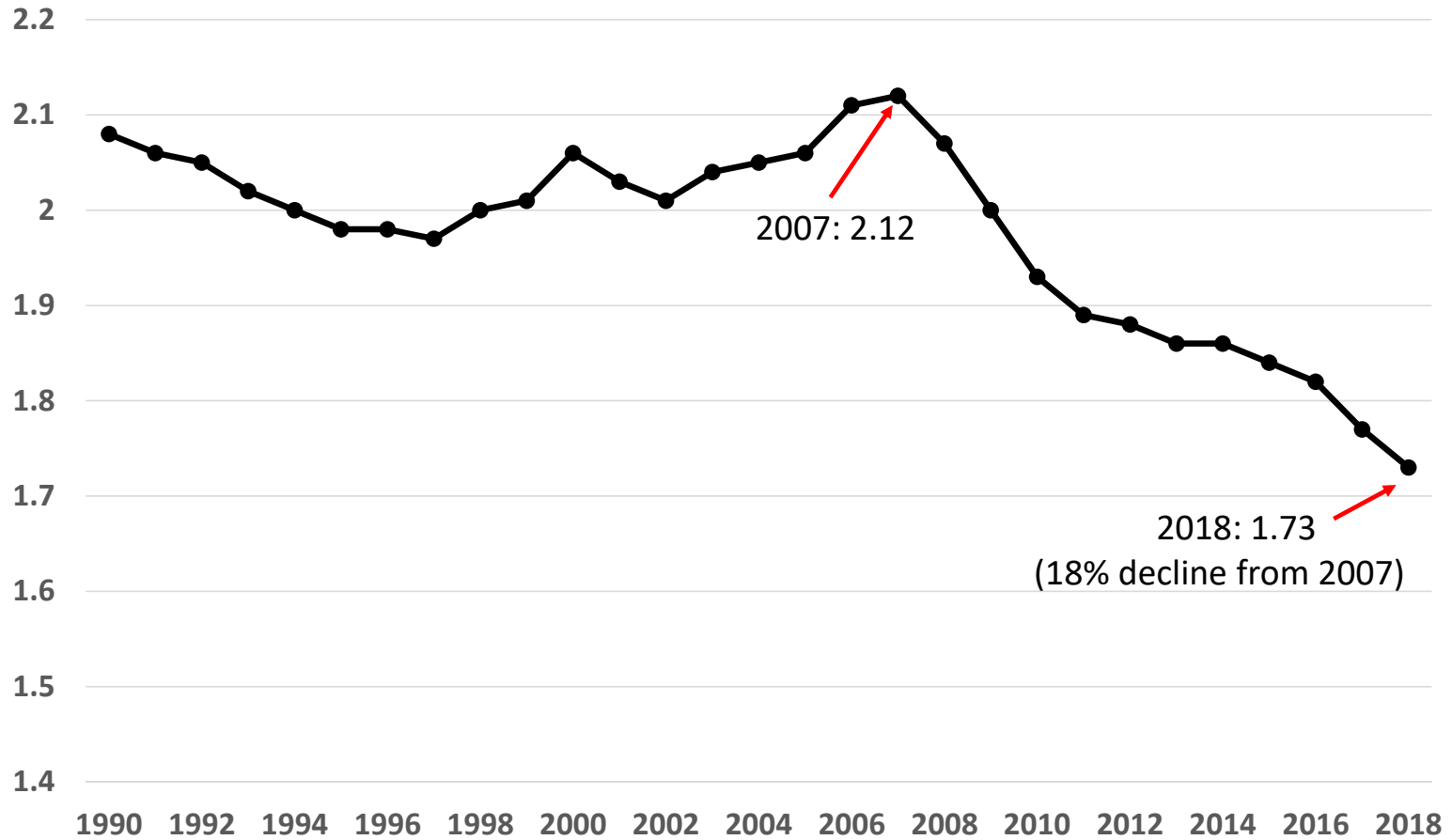


**The Post-2007 Fertility Decline:
What the Last Ten Years Can Tell Us About the Next Ten**

Kasey Buckles, Ph.D.
University of Notre Dame,
NBER, & IZA

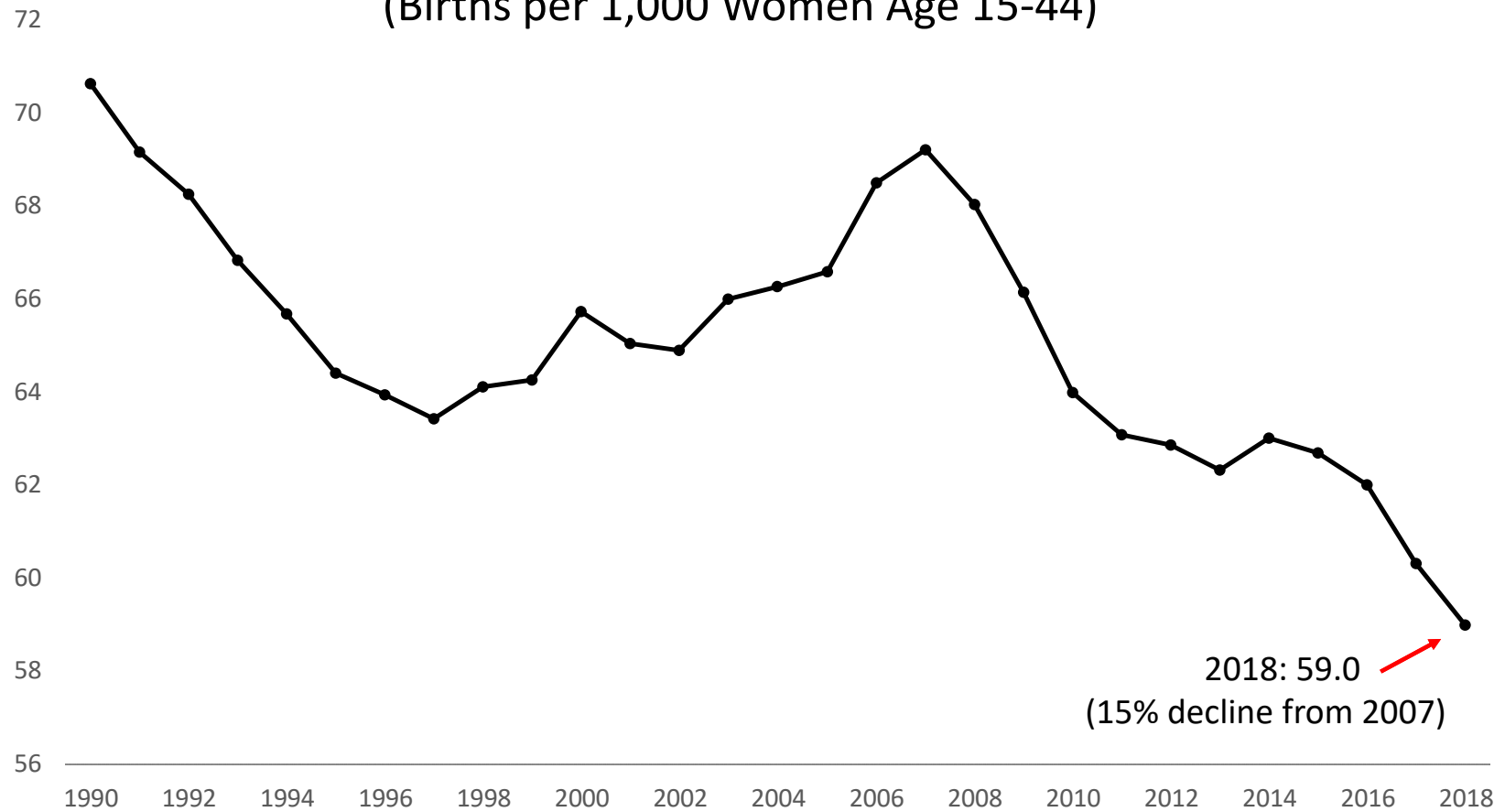
Total Fertility Rate in the U.S., 1990-2018



Source: data.oecd.org; Hamilton et al. 2019 for 2018 rate

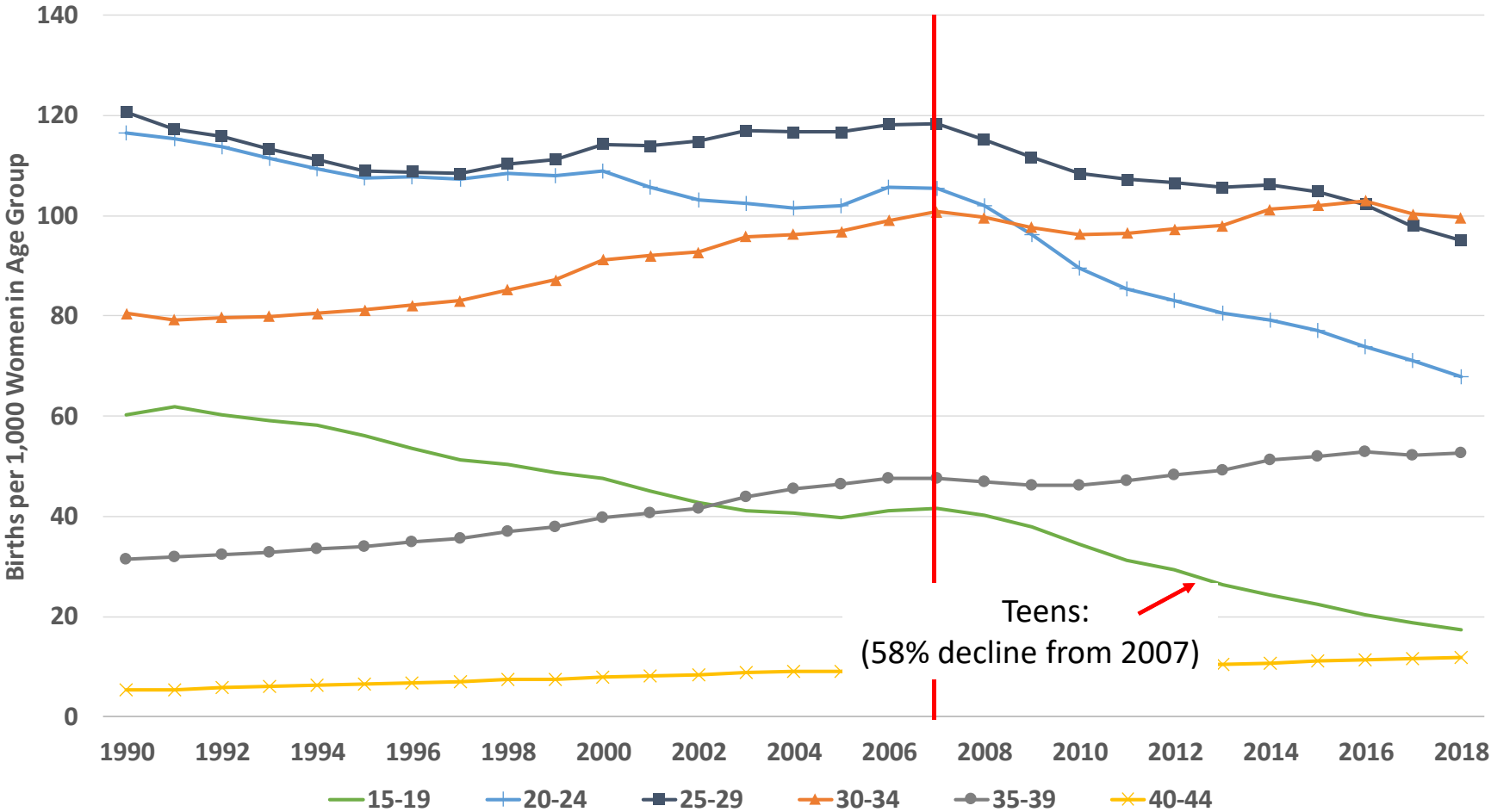
Birth Rates in the U.S., 1990-2018

(Births per 1,000 Women Age 15-44)



