# Learning from My Environment

## Does social environment predict beliefs and future outcomes of teenagers?

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## Abstract

In this paper I investigate how a teen's social environment is related to their beliefs of the future regarding education, labor market, criminal justice, and parenthood outcomes by merging the NLSY97 with Census Tract level data from the 2000 Decennial Census. I then investigate whether these beliefs predict future outcomes and socioeconomic inequality while controlling for social environment, human capital measures, and access to resources. I find that teens who come from social environments with less education, more crime, and more sex at young ages are more pessimistic about educational attainment and believe that the risk of arrest following serious crimes is lower. They also believe they are more likely to be arrested in the next year, a parent by age 20, and have to work more than 20 hours a week during high school than similar teens from more affluent backgrounds. I find that these beliefs are strong predictors of future outcomes where a 10 percentage point increase in a teen's belief of an event occurring is associated with a 1-4 percentage point increase in the probability of the actual event occurring. Then using a Oaxaca Blinder decomposition I show that differences in mean beliefs by parental wealth tercile can explain between 5-20 percent of socioeconomic differences in education and early parenthood outcomes.

# 1   Introduction

In the US there is tremendous socioeconomic inequality in education, labor market, criminal justice and early parenthood outcomes. For individuals born in the early 1980s from the top third of the family wealth distribution, 2.6% are high school dropouts, 22.2% work less than 20 hours a week around age 30, 4.4% have been incarcerated, and 4.9% are parents by age 20. These outcomes are worse for the same birth cohort from the bottom third of the family wealth distribution where 22.9% are high school dropouts, 38.4% work less than 20 hours a week around age 30, 11.6% have been incarcerated, and 22.7% are parents by age 20[1].

Recent research has suggested that a teen's social network can be an important determinant for many of these outcomes, where each additional year of exposure to different neighborhood level outcomes increases the probability of similar own outcomes occurring in adulthood (Chetty, Friedman, Hendren, Jones, and Porter 2018, Chetty and Hendrin 2018). Additionally, much work in the education and occupation choice literature has shown that exposure to role models of the same race or gender increases the probability that youth follow in their role model's footsteps (Carrell, Page, and West 2009, Rocha and Hawes 2009; Price 2010; Fairlie, Hoffmann, Oreopoulos 2014, Bell, Chetty, Jaravel, Petkova and Van Reenan 2019; Card, Domnisoru, Sanders, Taylor and Udova 2022).

Could one mechanism for these role model and social network effects be through effects on beliefs of the future? For instance, youth may form beliefs of the future based off of what they observe and experience in their local environment. Given their abilities and resources, what happens to peers, parents, and people like them from their neighborhood may affect their own perspective of returns and risks associated with different activities ranging from study, work, crime, to sex. These beliefs would in turn effect decisions on the type of behavior they engage in which effects their future outcomes.

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[1]These statistics were calculated using the 1980-1982 cohort of the NLSY97. See Table 1 for source of statistics.

In this paper I explore to what extent a teen's social environment[2] influences teen's beliefs about their own future education, labor market, criminal justice, and early parenthood outcomes, while holding human capital measures and access to resources constant. I then investigate to what extent teen's beliefs about these future outcomes predict actual future realizations of these outcomes, holding social network, human capital measures, and access to resources constant. Finally, I examine how group socioeconomic differences in beliefs explains socioeconomic inequality in education, family formation, criminal justice, and labor market outcomes. I do this by merging individual level longitudinal data that includes beliefs about the future, human capital measures, and own outcomes of interest from the NLSY97 to census tract level outcomes by race, ethnicity and gender from the 2000 Decennial Census.

First using OLS to regress beliefs on social environment and controls, I find that a teen's social environment is strongly correlated with a teen's beliefs about the future. Specifically the more a teen is exposed to certain outcomes, be they crime, education attainment, early parenthood, or better labor market opportunities, the more likely youth believe similar corresponding outcomes will occur for them. Additionally, there are some interesting relationships across different types of beliefs, social network outcomes, and individual characteristics. I find that teens that come from a more working class background[3] with less family resources, and more family demands believe they are more likely to work while in high school, consistent with a hypothesis of working to assist family financially. I also find that teen's who are more exposed to better education outcomes and less exposed to risky behavior like crime and sex at young ages believe that the risk of arrest conditional on car theft is higher than youth from worse education and risky behavior backgrounds.

Second after using OLS to regress own outcomes on beliefs and other controls, I find that a teenager's beliefs are strong predictors of the future. First of all, beliefs strongly

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[2]Social environment meaning actions of parents, peers, and adults of the same race and gender in ones neighborhood

[3]More high school graduate and less college graduates

predict the outcomes they predict, where a 10 percentage point increase in a teen's belief of a given outcome occurring is associated with between a 1.4 to 4.3 percentage point increase in the probability of the corresponding outcome occurring while holding social network, human capital, and access to resources constant. Additionally, I find interesting relationships across different belief and outcome types. For example, belief of becoming a parent is positively correlated with own arrest and dropping out of high school, belief of bachelor's attainment is negatively correlated with being a parent by age 20, and belief of arrest is negatively correlated with working more than 20 hours a week in 2010, holding all other controls constant.

Finally, I find an important role for beliefs in explaining socioeconomic inequality in outcomes after performing a Oaxaca Blinder decomposition comparing youth from the bottom and middle third of the parental wealth distribution to youth from the top third of the parental wealth distribution. I find when comparing to low to high wealth parent adolescents, that mean differences in beliefs explain 5% of the bachelor's attainment gap and 26% of the high school dropout gap. I find when comparing to mid to high wealth parent adolescents, that mean differences in beliefs explain 16% of the early parenthood gap, 20% of the high school dropout gap, and 10% of the bachelor's attainment gap.

Overall my results suggest that a teen's social environment does influence their perceptions of the future, and that these beliefs effect choices that determine future outcome occurrences. These relationships could exists for two reasons. The first is that agents have rational expectation regarding the future, where teen's have rational responses to systemic inequities and environmental conditions that are otherwise unobserved by researchers. The second is that agents beliefs are self fulfilling, where agents may place excessive weight on social factors rather than their own skills and resources, perhaps due to information frictions. Although none of the results are causal, the descriptive evidence in this paper suggests future work should seek to uncover causal relationships and to distinguish between these two

different belief mechanisms. Distinguishing between rational expectations and self fulfilling prophecy could inform policy design designed to improve outcomes for teen's coming from more disadvantaged backgrounds.

