

Divorce, Education, Unemployment, and Incarceration in the U.S.

Annika Bolhuis

Cornerstone University

Austrian Student Scholar's Conference

January 31, 2024

ABSTRACT

Recent developments in Austrian economic theory from Hülsmann (2023) and Degner (2023) have described the social effects of inflationary monetary policy. The inflation and debt cultures, traditional family life patterns are altered as compared to a free market society. In Hülsmann's words, the individual is driven to become "morally low". When it comes to married individuals, some stoop to the level of criminality and are incarcerated as a result. When thinking about the things that make up a family, traditional marriage, shared living space, and children are all impacted by jailed adults. Furthermore, in the U.S., over half of all marriages end in divorce. Moreover, over two million individuals are currently incarcerated, and the U.S. has the highest prisoner population globally. Incarceration, both for married men and women, would put many stressors on marriage and increase the likelihood of divorce. This paper focuses on the ways in which the criminal justice system impacts the sustainability of marriage. Specifically, I will demonstrate the degree to which the rate of men's and women's incarceration is related to divorce rate in the US from 2007-2021.

Introduction

I propose that being locked up and separated from one's spouse, no matter where (jail or prison) or for what crime, could be a valid interrupter of a healthy marriage. In addition, I will also consider the impact of education and unemployment's influences on broken marriage. The reason for using both men's and women's incarceration rates is to observe if a couple is more likely to divorce based on if the husband or wife is incarcerated. I would also like to research more into if marriages that survived through one spouse's incarceration have higher chances of divorce after that spouse is released. An article (Explaining the association between incarceration and divorce Siennick, Stewart, Staff (2014)) claims that the possibility of divorce increases by 32% for every year one spouse spends incarcerated. Another variable is education level (EL) because various studies (First Marriages in the United States: Data From the 2006–2010 National Survey of Family Growth, cdc.gov) show that the level of Education and divorce are already correlated. I will explore the implications of behavioral and moral changes though periods of high inflation, and its impact on personal relationships and traditional marital unions. I anticipate that this study will provide an elaboration on Siennick's work (2014) and offer additional economic considerations that may provide partial explanations for ongoing changes in the US divorce rate.

In order to better understand the selected topic and variables, I read and reviewed various pieces of peer-reviewed literature. The first paper I studied (Butcher, K. F., Park, K. H., & Piehl, A. M. (2017) researched why women receive lighter prison sentences than men do; even in comparison with men who commit similar crimes. The authors claim that 30% of the gender differences in incarceration cannot be explained by any observed characteristics, the offense, or the offender. They looked at whether the judges had something to do with the discrepancy, the idea being that female judges give lighter sentences to female criminals, or perhaps male judges

give lighter sentences to female criminals out of a sense of chivalry. The research found that neither of these theories were correct, and judges who are generally more lenient do so equally towards men and women. The author explains that the discrepancy may arise because judges respond to unobservable data that cannot be quantified. The data in this study is only from 1998-2001 in Kansas. The three year span of data and the use of only one state to collect the data could possibly be a constraint, but I was unable to obtain any other data. Unfortunately, data newer than fourteen years has not been gathered. This article references two past studies claiming that factors like custodial parenthood (which women are more likely to be) are the reason women are sentenced less (Mumola 1999). And claim judges only want to incarcerate the 'worst of the worst' and women are less likely to commit violent crimes, so they are 'let off easy' in order to save the expense (Travis, Western, and Redburn 2014). In regard to future research, the authors propose a larger remaining question: "are judges making the right decisions when sentencing?" The authors present a good argument about the difficulty of measuring the small details around a case or the courtroom atmosphere. Lighter sentencing could even come down to something minute and only important to a single judge, like the unconscious similarity to a younger sister or other shared characteristic to a judge's loved one. The authors desire for these judges' decisions to continue in the interest of public safety- not just because incarcerating more people is an expense. As of recent, trending legislation has been towards passing lighter sentencing on individuals committing 'non-violent' or 'victimless' crimes; opting instead for community service. This study and many others only focus on individuals that are or have been incarcerated, it does not include data measuring punishments outside of prison. If these new ways of sentencing continue to trend, it may be harder to measure the correlation between crime and divorce. However, there is a possibility that even if the amount of data shrinks, the model

would have more explanatory power because only the worst offenders would be incarcerated, and it is not hard to imagine that those individuals also possess characteristics that are the least suitable for marriage.

