

# Explaining Utah's Gender Gap in Wages

A presentation by Voices for Utah Children  
to the Commission on Women in the Economy

October 13, 2015



# Introduction

- Nationally, women earn \$0.79 for every dollar earned by men
- In Utah, the equivalent figure is \$0.70
- Utah has the 4<sup>th</sup> largest gender gap in the nation
- Utah's wage gap has been closing, but at one of the slowest rates in the country
- We would like to know:
  - Why Utah fares so poorly in terms of wage equity
  - Possible solutions to improve Utah women's economic status



# Why the Wage Gap Exists

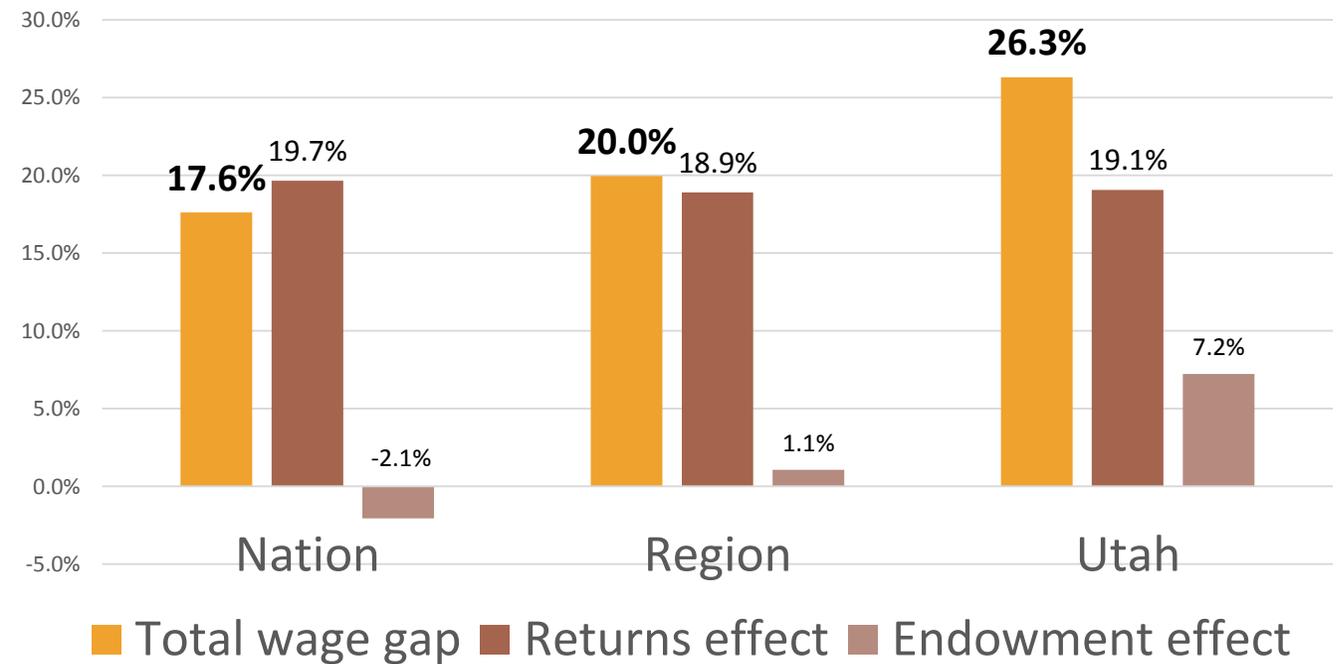
- We can think of the wage gap being the result of two factors:
  - Women may tend to possess characteristics that lead to them being paid less on average (for example, less education than men, an unfavorable occupational distribution, less experience, more family responsibilities, etc.)
  - Employers pay women less than men with similar qualifications (discrimination)
- We would like to quantify how much of the wage gap can be attributed to these two factors:
  - How much of the wage gap is due to observed and measurable differences between average attributes of men and women (the “**endowment effect**”)?
  - The remainder of the wage gap would be due to variables not measured or controlled for in our regression, including discrimination (the “**returns effect**”)