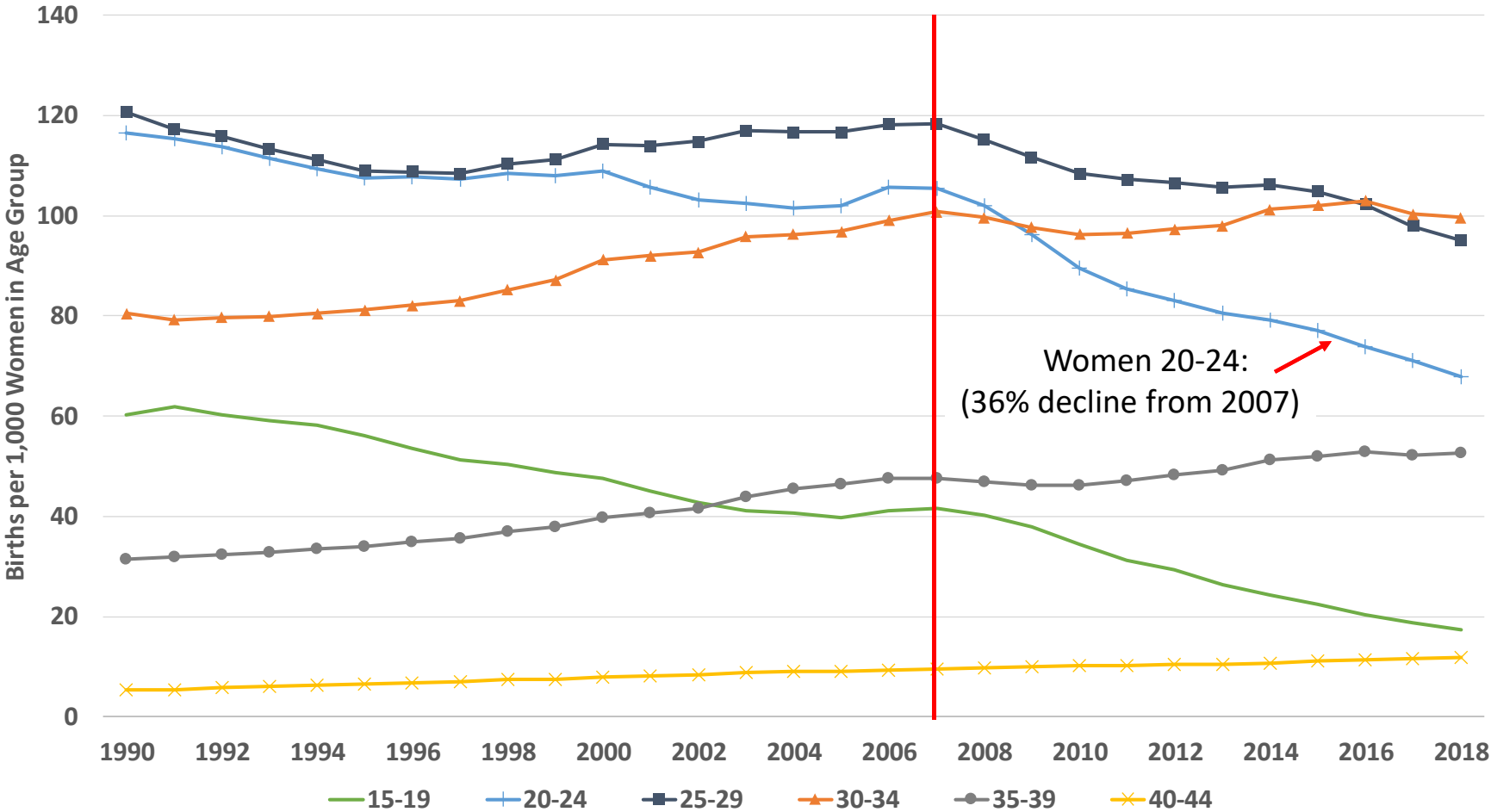
Source: Authors' calculations using Natality Detail Files, 1990-2016; Hamilton et al. 2019 for 2017 & 2018 rate

Birth Rates by Age in the U.S., 1990-2018



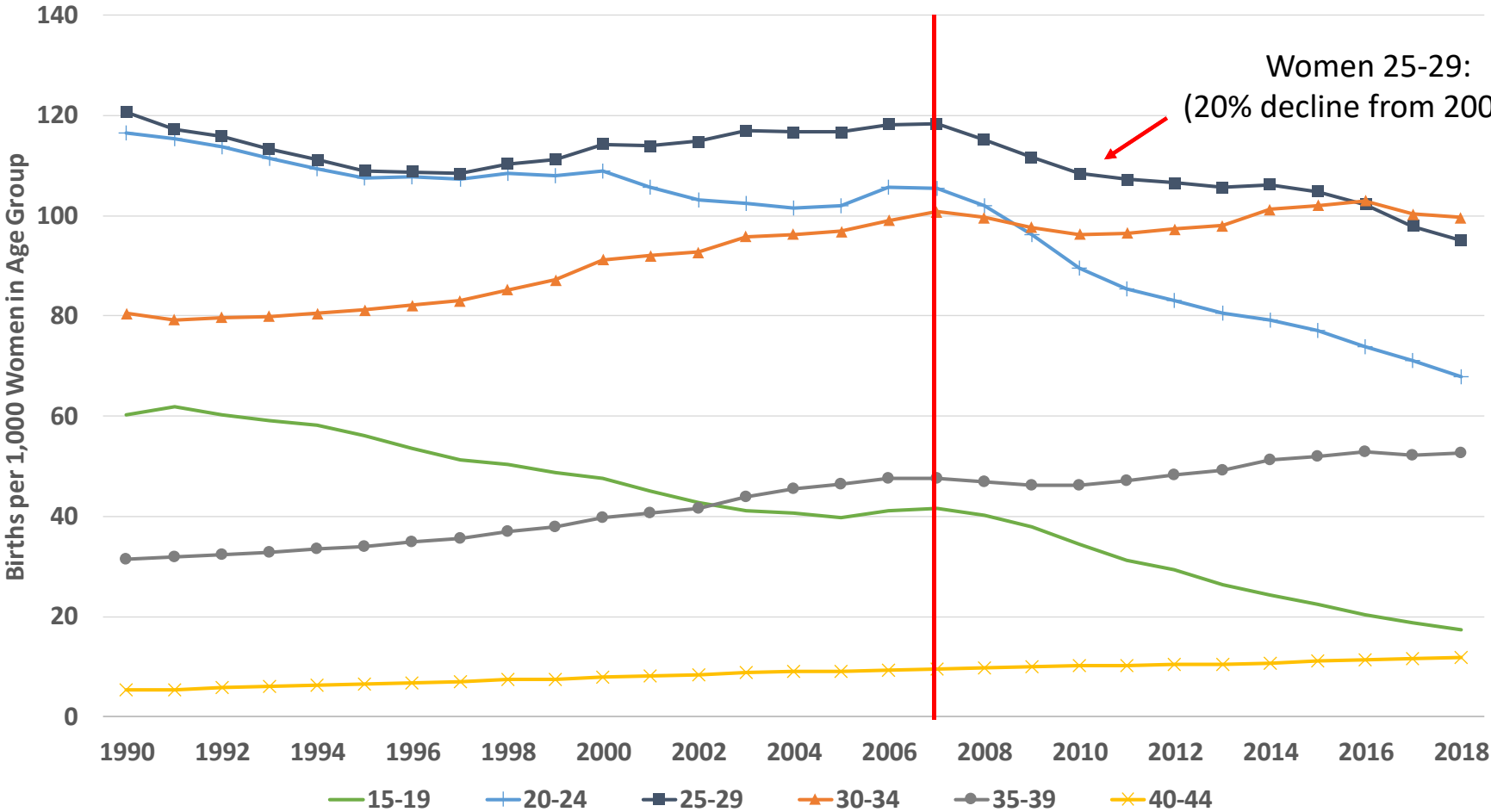
Source: Authors' calculations using Natality Detail Files, 1990-2016; Hamilton et al. 2019 for 2017 & 2018 rate

Birth Rates by Age in the U.S., 1990-2018



Source: Authors' calculations using Natality Detail Files, 1990-2016; Hamilton et al. 2019 for 2017 & 2018 rate

Birth Rates by Age in the U.S., 1990-2018

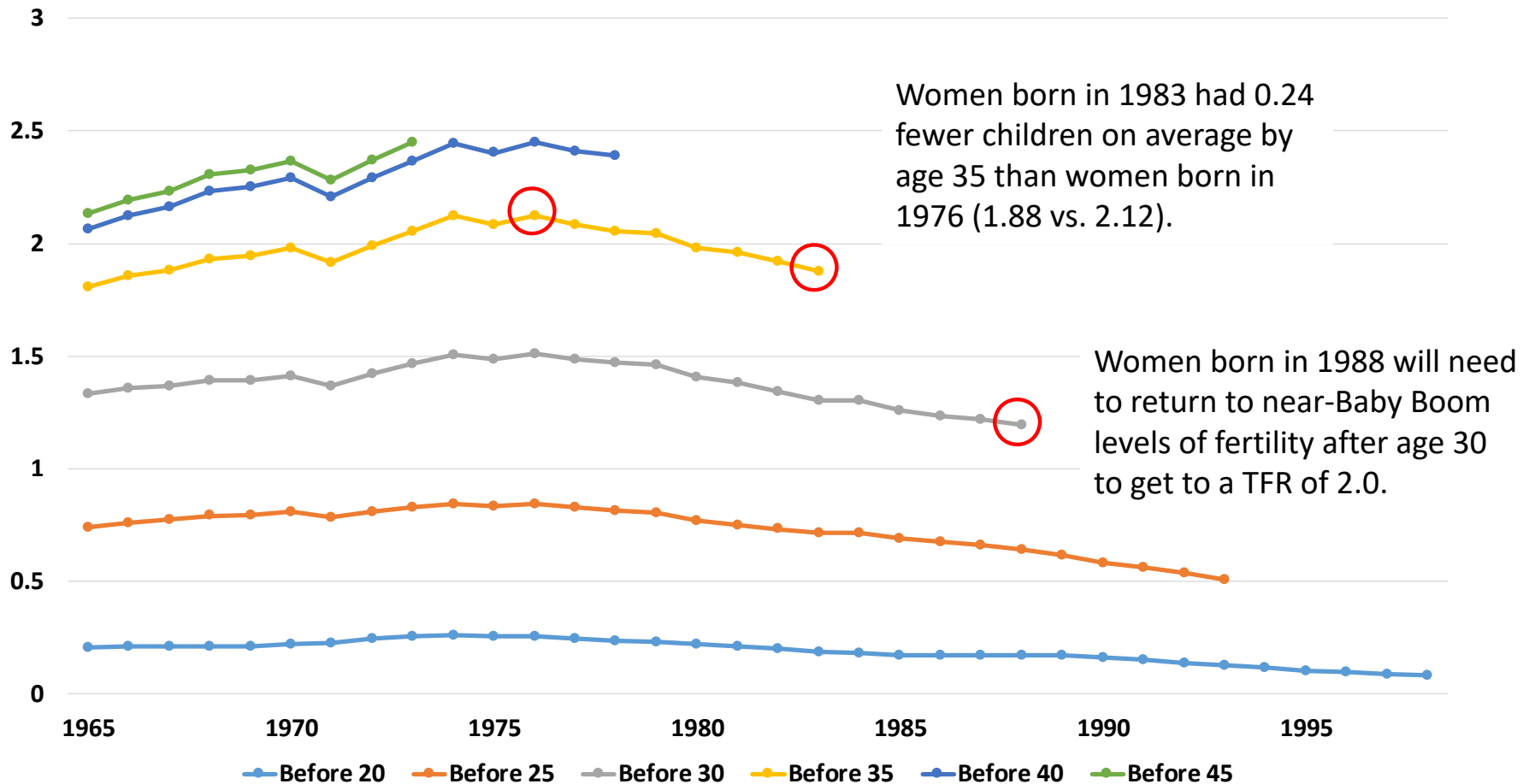


Source: Authors' calculations using Natality Detail Files, 1990-2016; Hamilton et al. 2019 for 2017 & 2018 rate

Two Big Questions

- 1: Will these low rates for young women persist or even go lower?**
- 2: Are these births delayed or births foregone?**

Births per Woman by Age, 1965-1998 Birth Cohorts



Source: Authors' calculations using Natality Detail Files, 1980-2017

Two Big Questions

- 1: Will these low rates for young women persist or even go lower?**
- 2: Are these births delayed or births foregone?**

For mid- to late-80s birth cohorts, appears that completed fertility will be lower.

