

*Ricardo Nunez Magana*

California State University, Fullerton

**The Link Between the Marriage Rate and Socioeconomic Indicators Across States (US)**

## Abstract

This paper explores the relationship between socioeconomic indicators, especially those linked to economic distress, and the marriage rate in the US across states. Cross-sectional data was used to construct a linear model that was used to show the effects of the variables in the number of marriages in the states. Results indicate a statistical significance between the marriage rate and metrics related to student loan debt, median age, unemployment, and educational attainment among young adults. Data suggest that variance in the number of marriages could not only be influenced by social and intergenerational forces but also economic forces.

## Introduction

The United States has experienced a steady decrease in the marriage rate, falling more than two points from 2000 (8.2 marriages per 1000 people) to 2019 (6.1 marriages per 1000 people), which translates into a 25.6% decrease in less than two decades. This trend is not exclusive to the US, as many other developed countries are experiencing a fall in this critical metric (OECD, 2017). However, given the size and diversity within the country, the marriage rate does vary significantly from state to state. One fundamental question arises: Do intangible social changes mainly drive this phenomenon, or can it be explained by a set of factors related to socioeconomic standards across states? After all, some indications suggest the idea that people's financial situation is important when considering marrying. In a Gallup poll where never-married people were surveyed, 14% of the respondents declared that money or financial reasons were the main obstacles to getting married (Newport, 2013). In another series of polls conducted yearly, people were asked whether they would like to get married someday. Contrary to what the current trend in the marriage rate might suggest, 81% of respondents answered "yes" in 2020, while in 2013, that number was at 78% (Gallup, 2020); A three-point increase in seven years along with a

slight increase in the median age at first marriage, adding to the idea that changes in the social structure might not be the only thing affecting marriages.

Because of recent developments and the crucial position the economy has in national political discourse, it is essential to investigate if a relationship between the marriage rate and relevant socioeconomic metrics such as debt, housing prices, and educational attainment exists across US states. It is crucial to explore the current differences between states and extract meaningful insight from them to fill the gaps on this topic. Evaluating people's desire to marry and comparing it with current trends in economic distress will help draw a line between what is caused by social structure evolution and what is caused by the state of the economy.

The results obtained in this paper suggest that economic indicators such as unemployment and student loan debt affect the marriage rate across states. Likewise, other variables used, including the median age and some metrics describing academic attainment in young adults were shown to have statistical significance in determining the marriage rate as well. This adds to the idea that changes in the number of marriages are connected to changes in the socioeconomic environment, especially disruptions in factors that primarily affect young adults.

## **Literature Review**

The interest in explaining the fluctuations in the marriage rate is not new. Multiple studies attempt to explain said fluctuations in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. In 1996, Humphrey Southall and David Gilbert published a paper titled "A good time to wed?: Marriage and economic distress in England and Wales 1839-1924". In this paper, local-level data was used to explain significant changes in marriages during the Victorian and Edwardian eras in Britain. Although the social and economic structure nowadays does not resemble that of the early 1900s

and many more aspects of society should be taken into consideration, factors such as unemployment and small debt (Debt amounts of less than £20, which is approximately \$3500 in today's US Dollars) were shown to have a connection with the fluctuations in the metric studied back then (Southall, 1996).

As mentioned earlier, since significant changes in the marriage rate are common in many countries regardless of culture, background, and history, more recent papers from different parts of the world have attempted to contribute to the explanation. One notable example from South America is a study titled "The link between unemployment and the marriage rate" by Argentinian Julio J. Elias. The marriage rate was shown to be linked to the increase in the female labor force participation rate and the increase in the male unemployment rate. At the same time, variables such as women's unemployment rate had no effect on the marriage rate based on data from the city of Buenos Aires (Elias, 2003).

Some studies focus more specifically on the US. After the great recession of 2008, the apparent drop in the marriage rate across states made scholars interested in exploring the relationship between indicators that described the financial stability of individuals and their decision to marry. Metrics such as housing prices and rent burden in contrast with per capita income seemed to negatively correlate with the marriage rate (Bowmaker, 2015). Significant findings like the ones mentioned above give us a clear indication that recent changes in the number of married people do not entirely depend on social structure changes; it goes deeper than that. Other economic indicators become then important players in explaining the current situation, such as income inequality. In countries like Iran and Norway, the income inequality measured by the Gini coefficient has suggested a negative effect on the marriage rate. In the US,

this has been the main topic of specific studies that have also included the growth rate of income per capita and had similar conclusions to those in Iran and Norway (Liu, 2015).