The next article researched incarcerations that happened during marriage. Sennick's research found that these marriages were associated with an increased divorce rate. The authors observed that among incarcerated individuals; low marital love, high relationship violence, economic strain, and greater odds of extramarital intimate relationships were statistically significant factors when predicting relationship dissolution. Sennick finds that other studies report a 20% increase in the probability of divorce for formerly incarcerated individuals, and each additional year spent in prison raises the odds of divorce by 32 percent (Massoglia, Remster, and King, 2011). Sennick also acknowledges that there is not enough data to know if individuals who ended up incarcerated had other marital problems before they served their time, and incarceration was just the 'straw that broke the camel's back' so to speak. In the future, the authors want to better understand the consequences of divorce on the families of the inmates, they claim that incarceration is usually harmful to the whole family, but it is also good for the offender to be removed from the household in some circumstances. Sennick explores the rewards and barriers to marriage. Rewards include; love, happiness, companionship and socioeconomic resources, and barriers include; commitment to children, pressure from family, possible religious beliefs, and overall stigma and potential shame. This article in particular gives a great recap of many past studies. It explains reasons marriages fall apart that are specific to if only one spouse is incarcerated. Incarceration physically separates couples, (Comfort, 2008), increases financial instability, (Wildeman, C., et. al, 2012), and increases parenting-related stress, just to name a few. It also causes both spouses to distrust their partner and believe they will find other romantic

partners. Along with these, it might be socially more acceptable to get divorced post-incarceration because family and friends would either support it, expect it, or be more understanding. The author states that “Incarceration may be an experience that indirectly leads to divorce via its harmful effects on inducements to remain in the marriage and on inducements to leave it.” Sennick provides a better insight of relational factors that could be harder to quantify.

One of the variables in this paper is employment, so further research on the connections between marriage, criminal activity and employment is crucial to study. Hubner’s main idea is that social bonds and institutions like marriage and employment limit the chance that individuals will become involved in criminal activity. Studies in family economics show that family and marriage are crucial factors in determining if a child will grow up to commit crime. From a Christian worldview, families and the unique role of a mother and father are also intentional structures that God has created for humans.

The author also wanted to research further into the long-term effects of incarceration on adult employment and marriage. This particular study only includes incarcerated men, and the data is from the National Longitudinal Survey of Youth (NLSY) 1979-1994. Something interesting about this article is that they frame incarceration as a "Lifecourse Event" and try to study how the presence of the event changes the trajectory of someone's life. They claim that the shame and anger associated with imprisonment felt by the family and associates can affect the formerly incarcerated person extremely negatively. Throughout the time of their study, the authors found out that incarcerated men were around half as likely to be employed full-time, and three times more likely to be unmarried, divorced, or widowed. They also found out that less educated men were at greater risk of incarceration, and men who served in the military were

more likely to get married. One particular quote from Teachman, Polonko, & Leigh, (1987) said that “researchers have constantly linked stable employment to improved chances of marriage”.

