The effects of local economic downturns on attitudes toward shotgun marriage: A vignette study

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This study utilized an experimental vignette method to examine the effect of the local economic context on individuals’ attitudes towards so-called “shotgun marriages.” A sample of 460 adults were each shown two vignettes about a hypothetical couple with a nonmarital conception; the vignettes randomly varied as to whether the couple lived in a community that had recently experienced job losses or not. For each vignette, the respondent indicated if the couple should and will get married before the baby is born. If the hypothetical couple lived in a community with job loss, relative to the couple living in a community with stable employment, respondents were significantly less likely to indicate that the couple will get married. More disadvantaged respondents were also less likely to indicate that the couple should get married in response to local job losses. Our results provide the first causal evidence that economic conditions affect attitudes towards marriage, and underscore previous work about the salience of economic conditions in the attitudes of lower-socioeconomic-status individuals.
Americans, in the past few decades, have seen a paradigm shift in their attitudes and behaviors towards out-of-wedlock childbearing. In 2015, 61% of respondents in a Gallup poll said that out-of-wedlock childbearing was morally acceptable, up 16 percentage points since 2002 (Jones, 2015). In terms of behavior, the percentage of children born to unmarried mothers is at an all-time high; around 41% of all children born in the U.S. are born to unmarried parents (Martin, Hamilton, Osterman, Curtin, & Mathews, 2015). Additionally, among those with a nonmarital conception, the fraction of mothers who marry before the child is born – a so-called “shotgun marriage” – is at an all-time low (England, Shafer, & Wu, 2012; Gibson-Davis & Rackin, 2014).

The continuing decline in marital births, as well as increasing social acceptance of single parenthood, has prompted concern because they suggest that Americans have rejected marriage as the preferred context for raising children. As has been well-documented, children who grow up with two married parents, relative to children in other family types, have better outcomes across a range of domains, including adult economic well-being, behavior, and cognitive skills (DeLeire & Kalil, 2002; Hill, Yeung, & Duncan, 2001; McLanahan, 2009; McLanahan & Percheski, 2008). Although the evidence for marriage having a causal role in the well-being of children is relatively weak, policy makers nevertheless worry that as fewer children grow up in married parent homes, more and more children will be at risk for adverse outcomes. Concerns are heightened by the fact the declines in marriage are particularly acute among parents with lower levels of education and income (McLanahan, 2009; Smock & Greenland, 2010), suggesting that children born to these groups may be particularly at risk. In response, policy makers have supported the development and implementation of a number of programs and policies to encourage marriage (Dion, 2005; Dion et al., 2003). To date, these programs have
met with little success (Wood, McConnell, Moore, Clarkwest, & Hsueh, 2012), leaving the question of why parents do not marry and how to alter marriage behaviors largely unanswered.

In this study, we address one piece of this puzzle by focusing on a seemingly key element of entry into marriage – community-level economic well-being – that was largely ignored by recent marriage promotion programs. Personal economic well-being is a strong predictor of whether parents wed (Carlson, McLanahan, & England, 2004; Gibson-Davis, 2009; Lichter, 2012) and when unmarried parents are asked about marriage, they often describe the economic context as a barrier (Gibson-Davis, Edin, & McLanahan, 2005). Beyond individuals’ economic circumstances, the economic well-being of the community also predicts family formation behaviors (Ananat, Gassman-Pines, & Gibson-Davis, 2013; Baghestani & Malcolm, 2014; Schaller, 2013). These prior studies, however, rely on observational data, making it difficult to ascertain the role of changing attitudes.

In order to causally test if economic circumstances are relevant for attitudes towards marriage, we conducted an experimental vignette study on the importance of the local economic context in determining shot-gun marriages (which we term “midpregnancy marriages,” as shotgun marriage is an anachronistic term). In our study, respondents were given a short narrative about a hypothetical unmarried couple that were expecting a baby. In half of the vignettes, the couple lived in a community that had recently experienced job losses; in the other half of the vignettes, the couple lived in a community that had stable economic conditions. After reading the vignettes, respondents were asked two questions – whether the couple should get married, and whether the couple will get married before the baby is born. These two questions assess respondents’ perceptions about two types of norms, injunctive and descriptive, both of which can influence behavior (Cialdini, 2003). Because the treatment condition (e.g., the
presence of job loss) was randomly assigned across vignettes, any differences in the “should” or “will” marriage outcomes reflect a causal difference in attitudes towards midpregnancy marriage, as a response to local economic circumstances.

