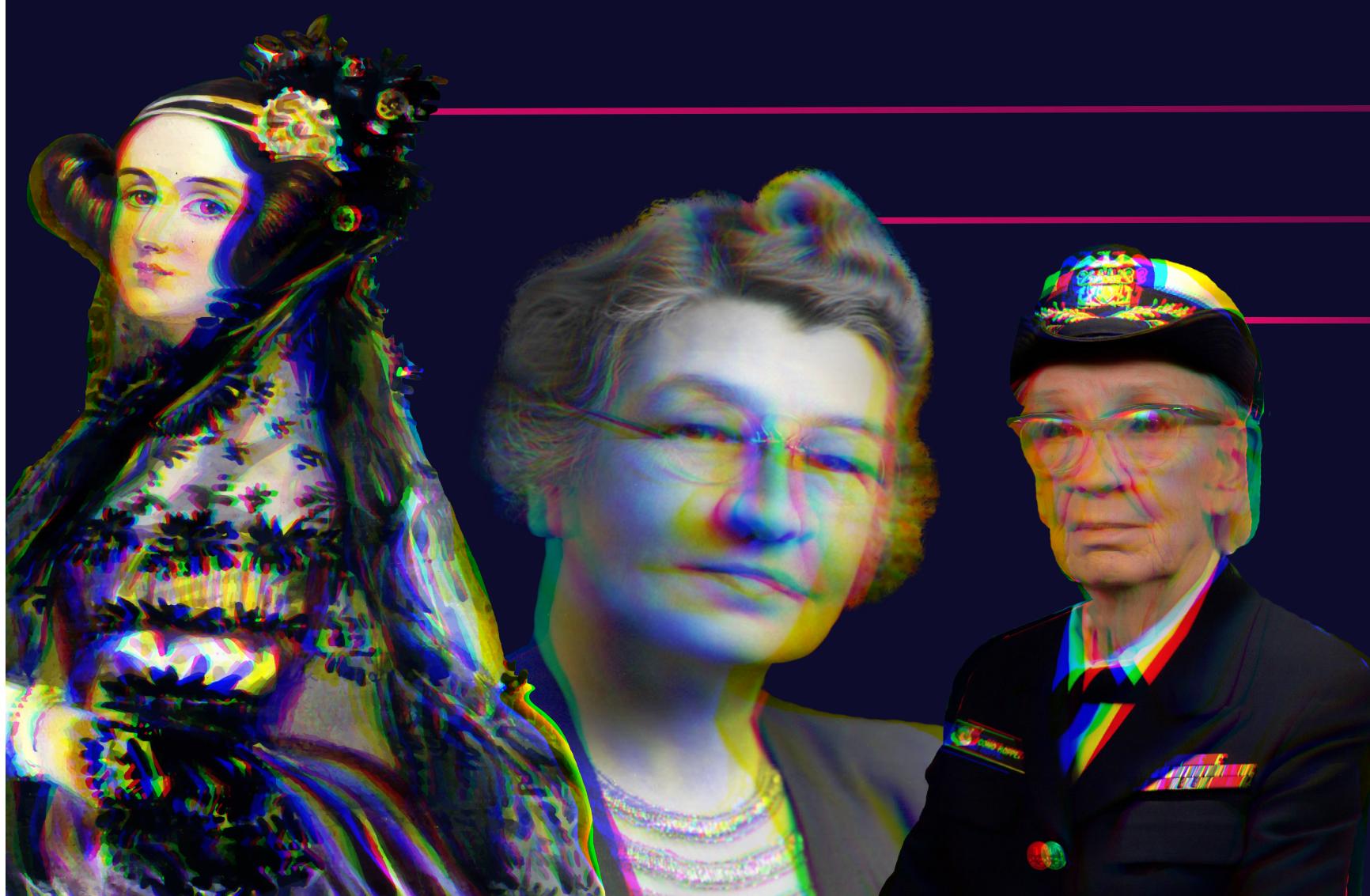
Visual representation of the gender pay gap specifically in technology. Both in job level and take home pay.

## Leading Women

the leading 16 women in today's technology world.

