

Birth Trends in Los Angeles County and Potential Public Health Impacts

Louise Rollin-Alamillo, MS

Alex Ho, MD, MPH

Margaret Shih, MD, PhD

Chief Science Office



Objectives

- Show trends in births in LAC, 1990 - 2011
 - Mother's race/ethnicity
 - Mother's nativity
 - Mother's age
- Review factors possibly associated with trends
 - Demographic (migration)
 - Behavioral
 - Economic
- Public Health Impacts

Methods

Calculation of rates and other statistics:

- Total fertility rates and age-specific birth rates
- Mean age at first birth

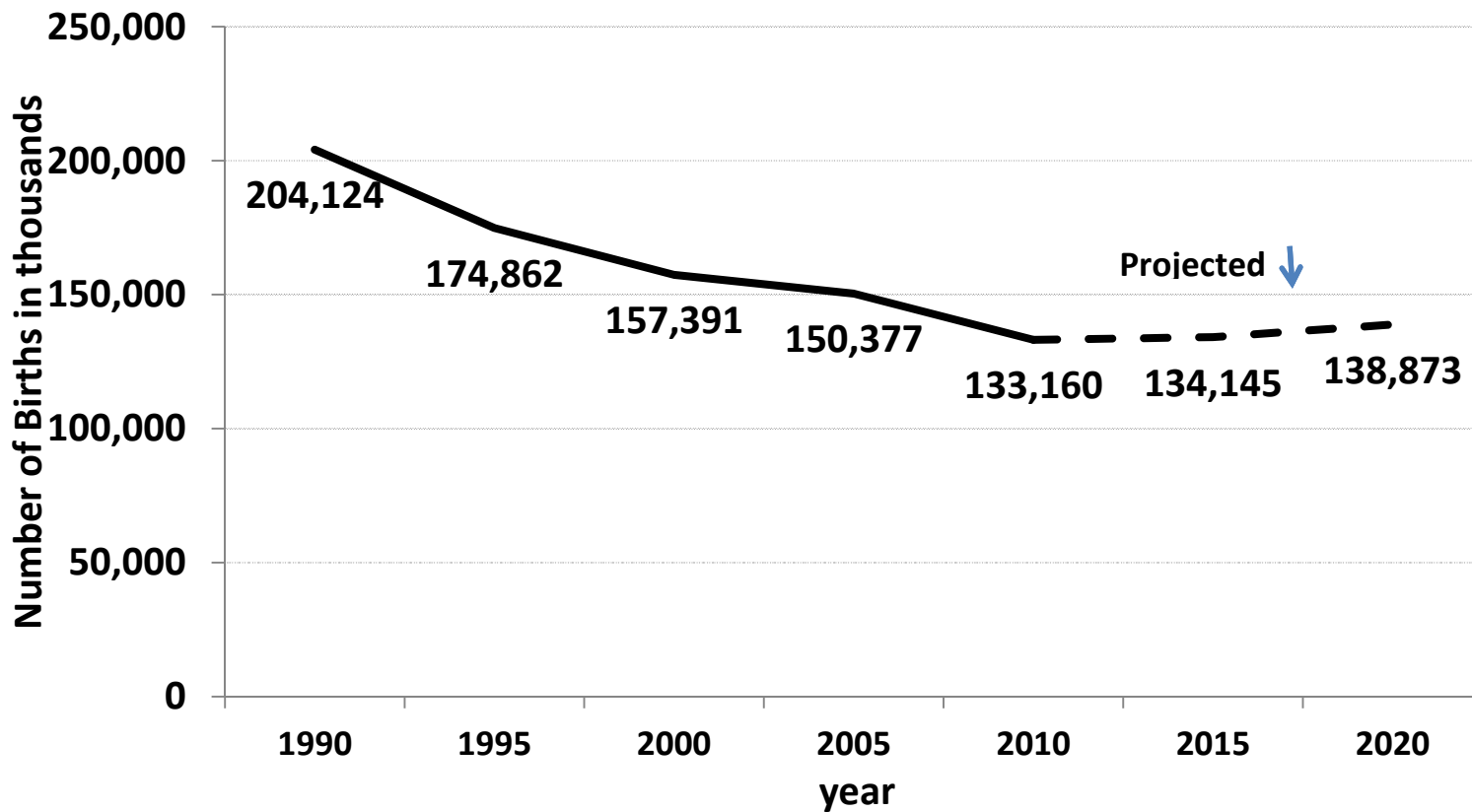
Total fertility rates - defined

- A measure of completed family size.
- Average number of children a woman would bear if today's age-specific rates of fertility prevailed throughout her lifetime.
- Best for making comparisons over time or between groups.
- The replacement rate is a TFR of 2.1 birth per woman.