To the best of our knowledge, ours is the first study to use an experimental vignette study design to ascertain the importance of local economic conditions in regards to attitudes towards marriage. By using an experimental design, we avoid endogeneity problems that potential plague studies using survey data. Moreover, we concentrate on a family formation outcome – midpregnancy marriage – that speaks directly to the importance of marriage as a context for childbearing and mimics the target audience for many marriage promotion programs. We realize that attitudes are not the same as behaviors, and that we cannot comment on the causal role of the economic context in actual marriage entry. Nevertheless, attitudes are an important predictor of behavior (Ajzen & Fishbein, 1977, 2005), and individual and collective attitudes towards marriage are a notable outcome in their own right.

Background

Social psychological research demonstrates that norms - that is, accepted standards of behavior of social groups - are a powerful determinant of people’s behavior (Cialdini & Trost, 1998). Norms are generally categorized into two types. Descriptive norms refers to a person’s beliefs and perceptions about what types of behaviors are typically performed by members of society or a social group. Injunctive norms, in contrast, refer to a person’s beliefs and perceptions about the types of behaviors that are encouraged or discouraged by one’s community or social group. Descriptive norms reference beliefs about what “will” be done; injunctive norms reference beliefs about what “should” be done. Importantly, these norms can
lead to different behaviors, as people tend to do both what they perceive to be socially approved of and also what they consider to be common (Cialdini, 2003).

In the case of family structure, both descriptive and injunctive norms in regards to out-of-wedlock childbearing have undergone a paradigm shift. From a descriptive point of view, what a mother “will” do when faced with a non-marital conception has changed dramatically over the past half century. Assuming the mother decides not to terminate the pregnancy, the likelihood that she will marry before the child is born (a so-called “shotgun marriage”, what we term a “mid-pregnancy marriage”) has declined substantially over time. Between the 1930s and the 1990s, the fraction of women with a nonmarital conception who married before the birth fell by more than half, from 54% to 23% (Bachu, 1999). Estimates from North Carolina, which generally mirror the country as a whole, found that share of women with a mid-pregnancy marriage declined 30% between 1991 and 2012. Current estimates suggest that only 4 to 6% of women will respond to a non-marital conception by marrying; for minority women, the fraction with a mid-pregnancy marriage a mere 2% (Gibson-Davis, Ananat, & Gassman-Pines, under review). As potential mothers have observed these changing patterns, their descriptive norms – their perceptions of what is likely to happen when someone has a non-marital conception – have likely changed as well.

In addition to changing descriptive norms, the decrease in midpregnancy marriages also reflects changing injunctive norms regarding out-of-wedlock pregnancy. Indeed, the term shotgun marriage no longer seems applicable, given that it referred to a hypothetical situation in which the father of a pregnant woman pointed a shotgun at the man who had impregnated his daughter, threatening to shoot the man unless he did the “right thing” and married the daughter. Although this situation most likely never occurred as described, the shotgun marriage scenario
reflected society’s disapproval of out-of-wedlock childbearing. Yet the norms that dictated a woman had to marry before a birth so that her child would be “legitimate” have largely dissipated. The majority of Americans now approve of out-of-wedlock childbearing (Jones, 2015), and single mothers face relatively little social disapproval. Attitudes do differ somewhat by demographics, as those who are younger, unmarried, have more education, and are less religious are more likely to accept non-marital childbearing than those who are older, married, less educated and have higher degrees of religiosity (Jones, 2015). Overall, however, Americans now view out-of-wedlock childbearing very differently than they did just a few decades ago.

