How Infant Mortality is Impacted by Different Factors

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Why this topic?

- Our team set out to explore the impacts of race, mother's education level, and location on infant mortality in the US
- We knew that despite being one of the wealthiest countries in the world, there was a strong disparity between infant mortality rates across the country
- This difference could be due to access to prenatal care, accessibility to quality healthcare, and lifestyle choices that impact the child's health
- While we can't provide a solution through one presentation, we do hope that this provides some insight

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

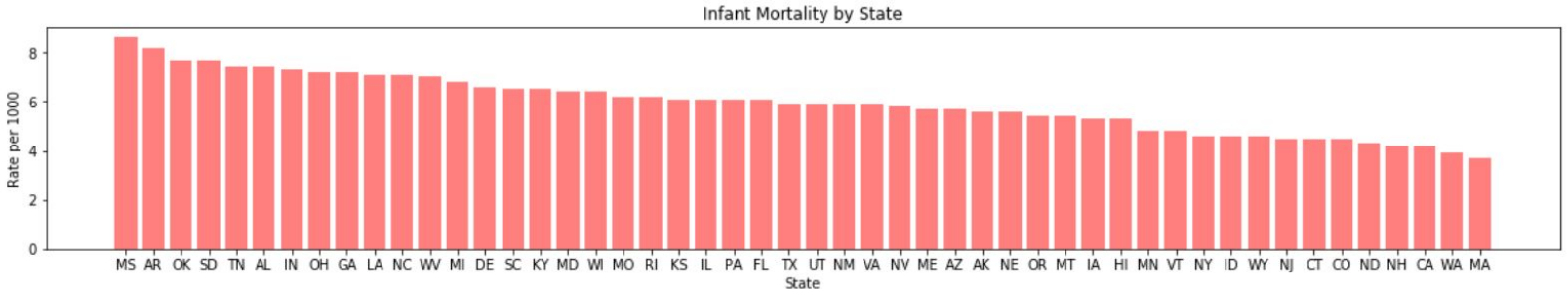
According to CDC, there were 566.2 infant deaths per 100,000 live births in 2018

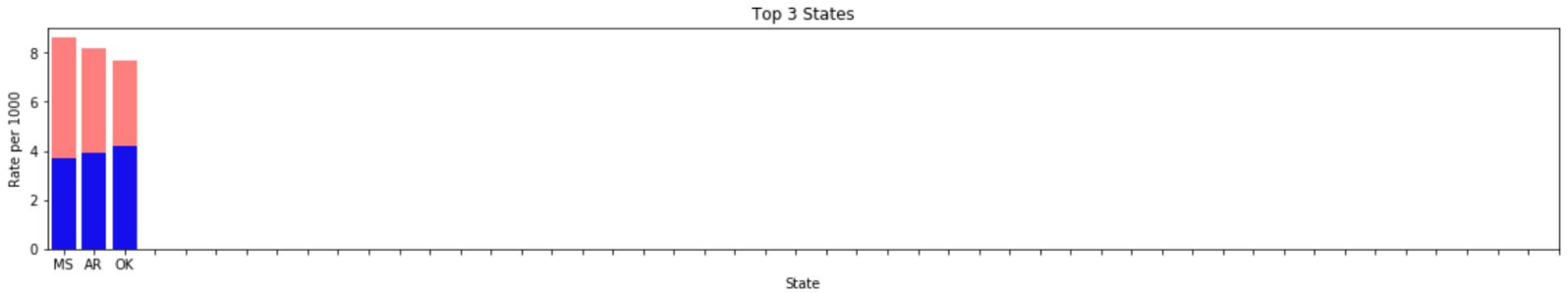
Factors We Studied:

- 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:



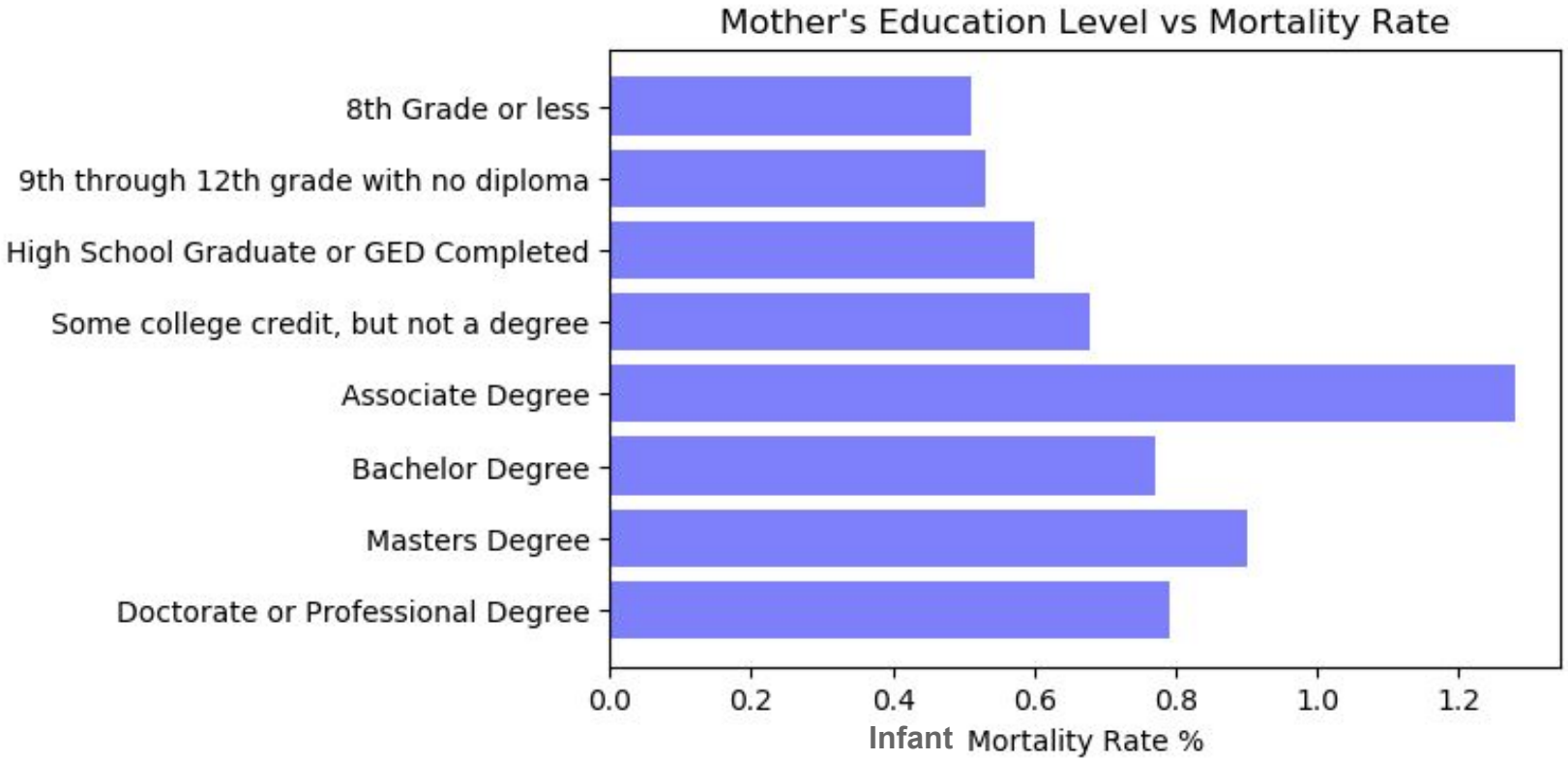


Education Level

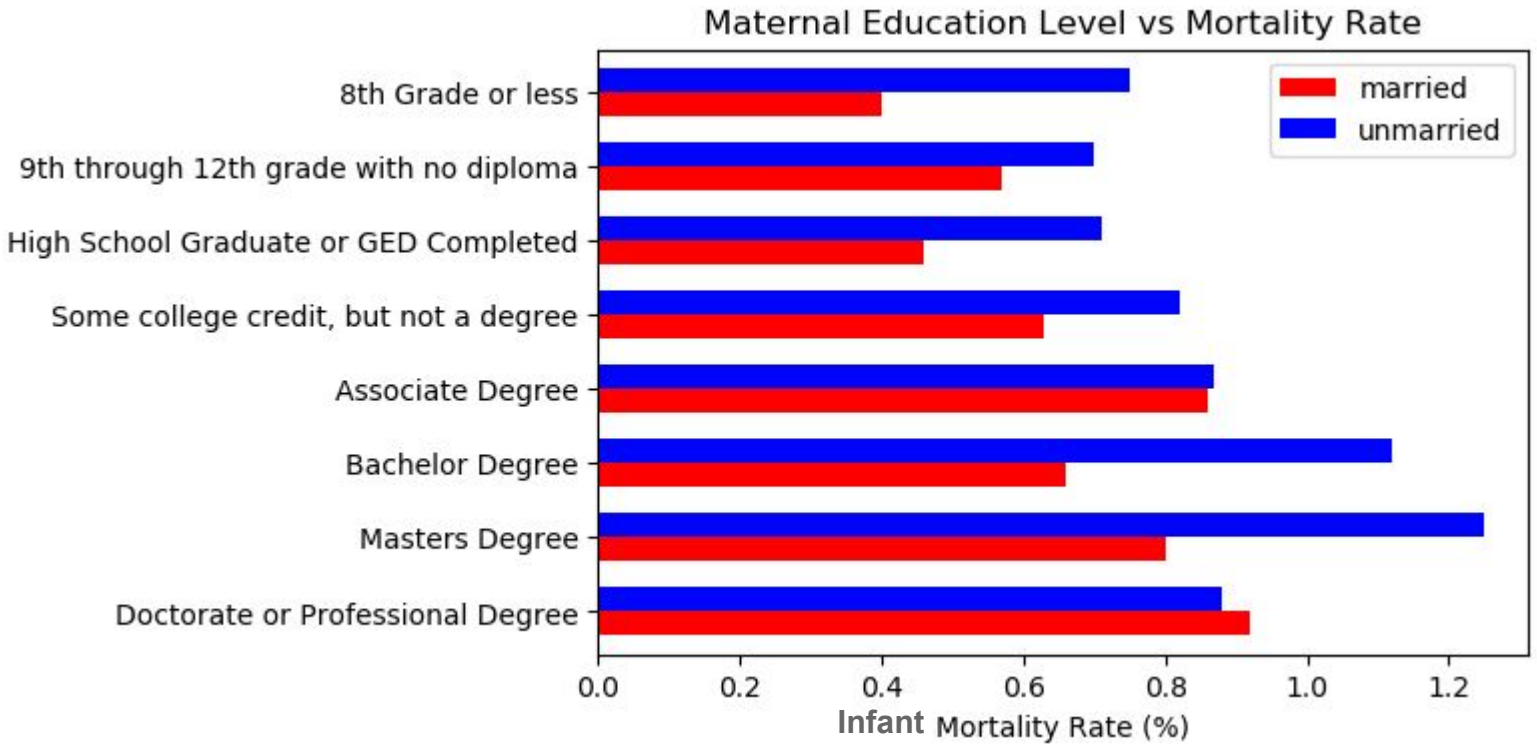
- Does the mother's education level have an effect on infant mortality rate in the US?
- Does obtaining a higher level of education correlate