Data Sources

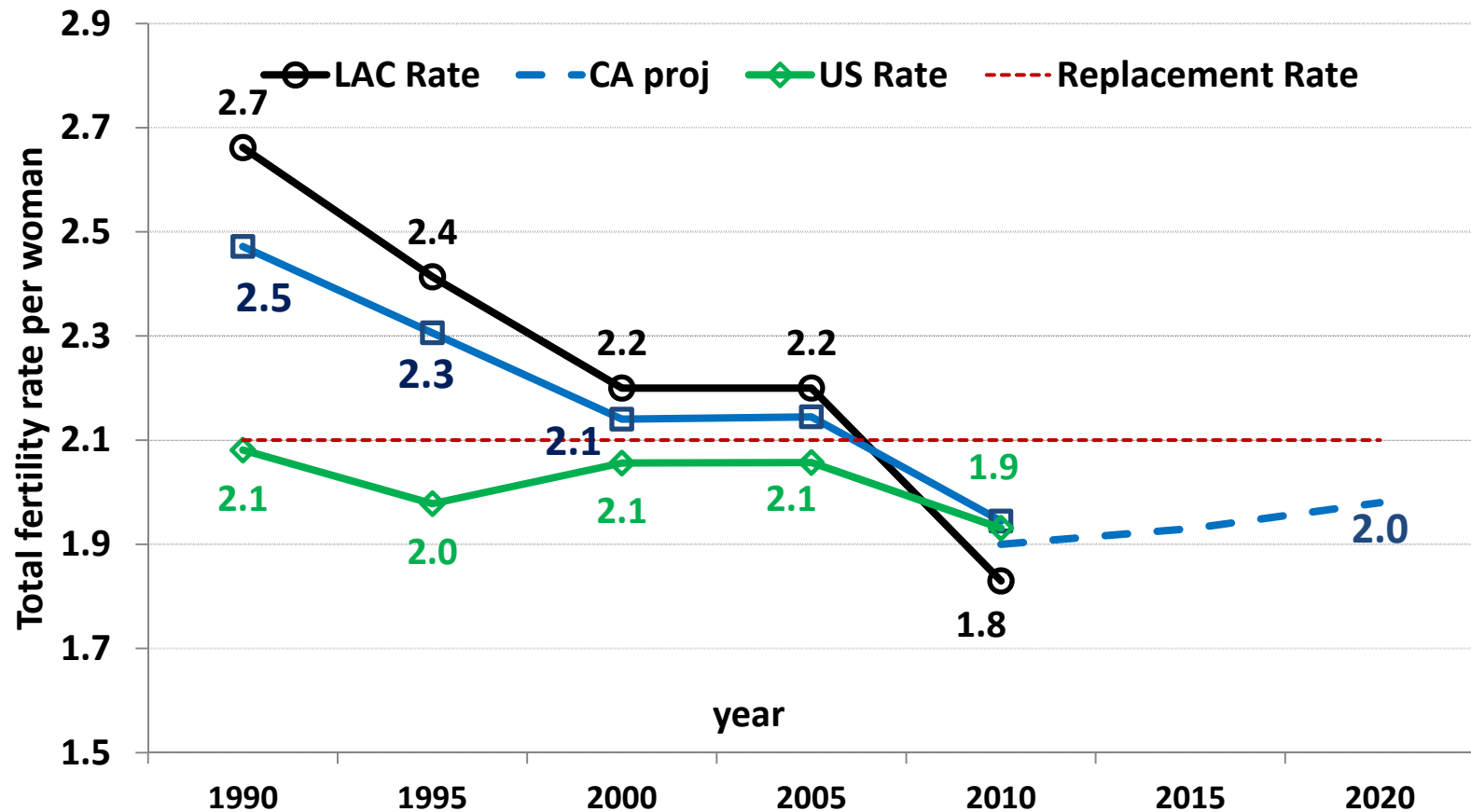
- Birth data: Birth Statistical Master File (BSMF)
- Population denominators and statistics:
 - Public Use Microdata file (PUMS)
 - Summary File 1 from 1990 and 2000 Census
 - American Community Survey (ACS)

Births, Los Angeles County, 1990-2020.



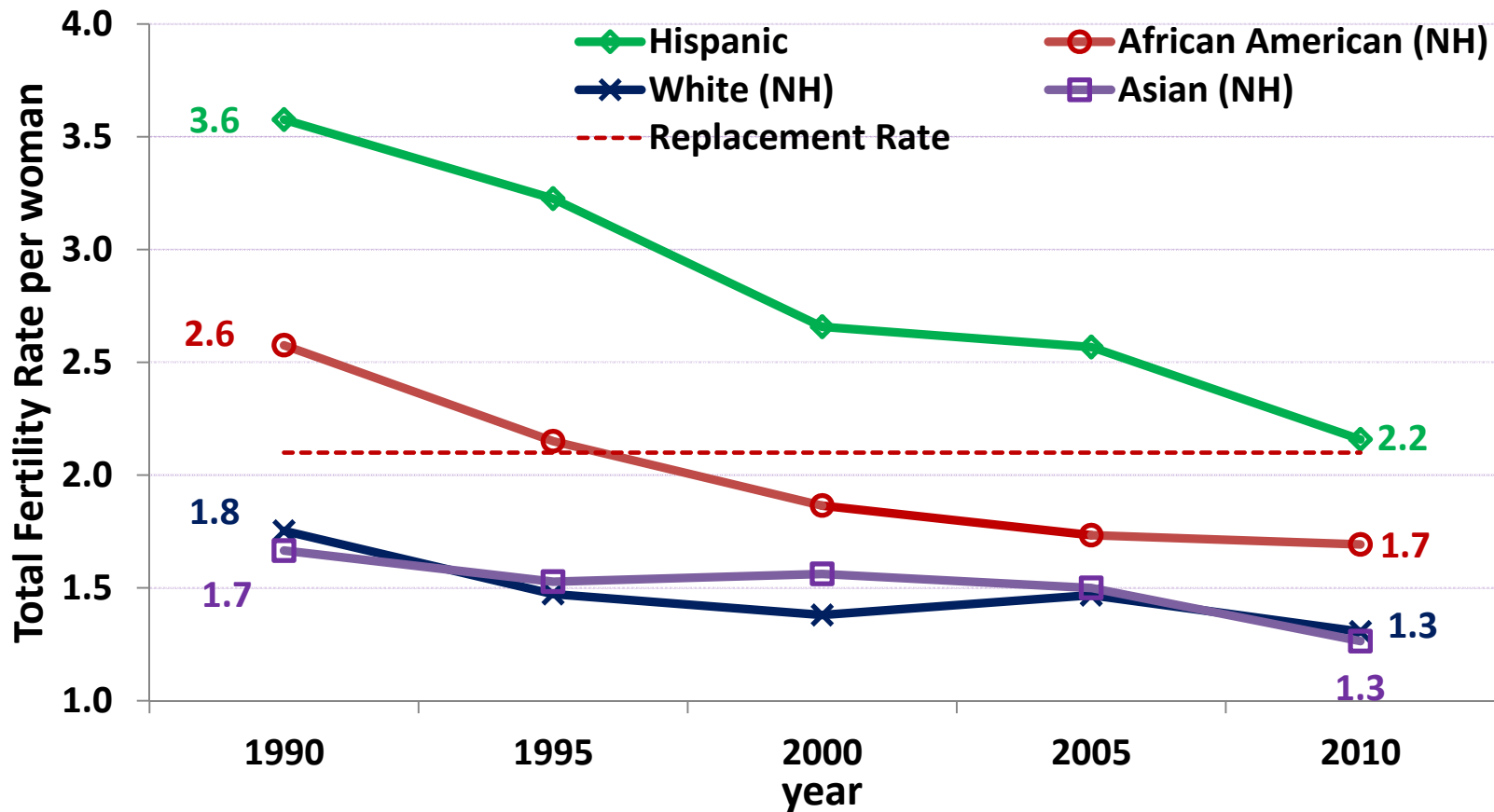
Source: California Department of Public Health, Birth Statistical Master Files for Los Angeles County Residents. California Department of Finance 'Historical and Projected State and County Births, 1970-2022, with Actual and Projected Fertility Rates by Mother's Age and Race/Ethnicity, 2000-2022 released November 2013.

Total fertility rates, Los Angeles County, CA, and US, 1990-2020.