Forty years ago, it was almost unheard of for a woman to go to prison, in fact, the number of women incarcerated from 1980-2010 went up by 646%, and most of them were mothers. Women are typically primary caregivers of children, and most children are seriously impacted if their mothers go to prison. Arditti’s article strives to see in what ways and extent children are impacted by their mother's incarceration. Various reasons why children might not be impacted are mentioned, including; the mother is not the primary caregiver, the child did not have a good relationship with their mother, or the child is employing a different coping mechanism. The author also writes about a cultural aspect in which African American families are more likely to take guardianship over children and other family members due to cultivating resilience over many generations. They contrast this with white children, whose mothers are less likely to be incarcerated, so they are more vulnerable to negative effects since it could be less normal in their community, and they lack any cultural aspects that would help them through that period of time. A sad but prevalent reality, no child should experience their mother's absence by way of incarceration, it is hard to imagine how a child would not be severely affected by this occurrence. The author outlined data she wanted to see gathered in the future, specifically, "survey research that incorporates the measures theorized to capture the interrelations of child, family, and systems-level mediating processes." (2015, Arditti). The research within this article did not contain a specific study with variables and data; rather, it wrote about previous research.

Stepping away from incarceration, let us move to education and marriage. As discussed later in this segment, themes of homogamy have been prevalent in Murray’s ‘Coming Apart’ and inspired an idea to incorporate education as a variable. Benham’s article fits a similar theme and

raises the question “Does a woman's education actually impact how well her husband does in the workforce?” The answer seems to be “yes”. The resulting data from the study showed that the husband's earnings increased between 3.0 and 4.1 percent for each year of his wife's education. In further explanation, the authors define different ways to obtain education: other people's advice from their own education, specific skills acquired, and learning how to acquire general skills related to information acquisition and coping with change (learning how to learn). The paper focuses on the first form of education, specifically within marriage, as each spouse learns from the other and measures it by using data on the husband's market productivity and the couple's capital stock. The article goes on to think through different hypotheses to explain this result, including selective mating. This selective mating hypothesis is very similar to Murray's homogamy chapter in ‘Coming Apart’. Education is also tied to divorce and incarceration, so it makes sense that increased levels would result in higher earnings for the married couple.

I would be amiss to discuss family life, education, and employment without recognizing the monetary factors that could contribute to changes in the former categories. The often inconsistently steady yet intermittently drastic changes in inflation that arose after the abolition of the gold standard in 1971 offers an explanation into America's declining morals and personal relationships. Rothbard (1983) notes that when prices stay the same for a number of decades, mass public opinion stays consistent. However, when something drastic happens, the public will begin to gain either inflationary or deflationary expectations. These expectations expand quickly through observation of others, media, and information from trusted personal acquaintances like friends and family. Periods of high inflation will cause families to allocate their spending in different ways like purchasing inferior goods, refraining from purchasing ‘wants’, and being more conservative in their money management and saving. However, some individuals may lack

the proper financial literacy or intuition to adopt these behaviors, and resort to risky decisions like gambling or and debt accumulation. They may even stoop to engaging in criminal activities, thus Hülsmann's explanation when people are driven to be 'morally low'. Financial instability is both a major contributing factor to divorce in the U.S., (Wildeman, C., et. al, 2012) and a result of spousal incarceration due to the lack of a second income. Degner (2023) discusses how higher divorce rates have been observed among those harmed the most through rising inflation, while families who were more financially stable persevered. Additionally, young men and women today may not see marriage as a necessary social intuition as compared to the young men and women of the past (pre-1970's). Now, both men and women face little to no institutionally sexist or socially impermissible barriers that would discourage them to pursue a specific career. More young women today are encouraged to pursue an education and a career, rather than start a family- and they do not need to rely on a man's income or support to do so. Historically, the purchasing power of money was higher and a family could be prosperous on the sole income of the father. Now, due to inflation, one spouse may have to take on an additional job in order to attain the same standards of living as families enjoyed just a few decades ago.