- Consistent with long-lasting effects of recessions while young on fertility (Currie & Schwandt 2014).

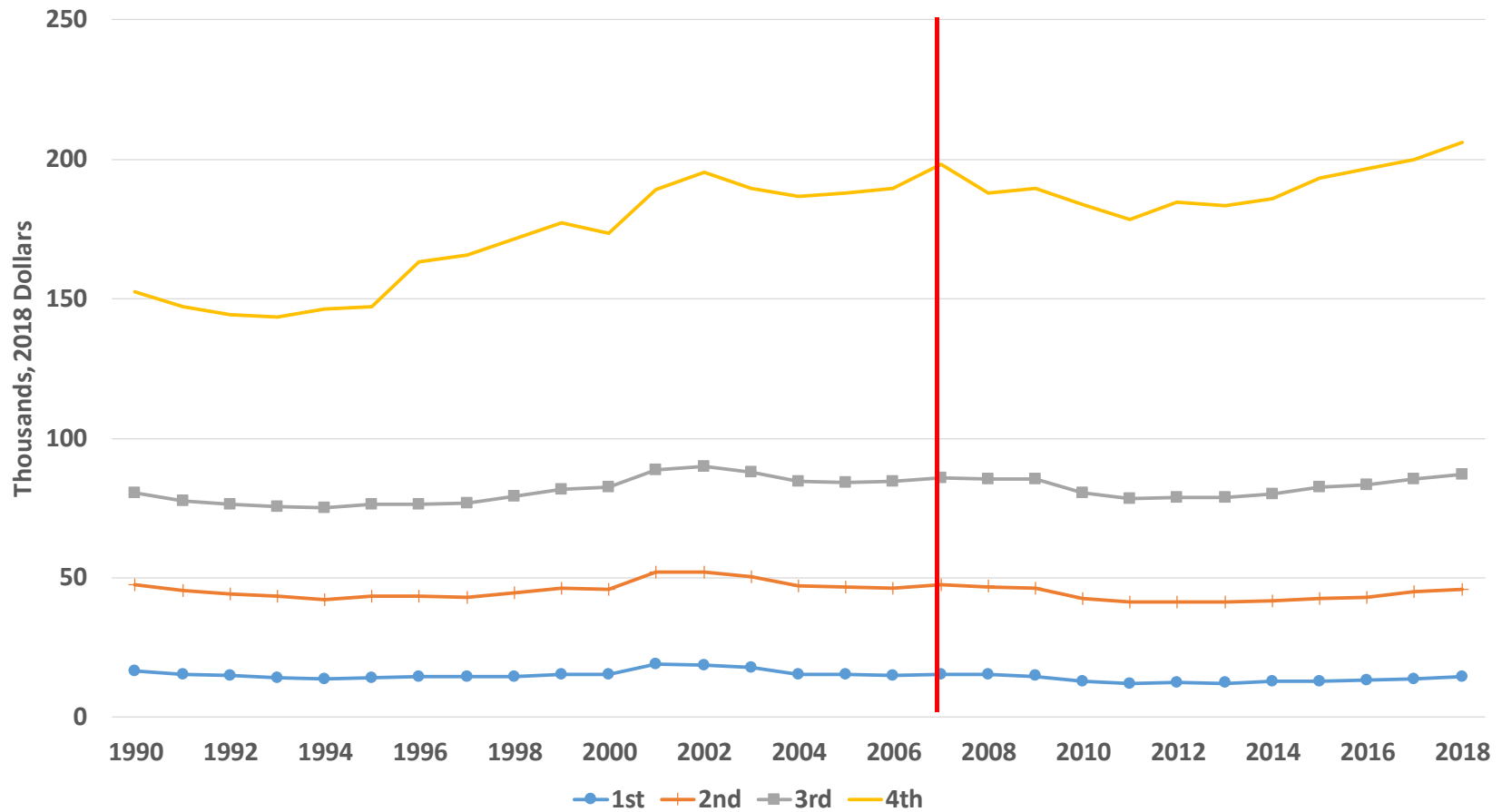
Going forward, answer to both questions depends on what you think the underlying causes are.

Potential Explanations for the Decline in Fertility for Young Women

1. Economic factors

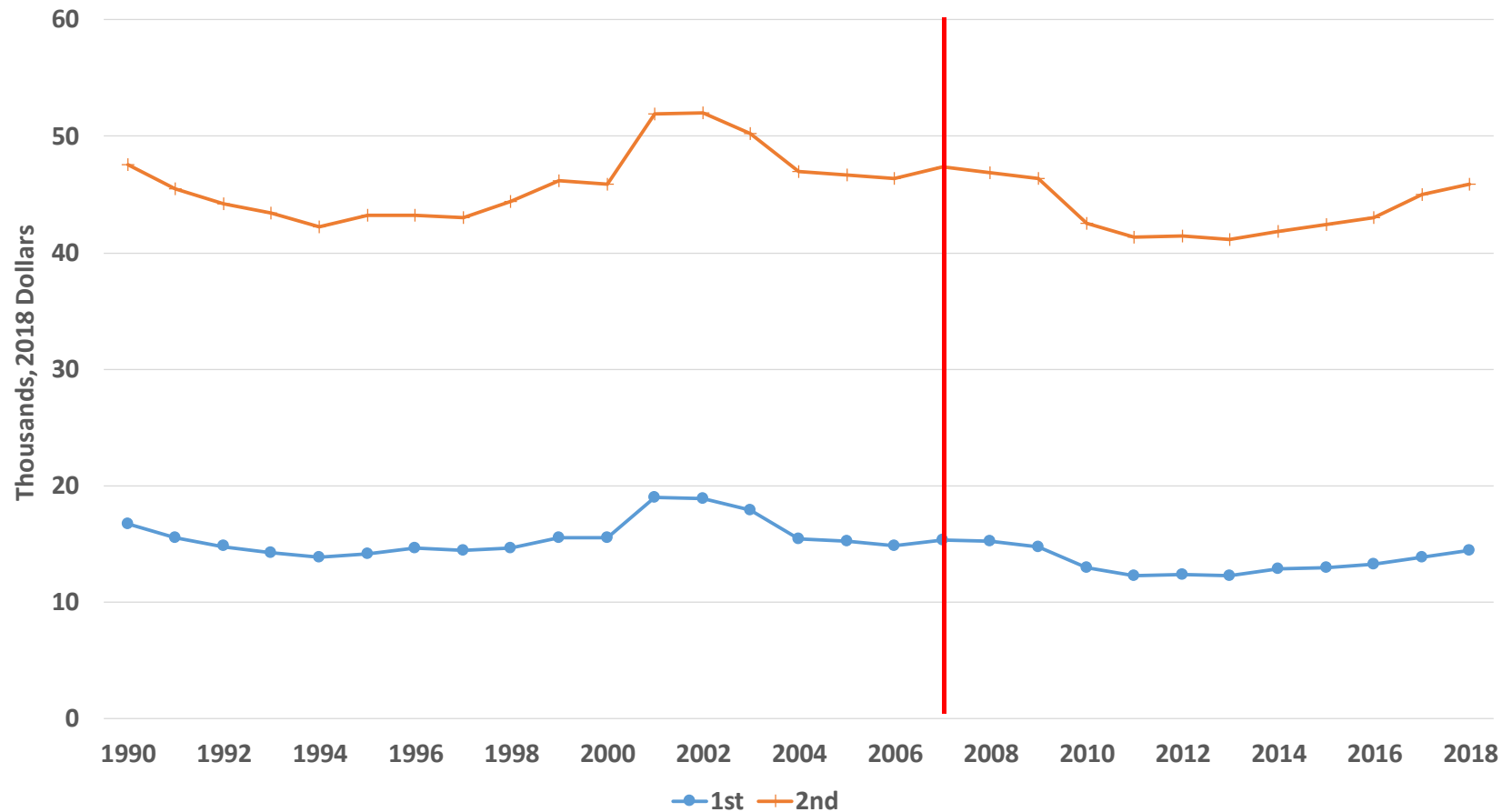
- Economic recovery should have produced a fertility recovery by now (“babyless” recovery, Buckles, Hungerman, & Lugauer 2018)
- But recovery weaker at bottom of income distribution

Real Family Income by Income Quartile, 1990-2018 (Women 16-45)



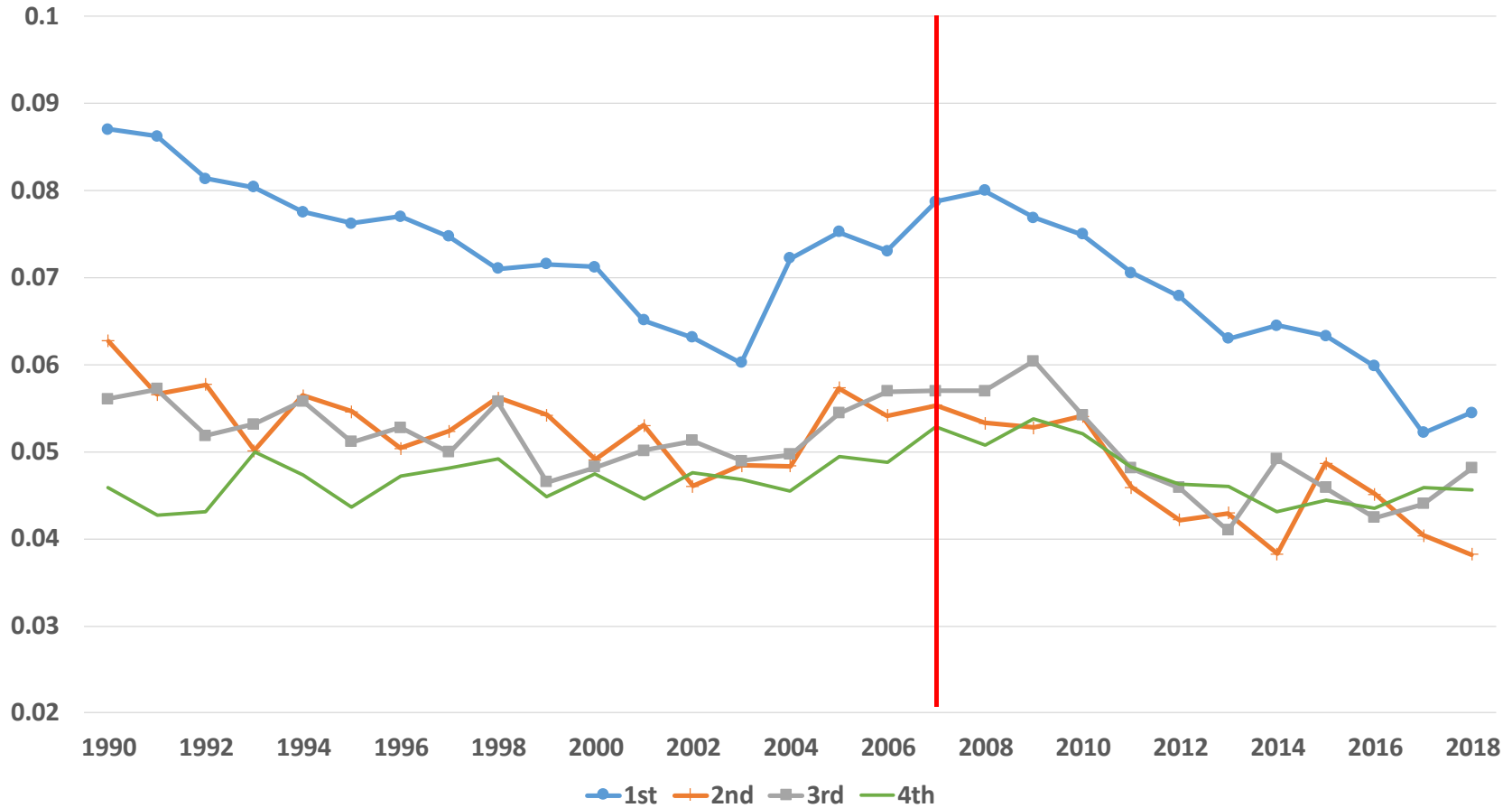
Calculated using IPUMS CPS 1990-2018

Real Family Income for Lowest Income Quartiles, 1990-2018 (Women 16-45)



