



# The Great Recession and Fertility in the United States

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## Introduction

The Great Recession, which began in 2007 resulted in a variety of significant and ongoing shifts in the United States and throughout the developed world, not the least of which was a decline in fertility rates beginning around 2009

- Fertility among women under thirty is the most influenced by recession, although among women between ages thirty and forty-four second births are associated with unemployment
- Differences in fertility by marital status, and race, with certain aspects of their social position and the economic situation working in concert to determine the fertility choices of women in the US.
- Declines in fertility associated with recession are typically temporary, and reflect postponement of fertility rather than choosing not to have children, although caution should be used in applying understandings of previous recession related fertility shifts to the Great Recession because it is both greater in magnitude and more far reaching than any other prior recession besides the Great Depression
- Women during the Great Depression never reached their desired fertility levels
- With the average age of first birth twenty-eight, declines in the welfare state and increases in the age of retirement in many countries, it is possible that the effects of the Great Recession may reverberate in the fertility rate beyond the recession

## Research Questions

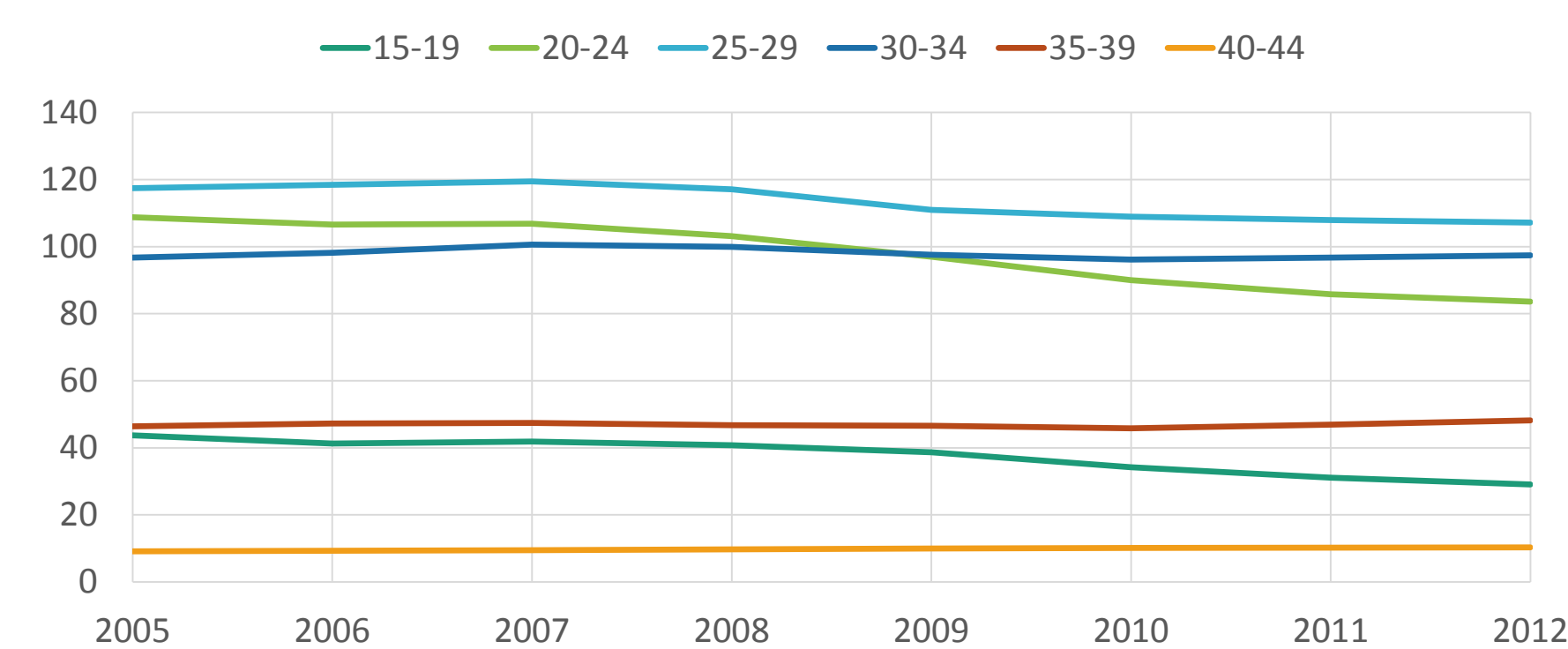
Does the decline in fertility vary by location, and specifically by the size of the county?

