

Tidy Tuesday March 5

Women in the Workforce

Github link: <https://github.com/rfordatascience/tidytuesday/tree/master/data/2019/2019-03-05>

There are historical data about women's earnings and employment status, as well as detailed information about specific occupation and earnings from 2013-2016.

Three datasets to look at:

[jobs_gender.csv](#)

variable	class	description
year	integer	Year
occupation	character	Specific job/career
major_category	character	Broad category of occupation
minor_category	character	Fine category of occupation
total_workers	double	Total estimated full-time workers > 16 years old
workers_male	double	Estimated MALE full-time workers > 16 years old
workers_female	double	Estimated FEMALE full-time workers > 16 years old
percent_female	double	The percent of females for specific occupation
total_earnings	double	Total estimated median earnings for full-time workers > 16 years old
total_earnings_male	double	Estimated MALE median earnings for full-time workers > 16 years old
total_earnings_female	double	Estimated FEMALE median earnings for full-time workers > 16 years old
wage_percent_of_male	double	Female wages as percent of male wages - NA for occupations with small sample size

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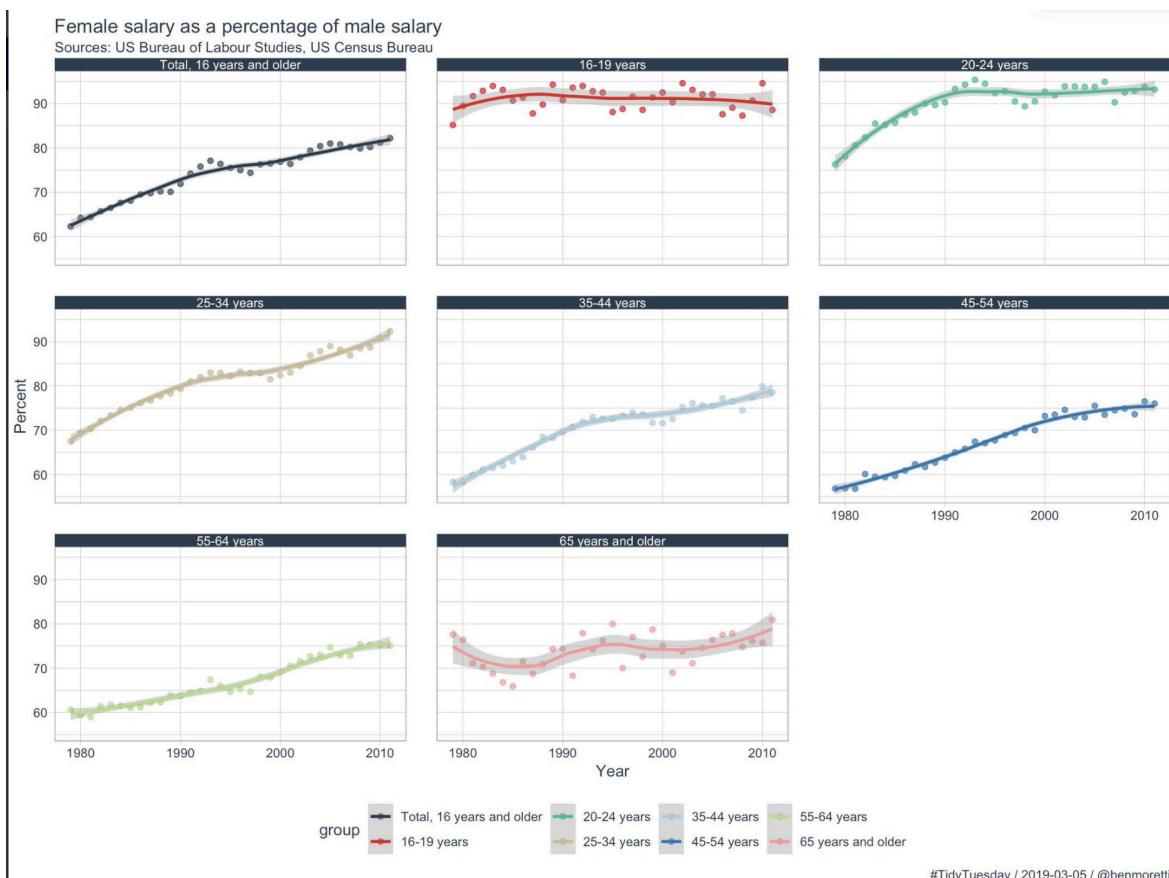
[employed_gender.csv](#)

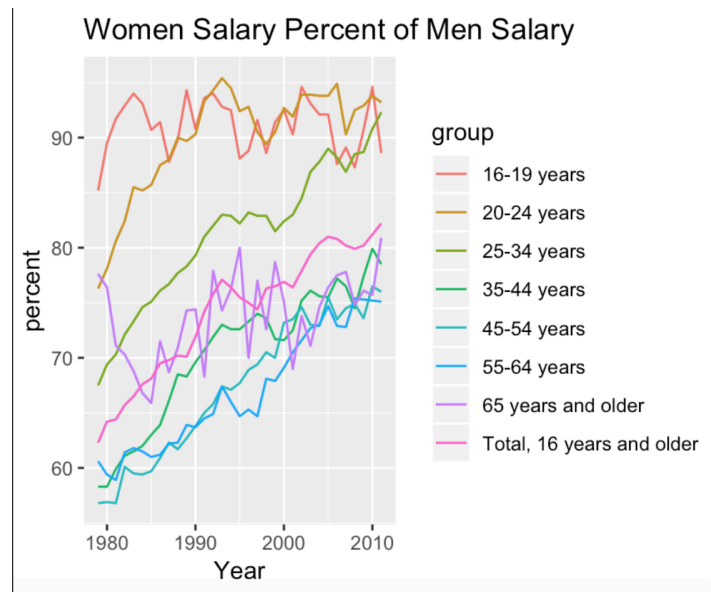
variable	class	description
year	double	Year
total_full_time	double	Percent of total employed people usually working full time
total_part_time	double	Percent of total employed people usually working part time
full_time_female	double	Percent of employed women usually working full time
part_time_female	double	Percent of employed women usually working part time
full_time_male	double	Percent of employed men usually working full time
part_time_male	double	Percent of employed men usually working part time

[earnings_female.csv](#)

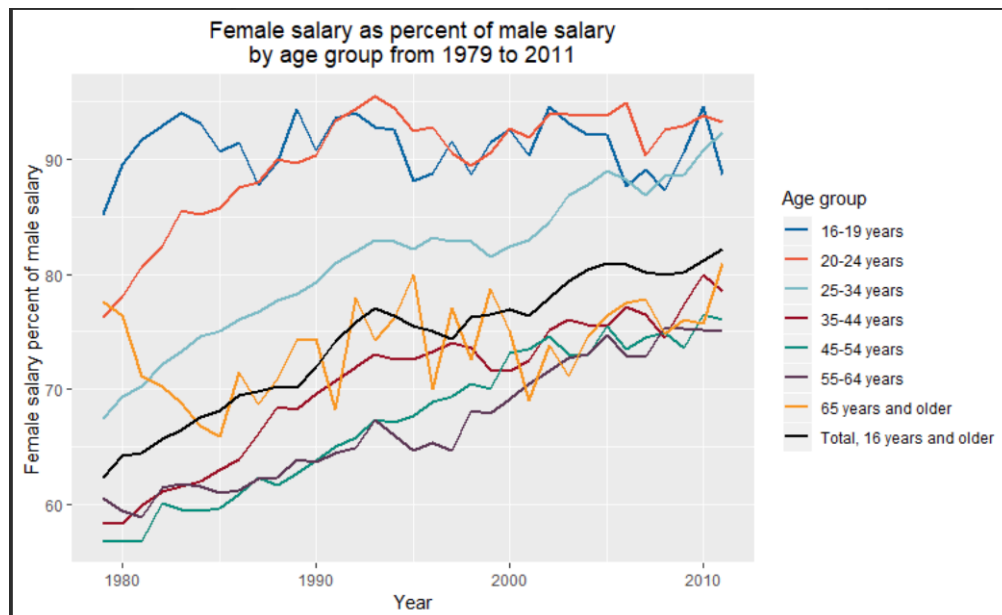
variable	class	description
Year	integer	Year
group	character	Age group
percent	double	Female salary percent of male salary