# 2 Literature Review

This paper builds on two strands of the literature. First there is the literature examining the relationship between neighborhood environment and later life outcomes. Second is the literature studying beliefs. I argue that by bridging these two strands of the literature together my results provide evidence of a possible mechanism for how social environment influences outcomes.

The social environment literature has demonstrated how the area where an individual grows up effects a wide variety of economic outcomes. For instance, Chetty and Hendrin 2018 documented childhood exposure effects, where each year of living in a neighborhood with slightly better economic outcomes including earnings, college attendance, or low teen birth rates leads to an almost linear percentage gain in the likelihood of similar outcomes occurring in adulthood. Additionally, Bell, Chetty, Jaravel, Petkova and Van Reenan 2019 showed that young girls who's families move to a high innovation area are more likely to invent in the same technology class as inventors in that neighborhood, but only if there are more women inventing in that technology class. They argue that this finding can be explained by a role model effect rather than a general human capital spillover.

One way that a role model effect can occur is through aspirations and identity formation, where mentors effect the type of person agents want to be as discussed in the identity economics and stratification economics literature (Akerloff and Kranton 2001; Darity, Mason, and Stuart 2006). This is one interpretation of the positive effects of similar race and gender role models (Carrell, Page, and West 2009, Rocha and Hawes 2009; Price 2010; Fairlie, Hoff-

mann, Oreopoulos 2014, Card, Domnisoru, Sanders, Taylor and Udova 2022). Another way role models can effect outcomes is through overcoming information frictions, were agents learn about their abilities and returns to different activities from others, especially other people like them. In either case we would expect that exposure to different role models whether engaged in positive or negative activities would effect adolescents beliefs of their future.

The beliefs literature has mostly focused on education, where beliefs examined include college outcomes, academic ability, and the net returns to schooling or majors. Much work is focused on subjective biases, where students from less affluent backgrounds are presumed to be biased about returns and ability. This theory was famously proposed in Streufort 2000 and Wilson 1987, where it was argued that since youth from lower income backgrounds are more socially isolated from higher earning college educated adults, they will underestimate the returns to college and hence have lower college attendance rates.

Consistent with this theory, Horn, Chen, and Chapman 2003 found that students from lower income backgrounds overestimate the costs of attending college. While Bleemer and Zafar 2018 find that youth from lower income and non college educated backgrounds exhibit more bias in the perceived net returns to college, which has been shown to effect major choice (Wiswall and Zafar 2015). Additionally, Stinebrickner and Stinebrickner 2014a showed that incorrect beliefs may effect dropout, since differences in beliefs about ability and learning through grades can explain up to 45% of college dropout at Berea College.[4] Similarly, Self-efficacy, or a student's beliefs for how well they will perform, has been shown to be strongly correlated with STEM enrollment and can explain gender STEM gaps, even when controlling for measures of academic ability (Stinebrickner and Stinebrickner 2014b; Saltiel 2021).

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[4]It's important to note that Berea College is a private liberal arts school that primarily serves low income students at little cost to the students, so social alienation and financial costs are likely not causes of dropout

The connection between social environment, beliefs, and outcomes could also be a rational responses to environmental factors and systemic inequities that are not observed by researchers. In this sense beliefs are not biased. For instance, the social environment literature has long established how systemic inequities operating through changes in local envioronment effect economic mobility, especially for black youth. Previous work has documented White Flight following inflows of black and Mexican-origin residents to neighborhoods or schooling districts (Card, Mas and Rothstein 2008; Bouston 2010; Cascio and Lewis 2012). This White Flight lead to decreased economic mobility as a result of increased segregation, declining public school revenue, increased police spending and incarceration (Derononcourt 2022; Kulkarni and Mulmendier 2022). As a result, youth who live in neighborhoods like this should be less optimistic about education and criminal justice backgrounds.

Consistent with rational responses to systemic inequities, Deluca, Papageorge, Boselovic, Gehrshenson, Gray, Nerenberg, Sausedo,and Young 2021 combine the NLSY97 with qualitative interview to determine how exposure to adverse shocks effects beliefs and outcomes. They find that youth who experienced events like homelessness, witnessing a shooting, being a victim of violence, parental death or divorce, and family hospitalizations are less likely to believe they will earn a degree by age 30 and more likely to believe they will experience negative events like death, pregnancy, or arrests. These beliefs in turn lead youth from these backgrounds to seek shorter more flexible education programs that allow them to complete their studies in case any of these negative events were to occur again.

Another interesting example contrasting the bias versus rational response theory is that of black youth. Despite the average black youth coming from a lower socioeconomic background, black youth are on average equally optimistic about education attainment as White youth. In fact compared to similar white youth, black youth are actually more optimistic about education outcomes(Cook and Ludwig 2007, Barrera 2023). This may rationally reflect that the returns to college versus non-college are higher for black youth

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than white youth. Additionally, black youth actually have higher rates of college attendance compared to white youth of similar academic readiness and socioeconomic status (Goldsmith, Darity, and Veum 1998; Carneiro, Heckman and Masterov 2005; Lang and Manove 2011).

In this paper, I will provide further evidence for how social environment relates to beliefs and how beliefs can predict future outcomes, even while holding adverse shocks, human capital, access to resources constant. I not only examine college outcomes like the rest of the beliefs literature but provide new facts on the relationship between different types of outcomes and their corresponding beliefs, like crime, early parenthood, work hours, and high school dropout. The results of this paper can be consistent with a rational response to systemic inequities but also bias resulting from over weighing social experience relative to own ability. Future work should be done to distinguish between the two mechanisms.

# 3   Data Description

The data set used for this analysis is the 1997 wave of the National Longitudinal Study of Youth (NLSY97), merged with census tract level data from the year 2000 Decennial Census. The NLSY97 is a longitudinal data set that follows individuals from 1997 to 2021 and is designed to be representative of youth born in the continental United States between 1980-1984[5]. The NLSY97 also has a relatively large size of black and Hispanic respondents, due to these populations being over sampled.

