

# Why is Fertility on the Rise in Egypt?

## The Role of Women's Employment Opportunities

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### Introduction

Fertility in Egypt had been declining over time, reaching a low point in 2008. Recent evidence indicated that the crude birth rate was rising, but it was previously unclear if this was due to a change in the age structure of the population or rising fertility.

One factor that may be contributing to changes in fertility is the changing structure of the economy, especially the decline in public sector employment and increase in informal wage work. The division of labor within the household means women's primary responsibilities are domestic. Public sector jobs are easier to reconcile with women's domestic roles. As public sector work has declined, women have increasingly left the labor force and may be having more children.

### Research Questions

- How has Egypt's fertility rate changed in the past several years?
- Does the timing and quantity of childbearing respond to women's economic opportunities, especially different types of work?

### Data, Measures, and Methods

#### Egypt Labor Market Panel Survey (ELMPS) 1998, 2006, 2012

- Labor market histories for everyone 15-64 who ever worked
- Detailed birth (fertility) histories in 2012 data for ever-married women ages 18-49

#### Fertility

- Total fertility rate calculated from ELMPS 2012
- Historical total fertility rates from Demographic and Health Surveys (DHSs)
- Crude birth rate from vital statistics monitoring

#### Economic Opportunities

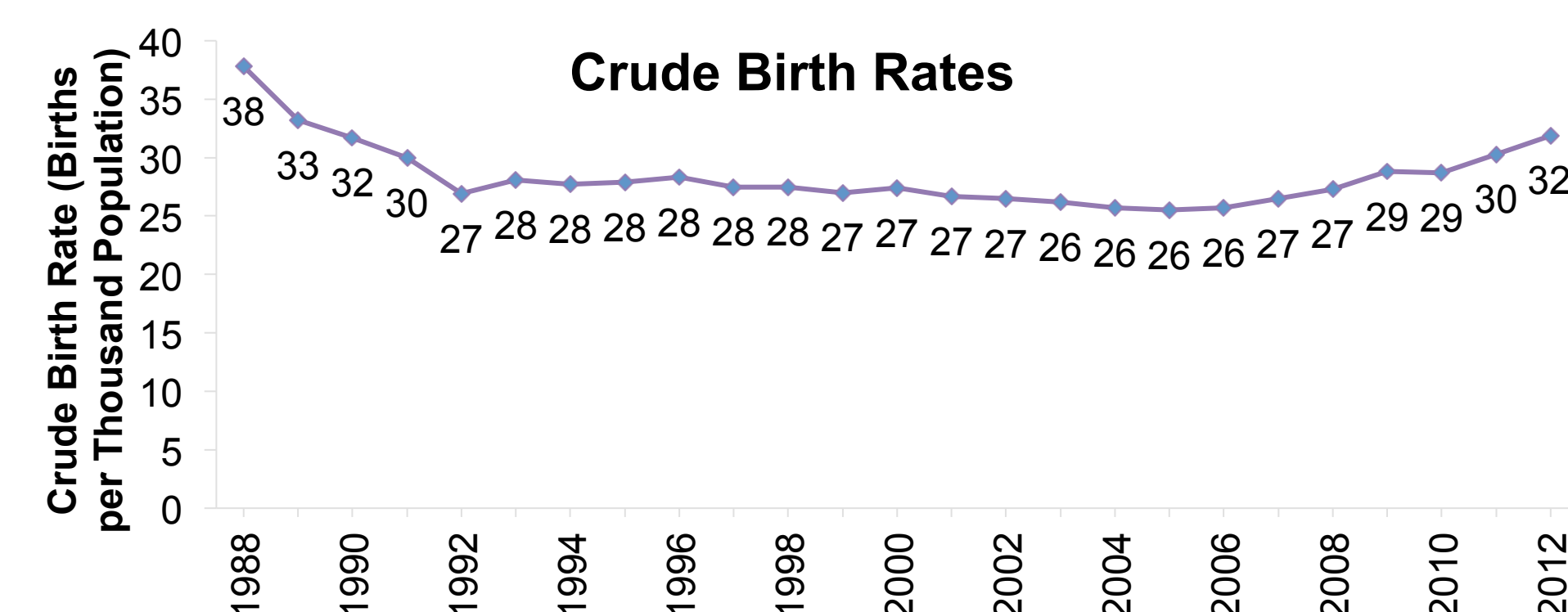
- Governorate-level annual employment rates by type of employment using 1998, 2006, 2012 labor market histories