Female salary as a percent of male salary by age group

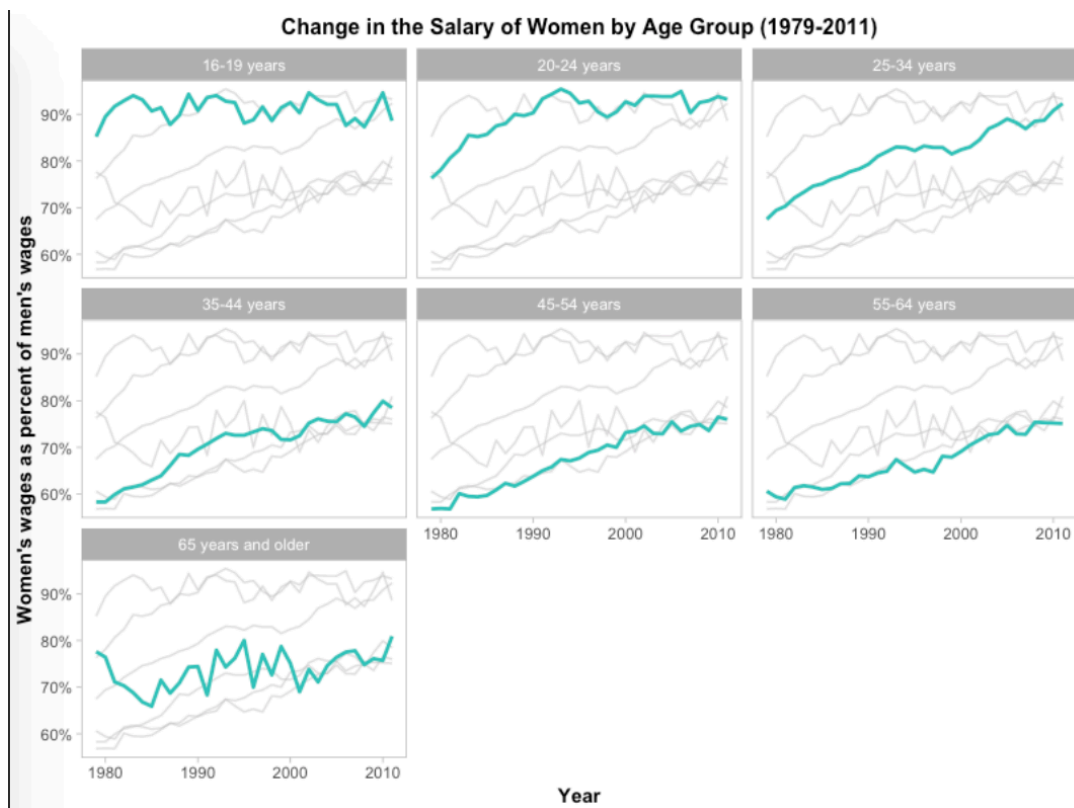




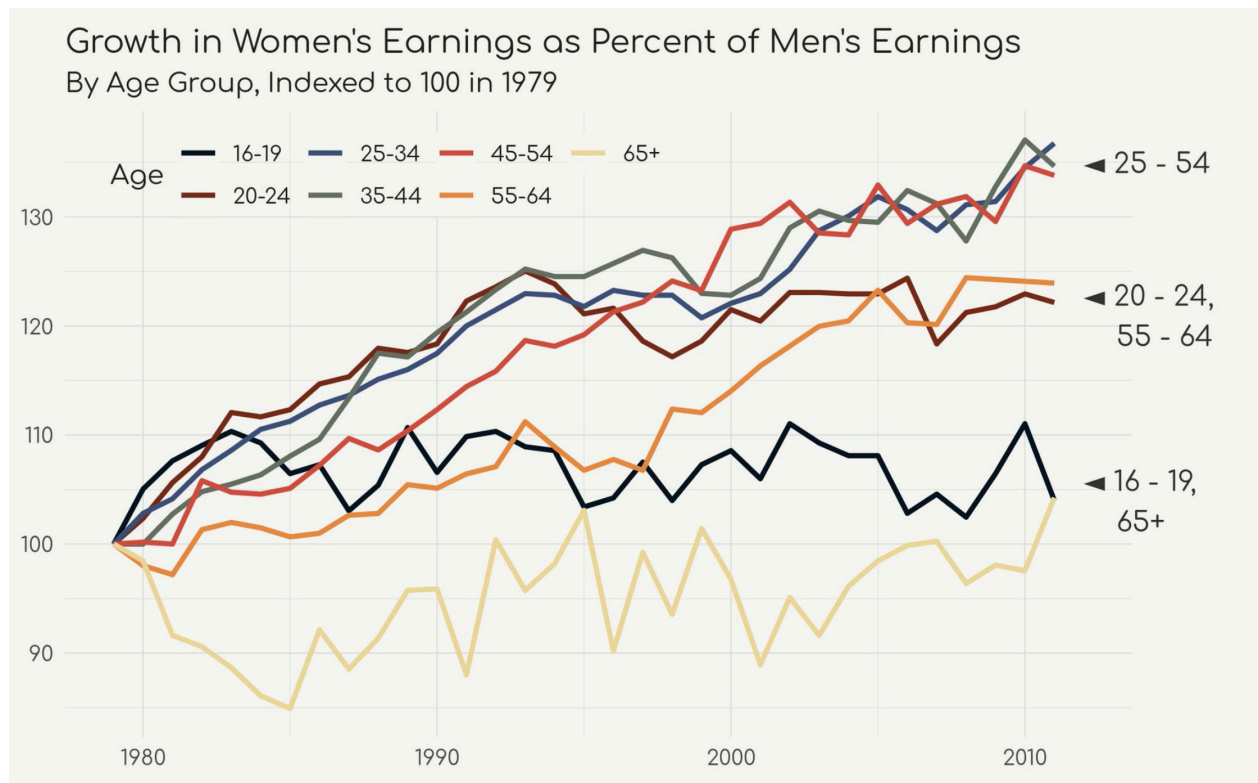
@KendallaSmith_



@rborashko



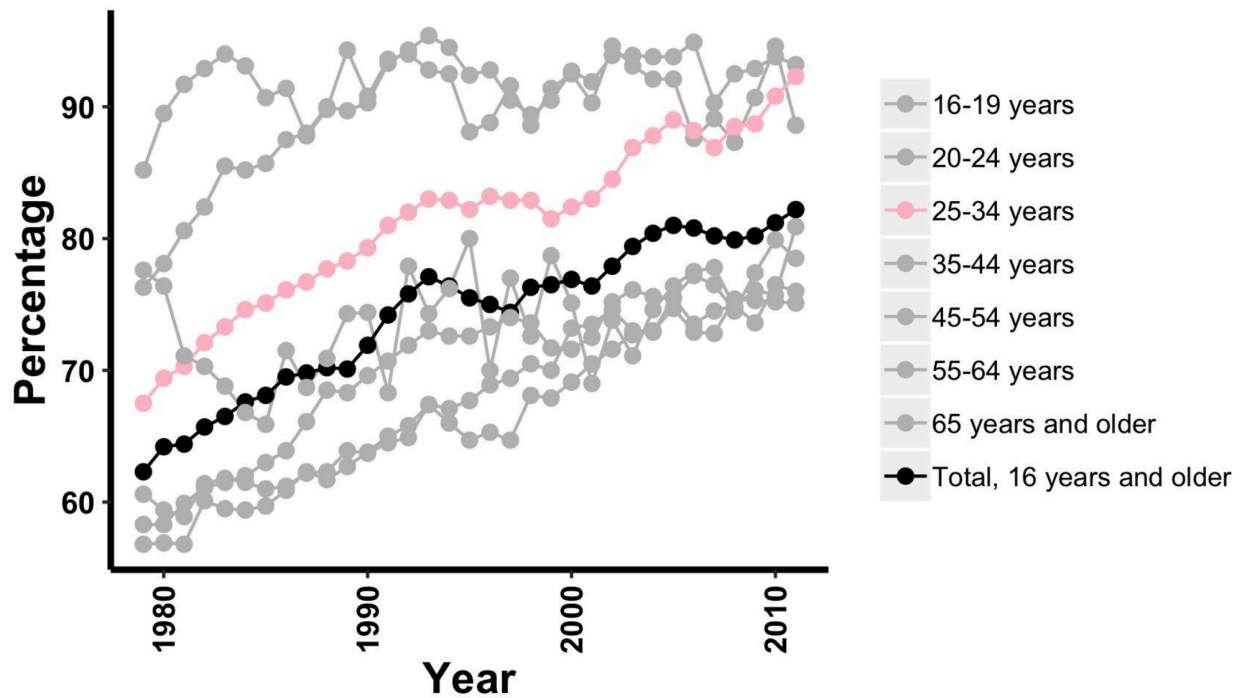
@lena2nguyen



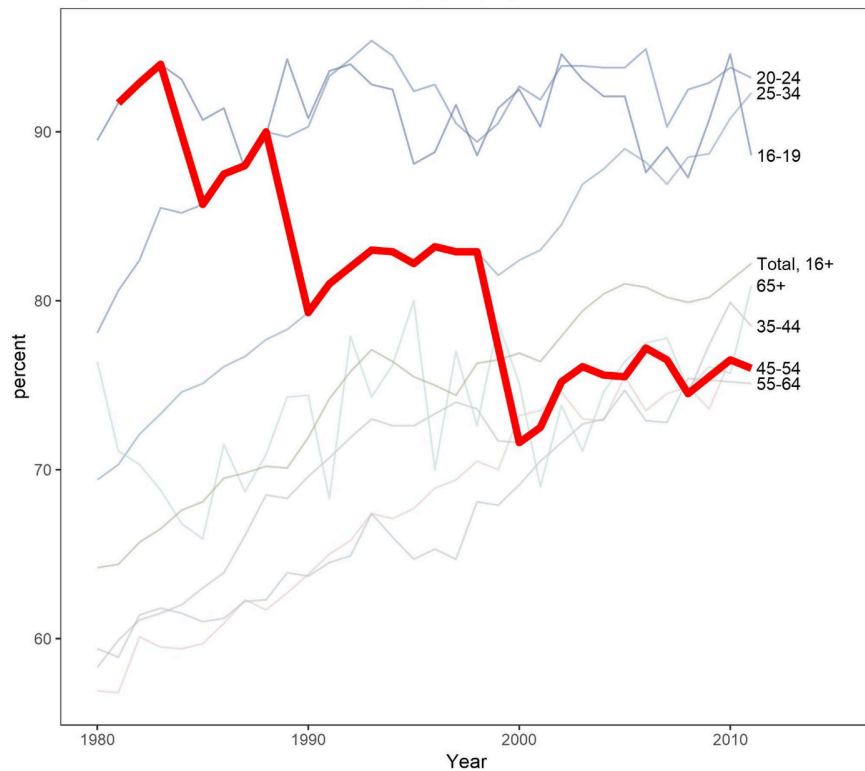
@DaveBloom11

TidyTuesday: Women in workplace

Female salary percent of male salary

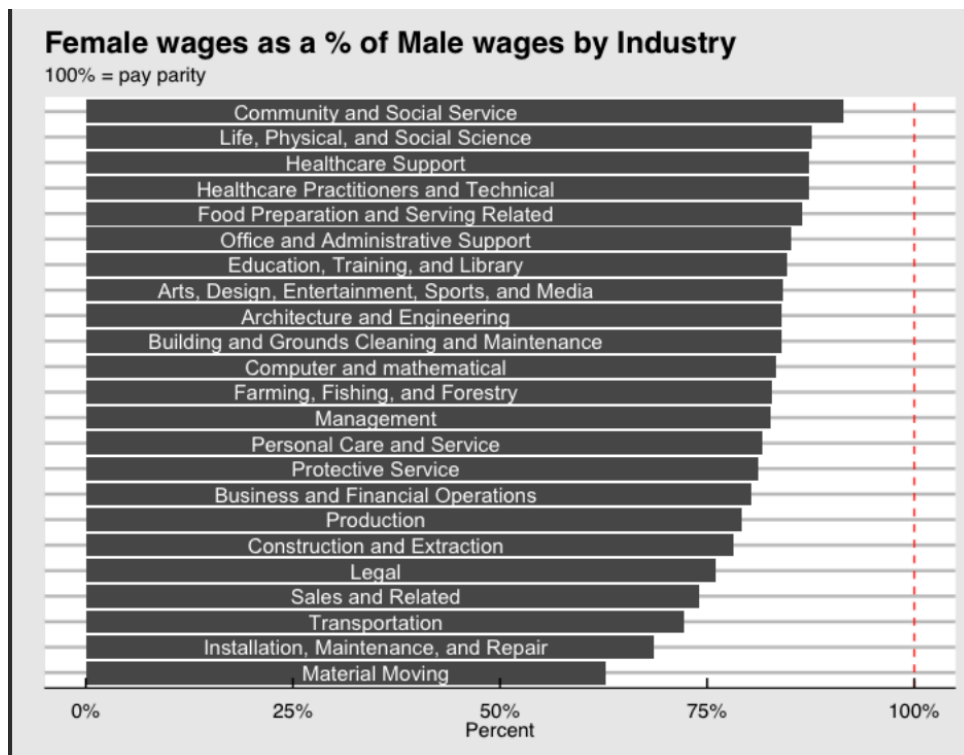


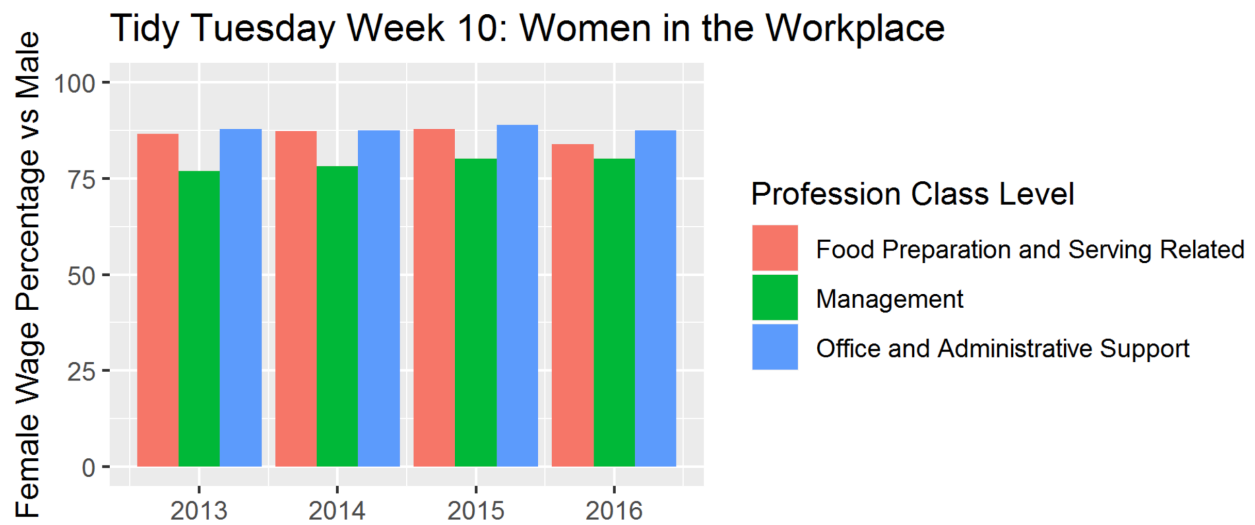
