

**UNITED STATES  
PATENT AND TRADEMARK OFFICE**



# Progress and potential: 2020 update on U.S. women inventor-patentees

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# What did we do in the update?

- USPTO collects limited information on patent inventors.
- To study women's participation in patenting, it is necessary to classify inventors as men or women based on their names.
- This study improves our understanding of women's participation as inventor-patentees in two ways:
  - Updates 2019 P&P with three years of new data: 2017-2019
  - Provides a new analysis of entry by U.S.-based women into the patent system



# Two metrics: patents vs. inventors

- Share of patents with a female inventor: The percentage of all patents granted to U.S. residents in a given year (e.g. 2019) that include at least one female on the inventor team.
- Women inventor rate (WIR): The percentage of all unique U.S. inventors in a given year that are women.



50% of patents with at least one female inventor



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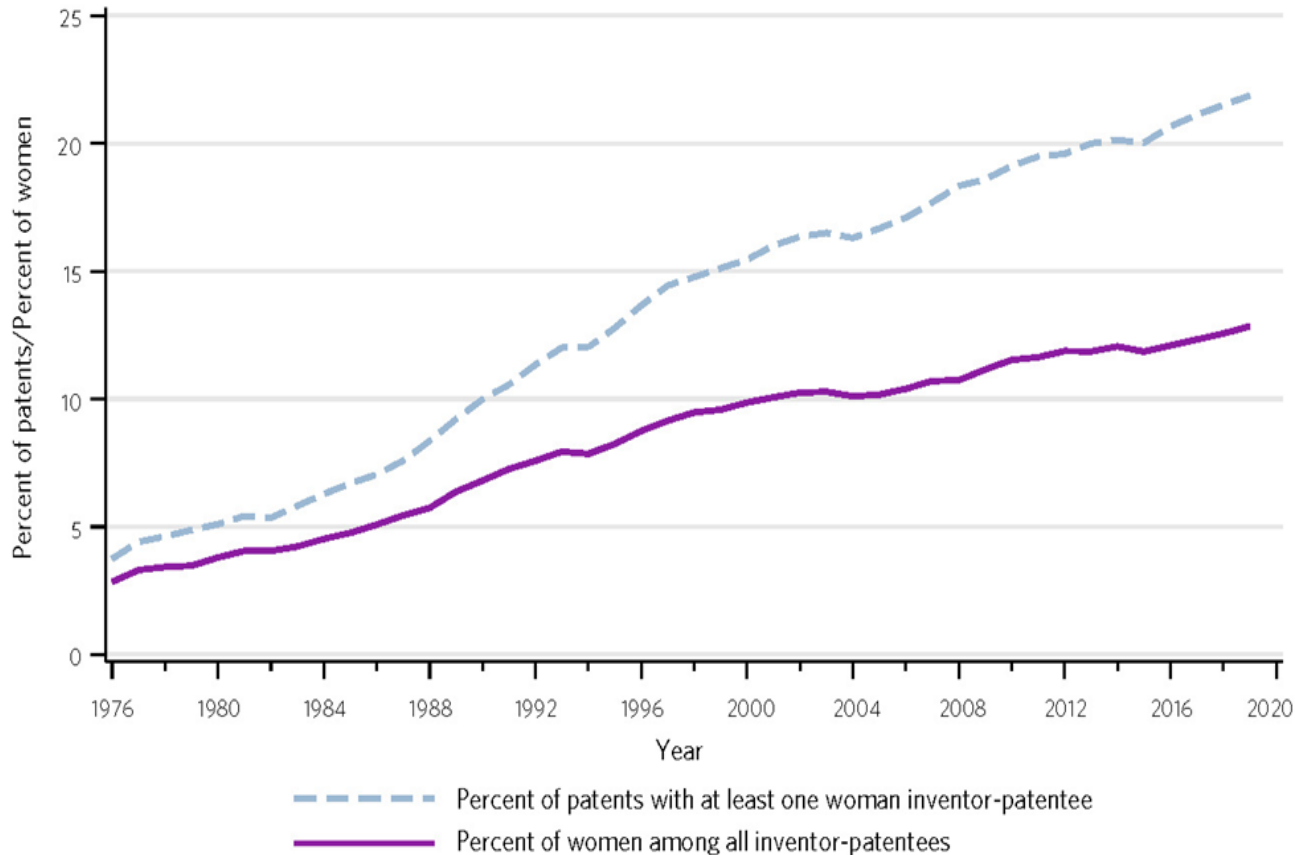


50% women inventor rate



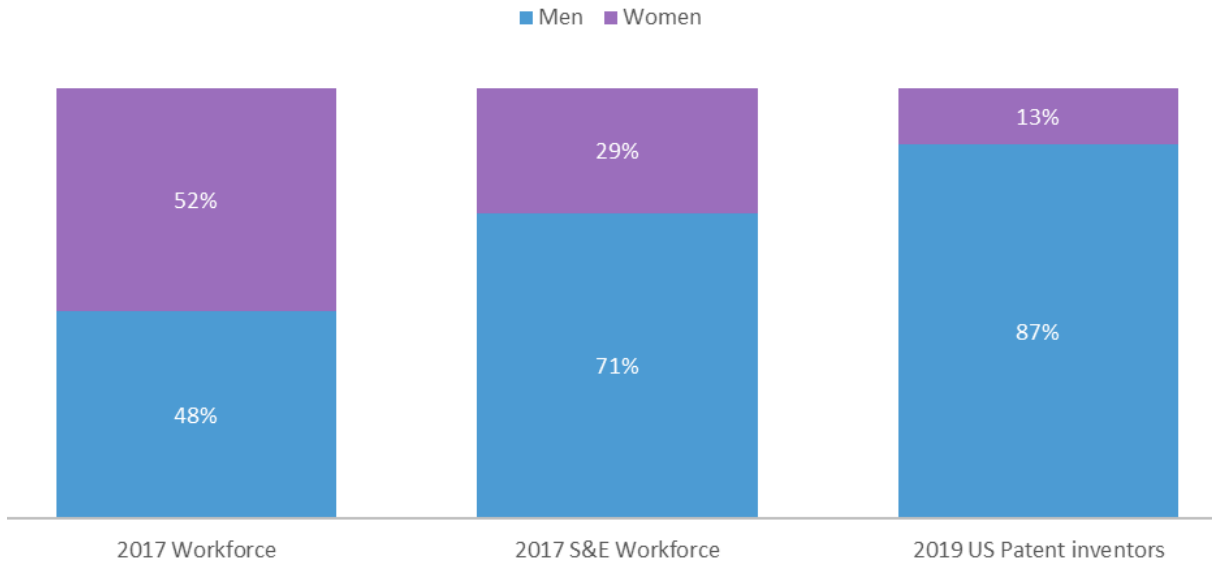
10% women inventor rate

# More patents and more women over time



- Granted patents with at least one women inventor increased to 21.9% in 2019.
- The percentage of women inventor-patentees increased to 12.8% in 2019.