Calculated using IPUMS CPS 1990-2018

Percent with Child Under 1 by Income Quartile, 1990-2018 (Women 16-45)



Calculated using IPUMS CPS 1990-2018

Potential Explanations for the Decline in Fertility for Young Women

1. Economic factors

- Economic recovery should have produced a fertility recovery by now (“babyless” recovery, Buckles, Hungerman, & Lugauer 2018)
- But recovery weaker at bottom of income distribution
- Other issues:
 - Long-term convergence of low-income fertility to that of higher-income groups
 - Strong recovery in housing market may be decreasing fertility for young women (Dettling & Kearney 2014)
 - Student loans (Gicheva 2016)

Potential Explanations for the Decline in Fertility for Young Women

2a. Better access to contraception

- The proportion of births that are likely unintended has fallen since 2009 (Buckles, Guldi, & Schmidt 2019)
- NOT abortions—abortion rate lowest since Roe v. Wade (Jones & Jerman 2017)
- Affordable Care Act:
 - 2010: Increased access for those under 26, through parents
 - Decreases in fertility, abortion, and increases in LARCs (Abramowitz 2018; Heim, Lurie, & Simon 2018)
 - 2012: Contraceptive coverage mandate for private insurers
 - 2014: Medicaid expansions and subsidies for private insurance
 - Preliminary work showing decreases in nonmarital fertility for women over 26 (Buckles, Guldi, & Schmidt)

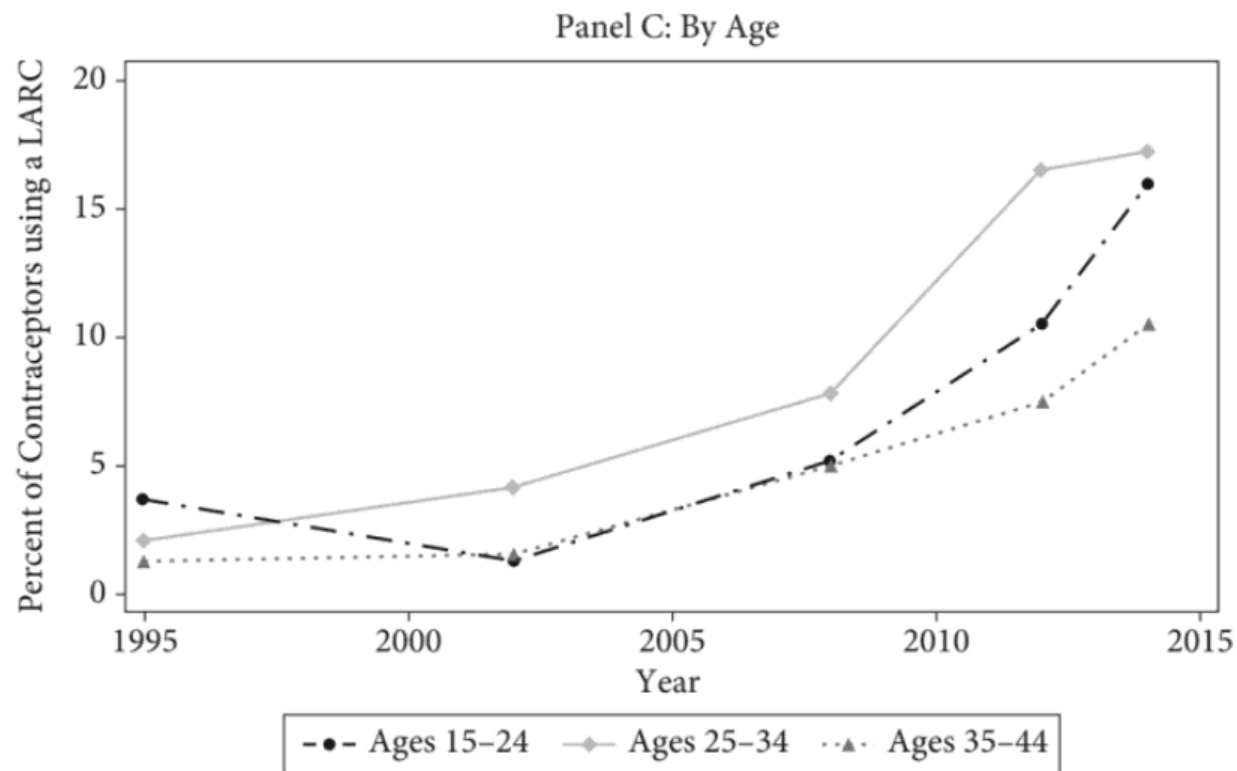
Potential Explanations for the Decline in Fertility for Young Women

2b. More effective contraception

- Increased use of long-acting, reversible contraception (LARCs)
- Failure rates of <1%, much lower than Pill (9%) and condoms (18%)

Percent of Contraceptors Using a LARC

(Bailey & Lindo 2018)



- ACOG recommends IUDs for *all* women in 2009 Committee Opinion.
- Using 2015-17 NSFG, I estimate that 18% of those 15-24 are using a LARC.

What to expect for the next ten years?

Reasons to think it will stay low:

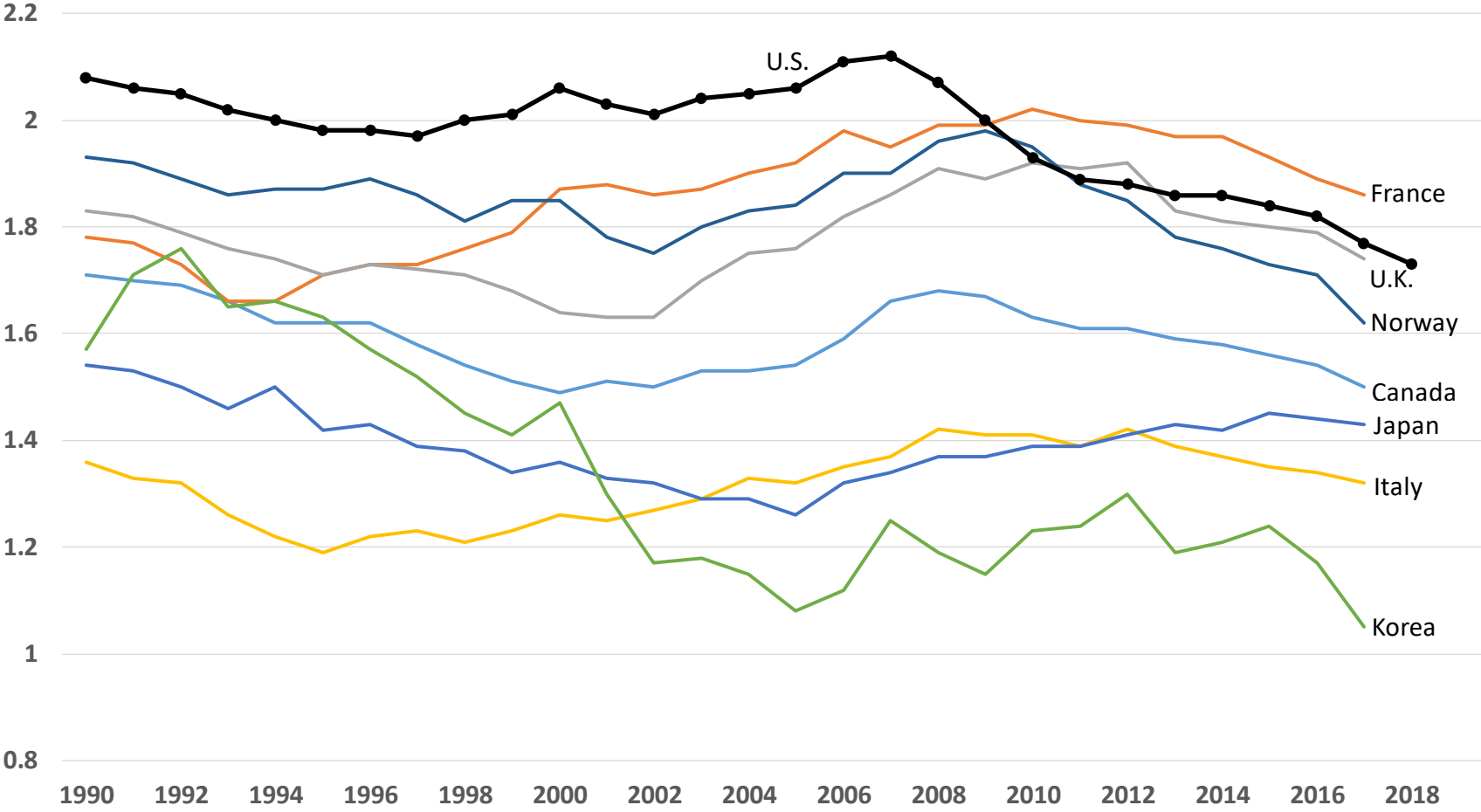
- Long-term trend toward lower fertility of those <25 , without full catch-up from those now entering their 30s
- Long-term trend toward lower fertility of low-income women
- May have reached a tipping point in the use of LARCs

Potential disruptors:

- Significant changes in the economic well-being of low-income women
- Big changes in access to contraception or abortion

Thank You

Total Fertility Rate for OECD Countries, 1990-2018



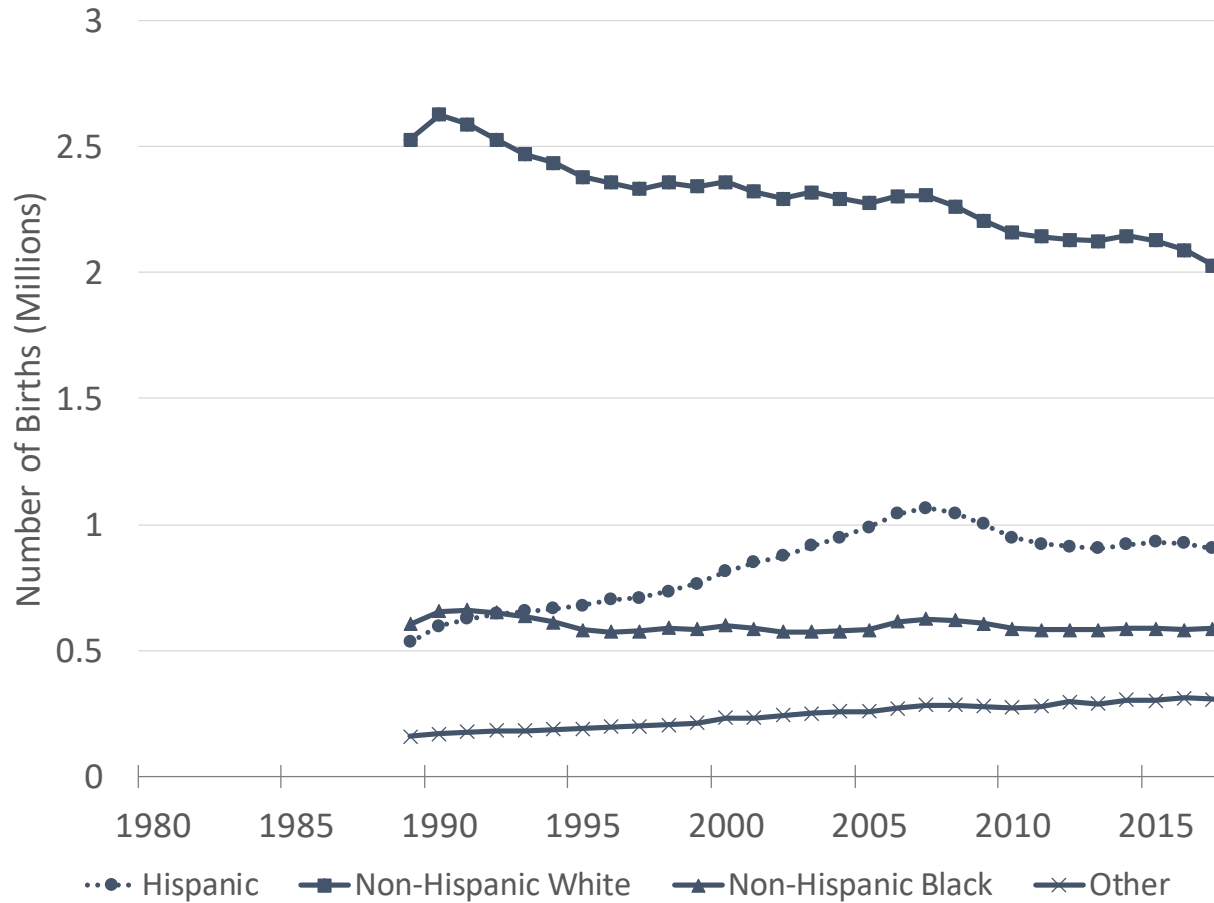
Source: data.oecd.org; Hamilton et al. 2019 for 2018 rate