While each age group has trended toward parity over time
my cohort has seen a decrease in pay equity



Data: Bureau of Labor Statistics
Viz: @WireMonkey Alyssa Goldberg

Female salary compared to male salary by sector

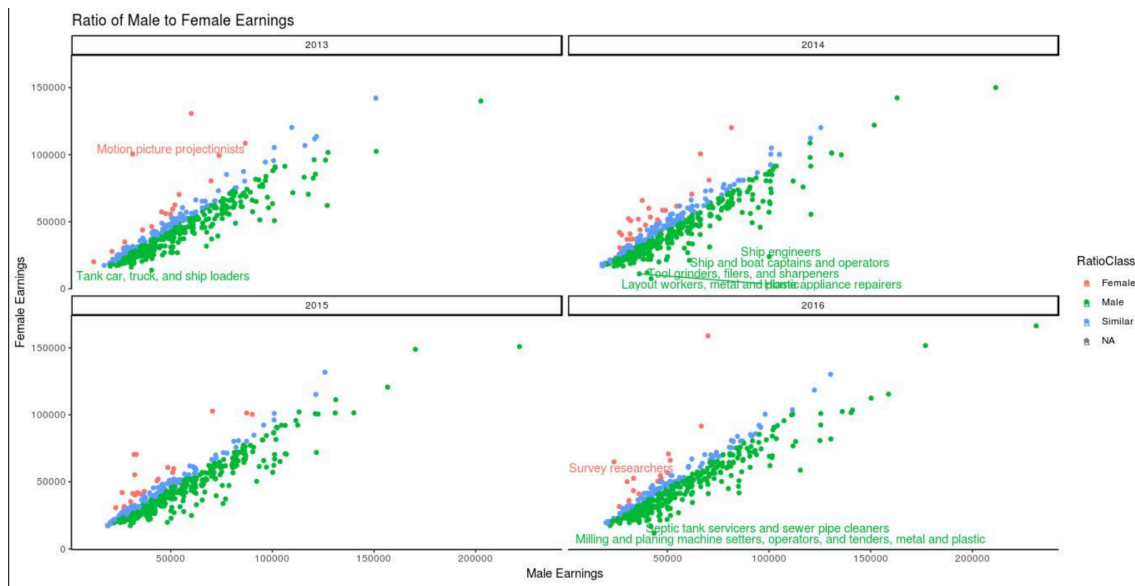




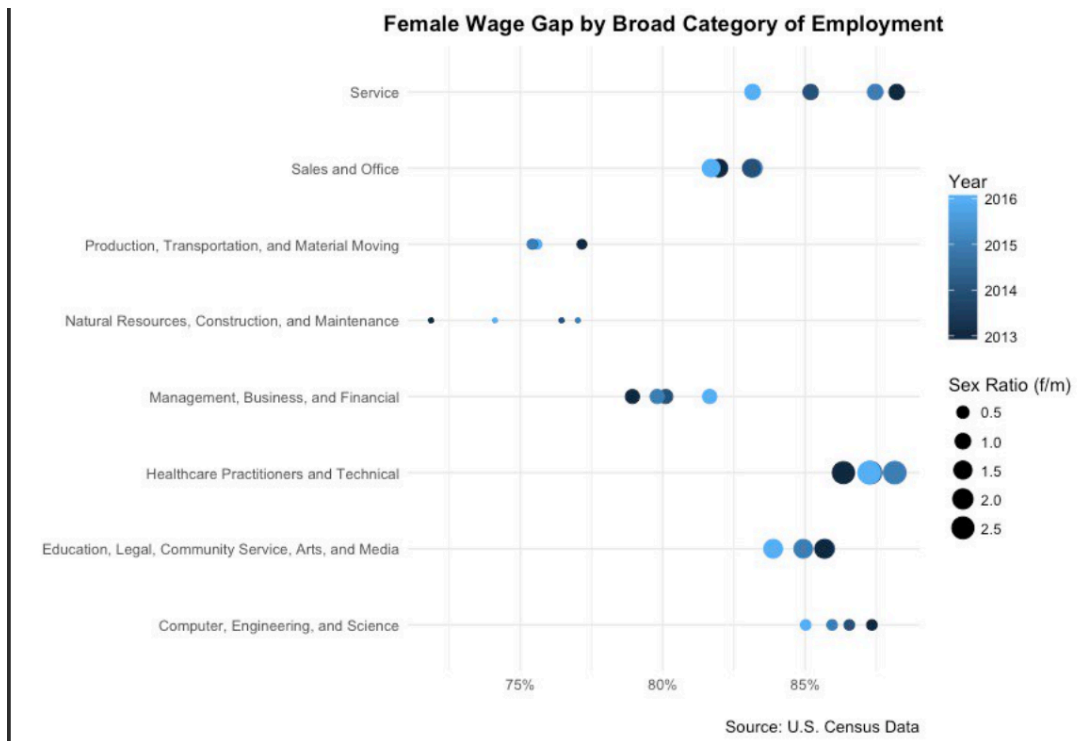
Source: Census Bureau

<https://github.com/JerrickTram/TidyTuesday/blob/master/2019%20Week%2010%20Women%20in%20the%20Workplace/Wage%20Gap.R>