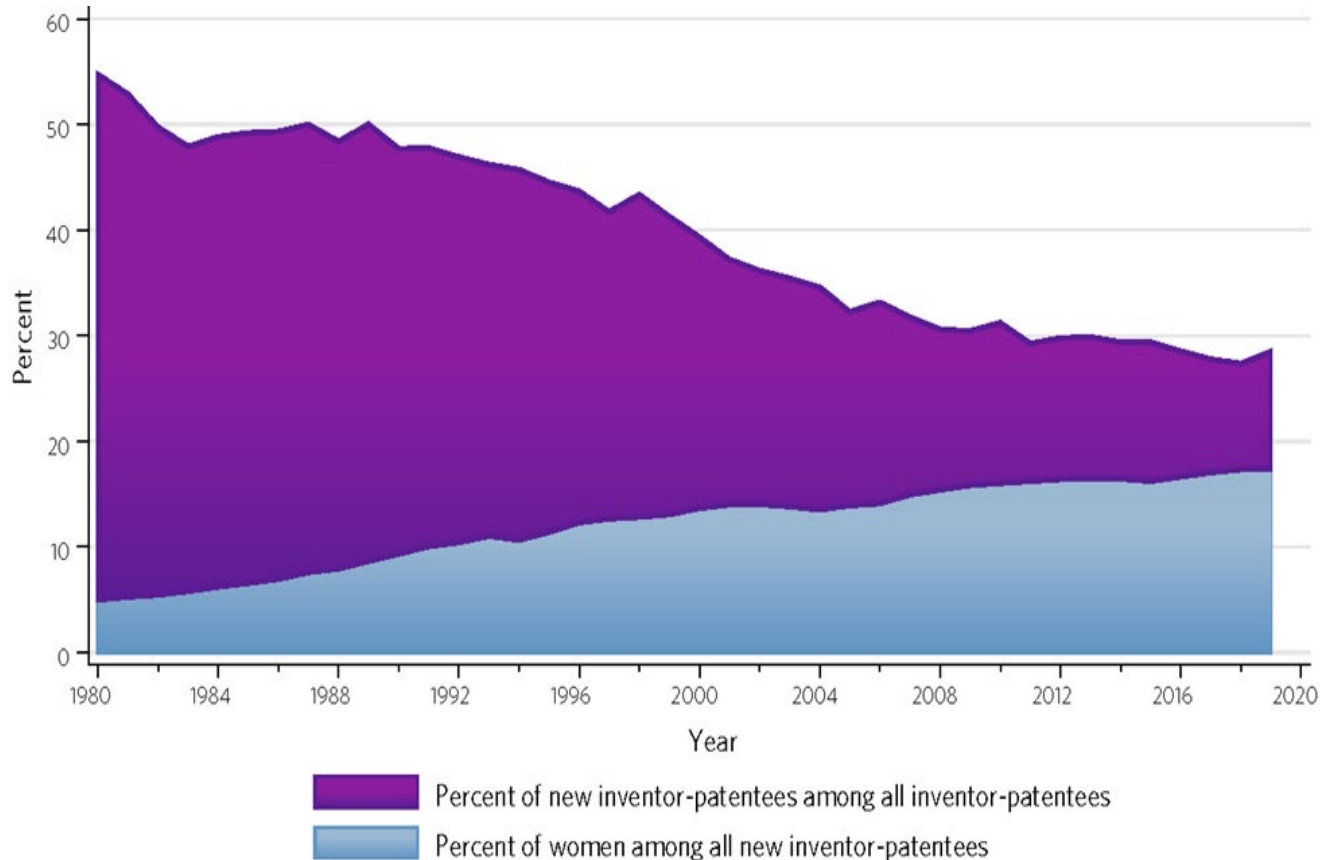
# Leaky pipeline increases the inventor gender gap



Source: National Science Board (2020)

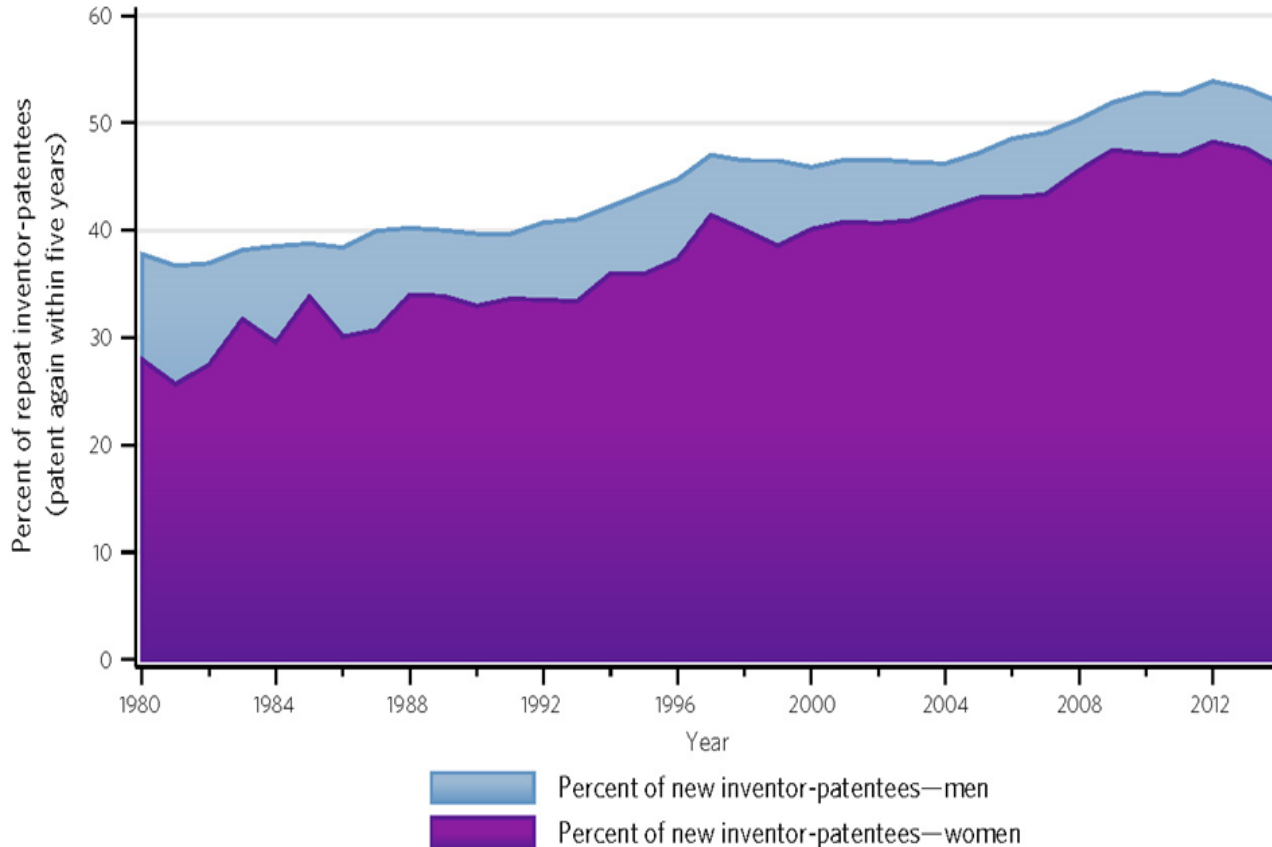


# More women are entering the intellectual property system



- Women made up 17.3% of all new inventor-patentees in 2019, up from 5% in 1980.
- The number of new women inventor-patentees has increased by 4% per year since 2014.

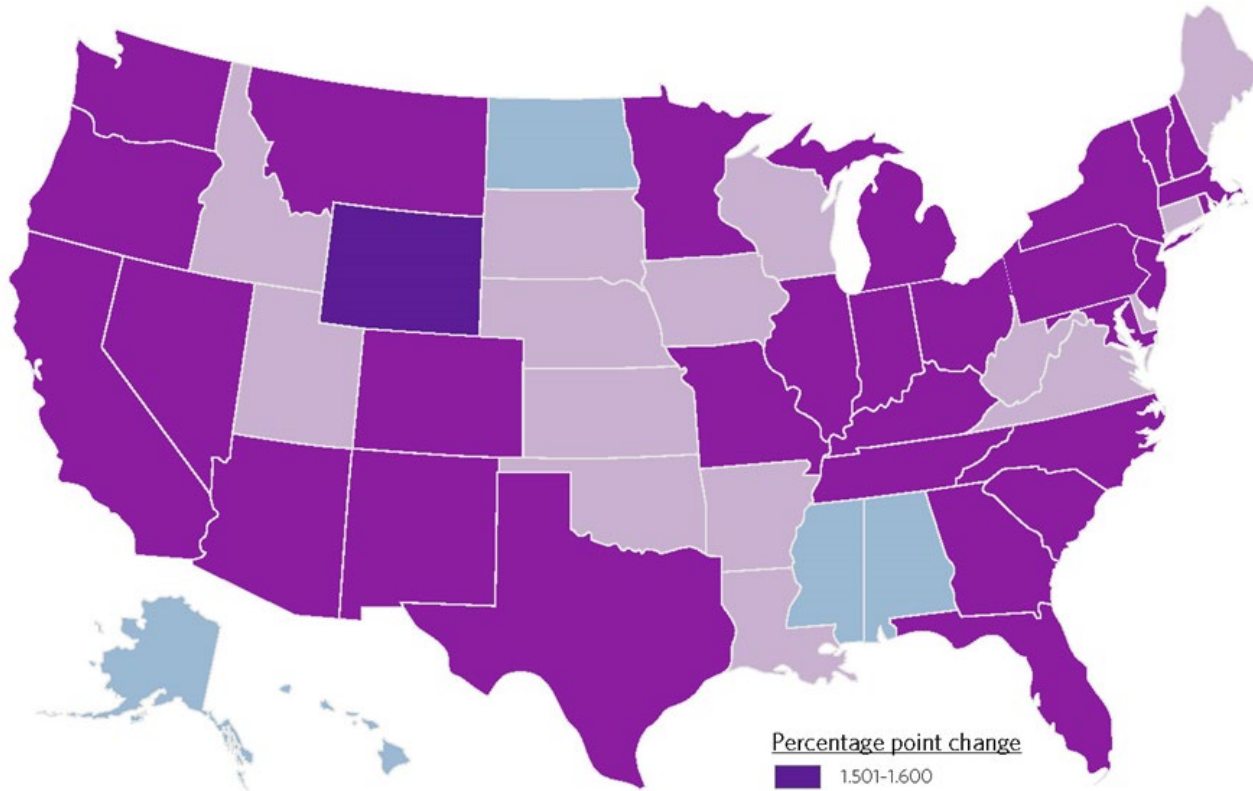
# More women inventor-patentees are staying active



- Gender gap in the number of inventor-patentees who stay active by patenting is decreasing.
- In 2014, 46% of women patented again within five years, versus 52% of men.