It has been constantly shown that socioeconomic indicators play an important role in the marriage rate trends. However, literature on this has not been extensive enough to come up with a pragmatic explanation yet. Many other possible indicators of economic distress that have become more relevant in the 21<sup>st</sup> century, such as student debt, credit card debt, and the recent changes in the House Price Index, are yet to be included in studies investigating the question of this paper.

### **Economic Model**

From a microeconomic perspective based on the utility theory, and since marriage in the United States is completely voluntary, we can assume that most people who do end up engaging in this activity see an increase in their utility level in the end. We can also infer that each individual constructs what they consider their utility constraint based on personal factors, such as personal finances, future goals, and career aspirations.

A similar idea existed in the field of economics before. Decades ago, Nobel laureate American economist Gary Becker introduced a theory in which he explained marriage as an economic activity. In his theory, Becker argues that people only marry another person if their utility level would increase above the level they would have if they remained single (Becker, 1974). Even though the principles and assumptions listed by Becker back in 1974 might not be true nowadays, it is still relevant to consider the microeconomic implications that people are subjected to when deciding to marry.

However, it is crucial to note that in real life, making that transition (from single to married life) implies a radical change in both parties' lifestyles. The willingness to get married is not enough, as there will be obstacles that represent constraints or restrictions that prevent the couple from marrying. For instance, an increase in rent prices will prevent the potential couple from finding a place they can afford, and they might wait until they are better off financially. If privacy and comfort are set preferences for the couple, the obstacle in this case would be increasing housing prices, thus decreasing the probability of getting married.

The same logic in terms of personal finances applies to debt. People with high levels of debt might find it inconvenient to marry, as constant payments to credit cards, student loans or car loans will force the couple to either wait until their finances improve, or find a way to make it work out with their limited budgets; which as mentioned earlier is more complicated with increasing housing prices. This problem is exacerbated if we consider that marriage is commonly seen as the first step to start a family. Under this context, not only housing has to be dealt with, as other expenses that will come along with children will be added, plus further forcing the couple to postpone marriage.

In addition, factors that might not be categorized under personal finances, such as the increasing number of people going to college, the median age, teen birth rate, and religion rates, will be relevant to this paper as well. It is crucial to determine how all these factors react when put together.

## Data Description and Analysis

This paper aims to do a cross-sectional analysis of all the US states to find the linear relationship between the marriage rate in 2019 and various socioeconomic indicators. *Table 1* provides a list of the variables considered for this paper and the sources.

**TABLE 1:** List of Variables and Sources

Dependent Variable	Year	Source	Notes
Marriage rate	2019	CDC	Number of marriages per 1,000 people
Independent Variables	Year	Source	Notes
Percentage of people with student loans	2019	US Department of Education	Percentage, based on 2019 Census Bureau Estimates
Unemployment rate	2019	Bureau of Labor Statistics	Reported monthly. Average of all the months.
Median Age	2019	Census Bureau	-
People aged 18-24 who have at least a bachelor's degree	2019	Census Bureau	Percentage.
People aged 25+ who have at least a bachelor's degree	2019	Census Bureau	Percentage.
Teen birth rate	2019	Census Bureau	Number of babies born to women aged 15-19 years per 1,000 women in this group
Religious percentage	2016	Pew Research Center	Percentage of adults who consider themselves to be highly religious
House Price Index	2019	Freddie Mac	Price changes of residential housing.
Debt to income ratio	2019	Federal Reserve	Reported quarterly. Mean of the entire year. Does not include student loan debt.
Gini Coefficient	2019	Census Bureau	Statistical measure that describes income inequality. 0 = Perfect wealth equality. 1 = Perfect wealth inequality.

**Notes:** (\*) District of Columbia is not included in the data collected. (\*) Nevada is not included in the data collected (Marriages in Las Vegas due to laws that make it easy to get marriage licenses distort state data and do not represent the real marriage rate in Nevada). (\*) US territories were not considered for this paper.

To avoid potential distortion in the regression analysis, Nevada was removed from the data. Due to the high demand for marriage licenses in Las Vegas and the low number of requirements to get married, the marriage rate in Nevada has been considered an outlier for many decades. This phenomenon arises as marriages are recorded in the state where they occur, regardless of the partners' state of residence, inflating Nevada's numbers.