@JerrickTram



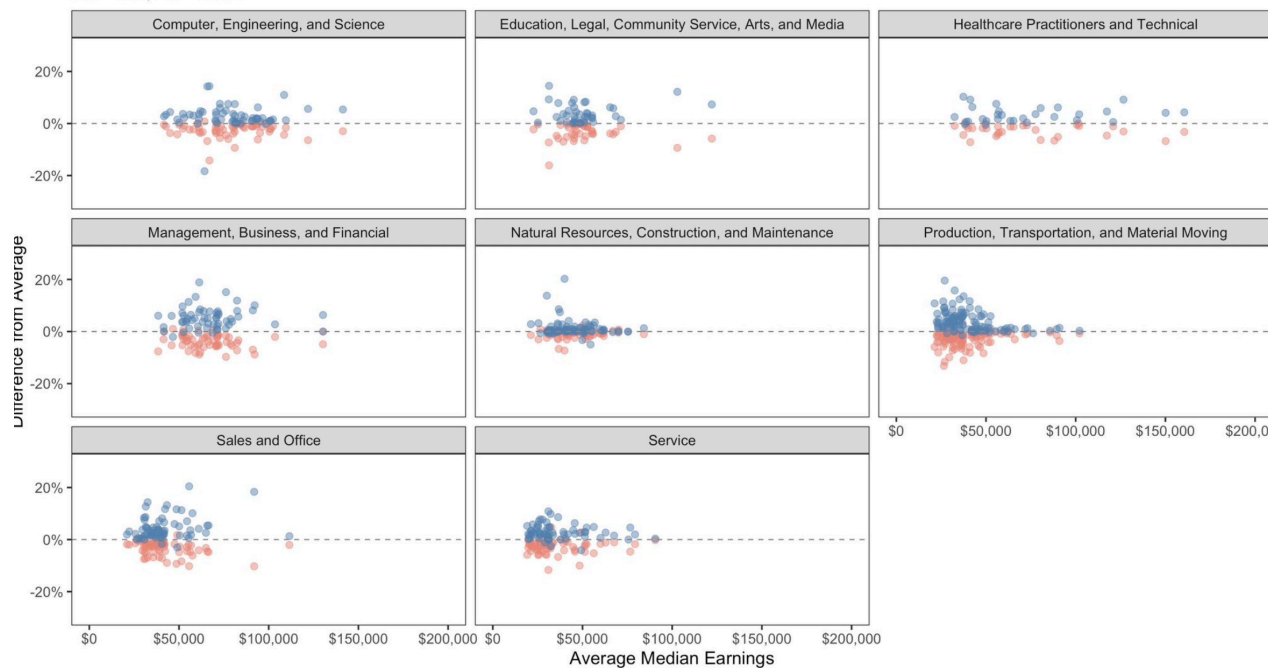
@frizzyroselle



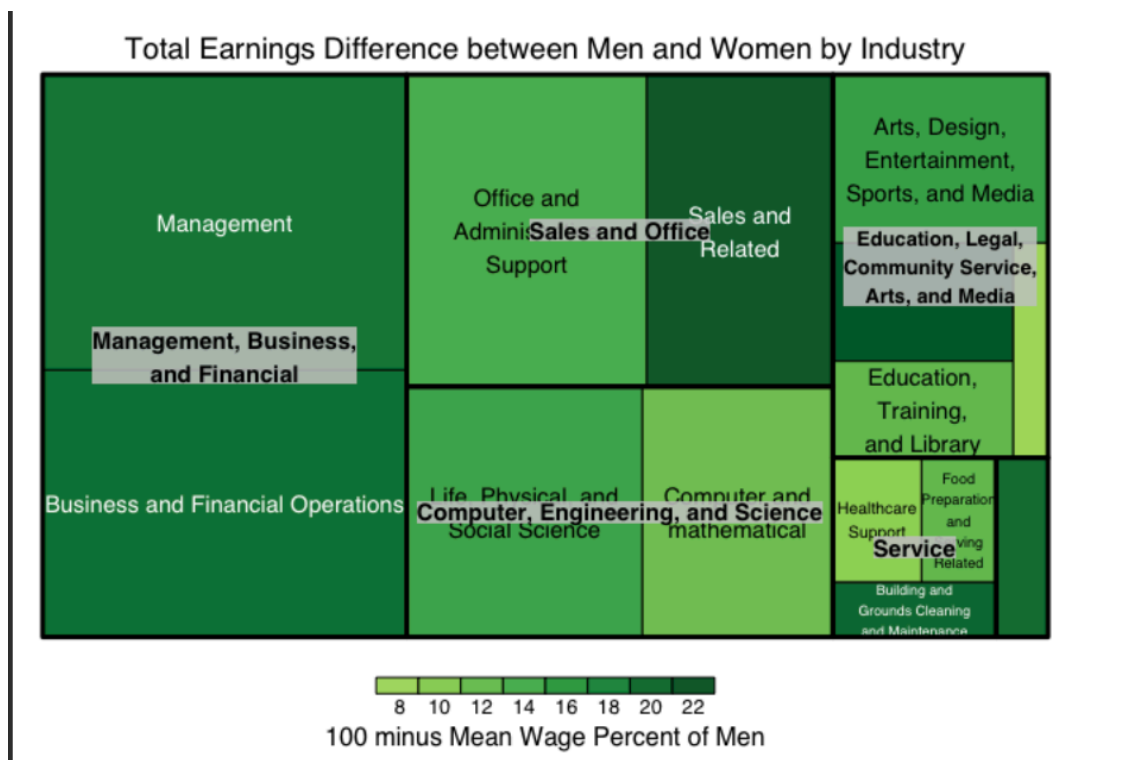
@jon_cole

2016 Earnings Differences (Weighted) by Job Sector

Blue = Male; Red = Female



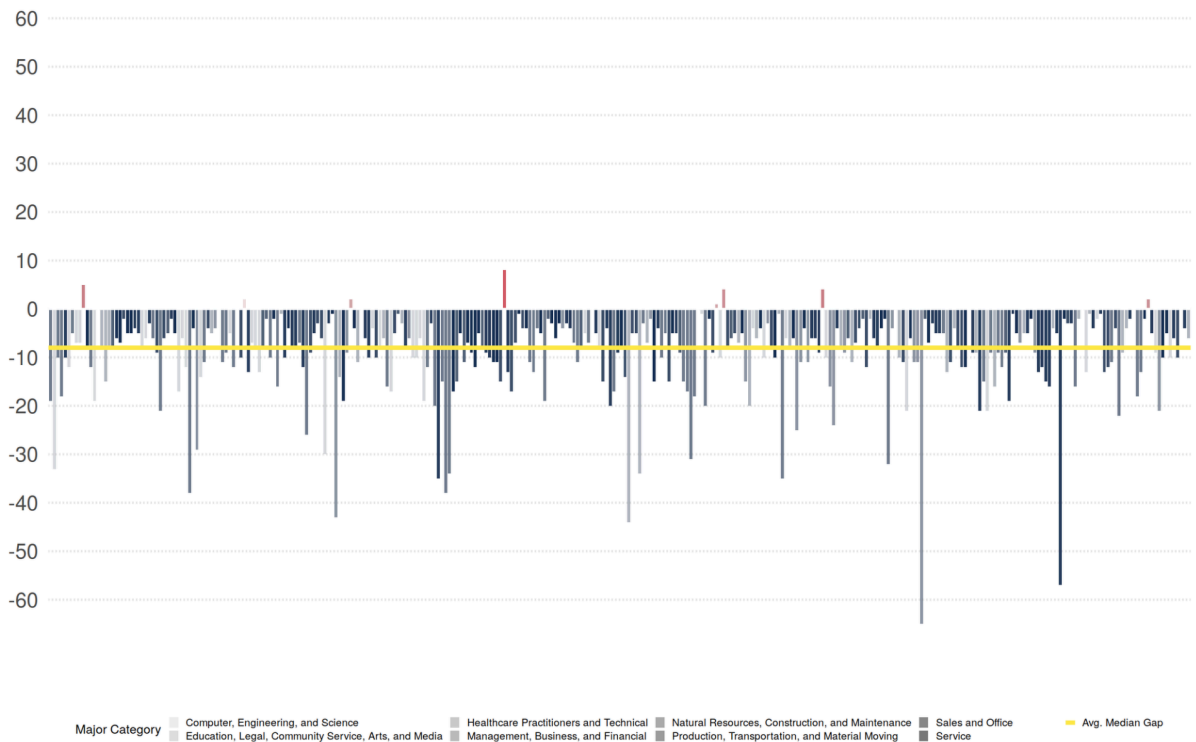
Graphic: @eeysirh
Source: Bureau of Labor Statistics



@kevin_m_kent

Do Women Earn Less than Men?

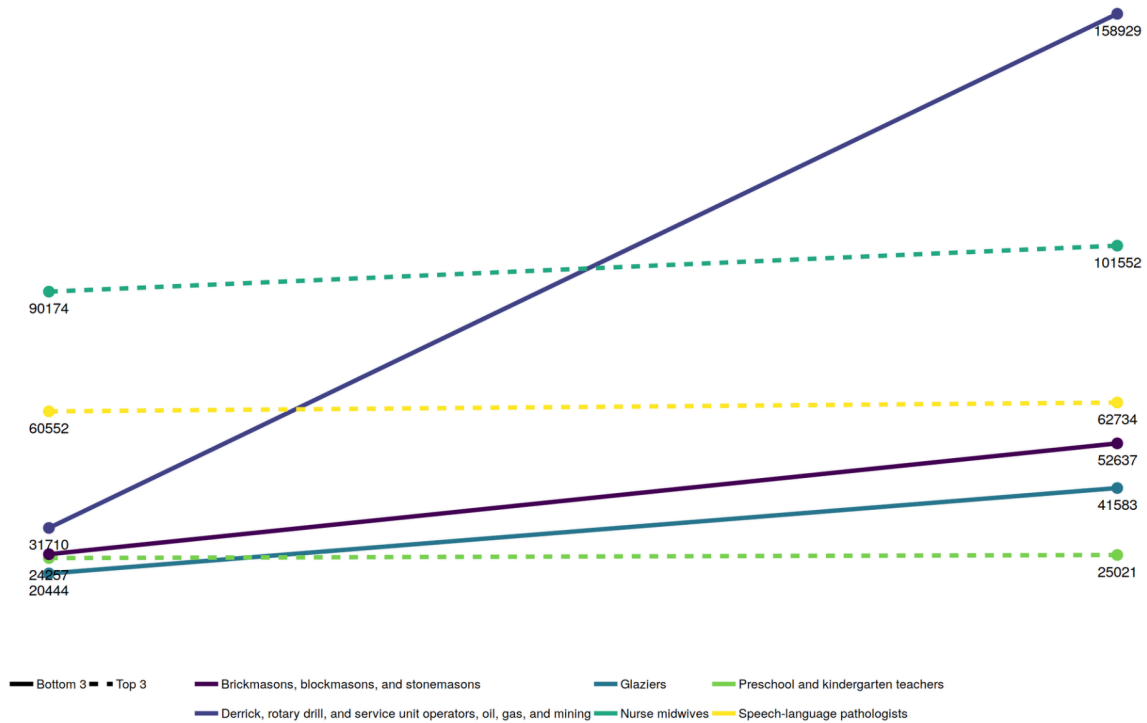
Median Pay Gap in 000s Between Men and Women in US (2016)



@RSumaiya

Are Women's Earnings Increasing Over Time?