Do the most recent data show any indication of a recovery in fertility rates and does that vary by location?

Are there specific characteristics of the mothers who are postponing or opting out of fertility as a result of the recession (marital status, age, race, education level, etc.) and are any of these groups showing signs of increasing fertility post-recession independently of other women?

## Trends by Age

AGE SPECIFIC BIRTH RATES ACROSS THE GREAT RECESSION



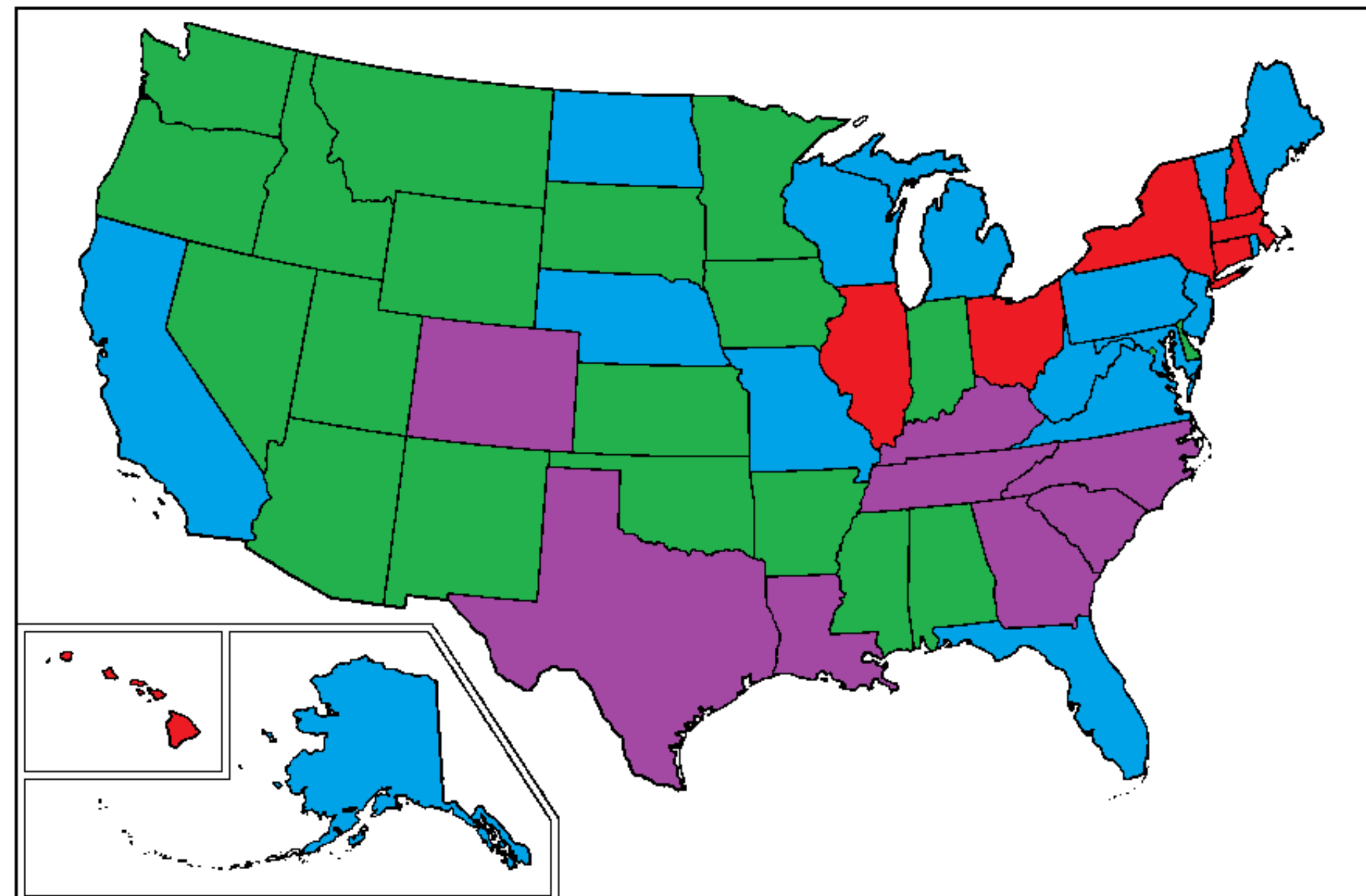
The above chart examines the relationship between age and fertility rates across the Great Recession