Unintended Births (UIB)

Young and unmarried women are historically most likely to have births that are *unintended*. (Finer & Zolna 2014; Kost & Lindberg 2015)

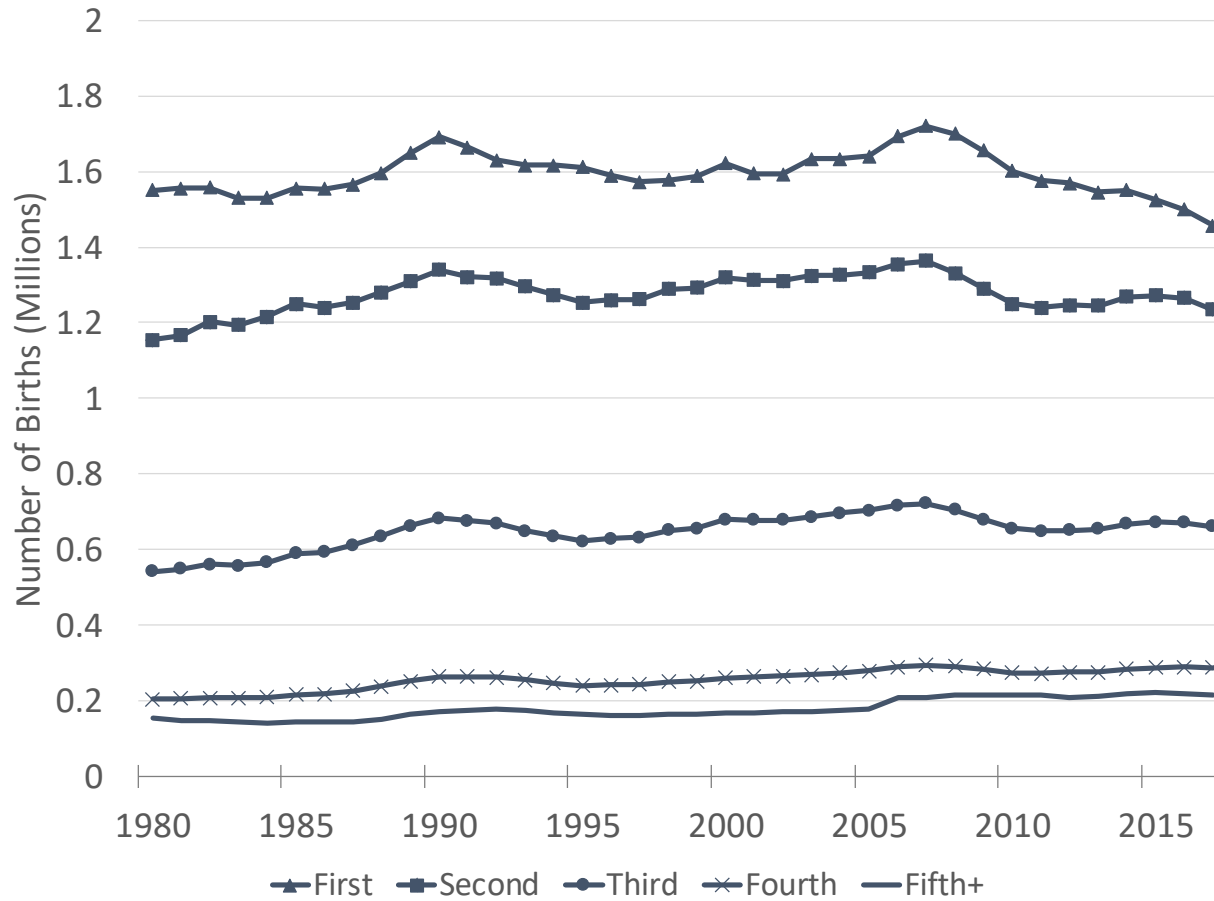
- Unintended \equiv unwanted or occurring sooner than the woman wanted
- 68% of UIB are publicly funded. Unintended Medicaid births cost over \$21 Billion in 2010 (Sonfield & Kost, 2015)
- UIB are associated with worse child health and development outcomes, worse maternal outcomes (Mohllajee et al. 2007; Kost and Lindberg 2015; Hummer, Hack, and Raley, 2004; Guzzo, Eickmeyer, & Hayford 2018)
- UIB reflect barriers to women's ability to effectively plan their lives

Births by Race and Ethnicity, 1980-2017



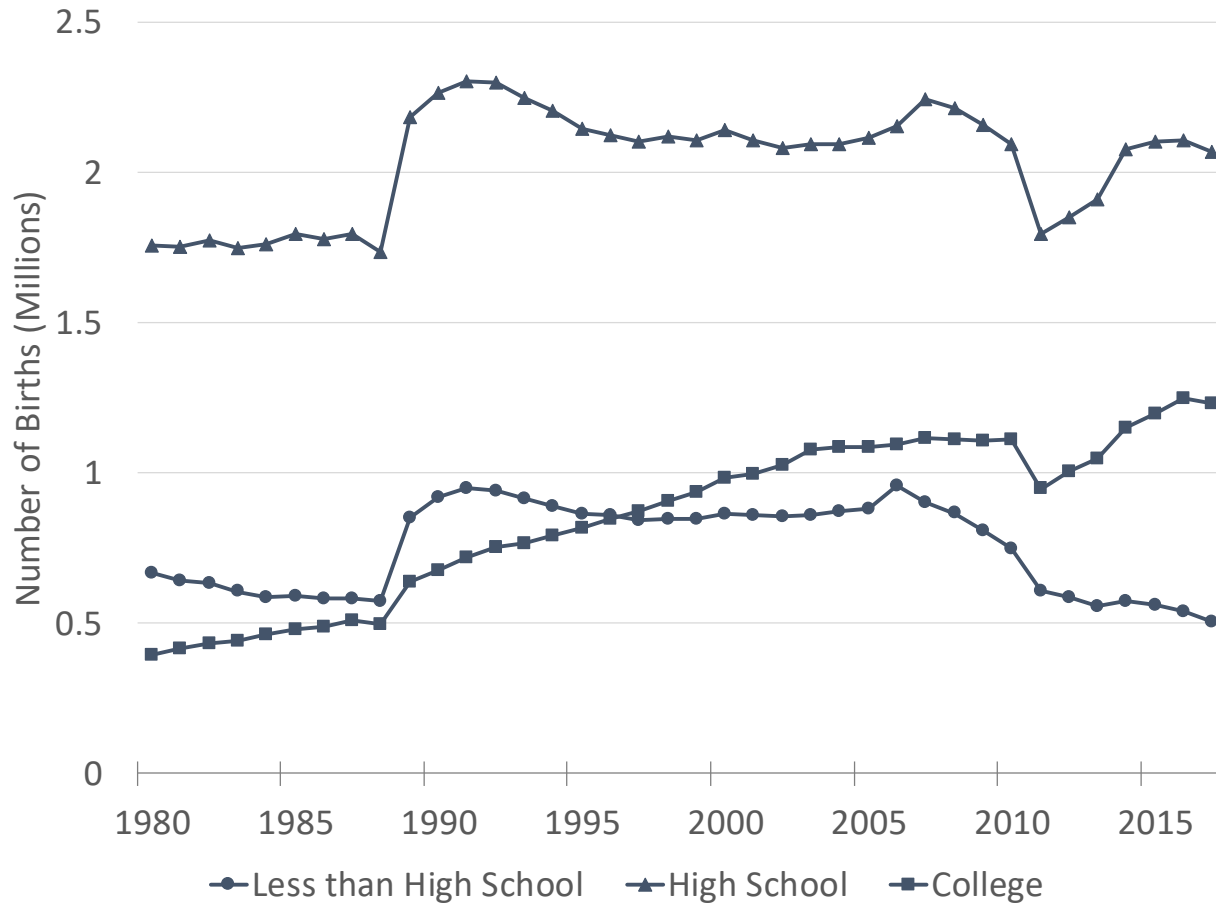
Source: Authors' calculations from Natality Detail Files 1980-2017.

Births by Parity, 1980-2017



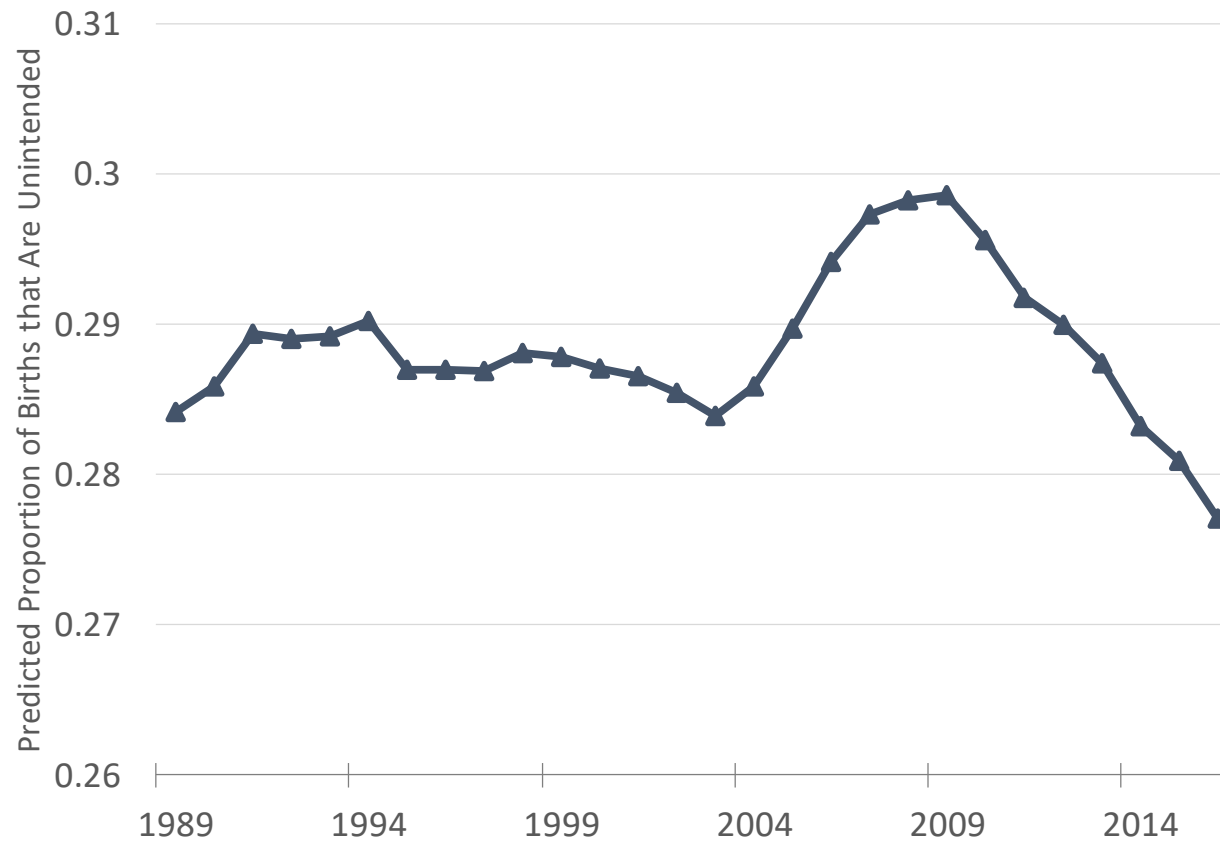
Source: Authors' calculations from Natality Detail Files 1980-2017.