*Table 2* presents the summary statistics of all variables, including the dependent variable. Mean, standard deviation, median, minimum, and maximum values are part of the table.

**TABLE 2: Summary Statistics**

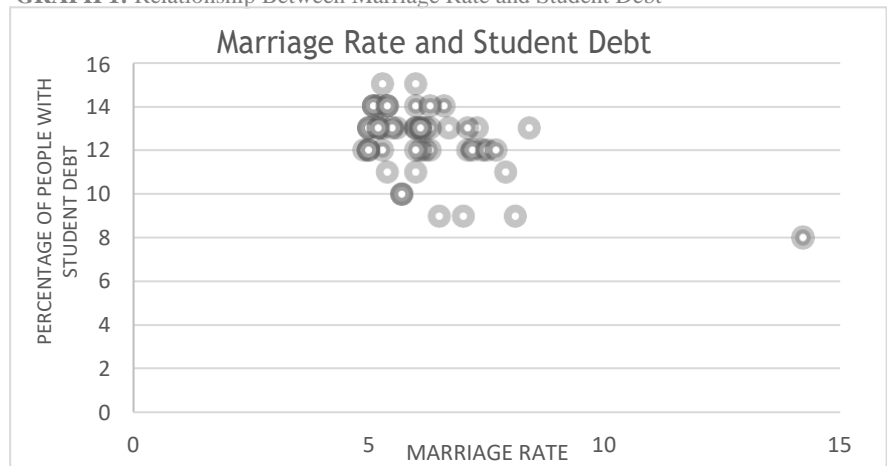
Variable	Mean	Standard Deviation	Minimum Value	Median	Maximum Value	Abbreviation Used
<b>Marriage Rate</b>	<b>6.278</b>	<b>1.474</b>	<b>4.9</b>	<b>6</b>	<b>14.2</b>	<i>MaRa</i>
<b>Percentage of people with student loans</b>	<b>12.388</b>	<b>1.539</b>	<b>8</b>	<b>13</b>	<b>15</b>	<i>PercStuDebt</i>
<b>Unemployment rate</b>	<b>5.035</b>	<b>1.061</b>	<b>8</b>	<b>13</b>	<b>15</b>	<i>Unemp</i>
<b>Median Age</b>	<b>38.488</b>	<b>2.385</b>	<b>31</b>	<b>38.6</b>	<b>45</b>	<i>MedianAge</i>
<b>People aged 18-24 who have at least a bachelor's degree</b>	<b>11.286</b>	<b>3.109</b>	<b>4.6</b>	<b>10.7</b>	<b>19.5</b>	<i>x18to24college</i>
<b>People aged 25+ who have at least a bachelor's degree</b>	<b>32.296</b>	<b>5.314</b>	<b>21.1</b>	<b>32.3</b>	<b>45</b>	<i>x25pluscollege</i>
<b>Teen birth rate</b>	<b>16.829</b>	<b>6.091</b>	<b>6.6</b>	<b>15.6</b>	<b>30</b>	<i>TeenBirthRa</i>
<b>Religious percentage</b>	<b>54.837</b>	<b>10.842</b>	<b>33</b>	<b>54</b>	<b>77</b>	<i>ReligiousPerc</i>
<b>House Price Index</b>	<b>184.742</b>	<b>33.27</b>	<b>129.78</b>	<b>178.52</b>	<b>281.18</b>	<i>HousePIndex</i>
<b>Debt to income ratio</b>	<b>1.487</b>	<b>0.258</b>	<b>1.09</b>	<b>1.41</b>	<b>2.13</b>	<i>DebtIncomeR</i>
<b>Gini Coefficient</b>	<b>0.465</b>	<b>0.019</b>	<b>0.426</b>	<b>0.466</b>	<b>0.514</b>	<i>gini</i>

Notes: (\*) Abbreviations will be used for the model and other parts of the paper. (\*) Sample size n = 49.