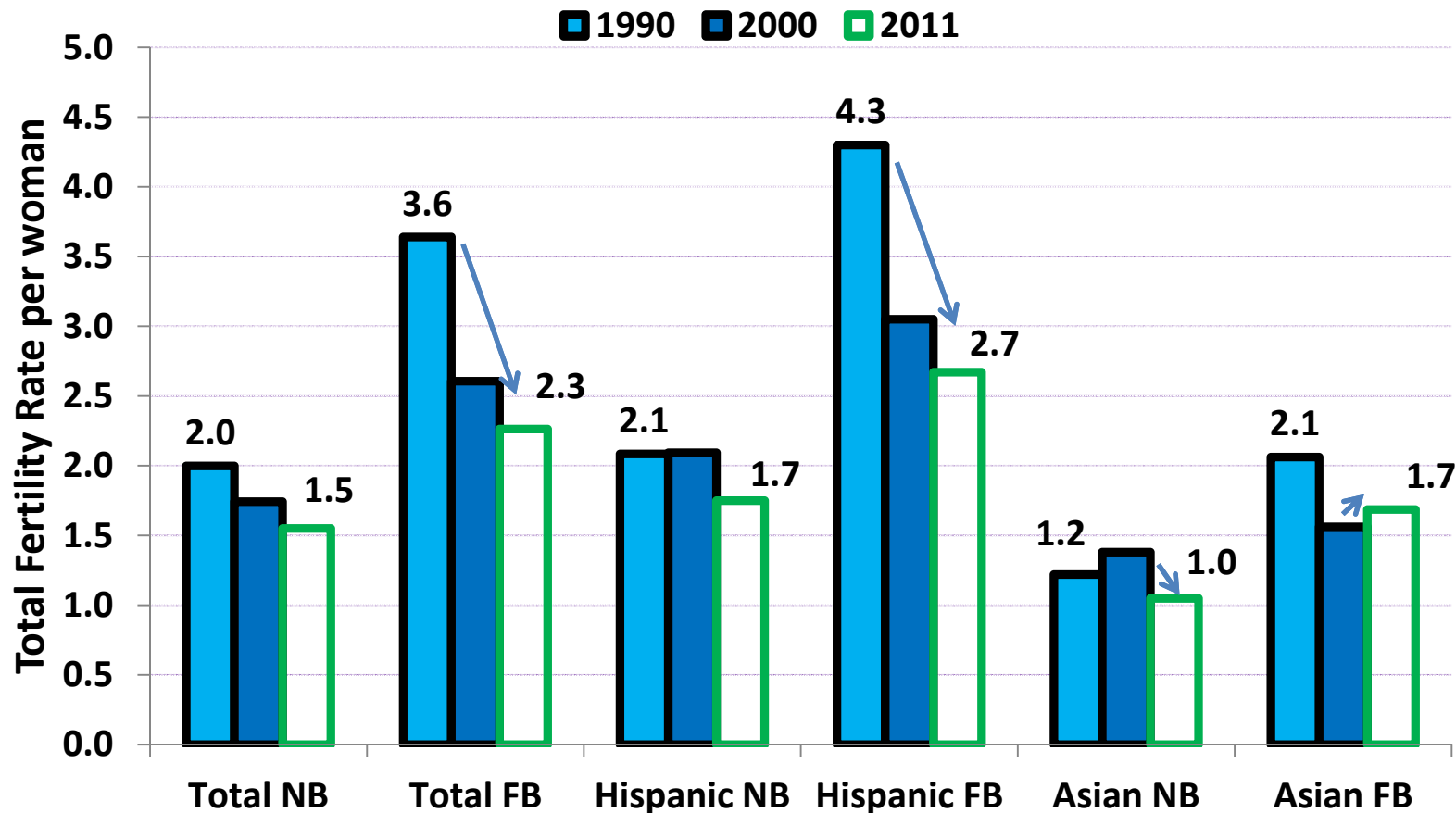


Data source: Birth Statistical Master File, California Department of Public Health and.
 Source: California Department of Finance 'Historical and Projected State and County Births, 1970-2022, with Actual and Projected Fertility Rates by Mother's Age and Race/Ethnicity, 2000-2022 released November 2013.

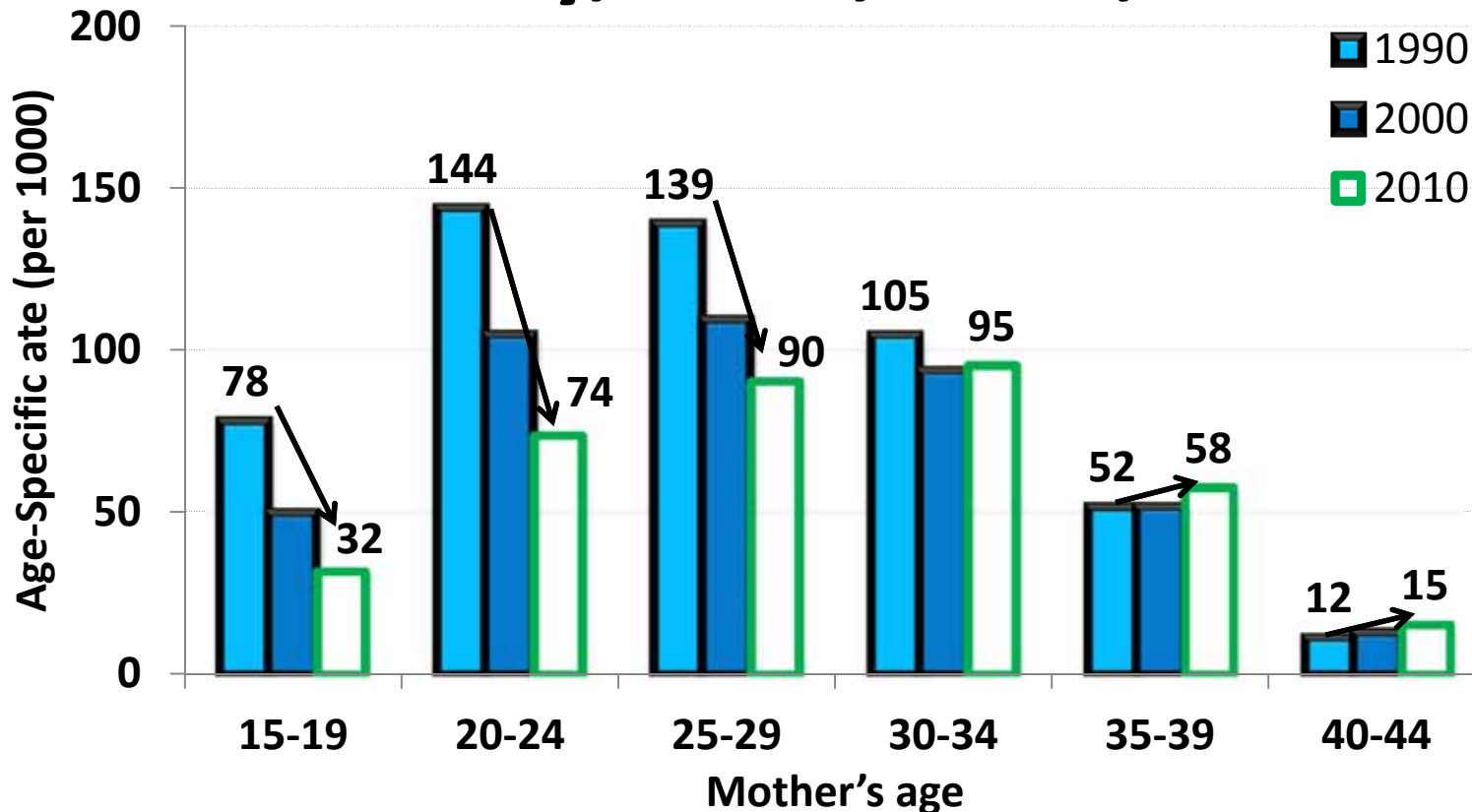
Total fertility rates by mother's race/ethnicity, Los Angeles County, 1990-2010