Births by Education, 1980-2017

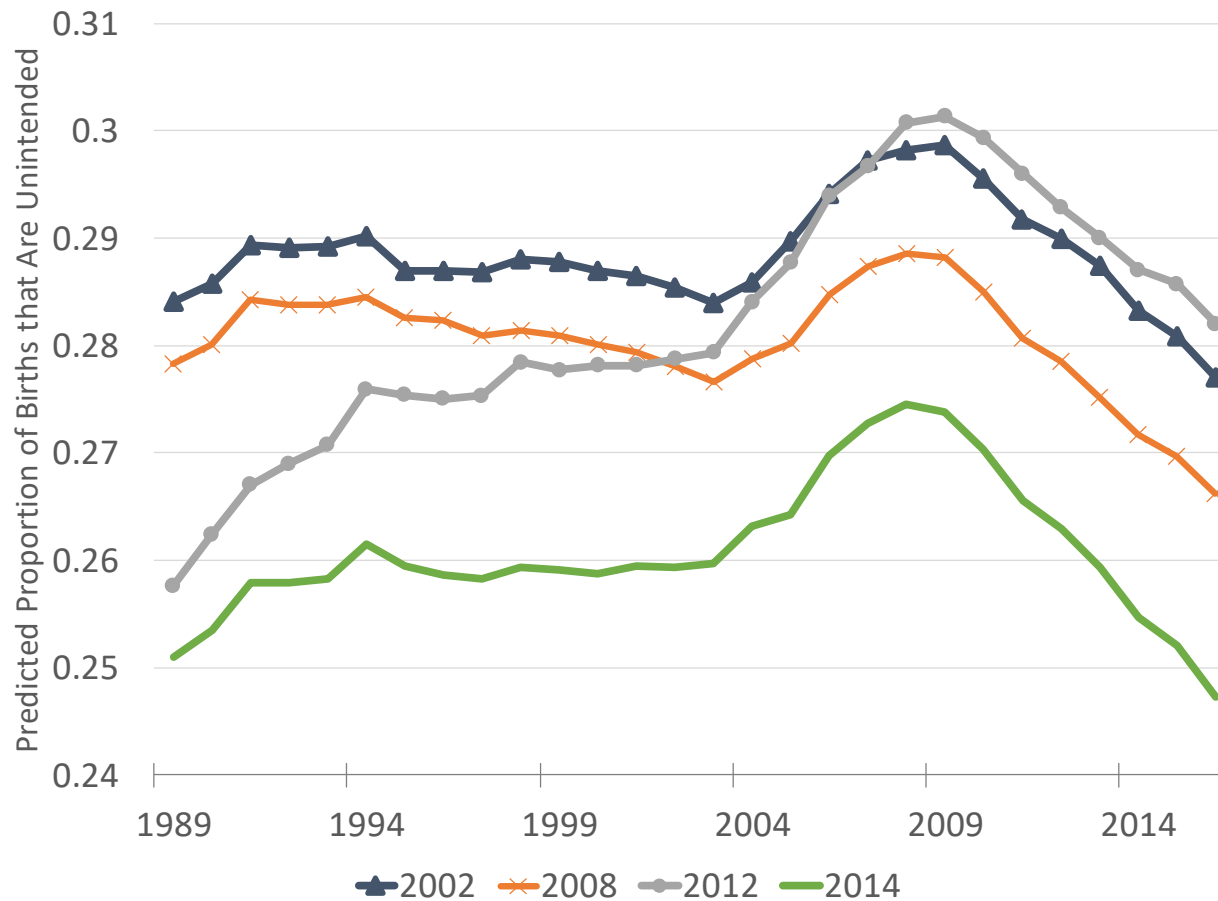


Source: Authors' calculations from Natality Detail Files 1980-2017.

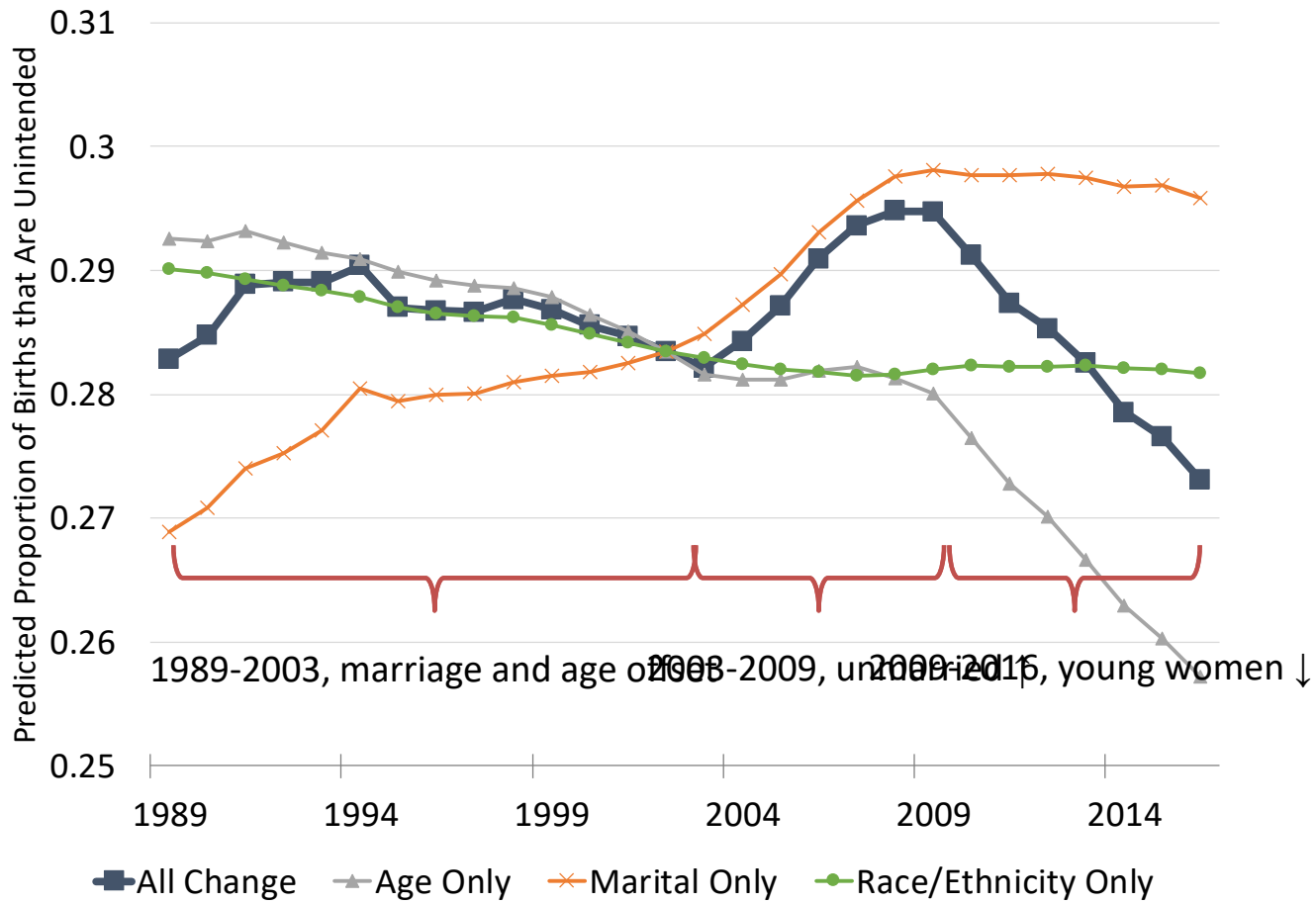
Predicted Proportion of Births that Are Unintended, 1989-2016, Using 2002 NSFG Coefficients



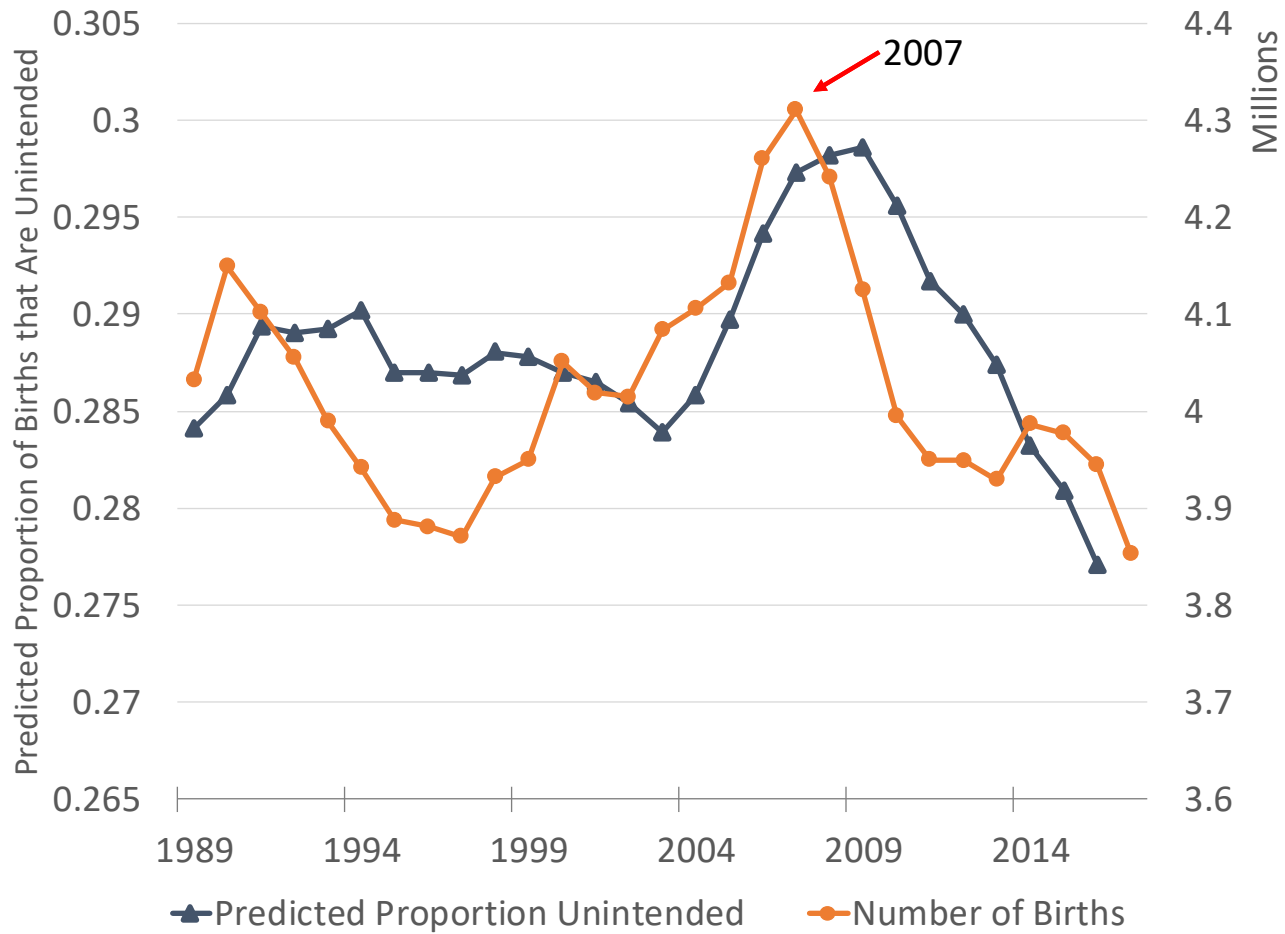
Predicted Proportion of Births that Are Unintended, 1980-2016, Different Base Years



Decomposition of Changes in the Predicted Proportion Unintended



PPU vs. Actual Number of Births



UIB and Fertility Decline

If only the predicted rate of UIB had changed from 2007 to 2016, we estimate that there would have been 87,585 fewer births.

Actual decline in births was 367,896, so likely UIB account for 24%. (Larger if use other NSFG Cycles as base year).

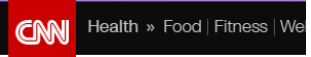
From 2009 to 2016, likely UIB account for 49% of reduction.

There were 139,632 fewer likely UIB in 2016 than in 2009. If 68% of these were publicly funded at a cost of \$13,962 each (Sonfield and Kost 2015), the decline reduced spending by ~\$1.3 billion.