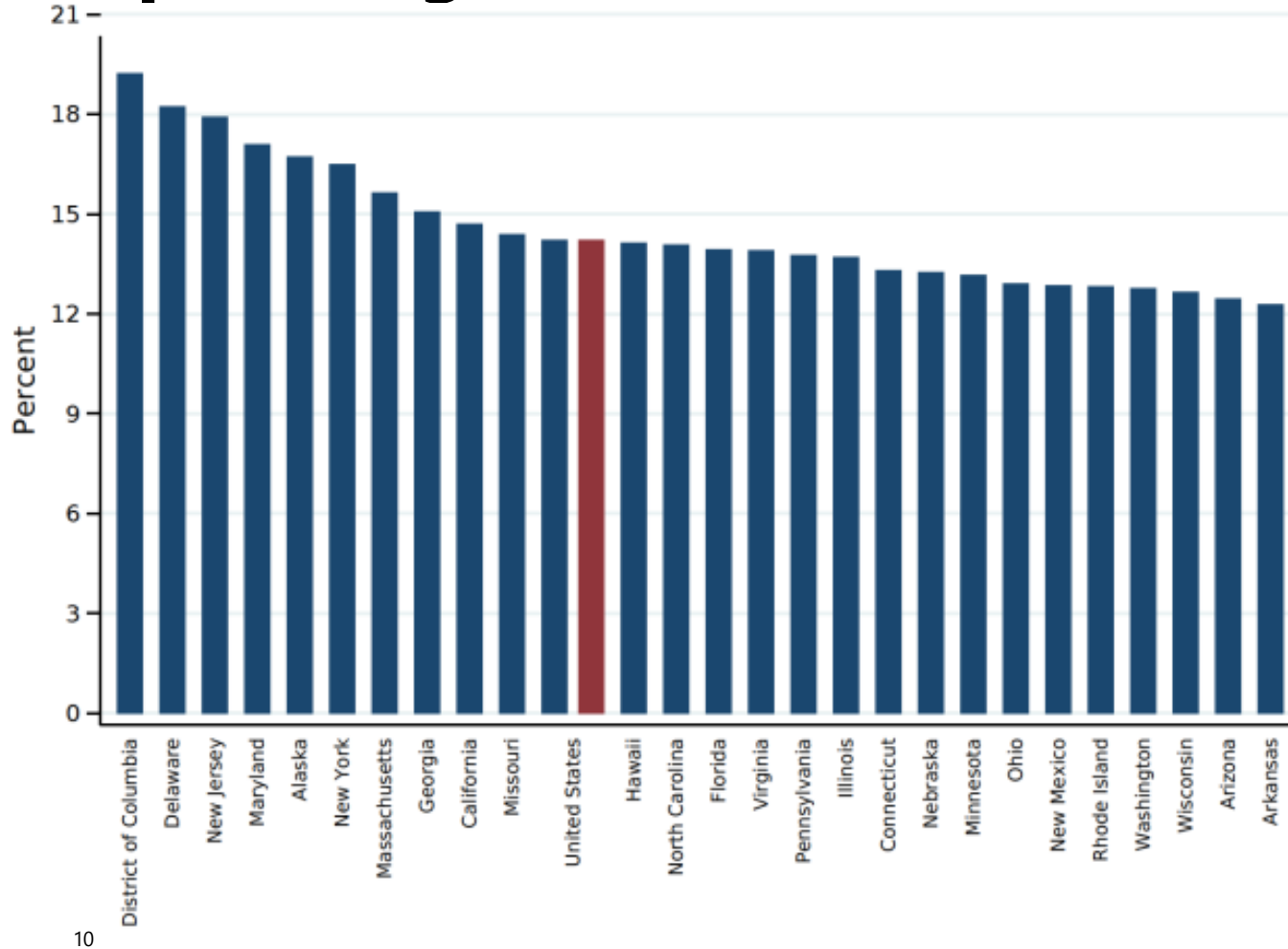


# Most U.S. regions show an improved average women inventor rate



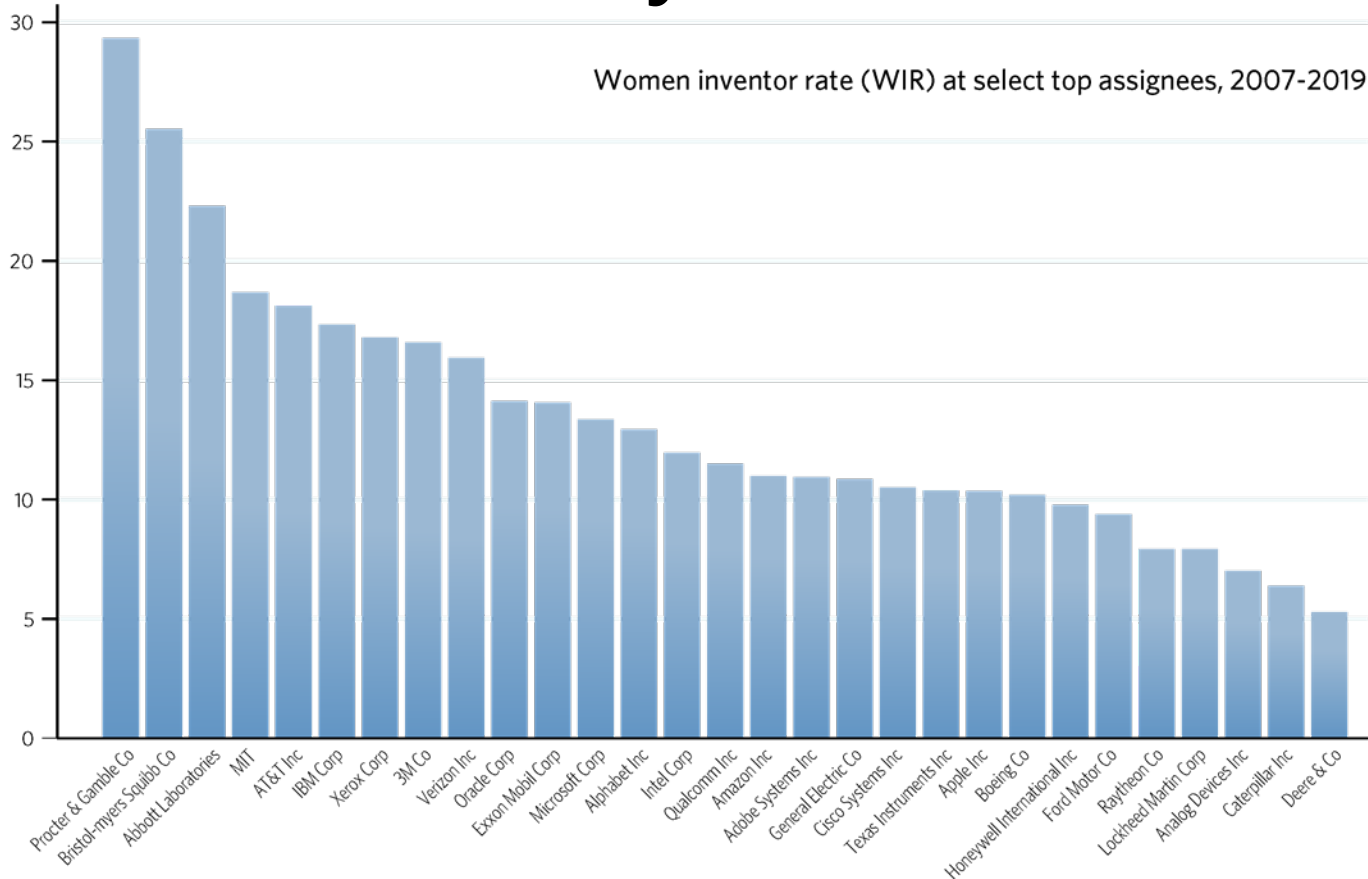
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# Top US regions, 2007-2019



