Monetary Policy Distributional Inequality: Analysis of Transmission Channels by Gender and Race

Aina Puig

American University

January 2023

Preliminary research, please do not cite

Question

Are U.S. demographic groups affected differently by monetary policy shocks?

- Analysis of labor market, income, and consumption

Demographic heterogeneity:

- Gender
- Race

Motivation

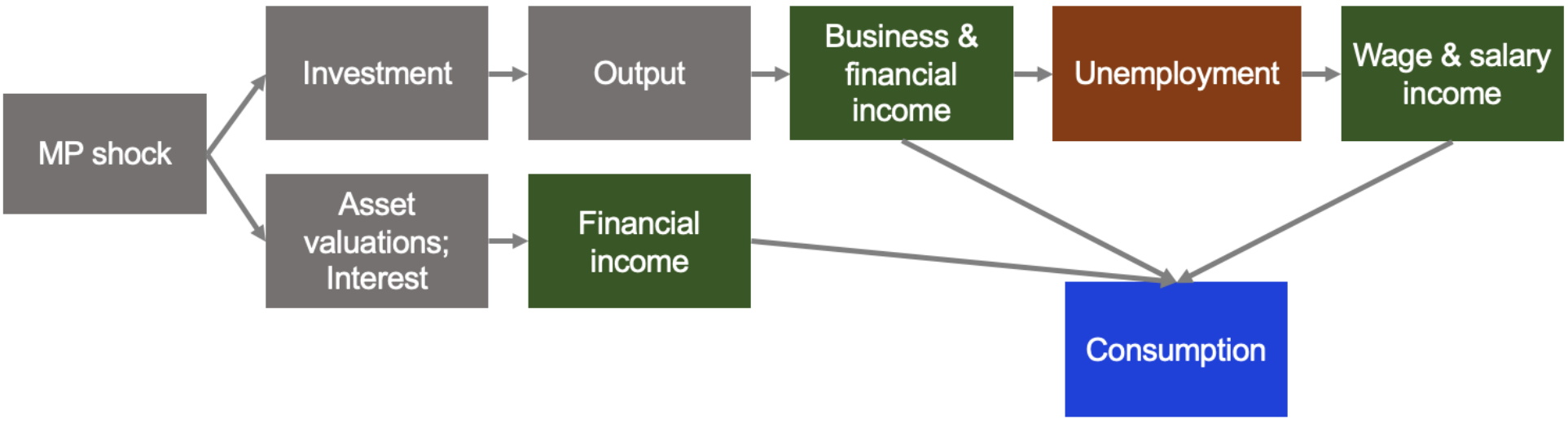
Are different group responses driven solely by income inequality?

- Literature focuses on inequality by income, debt, and wealth (Aguiar & Bils 2015; Coibion et al. 2017; Auclert 2019; Cloyne et al. 2020)
- Consumption varies by gender and race (Seguino & Floro 2004; Kiringai 2004)
- Monetary policy affects gender and race gaps in the labor market (Rodgers 2008; Takhtamanova & Sierminska 2009; Seguino & Heintz 2012; Bergman et al. 2020; Bartscher et al. 2021) and gender gaps in wealth (Metzger and Young 2020)

Contribution:

- Employment & income transmission channels into consumption
- Overview of group reactions to monetary policy

Monetary Policy Transmission



Data

- Time frame: 1994-2019
- Labor market outcomes: Bureau of Labor Statistics
- Income & consumption: Consumer Expenditure Survey
- Monetary policy shocks: high frequency series (Bu et al. 2021)
  - Conventional signs on macro variables (output & inflation)

Descriptive Statistics

- Unemployment is highest for Blacks and men (in recessions)
- Labor force participation is highest for Black men and women
- Incomes and consumption are highest and most stable for households headed by Whites and men

Potential drivers:

- Number of income earners
- Education
- Access to high paying and stable jobs
- Access to public and private goods

Methodology: Local Projections*

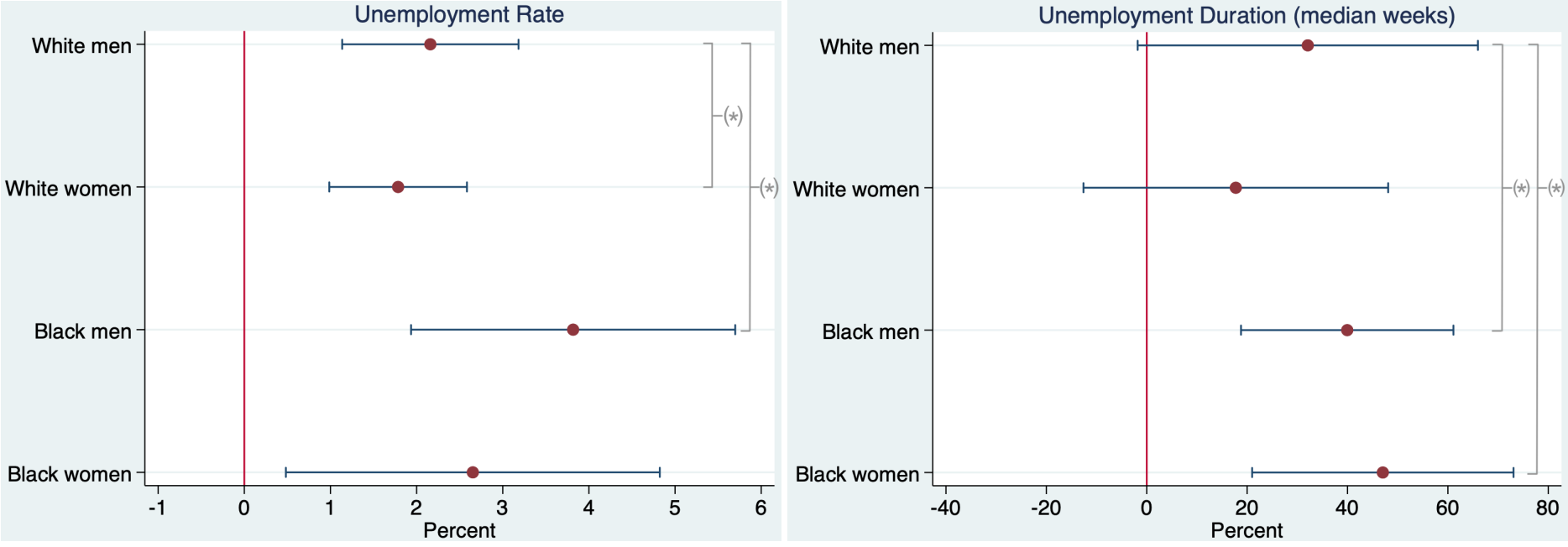
$$x_{i,g,t+h} - x_{i,g,t-1} = c^{(h)} + \sum_{j=1}^{J} \alpha_j^{(h)} (x_{i,g,t-j} - x_{i,g,t-j-1})$$

$$+ \sum_{j=1}^{J} \beta_j^{(h)} shock_{t-j} + \sum_{j=1}^{J} \gamma_j^{(h)} X_{t-j} + e_{t+h} \; ; \;\; h = 0, ..., H$$