#### Modeling

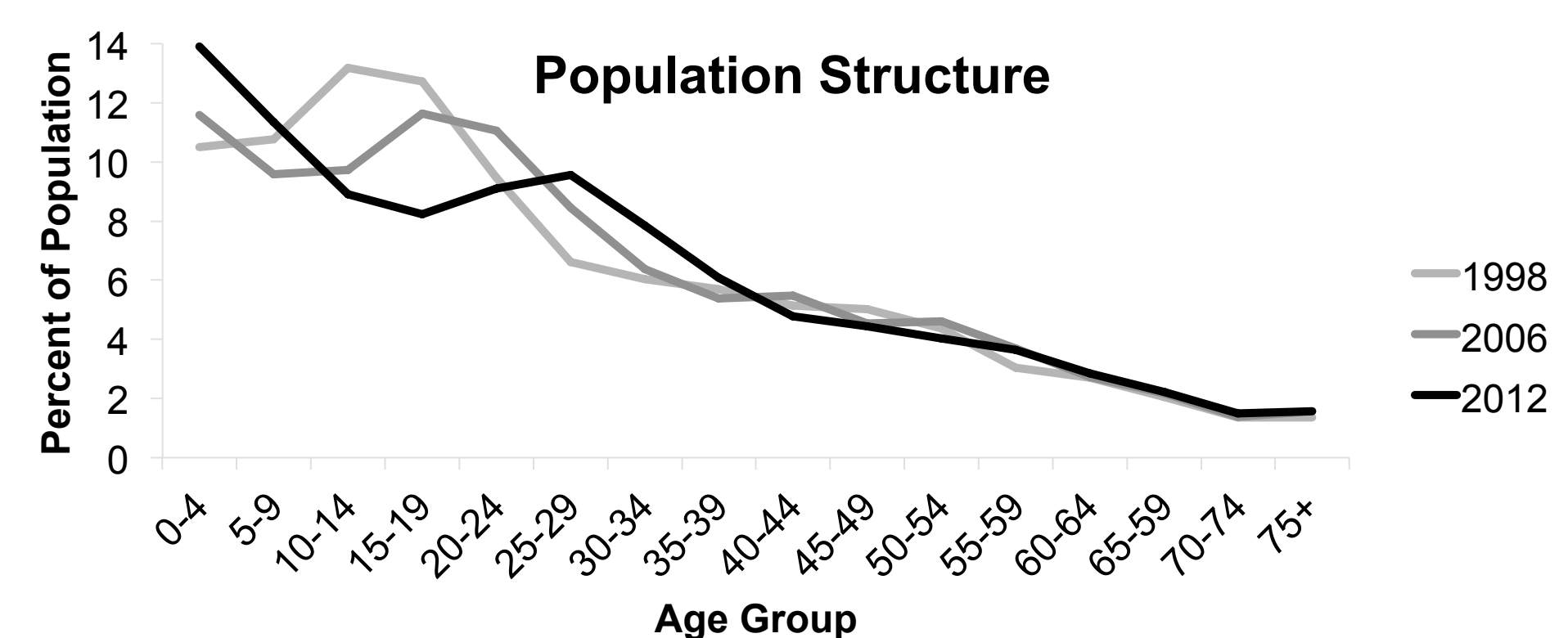
- Cox proportional hazards model for timing and probability of births
- Stratified on individual women across repeated births creating woman fixed-effects
- Used to simulate total fertility rates under different economic opportunity structures

### Population Trends

After being stable for many years, starting in 2007 the crude birth rate began to rise substantially, reaching 31.9 births per thousand in 2012.