Total fertility rates by mother's nativity, Los Angeles County, 1990, 2000, and 2011.



Age-specific rates, Los Angeles County, 1990, 2000, 2010.



Factors likely associated with fertility

- Migration
- Behavioral
 - Contraceptive use/abortion
 - Mean age at first birth and first marriage
 - Children ever born
- Economic
 - Unemployment and educational attainment

Changes in Migration

- LA County has had declining in-migration in the past 20 years
- Recession curtailed in-migration even further
- Out-migration has been high since 2001

*Changes in migration partially responsible for :
70,000 fewer 25-39 women in 2010 than in 2000
in LAC.*

Data source: U.S. Census Bureau, 1990 Census, Summary File 1. 2000 Census Summary File 1, American Community Survey 2011 1-year Survey.

Changes in Migration

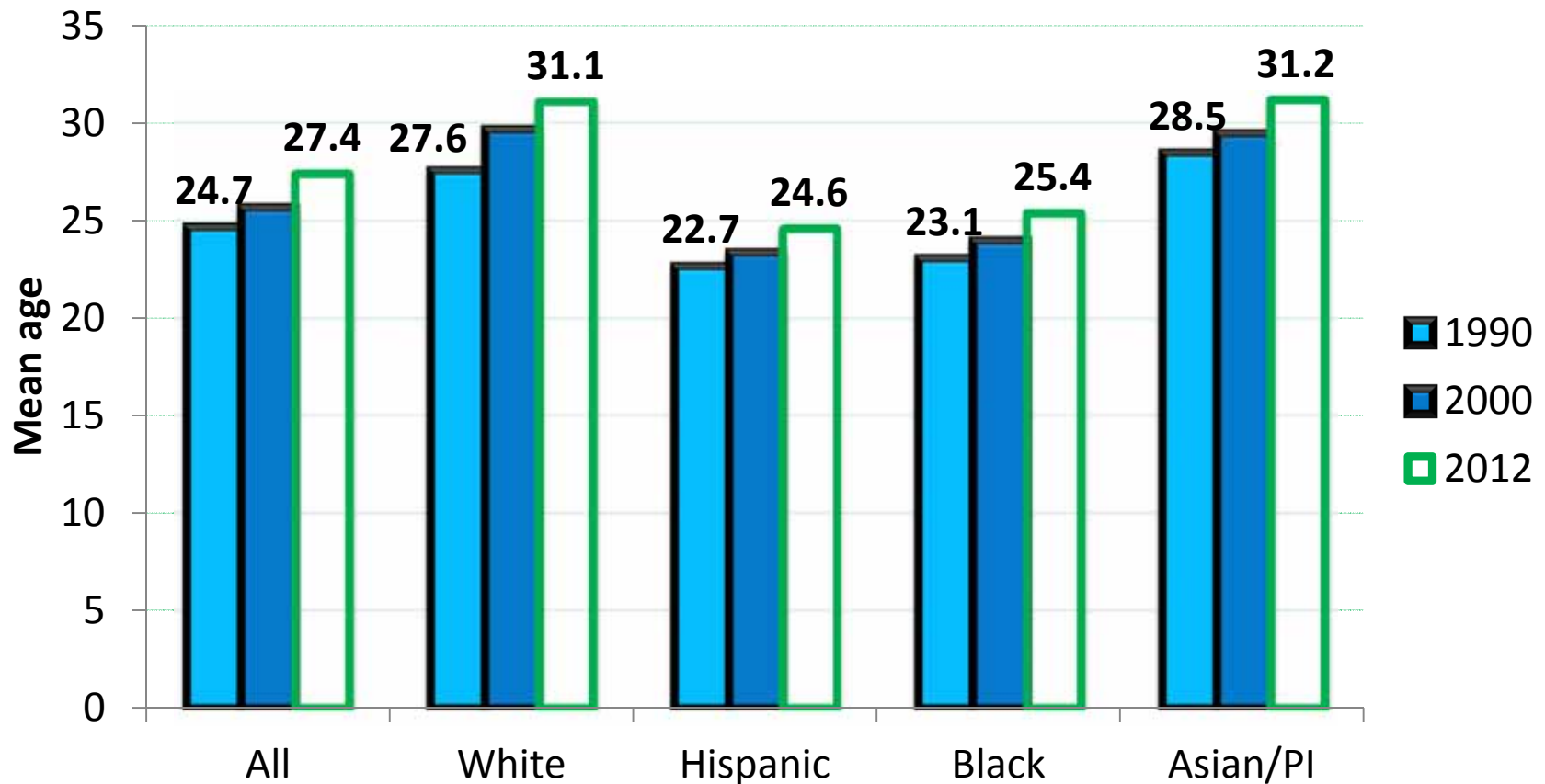
- LA County has had declining in-migration in the past 20 years
- Recession curtailed in-migration even further
- Out-migration has been high since 2001

*Changes in migration partially responsible for :
70,000 fewer 25-39 women in 2010 than in 2000 in
LAC.*

Behavioral Factors

- Contraception – sterilization becoming increasingly common
- Abortion – Decreased to lowest level since 1973
- Later age at first marriage
 - From 23.9 in 1990 to 26.5 in 2011 (women)
 - For CA 27.6 for women in 2011
- Later age a first birth
- Childlessness

Mean age at first birth by mother's race/ethnicity, Los Angeles County, 1990, 2000, 2012.



