Economics Bulletin

Volume 37, Issue 1

Urban Density and the Procyclicality of Divorce

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Abstract

This study measures the response of marriage to fluctuations in local labor market conditions more precisely than previous studies by using a newly-digitized data set of all divorces and annulments granted in US counties from1970 to 1988. The observations are aggregated to the census-defined Labor Market Areas level, which allows for testing of heterogeneous treatment effects depending on the urban density levels in the LMA. Results show a strong, robust, and pro-cyclical relationship between employment rates and divorce rates. Importantly the disaggregated testing shows that the observed trend is driven by rural regions with many urban areas showing an a-cyclical or counter-cyclical patter. This finding is significant in understanding regional trends and demographic patterns.

The author is grateful for the valuable feedback provided by: Brian Cadena, Terra McKinnish, Murat Iyigan, Joni Hersch, Catherine Massey and two anonymous referees.
Citation: Sheena Murray, (2017) "Urban Density and the Procyclicality of Divorce", *Economics Bulletin*, Volume 37, Issue 1, pages 411-422
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Submitted: December 13, 2016. **Published:** March 05, 2017.

1. Introduction

Evidence based on state-level data finds that divorce is typically pro-cyclical (Amato & Beattie, 2011; Hellerstein & Morrill, 2010). These researchers acknowledge that this may not be the appropriate observation level. "[S]tates are large entities, and the use of smaller geographical units of analysis (such as cities or counties) would be useful" (Amato & Bettie, pg 714). However, data on county level divorce records were not available, until 2008 when the American Community Survey began asking about divorce. Consequently, this question has not been researched at the geographic scale which best captures a marriage and labor market. This paper seeks to determine the relationship between divorce and employment conditions using the most accurate measure of markets available in the USA.

By combining a brand-new hand-digitized data set on county-level divorce and employment records I am able to construct a census-defined Labor Market Area (LMA), determined by journey-to-work data in the decennial Census. This data set provides the ability to more properly measure the employment and divorce activities in a labor market, as well as measures the variation in urban density across the labor markets. This variation in urban density, or *urbanicity*, allows testing of heterogeneous treatment effects of employment opportunities on divorce rates between rural and urban areas.

Consistent with current state-level research, aggregate patterns show that divorce is pro-cyclical, and strongly predicted at the LMA level. Interestingly, disaggregated models show that the marriages of those who live in more urban LMAs are far less affected by employment rate fluctuations than those living in rural areas. Consequently, the existing findings at the state level may be primarily driven by the rural residents.

2. Data

Labor Market Areas, as defined the United States Department of Agriculture (USDA) and the Economic Research Service Group (ERS), are an all encompassing geographical measurement. There were 379 LMAs defined in 1980, which used integrated commuter flow data and consistent criteria to construct both rural and urban labor markets (Tolbert & Killian,1987). [1] LMAs were created to address the many limitations of the existing geospatial measurements, such as counties, Census-County-Groups, or, Metropolitan Statistical Areas, which respectively are too small to be considered all encompassing, cannot cross state lines, or, lack rural measurements (Tolbert & Killian, 1987).

In order to construct the LMA level data, county records on divorce were hand-digitized from the annual editions of the National Vital Health Statistics, Volume 3, Marriage and Divorce. The data is censored at 1988, as past this date the federal government stopped collecting county-level divorce data. County-level employment rates are obtained from the Bureau of Economic Analysis and combined with county-level population, to create crude

[1] LMAs were first constructed in 1980, are constructed using the decennial census, and given the range of my data from 1970 to 1888 the 1980 LMA definitions is most appropriate.

divorce and employment rate.[2] The variables of interest are population-weighted averages taken over all counties in the LMA to create a total of 379 LMA-year level observations.

Table I provides basic descriptive statistics of all LMAs, measured in 1980, across the different regions of the United States. Figure 1 is a scatter plot of the difference in logs of the annual employment rate from the mean employment mapped to the logged crude divorce rate.[3] Clearly evident in the scatter plot is the higher variation of both variables at the LMA level than at the state level.