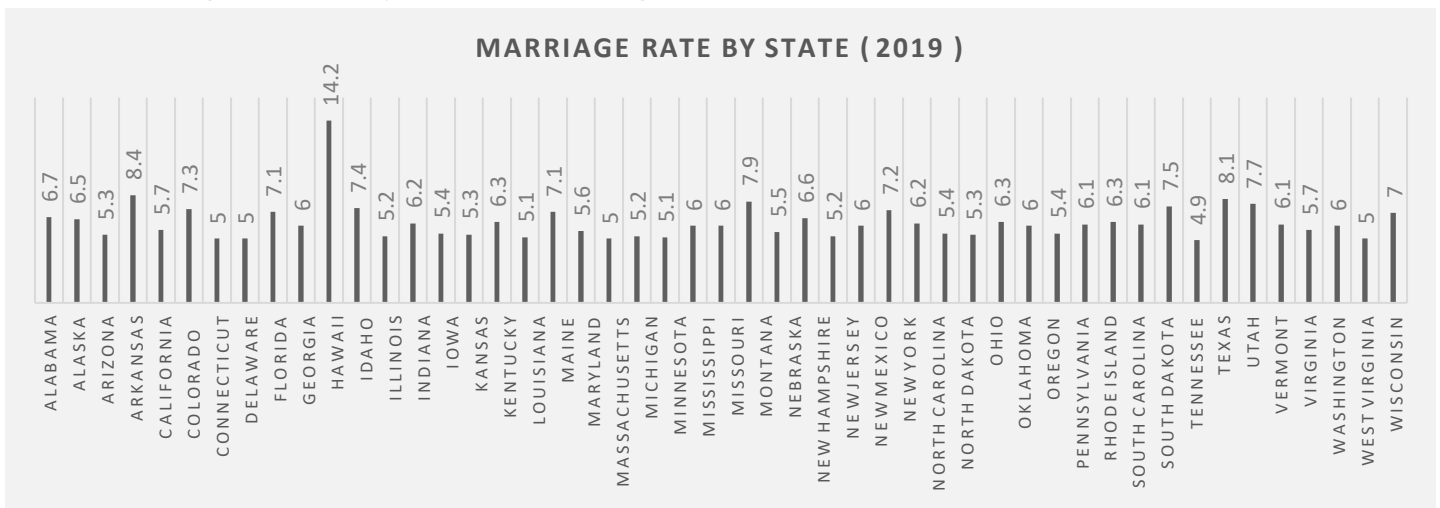
**TABLE 3: Correlation Coefficient**

Variable	Correlation Coefficient (w/ MaRa)
<i>PercStuDebt</i>	<b>-0.5133</b>
<i>Unemp</i>	<b>-0.1778</b>
<i>MedianAge</i>	<b>0.0326</b>
<i>x18to24college</i>	<b>-0.3054</b>
<i>x25pluscollege</i>	<b>-0.0507</b>
<i>TeenBirthRa</i>	<b>0.0434</b>
<i>ReligiousPerc</i>	<b>-0.0422</b>
<i>HousePIndex</i>	<b>0.5161</b>
<i>DebtIncomeR</i>	<b>0.4608</b>
<i>gini</i>	<b>-0.2416</b>

**GRAPH 1: Relationship Between Marriage Rate and Student Debt**



**GRAPH 2: Marriage rate in the US by State (2019) // Excluding Nevada**





## Regression equation and robustness checks

The effects of the variables presented above on the marriage rate were initially proposed with the following model and using a significance level of 5%:

MODEL 1 (No functional form transformations)

$$\begin{aligned} MaRa_i = & \beta_0 + \beta_1 PercStuDebt + \beta_2 Unemp + \beta_3 MedianAge + \beta_4 x18to24college \\ & + \beta_5 x25pluscollege + \beta_6 TeenBirthRa + \beta_7 ReligiousPerc \\ & + \beta_8 HousePIndex + \beta_9 DebtIncomeR + \beta_{10} gini + \varepsilon_i \end{aligned}$$

However, after running the initial regression along with a Ramsey Regression Equation Specification Error Test (RESET), results suggested an issue with the functional forms with the initial model. The RESET test resulted in an F-statistic for the model of 17.584 with a p-value of 0.0000047. Given the situation, some of the variables were transformed in order to get a better model. Model B represent the main model of this paper, with functional form transformations:

MODEL B (With functional form transformations)

$$\begin{aligned} \ln(MaRa_i) = & \beta_0 + \beta_1 \ln(PercStuDebt) + \beta_2 \ln(Unemp) + \beta_3 \ln(MedianAge) \\ & + \beta_4 \ln(x18to24college) + \beta_5 \ln(x25pluscollege) + \beta_6 TeenBirthRa \\ & + \beta_7 \ln(ReligiousPerc) + \beta_8 \ln(HousePIndex) + \beta_9 DebtIncomeR \\ & + \beta_{10} (DebtIncomeR)^2 + \beta_{11} \ln(gini) + \varepsilon_i \end{aligned}$$

After running a couple of additional tests with the intention of determining the existence of either imperfect multicollinearity or heteroscedasticity, the results determined that there is no presence of issues that will significantly affect the significance of the regression model. A Breusch-Pagan test on Model B resulted in a p-value of 0.3658 and an F-Statistic of 11.971, which suggests that robust standard errors are not needed to satisfy the classical linear model assumptions. At the same time, A variance inflation factor determined an issue with the variable DebtIncomeR, but no modifications were made since the variable is considered essential and other parameters and predicted values are not being directly affected by it.