- Age specific fertility rates decreased for women under 30
- The greatest decrease in fertility was among women in their early 20's or college aged women, continuing, but accelerating a trend that began before the recession
- Fertility among those over 30 remained relatively stable across the recession.

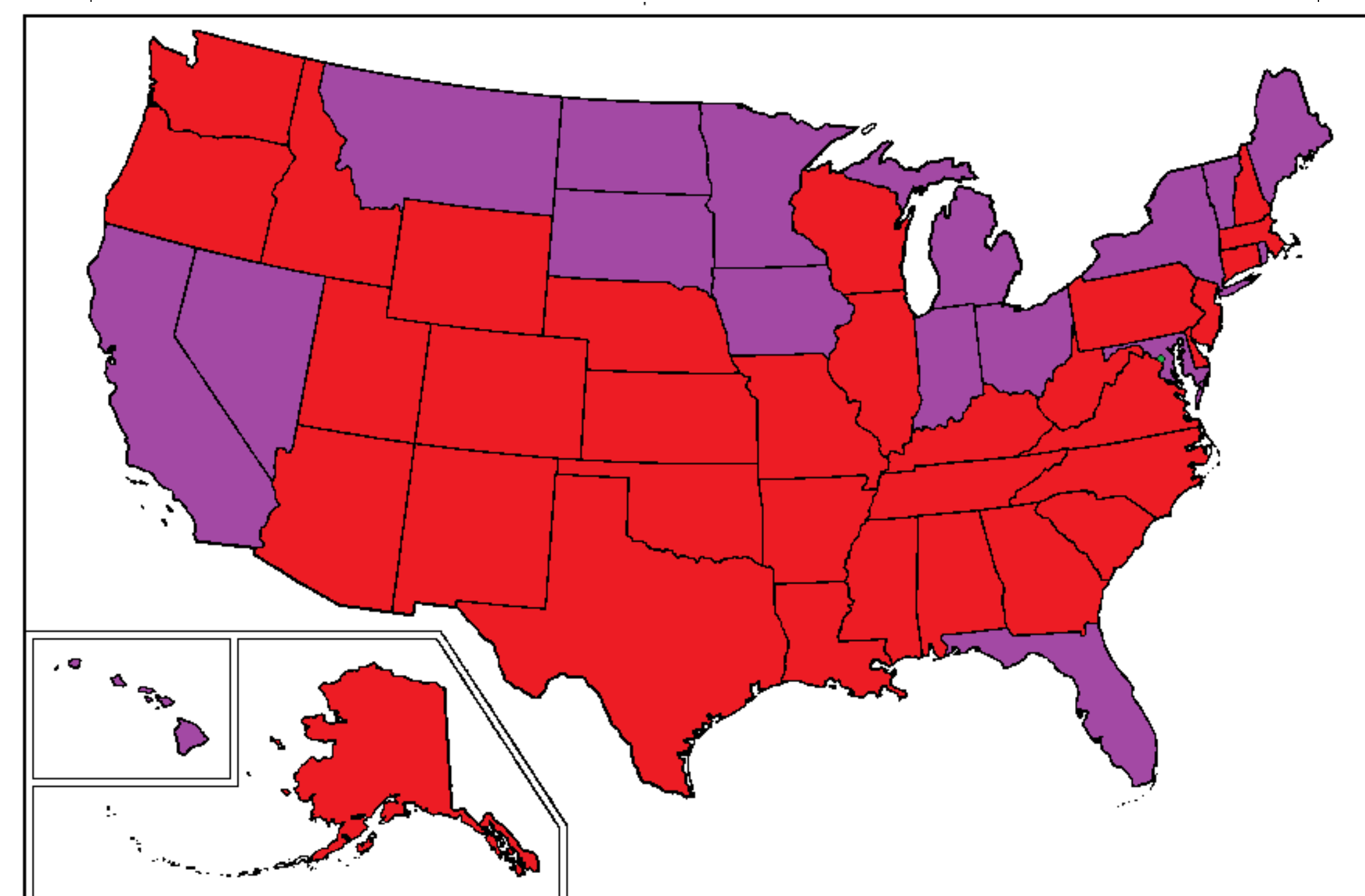
Data: CDC/National Center for Health Statistics, ACS Annual Population Estimates