## Wage Gap Decomposition

- Utah has the largest total wage gap compared to the nation or the Intermountain region, with men earning 26.3% more than women, compared to 20% for the region and 17.6% for the nation
- Using the Oaxaca-Blinder decomposition, we break down the total wage gap into the returns and endowment effects
- In Utah, the **endowment effect** result shows men earn 7.2% more than women because of men's measured characteristics relative to women:
  - Men are more educated, have higher paying occupations, and work in higher paying industries
- Utah's **returns effect** result shows that the remaining difference (19.1%) is due to men and women being paid differently for the same qualifications (discrimination) and any other factors that our regression did not account for.

Decomposition of Male Wage Premium Among Full-Time Year-Round Workers, 2009-2014 Period



Data source: CPS March from ceprdata.org

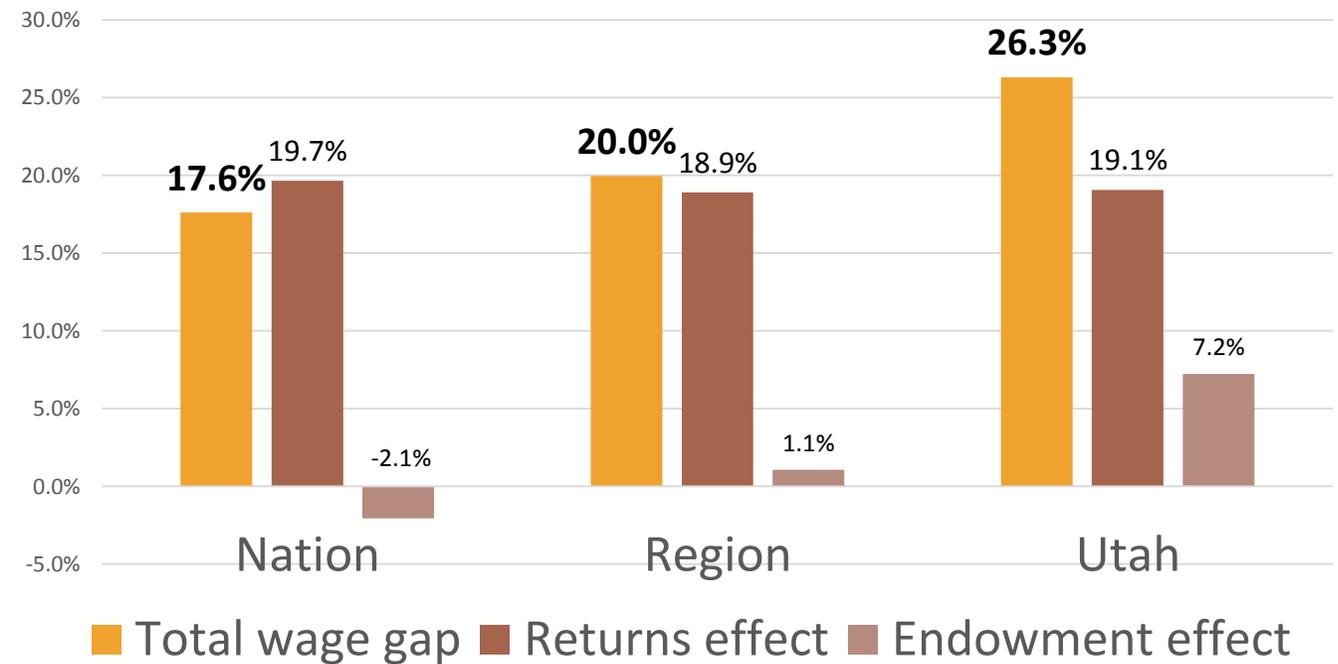


# Wage Gap Decomposition

## Conclusion:

Thus, the returns effect, which is intended to measure discrimination, is nearly three times as influential as the endowment effect in explaining Utah's gender wage gap.