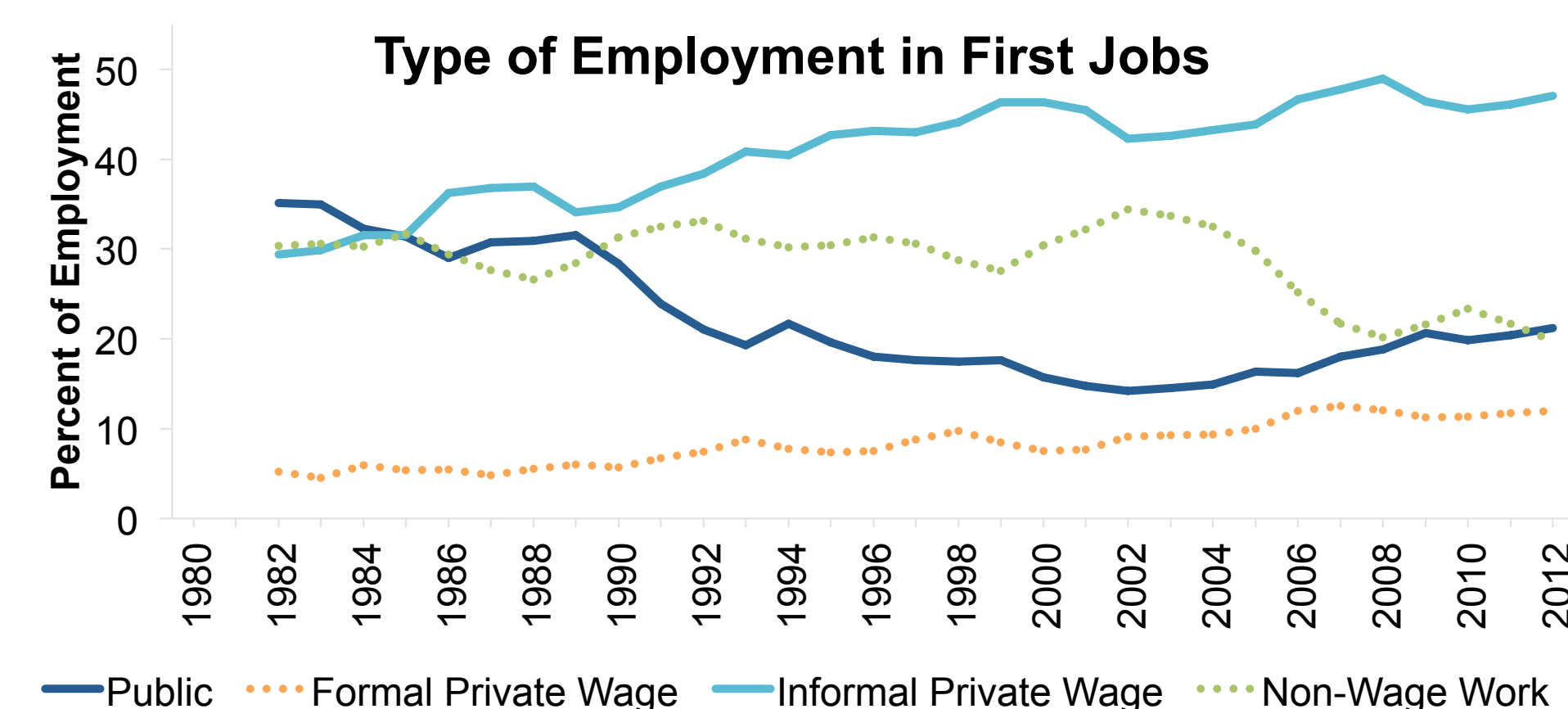


The increase in the birth rate could be driven by the age structure of the population and the youth bulge reaching childbearing age.