- x_i: outcome variable by group (g)
- *shock*: monetary policy shock
- X: vector of controls (lags of industrial production, CPI, commodity prices, excess bond premium)
- t = quarters, J = 2, H = 20

*Jorda (2005)

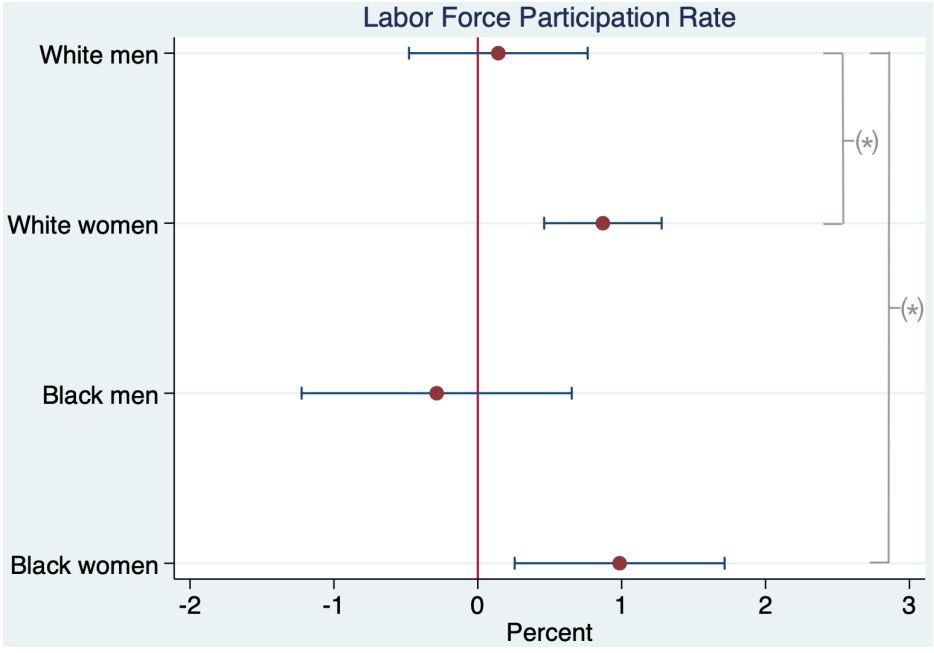
Black unemployment is most exposed to monetary policy

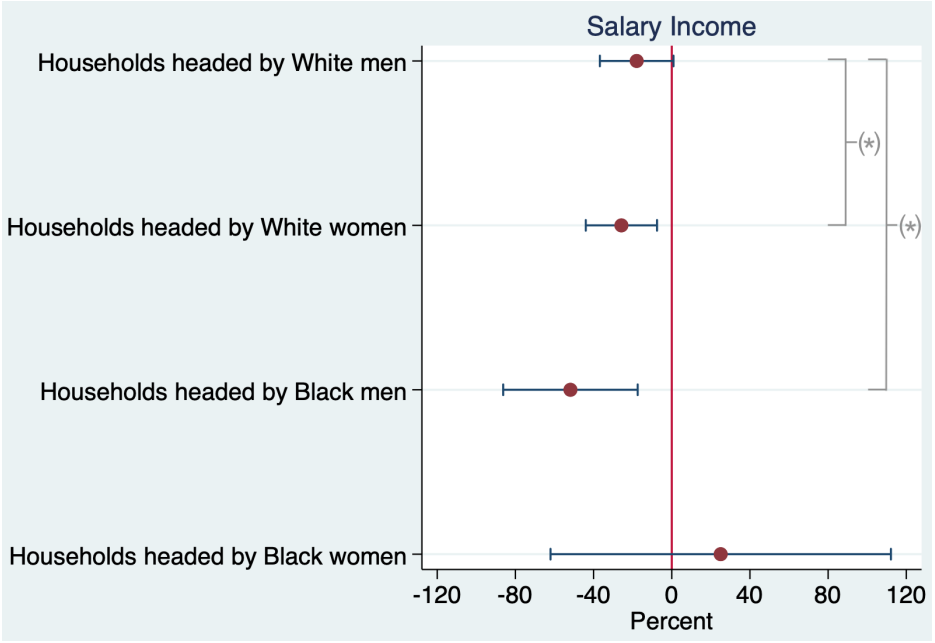


Four-year cumulative impact of a one standard deviation contractionary monetary policy shock; *p<0.10

- Clear gaps by gender and race
- Employment in industry falls more than in services; gender & race gaps