TABLE I	**Descriptive Statistics of Data from 1980**				
	LMA - Observations				
	Total	**North**	**Midwest**	**South**	**West**
Sample	379	37	113	173	56
Total Average Population (in units of 1000)	570.9 (1055.80)	1,266.08 (1921.74)	513.57 (894.69)	409.35 (437.76)	726.35 (1604.98)
Average Number of Total Counties	8.2 (4.81)	5.81 (2.76)	9.15 (5.47)	8.4 (4.67)	7.27 (4.25)
Divorces per 1000	5.54 (2.10)	3.7 (0.95)	4.82 (1.41)	5.97 (2.26)	6.88 (1.97)
Employment per 1000	468.05 (54.54)	462.35 (48.04)	479.98 (56.22)	457.72 (53.66)	479.67 (51.98)
Percentage of LMA that is Urban	0.45 (0.38)	0.65 (0.34)	0.4 (0.37)	0.44 (0.37)	0.43 (0.41)
Population Density	330.99 (940.40)	970.33 (2578.75)	299.12 (591.22)	271.16 (440.14)	157.74 (298.12)
Standard deviations are presented in parenthesis					

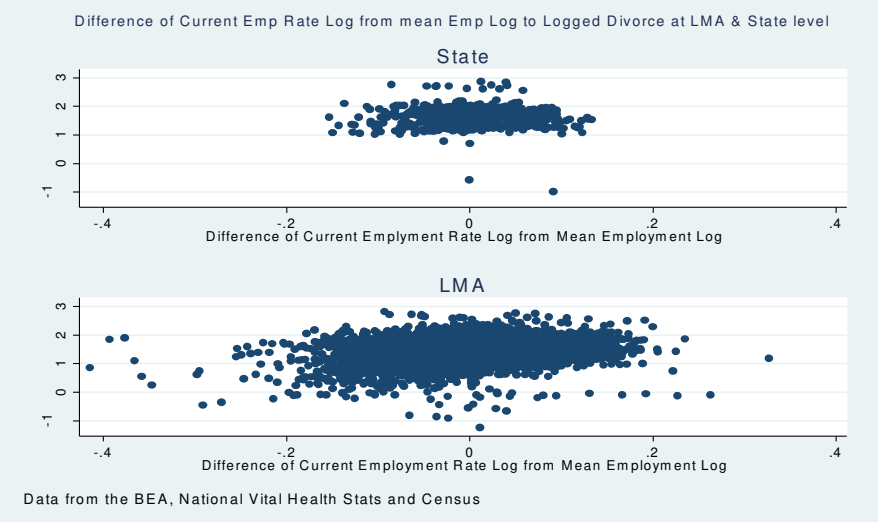
The observational level of LMAs provides an ideal opportunity to test for heterogeneous effects depending on urban density. Urban areas are characterized by higher rates of divorce, a younger and more educated population, increased access to available extramarital partners, and higher women's labor force participation (South and Lloyd, 1995; Chenoweth and Maret -

[2] Total Employment (Full time and Part Time) by industry as categorized by U.S. Department of Commerce and the Bureau of Economic Analysis the SIC http://www.bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=5 While population is found at : http://www.nber.org/data/census-intercensal-county-population.html. Although true divorce rate (the number of divorce per the married population) may be superior to the crude rate (the number of divorce per total population), previous work has shown little difference between the two measurements in estimation (Wolfers, 2006; Kneip &Bauer, 2009; Hellerstein & Morrill, 2011). Furthermore, the annual married stock is not available at the county level so a true divorce rate can not be calculated for my sample.

[3] Differences from the mean are used to show the variation in the data which provides the identification in the regression, as in a FE model all identifying variation is from the mean.