Though it is something of a chicken-and-egg issue – do changes in norms lead to changes in behaviors, or do changes in behaviors lead to changes in norms – changes in both descriptive and injunctive norms in regards to midpregnancy marriage have likely played a role in the decline of midpregnancy-married births. The decline in the number of parents who marry before the birth, when coupled with the negative correlations between parental marriage and child well-being, have led policy makers to develop marriage promotion programs, particularly among low-income parents. The most notable of these programs, the Building Strong Families (BSF) program, was an experimentally evaluated program to enhance relationships among unmarried low-income couples who were expecting a child or had recently become parents. The treatment, which consisted of counseling, relationship skill training, and other family support services, had little impact on relationship outcomes, parenting measures, or child well-being. Three years after randomization, the treatment group, relative to the control group, was no more likely to be married and did not report higher quality relationships (Wood, McConnell, et al., 2012; Wood, Moore, Clarkwest, Killewald, & Monahan, 2012).
Any number of explanations likely exist as to why the BSF program was ineffective. One contributing factor, however, may be the fact that the BSF program could not address the economic climate in which parents lived, nor the relation between the economic climate and parents’ norms regarding childbearing. Yet evidence suggests that low-income parents place a primacy on economics in determining when to wed. In interviews, parents have repeatedly said that they were delaying marriage until they have achieved a set of financial milestones (Edin & Kefalas, 2011; Gassman-Pines, Yoshikawa, & Nay, 2006; Gibson-Davis et al., 2005). These milestones consist of steady jobs for both members of the couple, sufficient funds to finance a wedding, and enough savings for a down payment. Individuals reported that they had not married because they had not reached these milestones.

Importantly, beyond individuals’ own economic circumstances, there is also evidence that the economic climate of a community is related to people’s family formation decisions. For example, increases in the local unemployment rate decrease marriage rates (Baghestani & Malcolm, 2014; Schaller, 2013). Other evidence indicates that decreases in marriage lead to increases in single-parent families during economic downturns (Ariizumi, Hu, & Schirle, 2013).

Although the mechanisms linking changing community-level economic circumstances and marriage decisions are various, changing norms during times of economic downturns are likely one important mechanism. For example, as marriage behavior begins to change, descriptive norms – perceptions of what is common – may also be altered. Injunctive norms may also be modified, as individuals perceptions about what couples should do is altered by changing job opportunities, economic unease, and other responses to local economic downturns.
Examining the effects of community-level economic change on individuals’ attitudes and norms is challenging, however. Using observational data, associations between economic change and individual attitudes is likely endogenous. A much stronger test of the importance of the economic climate is to conduct an experiment, in which variation in economic context is exogenously related to respondent circumstances. Experimental studies on attitudes have been used in other contexts, such as assessing norms about teenage childbearing (Mollborn, 2009) and other attitudes about family decisions (Cong & Silverstein, 2012; Seltzer, Lau, & Bianchi, 2012). To the best of our knowledge, however, an experimental design has never been used to causally evaluate whether the economic context affects people’s attitudes towards midpregnancy marriage.

The present study addresses this gap in the literature by using an experimental vignette study design to examine the effect of the local economic context on individuals’ attitudes toward midpregnancy marriage, in particular, their assessment of both descriptive and injunctive norms. Given that this survey was done in a southern city with a strong religious ethic, and that the more religious tend to be less accepting of out-of-wedlock childbearing, we anticipated most of our respondents will believe that the couple will and should get married (we did not have any a priori expectations about how the level of affirmative responses would vary between the two outcomes). As for job loss, based on previous evidence suggesting that the economic climate can have a dampening effect on marriage among parents (Ariizumi et al., 2013), we believed that respondents would be less likely to say that a couple will and should get married when the vignette couple was living in a community with an economic downturn. We also believed that responses to job loss would vary by respondent characteristics. Individuals who are economically disadvantaged, in terms of their marital status, education level, or race, may place
more of a primacy on economic conditions as a precursor for parental marriage than more socioeconomically advantaged individuals. Economically disadvantaged individuals may also live in communities with lower levels of parental marriage. These differences suggest that respondents who are not married, have less education, and are black may be less likely to say that the couple should or will marry in response to job loss relative to respondents who are married, have more education, and are white.

Method

Sample

The Attitudes Towards Marriage study was designed to test the effect of community-wide job loss on individuals’ attitudes toward marriage in the case of a non-marital conception. It was conducted in a midsize southern city using one-on-one, in-person interviews. Interviews were voluntary and typically lasted five to ten minutes. After the study secured approval from our home university’s Institutional Review Board, six recruiters went to public spaces throughout the city with the goal of recruiting 80 respondents each. Respondents were recruited and interviewed between November 2014 and February 2015 in public locations away from the campus, including bus stations, shopping malls, playgrounds, laundromats and barbershops. A large variety of locations was chosen in order to recruit a sample of respondents with diverse demographic characteristics.