## Results

A regression analysis was run Using model B from the previous section. The results are presented in *Table 4*.

Based on the results, there are a few important dynamics that can be highlighted:

(1) The percentage of people with student loan debt in any given state and the marriage rate in said state have a negative relationship.

(2) Unemployment rate negatively affects the marriage rate; the higher the unemployment rate, the lower the marriage rate (Other variables constant).

(3) Non-economic factors like the median age play an important role. Median age positively affects the marriage rate.

(4) Interestingly, the results suggest that the percentage of people aged 18 to 24 years who have at least a bachelor's degree negatively affects the marriage rate in the state. This could be due to a change in priorities that this key demographic showcases; illustrated by the proportion of people in the group that have gone to college.

(5) Variables that would be expected to have an effect in the marriage rate based on previous studies and economic theory intuition did not show a statistical relationship. Factors such as income inequality, housing price level, and debt to income ratio are not statistically significant.

**TABLE 4:** Regression results (MODEL B) (Final Model)

Variable	Coefficient	Standard Error	P-value
<b>Intercept</b>	<b>2.1627</b>	<b>3.9574</b>	<b>0.588</b>
<i>PercStuDebt</i>	<b>-0.6011</b>	<b>0.2293</b>	<b>0.0126</b> *
<i>Unemp</i>	<b>-0.5185</b>	<b>0.1761</b>	<b>0.0056</b> *
<i>MedianAge</i>	<b>1.3887</b>	<b>0.5244</b>	<b>0.0118</b> *
<i>x18to24college</i>	<b>-0.4418</b>	<b>0.1842</b>	<b>0.0216</b> *
<i>x25pluscollege</i>	<b>0.182</b>	<b>0.335</b>	<b>0.5901</b>
<i>TeenBirthRa</i>	<b>0.005</b>	<b>0.009</b>	<b>0.5823</b>
<i>ReligiousPerc</i>	<b>0.0245</b>	<b>0.2092</b>	<b>0.9076</b>
<i>HousePIndex</i>	<b>-0.0557</b>	<b>0.2142</b>	<b>0.7961</b>
<i>(DebtIncomeR)^2</i>	<b>0.573</b>	<b>0.3088</b>	<b>0.0715</b>
<i>DebtIncomeR</i>	<b>-1.5452</b>	<b>1.0065</b>	<b>0.1332</b>
<i>gini</i>	<b>2.022</b>	<b>1.0308</b>	<b>0.0574</b>
<b>Multiple R-squared</b>	<b>0.6174</b>	<b>F-Statistic</b>	<b>5.427</b>
<b>Adjusted R-squared</b>	<b>0.5036</b>	<b>P-value Model</b>	<b>0.00004</b>

\* P-value less than alpha (0.05)

Even though the overall results match most of the literature introduced earlier in the paper, a few metrics were shown not to significantly affect the marriage rate. The income inequality measured by the Gini coefficient, which has been shown to have a relationship with the marriage rate in the US (Liu, 2015), did not present the same link with the model used in this paper. One possible explanation for that could be the difference in variables used. The introduction of more socioeconomic variables and the consequent interaction with the Gini coefficient resulted in a change in statistical significance. To showcase this, an alternative model without median age and teen birth rate was tested (Appendix 1). The regression, in this case, would indicate that income inequality measured by the Gini coefficient does have a positive relationship with a marriage rate.

As expected, indicators of economic distress seem to be preventing people from getting married. However, based on the results, it is necessary to note that this phenomenon appears to be affecting more those in their 20s and 30s (young adults), as shown with variables representing student loan debt and reinforced by the percentage of young adults with a college education. Surprisingly, not all indicators of economic distress play an equally significant role, as seen in the case of housing prices and debt to income ratio. It would be interesting to further study the different effects that various types of debt have on marrying.