## National Pre and Post Recession Trends in Fertility and Migration

Pre-Recession:  
2003-2007



Post-Recession:  
2009-2013



- Fertility Rate Increasing and Gaining More or Losing Fewer Migrants than the Comparison Year
- Fertility Rate Increasing and Gaining Fewer or Losing More Migrants than the Comparison Year
- Fertility Rate Decreasing and Gaining More or Losing Fewer Migrants than the Comparison Year
- Fertility Rate Decreasing and Gaining Fewer or Losing More Migrants than the Comparison Year

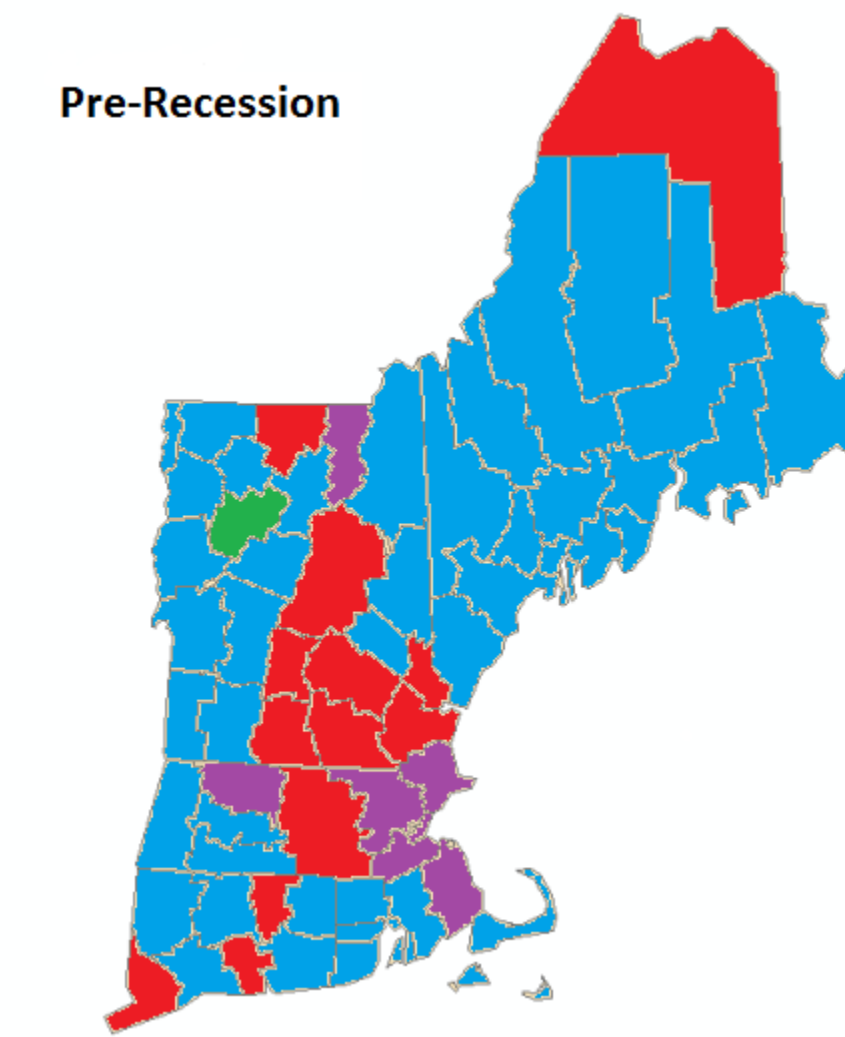
The maps above provide a comparison of migration and fertility patterns in the US before and after the Great Recession.