Havens, 1978). However, no research to date examines whether urban areas' divorce rates respond differently to fluctuations in employment conditions from rural areas.

Figure 1
Difference in KeyVariation by Observation level



Urban density is easily observed by researchers, citizens, and policy makers, and is a geographical measure which is significant in our understanding of regional patterns. This test will provide for easy interpretation and application of the results to different geographical regions, and hopefully allow for policy makers to better predict changes in local divorce rates.

3. Methodology

Equation (1) presents the interacted regression with the key dependent variable of interest being the current year's divorce rate regressed on last year's logged employment rate.[4] A log-log specification is selected as the appropriate model to run, as it allows for the changes in the divorce rate and in the employment rate to be considered with respect to a state's pre-existing levels.[5] Additionally, the coefficients of interest can be interpreted as an elasticity between

[4] The lagged employment condition was chosen to allow for the time of decision to separate to the actual divorce to be accounted for and to try to capture the majority of divorces that were triggered by the given economic conditions. The results are remarkably similar if the current employment rate is used, as shown in appendix table A1. Furthermore, because the month of divorce is not known, if the concurrent employment rate is used there is a high likelihood that the rate is capturing the employment rate post the divorce if the divorce happened early in the year (Arkes & Shen, 2014). A robustness check, using the current logged divorce rates, is provided in Appendix Table A 1.

[5] By logging the independent and dependent variables the model allows the number of marginal marriages and employees in each state to be modeled proportionally to the established propensity for each in the given state. This model estimates the effects on divorce in terms of percentages instead of percentage points. Furthermore, as divorce rates are always positive, logging the variable is a natural and arguably more appropriate specification for the variable (Lee & Solon, 2011).

employment and divorce filings. The regression includes LMA-level fixed-effects, which demeans the local average divorce rate over the 20 years, dummy variables to demean the changing year averages, and a state-time trend to account for changing trends in divorce over time and across the regions of the sample. Lastly, vector *X* controls for time-varying state-level divorce laws (Wolfers, 2006).[6]

In order to test for differential effects by urban density the *urbanicity* variable is interacted with the lagged logged-employment-rate. The *urbanicity* variable is measured continuously, ranges from 0 to 1, and represents the percent of the population in an LMA that reside in a Standard Metropolitan Statistical Area, as measured in 1980.[7]

Eq. 1

$$\text{Ln(Divorce rate)}_{lma,yr} = \propto + \beta_1(\ln(employment_{rate\,lma,yr-1})) + \beta_2(Ln(employment\_rate_{lma,yr-1})) * (Urban\ Density_{lma,yr}) + (X_{lma,yr})\beta_3 + \beta_4 LMA_i + \beta_5 YEAR_{yr} + (State * Time)\beta_6 + \epsilon_{i,yr}$$

4. Results

In the first Panel of Table II, B_2 is restricted to zero. The results indicate that a 1% increase in last year's mean employment rate results in a 0.12% change in the average current divorce rate. Due to lingering effects of changing legal policies and social norms, many factors influenced divorce during the 1970s. Therefore, consistent with other authors on the subject, who have found that the pattern between unemployment and divorce changed in 1980s, I have separated the full sample period of 1968-1988 into two separate time periods (Amato & Bettie, 2011; Hellerstein & Morrill, 2011). The outcomes are presented in column 2 and 3 of each panel, and the interacted model certainly support a strengthening of the pro-cyclicality of divorce in the 1980s in rural areas

The right hand panel of Table II shows the interacted model's results. The coefficient on the lagged logged-employment rate is now identified strictly off of LMAs with no urban counties. The coefficient remains positive and highly statistically significant; however, the coefficient on the urban interaction variable is negative and statistically significant as well. Therefore, divorce rates of urban residents are found to be less volatile to changes in employment conditions than those of rural residents, and in fact are mildly counter-cyclical in extremely urban areas.