With more knowledge on topics of divorce and incarceration, the following data was assembled and put together code in R-studio. Below is an interpretation of the results and a comparison between two models; one uses the percentage of men in prison, the other uses the percentage of women in prison. When placed into the R, the variables will appear as follows:

$$DIV \sim WIP + UMPL + ELC + MCPI + M2$$

$$DIV \sim MIP + UMPL + ELC + MCPI + M2$$

Model Men

| Variable | Estimate | Pr(> t) | Adjusted R ² | P-Value |
|------------------------|------------|----------|-------------------------|-----------|
| DIV (intercept) | 1.533e+01 | 0.0164 * | 0.9502 | 1.873e-06 |
| MIP | -1.689e-02 | 0.0336 * | | |
| UMPL | 6.432e-06 | 0.8843 | | |
| ELC | -1.210e-01 | 0.0784 . | | |
| MCPI | 2.949e-02 | 0.0850 . | | |
| M2 | 7.588e-02 | 0.2138 | | |

Model Women

| Variable | Estimate | Pr(> t) | Adjusted R ² | P-Value |
|------------------------|------------|--------------|-------------------------|-----------|
| DIV (intercept) | 1.042e+01 | 0.000242 *** | 0.9938 | 1.655e-10 |
| WIP | -3.362e-03 | 2.11e-06 *** | | |
| UMPL | 3.380e-06 | 0.788375 | | |
| ELC | -5.965e-02 | 0.021216 * | | |
| MCPI | 1.885e-02 | 0.007498 ** | | |
| M2 | 1.203e-02 | 0.588484 | | |

Measurements

DIV (Divorce Rate) is a measure of the number of divorced people out of every 1,000 people, yearly. ELC (Educational Attainment Distribution in the United States) is a percentage of the population who possess a College Degree or Higher, yearly. UMPL (Unemployment Rate) is the number of unemployed people as a percentage of the labor force, yearly. For WIP (Women in Prison) and MIP (Men in Prison) I took the number of men and women in prison, yearly, and divided it by the yearly population of men and women within the United States to create a rate. Unemployment Rate (UMPL) is the number of unemployed people as a percentage of the labor force; all over the age of sixteen and not living in an institutional facility, or serving in the armed

forces. M2 is a measurement of the money supply, measured in billions. (MCPI) is a core measure of CPI given in annual percent change. DIV, ELC, UMPL, MCPI, and M2 are all gender non-specific, while MIP and WIP are, of course, gender specific- hence the need for separate men's and women's models.

Estimate**Model_Men**

DIV and MIP surprisingly have a negative correlation. For every one divorced person, the number of men in prison goes down by 0.01689. Through various research on the topic of divorce and prison, I learned that these two variables are positively correlated more often than not. I think this number could possibly turn positive if data of specific crimes (violent vs non-violent, for example) could be found. Also, for every one divorced person, the unemployment rate (UMPL) rises 0.02949%, and the percentage of the population with a college degree or higher (ELC) decreases by 0.1210%. In regards to changes in monetary variables, M2 increases by 0.000006432 billion for every one divorced person, and MCPI increases by 0.07588%

Model_Women

DIV and WIP have a negative correlation, just like DIV and MIP. For every one divorced person, the number of women in prison goes down by 0.003362. Also for every one divorced person, the unemployment rate (UMPL) rises 0.01885%. Unlike the Model_Men, DIV and ELC are positively correlated, so for every one divorced person, the number of people with college degrees or higher declines by 0.05965%. For monetary variables, M2 increases by 0.000003380 billion for every one divorced person, and MCPI increases by 0.01203%

P(<|t|) by Variable

Model_Men

| Variable | Pr(> t) |
|------------------------|--------------------|
| DIV (intercept) | 0.0164 * |
| MIP | 0.0336 * |
| UMPL | 0.8843 |
| ELC | 0.0784 . |
| MCPI | 0.0850 . |
| M2 | 0.2138 |

Within this model, DIV and MIP both had P(<|t|) higher than 0.001. DIV had a value of 0.0164 and MIP had one of 0.0336. This shows a high likelihood that the data within this model isn't random. ELC had a P(<|t|) of 0.0784, UMPL had a value of 0.884, MCPI with 0.0850, and M2 with 0.2138. I am generally pleased with these results, however, I again wonder if breaking down this data into each category of crime would affect this result.