- Each map compares an average of two later years to a previous year
  - The Pre-Recession map compares an average of 2007 and 2005 to 2003
  - The Post-Recession map compares an average of 2013 and 2011 to 2009
- There is significant variation across the countries in fertility and migration trends pre-recession with only 7 states both experiencing a decreasing crude fertility rate and a losing more or gaining fewer migrants on average compared to 2003
- Post-recession both all states crude fertility rates decreased and 33 states are also losing more or gaining fewer migrants than in 2009

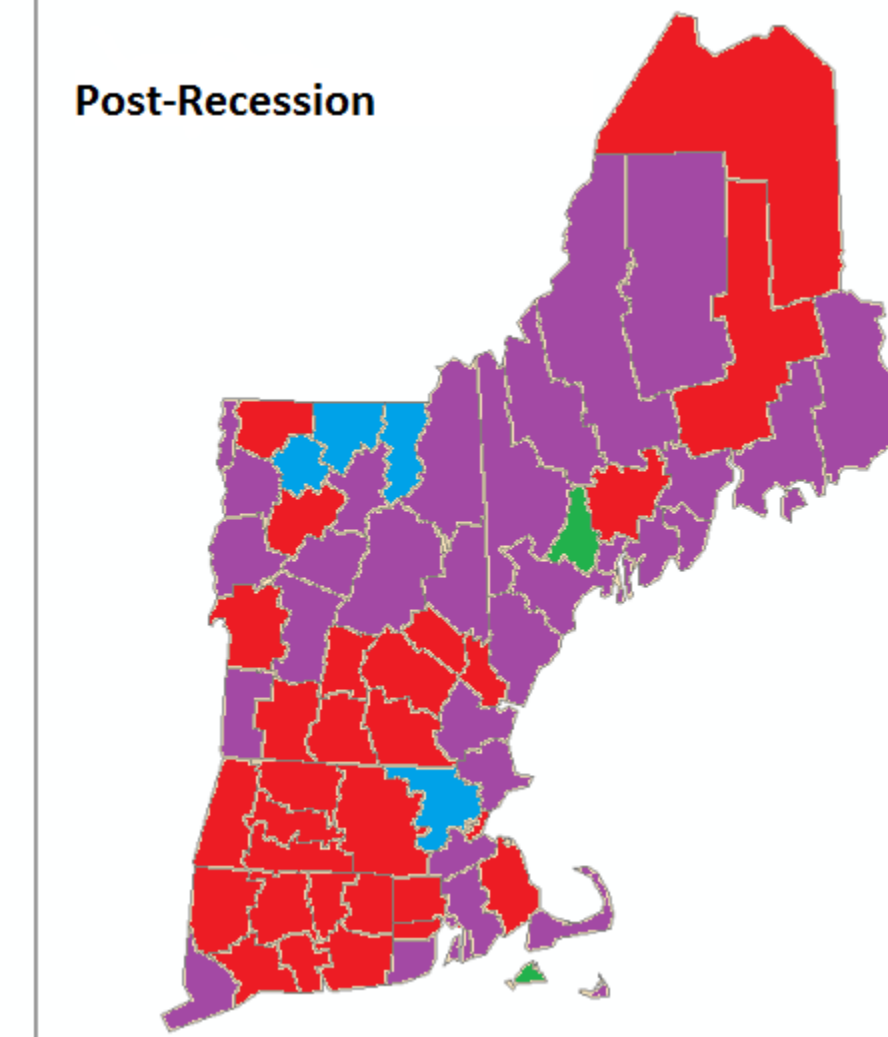
Data: Estimates of the Components of Population Change, US Census Bureau