Decomposition of Male Wage Premium Among Full-Time Year-Round Workers, 2009-2014



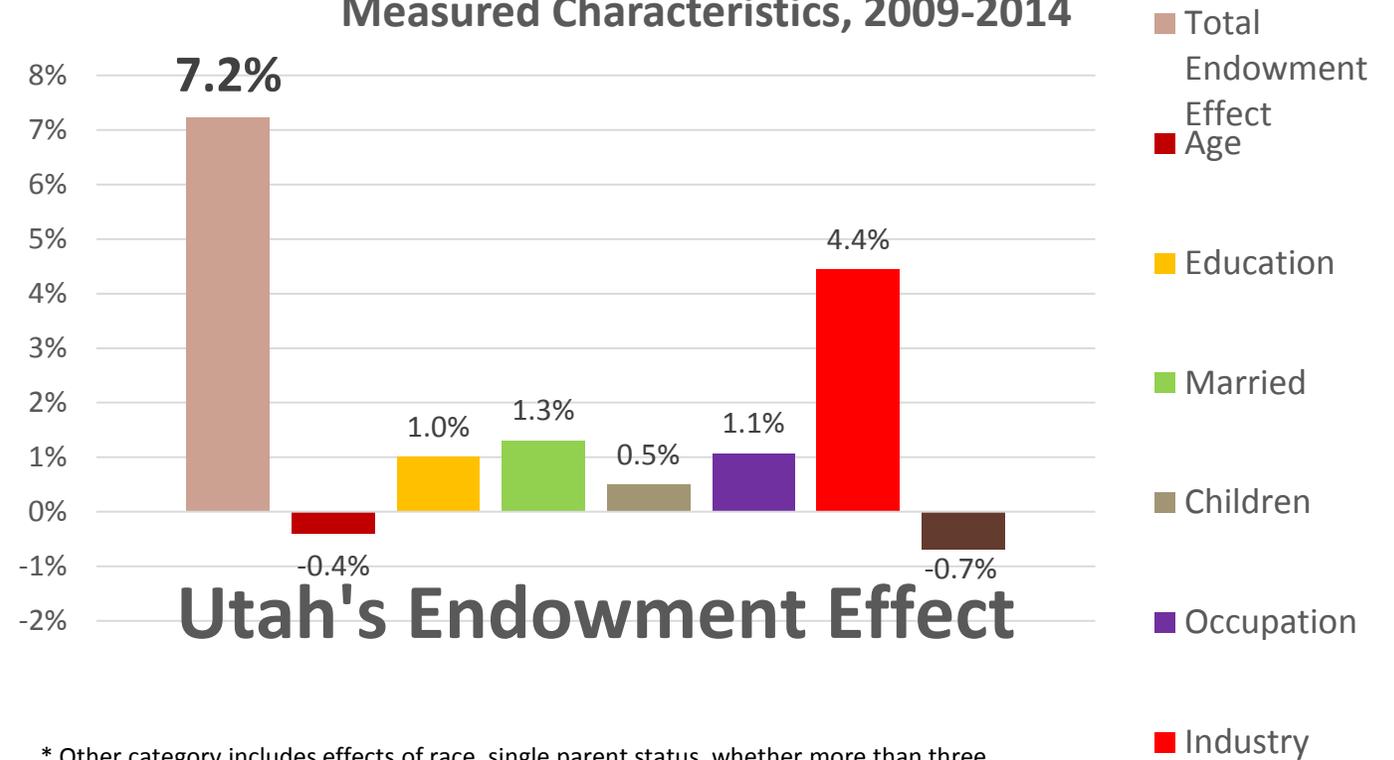
Data source: CPS March from ceprdata.org



# Utah's Endowment Effect

- This chart shows a breakdown of Utah's endowment effect.
- In Utah, measurable differences between men and women in level of education, occupational choices, and industrial distribution make the wage gap larger.
- At the national and regional levels, industrial composition serves to make the wage gap larger, while education and occupational choice make the wage gap smaller.
  - In other words, education and occupational choice work in the opposite direction in Utah than at the national or regional levels.

Decomposition of Male Wage Premium Among Full-Time Year-Round Workers Due to Average Differences in Measured Characteristics, 2009-2014



\* Other category includes effects of race, single parent status, whether more than three adults are present in household, citizenship, veteran status, overtime work, and public sector work.



