THE SURVEY OF INCOME AND PROGRAM PARTICIPATION

How long do early career decisions follow women? The impact of industry and firm size history on the gender and motherhood wage gaps

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Persistence of the Gender-Wage Gap

- The convergence of male and female wages has slowed.
  - Ratio of female/male median weekly earnings of full-time wage and salary workers is still only 81.7 in 2013 (CPS data, BLS time series).
- What choices are women making early in their careers that affect them into middle-age?
- Can a more complete accounting of a woman's work history with respect to types of jobs held account for some of this continuing difference?

Motherhood Wage Gap

- Motherhood (or family) wage gap between 5 and 20%.
- Women's labor force attachment related to fertility decisions.
- Work history could explain motherhood wage gap as well:
  - Mothers may choose industries/occupations with more flexibility and non-wage benefits.

Why might past job characteristics be related to current wages?

- Men/women and mothers/non-mothers begin their careers in different industries and the return to work experience varies by industry.
- Men might work for different sizes of employers early in their careers and the return to work experience varies by firm size.
- Men change jobs more often early in their careers, thus arriving at a “career” job faster.
- Once men arrive at a “career” job, they accumulate longer tenure.

Methods

- Sample of men and women surveyed at age 40+
  - Use administrative tax data to look back on their working lives (age 22-40+)
  - Summarize work history by calculating:
    - Percent of working years with positive earnings
    - Percent of working years spent in different industries
    - Percent of working years spent in firms of different sizes
    - Job counts by age
    - Job counts by tenure category
- How much of the wage differential is explained by differences in observed characteristics?
  - Use Blinder-Oaxaca decomposition of differences in average wages in mid-forties
  - Compare effect of demographics, current job characteristics, and work history characteristics