## How Do the Fertility Trends Map Locally?

Pre-Recession



Post-Recession



- Fertility Rate Increasing and Gaining More or Losing Fewer Migrants than the Comparison Year
- Fertility Rate Increasing and Gaining Fewer or Losing More Migrants than the Comparison Year
- Fertility Rate Decreasing and Gaining More or Losing Fewer Migrants than the Comparison Year
- Fertility Rate Decreasing and Gaining Fewer or Losing More Migrants than the Comparison Year

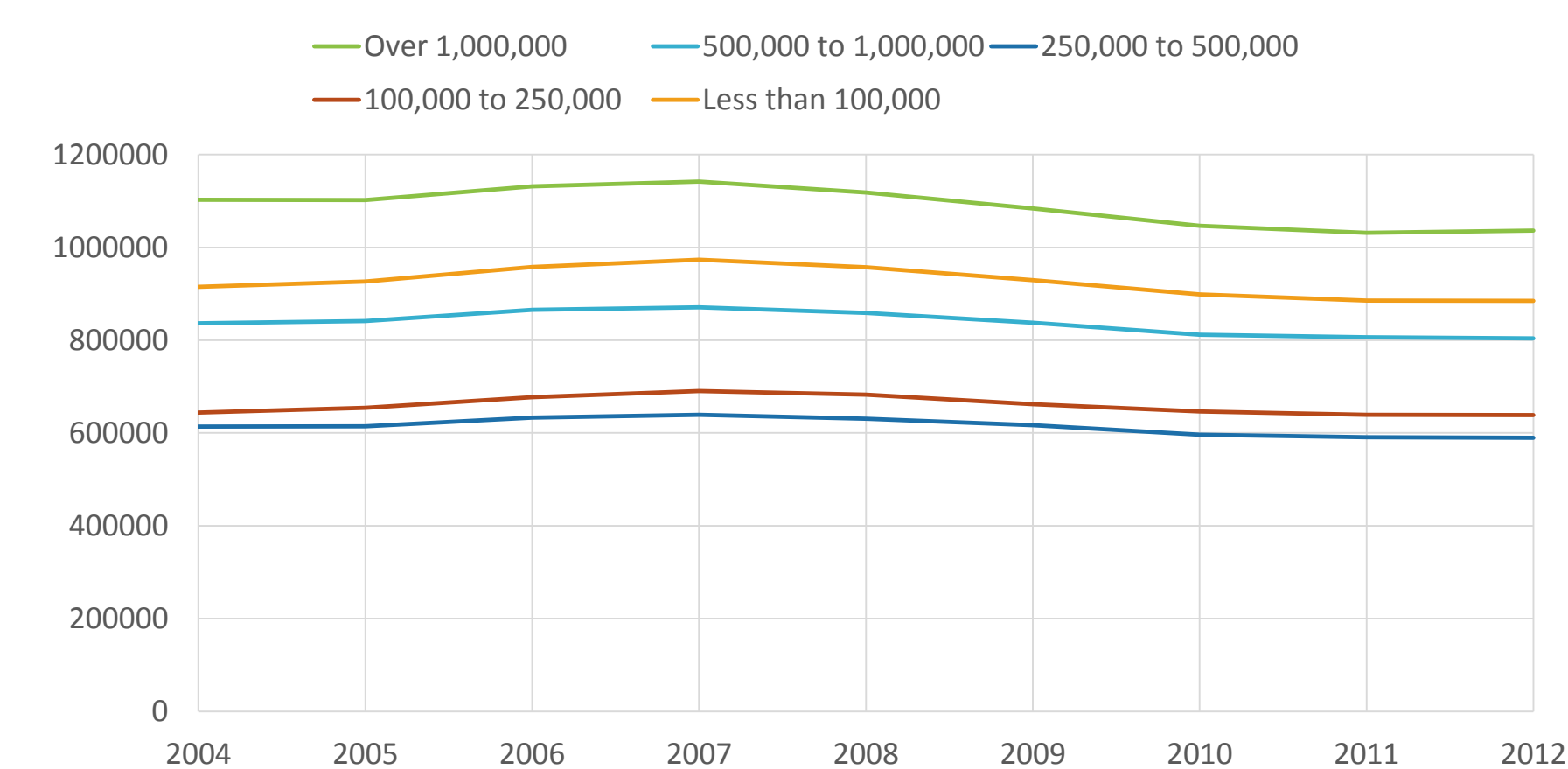
The maps above chart the trends in fertility and migration before and after the recession by county