Women's labor force participation rises, while household salary incomes fall

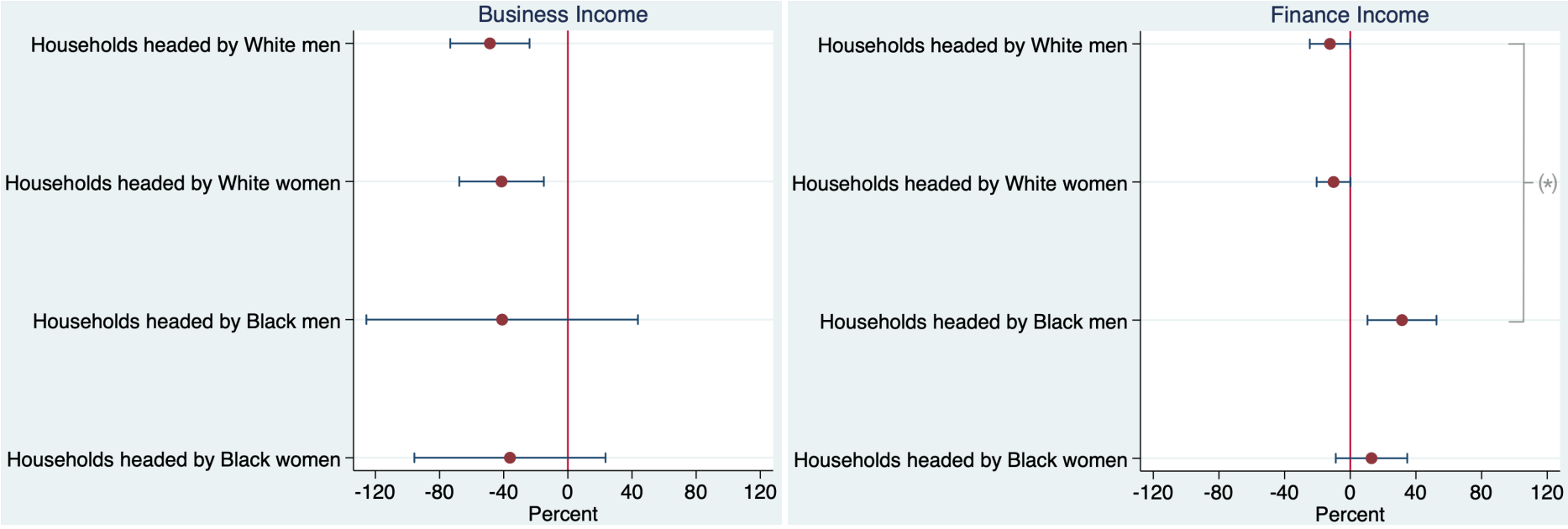




Four-year cumulative impact of a one standard deviation contractionary monetary policy shock; *p<0.10

- Clear gender gap in labor force participation
- Clear gaps by gender and race for salary income

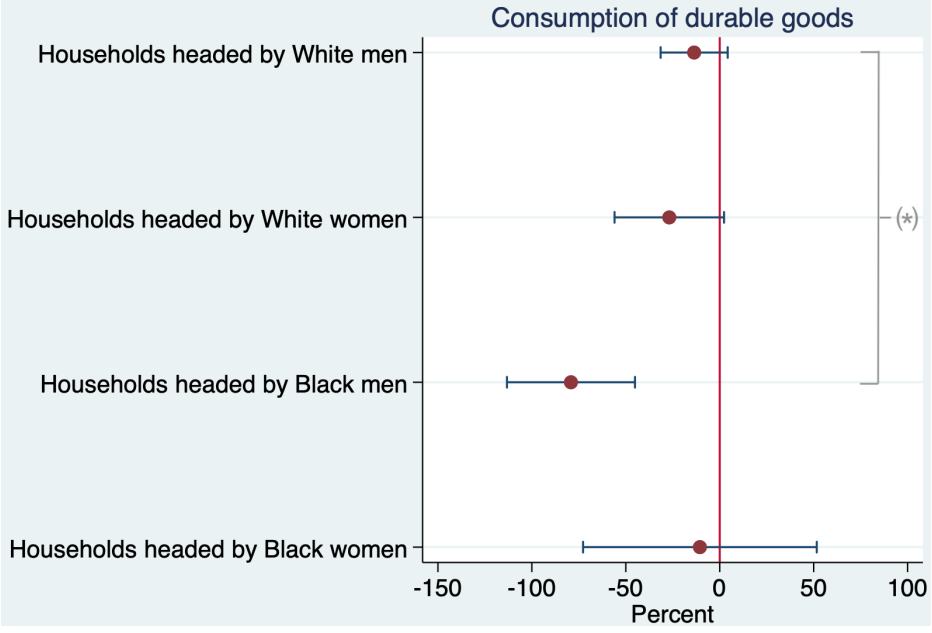
Household business and finance incomes fall

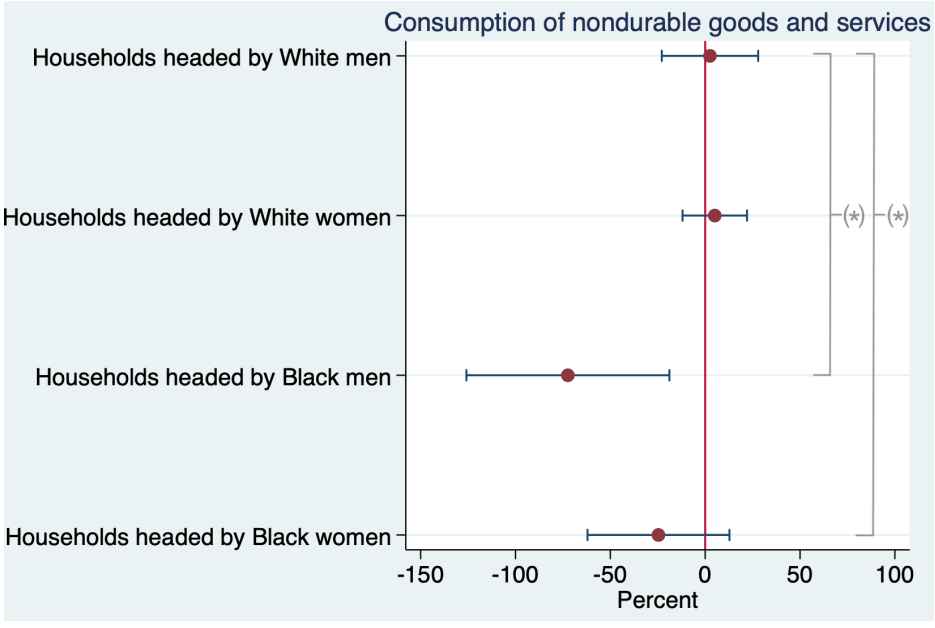


Four-year cumulative impact of a one standard deviation contractionary monetary policy shock; *p<0.10

- Unclear gaps
- Finance incomes of households headed by women fall most

Household consumption falls in response to shocks





Four-year cumulative impact of a one standard deviation contractionary monetary policy shock; *p$<$0.10

- Households headed by women decrease their consumption more; unclear gender gap
- Clear race gap