The NLSY97 collects data on human capital measures, attitudes and beliefs about the future, family and school environment, as well as participation in activities like work, crime, sex, and school. The Decennial Census files include tract level outcomes of adults by gender, race, and ethnicity. These outcomes include employment, unemployment, median full time earnings, military service history, as well as educational attainment[6].

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[5]The last year used for analysis in this study is 2017

[6]Labor market and military outcomes are for adults 18 and up, educational attainment is for adults 25

The main categories of variables used in the main analysis of the paper are later life outcomes, beliefs about the future, social environment characteristics, human capital measures, adverse shocks, as well as demographic variables. Further details and summary statistics of these variables follow in section 3.1 and 3.2. The sample is restricted to the 1980-1981 birth cohorts since these cohorts were asked more detailed belief questions than later birth cohorts. The sample size was further restricted to respondents without missing values for variables used in the analysis and who had no incarceration or arrest history prior to 1997. For further details on sample selection see Table A.1.

## 3.1  Outcomes and Belief Measures

The outcomes analyzed in this analysis include high school dropout, bachelor's attainment, working more than 20 hours a week in the year 2010, becoming a parent by age 20, and having an arrest or incarceration history after 1997[7]. These variables were chosen because they closely correspond to the belief variables analyzed in this study.

Beliefs analyzed in this study cover a wide span of different activities ranging from education, work, arrests, incarceration, to pregnancies. Beliefs are collected when respondents were between 15-16 years old and are reported as probabilities of events occurring measured in percentage points. These events include belief of having a degree by age 30, graduating high school by age 20, being in school next year, working 20 plus hours a week next year conditional on continuing or dropping out of school, being a parent by age 20, being a parent by next year[8], being incarcerated by age 20, being arrested next year, being arrested conditional on automobile theft, dying next year, and dying by age 20.

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and up.

[7]Individuals with a prior arrest or incarceration history are dropped from the analysis

[8]parenthood is reported as being pregnant for female respondents, and getting someone pregnant for male respondents

Table 1: Means of Dependent Variables

| VARIABLES | (1) All | (2) Low | (3) Middle | (4) Top |
|---|---|---|---|---|
| HS Graduate | 87.6 | 77.1 | 87.6 | 97.42 |
| Bachelor's or Higher | 10.9 | 4.77 | 8.09 | 19.1 |
| Work Avg 20 hours in 2010 | 70.4 | 61.6 | 71.3 | 77.8 |
| Parent by age 20 | 14.1 | 22.7 | 15.4 | 4.86 |
| Ever Arrested | 27.8 | 34.6 | 30.2 | 19.3 |
| Ever Incarcerated | 8.31 | 11.6 | 9.21 | 4.39 |
| Prob HS Grad by 20 | 96.07 | 91.82 | 96.91 | 99.21 |
| Prob Deg by 30 | 76.10 | 68.49 | 74.01 | 85.14 |
| Prob Work 20+hrs at 30 | 94.32 | 92.46 | 94.24 | 96.10 |
| Prob Parent by 20 | 15.40 | 19.52 | 16.87 | 10.18 |
| Probability Arrested Next Year | 8.740 | 9.702 | 9.378 | 7.244 |
| Probability Arrested if Steal Car | 60.10 | 55.10 | 61.51 | 63.39 |
| Prob in Jail by 20 | 4.367 | 5.109 | 4.830 | 3.240 |
| Prob Die by 20 | 19.92 | 23.84 | 20.23 | 16.00 |
| Sample Size | 1501 | 594 | 494 | 413 |

Table 1: Displays mean values of the two sets of dependent variables outcome realizations and beliefs about these outcomes when 15-16 years old. Columns (2)-(4) show mean values within parental wealth tercile, while Column 1 shows mean values for the whole sample. All statistics are calculated using longitudinal survey weights.

Summary Statistics of the two sets of dependent variables, outcomes and beliefs are shown in Table 1s. Table 1 presents mean values by parental wealth tercile, my measure of socioeconomic status in Columns (2)-(4), and for the sample as a whole in Column (1).

The top panel of Table 1 shows a monotonic relationship between parental wealth tercile and socially desirable outcomes. Youth from higher wealth terciles have better education outcomes and are more likely to work 20 plus hours when they are about 30 years old. Youth from higher parental wealth terciles are also less likely to parents by age 20 and to have been arrested or incarcerated. The second panel of Table 1 shows a similar monotonic relationship between parental wealth and beliefs about future outcomes. Youth from higher parental wealth backgrounds are more optimistic about education and believe the working 20 plus hours a week at age 30 is more likely.

They also believe socially undesirable outcomes like arrest, incarceration, and early parenthood are less likely, as well as death. Youth from higher parental wealth backgrounds also think crime is riskier as measured by probability of arrest after committing a serious crime like car theft. If probability of arrest is assumed to be probability of committing crime times probability of arrest conditional on crime, than youth from lower parental wealth backgrounds believe they are more likely to commit a crime. Another possibility is that lower parental wealth youth believe they will be unfairly arrested.

Table 2 shows the correlation matrix between different types of outcome realizations in panel 1, and the correlation matrix between beliefs of different types of outcomes. The first panel shows that working 20 plus hours a week in 2010 is positively correlated with educational attainment, and that contact with the criminal justice system is positively correlated with early parenthood. Additionally, education attainment and working 20 plus hours a week in 2010 are negatively correlated with early parenthood and contact with the criminal justice system. The second panel shows that respondents beliefs exhibit similar correlation patterns, suggesting teens understand the relationship between these different outcomes.