Change in Women's Median Pay between 2013 and 2016 in the US

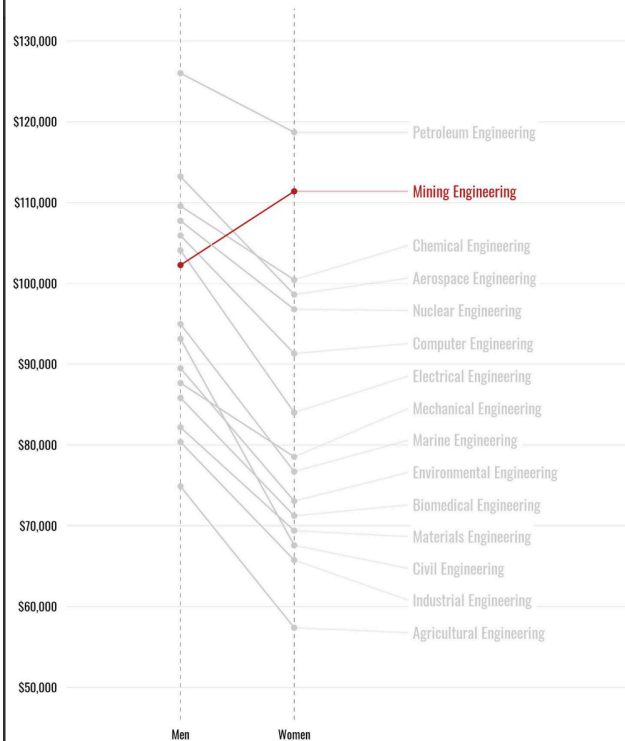


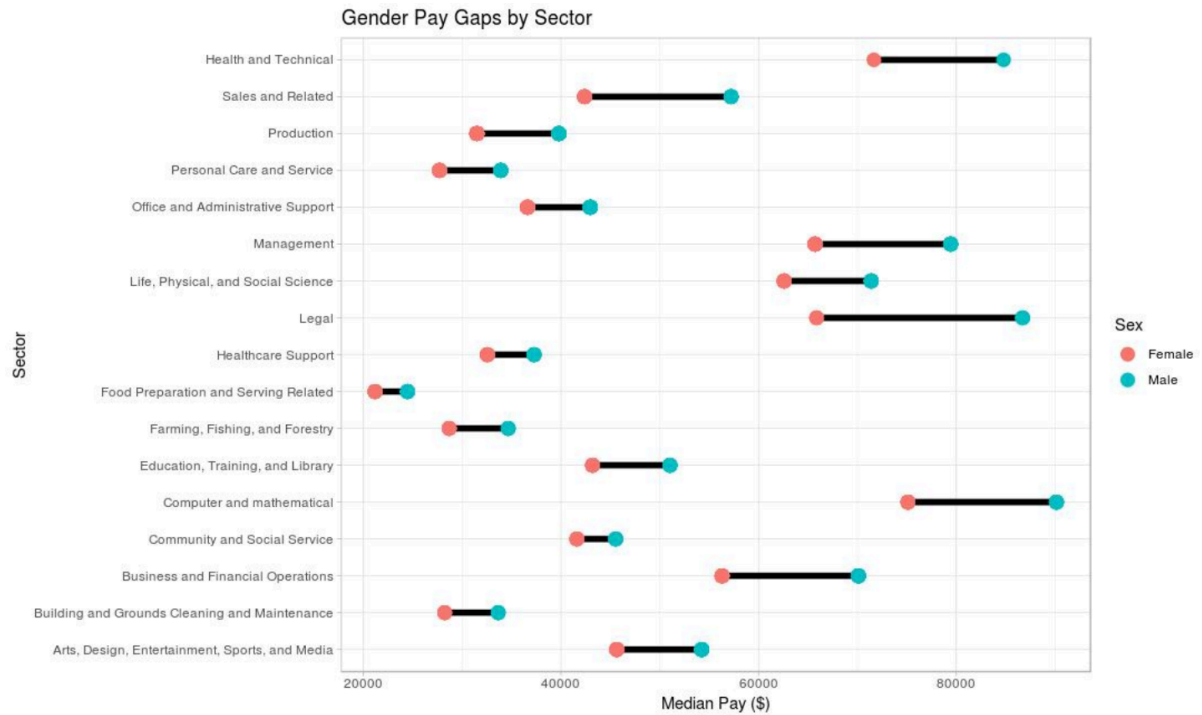
Notes: Top 3 occupations with most women in 2016 and bottom 3 occupations with least women in 2016 only.

@RSumaiya

The Unnecessary and Unethical Pay Disparity in Engineering.

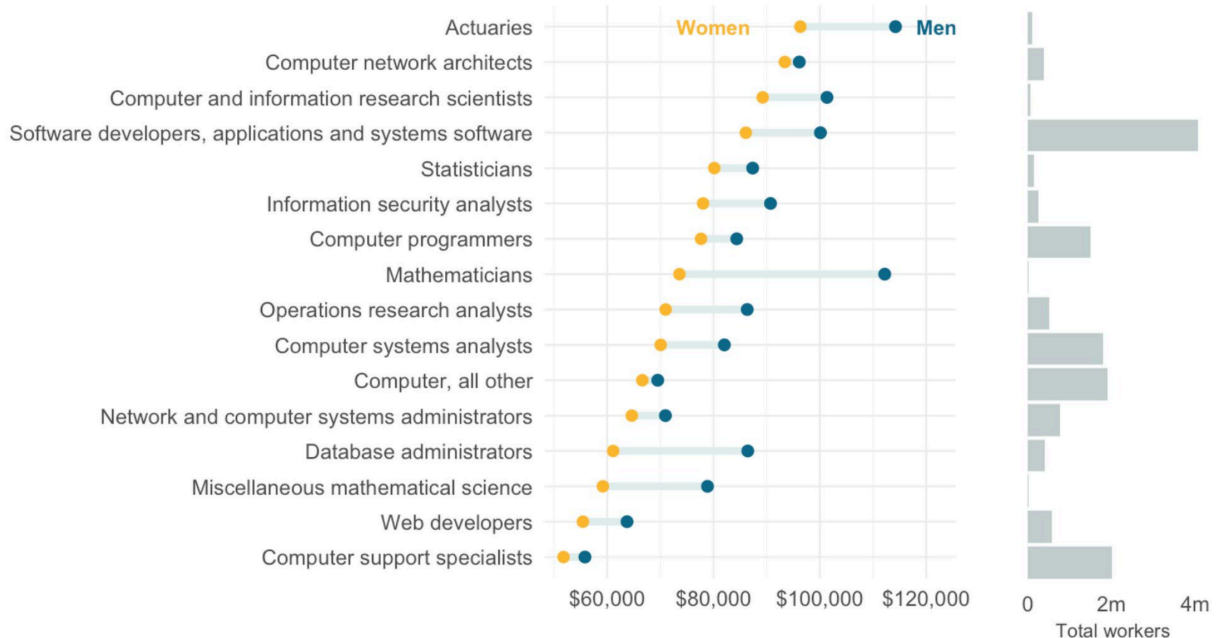
A slopegraph presenting the average total earnings from 2014-2016 for men and women across engineering disciplines. Mining Engineering is the only discipline with women earning more than men on average.





@frizzyroselle

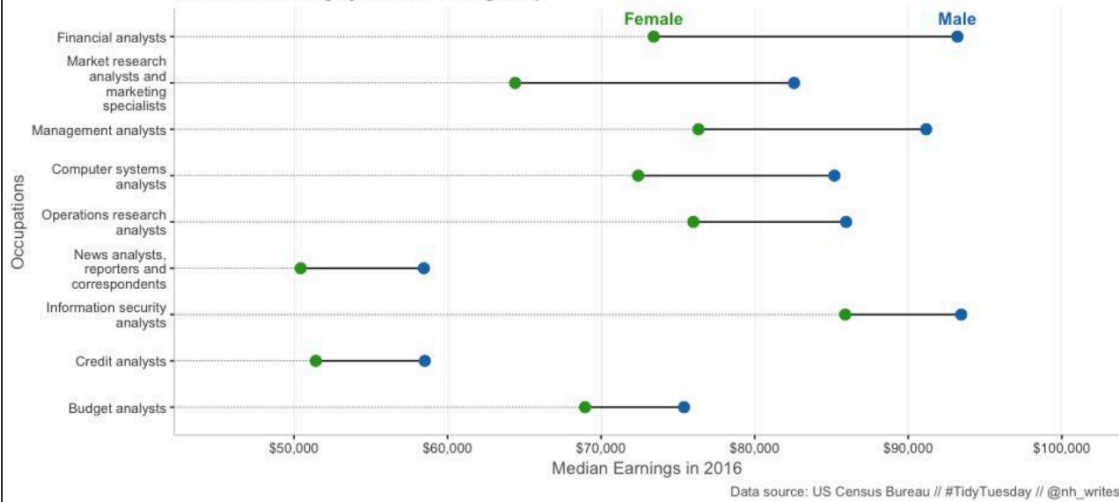
Median earnings across occupations in Computing and Mathematical category Gap and total workers (2013-2016)



Data: US Census Bureau | @rcammisola

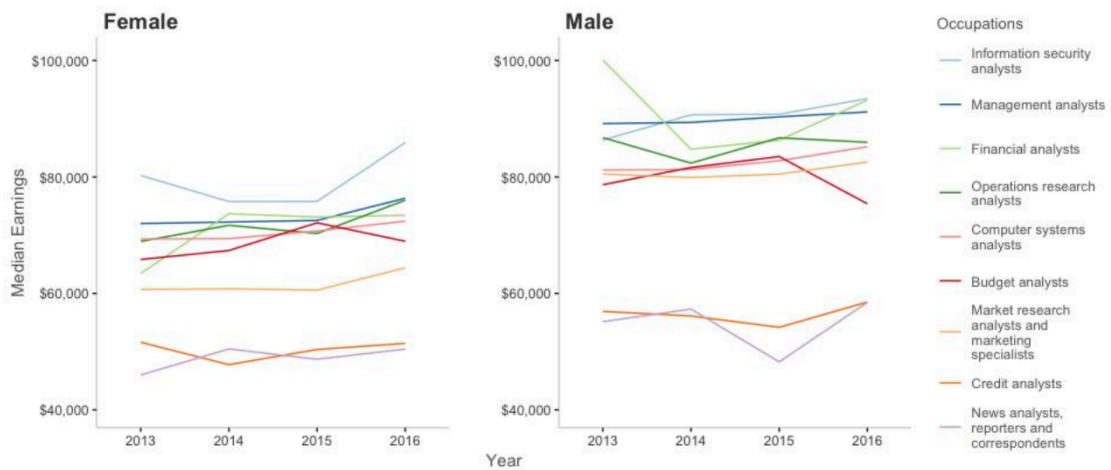
Earnings for Different Types of Analysts by Gender (2016)

