Counting Marriages and Divorces:

Comparisons of 2010 Marriage and Divorce Rates Across Counties and States

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Marriage and divorce in the United States have been undergoing rapid transformations (Cherlin 2010). A growing share of Americans are forgoing and delaying marriage (U.S. Census Bureau 2012). At the same time divorce rates remain high and stable with nearly half of marriages ending in separation or divorce (Cherlin 2010; Kennedy and Ruggles 2014). Americans continue to value marriage, and even if they dissolve a union the remarriage rate remains high (Lamidi & Cruz 2014). Clearly rapid family change has occurred, but it has not been accurately charted at the local level. Our capacity to understand variation in marriage and divorce is hindered by the deterioration and defunding of the marriage and divorce vital statistics system. At the federal-level, at least six states do not include both their state-level marriage and divorce counts to the National Center for Health Statistics (NCHS). Moreover, there is no central depository of county-level marriage and divorce data**.** This prevents researchers from addressing questions about the geographic concentration and/or variation of marriage and divorce and incorporating local level marriage and divorce indicators as contextual factors. As Lesthaeghe and Neidert (2006) state, "the overall American pattern hides large spatial differentials" (p. 5). Our primary goal is to compile 2010 county-level marriage and divorce data and contrast measurement of state record marriage and divorce data to ACS and NCHS data.

Background

The 2010 Decennial Census cannot be employed to determine county-level marriages and divorces; it only permits assessment of the percent of household heads that are married at the county level. Starting in 2008 the American Community Survey (ACS) included measures of marriages and divorces in the last 12 months (U.S. Census Bureau 2008). Yet there are no single year ACS marriage and divorce data available that include complete coverage of all counties. The ACS one-year estimates are limited to places with 65,000 or more population (25% of

counties) and the ACS three-year estimates include areas with 20,000 or greater population (57% of counties). The ACS five-year estimates (all counties) will cover marriages and divorces that occurred over a six-year time frame (2007 and 2012). Thus, ACS data covering marriages and divorces in 2010 are available for only 25% of counties providing an incomplete portrait of marriage and divorce. Because 1-year county-data availability is based on population size, the 2010 rural marriage and divorce patterns are not available in the ACS. The ACS will provide complete coverage of all U.S. counties when the five-year estimates are released in 2014, but will represent marriages and divorces that occurred over a six-year time frame (2007-2012). The six year time range exists because the questions ask about events in the last 12 months. The period 2007-12 represents a time span with an immense economic crisis with potentially grave consequences for marriage and divorce. Thus, it is important to have a single point estimate of 2010 that can be used to monitor change in marriage and divorce which, the ACS cannot provide.

The marriage and divorce data reported directly by the states to the National Center for Health Statistics are incomplete. The systems involved in the collection and accumulation of marriage and divorce records used to be akin to the birth and death records. State marriage and divorce statistics are typically part of state vital or health statistics systems and are reported to the National Center for Health Statistics (NCHS). They include data from marriage and divorce certificates filed and collected at the local and state levels through the vital statistics system by the NCHS. The federal funding for data aggregation was discontinued in 1996 in part because of budget cuts, incomplete reporting by many states, and questions about the centrality of these data to the NCHS mission (The Lewin Group 2008a; Ratcliffe, Acs, Dore & Moskowitz 2008). The NCHS continues to provide a report of state-level counts (http://www.cdc.gov/nchs/mardiv.htm).

The collection and maintenance of marriage and divorce data is determined by state laws, resulting in wide variation across states in the type and content of data (The Lewin Group 2008a). The data range from the basic counts of marriages and divorces to more detailed demographic indicators of both members of the couple. Based on the vital statistics data system in 2010 marriages were not reported for Louisiana and divorces were not reported by California, Georgia, Hawaii, Indiana, Louisiana, and Minnesota (http://www.cdc.gov/nchs/nvss/marriage_divorce_tables.htm). This omission is problematic given one-fifth of the US population lives in states excluded from the vital statistic data. The state-level reports are available on the NCHS web page and are updated annually (currently 2010). Our aggregation of county-level data can be used to provide missing state-level marriage and divorce counts that are sent to the NCHS.

Assessments of American Community Survey marriage data quality have occurred at the national level, but have not considered state- or county-level contrasts. As noted above the goal of the ACS was to replace the decennial Census long form questionnaire (The Lewin Group 2008b) and started including items about marital events in 2008 that can be employed to calculate marriage and divorce rates. Elliott et al. (2010) evaluated the marital events items on the 2008 ACS at the national level. They find comparable estimates of crude marriage rates (number of marriages per 1,000 population) between the ACS and tabulations provided to the NCHS as part of the vital statistics data at the national level. However, analysis of one-year 2008 ACS and the vital statistics data provided to NCHS at the state level based on general marriage rates (number of marriages per 1,000 single respondents) indicate considerable variation with about half the states having substantial differentials (Cruz and Manning 2013). Similarly, the

ACS and vital statistics data provided to NCHS measuring general divorce rates at the national level and for about half of the states are not comparable (Cruz and Manning 2013).