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| Outcomes | Work 20+ hrs 2010 | HS Grad | Bachelor's | Parent by 20 | Arrested | Incarcerated |
|---|---|---|---|---|---|---|
| Work 20+ hrs 2010 | 1.0 | 0.4642 | 0.2358 | -0.3318 | -0.2091 | -0.3827 |
| HS Grad | - | 1.0 | 1.0 | -0.4831 | -0.3629 | -0.3983 |
| Bachelor's | - | - | 1.0 | -0.3738 | -0.3747 | -0.5089 |
| Parent by 20 | - | - | - | 1.0 | 0.2378 | 0.2023 |
| Arrested | - | - | - | - | 1.0 | 1.0 |
| Incarcerated | - | - | - | - | | 1.0 |

| Beliefs: | Work 20+ hrs 30 | HS Grad 20 | Bachelor's 30 | Parent by 20 | Arrested Next Year | Incarcerated by 20 |
|---|---|---|---|---|---|---|
| Work 20+ hrs 30 | 1.0 | 0.2635 | 0.2300 | -0.0784 | -0.0981 | -0.1420 |
| HS Grad 20 | - | 1.0 | 0.3091 | -0.2292 | -0.1018 | -0.1837 |
| Bachelor's 30 | - | - | 1.0 | -0.2492 | -0.1570 | -0.1999 |
| Parent by 20 | - | - | - | 1.0 | 0.3151 | 0.3102 |
| Arrested Next Year | - | - | - | - | 1.0 | 0.4665 |
| Incarcerated by 20 | - | - | - | - | | 1.0 |

Table 2: Each entry shows correlations between the corresponding row and column variable. The first panel shows tetrachoric correlations between outcome realizations for respondents while the second panel shows correlations between beliefs about these outcomes.

## 3.2   Dependent Variable Description

The dependent variables used in the analysis include controls for social environment, human capital measures, adverse shocks, race, ethnicity, gender, as well as an indicator for being born in 1980 or 1981.

Social environment characteristics include peer attributes, parent attributes, tract level outcomes for demographically similar adults, and county level outcomes recorded in 1990. Whenever possible I use tract level outcomes for adults of the same race, ethnicity and gender as the respondent. I used pooled neighborhood outcomes for youth who live in census tracts where only pooled statistics are available[9]. Since crime and early parenthood at the tract level were not available in the Census files, I used county level crime rates and percentage of births to young mothers from the year 1990 in the geocoded version of the NLSY97. Other geographical controls include state fixed effects, county level rates of black and Hispanic identification, and categorical variables for whether the individual lived in an urban or rural area at the start of the survey.

Peer measures used are recorded during the first wave (1997) of the NLSY97 and report the percentage of students in the same grade at school that have college plans, are having sex, belong to a gang, or that cut class. The peer variables are measured on a scale of 1-5 where each unit increase corresponds to approximately a 25 percentage point increase of peers with the reported characteristic. Parent outcome measures were also collected during the 1997 wave and include average years of parents schooling, mother's age at first birth, and indicators for whether parents served in the military or were incarcerated. I also used household net worth as a measure of family resources.

The NLSY97 also has a rich set of controls for human capital. In this study academic ability is an index that is defined as the first principal component of a principal component

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[9]Youth in these tracts comprise less than 5% of the sample and live in tracts that have a large share of same gender adults with different racial/ethnic identification. An indicator variable for pooled tract information is used in the analysis that follows.

analysis performed on 8th grade GPA, as well as Armed Services Vocational Aptitude Battery (ASVAB) Math Knowledge, Arithmetic Reasoning, Paragraph Comprehension and Word Knowledge scores. I also control for past risky behavior that could proxy for non cognitive skills as recommended by Hai & Heckman 2017. Past risky behavior is defined as the count of which of the following events happened before the start of the survey; had sex by age 15, stole more than $50 before 1997, intentionally attacked someone before 1997, and was suspended from school between the ages of 10-15[10].

Similar to Deluca, Papageorge, Boselovic, Gehrshenson, Gray, Nerenberg, Sausedo,and Young 2021, I also control for adverse individual and family shocks. For individual shocks, I use an index that ranges between 0 and 6 and counts how many of the following events occurred; had felt unsafe before 1997, home broken into by age 18, seen a shooting by age 18, been bullied by age 18, was a victim of violence between 1997-2002, and experienced homelessness between 1997-2002. For family shocks I use a similar index ranging between 0 and 6 that counts how many of the following events occurred; not living with both parents in 1997, parents divorced by 1997, mother not employed by 1997, father not employed by 1997, any parent dead by 1997, and a member of the household hospitalized between 1997-2002. Since some of these events occurred after beliefs were recorded, any strong correlations between these and the belief variables could reflect anticipation of these events occurring.

Table 3 shows mean values of many of the independent variables used in the analysis. Column 1 shows mean values for the whole sample, while Columns (2)-(4) show mean values within parental wealth tercile. All values are weighted using longitudinal survey weights. Dollar values are reported in 2017 values.

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[10]Caution should be warranted when interpreting this as non cognitive skills, since many of these events could be the result of trauma or abuse.

## Table 3: Means of Independent Variables

| VARIABLES | (1) All | (2) Low | (3) Middle | (4) Top |
|---|---|---|---|---|
| Avg Years of Parents Schooling | 12.86 | 11.74 | 12.63 | 14.12 |
| Tract: Pct HS Dropout | 20.64 | 28.39 | 21.02 | 13.08 |
| Tract: Pct HS Diploma Only | 30.43 | 30.61 | 32.30 | 28.50 |
| Tract: Pct College Edu | 48.93 | 41.00 | 46.68 | 58.42 |
| Pct Peers College Plans | 64.3 | 57.5 | 63.5 | 71.3 |
| HH Net Worth ($1000s) | 190.57 | 15.94 | 119.84 | 419.18 |
| Tract: Unemployment Rate | 5.977 | 8.133 | 5.856 | 4.094 |
| Tract: FT Med Earnings ($1000s) | 45.34 | 39.06 | 43.62 | 52.78 |
| Mom's Age at First Birth | 23.15 | 21.73 | 22.42 | 25.15 |
| County: Pct Births Under 20 | 12.59 | 13.66 | 12.88 | 11.32 |
| Pct Peers had Sex | 45.3 | 51.4 | 48.3 | 36.9 |
| Parent Ever in Jail | 4.71 | 9.54 | 3.79 | 1.12 |
| County: Crime Per 100k | 5,241 | 5,728 | 4,923 | 5,092 |
| Pct Peers Cut Class | 45.2 | 48.8 | 45.2 | 41.9 |
| Adverse Family Shock | 1.608 | 2.189 | 1.613 | 1.065 |
| Adverse Victim Shock | 0.727 | 0.961 | 0.708 | 0.527 |
| Suspended 10-15 years old | 23.3 | 31.3 | 26.1 | 13.2 |
| Reported 8th grade GPA | 2.953 | 2.714 | 2.881 | 3.242 |
| Black | 14.6 | 25.5 | 15.7 | 3.59 |
| Hispanic | 13.3 | 22.3 | 13.5 | 4.96 |
| County: Pct Black 1990 | 11.31 | 14.55 | 11.13 | 8.490 |
| County: Pct Hispanic 1990 | 7.236 | 9.082 | 7.374 | 5.393 |
| Tract: Pct Same Race/Ethnic | 77.6 | 69.1 | 77.4 | 85.5 |
| Sample Size | 1501 | 594 | 494 | 413 |