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[6] To control for the state's own divorce laws, dummy variables that indicate whether the state has equitable distribution laws and the time since the passage of unilateral divorce law legislation are included. Time varying dummy variables are created in two year increments, beginning with 1 to 2 years since enactment, 2 to 3, ...8 to 9 and 10 plus years, such that the omitted category is no unilateral divorce laws (Wolfers, 2006). For interstate LMAs the value of the dummy variables is between 0 and 1 and represents the population-weighted portion of the LMA with unilateral divorce laws in place at the time.

[7] Metropolitan Statistical Areas, defined by Office of Management and Budget, consist of the county or counties associated with at least one urbanized area of at least 50,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties. Note that the variable *urban* will not be identified in the regression, as it is a time-constant measure taken in 1980, therefore, it will be absorbed into the time in-varying LMA fixed-effects.

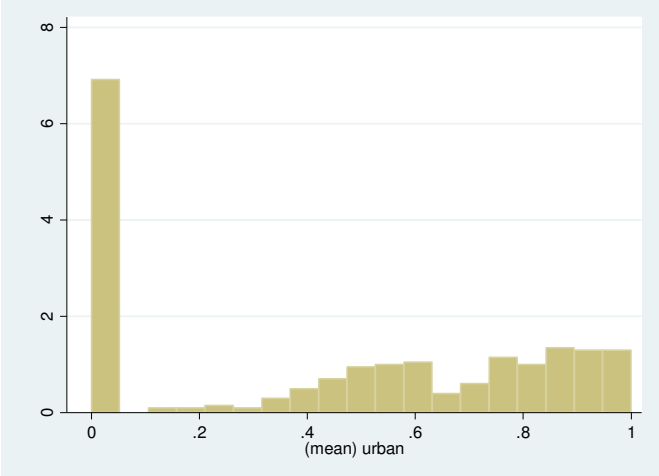
Table II

LMA-Level Regression Results	Non Interacted			Interacted Model		
	y = ln(divorce rate)			y= ln(divorce Rate)		
Variables / Sample years	69-88	69-78	79-88	69-88	69-78	79-88
ln(Employment Rate) yr-1	0.115*	0.245*	0.1890	0.637***	0.479***	0.639***
	(0.0490)	(0.1070)	(0.1240)	(0.0700)	(0.1070)	(0.1170)
(ln(Employment Rate) yr-1)*(UrbanDensity)				-0.911***	-0.430**	-0.792**
				(0.0900)	(0.1520)	(0.1320)
State FE	X	X	X	X	X	X
Time FE	X	X	X	X	X	X
State Time Trend	X	X	X	X	X	X
Divorce Law Controls	X	X	X	X	X	X
Observation	7199	3409	3790	7199	3409	3790

Robust standard errors in parentheses. See Appendix Table A 1 for clustered SE, which the above specification is robust to.
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

The regression indicates that 10% increase in the previous year's employment rate in a completely rural LMA (approximately 36% of the sample) would increase divorce rates by approximately 6.89%, whereas in an LMA where every county is in a Statistical Metropolitan Area (approximately 2.3% of the sample) the same 10% increase in employment rates would have a -1.05% net effect on divorce rates. In order for the two effects to cancel one another out, resulting in an a-cyclical divorce pattern, the LMA must be at least 86.34% urban, which is approximately 18% of American Labor Market Areas. A histogram of the *Urbanicity* variable is presented in Figure 2 to provide a visualization of its distribution across the US.

Figure 2. Histogram of *Urbanicity* Variable



5. Robustness Checks

Additional regression results are presented in Appendix Table A1, which tests for robustness to changes in observational level, sample selection, explanatory variables, and age control variables. Although it has been argued that LMAs are the best measure of marriages and labor markets, both state and county level results are presented.[8] Both county and state results show generally similar patterns, although the impact of urbanicity is not as great in magnitude or statistical significance

The sample was also checked for robustness to outliers. The West has the highest rates of divorce of any of the four regions in the descriptive table. This is partially due to Nevada being a "destination state" for divorce, as it had limited waiting periods and residency requirements. Regressions omitting counties in Nevada are presented, and reflect very similar results to the primary findings.