with a lower infant mortality rate?

- 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?

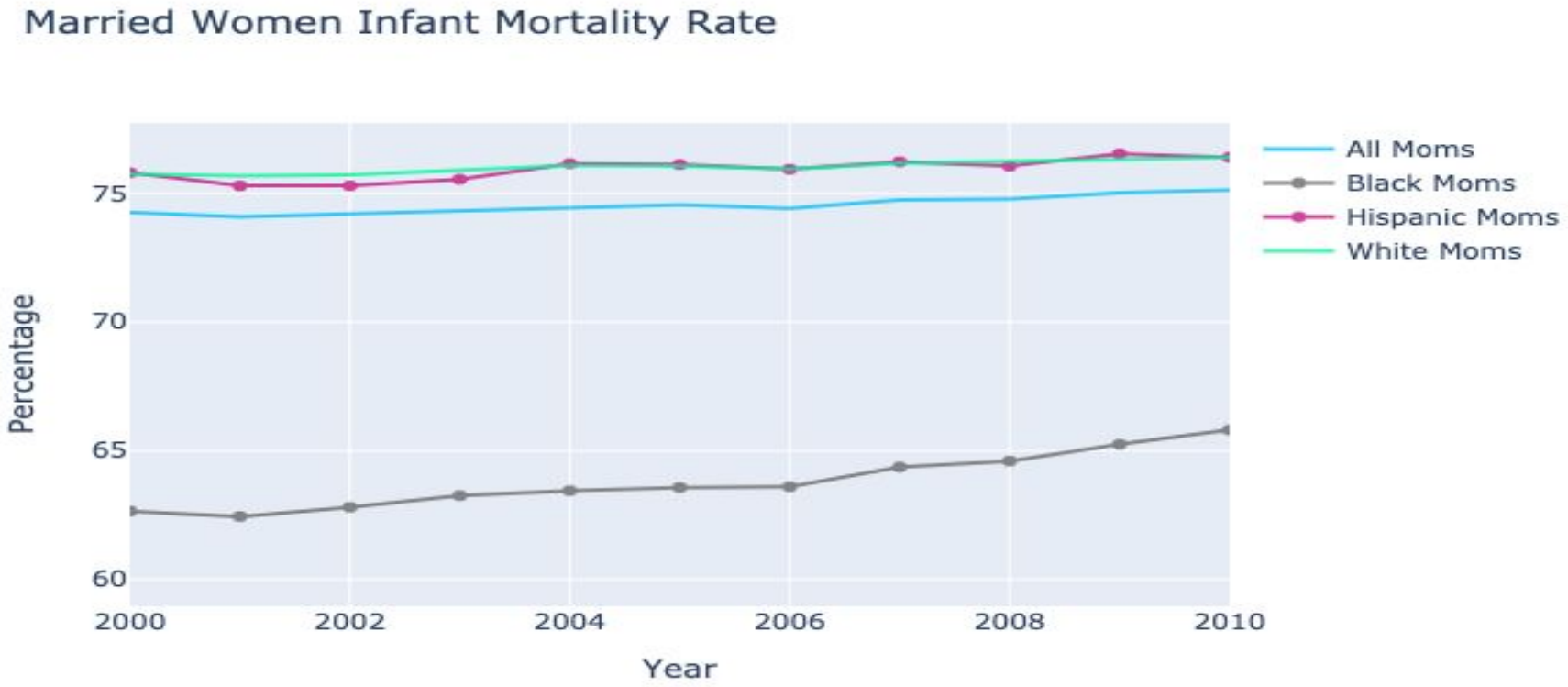
Is there a consistent increase of an infant’s survival rate among married women of all demographics?