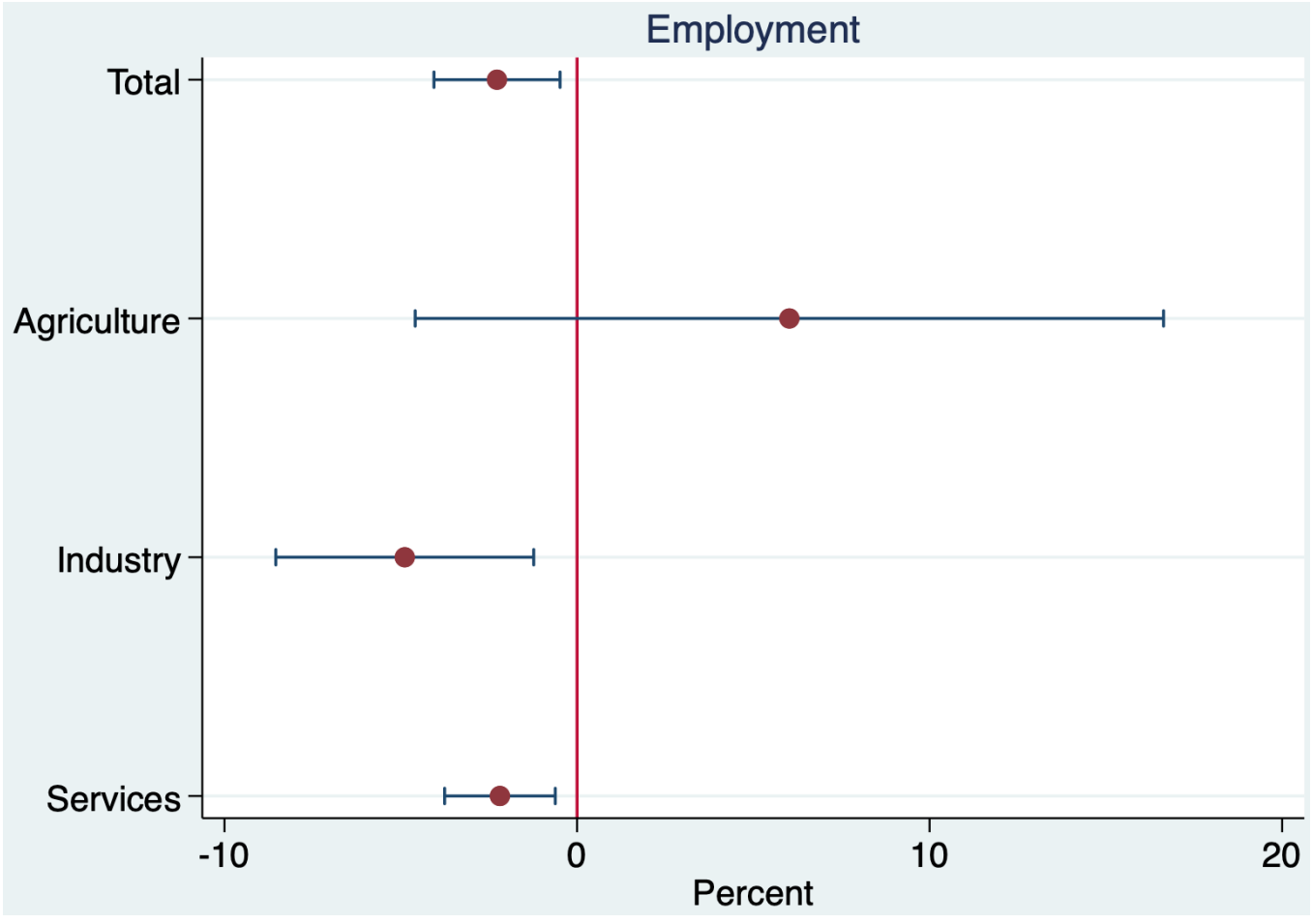
Conclusion

- Gaps exist: Black men and women are the most exposed to contractionary monetary policy
  - The unemployment gender gap narrows, but the race gap widens
  - Salary income gaps widen; business and finance incomes fall
  - Consumption gaps widen with a lag
- Policymakers should understand the individual-level effects of monetary policy to determine aggregate responses
- Future work will explore other household characteristics (single, income earners, debt, financial access)

Thank you!