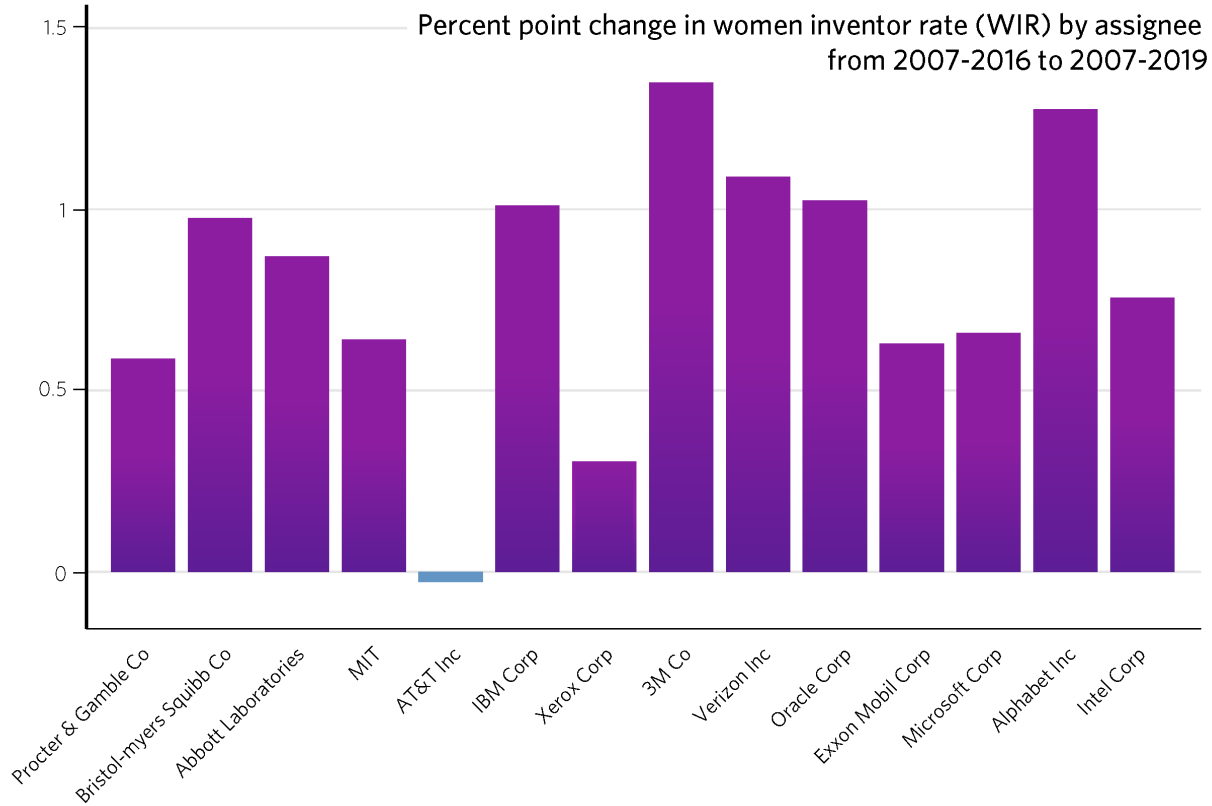
- DC has the highest share of women inventor-patentees at 19.2%.
- The national average women inventor rate is 14.2%.

# Women's participation in the private sector remains relatively low



➤ P&G has the highest WIR at 29.3%.

# Most companies showed improvements



- 3M Co. showed the largest improvement in the last three years, up from 15.2% to 16.6%.

# Web link

[www.uspto.gov/sites/default/files/documents/OCE-DH-Progress-Potential-2020.pdf](http://www.uspto.gov/sites/default/files/documents/OCE-DH-Progress-Potential-2020.pdf)

OFFICE OF THE CHIEF ECONOMIST  
IP DATA HIGHLIGHTS

Number 4, July 2020

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## Progress and Potential

2020 update on U.S. women  
inventor-patentees



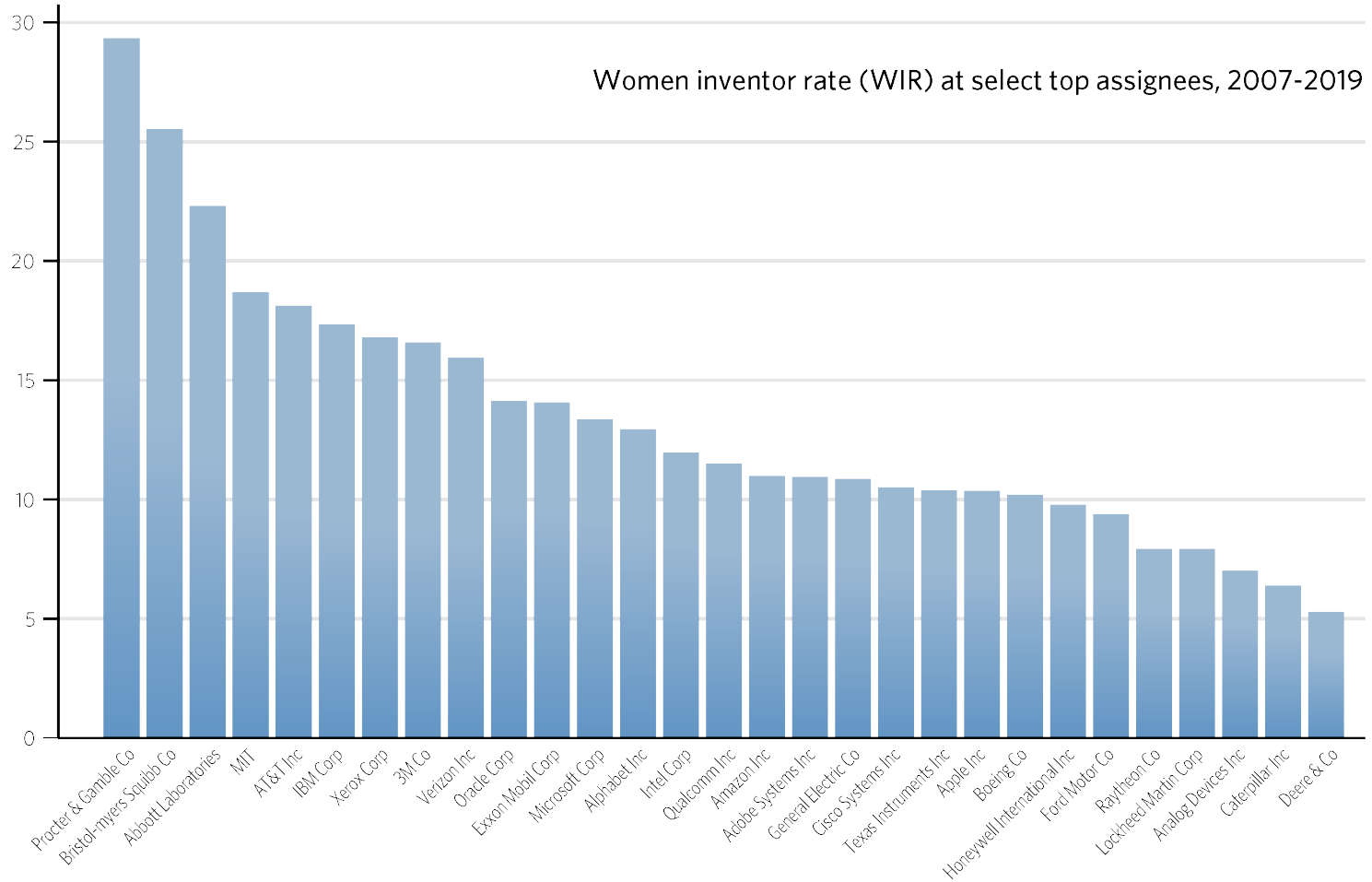


**Thank you!**

[www.uspto.gov](http://www.uspto.gov)