Appendix 3 includes a summary of alternative regression models to illustrate how the variables discussed above seem to always be statistically significant despite changes in the core model. Appendix 2 contains regression results of two alternative models: One including Nevada, and another one excluding Hawaii and Nevada.

Results in Appendix 3 are consistent with results in the main model.

## **Conclusion**

Drawing a connection between the marriage rate in the US across states and socioeconomic indicators, especially metrics that describe economic distress, was done by a linear regression analysis using data from 2019. Variables such as the unemployment rate, median age, student loan debt, and percentage of young adults with a college education were shown to have an effect on the marriage rate.

The results from this paper follow the same direction as other studies that have analyzed the link between different economic indicators such as the unemployment rate and debt. This paper's analysis confirms the hypothesis that specific socioeconomic indicators, especially those affecting young adults, influence the marriage rate across states in the US, suggesting that changes in the social structure are not the only factors to consider when explaining differences in the number of marriages.

## Appendix 1

Alternative Model: Teen Birth Rate and Median Age not Included.

Variable	Coefficient	Standard Error	P-value
<b>Intercept</b>	<b>10.1481</b>	<b>2.7507</b>	<b>0.0006*</b>
<i>PercStuDebt</i>	<b>-0.5362</b>	<b>0.2426</b>	<b>0.033*</b>
<i>Unemp</i>	<b>-0.5244</b>	<b>0.1873</b>	<b>0.0079*</b>
<i>x18to24college</i>	<b>-0.2261</b>	<b>0.1625</b>	<b>0.172</b>
<i>x25pluscollege</i>	<b>-0.4029</b>	<b>0.2458</b>	<b>0.1092</b>
<i>ReligiousPerc</i>	<b>-0.2453</b>	<b>0.1507</b>	<b>0.1115</b>
<i>HousePIndex</i>	<b>-0.1852</b>	<b>0.2219</b>	<b>0.4091</b>
<i>(DebtIncomeR)^2</i>	<b>0.4253</b>	<b>0.3101</b>	<b>0.1781</b>
<i>DebtIncomeR</i>	<b>-0.8883</b>	<b>0.9926</b>	<b>0.3763</b>
<i>gini</i>	<b>2.505</b>	<b>1.0561</b>	<b>0.0227*</b>
<b>Multiple R-squared</b>	<b>0.5433</b>	<b>F-Statistic</b>	<b>5.154</b>
<b>Adjusted R-squared</b>	<b>0.4379</b>	<b>P-value Model</b>	<b>0.00013</b>

\* P-value less than alpha (0.05)

Note: Functional forms are the same as in Model B (Final Model).

Relationship between: Marriage Rate and Gini Coefficient.



Note: Values are not transformed.

## Appendix 2

Model with Nevada

Variable	Coefficient	Standard Error	P-value
<b>Intercept</b>	<b>-1.3344</b>	<b>3.805</b>	<b>0.7278</b>
<i>PercStuDebt</i>	<b>-0.5379</b>	<b>0.3054</b>	<b>0.0862</b>
<i>Unemp</i>	<b>-0.5188</b>	<b>0.1859</b>	<b>0.0082*</b>
<i>MedianAge</i>	<b>0.7299</b>	<b>0.9552</b>	<b>0.4495</b>
<i>x18to24college</i>	<b>-0.5473</b>	<b>0.2101</b>	<b>0.0130*</b>
<i>x25pluscollege</i>	<b>-0.5432</b>	<b>0.7906</b>	<b>0.4962</b>
<i>TeenBirthRa</i>	<b>-0.0071</b>	<b>0.0157</b>	<b>0.6524</b>
<i>ReligiousPerc</i>	<b>-0.3215</b>	<b>0.4150</b>	<b>0.4433</b>
<i>HousePIndex</i>	<b>-0.0965</b>	<b>0.2496</b>	<b>0.7012</b>
<i>(DebtIncomeR)^2</i>	<b>0.7322</b>	<b>0.3553</b>	<b>0.0462*</b>
<i>DebtIncomeR</i>	<b>-1.8504</b>	<b>1.1750</b>	<b>0.1236</b>
<i>gini</i>	<b>3.2696</b>	<b>1.7252</b>	<b>0.0657</b>
<b>Multiple R-squared</b>	<b>0.4804</b>	<b>F-Statistic</b>	<b>3.194</b>
<b>Adjusted R-squared</b>	<b>0.33</b>	<b>P-value Model</b>	<b>0.0037</b>