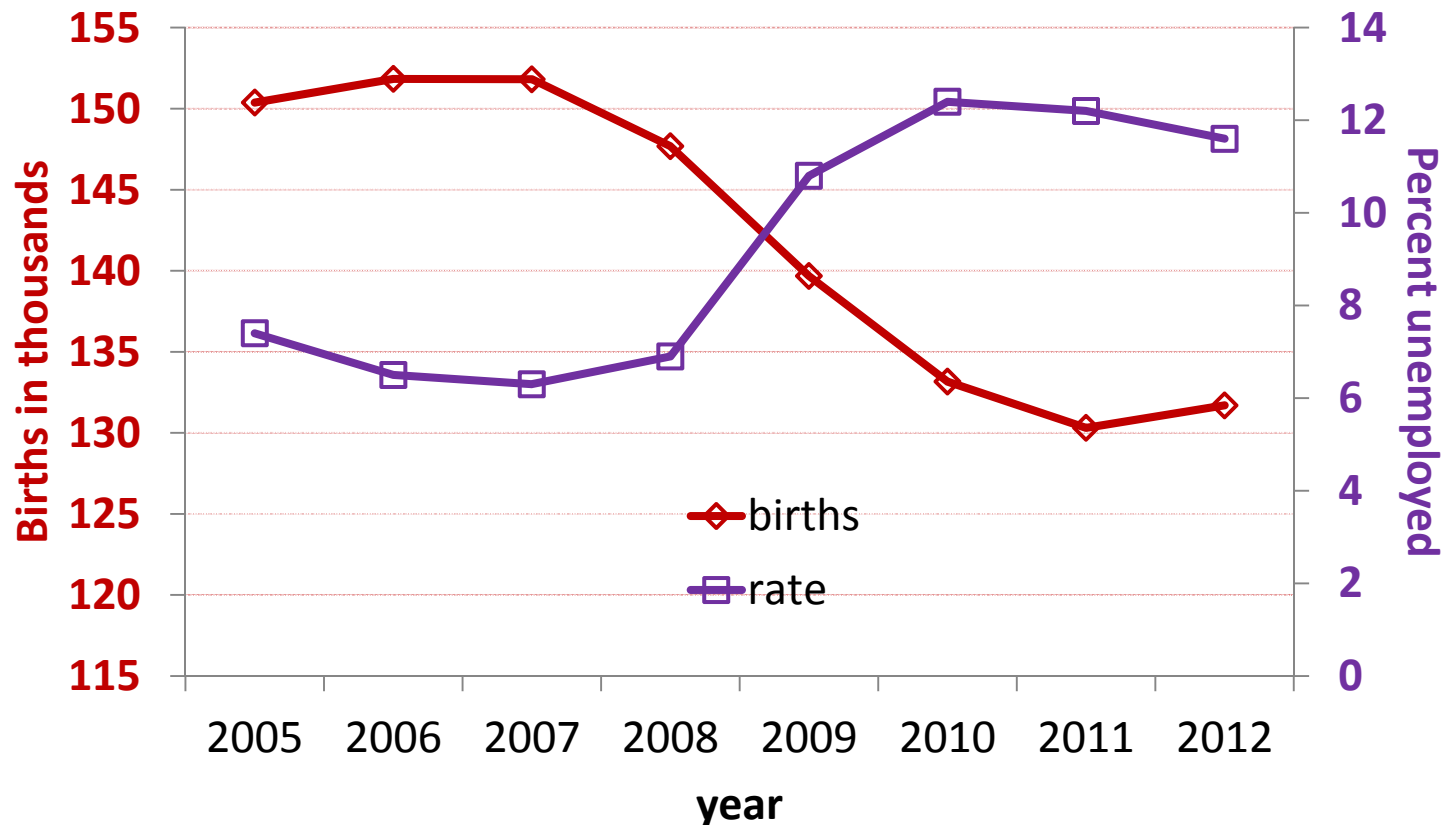
Data source: California Department of Public Health, Birth Statistical Master File, 1990, 2000, and 2012.

Economic Factors

Effects of the Great Recession?

- Increase in unemployment = decrease in births
- Birth rate for mothers with the lowest education attainment has declined

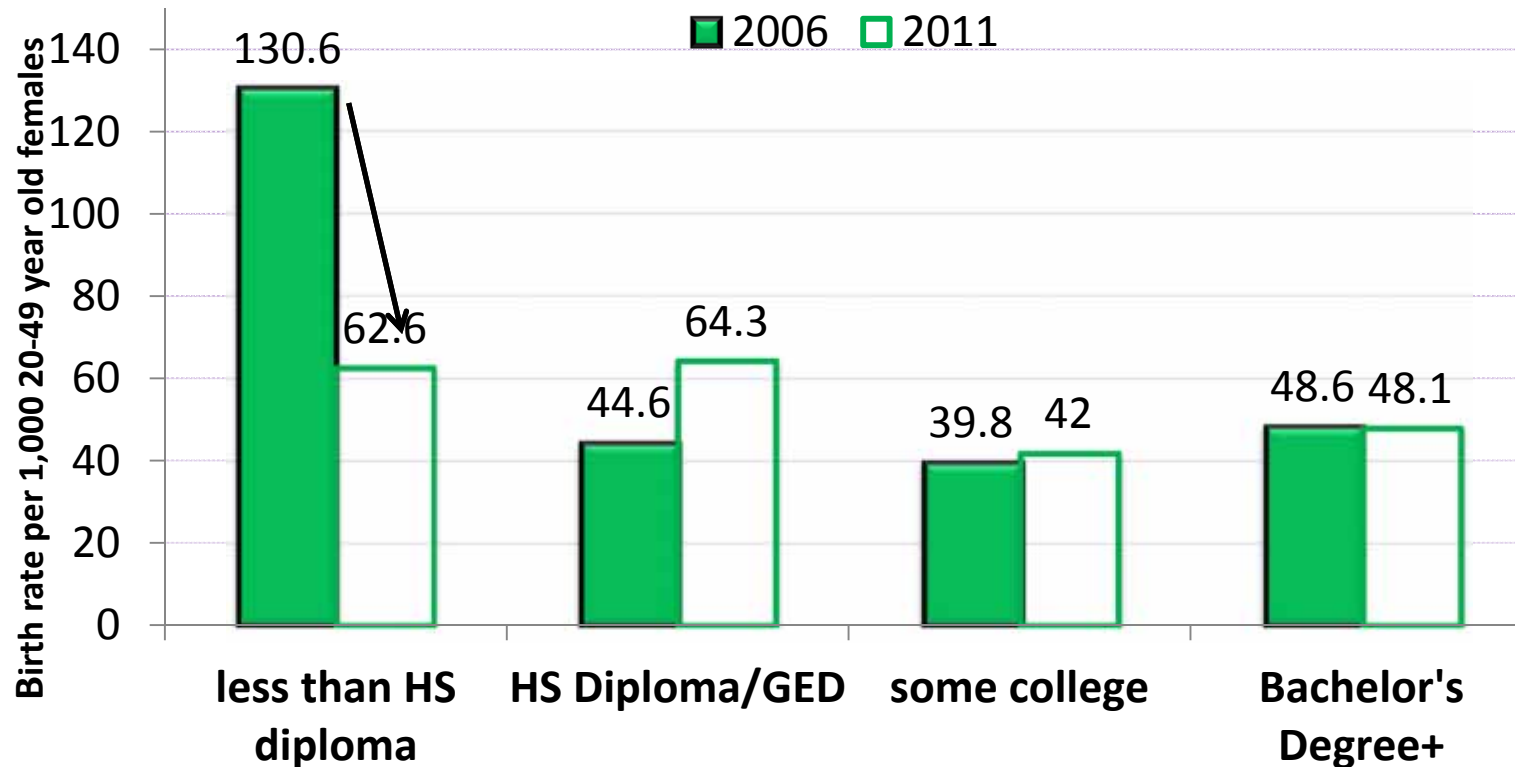
Change in unemployment rate and births, Los Angeles County, 2005-2012.