An alternative measure for *urbanicty* is constructed and tested using population density. A population density ratio is constructed as the LMAs population over the second most populous LMA in the nation's density (NYC was omitted due to outlier status). Consequently, the variable can be interpreted similarly to urbancity, which is also bound between 0 and 1, with 0 being one of the least populous LMAs and 1 being the most populous. As can be seen, the results are remarkably similar although a bit less intuitive in their interpretation.

Lastly, because urban areas have a disproportionate amount of younger individuals, which will result in a lower average marital tenure age controls are added. Marriages in early years of their tenure, and for those between the ages of 26 to 35 years old, have been found to be impacted more by business cycle fluctuations (Arkes & Shen, 2010; Schaller, 2013; Hellerstein, Morill & Zou, 2013). Consequently, a robustness check controlling for the age demographics on an annual basis, and their interaction with the logged-lagged employment rate are presented. The coefficient on urban is remarkably stable to the addition of age bins representing the percent of the population in five-year age brackets and their interactions.

Although further controls could be added, I argue this would risk over-controlling and robbing the regression of the variation in geographical patterns I am attempting to identify. As the regression contains LMA and year fixed effects, it is currently controlling for non-time varying differences amongst urban and rural areas, as well as trends that affected both equally over time.

6. Possible Mechanisms

Because urbancity is not a causal variable, the measure is highly correlated with many other key mechanism that may make marriages in urban areas more resilient to fluctuations in employment fluctuations, such as: higher education levels, higher rates of female labor force participation, higher rates of migrants, higher racial diversity, and possible differences in initial matching motivations (South and Lloyd, 1995; Chenoweth and Maret -Havens, 1978). To examine if these differences, analyzed by previous researchers, is also present in the data used in

[8] State level variation has been heavily studied, but represents a unit of measurement too large to be considered a cohesive labor market. Additionally, county level observations are too refined to measure a cohesive labor market, as supported by commuting data measured in the 1980 Annual Census. Data show that on average 10% of citizens commuted to work in a county they did not reside in, with a maximum rate of 40% of citizens.

this study, data is added from the County and City Databooks to examine if these differences exist at the aggregate LMA level. An urbanity threshold of 86% (as found in Table II) is used to separate primarily urban areas from rural LMAs.

Table III - Descriptive Statistics by Urbancity Level

Descriptive Statistics of Labor Market Areas	**Rural**	**Urban**	**Pr(|T |≠| t|)** * Indictes a Significant difference at a 5% level
Total Number of LMAs	311	68	
	Mean		
Percent Female Labor Force Participation	42.08	43.28	0.000*
	(2.55)	(1.77)	
Percent with Over a High school Degree	36.03	39.82	0.000*
	(5.83)	(5.04)	
Percent of Households in Poverty	10.70	9.41	0.000*
	(4.37)	(3.70)	
Percent Black	9.01	11.69	0.000*
	(12.18)	(9.26)	
Percent Lived in Different State 5 years ago	10.95	11.63	0.000*
	(6.12)	(5.62)	
Percent Commute to different County to Work	5.03	6.61	0.000*
	(3.33)	(5.30)	
Median Household Income	14,614.52	17,267.99	0.000*
	(2,263.48)	(2,448.07)	
Median Rent Value	200.49	239.15	0.000*
	(29.08)	(33.04)	
Average Employment per 1,000	463.69	485.98	0.002*
	(53.93)	(56.46)	
Average Divorce Rate per 1,000	5.43	6.20	0.027*
	(1.85)	(4.71)	

Urban is defined as an LMA with at least 86% SMSA counties. This threshold was determined in Table II, as the value which would create an a-cyclical to counter-cyclical response to employment.