# Why Utah Is Different

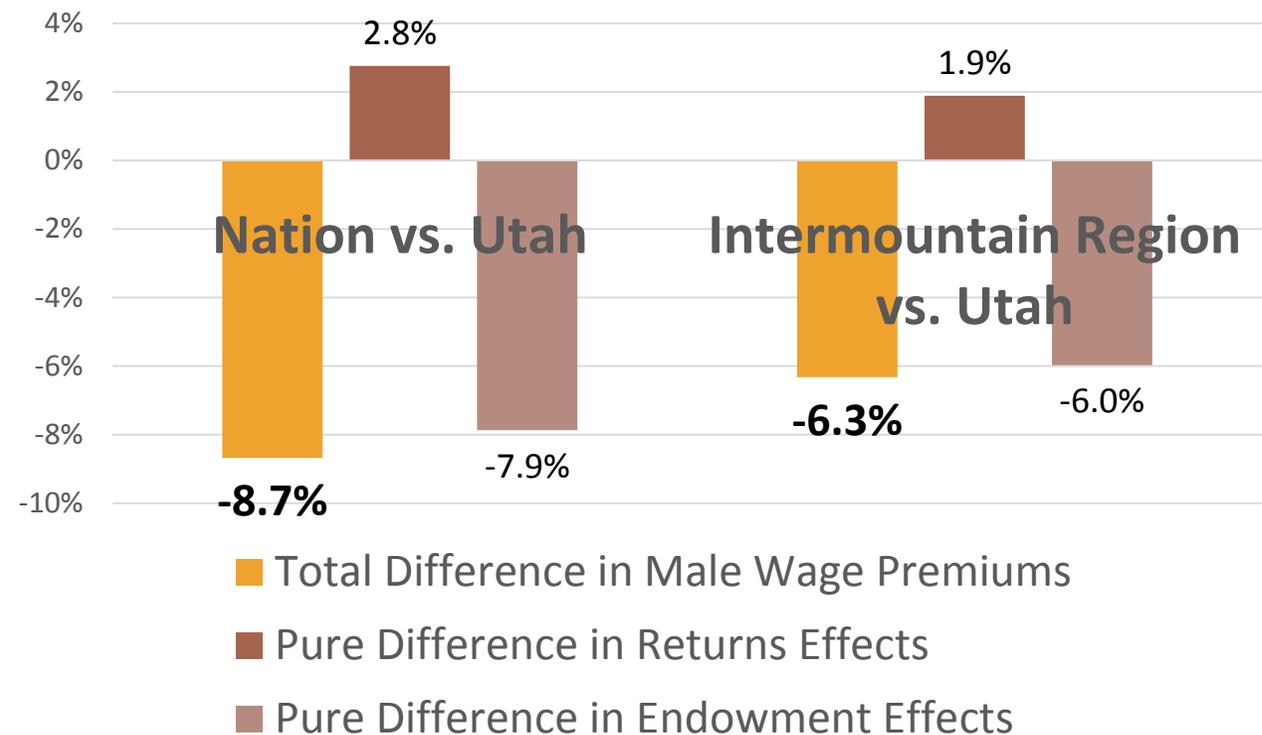
- We would like to know why Utah has a larger wage gap than the nation or Utah's neighbors
- Just as we decomposed the wage gaps, we can also decompose the difference between the wage gaps (Utah vs. its neighbors and Utah vs. the nation) into:
  - A part we can attribute exclusively to differences in qualifications and measured attributes ("pure endowment effect")
  - A part we can attribute exclusively to differences in how men and women are paid ("pure returns effect" which is the part that includes discrimination)
  - Interaction terms (omitted on next slide because they are small and not interesting on their own)



# Decomposition of Wage Gap Differences

- Negative numbers indicate Utah's having a larger gap
- Utah has a larger wage gap than either the nation or Utah's neighbors.
- Utah has a larger wage gap mainly because of the endowment effect
  - Utah women are more disadvantaged due to education, occupation, and industrial distribution in Utah compared to women at the reg'l and national levels
- The differences in the returns effect, which seeks to measure discrimination, do not appear to be statistically significant between Utah and the nation or between Utah and the Intermountain region.