- There is more variation at the county level post recession than at the national level, but overall trends are the same, in most counties fertility decreased after the recession
- These maps represent comparisons of the counties to themselves, as a result a county that shows an apparent anomaly with the overall patterns, such as Androscoggin County, ME which is increasing fertility rates and gaining more or losing less migrants may represent either a county that is doing well through the recession and attracting individuals, or a county that was doing poorly prior to the recession and fewer individuals are able to leave the county post-recession.

Data: Estimates of the Components of Population Change, US Census Bureau

## Births by County Size

NUMBER OF BIRTHS BY SIZE OF COUNTY



The above chart examines the variation of number of births by county size and how the Great Recession influenced those births.

- The effect of the recession is visible on all county sizes in the drop in numbers beginning in 2008
- There is no apparent relationship between county size and how significantly the number of births dropped as a result of the Recession
- Beyond comparing the patterns, it is important not to compare the actual numbers of births in locations because these are not birth rates, further work comparing birth rates by location size and how the size of the county is related to maternal characteristics is recommended

Data: CDC/National Center for Health Statistics

## Why are Fertility Rates Dropping?

Factors Related to Postponing Fertility as a Result of Economic Conditions

Variable	Coefficient	Standard Error
Age	0.001	0***
Sex: Female=0	-0.033	0.015**
Marital Status: Not Married=0	0.129	0.020***
Already has Children: No=0	-0.116	0.017***
Income	-0.002	0.000**
Owns Home: No=0	-0.061	0.021***
R2	0.043	
N	2912	P<.01 = ***, P<.05 = **

The above table provides some explanation of the factors associated with delaying fertility as a result of economic factors. Holding all the other variables constant:

- Older individuals are more likely to have delayed fertility
- Males are less likely to have delayed fertility
- Married individuals are more likely to have delayed fertility
- Those with other children are less likely to have delayed fertility
- Those with a lower income and who do not own their home are more likely to have delayed fertility

Data: PEW Youth and Economy Survey, Conducted Dec, 2011, Released 2013

## Conclusion and Acknowledgements

The Great Recession resulted in a decline in fertility nation wide in the US, these trends appear to be consistent across state and county levels with some variation in the influence on the location. There is no apparent variation in fertility by county size as it relates to the recession, the number of births in all counties decreased proportionally. One possible cause of the decline in fertility in the US is the choice to delay fertility during the recession, which is associated with age, income, and marital status.

I intend to continue exploring this project, including further examination of race, and county level variations.

Dr. Johnson is the professor for the Demography course offered by the Sociology Department.

## Recommended Literature

Cherlin, Andrew, Erin Cumberworth, S. Philip Morgan, and Christopher Wimer. 2013. "The Effects of the Great Recession on Family Structure and Fertility." *The Annals of the American Academy of Political and Social Science* 650(1):214-231.

Emeka, Amon. 2006. "Birth, Fortune, and Discrepant Fertility in Twentieth-Century America." *Social Science History* 30(3):327-357.

Goldstein, Joshua R., Michaela Kreyenfeld, Aiva Jasilioniene, and Deniz Karaman-Orsal. 2013. "Fertility Reactions to the 'Great Recession' in Europe: Recent Evidence from Order-specific Data." *Demographic Research* 29(4):85-104.

Myrskylä, Mikko, Joshua R. Goldstein, and Yen-hsin Alice Cheng. 2013. "New Cohort Fertility Forecasts for the Developed World: Rises, Falls, and Reversals." *Population and Development Review* 39(1):31-56.

Percheski, Christine, and Rachel Kimbro. 2013. "How did the Great Recession affect Fertility?" *Focus* 30(2):26-30.

Sobotka, Tomas, Vergard Skirbekk, and Dimiter Philipov. 2011. "Economic Recession and Fertility in the Developed World." *Population and Development Review* 37(2):267-306.