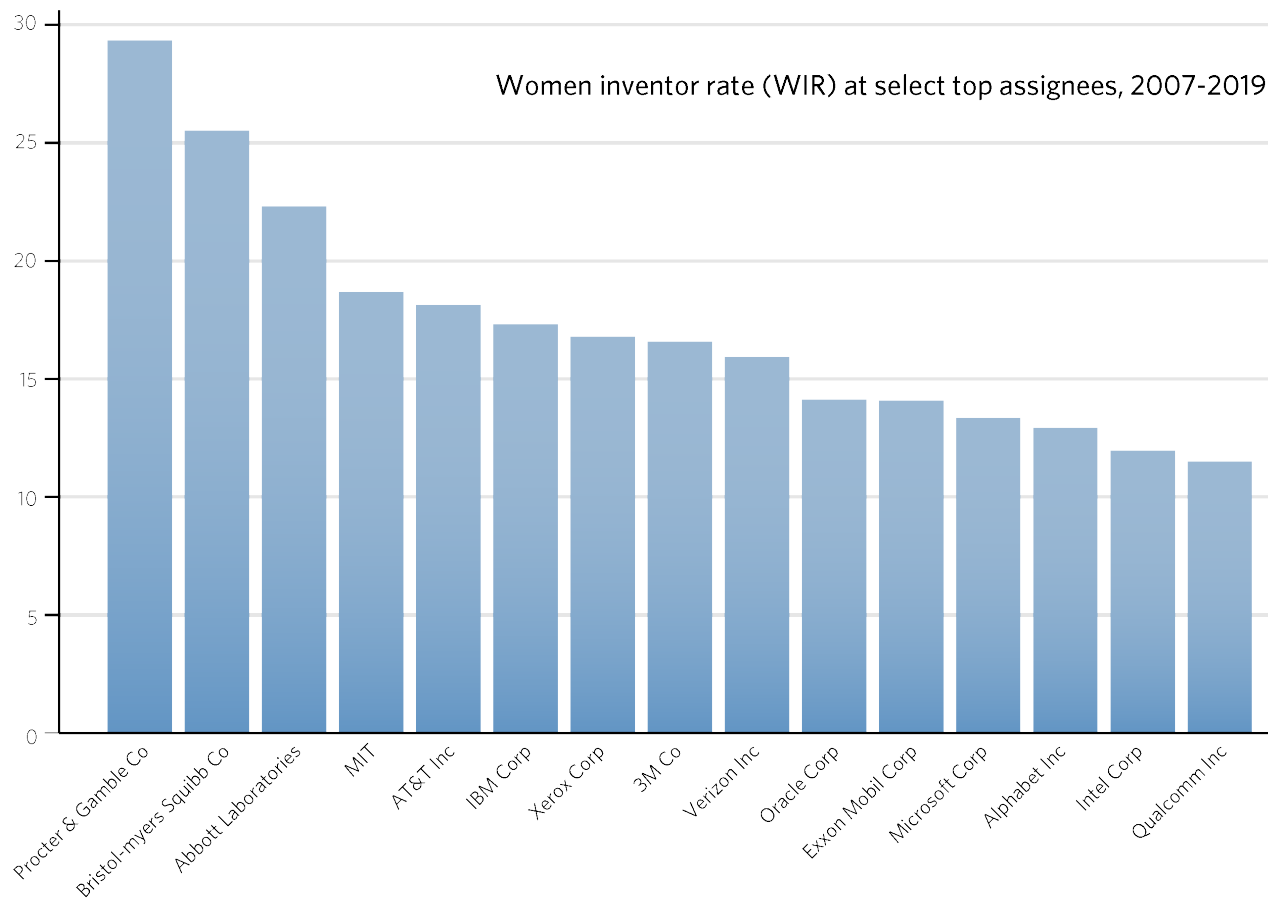
**Various extra slides**

# Figure 6a - All

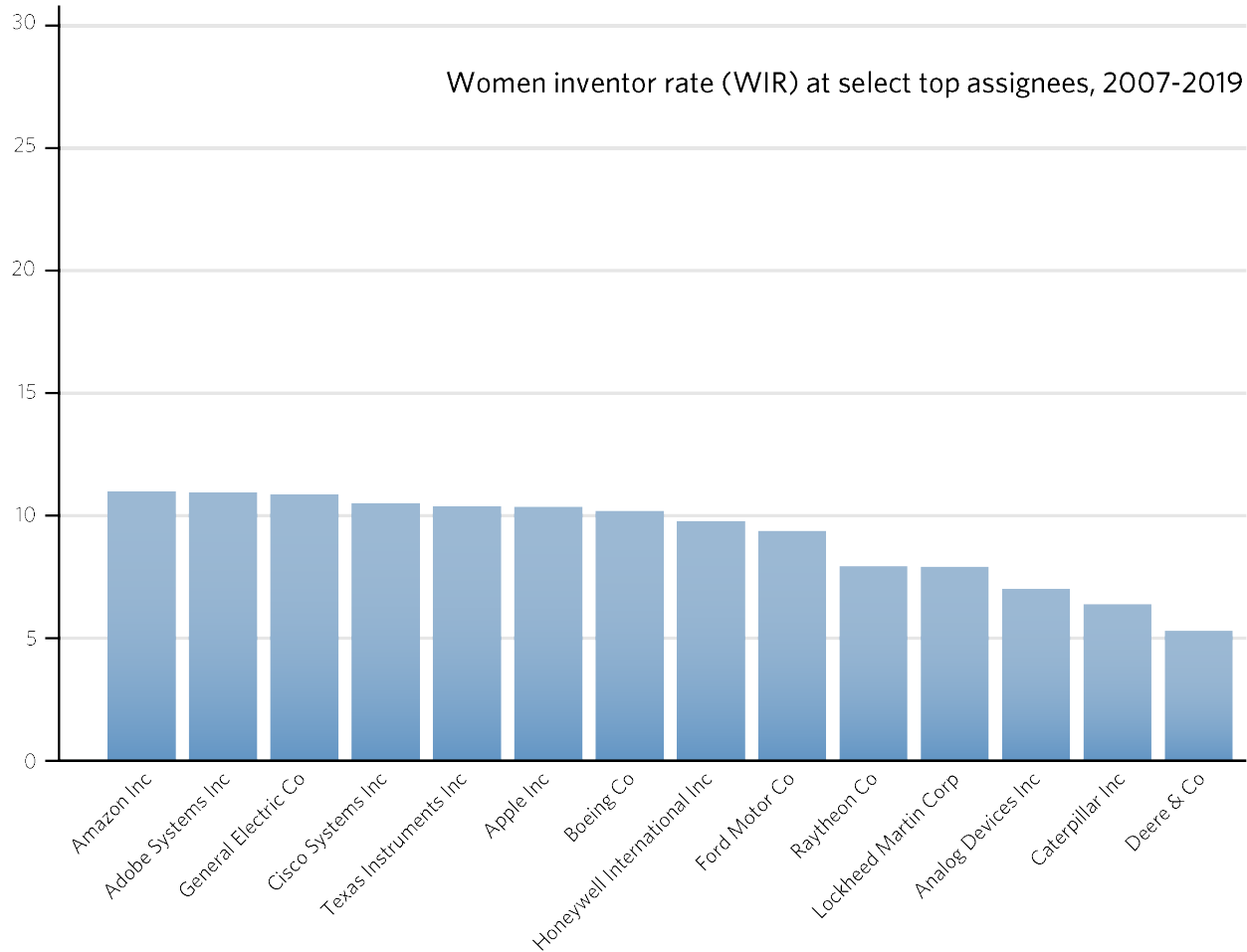




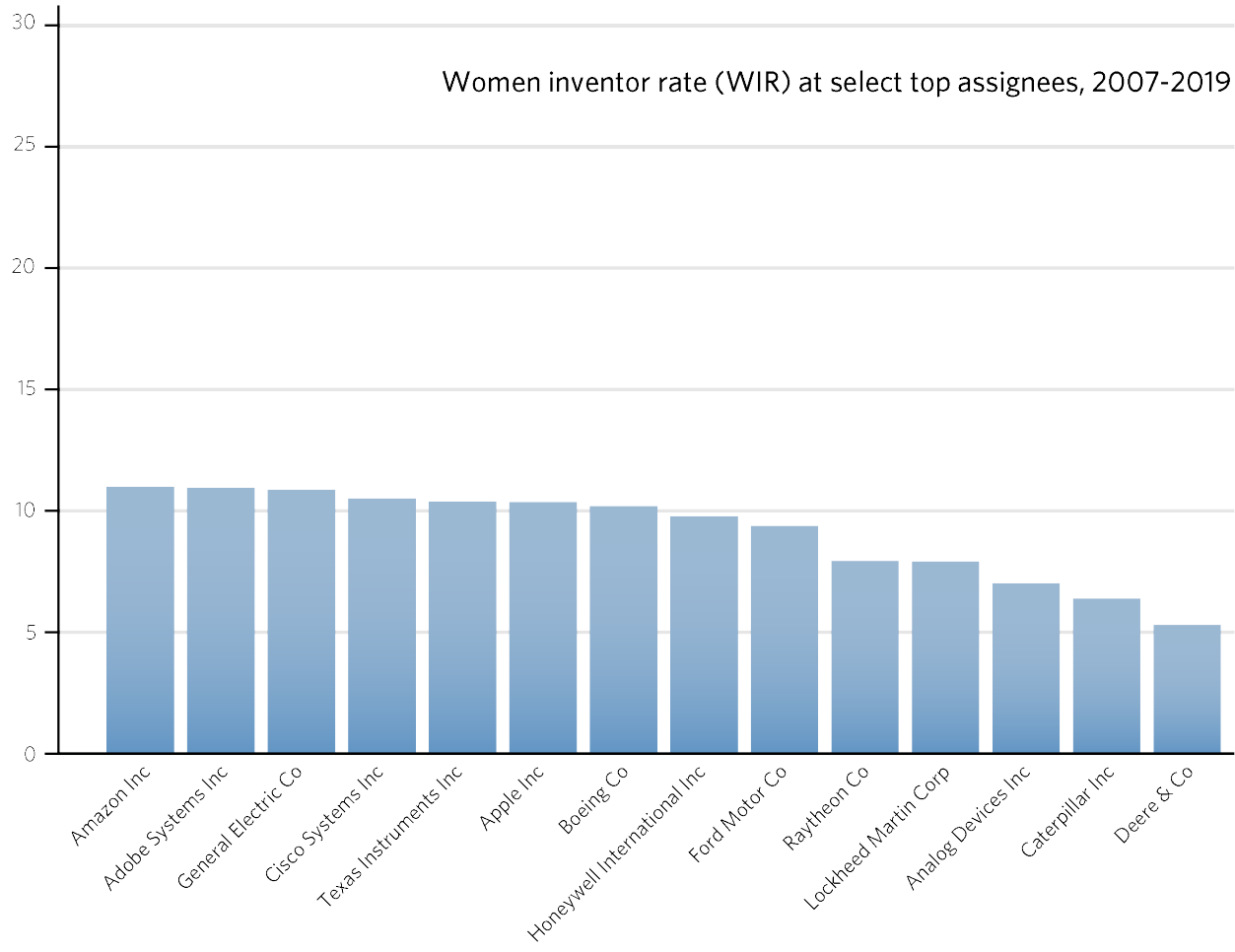