## Best Cities

The best states and cities to live in and work. Broken down into categories of pay gap, income after housing, percent of technology jobs filled by women, and employment growth.



## <history>

Grace Hopper was a computer scientist, Yale Ph.D., and United States Navy Rear Admiral who also—on top of everything else—helped pioneer computer programming. “Humans are allergic to change,” she once said. “They love to say, ‘We’ve always done it this way.’ I try to fight that. That’s why I have a clock on my wall that runs counter-clockwise.”

In 1945, after 10 years of teaching, Hopper joined a new volunteer branch of the Navy known as WAVES (Women Accepted for Volunteer Emergency Service). At just 105 pounds, she was 15 pounds below that Navy minimum weight and had to receive a special exemption.

During her illustrious career, Hopper worked on UNIVAC I, the first commercial computer produced in the U.S., and created the first compiler. She is also credited with coining the term “computer bug” when she found a real moth inside the massive UNIVAC I.

If that wasn’t enough, Hopper also invented FLOW-MATIC, the first English-like data processing language, which helped spark the development of COBOL, which eventually became the Navy’s standard operating language.

By no means, however, was Clarke’s rise simple and easy. Orphaned at age 12, she came of age in a Maryland boarding school. At 18, she received a small inheritance which took her through Vassar College, then Yale’s all-women sister institution; she graduated in 1908. After teaching gigs in San Francisco and Wisconsin, Clarke returned to the field full-time as manager of an all-female team of “human computers” at AT&T. She had reached the ceiling for women in electrical engineering.

Determined to continue her career doing what “women were not supposed to be doing,” the pioneering powerhouse next enrolled at MIT and became that institution’s first woman to earn an M.S. in electrical engineering. But even with such a degree, no company would hire female engineers. In response, Clarke left the United States to teach physics at Istanbul’s Women’s College. Again, she couldn’t stay out of the field, returning to the United States as a “human computer” for General Electric.

At GE, Edith Clarke created and patented The Clarke Calculator, a graphical device that solved equations used to send power through electrical transmission lines longer than 250 meters. Her massive contribution to transcontinental telephone communication silenced skeptics; in 1922, at 38, Edith Clarke became the first professional female electrical engineer.

A gifted mathematician, Ada Lovelace is considered to have written instructions for the first computer program in the mid-1800s.

The daughter of famed poet Lord Byron, Augusta Ada Byron, Countess of Lovelace—better known as “Ada Lovelace”—was born in London on December 10, 1815. Ada showed her gift for mathematics at an early age. She translated an article on an invention by Charles Babbage, and added her own comments. Because she introduced many computer concepts, Ada is considered the first computer programmer. Ada died on November 27, 1852.

Ada was fascinated by Babbage’s ideas. Known as the father of the computer, he invented the difference engine, which was meant to perform mathematical calculations. Ada got a chance to look at the machine before it was finished, and was captivated by it. Babbage also created plans for another device known as the analytical engine, designed to handle more complex calculations. Ada was later asked to translate an article on Babbage’s analytical engine that had been written by Italian engineer Luigi Federico Menabrea for a Swiss journal. She not only translated the original French text into English, but also added her own thoughts and ideas on the machine. Her notes ended up being three times longer than the original article. Her work was published in 1843, in an English science journal. Ada used only the initials “A.A.L.” for Augusta Ada Lovelace, in the publication. In her notes, Ada described how codes could be created for the device to handle letters and symbols along with numbers. She also theorized a method for the engine to repeat a series of instructions, a process known as looping that computer programs use today.

When we talk about gender equity in the workplace, it's hard not to talk about the tech industry. With its reputation as a boys' club, it might surprise you that the gender pay gap is actually smaller in tech than in the general population. However, tech companies struggle to hire, and especially retain, female technical employees, despite offering excellent pay. Find out what the gender pay gap in tech really looks like, and then find out what other factors are contributing to pay inequity in the tech industry.