Data source: Census Bureau's American Community Survey 1-year samples, Table S2301.

California Department of Public Health's Birth Statistical Master Files, Los Angeles County Residents

Birth rates by mother's educational attainment, Los Angeles County, 2006 and 2011.

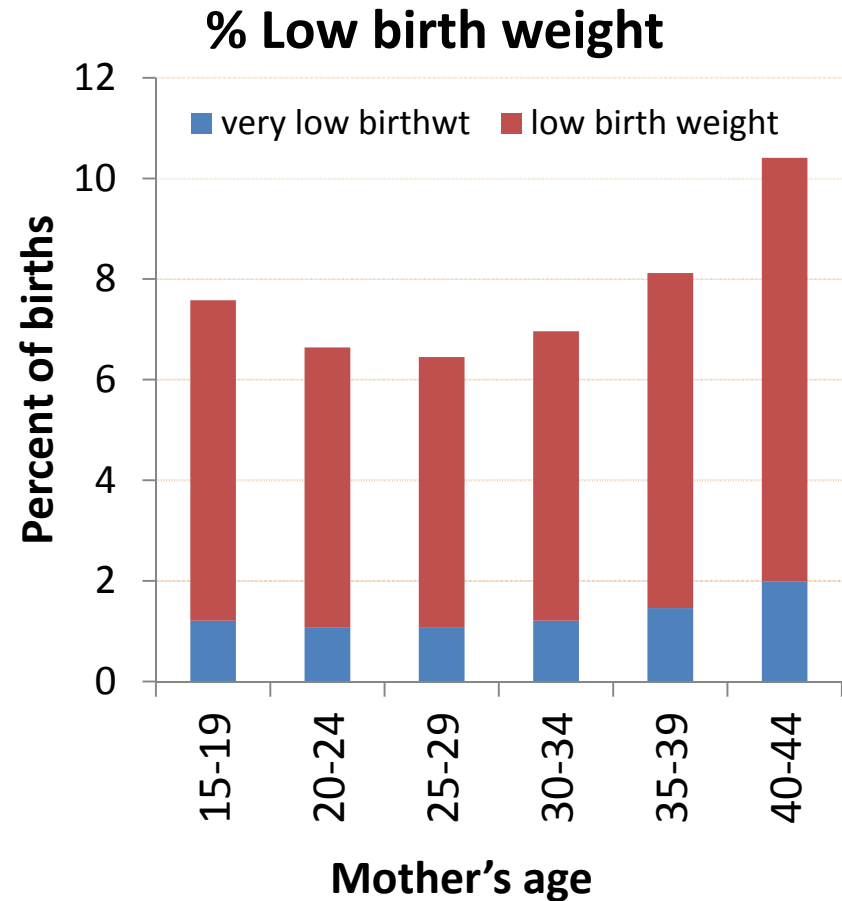
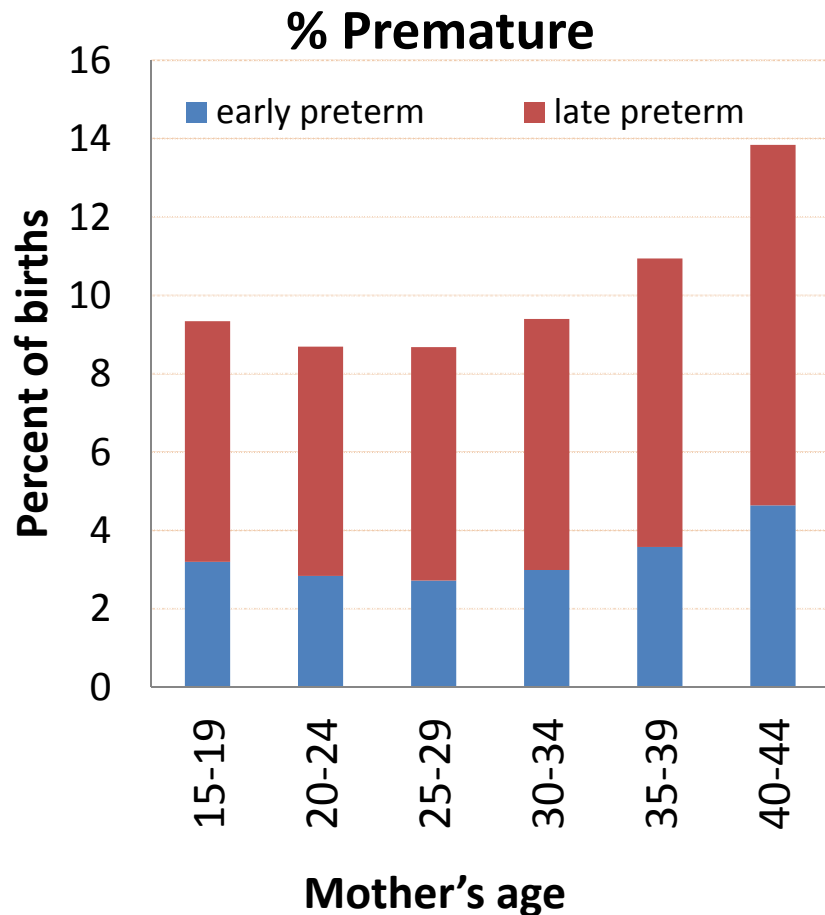


Data sources: California Department of Public Health, Birth Statistical Master File, 2006 and 2011. Census Bureau's Public Use Microdata (PUMS) 2007 3-year and 2011 3-year.