Health

'Remarkable' decline in fert

By James Gallag
Health and scient



3 hours ago

US fertility
replace p

By **Jacqueline Howard**, C
Updated 3:13 PM ET, TI

PLANET MONEY

The Baby-Less Recovery

February 12, 2019 - 10:26 AM ET

GREG ROSALSKY



©SA Images/Getty Images/Vetta

NOTE: This is an excerpt of Planet Money's newsletter. You can sign up here.

Over the last decade, the U.S. fertility rate has dipped to its **lowest point in history**. Economists expected a short decline in the number of births during the Great Recession, but they believed we would start making kids again once the economy recovered. That hasn't happened.

Instead, we've seen what **Kasey Buckles** calls a "baby-less recovery." Buckles is an economist at the University of Notre Dame who studies fertility. "Usually the fertility rate bounces back quite quickly," she says. But not this time.

Americans Are Having Fewer Kids Than
They Told Us Why.

Women have more options, for one. But
altering a generation's choices.



By **Claire Cain Miller**

July 5, 2018

edition

More v

change

America's mysterious baby

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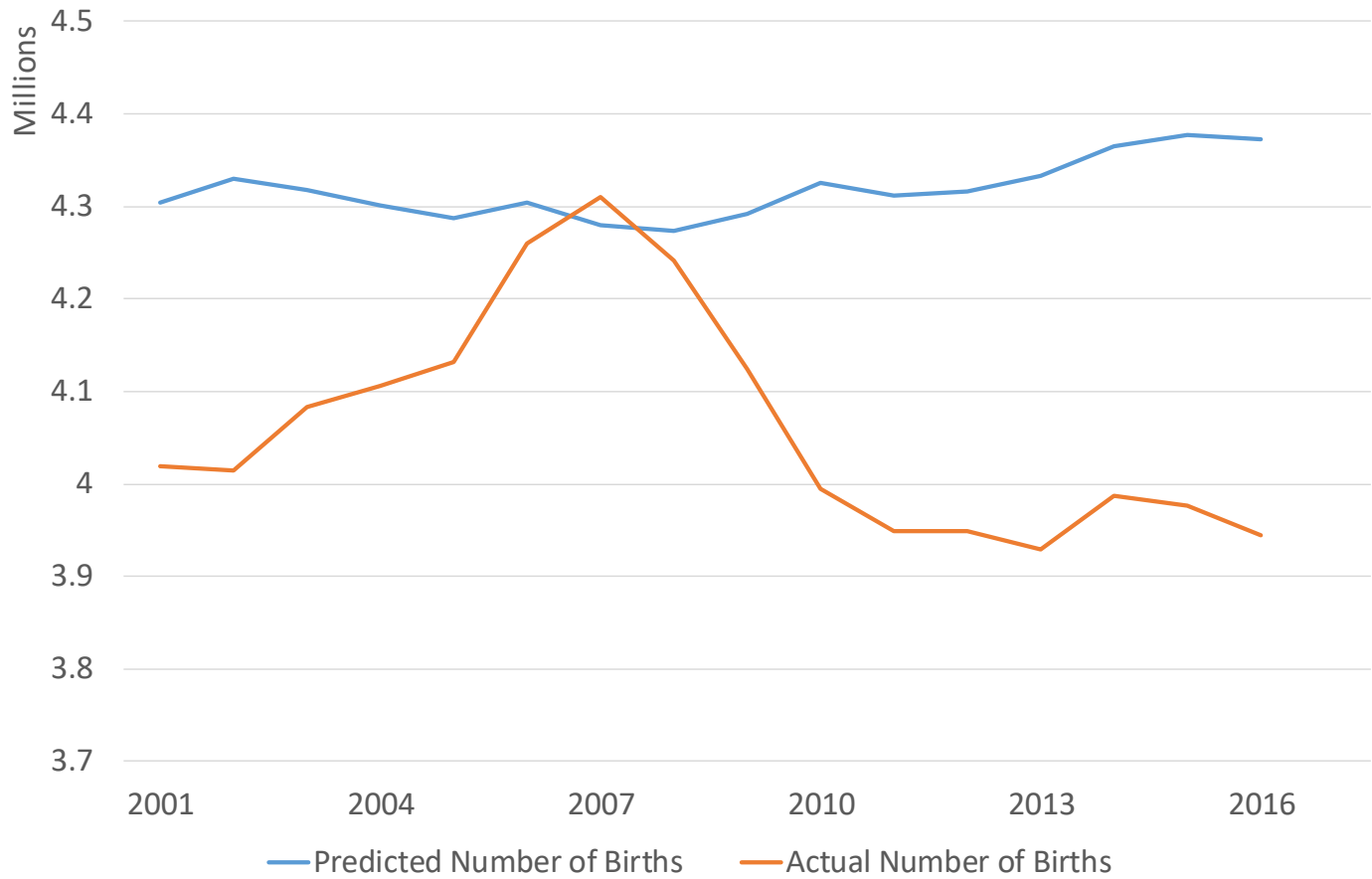


is could pose risk to economy

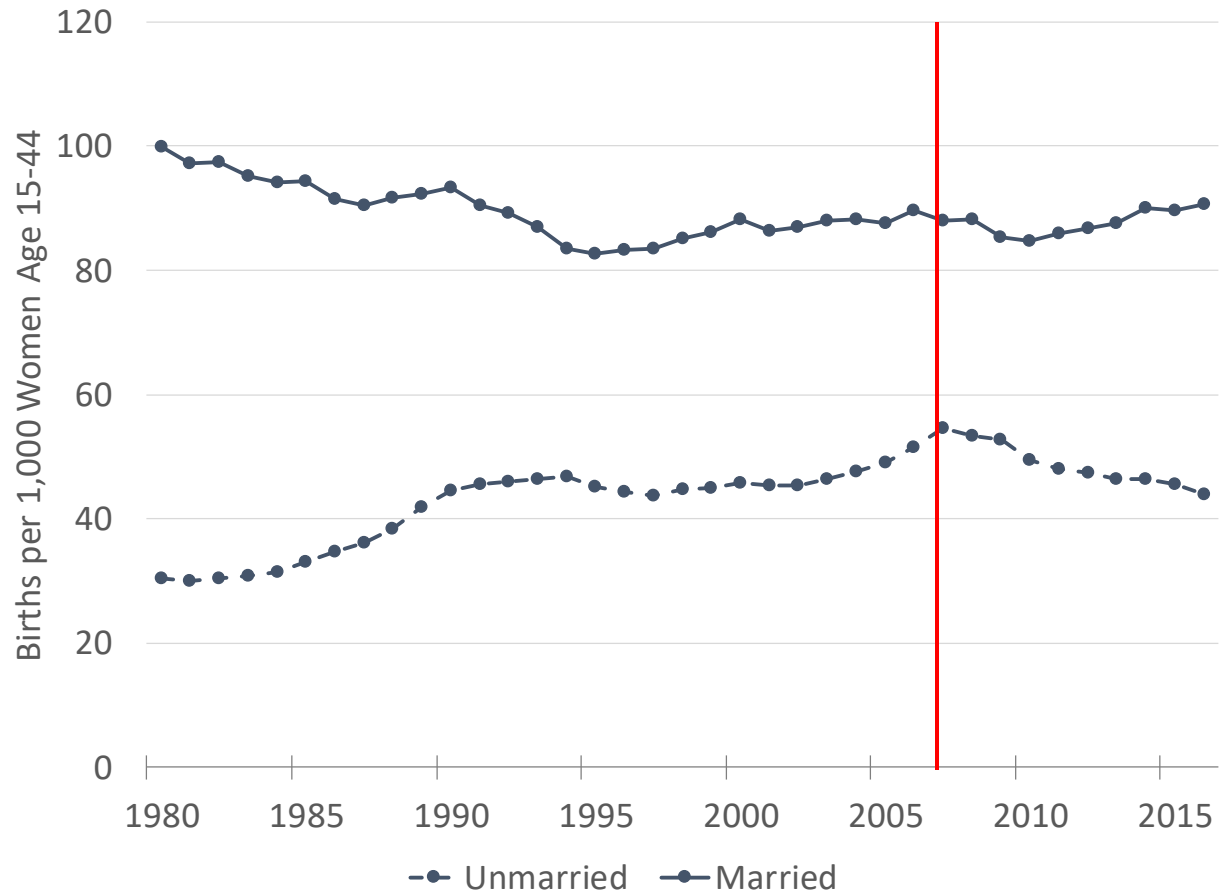
the United States gave birth last year at
l that could weigh on economic growth in...

ogress.

Predicted number of births, holding birth rates constant at 2007 levels but changing population