Table 3: Displays mean values of the independent variables grouped by variable type. Columns (2)-(4) show mean values within parental wealth tercile, while Column 1 shows mean values for the whole sample. All statistics are calculated using longitudinal survey weights. Dollar figures are calculated at 2017 values.

Table 3 shows that youth from higher parental wealth backgrounds are more exposed to more socially desirable outcomes. High parental wealth youth come from communities with more education attainment, more education aspirations, less unemployment and higher earnings. High parental wealth youth come from communities with more delayed fertility, less sex at young ages, less parental incarceration, and less peers cutting class. In addition to more wealth, they also experience less negative shocks, have better grades, and are suspended less often. They are also less likely to be black or Hispanic, and live in more segregated census tracts. Given these differences it is important to control for these variables in the analysis that follows.

## 4 Analysis

In this section I conduct the main analysis of this paper. First, I investigate how social environment and beliefs relate to future outcomes. Then I examine how social environment relates to beliefs about the future. Then I examine whether beliefs explain socioeconomic inequality in outcomes.

The relationship between beliefs and social environment will be analyzed using OLS to estimate equation (1.1) below. Beliefs to be analyzed were recorded when respondents were 15-16 years old and concern short term (within 1 year) and long term (4 years later or more) outcomes related to education, work, parenthood, criminal justice outcomes, and mortality.

$$(1.1) \quad Belief_{i,j} = \quad \gamma_0 + \quad \vec{\gamma}_{SI,j} Social\vec{I}ndex_i \quad + \quad \vec{\beta}_j \vec{X}_{i,j} \quad + \quad \vec{\varepsilon}_{i,j}$$

The vector $\vec{X}_{i,j}$ includes controls for academic ability, past risky behavior, adverse shocks, parental wealth, and demographics. The vector $Social\vec{I}ndex_i$, is a vector of social indices constructed using the first component of a principal component analysis performed on

sets of similar outcomes. For the social crime index, I use parent incarceration, peers cutting class, peers in a gang, and the 1990 serious crime level in the respondent's county. For the social bachelor's index, I use an indicator for parents with a bachelor's degree, percent of same race adults with a bachelor's or more, and peers with college plans. For the social high school index I use an indicator for parents having a high school degree only, percent of same race adults with high school only, and percent of same race adults with some college. For the sex at young ages index I use number of peers having sex, mother's age at first birth, and percent of births to young mothers in the respondent's county in 1990. For the economic index, I use the unemployment rate and full time median earnings of same race, same gender adults. Finally, for the military service index, I use percent of same race, same gender adults with military service, and an indicator for whether parents have served in the military.

I also estimated an alternative specification disaggregating the social indices to their individual components, as shown in equation (1.2), below. In equation (1.2) The vectors where $\vec{Peer_i}$, $\vec{Parent_i}$, $\vec{Tract_i}$, and $\vec{County_i}$ contain peer, parent, tract, and county attributes.For equation (1.2) only graphical representations of the statistically significant coefficients are reported in the appendix. These results provide further context to which specific components of social environment influence beliefs.

$$(2.2) \quad Belief_{i,j} = \quad \alpha_0 \quad + \quad \vec{\alpha}_{peer,j}\vec{Peer_i} \quad + \quad \vec{\alpha}_{par,j}\vec{Parent_i}$$

$$+ \quad \vec{\alpha}_{T,j}\vec{Tract_i} \quad + \quad \vec{\alpha}_{C,j}\vec{County_i} \quad + \quad \vec{\delta}_{oj}\vec{X}_{i,j} \quad + \quad \vec{\varepsilon}_{i,j}$$

The relationship between outcomes and beliefs will be analyzed using OLS to estimate equation (2.1) and (2.2) below. Beliefs to be analyzed were recorded when respondents were 15-16 years old and concern short term (within 1 year) and long term (4 years later or more) outcomes related to education, work, parenthood, criminal justice outcomes and mortality.

$$(2.1) \quad Outcome_{i,j} = \alpha_0 + \vec{\alpha}_{belief,j}\vec{Belief}_i + \vec{\alpha}_{SI,j}\vec{SocialIndex}_i + \vec{\delta}_{oj}\vec{X}_{i,j} + \vec{\varepsilon}_{i,j}$$

$$(2.2) \quad Outcome_{i,j} = \alpha_0 + \vec{\alpha}_{belief,j}\vec{Belief}_i + \vec{\alpha}_{peer,j}\vec{Peer}_i + \vec{\alpha}_{par,j}\vec{Parent}_i$$

$$+ \vec{\alpha}_{T,j}\vec{Tract}_i + \vec{\alpha}_{C,j}\vec{County}_i + \vec{\delta}_{oj}\vec{X}_{i,j} + \vec{\varepsilon}_{i,j}$$

The vector $\vec{Belief}_i$ includes belief of graduating high school by age 20, having a degree by age 30, probability of becoming a parent by age 20, probability of arrest within the next year, probability of incarceration by age 20, probability of working more than 20 hours at age 30, probability of arrest if one were to steal a car, and probability die by age 20. The vectors $\vec{X}_{i,j}$ and $\vec{SocialIndex}_i$ are defined the same as in equation (1.1). Equation (2.2) disaggregates the social indices where $\vec{Peer}_i$, $\vec{Parent}_i$, $\vec{Tract}_i$, and $\vec{County}_i$ are vectors containing peer, parent, tract, and county attributes.