Decomposition of Difference Between Male Wage Premiums Among Full-Time Year-Round Workers, 2009-2014



Data source: CPS March from ceprdata.org; Interaction effects not shown

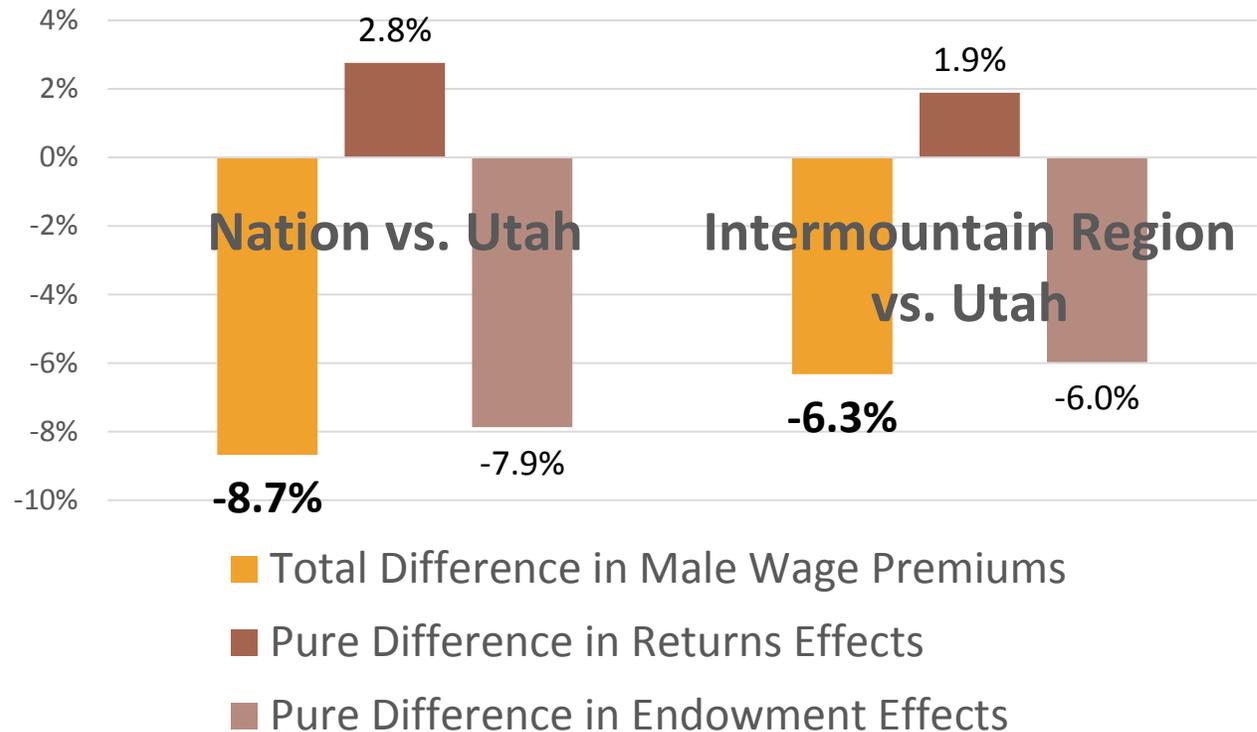


# Decomposition of Wage Gap Differences

## Conclusion:

Thus, while the returns effect, which is intended to measure discrimination, explains most of Utah's gender wage gap, the endowment effect explains most of why Utah's gap is so much worse than the nation's.

