

Measuring Marriage Rates over Time: Implications for Empirical Analyses

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Goal: Better Understand How Alternative Marriage Data Affect Empirical Estimates

- National Vital Statistics
- Marital history data
- Data on marital status

Motivation

- Several papers using flow data make the case that it is superior to stock data
 - Marital behavior and changes in policies and the labor market are more closely linked in flow data than in stock data (Lichter, McLaughlin, and Ribar 2002; Bitler et al. 2004; Schaller 2013)
 - Specification bias is minimized (Klerman and Haider 2004)

Motivation

- Nonetheless, a number of papers use data on marital status
 - Current Population Survey Annual Social and Economic Supplement (CPS ASEC) (Lichter, McLaughlin, and Ribar 2002; Abramowitz 2014)
 - U.S. Decennial Census (Goldin and Katz 2002, Loughran 2002, Gould and Paserman 2003)

Reconciling these Approaches

- Use the American Community Survey (ACS) to consider the magnitude of the difference in results between using marital history and marital status data
- ACS collects marital status since 2000, marital history since 2008: Year of most recent marriage; number of times married; whether the respondent married, divorced, or was widowed in the prior 12 months
- Primary federal vehicle for the collection of marital data to replace the discontinued vital statistics data

To examine implications, consider relationship between unemployment rates and different marital outcomes

- Relationship between poor economic conditions and marriage conditions not clearly identified in economic theory
- Early studies suggest that marriage rates are pro-cyclical
- Schaller (2013) finds that increased unemployment rates are associated with a reduction in entry into marriage using aggregate 1978-2009 National Vital Statistics data

This analysis uses the ACS to re-estimate the analysis performed by Schaller (2013)

Data

- Use internal 2007-2013 one-year ACS data
- Restrict sample to include only women in the civilian household population and population living in college dormitories from all U.S. states and the District of Columbia ages 16+
- Compare three alternative sources of information on marriage outcomes
 - Marital history: 1) whether the respondent married in the calendar year prior to the survey and 2) whether the respondent married, divorced, or was widowed in the 12 months prior to their survey response
 - Marital status: the respondent's current marital status – used to calculate the proportion of the population currently married or ever married, which, when compared over time, simulates a marriage rate
- Marriage rates are estimated as the number married per 1,000 single women

Relationship between Unemployment Rate and Women's Marriage Rates



Source: Unemployment rate from 2007-2012 Bureau of Labor Statistics Local Area Unemployment Statistics; Marriage rates calculated using 2008 through 2013 1-year ACS data.

Methods

- Calculate state-year marriage rates using marital history and marital status information
- Estimate an ordinary least squares regression model
 - Outcome is log of marriage rate (consistent with literature)
 - Parameter of interest is state-year annual unemployment rate from Bureau of Labor Statistics
 - Control for state and year fixed effects in all regressions
 - Control for state-year demographic characteristics: proportion Black, proportion Hispanic, proportion with a high school degree only, proportion with a college degree, proportion aged 16-25, proportion aged 26-35, proportion aged 36-45, and proportion aged 66+
 - Use population-representative weights and replicate weighting methods

Results: Marriage Rate

	Vital Statistics	ACS Prior CY	ACS Prior 12 Mo.
Unemployment rate	-0.018*** (0.006)	-0.013* (0.007)	-0.010 (0.007)
Observations	245	306	306
R-squared	0.95	0.92	0.93

Source: 2008 through 2013 1-year ACS data.

Results: First Marriage Rate Ages 16-64

	Prior CY	Prior 12 Mo.	Constructed
Unemployment rate	-0.013* (0.008)	-0.009 (0.009)	0.131* (0.070)
Observations	306	306	273
R-squared	0.89	0.89	0.52

Source: 2007 through 2013 1-year ACS data.

Results: Change in Proportion Married Ages 16-64

	Prior 12 Mo.	Constructed
Age-specific unemployment rate	-0.209 (0.167)	-0.059 (0.523)
Observations	306	306
R-squared	0.72	0.24

Source: 2008 through 2013 1-year ACS data.

Discussion

- Results suggest that marital status and marital history data yield potentially divergent results for the effect of the unemployment rate on log first marriage rates
- Caveats: small state-year analysis sample, results could be analysis-specific
- Future work
 - Compare results from ACS to results using data from other surveys including marital status from the Current Population Survey
 - Compare these aggregate-level results to results using person-level ACS data

Thank You!

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