Finally after examining the relationship between beliefs and social environment, and outcomes and beliefs, I then use a Oaxaca Blinder decomposition to calculate how much socioeconomic inequality in education, work, parenthood, and criminal justice outcomes can be explained by group differences in beliefs. For the Oaxaca Blinder decomposition, I use a disaggregated equation as in (2.2), to construct how much inequality in outcomes is due to inequality in peer, neighborhood, and parent composition. I also report portion explained by wealth, shocks, academic ability measures, and past risky behavior.

Caution should be taken in interpreting the coefficients as causal effects. Additionally, the analysis does not take any stance on whether beliefs are rational responses to local conditions or biased based off of excessive weight on non-economic factors. The results

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merely suggest that beliefs and their relation to social environment are worthy of further study.

## 4.1  Belief Analysis Results

In this subsection we analyze the relationship between beliefs of respondents when they are 15-16 years old with social environment, parental wealth, demographics, exposure to adverse shocks, academic ability, and past risky behavior. Results are reported seperately for whether they pertain to school, work, early parenthood, criminal justice outcomes, and mortality.

Table 4 presents results on beliefs about schooling outcomes. The three beliefs examined are belief of staying in school next year in Column (1), belief of graduating high school by age 20 in Column (2), and belief of having a bachelor's degree by age 30 Column (3). The first panel of Table 4, shows important roles for social environment. The social bachelor's index suggests a standard deviation increase in exposure to bachelor's attainment and aspirations is associated with between 1.09 and 4.87 percentage point increase in self reported probability of the three schooling outcomes, with the largest magnitude for degree attainment. Additionally, there is a positive correlation between exposure to military service and belief of high school completion, and a negative association between exposure to crime and belief of degree attainment.

The second panel of Table 4 shows important relationships between beliefs and variables traditionally studied in economics. For instance all three beliefs exhibit a strong positive correlation with the academic ability index. Family wealth is important for teen's beliefs of earning a degree. Additionally, exhibiting an additional risky behavior before the start of the survey is associated with a 2.03 percentage point decrease in belief of earning a college degree, and 1.38 percentage point decrease in staying in school next year holding all controls constant.

Table 4: Beliefs about School

| VARIABLES | (1) School Next Year | (2) HS Grad by 20 | (3) Deg by 30 |
|---|---|---|---|
| Social Crime (1sd) | 0.3575 | -0.0606 | -1.5853* |
| | (0.4556) | (0.4712) | (0.8745) |
| Social Young Sex (1sd) | -0.5984 | 0.3184 | -1.0559 |
| | (0.4727) | (0.6712) | (1.1660) |
| Social Bachelor's (1sd) | 1.4709* | 1.0856* | 4.8707*** |
| | (0.7621) | (0.6531) | (1.1673) |
| Social HS Non BA (1sd) | 0.8723** | 0.5622 | 1.0386 |
| | (0.4406) | (0.3941) | (0.7125) |
| Social Military (1sd) | -0.2537 | 1.0030*** | 0.4010 |
| | (0.4827) | (0.3546) | (0.9025) |
| Social Economic (1sd) | -0.709 | -1.0337 | -1.368 |
| | (0.6961) | (0.7852) | (0.8459) |
| HH Net Worth ($10k) | 0.0274 | 0.0251 | 0.0779** |
| | (0.0184) | (0.0160) | (0.0332) |
| Family Shocks | -0.0464 | -0.3549 | -0.3937 |
| | (0.3614) | (0.2538) | (0.4531) |
| Victim Shocks | -1.0304** | -0.5161 | -0.7788 |
| | (0.4987) | (0.5593) | (0.8830) |
| Academic Index (1sd) | 2.3726*** | 3.7565*** | 9.8277*** |
| | (0.6182) | (0.6185) | (0.8782) |
| Past Risky Behavior | -1.3753* | -0.7746 | -2.0299** |
| | (0.7554) | (0.6954) | (1.0130) |
| Rural 1997 | -4.0352*** | -3.2191* | -1.8858 |
| | (1.1922) | (1.7980) | (3.0097) |
| Urban 1997 | -5.2050*** | -2.9496** | 1.0112 |
| | (1.1645) | (1.4013) | (3.0268) |
| Female | -0.9574 | 1.0338 | 5.3729*** |
| | (1.0706) | (0.8559) | (2.0828) |
| Hispanic | -0.1152 | -1.4526 | 3.5047 |
| | (1.3457) | (1.8083) | (3.2857) |
| Black | 4.7363*** | 1.4055 | 10.0736*** |
| | (1.1854) | (1.1010) | (2.8468) |
| Observations | 1,501 | 1,501 | 1,501 |
| # State Fixed Effects | 41 | 41 | 41 |
| $R^2$ Overall | 0.0638 | 0.104 | 0.220 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: OLS regressions of beliefs on social environment and other controls. All beliefs are reported in percentages of event occurring between 1-100. All regressions use robust standard errors. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Teens who experienced an additional victim shock like being bullied, or witnessing a shooting are 1.03 percentage points less likely to believe they will stay in school next year. Additionally, Teens from more rural and urban areas relative to suburban areas are more pessimistic about high school completion, while similar to other studies, black and female teens are more optimistic about bachelor's attainment, holding all other controls constant.

Table 5 presents results on beliefs about work hour outcomes, specifically whether they believe they will work more than 20 hours a week. Column (1), shows results for belief beliefs about this event next year conditional on being in school still, Column (2) for this event next year conditional on dropping, and Column (3) for this event at age 30. The first panel of Table 4, shows important roles for social environment. Table 5 shows a lack of a strong relationship between social environment and belief of working 20 plus hours at age 30, with the only statistically significant result being the academic ability index.