# Figure 6a - top



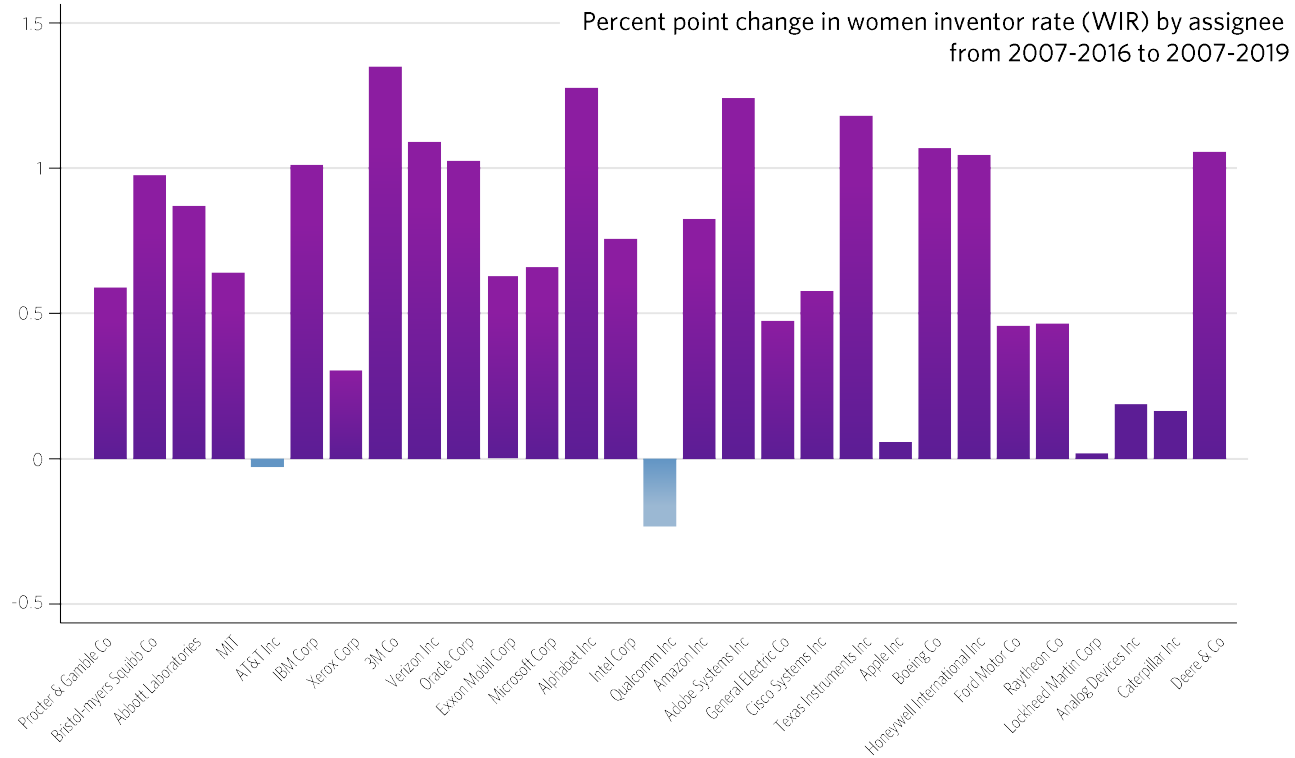
# Figure 6a – bottom



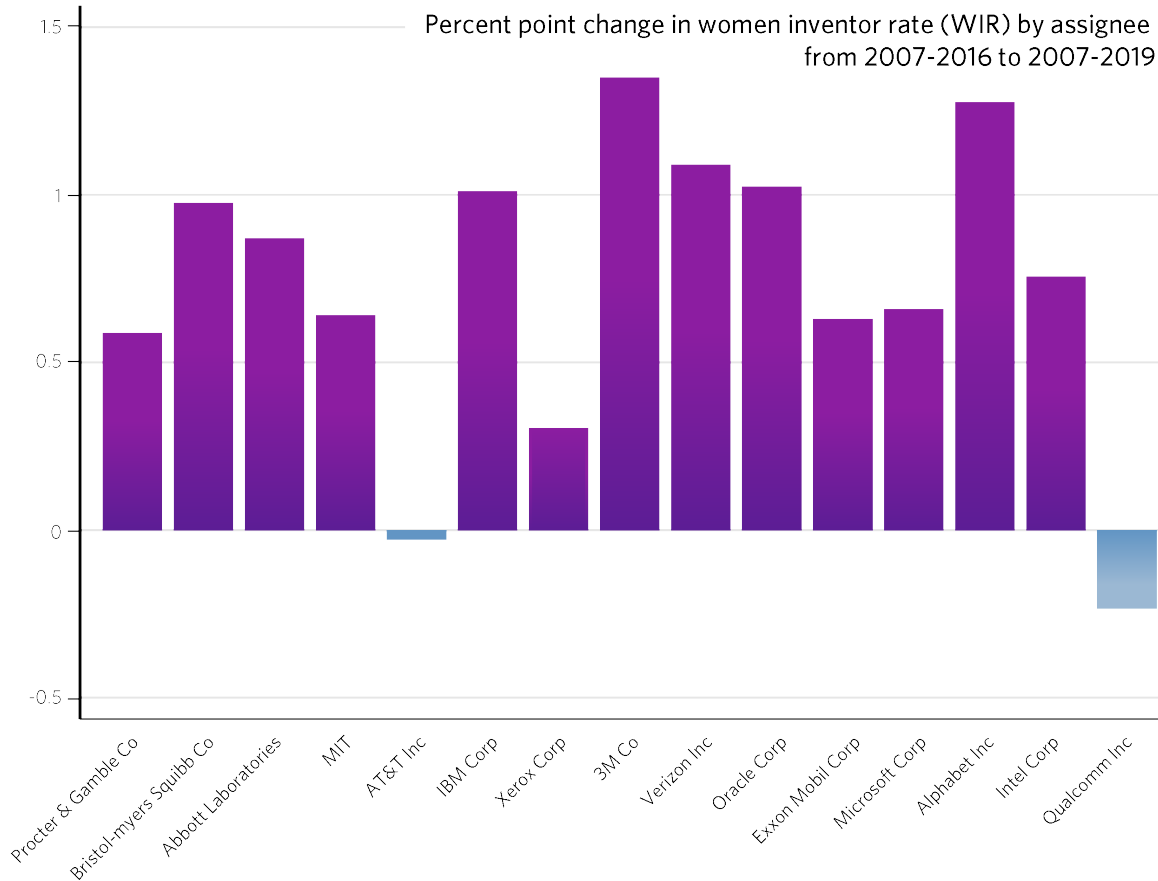
# Figure 6a – both w/ animation