Sorted Descending by Median Earnings Gap



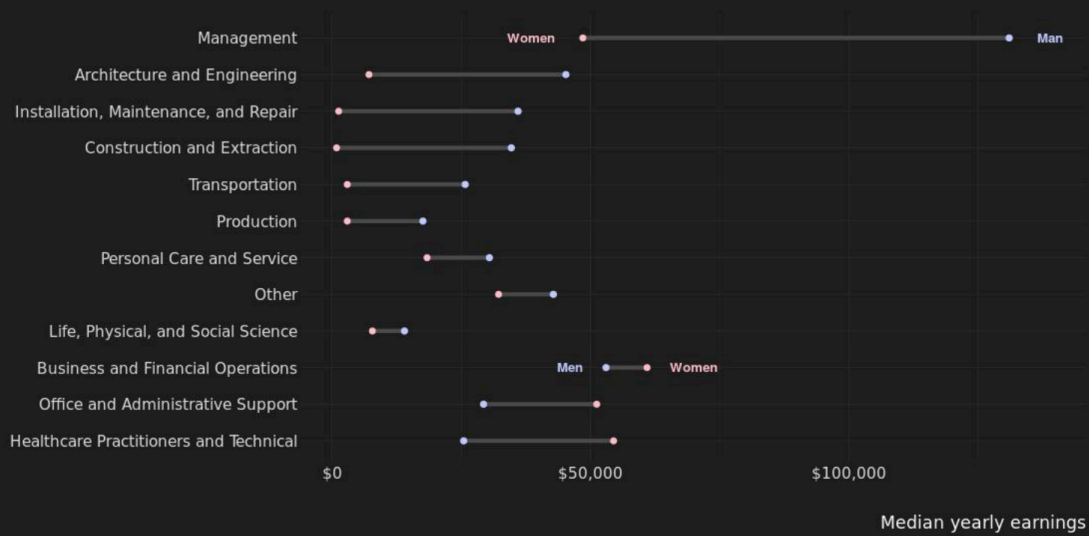
Earnings for Different Types of Analysts by Gender (2013-2016)

All occupations with "analyst" in the title

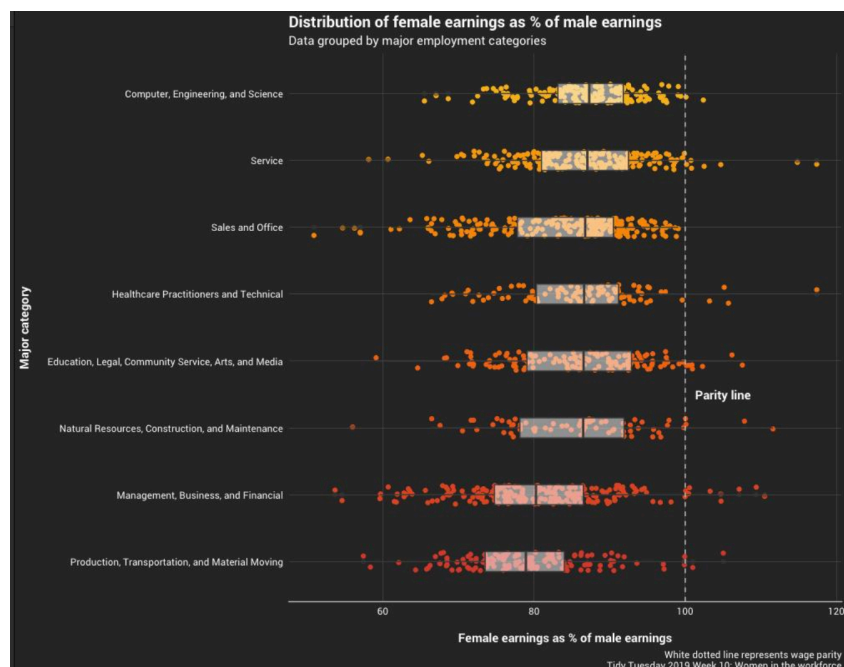


Pay Disparity goes both ways

The dumbbell visualizes the median pay disparity for the 10 most frequent job types. Women in Management earn 80000\$ dollar less than man per year.



@Christi58451746



@harrocyranka

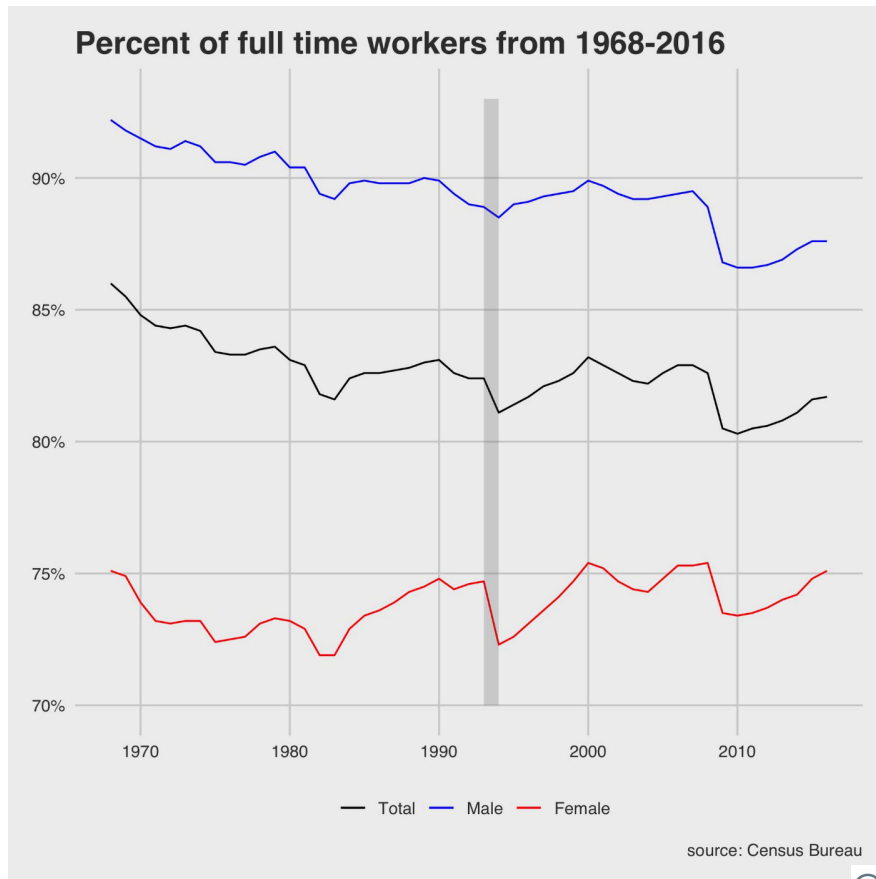
Gender wage distribution

Comparing the distribution of wages between males and females in the major occupation categories. Healthcare fields tend to have better wage parity, while most others have significant wage disparities.