Data obtained from the County and City Data Book, 1983. Published by the United States Department of Commerce and Bureau of the Census. ICPSR. Comparisons above were measured in 1980.

Consistent with previous research, a lower rate of female labor force participation is observed in rural areas. Unfortunately, a measure of earning by gender is not available at a county level. However, those who have studied micro-level data for this time period have found

significantly lower wages for women as well as lower returns to education for women in the rural labor market. Chenoweth and Maret-Havens, 1978, used the National Longitudinal Survey waves from 1967 - 1971 to examine approximately 5,000 women's job behavior across geographical regions of United States, with an emphasis on urban density levels. They found that, " Rural areas outside an SMSA are characterized by relative low rewards for women's labor market activity, as well as paucity of job opportunities for women" (Chenoweth and Maret-Havens, 1978, pg 40).

In another micro-data analysis retrospective marital history in the Survey on Income Program and Participation was studied by Hellerstein and Morrill, 2013. They found that marriages of those with higher education levels were shown to be more stable to business cycle fluctuations. As can be seen in Table III, urban areas are shown to have a higher overall average education level as measured by the percentage of individuals who have a high school degree or more. Additionally, there appears to be a higher number of migrants in urban areas, which may have lower divorce rates due to binding residency requirements for divorce.

These observed differences in the traits and actions may also lead to a rural couple enjoying the highest possible joint utility (as suggested in the Becker or Wolfers models of matching) from a different arrangement than that of urban couples.[9] Consequently, if partnerships are founded on different motivations, and reap the highest utility through different actions, it is not surprising that they will respond differently to similar employment shocks

Though these causal variables are far more important when considering the internal validity of a study, the ease of extrapolating findings to day to day predictions is also important for the external validity of any finding. Most individuals think of labor markets in terms of geographical units, not in units of demographic descriptions. Consequently, by testing the data at the observation level most associated with labor market descriptions these results can be easily used for inference by politicians and researchers.

The above discussed mechanisms provide ample fodder for a future project to isolate the demographic variables that drive this geographical patter. Future work to determine the exact variables, and interactions between variables, which are correlated with urbanicity and that drive this the observed trend is planned, but understanding the geographical pattern is significant in itself. Additionally, these findings provide support to the initial motivation of the Department of Agriculture to better capture rural labor markets when designing LMAs, as demographics of rural labor markets do respond differently than their urban counterparts to business cycle fluctuations.

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[9] Utility maximization theory supports specialization and gains from trade within a couple, by having the individual within the couple with the highest formal labor market return specialize in formal work, and the other individual working within the home(Becker 1973, 1974; Becker et al. 1977). The alternate model, discussed by Stevens and Wolfers (2007) supports matching based on complementarities, where the highest joint utility is derived from common interests and leisure time. The lower wage, return to education, and labor force participation of women in rural areas may support that the Becker model of matching is a more accurate depiction of matching in rural marital markets. While the more comparable wages between the genders in urban areas and the higher labor force participation of women, may support the complements model of matching for city dwellers. Consequently, because these matches are likely motivated by different reasons, and the couples' may achieve their highest utility in different fashions, a similar shock to earnings may result in different outcomes.

7. Conclusion

This study finds a strong, robust, and positive relationship between employment rates and divorce rates at the Labor Market Area level. Moreover, the unique data set created for this study provides a finer unit of observational analysis than that of the state, revealing that the effects of employment rates on divorce are much larger in rural areas than in urban ones. These findings are significant to demographers and regional studies as they highlight variation in response by geographical scale.

Rural citizens tend to divorce less in poor times, and more in good economic times while the marriages of more urban citizens appear generally more stable to employment fluctuations. This finding indicates that much of the pro-cyclical pattern between the business cycle and divorce rates reported at the state level may be primarily driven by the rural residents of states..