Table 5 does show interesting relationships for the shorter beliefs. For instance, holding all other controls constant belief of working 20 plus years next is strongly positively correlated with local economic conditions, whether in school or dropping out of school. A one standard deviation increase in this index is associated with between a 2.35 and 2.14 percentage point increase belief working 20 plus hours next year, holding all other controls constant. Additionally, exposure to more military service and higher academic ability is associated with a higher perceived likelihood of working 20 plus hours conditional on dropout.

Column (1) in Table 5 shows less economic security measured by household net worth and family shocks, and less exposure to bachelor's attainment and aspirations is positively correlated with the belief of working more than 20 plus hours next year while in high school. This suggest that teens from less affluent backgrounds may believe they have to work to either compensate for less family resources, or assist their families with less resources. The statistically significant results for social young sex, female, and past risky behavior which includes sex before age 15 suggests this may be more the case for young women.

Table 5: Beliefs about Work hours

| VARIABLES | (1)<br>Work 20+hrs NY<br>if School | (2)<br>Work 20+hrs NY<br>if No School | (3)<br>Work 20+hrs<br>at 30 |
|---|---|---|---|
| Social Crime (1sd) | 1.2911 | 0.1012 | -0.5201 |
| | (1.0842) | (0.9179) | (0.5998) |
| Social Young Sex (1sd) | 2.6967** | 0.7708 | -0.2129 |
| | (1.2689) | (0.8608) | (0.8503) |
| Social Bachelor's (1sd) | -2.8816** | -1.2560 | -0.0537 |
| | (1.3674) | (1.2943) | (0.6305) |
| Social HS Non BA (1sd) | 1.0155 | 0.2736 | -0.2172 |
| | (0.6777) | (1.1089) | (0.5042) |
| Social Military (1sd) | 1.7316 | 1.6972** | -0.1846 |
| | (1.0631) | (0.6845) | (0.3783) |
| Social Economic (1sd) | 2.3470* | 2.1390** | 0.4055 |
| | (1.2005) | (1.0518) | (0.6174) |
| | | | |
| HH Net Worth ($10k) | -0.1197*** | 0.0288 | -0.0232 |
| | (0.0439) | (0.0429) | (0.0246) |
| Family Shocks | 1.1969*** | 0.5279 | 0.1926 |
| | (0.4444) | (0.5838) | (0.3006) |
| Victim Shocks | 0.1562 | 0.4336 | -0.1981 |
| | (0.7514) | (0.8083) | (0.4186) |
| Academic Index (1sd) | -1.6090 | 4.2708*** | 3.0799*** |
| | (1.3379) | (1.0134) | (0.5775) |
| Past Risky Behavior | 3.1848*** | 1.6355*** | 0.2391 |
| | (0.8160) | (0.5515) | (0.6658) |
| | | | |
| Rural 1997 | -0.4244 | 3.5500 | -1.1353 |
| | (4.3266) | (4.0742) | (2.2992) |
| Urban 1997 | 1.1592 | 2.0865 | -0.6494 |
| | (4.7405) | (3.9903) | (2.0559) |
| Female | 4.6668*** | 4.2896** | 0.4627 |
| | (1.7825) | (1.7950) | (1.2371) |
| Hispanic | -0.9885 | 0.5106 | -0.4592 |
| | (2.0349) | (2.0009) | (1.1556) |
| Black | -0.8193 | 0.8740 | -0.7875 |
| | (2.8126) | (1.8415) | (1.2741) |
| | | | |
| Observations | 1,501 | 1,501 | 1,501 |
| # State Fixed Effects | 41 | 41 | 41 |
| $R^2$ | 0.0826 | 0.0447 | 0.0563 |

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5: OLS regressions of beliefs on social environment and other controls. All beliefs are reported in percentages of event occurring between 1-100. All regressions use robust standard errors. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table 6: Beliefs about Parenthood

| VARIABLES | (1) Parent Next Year | (2) Parent by 20 |
|---|---|---|
| Social Crime (1sd) | 0.7493 | 2.0206*** |
| | (0.6208) | (0.7217) |
| Social Young Sex (1sd) | 0.6883 | 2.2386*** |
| | (0.4689) | (0.6912) |
| Social Bachelor's (1sd) | 0.3233 | -0.5020 |
| | (0.5283) | (0.9677) |
| Social HS Non BA (1sd) | -0.0328 | -0.0309 |
| | (0.5769) | (0.8122) |
| Social Military (1sd) | -0.3381 | -0.0163 |
| | (0.4047) | (0.5869) |
| Social Economic (1sd) | -0.4017 | 0.2404 |
| | (0.4049) | (1.1268) |
| | | |
| HH Net Worth ($10k) | 0.0350 | 0.0016 |
| | (0.0237) | (0.0293) |
| Family Shocks | 0.0897 | 0.2992 |
| | (0.2593) | (0.4986) |
| Victim Shocks | -0.6408 | 0.0238 |
| | (0.6386) | (0.9826) |
| Academic Index (1sd) | -1.8894*** | -3.9053*** |
| | (0.5630) | (0.6799) |
| Past Risky Behavior | 3.3107*** | 4.8688*** |
| | (0.5503) | (0.7774) |
| | | |
| Rural 1997 | 3.1124 | 5.5655** |
| | (2.1258) | (2.5220) |
| Urban 1997 | 2.3528 | 2.6388 |
| | (1.7754) | (2.6111) |
| Female | -2.2629** | -0.6869 |
| | (0.8829) | (1.8618) |
| Hispanic | 1.5990 | 1.2262 |
| | (2.1248) | (2.5705) |
| Black | 0.1458 | -3.1822 |
| | (1.3355) | (2.4439) |
| | | |
| Observations | 1,501 | 1,501 |
| # State Fixed Effects | 41 | 41 |
| $R^2$ | 0.109 | 0.142 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6: OLS regressions of beliefs on social environment and other controls. All beliefs are reported in percentages of event occurring between 1-100. All regressions use robust standard errors. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table 6 presents results on beliefs about parenthood, measured by probability of being a parent next year in Column (1), and belief of being a parent by age 20 in Column (2). Table 6 shows that for belief of being a parent next year, the only statistically significant results are the academic index, past risky behavior and whether the respondent is female. Surprisingly female respondents believe parenthood is less likely for them than males holding all other controls constant.