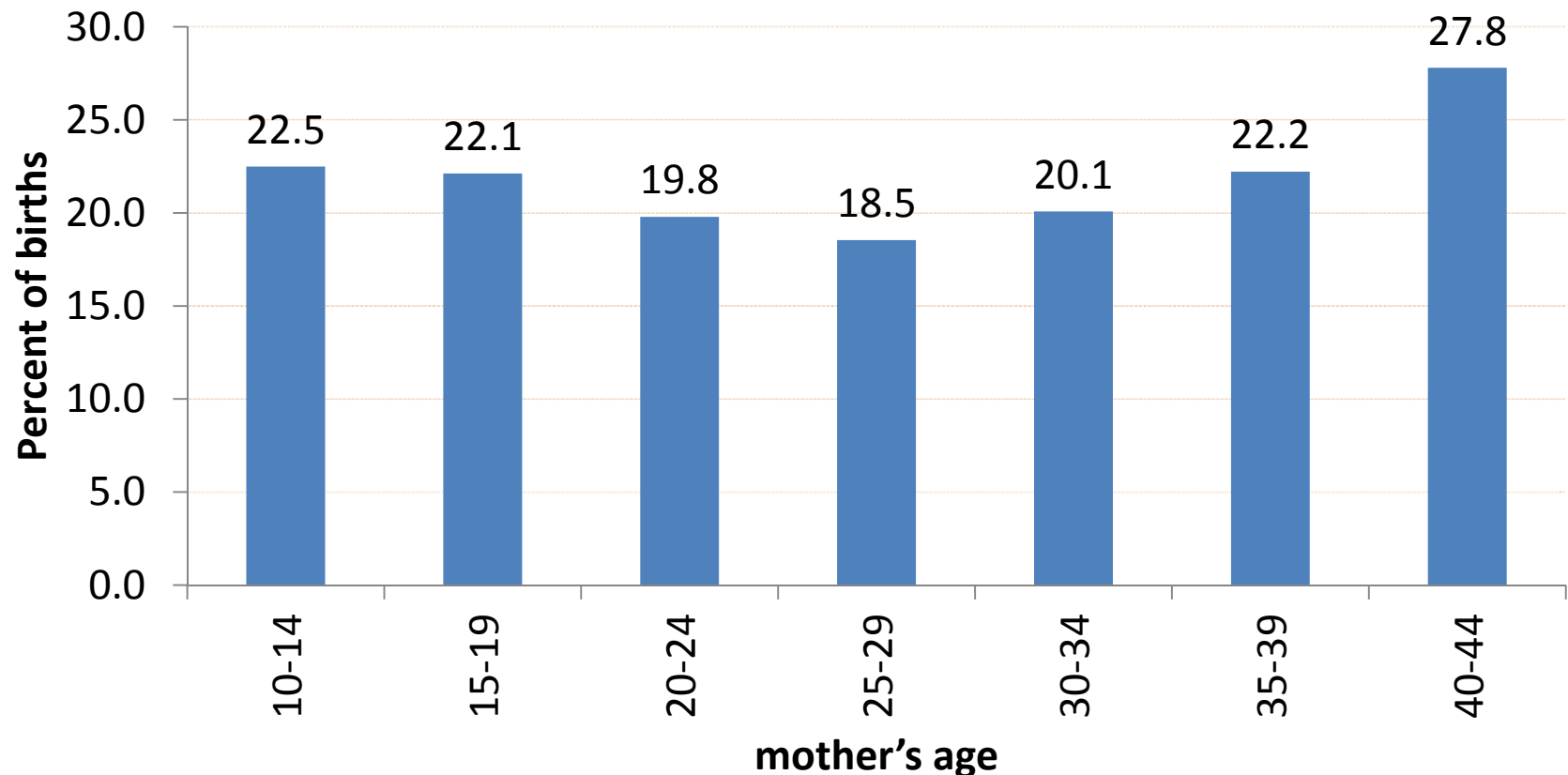
Public Health Impacts

- Lower teen births
 - = Fewer adverse birth outcomes
 - = less public cost (\$1,682 per teen birth)
- Delays in reproduction:
 - More difficulty in reproducing
 - More adverse health outcomes for babies and moms

Birth outcomes by mother's age, Los Angeles County, 2007-2012.