In order to be eligible for our sample individuals had to be age 18 or older and English speaking. We recruited an initial sample of 476 individuals. We subsequently dropped 11
individuals with missing data on all of the dependent variables and 5 individuals that were under the age of 18. This left with us with an analytic sample of 460 individuals.

Table 1 shows the demographic characteristics of our sample. Respondents were 51% female and 40 years old on average. Within our sample, 41% of respondents were currently married, 45% had a four-year college degree or higher, 39% were white and 38% were African American. Although the sample was not representative, it was very similar to the population of the southern city of interest in terms of racial makeup and education (results now shown, but available from authors).

Vignette Manipulation

We developed a set of vignettes that described a couple with a non-marital conception. Vignettes differed on six different variables. The key variable of interest was the presence of community-wide job loss (with a comparison to stable employment in the community). In vignettes without job loss, respondents saw the text “…a community that has stable employment levels…” In contrast, vignettes with job loss showed the text “… a community that recently faced an economic downturn. For example, a large business closed causing a lot of people to lose their jobs. Keep in mind that the economic downturn affects the whole community, not just the couple in question.”

In addition, vignettes differed on five other factors that are salient in the larger literature on marriage behavior and attitudes: the age of the couple (22 or 30 years old), the race of the couple (white or black), the length of the couple’s relationship (six months or two years), the religiosity of the couple (attends religious services weekly or does not associate with any
religion), and the education level of the couple (high school diploma only or four-year college degree). Race of the couple was indicated by the names of the individuals. The names came from a list of names with the highest likelihood of belonging to a black individual relative to a white individual (Fryer & Levitt, 2003). The names describing the black couple were Jamal and Imani, while the names describing the white couple were Jake and Claire. The wording and structure of our vignettes were developed over multiple rounds of piloting.

Below is our vignette structure with variable text indicated by brackets. For each variable in brackets, one of the two options was selected in a given vignette. For example, in one vignette the respondent would have seen the names Jamal and Imani, while in another they would have seen the names Jake and Claire in the same place.

[Jamal and Imani] are an unmarried couple, both of whom are [22] years old. They both [earned 4 year college degrees]. They have been together for [six months]. They [attend religious services at least once a week], and live in a community that [has stable employment levels]. The couple has recently discovered that they are pregnant. After the baby is born, the couple will keep the child.

Each respondent was shown two vignettes. Community-wide job loss varied within each pair of vignettes so that every respondent saw one vignette that described job loss and one vignette without job loss. The order in which respondents saw each of the vignettes in the pair was random, so that for each pair of vignettes half the respondents saw a vignette with job loss first and half of the respondents saw a vignette without job loss first.

Because the necessary sample size would have been prohibitively large and because our substantive focus was on job loss, we did not use all of the 64 possible unique variable combinations (6 vignette variables with 2 possible options each gives us $2 \times 2 \times 2 \times 2 \times 2 \times 2 = 64$ possibilities). Instead, we created 20 vignettes by first creating all unique combinations of
job loss and each of the other five factors (a 2 X 2 matrix replicated 5 times giving us 20 vignettes). We then randomly assigned the remaining variables within these 20 vignette frameworks. These 20 vignettes were split into 10 pairs (each pair having one vignette with job loss and one vignette without job loss) to be distributed to respondents. This design ensures that both values of the job-loss variable appeared with each value of the other variables of interest a significant number of times, allowing us to examine the interaction of job loss and the other vignette variables. However, the vignette design did not enable us to test the effects of additional vignette variables (such as religion and age) interacted with each other.

After each vignette respondents were asked two questions: “Will this couple get married before the baby is born?” (we call this the will outcome) and “Do you think the couple should get married before the baby is born?” (we call this the should outcome). These questions allow us to assess two aspects of people’s attitudes towards midpregnancy marriage: their beliefs about what people will actually do – will they get married or not (a descriptive norm) and what people should do – should they get married or not (an injunctive norm). Piloting results confirmed that individuals made a distinction between these two outcomes and that people who answered affirmatively to the “will” question did not always answer affirmatively to the “should” question (a result also found in the large study, discussed below). After each vignette respondents were also asked to give one to two sentences on the reasoning behind their responses to the will and should questions in a freeform response.