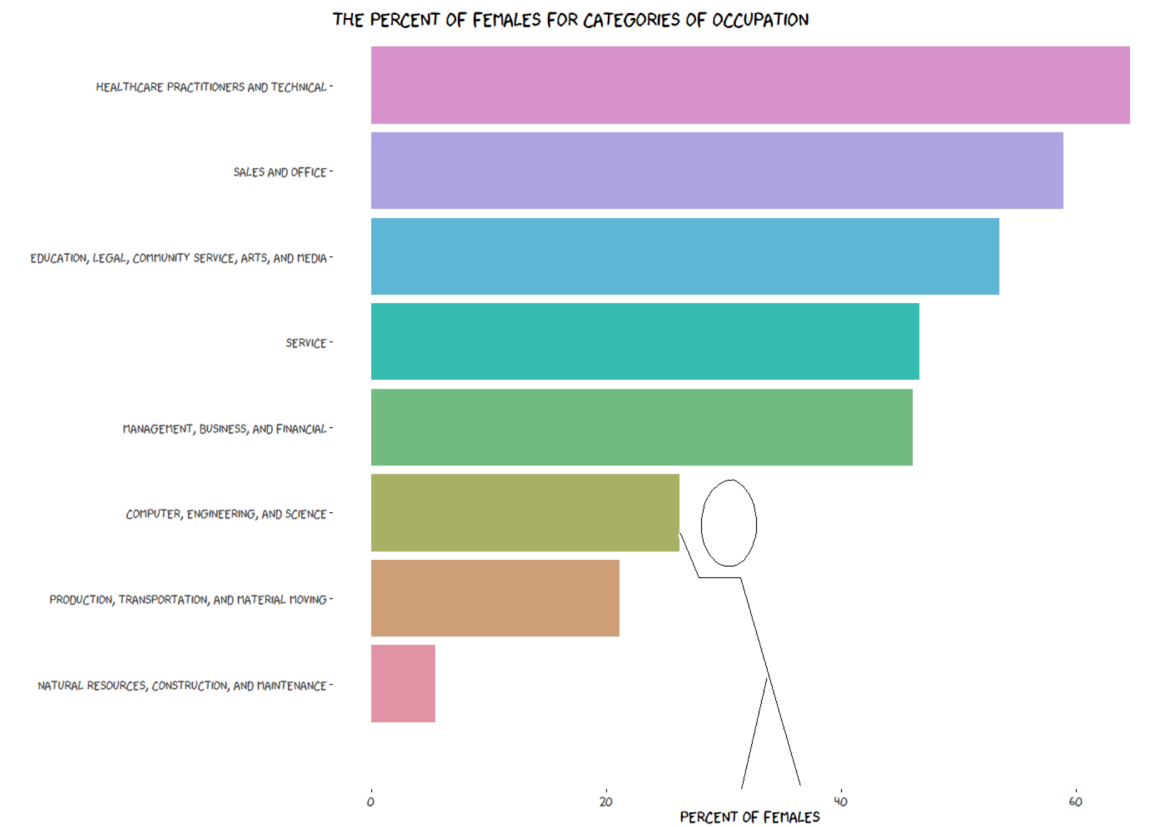


@parkermquinn

Percent females per category of occupation



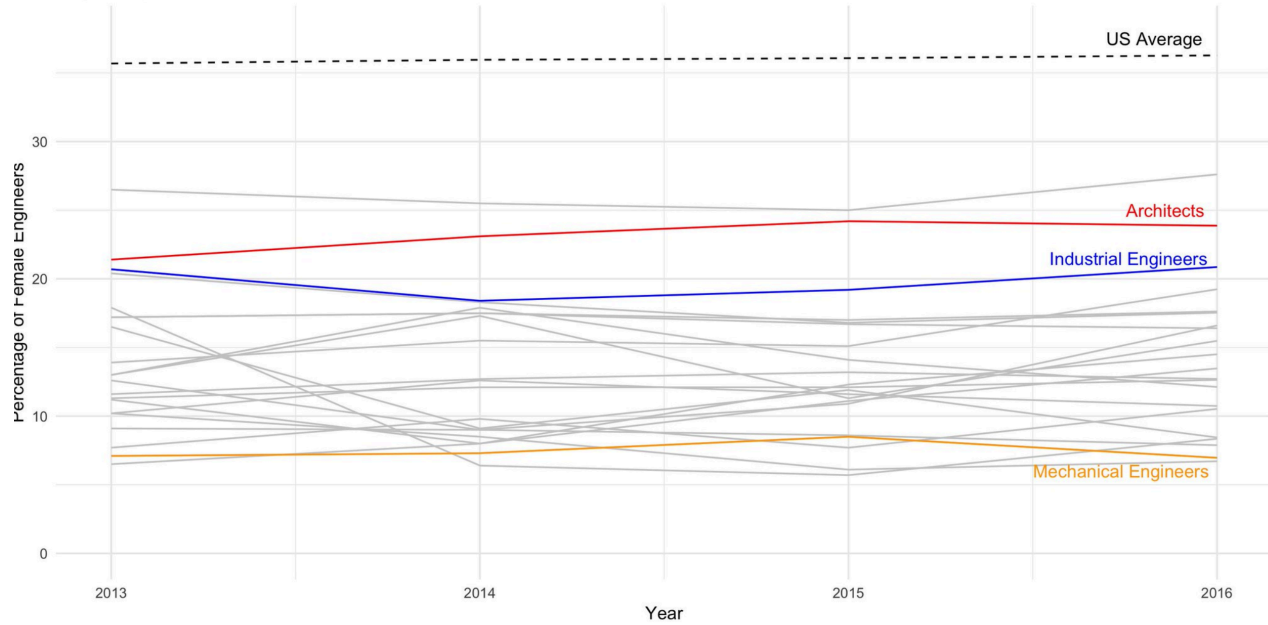
@trevin flick



@violetrzn

Help Wanted: Female Engineers

Engineering is still male dominated

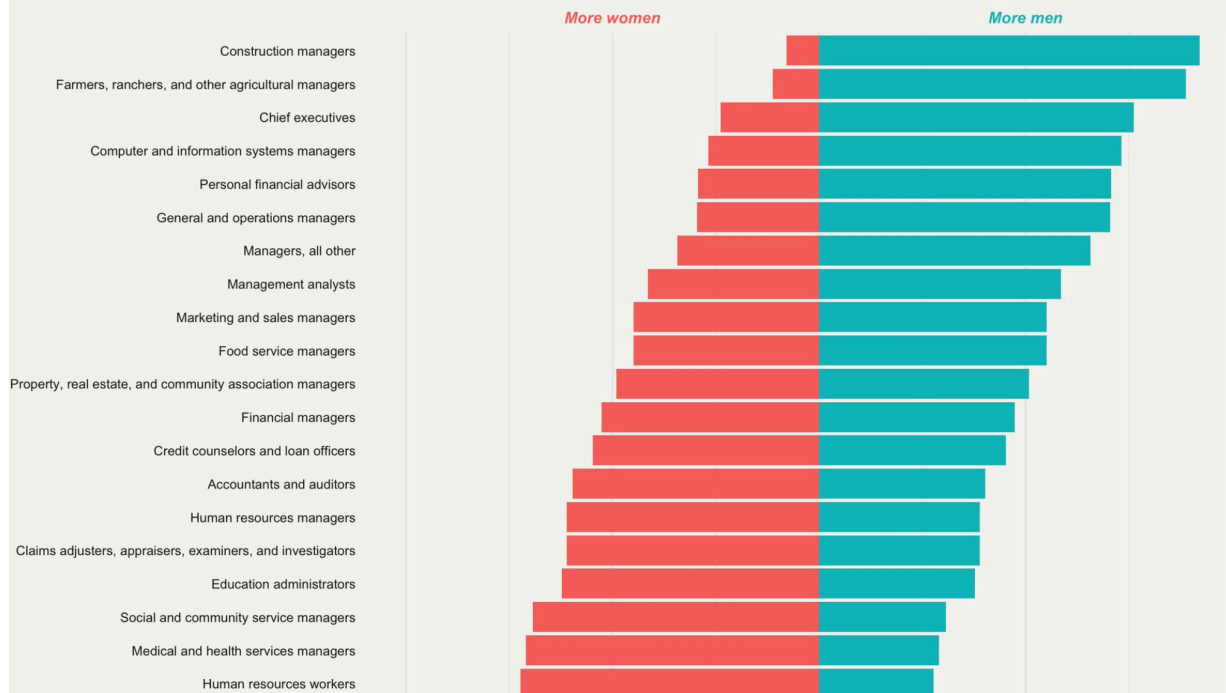


Source: Census Bureau

@k_j_norris

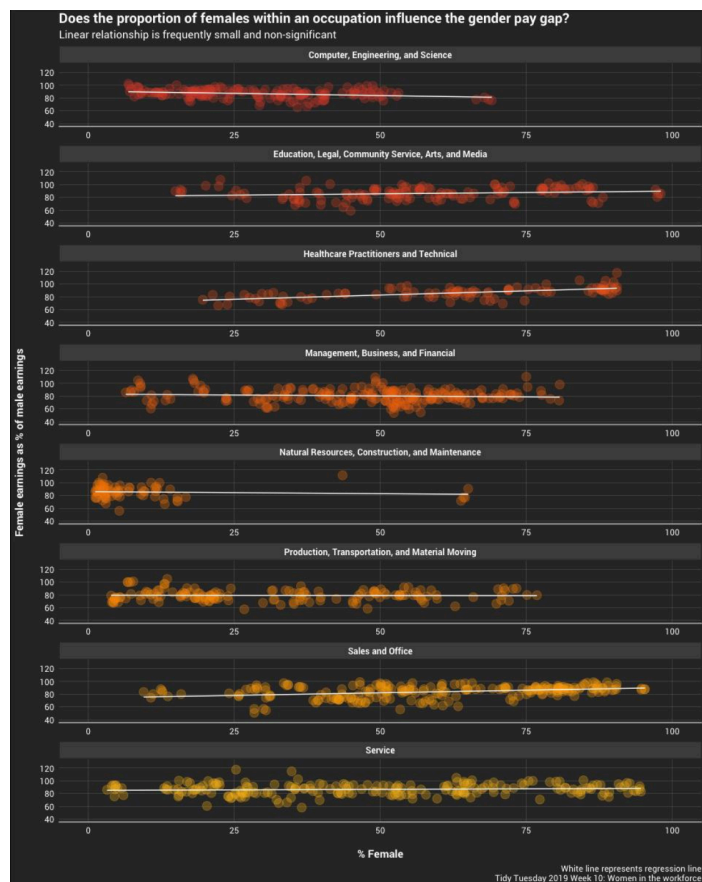
Gender mix in management and business

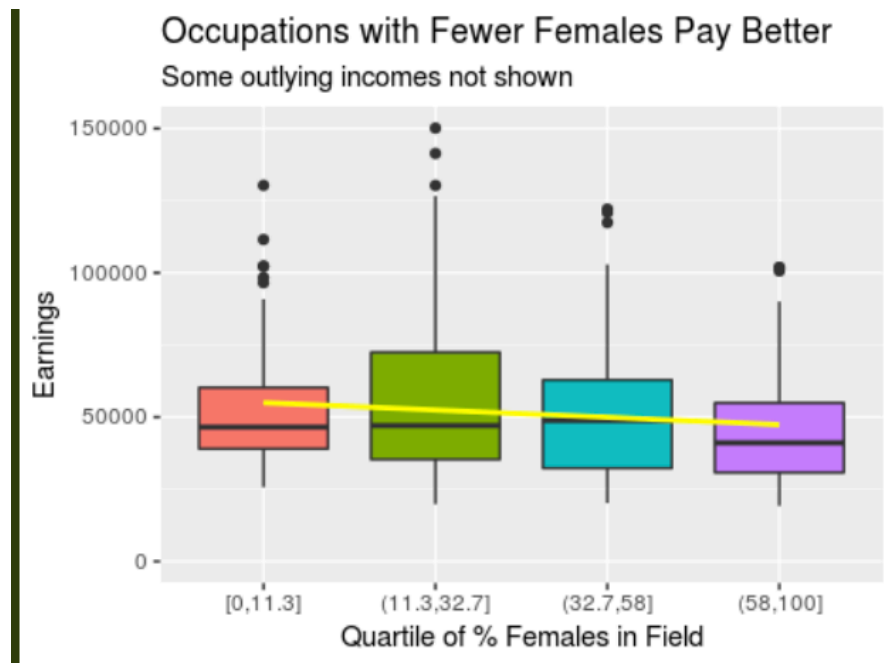
Exploring the gender distribution in the most common management, business, and financial occupations. As expected, construction and agriculture are male dominated, while medical services and education are female dominated. However, the c-suite positions are still mostly filled by men.