Decomposition of Difference Between Male Wage Premiums Among Full-Time Year-Round Workers, 2009-2014



Data source: CPS March from ceprdata.org; Interaction effects not shown



# How Utah's Gap Has Changed Over Time

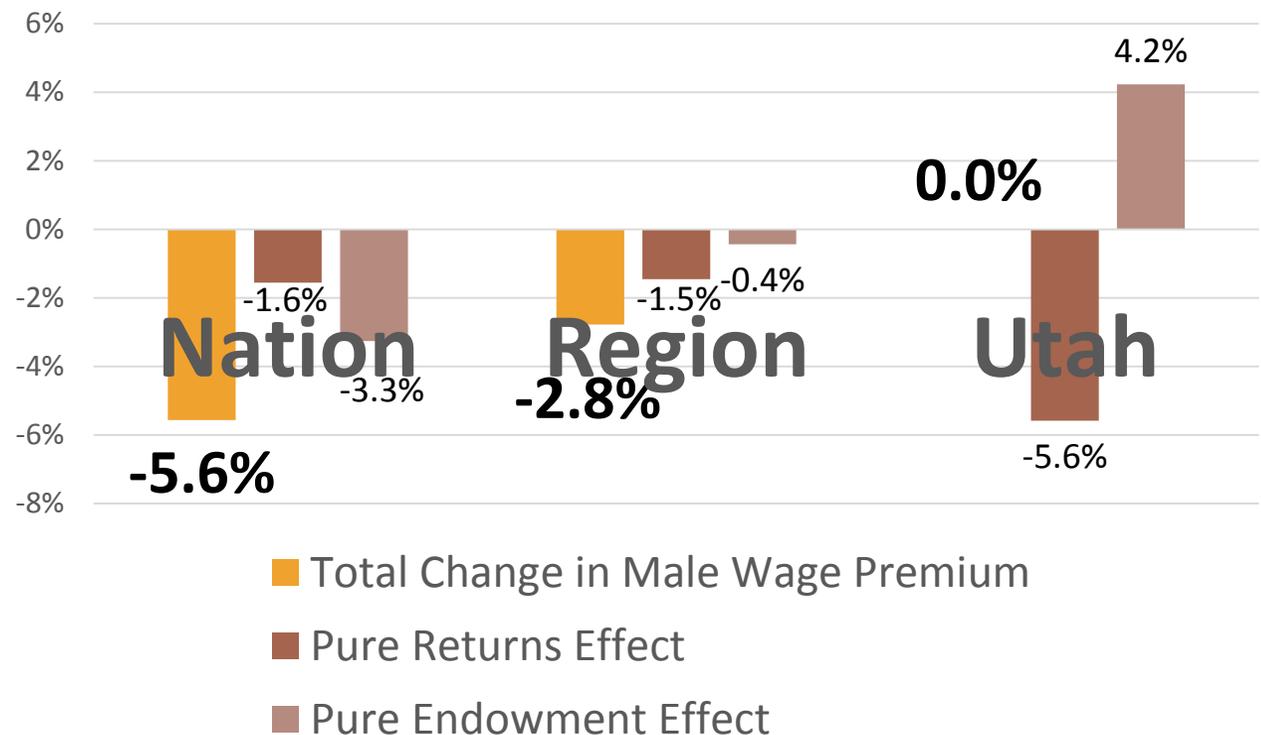
- We would like to know how Utah's gap now compares to what it was a generation ago (2009-2014 vs. 1992-1997)
- We can separate the change into:
  - A part we can attribute exclusively to changes in men's and women's measurable qualifications and characteristics ("pure endowment effect")
  - A part we can attribute exclusively to changes in how men and women are paid when their measurable qualifications and characteristics are equal ("pure returns effect")
  - Interaction terms (omitted on next slide because they are small and not interesting on their own)



## Decomposition of Wage Gap Change Over Time

- Here, negative numbers indicate an improvement in the wage gap over time.
- Unlike the nation and the region, Utah has seen no improvement in its gender wage gap over the last generation.
- Utah has seen significant improvement in the returns effect over the past generation, more so than at the national and regional levels, indicating a diminishment in gender wage discrimination.
- However, that improvement in Utah was completely offset by the growing gap between men's and women's measurable qualifications and characteristics.