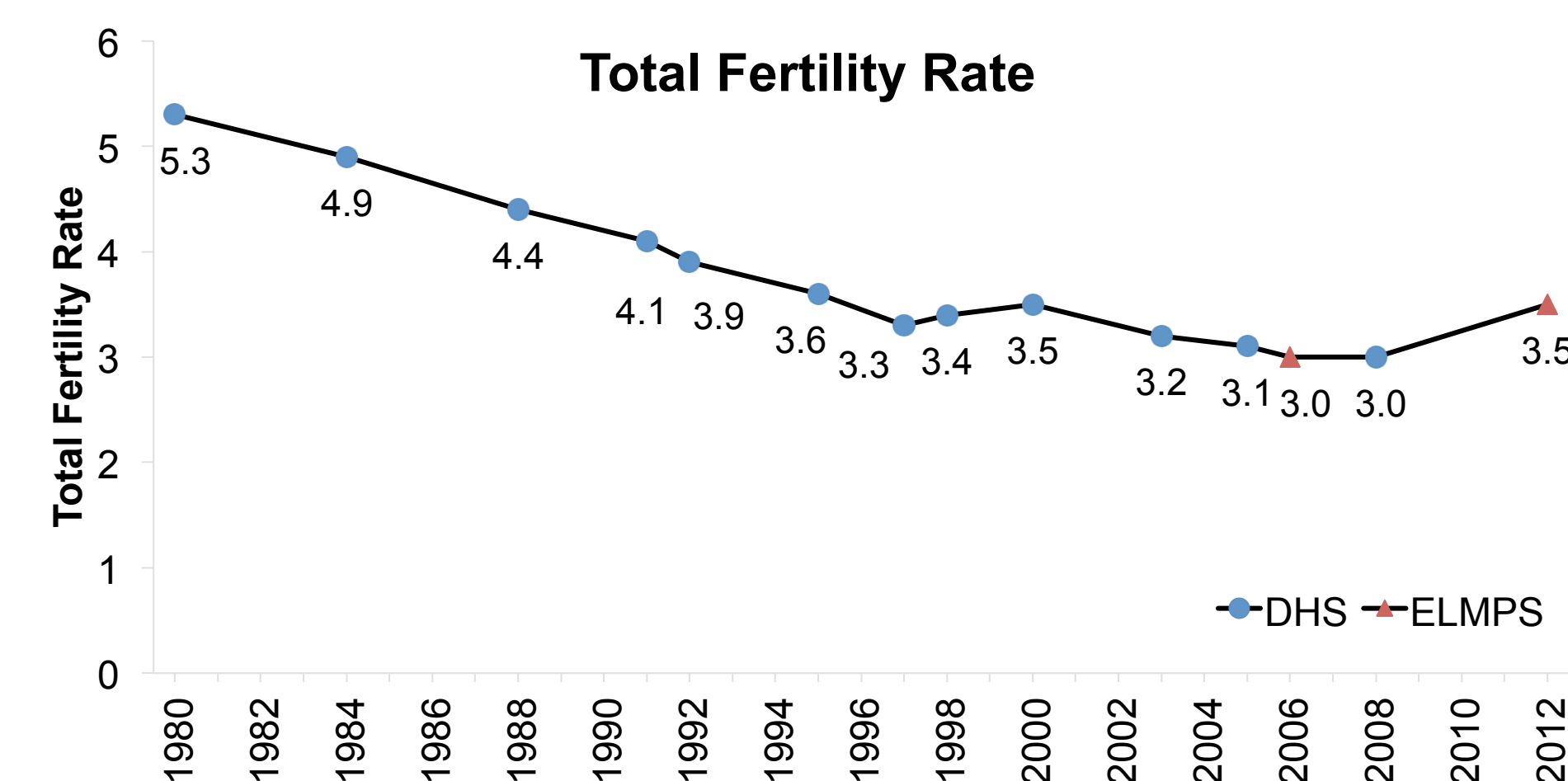
### Economic Trends

Public sector employment opportunities have declined substantially. Informal private wage work now predominates. This type of work is difficult for women to reconcile with family responsibilities.



### Results: Rising Fertility

Total fertility rates have risen substantially from 3.0 in 2008 to 3.5 in 2012. Age specific fertility rates in 2012 are very similar to those in 2000, when the total fertility rate was last 3.5.



### Results: Role of Opportunities

#### Economic Opportunities and Fertility

- Economic opportunities significantly impact the hazard of childbearing. Decreasing public sector opportunities and increasing private sector work are associated with higher hazards of childbearing.

#### Education Interactions

- The impact of economic opportunities is stronger for more educated women, who are more likely to work and to seek public sector employment.