Analytic Plan
We used logistic regression to estimate the effects of community-wide job loss and the other five vignette factors on responses to the *will* and *should* outcomes. All factors were included as predictors in our final model. We also ran logistic regression models for *will* and *should* that included the interaction terms of job loss and each additional factor to explore whether the effect of job loss was dependent on other variables. Finally, we split our sample by different respondent demographics and ran separate models to determine whether the effect of job loss differed by the characteristics of the respondents. In all models, standard errors were clustered by respondent, to address the nesting of vignettes within respondents.

The random assignment of vignette variables used in this study design allows for a causal interpretation of the effects of vignette variables on the *will* and *should* outcomes. Because each respondent was equally likely to see each of the 20 possible vignette combinations this means that any relationship between vignette variables and the *will* or *should* outcomes can be interpreted as being the causal effect of vignette factors on these outcomes. Most importantly, we tested whether there were any differences in observable participant characteristics between those randomly assigned to see the job-loss vignette first and those randomly assigned to see the vignette without job loss first and found no differences between those groups in any of the demographics (results available from authors). We also tested whether results differed by recruiter. Results indicated no main effect of recruiter on our outcomes of interest, nor was an interaction term between job loss and recruiter statistically significant (results not presented but available upon request).

There were a total of 893 observations for the *will* outcome and 884 observations for the *should* outcome. In the models for these outcomes we used all observations available for
each outcome. We also ran the models using only the 869 observations for which both \textit{will} and \textit{should} were non-missing and found similar results to those described below.

\textbf{Results}

Descriptive statistics for the key outcomes are shown in Table 1. For both the \textit{will} and \textit{should} outcomes more respondents answered “yes” than “no,” but the percentages answering affirmatively did not differ significantly between the two outcomes. For the \textit{will} outcome, 59% of responses were “yes” relative to 57% for the \textit{should} outcome. Importantly, in response to any given vignette, respondents answer to the \textit{will} and \textit{should} questions often differed. Respondents answered differently to the questions 35% of the time, reinforcing our pilot results, and the larger literature, that \textit{should} and \textit{will} reflect distinct norms.

\textit{Effects of vignette factors on should and will outcomes}

Table 2 reports the results of the logistic regressions of \textit{will} and \textit{should} on the vignette factors. Coefficients, p-values, and odds ratios are shown. Job loss significantly predicted responses for the \textit{will} outcome variable but did not significantly predict responses for the \textit{should} outcome variable. As was hypothesized, when community-wide job loss was present, respondents were significantly less likely to say that the couple will get married before the baby is born. The odds of an individual responding “yes” to the \textit{will} outcome were only 67\% as great when job loss was present compared to when the community was described as having stable employment (OR = .67, \( p < .01 \)). Although job loss was not significantly related to responses for the \textit{should} outcome, the effect of job loss on the \textit{should} outcome was in the same direction as for the \textit{will} outcome, though of smaller magnitude.
Several other vignette factors significantly predicted the will and should outcomes, with more factors being significantly associated with the will outcome relative to the should outcome (Table 2). If the couple in the vignette was younger (22 years old vs. 30 years old), the odds of the respondent saying the couple will get married were only 58% as great (OR = .58, p < .01). If both members of the couple had earned four-year college degrees (as opposed to high school degrees only), and if the couple attended religious services regularly (as opposed to not being affiliated with any religion), the odds that a respondent believed that the vignette couple will get married increased significantly. Race and length of the relationship did not significantly predict responses to the will outcome. However, the couple’s relationship length was the only vignette variable that had a significant effect on the should outcome. The odds that a respondent believed the couple should get married before the baby is born were 45% greater if the couple had been together for two years (as opposed to 6 months) (OR = 1.45, p < .05).

We note, however, that for each variable the predicted effects on will and should were in the same direction. It may be that the effect of job loss and other vignette variables were smaller for the should outcome making it harder to detect these relationships.