Certainly, differences in the state reports, ACS, and data reported to the NCHS vital statistics data are expected. The ACS establishes the number of marriages based on residence of the respondents. State marriage and divorce records determine marriage based on the filing of a marriage certificate. Thus, areas that may be considered locales for destination weddings will experience higher marriage rates and do not reflect the residence of the bride and groom (e.g., Nevada and Hawaii). In states where distinctions based on residence and occurrence are possible (e.g., Hawaii, Idaho, New Hampshire, New Jersey) we will consider both types of counts of marriages and divorces. A Census Bureau content test suggested that nearly one in eight respondents who reported a divorce had not received the final decree during the period (O'Connell, Gooding & Ericson2007). As a result, the ACS is expected to lead to higher estimates of divorce than through the vital statistics system. Most states have a period of residency required prior to filing for divorce; exceptions include Alaska, South Dakota, and Washington. The requirement for most states is six months, but some require as little as six weeks of residency (e.g. Nevada).

Current Investigation

The recent county-level data are not amassed in one location, but must be obtained from each state separately from their State Marriage and Divorce Records (SMDR). Counties or county equivalents are where marriage and divorce certificates are filed and are collected by the state. To amass data from over 3,000 counties or county equivalents requires obtaining the information from each state. Some data are paper based while others have developed electronic recording systems. From about 1960 until 1988 these data were accumulated and reported by the

National Center for Health Statistics in the "Vital Statistics of the United States" volume on marriage and divorce. A series of reports includes these data from over 25 years ago but no recent data are available. The Glass NSF-funded project ("Red States, Blue States and Divorce" based on 2000 county data http://www.bgsu.edu/ncfmr/resources/data/original-data/county-level-marriage-divorce-data-2000.html) accumulated the 2000 county marriage and divorce data and the National Center for Family & Marriage Research helped to complete the data collection, check data quality, produce the database, map the findings, and release the data.

We are collecting marriage and divorce data in 2010 from 3,121 counties or county equivalents in the United States. To date we have drawn upon the 2010 State Marriage and Divorce Records (SMDR) to compile county-level marriage for 47 states and county-level divorce for 49 states. We are on track to obtain the data from all the states. In some cases this requires contacts to local offices as well as in person visits to obtain data. These data will provide the best and most comprehensive overall assessment of county-level marriage and divorce in the United States.

We draw upon these data to assess the quality of ACS data in counties where county-level data are available and contrast SMDR to ACS and NCHS data at the state level. The ACS will represent a similar one-year estimate for only large areas and we will contrast the single 2010 SMDR to the three-year estimates available in the ACS. These will be conducted for states and counties. We have documented this for 2008 state-level data and will repeat for the 2010 (Cruz and Manning 2013). This will be expanded to county-level contrasts. To test the feasibility we conducted preliminary analyses of Ohio counties (18 of 88 available in three-year ACS PUMA file) and our assessment comparing the county-level marriage and divorce data from Ohio to the ACS data indicates estimates that differ by on average 20%. However, there was a

wide range in disparity with ACS estimates better for large than small counties. We will extend this type of analysis to all states. The county level data on divorce should be comparable to ACS because there is a residency requirement for divorce of at least 6 weeks in every state. The marriage data will not be as directly comparable because the ACS measures where respondents live while the SMRD data captures the location of the wedding. The county level contrasts will be limited to those where ACS data are available – including the 2010 one-year estimates for 25% of counties and three-year estimates for 57% of counties. This will provide new insights and provide benchmarks for the ACS data.

Second, we will illustrate change and spatial variation in patterns of marriage and divorce. The analysis of change will document percentage change in numbers of marriages and divorce, shifts in the marriage and divorce rates, changes in the marriage to divorce ratio, and shifts in dispersions of marriage and divorce across states. We will generate a marriage to divorce ratio for each county with a ratio larger than one indicating more marriages than divorces and ratios close to one indicating equal number of marriages and divorces. Kawamura (2009) reports in 2008 the national level was 1.83 and variation across states ranging from North Dakota of 3.10 to Delaware with 1.3. We will also report changes in dispersion of marriage and divorce using the coefficient of variation at the national and state level to show counties vary from the mean rate.

Despite the multiple advantages of obtaining the county-level data we acknowledge there are some limitations. First, the marriage data is based on where the certificate is filed rather than the residence of the bride and groom, meaning high marriage rates in destinations such as Nevada and Hawaii. Some states provide data on residence of bride and groom as well as location of the event so more refined contrasts will be made in states where extensive data are

available. While we are contrasting the location where a marriage occurred and not necessarily where the couple lives, the residency requirements for divorce will ensure better matches between residency and occurrence of divorces. Second, we are not collecting data every year so the change is limited to a wide time window (10 years), but a critical time frame covering the recession. Third, traditionally, marriage and divorce rates reference different-sex couples. Same-sex marriage was not legal in most states, but in 2010 five states (Connecticut, Iowa, Massachusetts, New Hampshire, Vermont) and DC had same-sex legal marriages (Badgett and Herman 2011). We will include, if provided, data on counts of same-sex marriages and specifically consider change with and without same-sex couples. Fourth, the county is not a uniform geographic unit in terms of population or land mass. The county or county equivalent is a legal unit and offers an improvement beyond state-level indicators. Finally, we are examining legal divorces and there is variation across states in the time from filing to an actual divorce. Cohen (2012) includes a state-level measure of divorce delay laws and finds it is tied to lower divorce rates at the individual level. We will investigate the lag from filing to decrees across states.

In sum, despite investment in marriage and divorce data in earlier time periods, the vital statistics system has lapsed so our approach is one of the few ways to track the geographic concentration of marriage and divorce. This paper will provide data on the quality of data as well as document change in spatial patterning of marriage and divorce.

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