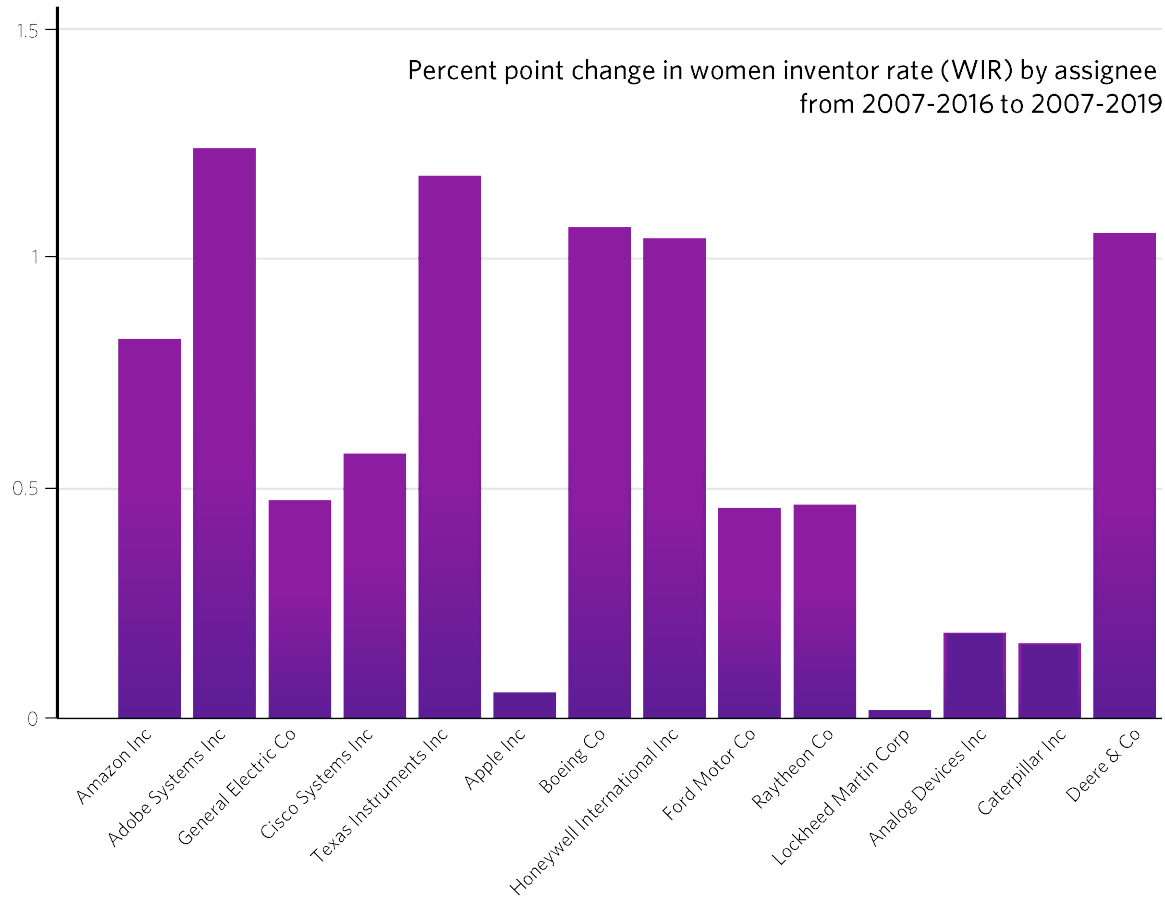
# Figure 6b –all



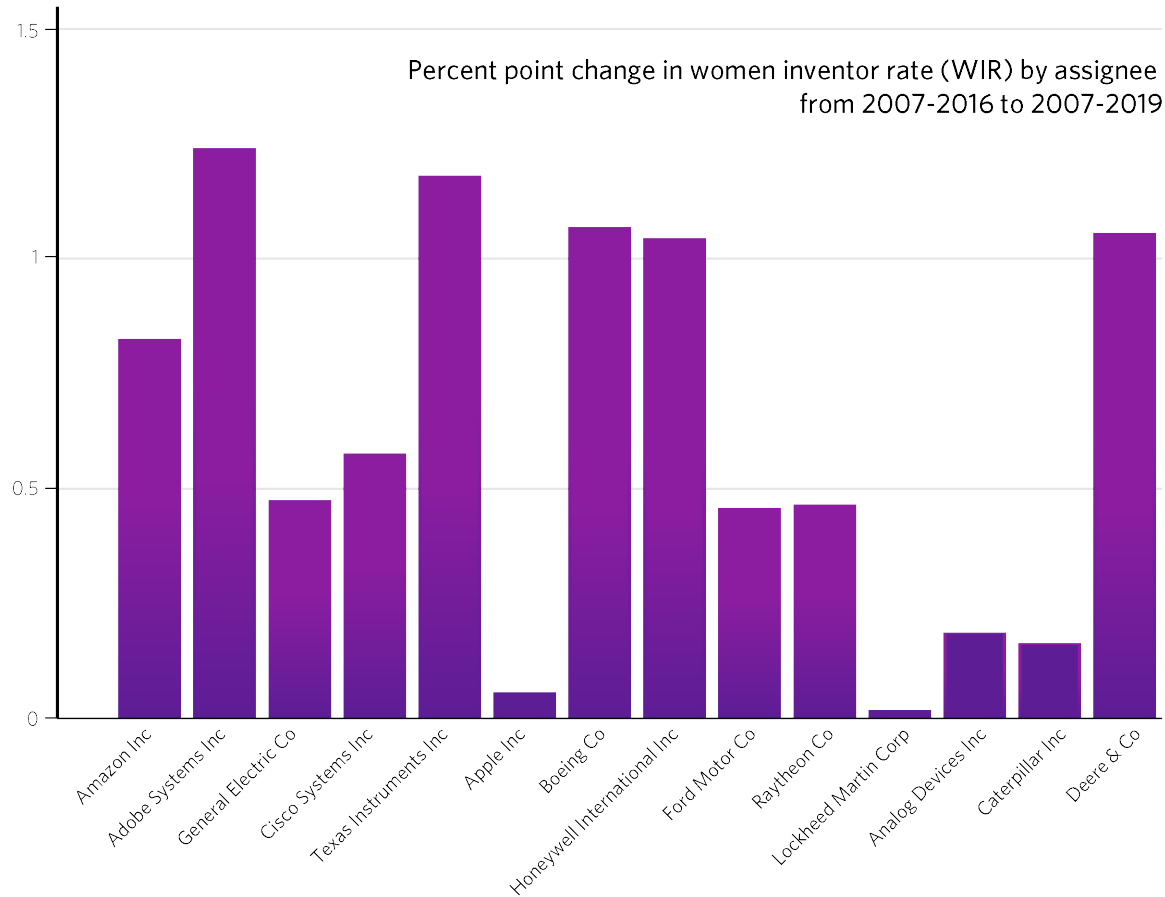
# Figure 6b - top



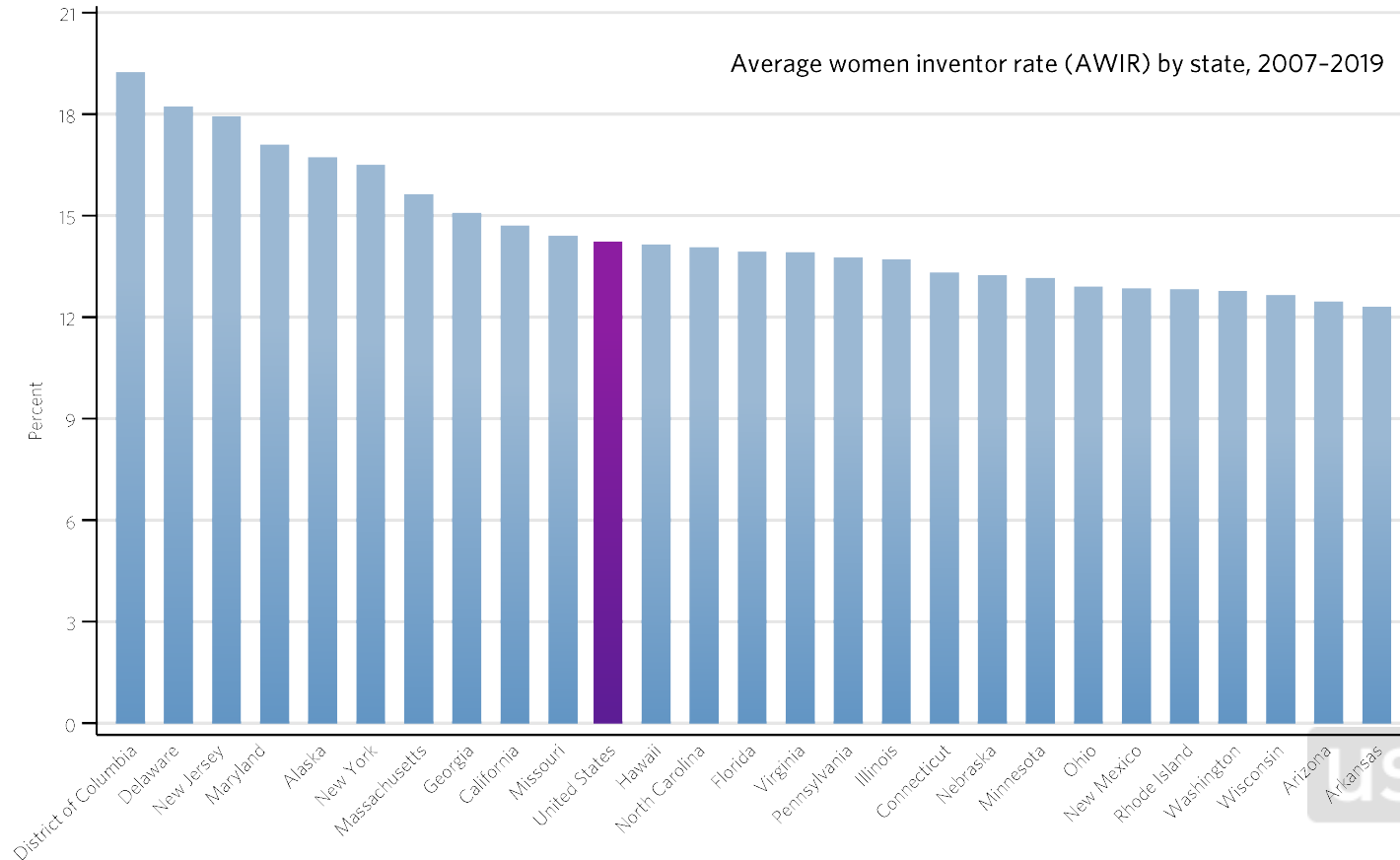