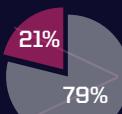
Anne Krook

Job Level

Tech Industry

Non-Tech Industry

Executive



Director



Manager / Supervisor

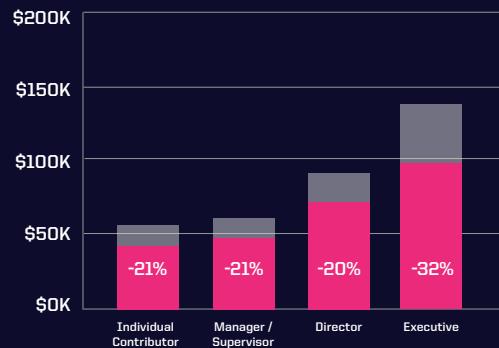


Individual Contributor

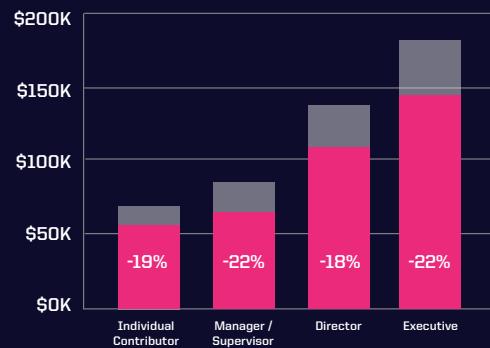


<pay gap>

Non Tech industry



Tech industry





#1

Sheryl Sandberg  
Title: COO, Facebook  
Country: United States



#2

Susan Wojcicki  
Title: CEO, YouTube, Google  
Country: United States



#3

Meg Whitman  
Title: CEO, Hewlett-Packard  
Country: United States



#4

Ginni Rometty  
Title: CEO, IBM  
Country: United States



#5

Angela Ahrendts  
Title: SVP, Retail, Apple  
Country: United States



#6

Safra Catz  
Title: Co-CEO Oracle  
Country: United States



#7

Ruth Porat  
Title: CEO, Alphabet  
Country: United States



#8

Ursula Burns  
Title: Chair-CEO, Xerox  
Country: United States



#9

Lucy Peng  
Title: CEO, Alibaba Group  
Country: China



#10

Amy Hood  
Title: CFO, Microsoft  
Country: United States



#10

Laurene Powell Jobs  
Title: President, Emerson  
Collective  
Country: United States