**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.

Race

- At the outset of our project we assumed that race would an area with powerful differences regarding infant mortality. Here’s what we found:

Correlation Between Marital Status And Infant Mortality Rate



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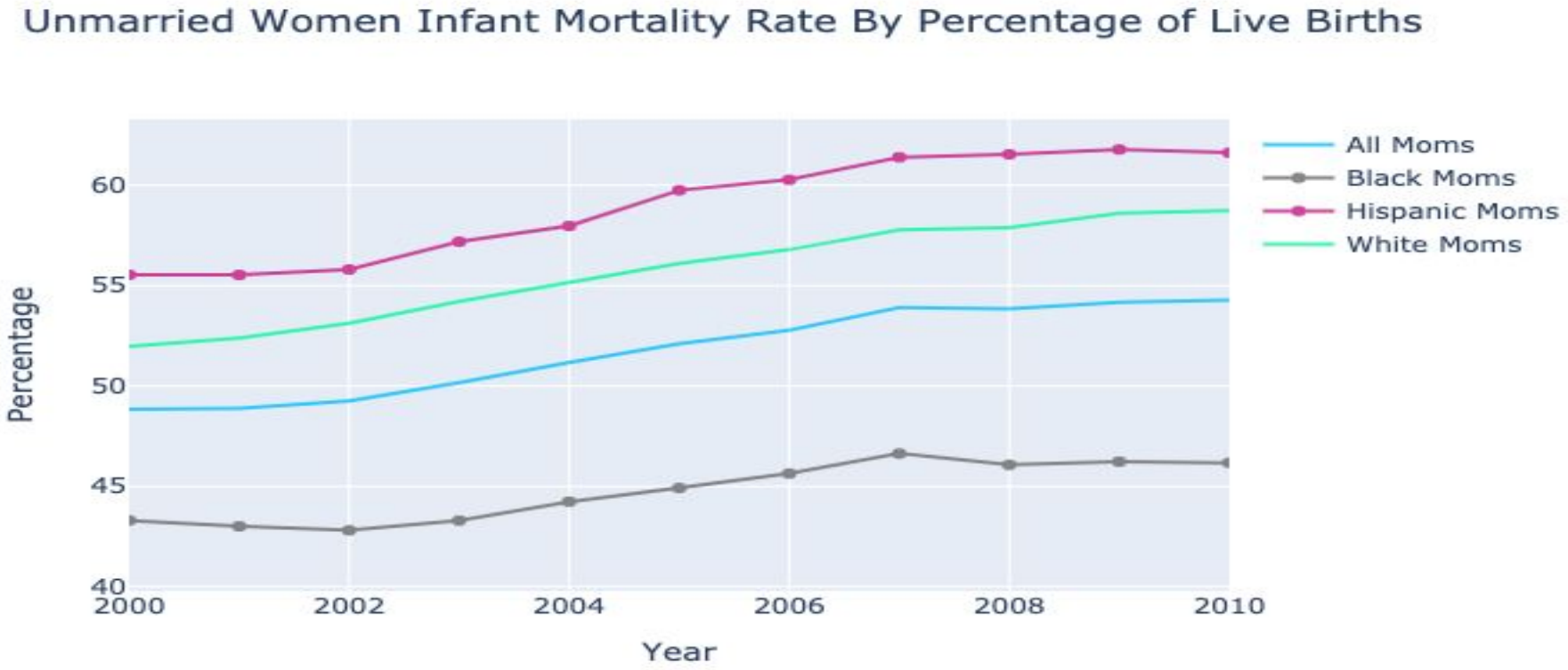

While working on this project, I noticed an obvious disparity of live birth outcomes. I am curious to see if data from a controlled group: women of different races with the same income, education, and marital status would have the same disparity. The question then becomes “Why do some women have a higher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