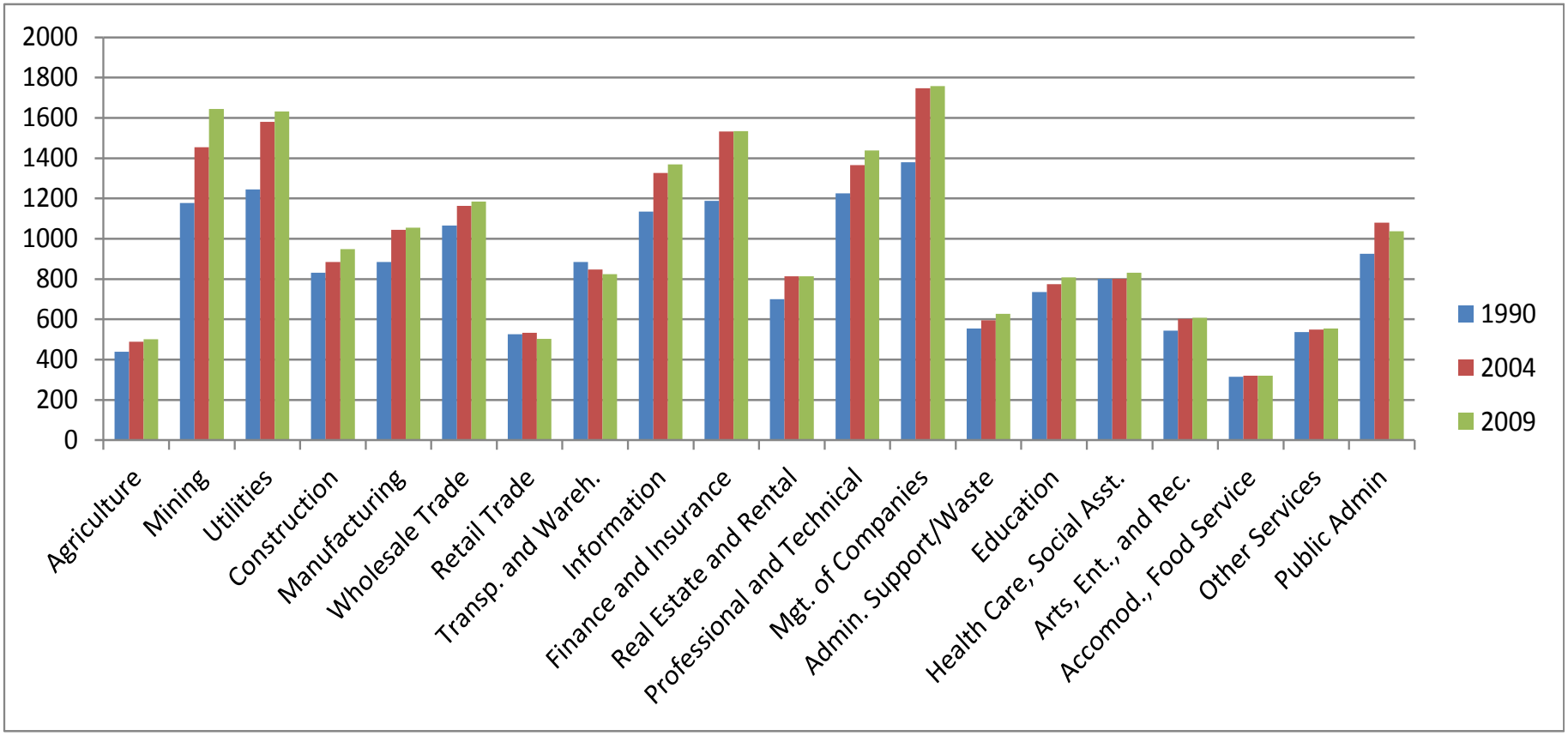
Data Sources

- Survey of Income and Program Participation (SIPP)
  - 2004, 2008 panels
  - Sample of almost 20,000 individuals born between 1956 and 1968
  - Links to administrative earnings by SSN
- Detailed Earnings Record (DER) from W-2 Tax Records
  - Annual earnings from 1978-2009, by employer
  - Links to Census Bureau Firm Data using EIN
- Business Register (BR)
  - Master list of all businesses operating in the U.S. by year
  - Contains industry and firm size
  - Links to LBD by common firm identifier
- Longitudinal Business Database (LBD)
  - A longitudinally edited and standardized version of the BR
  - Contains longitudinal industry codes standardized to 2007 NAICS

Descriptive Results: Differences in Male/Female Work Histories