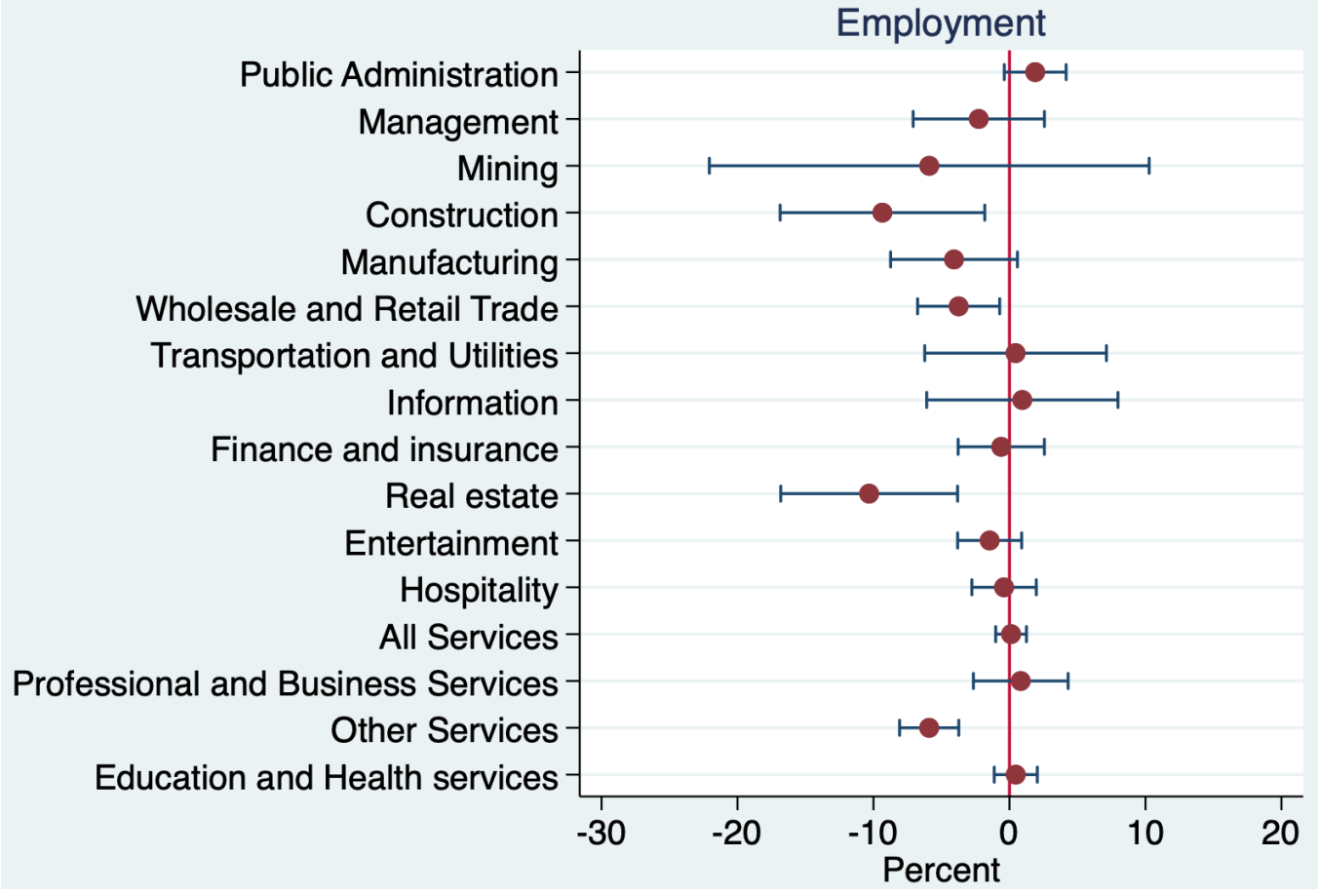
Appendix

Impact on employment by sector



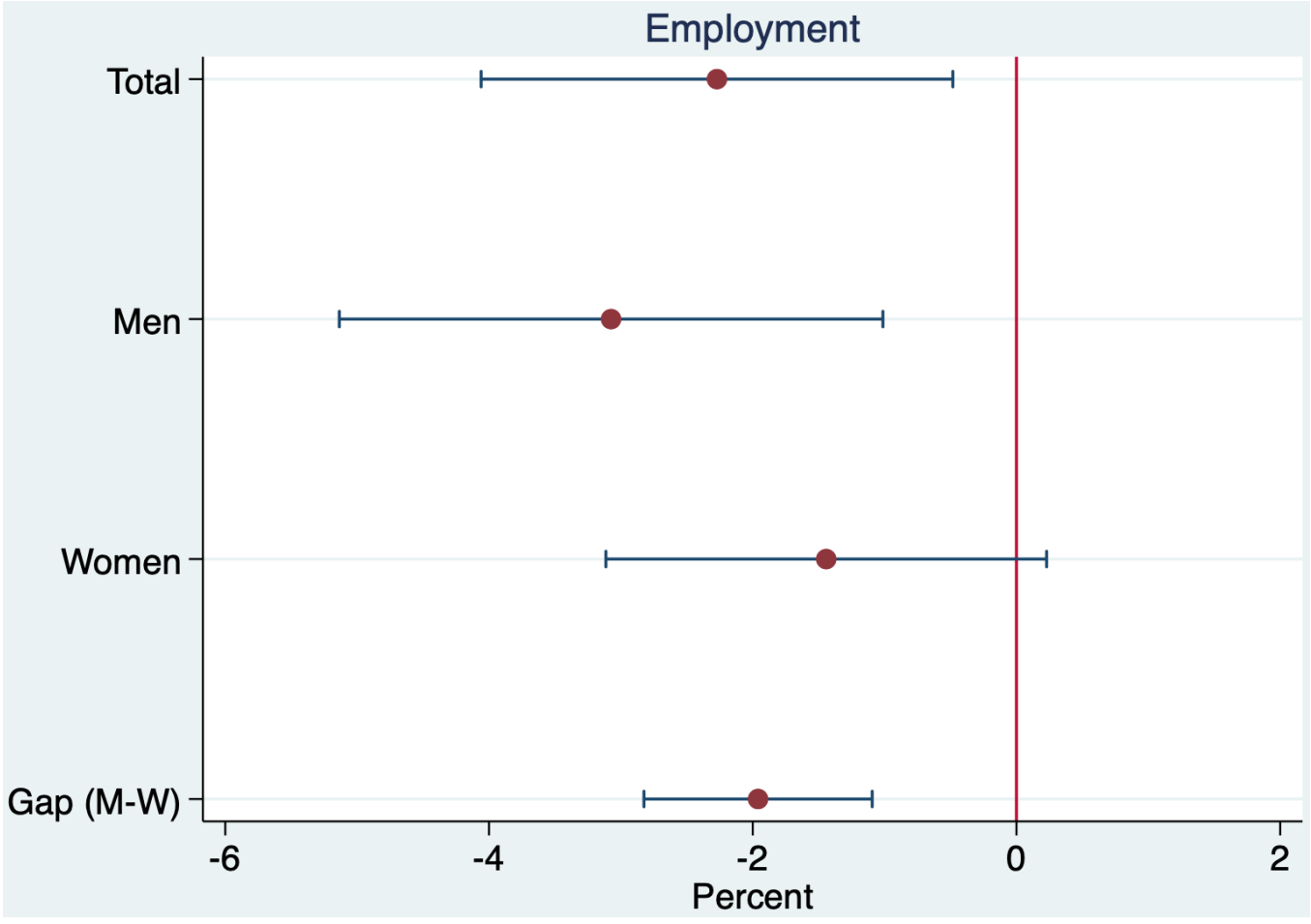
Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

Impact on employment by detailed sector



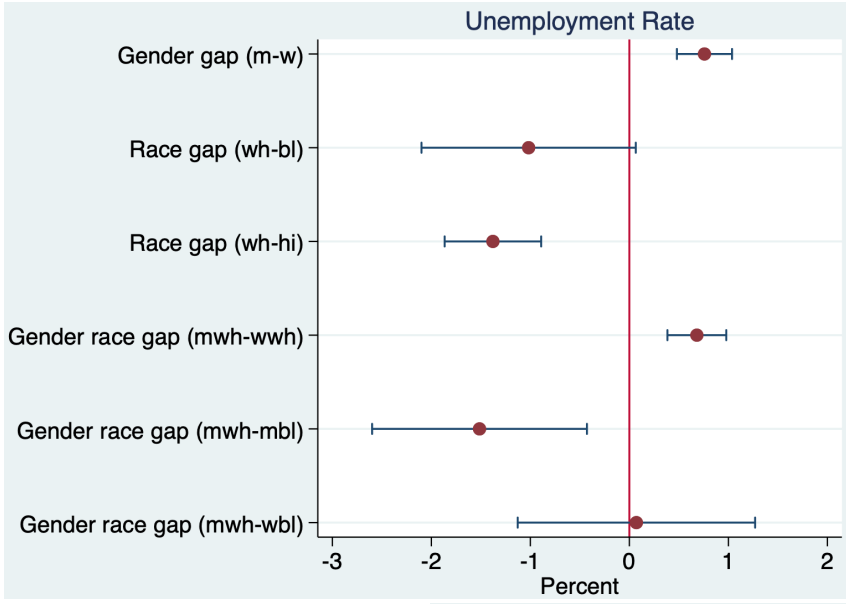
Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