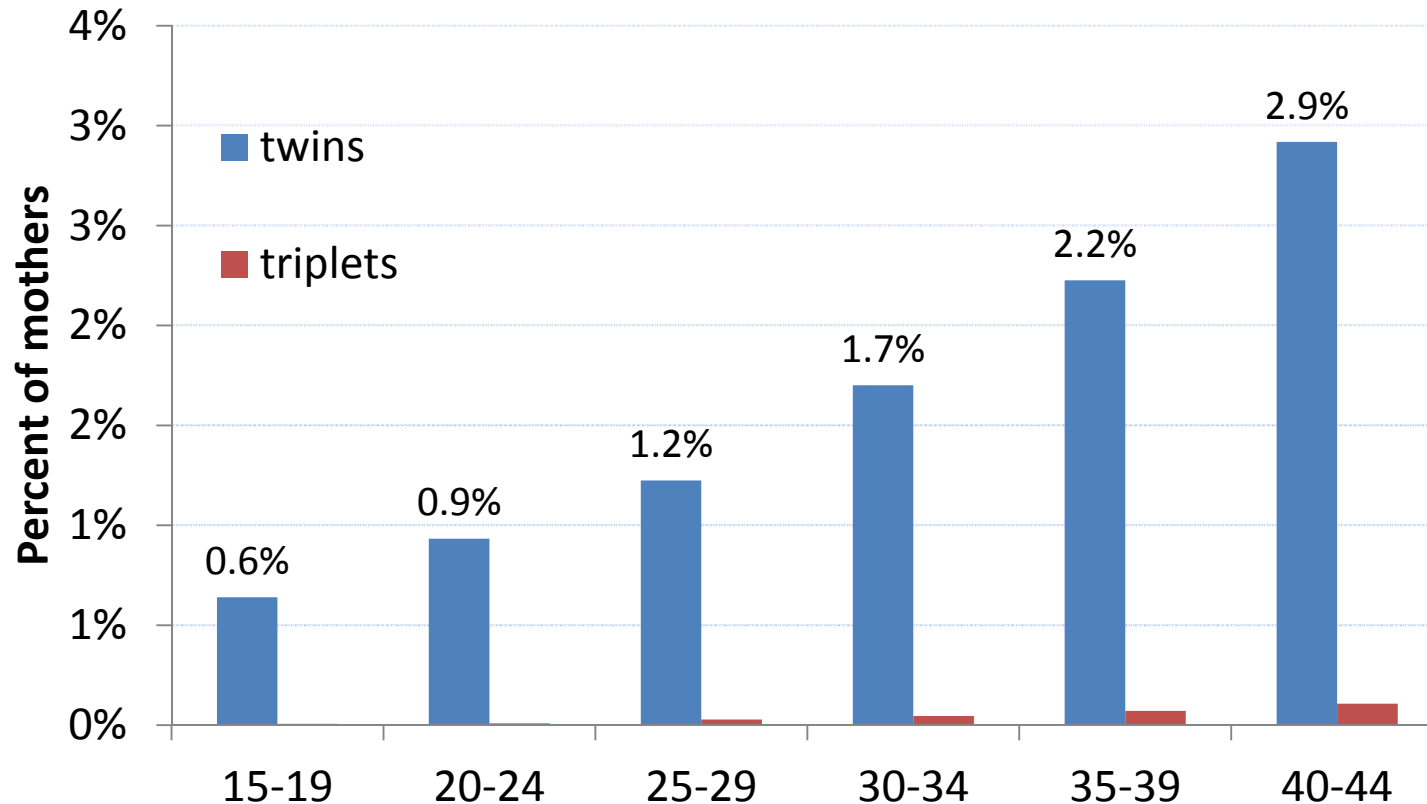


Primary Cesareans by mother's age, Los Angeles County, 2007-2013.



Data source: Automated Vital Statistics System (AVSS) data for Los Angeles County Residents, 2007 – 2013.

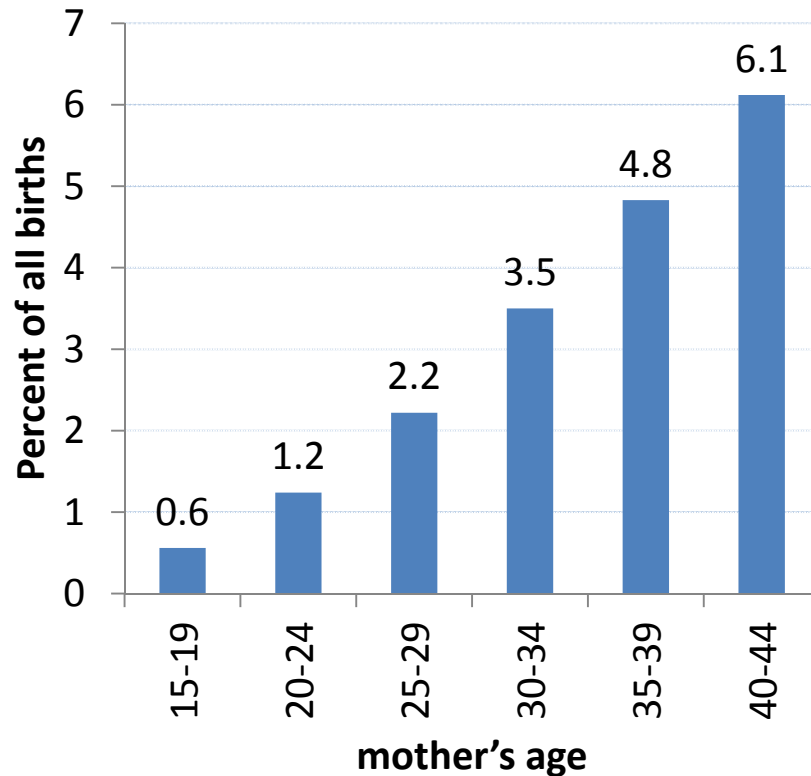
Percent of mothers who had twins or triplets by mother's age, Los Angeles County, 2007-2013.



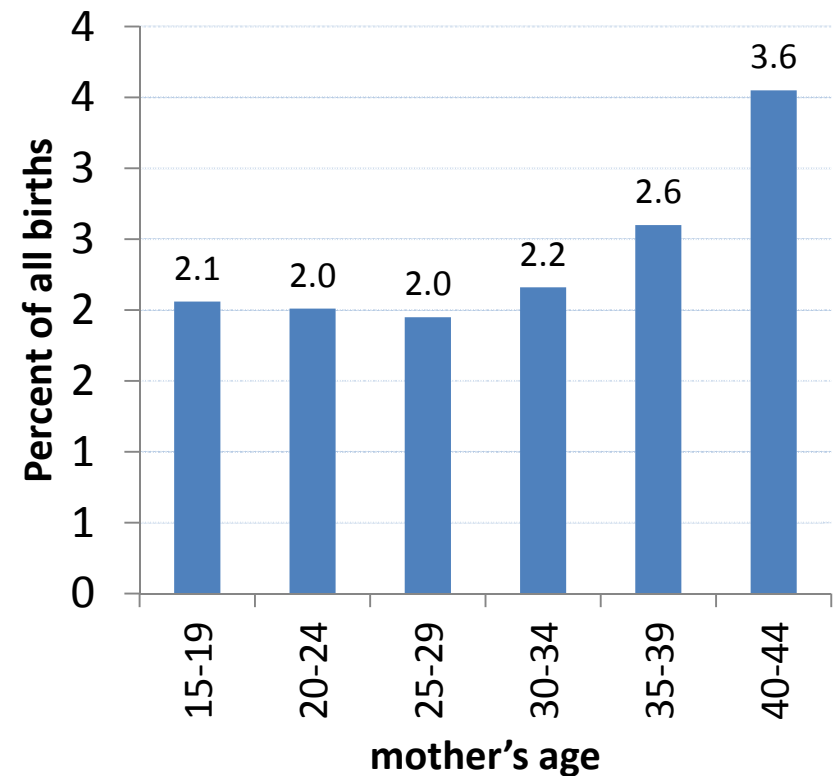
Data source: Automated Vital Statistics System (AVSS) data for Los Angeles County Residents, 2007 – 2013.

Maternal Outcomes by mother's age, Los Angeles County, 2007-2013.




% with gestational diabetes



% with preclampsia



Public Health Impacts continued...

- Fewer births  fewer children 
fewer working age adults.
 - Declining in-migration
 - Baby boomers retiring AND higher life expectancy  increasing ratio of seniors to working age adults.
- = High Fiscal impacts

Policy Interventions

- Consider intergenerational equity issues to enable young people to become parents
 - secure good paying jobs, easier transition to home ownership, reduce college debt.
- Consider pro-natalist policies that seek to reverse the decline in total fertility rate
 - Provide allowance for newborn children
 - Promote policies that embrace working mothers
 - Paid maternity and paternity leaves
- Later retirement and more savings