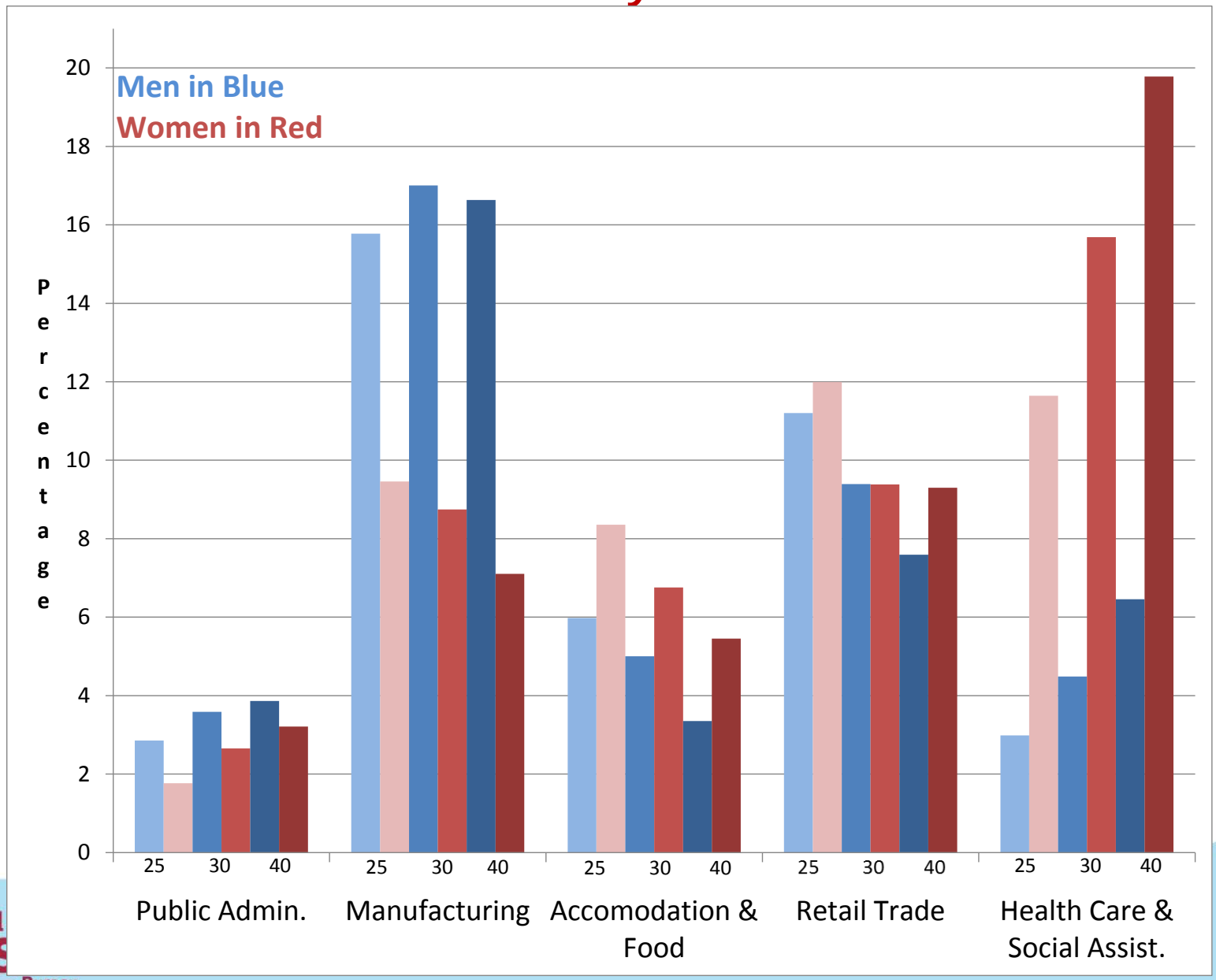
- Industry Work History Summary:
  - Different industry sector employment patterns exist for men and women at age 25 and these differences are persistent.
  - Women more often than men in retail and food/accommodation sectors at age 25 and age 40.
- Firm Size Work History Summary:
  - Men work for smaller firms at age 25 relative to women
  - Women spend more time in larger firms
  - Distribution across firm size converges by age 40, because men move to larger firms and become more similar to women.
- Job count history
  - Men hold more jobs earlier in their careers. By age 30, they have held on average 1.25 more jobs than women
  - Women catch up by age 40 except for right tail of the distribution; having a very high numbers of employers remains predominantly a male phenomenon.