\* P-value less than alpha (0.05)

Model without Nevada and Hawaii

Variable	Coefficient	Standard Error	P-value
<b>Intercept</b>	<b>2.2527</b>	<b>4.2623</b>	<b>0.6004</b>
<i>PercStuDebt</i>	<b>-0.4170</b>	<b>0.2181</b>	<b>0.0638</b>
<i>Unemp</i>	<b>-0.4821</b>	<b>0.1506</b>	<b>0.0029*</b>
<i>MedianAge</i>	<b>0.9134</b>	<b>0.5516</b>	<b>0.1065</b>
<i>x18to24college</i>	<b>-0.3243</b>	<b>0.1562</b>	<b>0.0451*</b>
<i>x25pluscollege</i>	<b>0.0854</b>	<b>0.3176</b>	<b>0.7897</b>
<i>TeenBirthRa</i>	<b>0.0052</b>	<b>0.0105</b>	<b>0.6224</b>
<i>ReligiousPerc</i>	<b>-0.0236</b>	<b>0.2089</b>	<b>0.9109</b>
<i>HousePIndex</i>	<b>-0.0379</b>	<b>0.2028</b>	<b>0.8530</b>
<i>(DebtIncomeR)^2</i>	<b>0.0886</b>	<b>0.3908</b>	<b>0.8219</b>
<i>DebtIncomeR</i>	<b>-0.0570</b>	<b>1.3059</b>	<b>0.9654</b>
<i>gini</i>	<b>1.8218</b>	<b>1.0338</b>	<b>0.0865</b>
<b>Multiple R-squared</b>	<b>0.4284</b>	<b>F-Statistic</b>	<b>2.453</b>
<b>Adjusted R-squared</b>	<b>0.2538</b>	<b>P-value Model</b>	<b>0.0209</b>

\* P-value less than alpha (0.05)

### Appendix 3

ALTERNATIVE MODELS (Regression Results)						
Variable	Main Model	NO HouseIndex	NO DebtIncomeR	NO GINI	NO HouseIndex,W/ Med Age Marriage	Main + Med Age Marriage
<b>PercStuDebtLog</b>	<b>-0.601<sup>***</sup></b> (0.217)	<b>-0.568<sup>***</sup></b> (0.177)	<b>-0.608<sup>**</sup></b> (0.292)	<b>-0.497<sup>**</sup></b> (0.205)	<b>-0.538<sup>***</sup></b> (0.194)	<b>-0.527<sup>**</sup></b> (0.216)
<b>UnempLog</b>	<b>-0.518<sup>***</sup></b> (0.168)	<b>-0.495<sup>***</sup></b> (0.135)	<b>-0.410<sup>***</sup></b> (0.141)	<b>-0.254<sup>**</sup></b> (0.128)	<b>-0.282<sup>**</sup></b> (0.143)	<b>-0.273</b> (0.170)
<b>MedianAgeLog</b>	<b>1.389<sup>**</sup></b> (0.562)	<b>1.420<sup>***</sup></b> (0.542)	<b>1.697<sup>***</sup></b> (0.579)	<b>1.536<sup>***</sup></b> (0.555)	<b>1.811<sup>***</sup></b> (0.496)	<b>1.822<sup>***</sup></b> (0.528)
<b>X18to24collegeLog</b>	<b>-0.442<sup>***</sup></b> (0.161)	<b>-0.444<sup>***</sup></b> (0.160)	<b>-0.417<sup>***</sup></b> (0.121)	<b>-0.305<sup>*</sup></b> (0.165)	<b>-0.436<sup>***</sup></b> (0.163)	<b>-0.437<sup>***</sup></b> (0.167)
<b>X25pluscollegeLog</b>	<b>0.182</b> (0.329)	<b>0.196</b> (0.310)	<b>0.476</b> (0.315)	<b>0.296</b> (0.314)	<b>0.386</b> (0.342)	<b>0.392</b> (0.362)
<b>TeenBirthRa</b>	<b>0.005</b> (0.011)	<b>0.005</b> (0.011)	<b>0.009</b> (0.011)	<b>0.009</b> (0.010)	<b>0.002</b> (0.010)	<b>0.002</b> (0.010)
<b>ReligiousPercLog</b>	<b>0.024</b> (0.214)	<b>0.038</b> (0.202)	<b>0.157</b> (0.177)	<b>0.112</b> (0.204)	<b>-0.069</b> (0.192)	<b>-0.066</b> (0.206)
<b>HousePIndexLog</b>	<b>-0.056</b> (0.214)		<b>0.201</b> (0.146)	<b>0.136</b> (0.202)		<b>0.018</b> (0.188)
<b>DebtIncomeRx2</b>	<b>0.573</b> (0.381)	<b>0.579</b> (0.374)		<b>0.563</b> (0.452)	<b>0.587</b> (0.362)	<b>0.588</b> (0.368)
<b>DebtIncomeR</b>	<b>-1.545</b> (1.233)	<b>-1.588</b> (1.192)		<b>-1.633</b> (1.450)	<b>-1.628</b> (1.141)	<b>-1.638</b> (1.174)
<b>GINILog</b>	<b>2.022<sup>*</sup></b> (1.038)	<b>1.899<sup>*</sup></b> (0.972)	<b>1.08</b> (0.983)		<b>2.168<sup>**</sup></b> (1.016)	<b>2.128<sup>**</sup></b> (1.060)
<b>MedAgeMaMaLog</b>					<b>-3.869<sup>*</sup></b> (2.106)	<b>-3.900<sup>*</sup></b> (2.135)
<b>MedAgeMaFemLog</b>					<b>1.392</b> (1.960)	<b>1.414</b> (1.976)
<b>Constant</b>	<b>2.163</b> (4.385)	<b>1.494</b> (3.413)	<b>-3.852</b> (3.512)	<b>-2.594</b> (3.041)	<b>8.156<sup>*</sup></b> (4.729)	<b>7.966</b> (5.294)
Observations	49	49	49	49	49	49
R <sup>2</sup>	0.617	0.617	0.536	0.578	0.671	0.671
Adjusted R <sup>2</sup>	0.504	0.516	0.429	0.466	0.562	0.549
Residual Std. Error	<b>0.133 (df = 37)</b>	<b>0.132 (df = 38)</b>	<b>0.143 (df = 39)</b>	<b>0.138 (df = 38)</b>	<b>0.125 (df = 36)</b>	<b>0.127 (df = 35)</b>
F Statistic	<b>5.427<sup>***</sup> (df = 11; 37)</b>	<b>6.113<sup>***</sup> (df = 10; 38)</b>	<b>5.009<sup>***</sup> (df = 9; 39)</b>	<b>5.196<sup>***</sup> (df = 10; 38)</b>	<b>6.127<sup>***</sup> (df = 12; 36)</b>	<b>5.501<sup>***</sup> (df = 13; 35)</b>