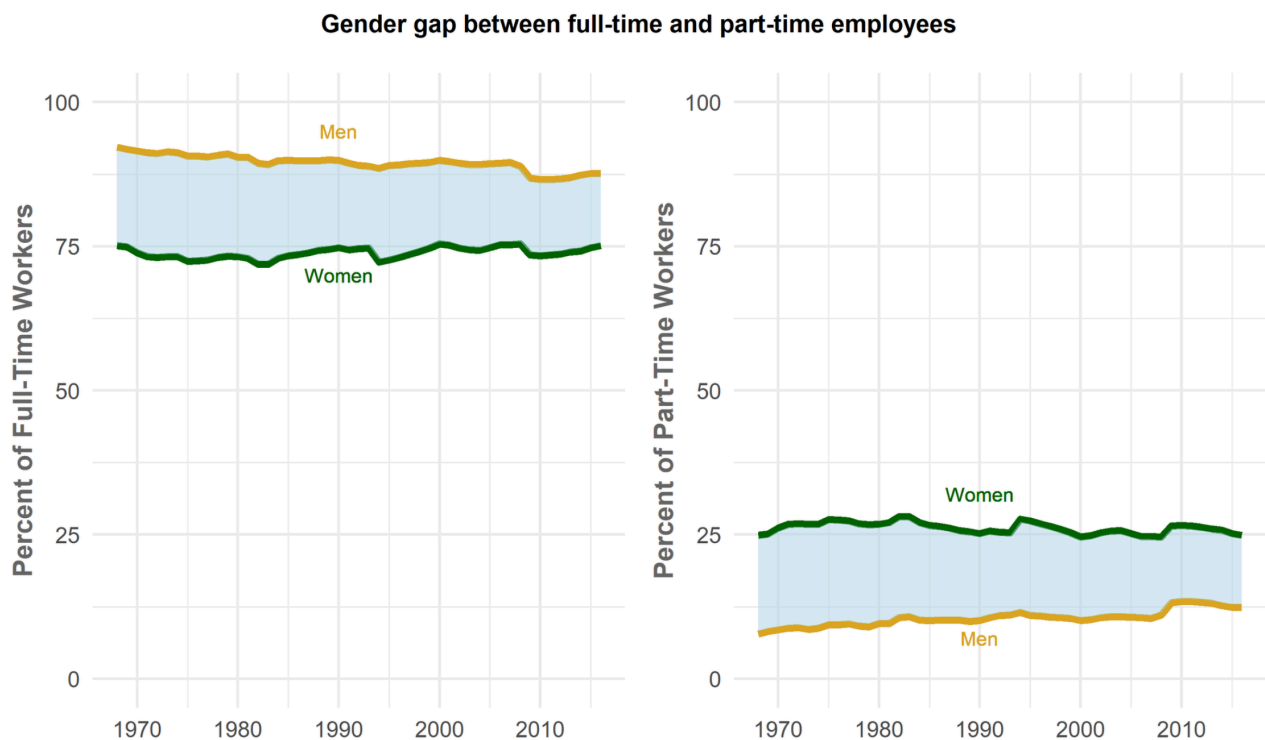
@parkermquinn

Other

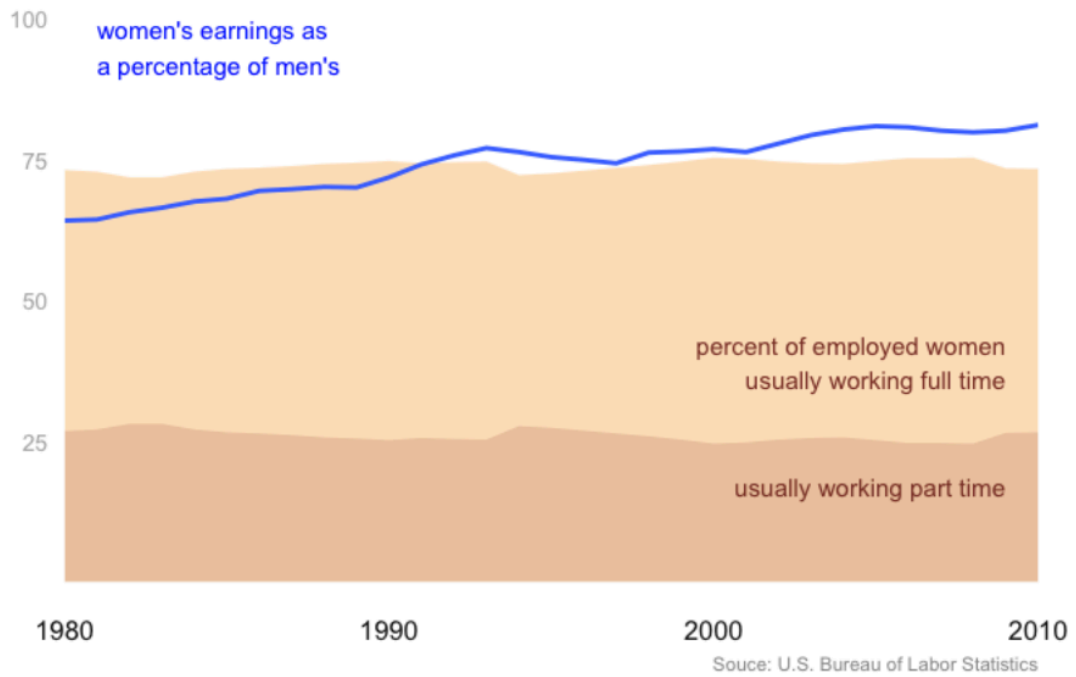




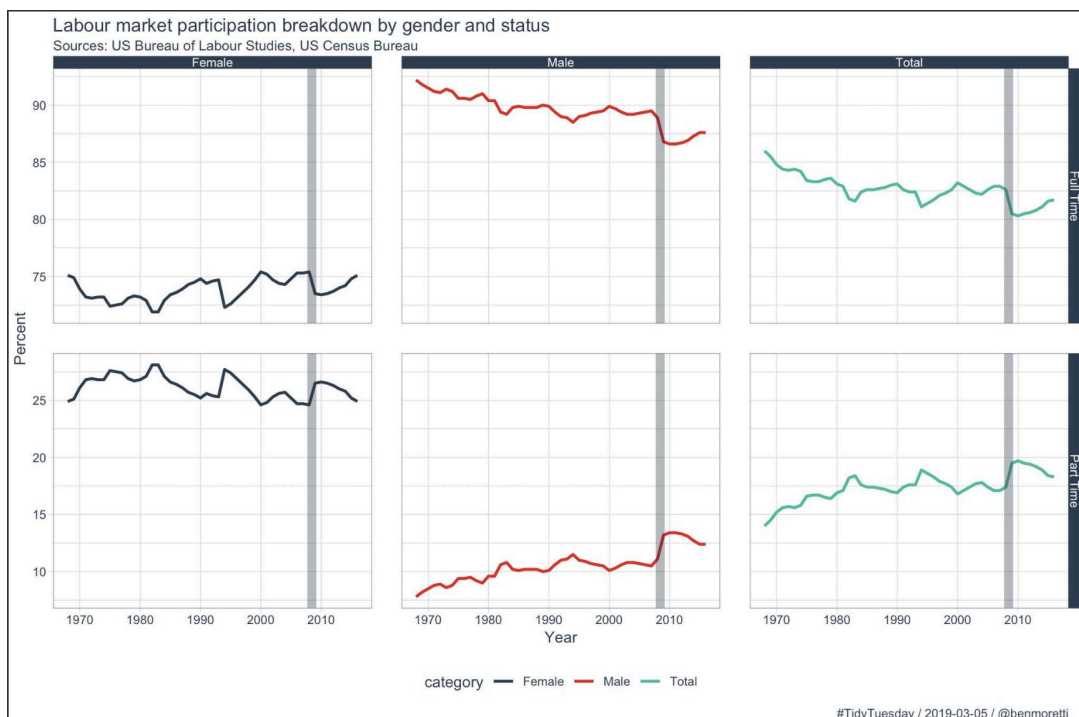
@frizzvroselle



@mark_switajski



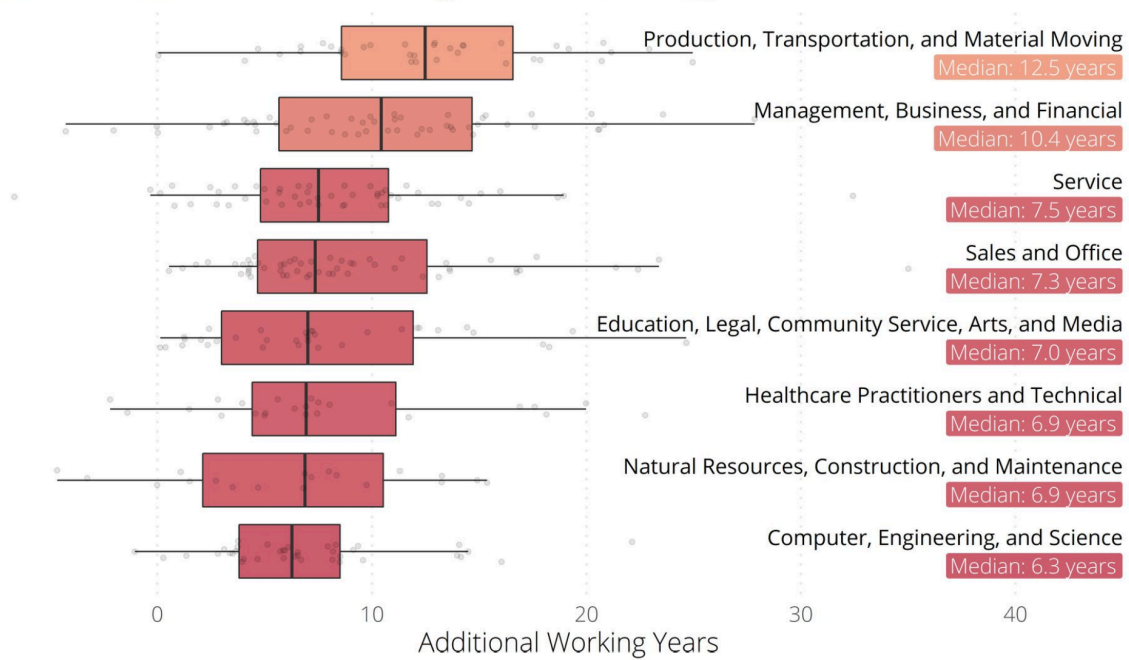
@geokaramanis



#TidyTuesday / 2019-03-05 / @benmoretti

A Woman's Work is Never Done

an occupation by occupation analysis of the number of extra years women would have to work to match the earnings of their male colleagues



Source : US Census Bureau
[<https://www.census.gov/data/tables/time-series/demo/industry-occupation/median-earnings.html>]
Assumes a 45 year working life

@gathmad