Natality Models

DATA 621: Business Analytics and Data Mining

Daniel Dittenhafer & Justin Hink

April 24, 2016

1 Abstract

2 Keywords

3 Literature Review

4 Methodology

4.1 Data Preparation

Data sets from the Census Bureau, Centers for Disease Control, and Bureau of Labor Statistics were joined together in order to provide a unified data set for analysis and modeling.

4.1.1 Census Data

For the period of May 2010 - Decemeber 2015, the Census Bureau's census data was available as monthly population estimates broken down by age and gender (Census Bureau, 2015). For the period of 2000 - April 2010, monthly population estimates were only available for the total population (Census Bureau, 2010). We used annual age and gender estimates from the Census Bureau the 2000 - 2010 time period, converted to ratio's, to divide the monthly total population into age and gender bins.

5 Results

6 Summary

7 Appendix: Supplemental Tables & Figures

8 Appendix: Raw Code

9 References

Census Bureau. Monthly Postcensal Resident Population, by single year of age, sex, race, and Hispanic origin. Accessed: April 24, 2016. 2015. URL: http://www.census.gov/popest/data/national/asrh/2014/2014-nat-res.html.

— National Intercensal Estimates (2000-2010). Accessed: April 24, 2016. 2010. URL: http://www.census.gov/popest/data/intercens