Bibliography

Amato, P. R., & Beattie, B. (2011). Does the unemployment rate affect the divorce rate? An analysis of state data 1960-2005. *Social Science Research, 40*(3), 705-715.

Arkes, J. & Shen Y. (2014). For Better or Worse, But How About a Recession. *Contemporary Economic Policy, 32*(2), 275.

Becker, G. S. (1973). A Theory of Marriage: Part 1. *The Journal of Political Economy, 81*(4).

Becker, G. S. (1974). A Theory of Marriage: Part II. *Journal of Political Economy, 82*(2).

Becker, G. S., Landes, E. M., & Michael, R. T. (1977). An Economic Analysis of Marital Instability. *Journal of Political Economy, 85*(6), 1141-1187. doi:10.1086/260631

Chenoweth, L. C., & Maret-Havens, E. G. (1978). Women's Labor Force Participation: A Look at Some Residential Patterns. *Monthly Labor Review, 101*(3).

Hellerstein, J., & Morrill, M. (2011). Booms, Busts and Divorce. *The B.E. Journal of Economic Analysis & Policy, 11*(1), 1935-1682.

Hellerstein, J., Morrill, M., & Zou, B. (2013). Business Cycles and Divorce: Evidence from Microdata. *Economics Letters, 118*(1), 68-70.

Kneip, T., & Bauer, G. (2009). Did Unilateral Divorce Laws Raise Divorce Rates in Western Europe? *Journal of Marriage and Family, 71*(3), 592-607.

Lee, J. Y., & Solon, G. (2011). The Fragility of Estimated Effects of Unilateral Divorce Laws on Divorce Rates. *National Bureau of Economic Research Working Paper Series, 11*(1), 1935-1682.

Roy, S. (2011). Unemployment Rate and Divorce. *Economic Record, 87*, 56-79. doi:10.1111/j.1475-4932.2011.00746.x

Schaller, Jessamyn. (2013). For Richer, if not for Poorer? Marriage and Divorce over the Business Cycle *Journal of Population Economics* 26 1007–1033

South, S. J., & Lloyd, K. M. (1995). Spousal Alternatives and Marital Dissolution. *American Sociological Review, 60*(1), 21-35.

Stevenson, B., & Wolfers, J. (2007). Marriage and Divorce: Changes and their Driving Forces. *Journal of Economic Perspectives, 21*(2), 27-52.

Tolbert, C. M., Killian, M. S., & Economic Research Service (USDA) Washington DC. (1987). *Labor Market Areas for the United States* (pp. 88 p.). Retrieved from http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED284999

Tolbert, C. M., & Sizer, M. (1996). U.S. Commuting Zones and Labor Market Areas, A 1990 Update. In E. R. S. G. Rural Economy Division, U.S. Department of Agriculture. (Ed.), *Staff Paper No. AGES-9614* (pp. 135).

Wolfers, J. (2006). Did unilateral divorce laws raise divorce rates? A reconciliation and new results. *American Economic Review, 96*(5), 1802-1820.