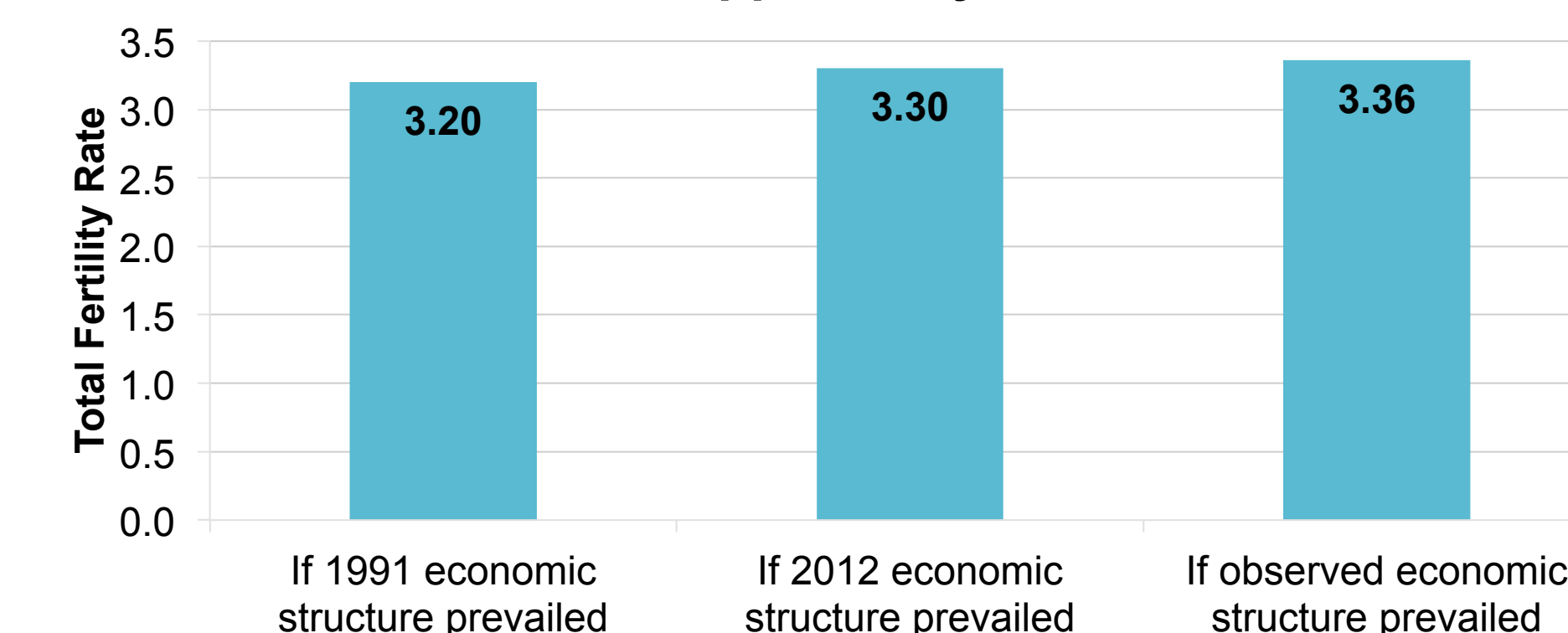
#### Importance of Woman Fixed Effects (Strata)

- In the absence of woman-specific strata, which act as woman fixed effects, relationships are confounded by omitted variables that affect both fertility and employment opportunities.

### Implications for Fertility

Simulations for fertility demonstrate that structural adjustment and changes to the economic structure since 1991 led to a 0.10-0.16 higher TFR than would have prevailed if the 1991 structure had continued.

#### Simulating Fertility 1991-2012 under Different Economic Opportunity Structures



### Conclusions

- The demographic transition has not just stalled, but in fact reversed in Egypt. After falling for decades, fertility rates are increasing.
- Changes in economic opportunities, specifically the shift from public to private sector employment, contributed to rising fertility.
- Structural reforms away from state-led economic policy towards market-oriented economies can have unintended consequences, increasing fertility, when private sector opportunities remain difficult for women to reconcile with domestic roles.

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