Figure 8: Average Weekly Earnings by Major NAICS Sector for 1990, 2004, and 2009



Source: Quarterly Census of Employment and Wages from the Bureau of Labor Statistics. All wages are in constant 2009 dollars.

Men and Women Industry Distribution over Time



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Summary of Oaxaca-Blinder Regression

Decomposition Male-Female Wage Differences

Male Average Log Wage	3.0726***
Female Average Log Wage	2.8387***
Difference	0.2339***
Difference in Observables	0.1373***

Differences in Observables by Component

SIPP Job Characteristics	0.1010***
% Years Positive Earnings	0.0310***
Work History:	0.0035
% Industry Years	0.0396***
Current Sector %	-0.0346*

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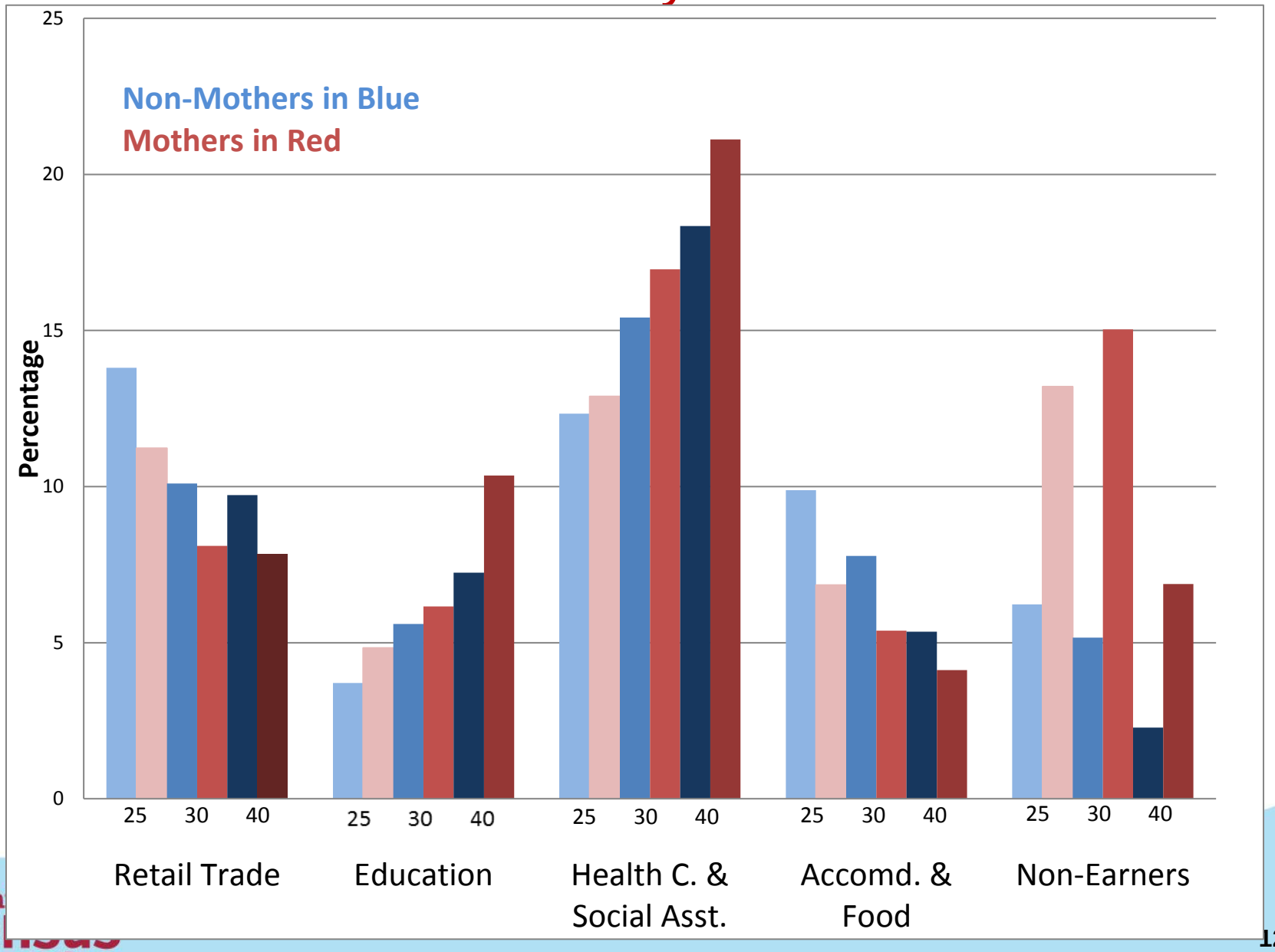
Descriptive Work Histories of Mothers/Non-mothers

- Industry Work History Summary:
  - Non-mothers more likely to be in retail, information, and accommodations/food at every age, while mothers more often non-earners
- Firm Size Work History Summary:
  - Very little difference in firm size distributions at younger ages
  - By age 40, non-mothers more likely to work at largest firms
- Job Count History:
  - Non-mothers have held more jobs at every age

Moms/Non-Moms Industry Distribution over Time



Summary of Oaxaca-Blinder Regression

Decomposition Moms/Non-Moms Wage Differences

Non-Moms Average Log Wage	2.9071***
Moms Average Log Wage	2.7847***
Difference	0.1224***
Difference in Observables	0.1343***

Differences in Observables by Component

SIPP Job Characteristics	0.0587***
% Years Positive Earnings	0.0400***
Work History:	-0.0037
% Industry Years	0.0137**
Current Sector %	-0.0143*

Work History Results

- Industry history:
  - If women looked more like men and mothers more like non-mothers, wage gaps would decrease.
  - But percent of year's spent in one's current sector has negative impact on the wage gaps.
  - Overall, industry history not significant.
- Firm size, job counts history:
  - Job counts not significant for either wage gap.
  - Firm size history has a small, positive effect on motherhood wage gap.

Summary of Results

- Gender wage gap is about 20%
  - 64% of the gap explained by differences in observables
- Motherhood wage gap is about 12%
  - Differences in observables explain entire gap
- Wage gaps explained by:
  - Actual work experience (accounts for 13% of gender gap and 27% of motherhood gap)
  - Current job characteristics (account for about half of both wage gaps)
  - Career industry distribution (but offset by share of one's career spent in current industry)