Appendix

Table A 1

Robustness Checks	Non Interacted			Interacted Model		
Subsample Description	y = ln(divorce rate)			y= ln(divorce Rate)		
	69-88	69-78	79-88	69-88	69-78	79-88
State Level Results [1]						
ln(Employment Rate) yr-1	0.0032	1.274+	1.367***	0.5926	2.2246	2.3009+
	(0.2695)	(0.7050)	(0.4040)	(0.5974)	(1.7153)	(1.2309)
(ln(Employment Rate) yr-1)*(UrbanDensity)				-1.9849	-2.6678	-2.8717
				(1.7955)	(4.3873)	(3.3351)
County Level Results[2]						
ln(Employment Rate) yr-1	0.146***	0.221***	0.160***	0.148***	0.218***	0.168***
	(0.026)	(0.048)	(0.046)	(0.027)	(0.048)	(0.046)
(ln(Employment Rate) yr-1)*(UrbanDensity)				-0.106	0.363	-0.402**
				(0.104)	(0.306)	(0.136)
Clustered Standard Errors[3]						
ln(Employment Rate) yr-1	0.1150	0.245*	0.1890	0.637***	0.479**	0.639***
	(0.0930)	(0.1070)	(0.1240)	(0.1250)	(0.1780)	(0.1360)
(ln(Employment Rate) yr-1)*(UrbanDensity)				-0.911***	-0.430+	-0.792***
				(0.1460)	(0.2160)	(0.1550)
Sample Without Nevada [4]						
ln(Employment Rate) yr-1	0.115*	0.245***	0.180*	0.629***	0.481***	0.609***
	(0.0491)	(0.0730)	(0.0875)	(0.0694)	(0.1071)	(0.1147)
(ln(Employment Rate) yr-1)*(UrbanDensity)				-0.901***	-0.435**	-0.761***
				(0.0897)	(0.1521)	(0.1304)
Current Employment Rate						
ln(Employment Rate)	0.121*	0.326***	0.170*	0.664***	0.567***	0.626***
	(0.0510)	(0.0870)	(0.0840)	(0.0700)	(0.1550)	(0.1190)
(ln(Employment Rate))*(UrbanDensity)				-0.917***	-0.428**	-0.792***
				(0.0930)	(0.1640)	(0.1280)
Population Density Ratio as X Variable [5]						
ln(Employment Rate) yr-1	0.115*	0.242***	0.189*	0.184***	0.243***	0.309**
	(0.0490)	(0.0730)	(0.0880)	(0.0490)	(0.0710)	(0.0960)
(ln(Employment Rate) yr-1)*(Pop Density Ratio)				-0.197***	-0.014	-0.278***

				(0.0470)	(0.1480)	(0.0610)
Age Interaction Controls [6]						
ln(Employment Rate) yr-1						
(ln(Employment Rate) yr-1)*(UrbanDensity)				-0.435***	0.80	-0.471*
				(0.120)	(0.180)	(0.140)
Age Bins				X	X	X
Age Bins * ln(Employment Rate) yr-1				X	X	X
Controls in All Above Regressions						
LMA FE	X	X	X	X	X	X
Time FE	X	X	X	X	X	X
State Time Trend	X	X	X	X	X	X
Divorce Law Controls	X	X	X	X	X	X
Observation	7199	3409	3790	7199	3409	3790

[1] In the State Level Regressions, the FE are at the State level not the LMA level.

[2] County Level regressions – observation count is 56491 for all, 26642 for 69-79 and 29849 for

[3] I argue it is unnecessary to cluster at this aggregate of a level as the regressions already control for the observational-state's divorce laws that would cause correlation amongst the error terms of the counties in a state over time. Additionally, as LMAs can cross state lines, this level of clustering requires that any LMA that crosses state lines be assigned to a state, somewhat arbitrarily. I have chosen to assign an inter-state LMA to the state which is the modal state of the counties in the LMA.

[4] Nevada LMAs are omitted from the sample due to its status as a possible outlier. However, the observation number did not change, as every LMA in Nevada is an interstate LMA, and the remaining counties in the neighboring states are still included.

[5] The LMA Population Density Ratio is constructed as a ratio of the current LMA density over the maximum observed density during the sample period, excluding LMA 167 which contains Manhattan and New Jersey and has been omitted as an outlier. A ratio equal to 1 is the density of the second most urban LMA in the country, as the ratio approaches 0 it is the least rural LMA in the US.

[6] The Age Controls are constructed and represent the Percent of the LMA population in a 5 year age brackets. From 5-9, 10-14, …69+ with the omitted category being between years 25 - 34. Therefore, the coefficient on ln of lagged employment has a highly different interpretation and cannot be compared the other tables presented.

Other than in the Clustered Subsample, Robust standard errors are in parentheses *** p<0.001, ** p<0.01, *p<0.05, + p<0.10