*Interactions effects of job loss and other vignette factors on marriage attitudes*

We conducted additional models in which we interacted job loss with each of the other factors (e.g., race, age, education, length of relationship, and religiosity) (results not shown, but available upon request). None of the interaction terms were statistically significant, suggesting that the effect of job loss on marriage attitudes was not dependent on any of these other vignette variables.
Subgroup Analyses

In a final set of analyses, we examined if the association between job loss and our outcomes of interest varied by the demographic characteristics of the respondents. Respondents were categorized as follows: education (four-year college degree vs. some college or less) marital status (currently married vs. any marital status), gender, and race (white vs. black). Comparisons by respondent race focused only on white and black respondents, as they were the only racial or ethnic groups with sufficient numbers of respondents to analyze them separately.

In these subgroup analyses, we found no difference by respondent demographic characteristic for the will outcome variable. In contrast, when the should outcome was examined, participant responses varied significantly by their marital status, educational attainment, and race (see Figures 1, 2, and 3). Differences by these demographic characteristic were all significant at $p < .05$. The effect of job loss on the should outcome did not differ significantly by gender.

Overall, the more advantaged respondents (white, currently married, highly educated) were more likely to say yes to the should question in response to job loss (see Figures 1, 2 and 3). The more disadvantaged respondents (black, not currently married, less highly educated), however, were less likely say yes to the should question in response to job loss.

Respondents who had a four-year college degree were more likely to say that the couple should get married in response to job loss (odds ratio = 1.12, $p = .25$) while those who lacked a four-year college degree were less likely to say that the couple should get married in response to job loss (odds ratio = .75, $p< .05$). This pattern of results is displayed in Figure 1.
As shown in Figure 2, white respondents were not more likely to say that the couple should get married in response to job loss (odds ratio = 1.04, \( p = .60 \)). Black respondents, in contrast, were significantly less likely to say that the couple should get married in response to job loss (odds ratio = .71, \( p < .05 \)).

Finally, as shown in Figure 3, currently married respondents were more likely to say that the couple should get married in response to job loss (OR = 1.21, \( p < .10 \)). In contrast, unmarried respondents were significantly less likely to say that the couple should get married in response to job loss (odds ratio = .77, \( p < .05 \)).

Discussion

This study was the first to use an experimental vignette study design to examine the effect of the local economic context on people’s attitudes toward midpregnancy marriage. Our study was motivated by the dramatic changes in attitudes and behaviors towards out-of-wedlock childbearing, as well as quantitative and qualitative evidence suggesting the importance of the economic context in determining marriage among parents. Seeking to link these two literatures, we hypothesized that respondents would be less likely to say that a couple should and will marry after a non-marital conception if that couple lived in a community with an economic downturn.

Consistent with our hypothesis, we found that when people were presented information about job losses in the hypothetical couple’s community, the respondents were less likely to think that the couple will get married before the baby is born. That is, respondents’ descriptive norms changed in response to community job losses. In contrast, overall, we did not find that
respondents’ attitudes about injunctive norms – whether a couple should get married – changed in response to job loss. However, this overall affected masked significant variation by respondents’ demographic characteristics.

The effects of community job losses on respondents’ injunctive norms (the should outcome) varied significantly by respondents’ characteristics, with effects on attitudes concentrated among the more economically disadvantaged. For example, black respondents were less likely to say that the couple should get married in response to local job losses, but white respondents’ attitudes were not affected by job loss. Although the majority of studies of effects of economic downturns on marriage and fertility have not examined these family formation outcomes separately for different racial groups, one study focused on teenage fertility did so and found that local job losses decreased fertility among black, but not white, teenagers (Ananat et al., 2013). This result is also highly consistent with the larger literature on marriage among low-income, unmarried parents. The economically disadvantaged couples who were interviewed all stated that there were significant economic barriers to marriage. That the evidence from the present, experimental study and the larger body of observational studies come to similar conclusions, provides strong evidence that economic conditions are particularly salient for economically disadvantaged individuals’ marriage attitudes and behaviors.

A key strength of this study is that these findings were from an experimental vignette study, in which information about the local economic context and the characteristics of the hypothetical couple were varied randomly. This study design allowed us to isolate and identify the causal effect of the community job losses on people’s attitudes. Thus, the effect of job loss
on attitudes toward midpregnancy marriage that we have found cannot be due to an omitted factor that is associated both with job loss and attitudes.