Model_Women

| Variable | Pr(> t) |
|------------------------|--------------------|
| DIV (intercept) | 0.000242 *** |
| WIP | 2.11e-06 *** |
| UMPL | 0.788375 |
| ELC | 0.021216 * |
| MCPI | 0.007498 ** |
| M2 | 0.588484 |

DIV and WIP were both variables with the highest statistical significance. DIV with a $P(<|t|)$ value of 0.000242 and WIP with a $P(<|t|)$ value of 0.00000211, UMPL with a value of 0.788375, ELC with 0.021216, MCPI with 0.007498, and M2 with 0.588484. I was most interested to see how statistically significant the WIP and intercept variable DIV were, it is a good sign that the data within this model is not random.

P-Value by Model

P-value measures the level that data isn't random; the lower the p-value, the lower the chance of randomness. As a whole, Model_Men has a p-value of 1.655e-10. Model_Women also had a low P-value of 3.96e-10.

Adjusted R²

Adjusted R² R squared measures how much of the variance in the dependent variable is caused or explained by the independent variables.

Model_Men

This model received a result of 0.9502, meaning that the independent variables explain 95.02% of the change/variance of the dependent variable, Divorce Rate.

Model_Women

This model showed an even more impressive result of 0.9938, so the independent variables explain 99.38% of the dependent variable, Divorce rate.

Conclusion

I find that the U.S. Men's and Women's incarceration, college education level, and U.S. employment rate are significant factors affecting U.S. divorce rate. The significance in incarceration's effect on divorce can be explained by the fact that incarceration breaks up marriages, and individuals getting incarcerated exhibit other unmarriageable attributes stemming

from personality, upbringing, or both, that raise not only their chances of getting divorced, but also of committing crime. It is reasonable to assume that incarcerated individuals might lack the time, financial resources, and incentive to strive for a college degree, which might explain the significance of the college education level variable in both models. The result of high significance for employment level is that it is reasonably hard for an individual to hold down a steady job, or be employed at all if they are imprisoned, as well as a variety of challenges those individuals face finding and holding jobs after their imprisonment term. M2 and Median CPI both offer explanatory power into my models' result using the logic from my formerly explained hypothesis discussing inflation's impact on the family and thus divorce. A larger remaining question I have is how the time spent in prison for men and women, respectively, affects the chances of divorce, as well as the other variables stated above. A constraint I faced was the lack of more gender specific data for College Education Level and Unemployment Level. Because women are more likely to be primary caregivers of children, the portion of the unemployment rate might be higher. In the future, I hope to collect data on the types of crime men and women commit, and see how violent versus non-violent crime affects the chances of divorce.

APPENDIX

> summary(model_men)

Call:

lm(formula = DIV ~ MIP + ELC + UMPL, data = CLEAN_DATA_ECN340)

Residuals:

| Min | 1Q | Median | 3Q | Max |
|----------|----------|----------|---------|---------|
| -0.12297 | -0.04676 | -0.01338 | 0.05841 | 0.12655 |

Coefficients:

| | Estimate | Std. Error | t value | Pr(> t) |
|-------------|-----------|------------|---------|--------------|
| (Intercept) | 14.730190 | 3.137221 | 4.695 | 0.000848 *** |
| MIP | -0.016114 | 0.004069 | -3.960 | 0.002687 ** |
| ELC | -0.114399 | 0.040116 | -2.852 | 0.017200 * |
| UMPL | 0.029770 | 0.014370 | 2.072 | 0.065105 . |
| MCPI | 0.078968 | 0.050170 | 1.574 | 0.146564 |

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08844 on 10 degrees of freedom

Multiple R-squared: 0.9679, Adjusted R-squared: 0.955

F-statistic: 75.36 on 4 and 10 DF, p-value: 1.993e-07

> summary(model_women)

Call:

lm(formula = DIV ~ WIP + ELC + UMPL, data = CLEAN_DATA_ECN340)