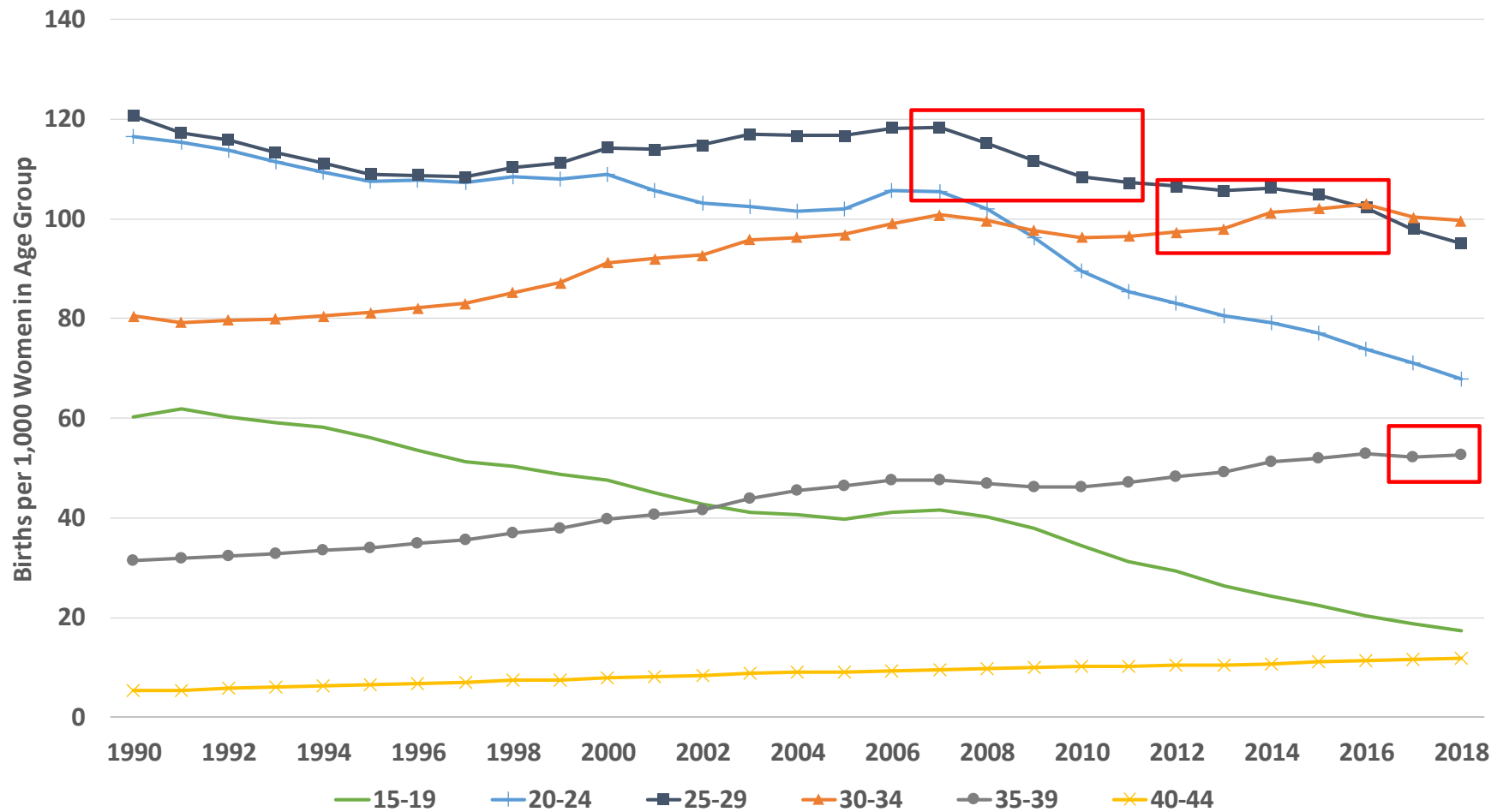


Birth Rates by Marital Status, 1980-2016



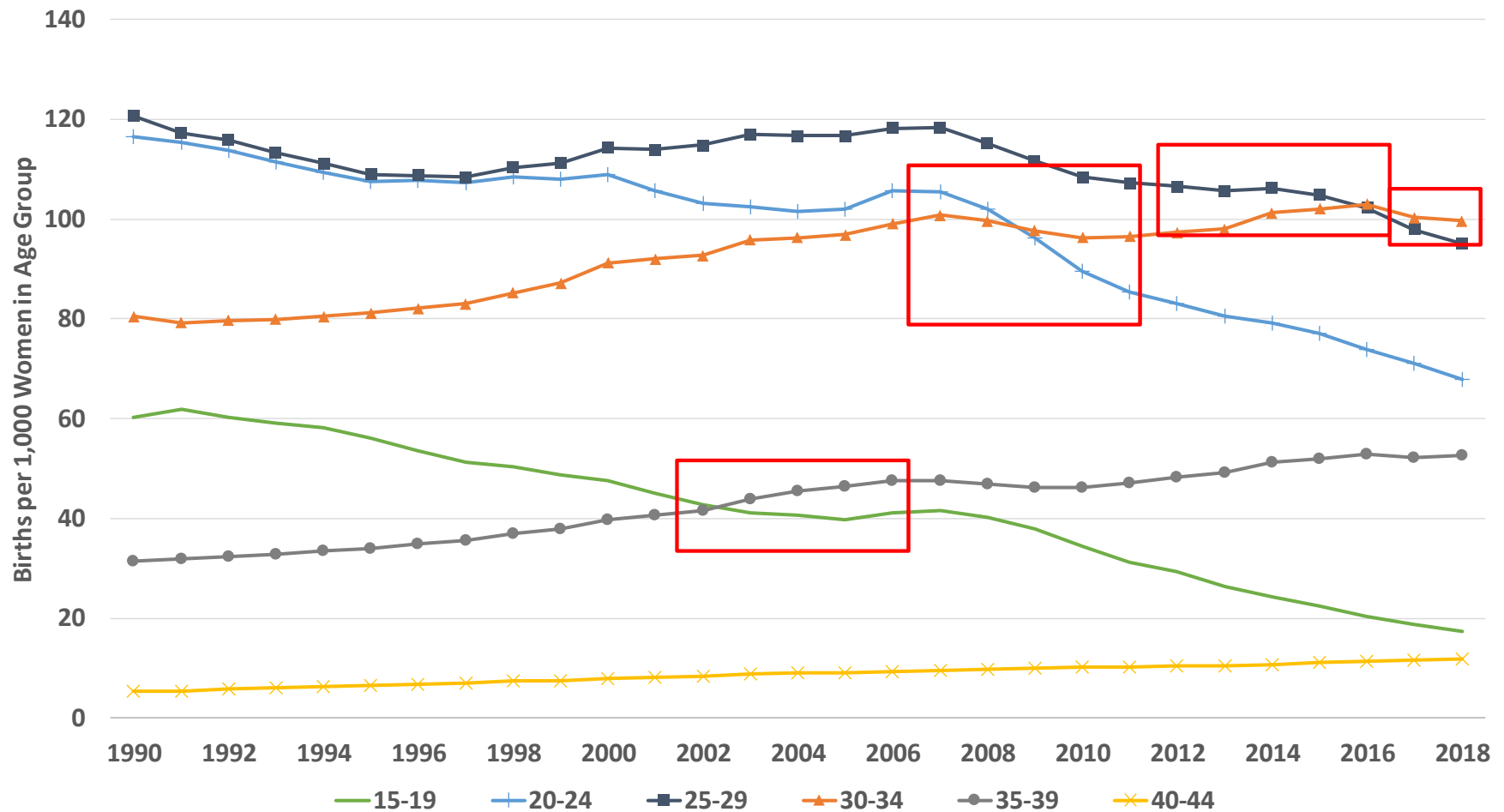
Source: Authors' calculations from Natality Detail Files 1980-2017, SEER population counts 1980-2016

Birth Rates in the U.S., 1990-2018



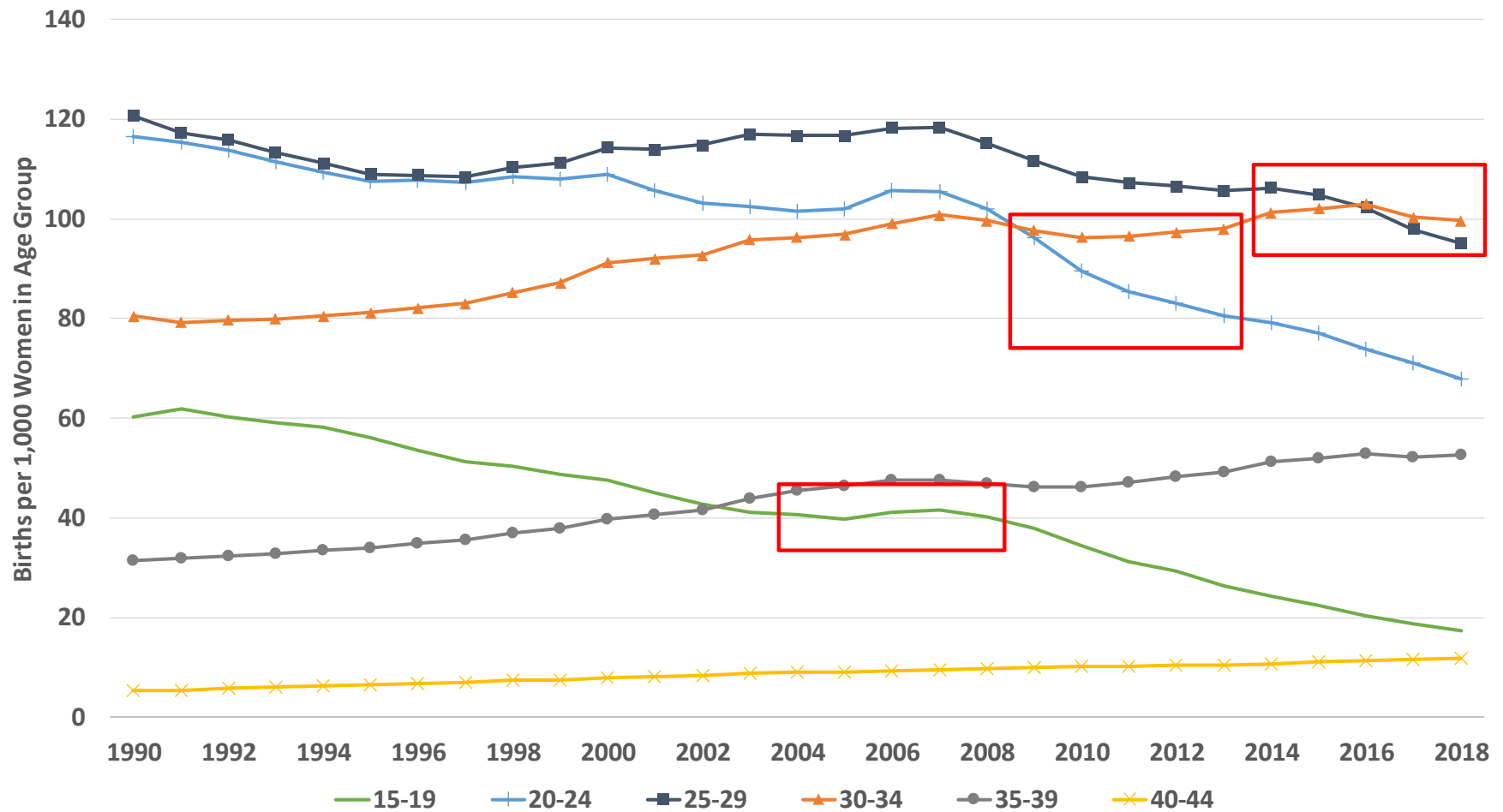
Source: Authors' calculations using Natality Detail Files, 1990-2016; Hamilton et al. 2019 for 2017 & 2018 rate

Birth Rates in the U.S., 1990-2018



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Birth Rates in the U.S., 1990-2018



Source: Authors' calculations using Natality Detail Files, 1990-2016; Hamilton et al. 2019 for 2017 & 2018 rate

Currie & Schwandt 2014 (PNAS)

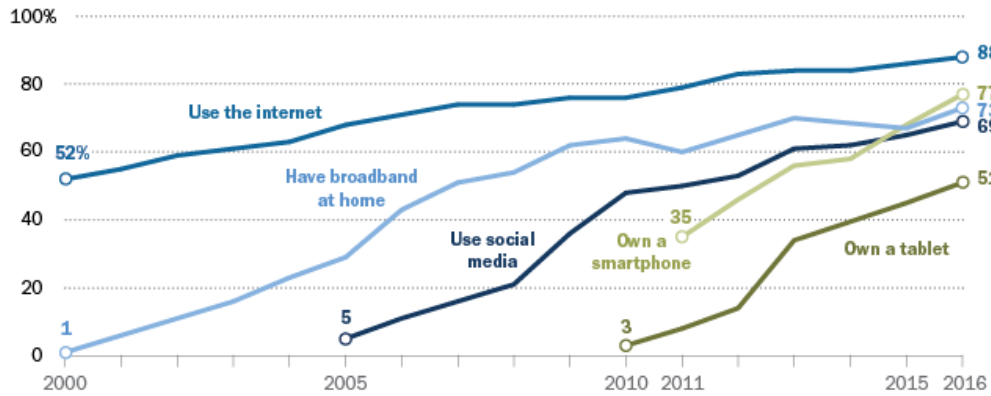
Table 2.
Long-run effect of the unemployment rate at different ages on completed fertility

Dependent variable	Conceptions resulting in live birth per 1,000 women before age:				
	40 (col. 1)	35 (col. 2)	30 (col. 3)	25 (col. 4)	20 (col. 5)
Effect of average unemployment rate at ages:					
15-19	-5.07	-4.83	-3.89	-9.65**	-7.37***
	(7.60)	(6.94)	(5.95)	(3.80)	(2.10)
20-24	-14.21**	-15.35**	-14.56***	-7.85*	0.65
	(6.02)	(5.84)	(5.56)	(4.16)	(2.30)

“This long-run effect is driven largely by women who remain childless and thus do not have either first births or higher-order births.”

The evolution of technology adoption and usage

% of U.S. adults who ...



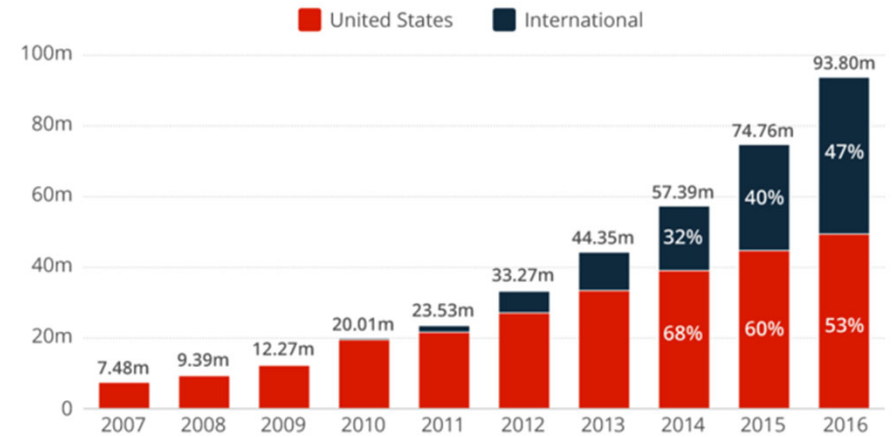
Source: Surveys conducted 2000–2016. Internet use figures based on pooled analysis of all surveys conducted during each calendar year.

PEW RESEARCH CENTER

Tech Chart of the Day

Netflix Continues to Build Its Global Audience

Number of Netflix subscribers at the end of the respective period*



* U.S. subscriber figures from 2007 through 2010 include DVD subscribers

BUSINESS INSIDER

Source: Netflix statista