## How Infant Mortality is Impacted by Different Factors

Monica Chen, Tajahnei Williams, Max Wilde

TA: Mukunth Rajendran

**Infant mortality rate (IMR):** number of deaths in the first year of life per 1000 live births

This is a widely used indicator of population health and well-being

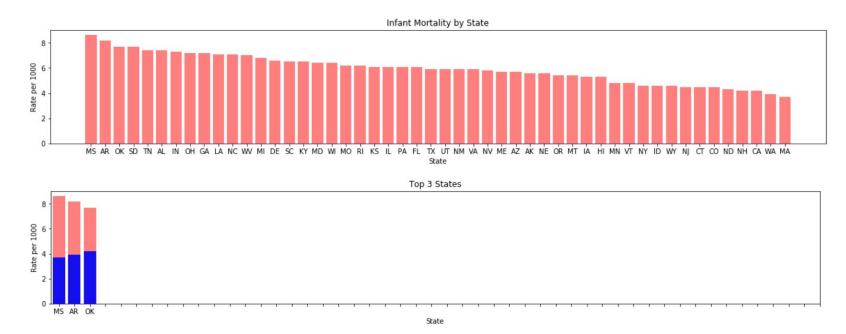
According to CDC, there were 566.2 infant deaths per 100,000 live births in 2018

### Factors We Studied:

- Location
- Mother's Education Level
- Race

#### Location

 Location was an area that we felt likely had an impact on infant mortality due to access to proper medical care. Here's what we found:

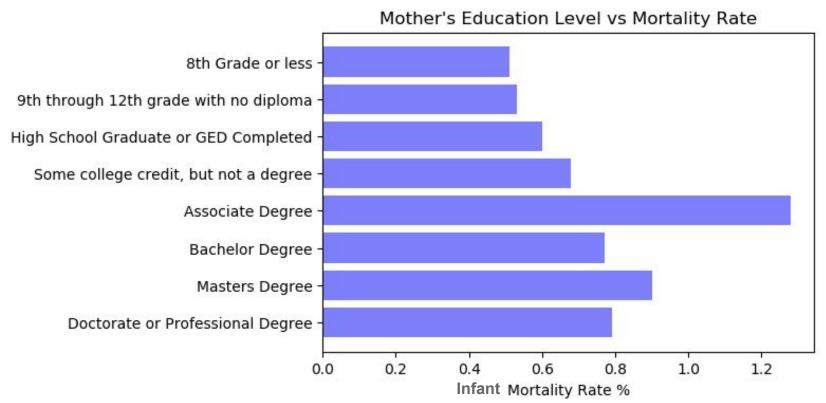


#### **Education Level**

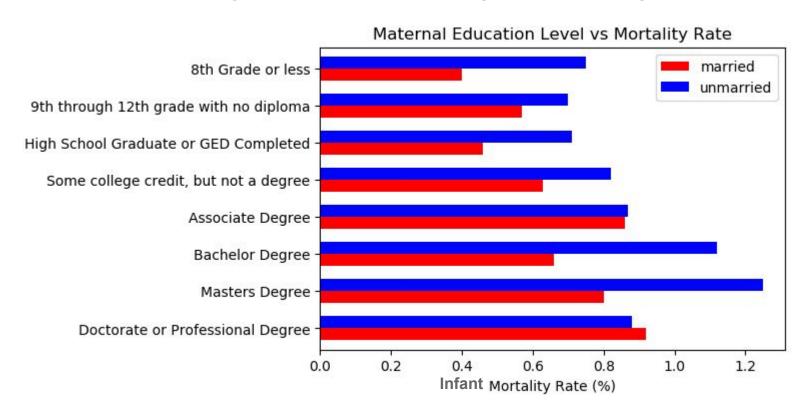
- Does the mother's education level have an effect on infant mortality rate in the US?
- Does obtaining a higher level of education correlate with a lower infant mortality rate?

Data Source: CDC Linked Birth / Infant Death Records, 2007-2017

# Maternal Education Level vs Infant Mortality Rate (2007-2017)



## Maternal Education Level vs Infant Mortality Rate - Broken down by Marital Status (2007-2017)



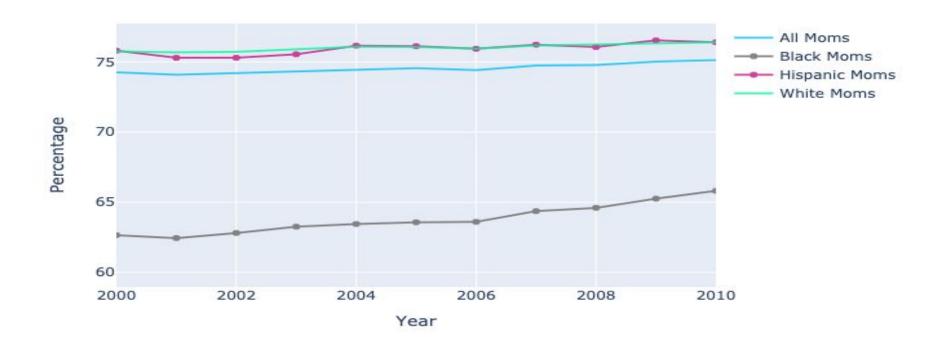
Does a woman's marital status have any impact on the likelihood of an infant's survival through childbirth?

Is there a consistent increase of an infant's survival rate among married women of all demographics?

\*\*Percentage of births calculations show the distribution of live births by race, race/ethnicity, and maternal age. Calculations are based on the number of live births in a specified group divided by all live births, multiplied by 100. Data for distributions by race and maternal age sum to 100 percent. Distributions by race/ethnicity do not sum to 100% due to live births missing data on ethnicity.

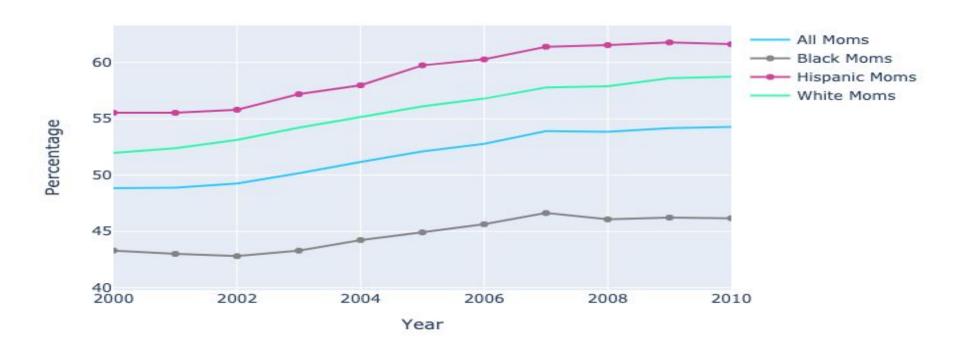
### Correlation Between Marital Status And Infant Mortality Rate

#### Married Women Infant Mortality Rate



### Correlation Between Marital Status And Infant Mortality Rate

Unmarried Women Infant Mortality Rate By Percentage of Live Births



While working on this project, I noticed an obvious disparity of live birth outcomes. I am curious to see if data from a controlled group: women of different races with the same income, education, and marital status would have the same disparity. The question then becomes "Why do some women have a higher likelihood of infant survival and what are the societal effects of that over time?