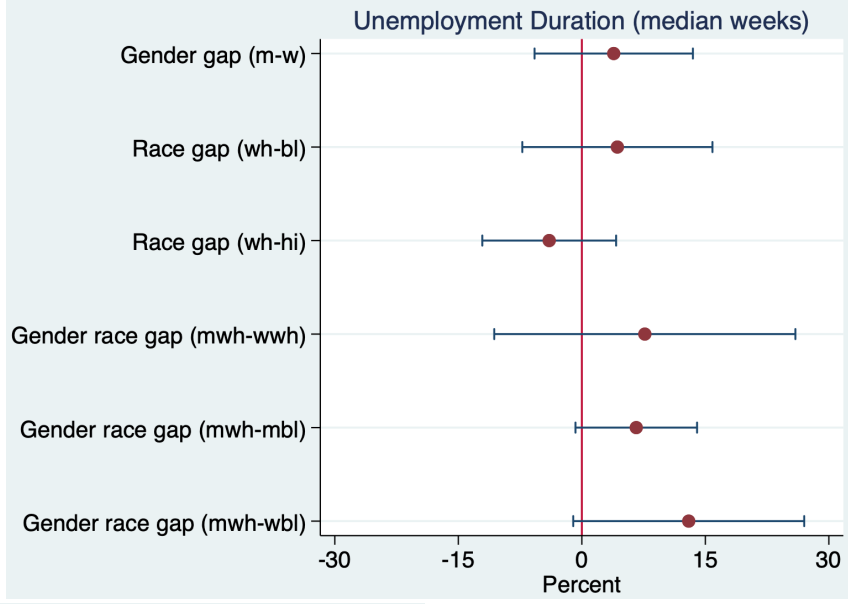
Impact on employment by gender

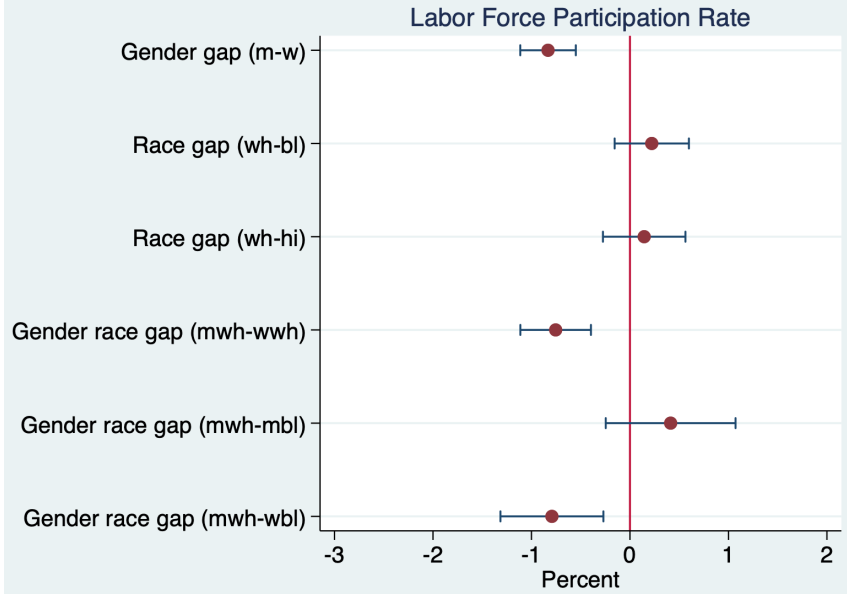


Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

Impact on unemployment and LFP gender and race gaps

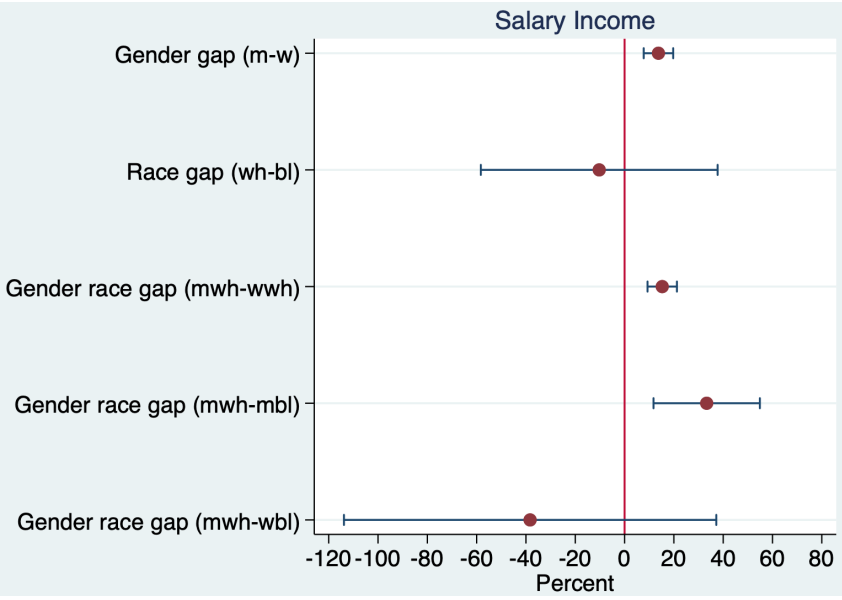


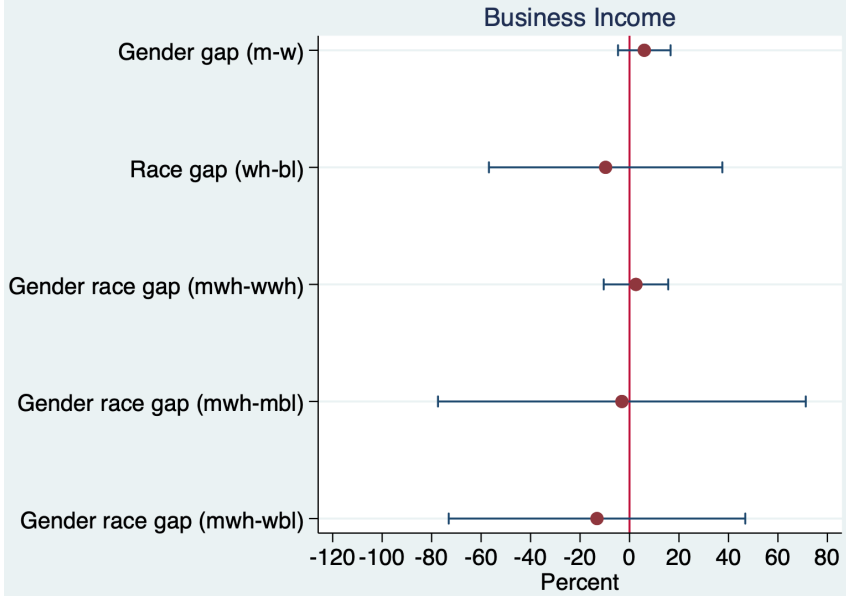


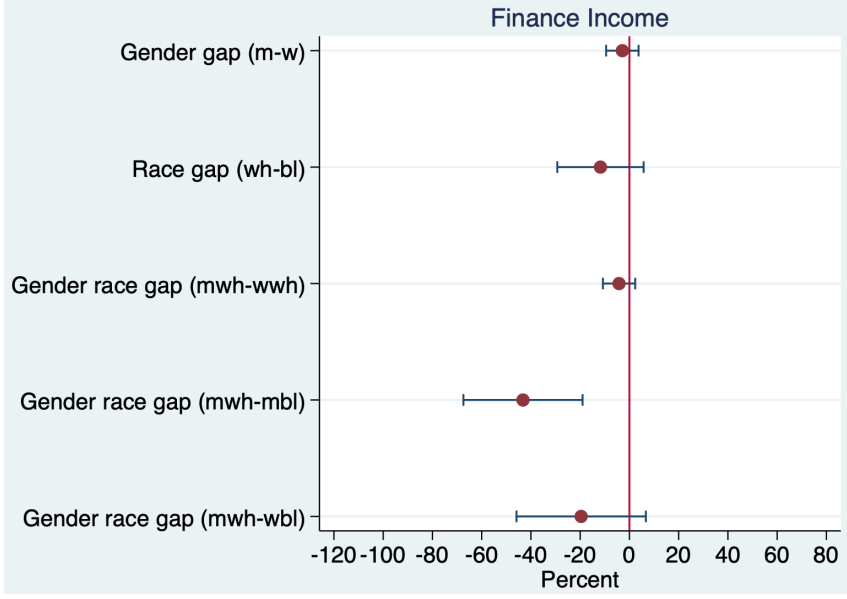


Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

Impact on household income gender and race gaps

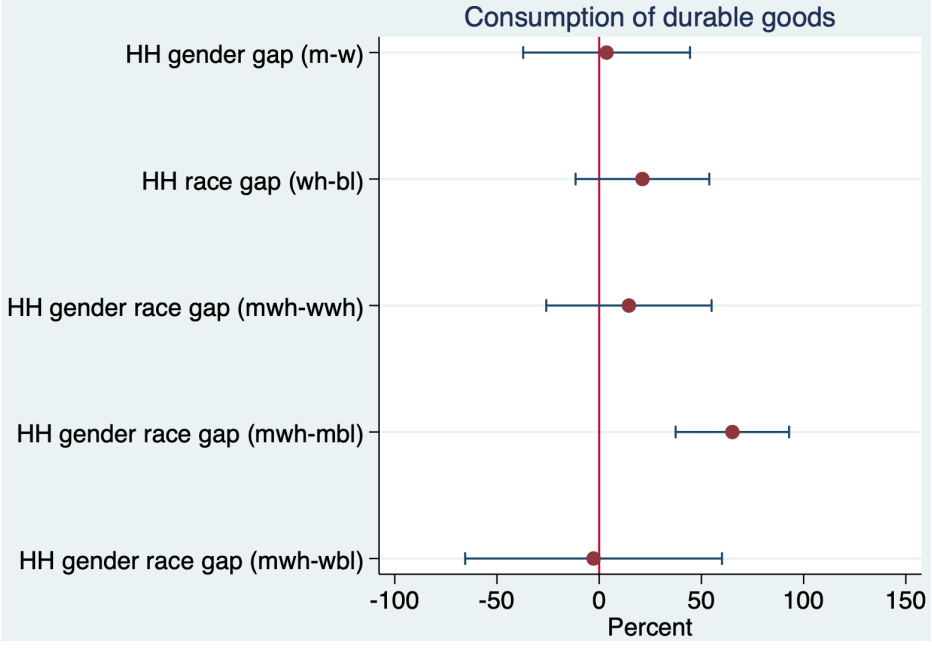


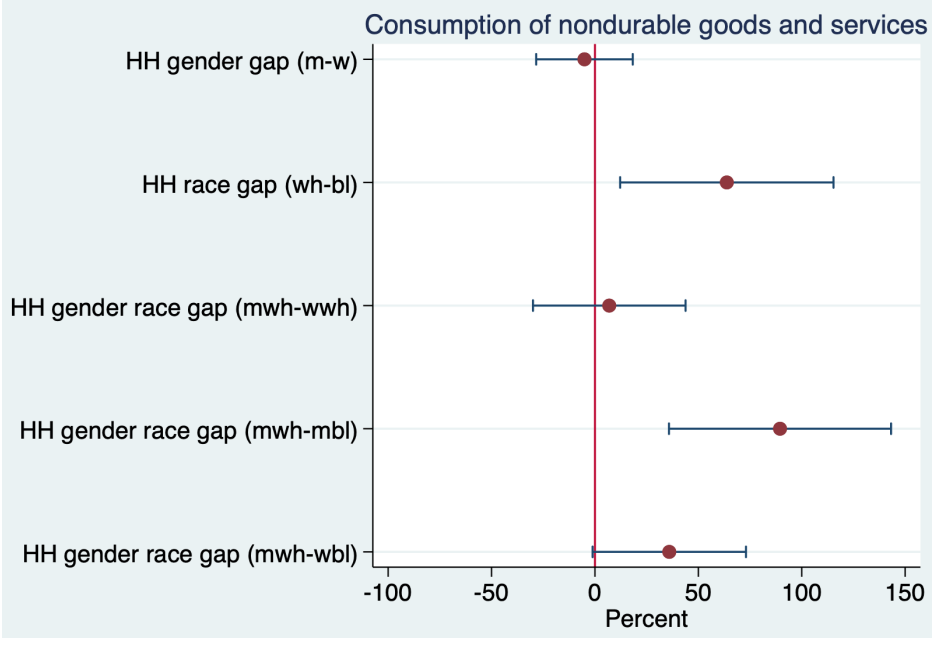




Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

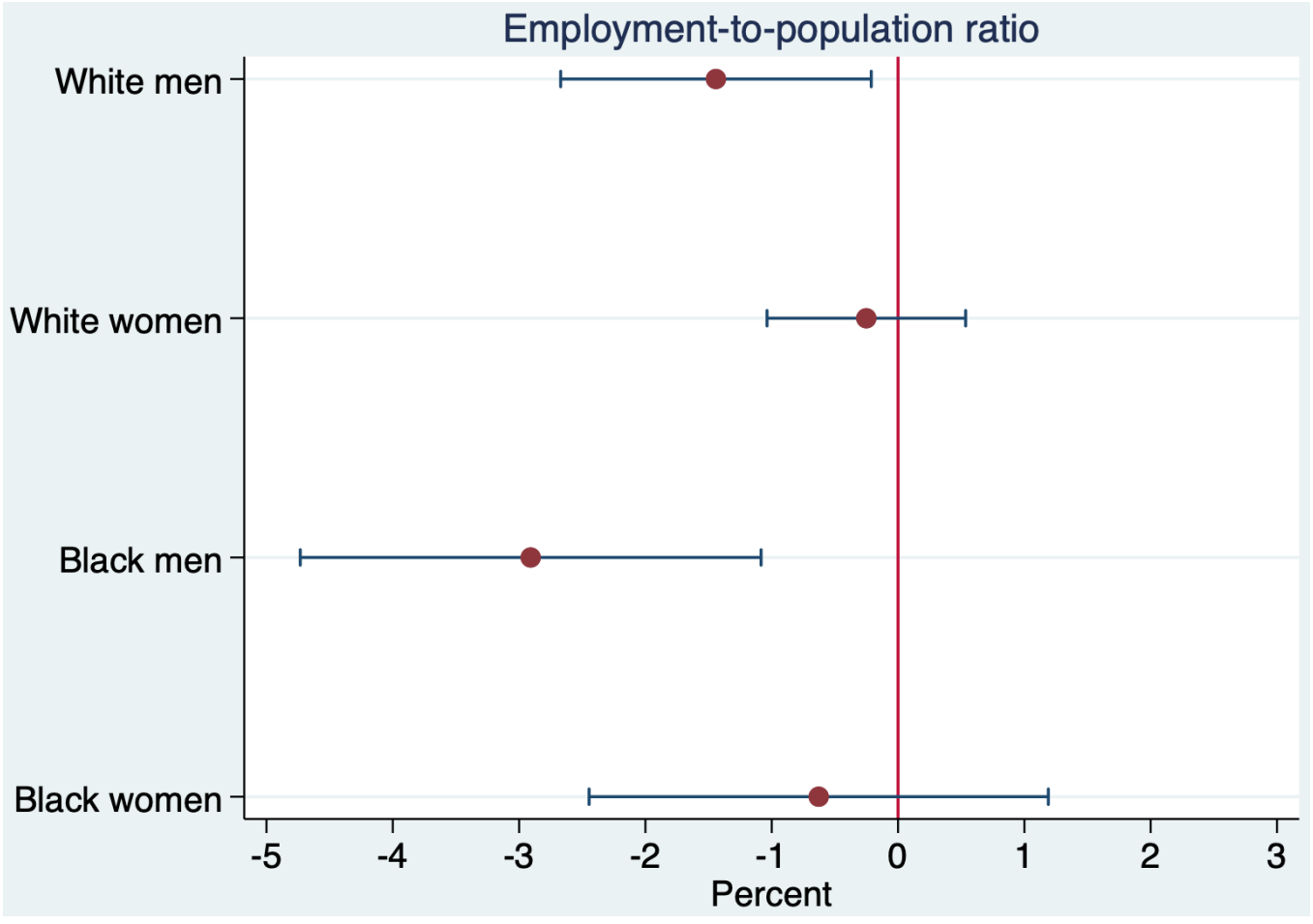
Impact on household consumption gender and race gaps





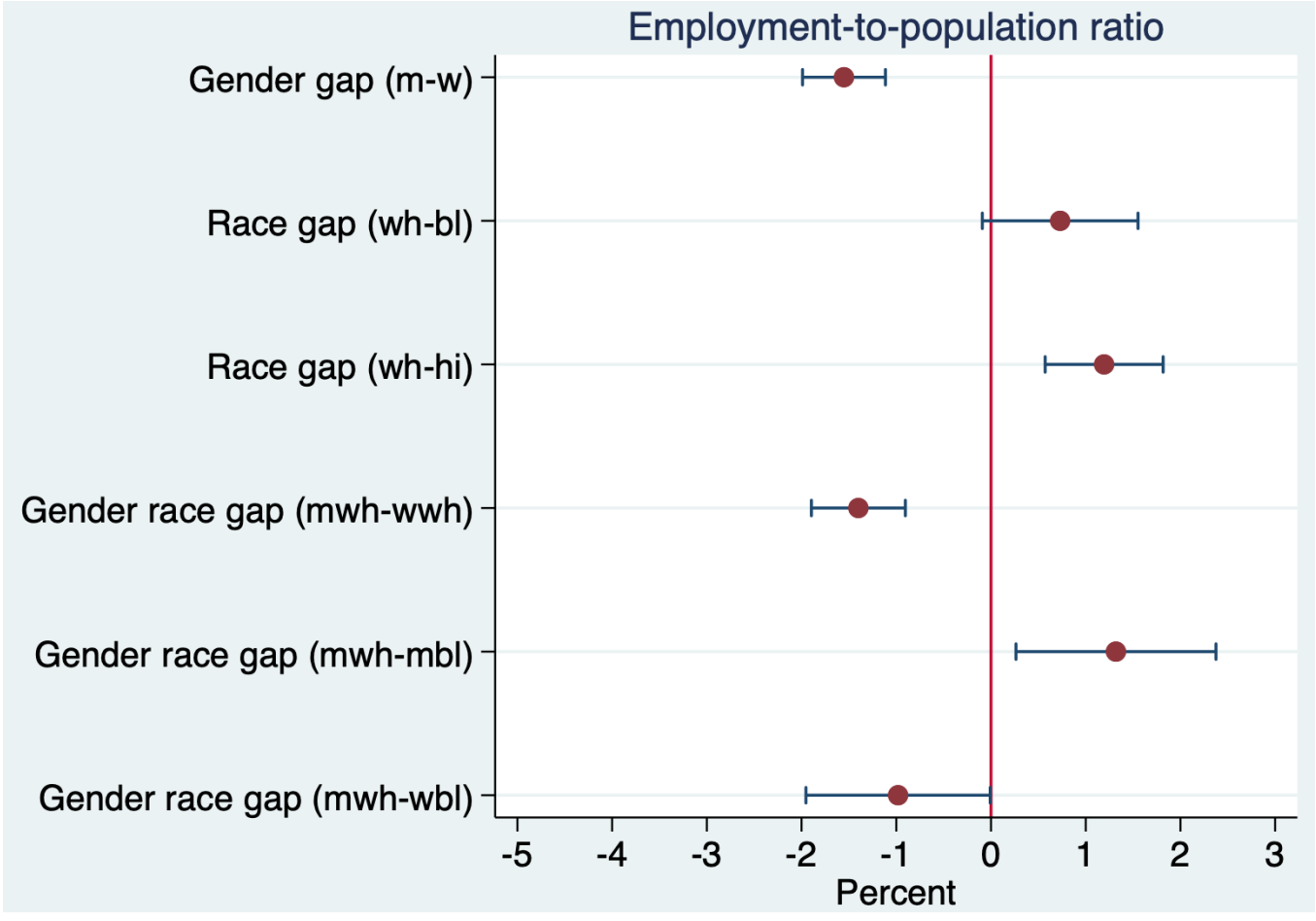
Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

Impact on employment-to-population ratio



Four-year cumulative impact of a one standard deviation contractionary monetary policy shock

Impact on employment-to-population ratio gender and race gaps



Four-year cumulative impact of a one standard deviation contractionary monetary policy shock