This study has some limitations that should be mentioned. First, as with many experimental studies, the sample in the present study was not representative of the population of the city in which it was conducted, limiting generalizability. While some observable characteristics such as race and education levels of our sample were similar to those of the population of the city, there may be many unobservable characteristics that differentiate our sample from the greater population. In addition, by limiting our sample to English speakers, we excluded a large proportion of the Hispanic population. This limits the degree to which we can generalize these findings to the southern city as a whole. Relatedly, it is not known how reading about job losses in the context of a hypothetical scenario may generalize to actual job losses in a community.

Nevertheless, consistent with prior research, the results of the present study show that overall attitudes toward family formation are affected by the local economic context. In general, worsening economic conditions led to lower marriage rates (Baghestani & Malcolm, 2014; Schaller, 2013) and fertility rates (Cherlin, Cumberworth, Morgan, & Wimer, 2013; Currie & Schwandt, 2014; Schneider, 2015). These changes in family formation behaviors likely occur, in part, due to changes in individuals’ attitudes and norms (Ajzen & Fishbein, 1977, 2005; Cialdini & Trost, 1998).
References


Attitudes toward marriage –
Table 1. Sample Characteristics

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<tr>
<th>Characteristic</th>
<th>Percentage</th>
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<td>Responded Couple Will Get Married</td>
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<td>Responded Couple Should Get Married</td>
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Note. Statistics refer to proportion of respondents unless otherwise indicated.
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<th>Will$^a$</th>
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<th>Odds ratio</th>
<th>Should$^b$</th>
<th>SE</th>
<th>Odds ratio</th>
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<tr>
<td>Community wide job loss</td>
<td>-.39**</td>
<td>.12</td>
<td>.67</td>
<td>-.09</td>
<td>.08</td>
<td>.92</td>
</tr>
<tr>
<td>(Stable Employment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple is black</td>
<td>.25</td>
<td>.20</td>
<td>1.2</td>
<td>.11</td>
<td>.19</td>
<td>1.12</td>
</tr>
<tr>
<td>(Couple is white)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of couple is 22 years</td>
<td>-.54**</td>
<td>.20</td>
<td>.58</td>
<td>-.21</td>
<td>.21</td>
<td>.81</td>
</tr>
<tr>
<td>(Age of couple is 30 years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education level of couple is BA</td>
<td>.41*</td>
<td>.18</td>
<td>1.5</td>
<td>.10</td>
<td>.17</td>
<td>1.11</td>
</tr>
<tr>
<td>(Education level of couple is less than BA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of relationship is two years</td>
<td>.23</td>
<td>.17</td>
<td>1.26</td>
<td>.37*</td>
<td>.17</td>
<td>1.45</td>
</tr>
<tr>
<td>(Length of relationship is six months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple attends religious services</td>
<td>.88**</td>
<td>.17</td>
<td>2.4</td>
<td>.20</td>
<td>.16</td>
<td>1.23</td>
</tr>
<tr>
<td>(Couple is not affiliated with any religion)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample Size**

$n = 893$

$n = 884$

*Note. Omitted categories are indicated in parenthesis

$^a$Will value of 1 indicates couple will get married. $^b$Should value of 1 indicates couple should get married

*p < .05. **p < .01.
Figure 1. Odds ratios on job loss predicting *should* outcome split by participant education level.

Note. The difference in odds ratios on job loss for the two educational subgroups is significant at $p < .05$.

*The odds ratio for job loss on *should* for specified education level is significant at $p < .05$.*
Figure 2. Odds ratios on job loss predicting should outcome split by participant race.

Note. The difference in odds ratios on job loss for the two racial subgroups is significant at $p < .05$

*The odds ratio for job loss on should for specified race is significant at $p < .05$
Figure 3. Odds ratios on job loss predicting *should* outcome split by participant marital status.

Not Currently Married  
\[ n = 534 \]  
\[ \text{Current Odds: } 0.77^* \]

Currently Married  
\[ n = 338 \]  
\[ \text{Current Odds: } 1.21^{*} \]

Note. The difference in odds ratios on job loss for the two marital status subgroups is significant at \( p < .05 \). The odds ratio for job loss on *should* for specified marital status is significant at \( ^* p < .1 \), \( ^{*} p < .05 \).