#11

Marissa Mayer  
Title: CEO, Yahoo  
Country: United States



#12

Zhou Qunfei  
Title: Founder and CEO,  
Lens Tech.  
Country: Hong Kong



#13

Solina Chau  
Title: Founder, Horizons  
Ventures  
Country: Hong Kong



#14

Mary Meeker  
Title: General Partner,  
Kleiner Perkins  
Caufield & Byers



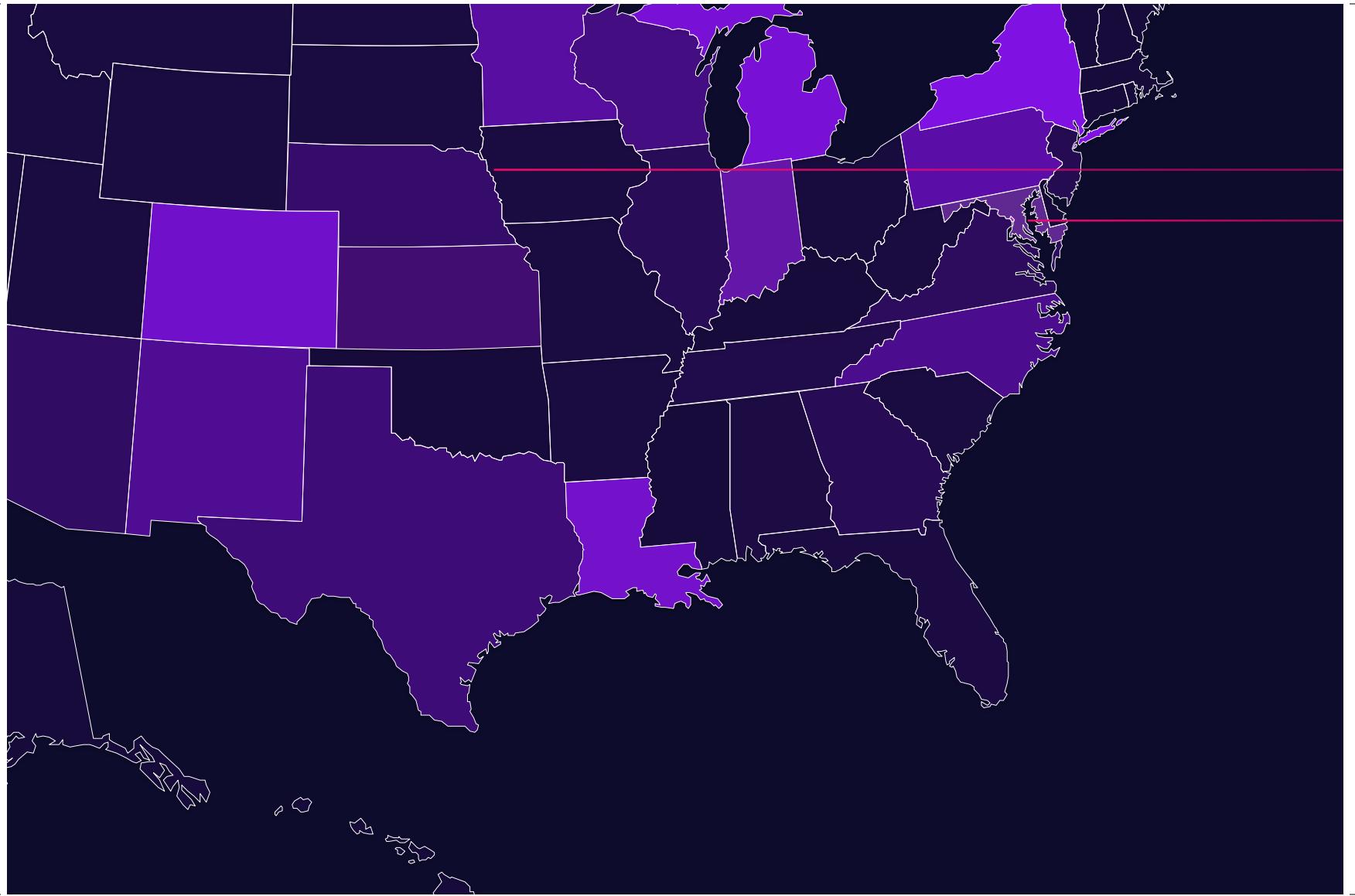
#15

Jenny Lee  
Title: Managing Partner, GGV  
Capital  
Country: Singapore

# #1

**Sheryl Sandberg**  
**Title: COO, Facebook**  
**Country: United States**

Nearly two years after Facebook Chief Operating Officer Sheryl Sandberg's husband, SurveyMonkey CEO Dave Goldberg, died unexpectedly at age 47, she announced that the social media company will give employees 20 days of bereavement leave. She wrote about grief and resilience in her new book, "Option B," scheduled for release in April 2017. Sandberg has not shied away from criticizing President Donald Trump on everything from his immigration ban to anti-abortion measures. She has denied rumors that she plans to run for president in 2020. In November 2015, Sandberg donated \$31 million in Facebook stock to a charitable fund, the majority of which will go to Lean In, her nonprofit that supports women in the workplace and women's empowerment groups. She also pledged \$1 million to Planned Parenthood in early 2017. The Harvard M.B.A., who was once chief of staff to then Treasury Secretary Larry Summers, has helped boost revenues at Facebook 66-fold since becoming COO in 2008.



<best cities>

#1

Washington, DC

94.8%

Gender Pay Gap

84.8%

\$ 56,150

Income After Housing Costs

53,158 \$

41.0%

Tech Jobs Filled By Women

26.2%

17%

Four-Year Tech Employment Growth

10%

#2

Kansas City, MO

103.4%

Gender Pay Gap

84.8%

\$ 59,150

Income After Housing Costs

53,158 \$

30.3%

Tech Jobs Filled By Women

26.2%

10%

Four-Year Tech Employment Growth

10%

