

# Final Project Proposal

DATA 621: Business Analytics and Data Mining

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## 1 Data Set

The data sets we plan to use originate from United States federal government agencies. The core data comes from the U.S. Department of Health & Human Services Centers for Disease Control and Prevention (HHS, 2016). Related population and economic data sets will come from the U.S. Census Bureau and the U.S. Bureau of Labor Statistics.

### 1.1 Natality Data

Separate data sets the years 2003-2006, and 2007-2014 were downloaded from the CDC website (HHS, 2009), (HHS, 2016).

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Year  
Month  
Age of Mother  
Marital Status  
Education  
Births

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### 1.2 Census Data

TBD: Data set descriptions

### 1.3 Unemployment Data

TBD: Data set descriptions

## 2 Recent Journal Papers

TBD

### 2.1 Low Fertility at the Turn of the Twenty-First Century

The Annual Review of Sociology included a paper by S. Philip Morgan and Miles G. Taylor regarding recent fertility trends, specifically a shift to lower birth rates as compared to the second half of the twentieth century (Morgan and Miles, 2006).

### 2.2 Relative Wage Changes and Fertility in the US

The Eastern Economic Journal included a paper by Aliaksandr Amialchuk regarding wage related effects on fertility (Amialchuk, 2013).

### 3 Problem Statement & Research Questions

TBD

### 4 Statement of Objectives

TBD

### 5 References

Amialchuk, A. “Relative Wage Changes and Fertility in the US”. In: Eastern Economic Journal 39(2) (2013). DOI: 10.1057/eej.2013.2.

HHS. Natality public-use data 2003-2006 on CDC WONDER Online Database. Mar. 2009. URL: <http://wonder.cdc.gov/natality-v2006.html>.

— Natality public-use data 2007-2014 on CDC WONDER Online Database. Feb. 2016. URL: <http://wonder.cdc.gov/natality-current.html>.

Morgan, S. P. and G. T. Miles. Low Fertility at the Turn of the Twenty-First Century. Aug. 2006. URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2849172/>.