Decomposition of Change in Male Wage Premiums Among Full-Time Year-Round Workers, Comparing 2009-2014 to 1992-1997

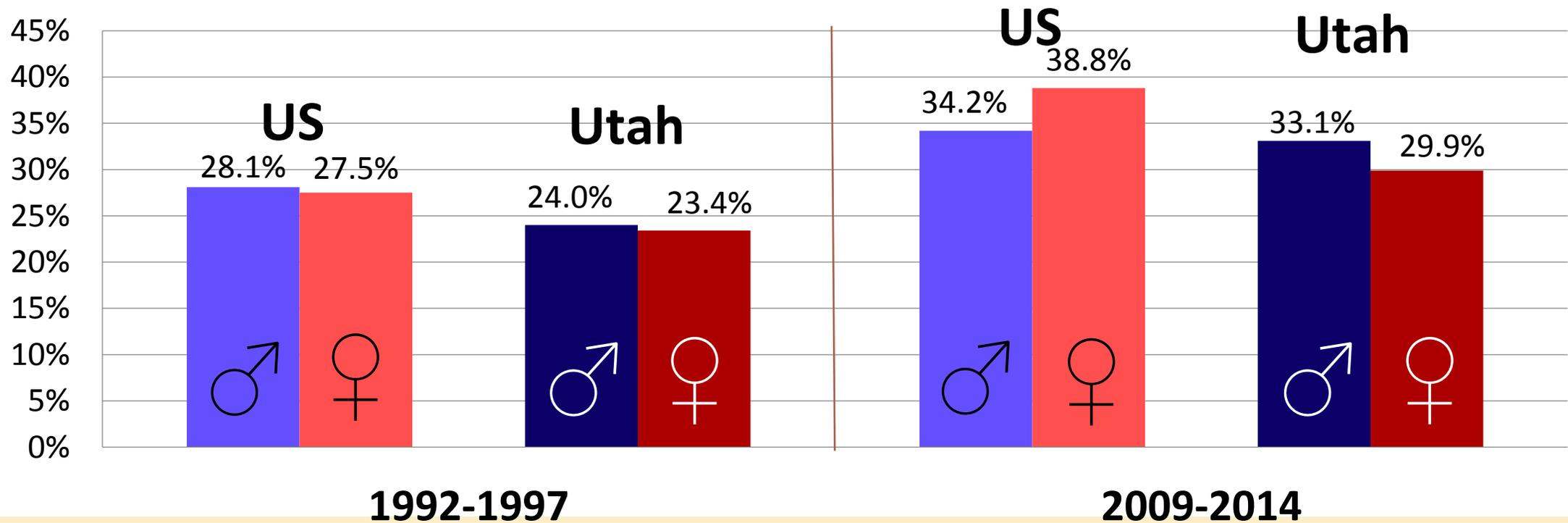


Data source: CPS March from ceprdata.org; Interaction effects not shown



# An Example of How Men's and Women's Measurable Qualifications Have Changed Differently Over the Last Generation, US vs Utah

**% of US & Utah Men & Women with Bachelor's Degree or Higher**





# Final Theoretical Notes

- The model presented here seeks to account for all relevant variables but is limited by a variety of factors, such as the constraints of the Census Bureau's CPS-March dataset.
- We used other models to correct for known issues such as selection bias so as to obtain more precise results.
- These other models' results and interpretations, while more precise and theoretically sound from an academic perspective, are less intuitive, and there is less of a consensus among scholars about how to interpret their results, so we do not present them here.
- Nevertheless, these other models tell a similar story to the results presented here (except that the models that use the Heckman correction for selection bias find that selection bias correction eliminates most of the returns effect at the national level but not in Utah).
- It is possible to decompose the wage gap using methods other than the Oaxaca-Blinder decomposition method; we did not use other methods.
- To read the full paper, *Explaining Utah's Gender Gap In Wages* by Curtis Miller, go to <http://content.lib.utah.edu/cdm/singleitem/collection/etd3/id/3644/rec/1>



# Policy Recommendations

- We recommend policymakers consider the following:
  - Pursue policies that seek to end direct wage discrimination.
  - Investigate methods to improve women's educational attainment.
  - Address workplace and other practices and policies that have a disparate impact on women by making it more difficult to balance work or education with family responsibilities.
  - Pursue policies such as the EITC that increase take-home pay at the lower wage levels, since women make up the majority of lower-wage workers.