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

-Robust Standard errors are included for all the alternative models (not the main model).

-MedAgeMaMa and MedAgeMaFem are the medium age at first marriage of men and women, respectively.

## References

- Becker, G. S. (1974). A theory of marriage. In T. W. Schultz (Ed.), *Economics of the family: Marriage, Children, and Human Capital* (pp. 299–351). essay, University of Chicago Press.
- Bowmaker, S. W., & Emerson, P. M. (2015). Bricks, Mortar, and Wedding Bells: Does the cost of housing affect marriage rate in the US? *Eastern Economic Journal*, *41*, 411–429.
- Elias, J. J. (2003). The link between unemployment and the marriage rate: Buenos Aires, Argentina, 1980-1999. *Cuadernos De Economía*, *40*(121), 505–513.
- Gallup. (2020). *Marriage*. Gallup. <https://news.gallup.com/poll/117328/marriage.aspx>.
- Lipka, M., & Wormald, B. (2016). *How religious is your state?* Pew Research Center. <https://www.pewresearch.org/fact-tank/2016/02/29/how-religious-is-your-state/?state=alabama>.
- Liu, J. (2015). Does the rise of inequality of income - as measured by Gini coefficient have a negative effect on the marriage rate? Evidence of assortive mating in USA using fixed-effect model . *Journal of Applied Economics and Business Research*, *5*, 74–84.
- Newport, F., & Wilke, J. (2013). *Most in U.S. Want Marriage, but Its Importance Has Dropped*. Gallup. <https://news.gallup.com/poll/163802/marriage-importance-dropped.aspx>.
- OECD, Family Database, (2017). (rep.). *Marriage and Divorce Rates* (pp. 1–5). Paris, France: Organisation for Economic Co-operation and Development.
- Southall, H., & Gilbert, D. (1996). A good time to wed?: marriage and economic distress in England and Wales, 1839-1914. *Economic History Review*, *49*(1), 33–57.