# Figure 6b- bottom



# Figure 6b – w/ animation

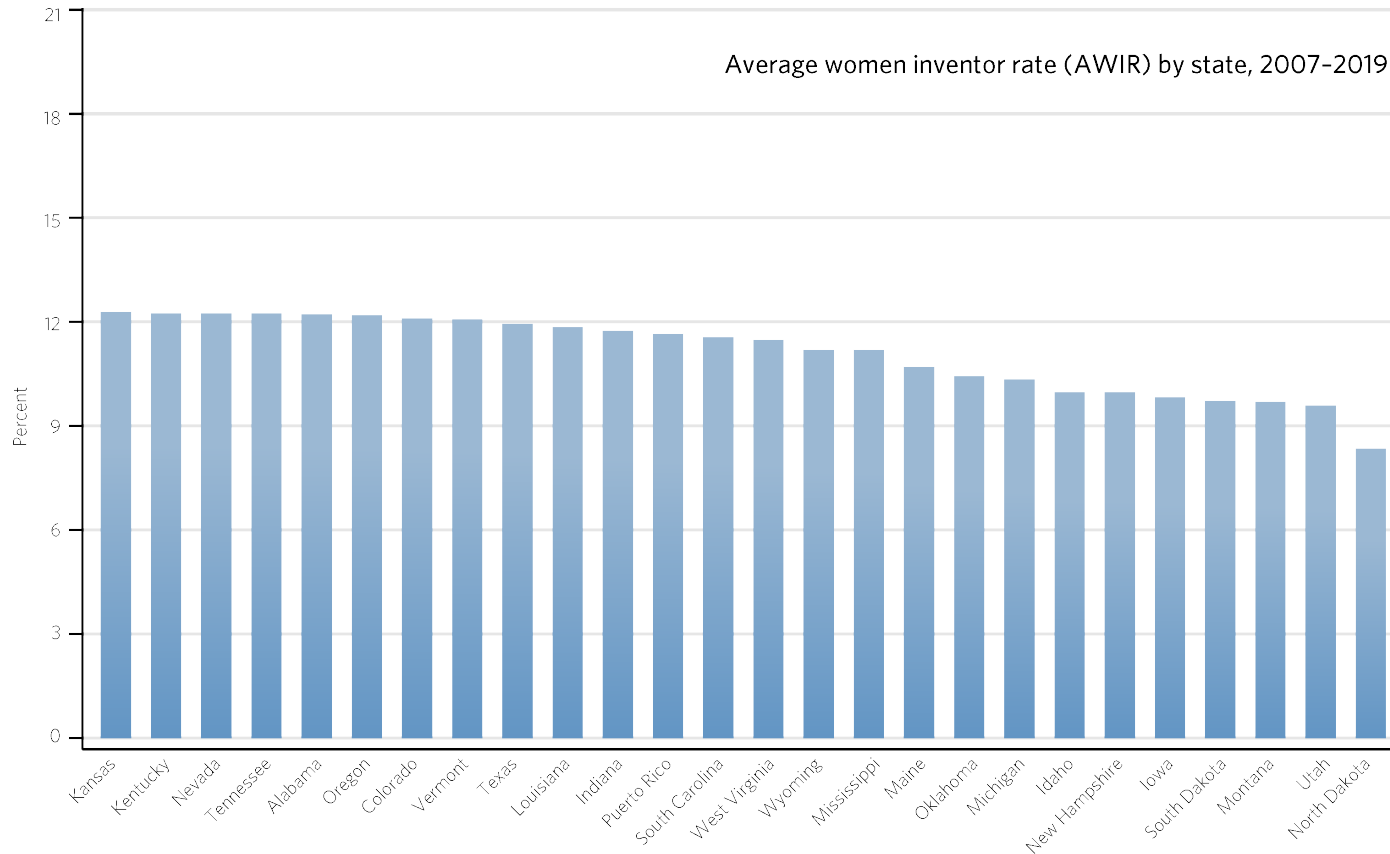


# Figure 4 top graph





# Figure 4 bottom graph



# Fig 4 graphs w/ animation