Residuals:

| Min | 1Q | Median | 3Q | Max |
|-----------|-----------|-----------|----------|----------|
| -0.041745 | -0.020633 | -0.001068 | 0.015056 | 0.049673 |

Coefficients:

| | Estimate | Std. Error | t value | Pr(> t) |
|-------------|------------|------------|---------|--------------|
| (Intercept) | 10.0880899 | 1.2376553 | 8.151 | 9.99e-06 *** |
| WIP | -0.0033081 | 0.0002371 | -13.955 | 6.99e-08 *** |

DIVORCE, EDUCATION, UNEMPLOYMENT AND INCARCERATION IN THE U.S.

| | | | | | |
|------|------------|-----------|--------|---------|----|
| ELC | -0.0558840 | 0.0157500 | -3.548 | 0.00528 | ** |
| UMPL | 0.0192161 | 0.0050801 | 3.783 | 0.00359 | ** |
| MCPI | 0.0149495 | 0.0177939 | 0.840 | 0.42046 | |

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.03132 on 10 degrees of freedom

Multiple R-squared: 0.996, Adjusted R-squared: 0.9944

F-statistic: 618.2 on 4 and 10 DF, p-value: 6.338e-12

References

- Arditti, J. A. (2015). Family process perspective on the heterogeneous effects of maternal incarceration on child wellbeing. *Criminology & Public Policy*, *14*(1), 169-[ii].
- Arditti, J. A., & McGregor, C. M. (2019). A family perspective: Caregiving and family contexts of children with an incarcerated parent. *Handbook on Children with Incarcerated Parents*, 117–130. https://doi.org/10.1007/978-3-030-16707-3_9
- Butcher, K. F., Park, K. H., & Piehl, A. M. (2017). Comparing Apples to Oranges: Differences in Women's and Men's Incarceration and Sentencing Outcomes. *Journal of Labor Economics*, *35*(S1), S201–S234. <https://doi.org/10.1086/691276>
- Benham, L. (1974). Benefits of women's education within marriage. *Journal of Political Economy*, *82*(2, Part 2), 56–71. <https://doi.org/10.1086/260291>
- Comfort, M. (2008). *Doing time together: Love and Family in the Shadow of the Prison*. University of Chicago Press; Chicago, IL.
- Degner, J. (2023). *The Family and Inflation Culture*. Dissertation, University of Angers.
- Huebner, B. M. (2005). The effect of incarceration on marriage and work over the life course. *Justice Quarterly*, *22*(3), 281–303. <https://doi.org/10.1080/07418820500089141>

- Massoglia, M., Remster, B., & King, R. D. (2011). Stigma or separation? understanding the incarceration-divorce relationship. *Social Forces*, *90*(1), 133–155.
<https://doi.org/10.1093/sf/90.1.133>
- Mumola, C. J. (1999). Incarcerated parents and their children. *children* *37*, 44–6.
- Murray, C. A. (2013). *Coming apart: The State of White America, 1960-2010*. Crown Forum
- Rothbard, M. N. (2008). *The Mystery of Banking*. Ludwig von Mises Institute. .
- Sennick, S. E., Stewart, E. A., & Staff, J. (2014). Explaining the association between incarceration and divorce. *Criminology*, *52*(3), 371–398.
<https://doi.org/10.1111/1745-9125.12040>
- Teachman, J. D., Polonko, K. A., & Leigh, G. K. (1987). Marital timing: Race and sex comparisons. *Social Forces*, *66*(1), 239. <https://doi.org/10.2307/2578910>
- Travis, J., Western, B., & Redburn, S. (2014). The growth of incarceration in the United States. *National Academies Press*. <https://doi.org/10.17226/18613>
- Wildeman, C., Schnittker, J., & Turney, K. (2012). Despair by association? the mental health of mothers with children by recently Incarcerated Fathers. *American Sociological Review*, *77*(2), 216–243. <https://doi.org/10.1177/0003122411436234>