Table 6 shows that social environment is much more important for belief of being a parent by age 20. For instance, teens who come from a rural area are 5.67 percentage points more likely to believe they will be a parent by age 20, holding all other controls constant. Additionally, teens who are exposed to more crime or sex at young ages are more likely to believe they will be parents by age 20, where a one standard deviation in either of these measures ranges between 2.02 and 2.24 percentage points. Similar to belief of being a parent next year academic ability and past risky behavior are also strongly correlated to belief of being a parent by age 20.

Table 7 presents results for beliefs about criminal justice outcomes. Table 7 shows that teens with more academic ability and less experience with past risky behavior believe arrest risk after car theft is higher. Although, none of the coefficients for the social indices are statistically significant, the disaggregated analysis results shown in Appendix Figure 4 suggest otherwise. Appendix Figure 4 provides evidence that more exposure to crime, parent incarceration, less peer college aspirations, and less exposure to adults with at least a high school diploma believe that crime risk following car theft is lower.

Similar to Tables 4-6, more exposure to crime to strongly correlated with belief of coming into contact with the criminal justice system, where a one standard deviation in exposure to crime is associated with 2.38 and 0.76 percentage point increase in belief of being arrested next year and being in Jail by age 20.

Table 7: Beliefs about Criminal Justice Outcomes

| VARIABLES | (1) Arrested if Stole Car | (2) Arrest Next Year | (3) Jailed at 20 |
|---|---|---|---|
| Social Crime (1sd) | -0.3540 | 2.3809*** | 0.7579** |
| | (1.2987) | (0.5313) | (0.3166) |
| Social Young Sex (1sd) | 1.4022 | 0.2493 | 0.6056 |
| | (1.3342) | (0.6519) | (0.4305) |
| Social Bachelor's (1sd) | 1.1987 | 1.7763*** | 1.0799** |
| | (1.5461) | (0.6187) | (0.4211) |
| Social HS Non BA (1sd) | 1.6386 | 0.4341 | -0.0674 |
| | (1.1679) | (0.4887) | (0.2782) |
| Social Military (1sd) | -0.9218 | 0.3300 | -0.0368 |
| | (1.0077) | (0.4909) | (0.2929) |
| Social Economic (1sd) | -1.6789 | -1.6616** | -0.4358 |
| | (1.2284) | (0.8215) | (0.4046) |
| | | | |
| HH Net Worth ($10k) | 0.0491 | 0.0618** | 0.0187 |
| | (0.0579) | (0.0248) | (0.0127) |
| Family Shocks | 0.8174 | 0.3442 | 0.3204 |
| | (0.8047) | (0.2919) | (0.2167) |
| Victim Shocks | -0.3183 | 0.8844* | 0.6317 |
| | (1.3519) | (0.4925) | (0.3904) |
| Academic Index | 3.8636*** | -0.9374* | -1.9110*** |
| | (1.3654) | (0.5496) | (0.3148) |
| Past Risky Behavior | -2.7339** | 3.0721*** | 1.0995*** |
| | (1.3208) | (0.6461) | (0.3616) |
| | | | |
| Rural 1997 | -4.3627 | -0.5023 | 1.6691 |
| | (7.2533) | (1.9785) | (1.5068) |
| Urban 1997 | -5.8555 | -0.9360 | 0.8660 |
| | (6.9361) | (2.1709) | (1.2694) |
| Female | -2.3082 | -6.1535*** | -3.1241*** |
| | (2.0485) | (1.4344) | (0.6176) |
| Hispanic | -2.0543 | 0.9382 | 0.5100 |
| | (3.7296) | (1.2856) | (1.1898) |
| Black | -3.1181 | 1.0963 | -0.9169 |
| | (4.3403) | (1.3217) | (0.8916) |
| | | | |
| Observations | 1,501 | 1,501 | 1,501 |
| # State Fixed Effects | 41 | 41 | 41 |
| $R^2$ | 0.0431 | 0.133 | 0.0928 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 7: OLS regressions of beliefs on social environment and other controls. All beliefs are reported in percentages of event occurring between 1-100. All regressions use robust standard errors. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table 8: Beliefs about Mortality

| VARIABLES | (1) Die Next Year | (2) Die by 20 |
|---|---|---|
| Social Crime (1sd) | 2.1916** | 2.5283*** |
| | (0.9070) | (0.8284) |
| Social Young Sex (1sd) | 2.5271*** | 1.9942** |
| | (0.7969) | (0.8506) |
| Social Bachelor's (1sd) | 1.5490* | 1.5501** |
| | (0.8355) | (0.7331) |
| Social HS Non BA (1sd) | 0.8294 | 0.9852 |
| | (0.6536) | (0.6610) |
| Social Military (1sd) | 0.4728 | -0.1018 |
| | (0.5122) | (0.5840) |
| Social Economic (1sd) | -1.4412 | -1.7958* |
| | (0.9789) | (1.0706) |
| | | |
| HH Net Worth ($10k) | -0.0089 | -0.0383 |
| | (0.0321) | (0.0350) |
| Family Shocks | 0.1339 | 0.6008 |
| | (0.3819) | (0.4055) |
| Victim Shocks | 1.8597** | 2.3960*** |
| | (0.7834) | (0.6839) |
| Academic Index (1sd) | -1.0310 | -0.2202 |
| | (0.6349) | (0.6310) |
| Past Risky Behavior | 0.4916 | 0.3192 |
| | (0.5317) | (0.5107) |
| | | |
| Rural 1997 | 0.8325 | 1.0781 |
| | (3.4330) | (3.0912) |
| Urban 1997 | 0.3697 | 0.3847 |
| | (3.4740) | (3.2593) |
| Female | 2.4064* | 1.0863 |
| | (1.2861) | (1.3511) |
| Hispanic | -1.4320 | -0.7594 |
| | (2.0742) | (1.4874) |
| Black | -0.3109 | -2.1400 |
| | (1.7527) | (1.8497) |
| | | |
| Observations | 1,501 | 1,501 |
| # State Fixed Effects | 41 | 41 |
| $R^2$ | 0.0636 | 0.0612 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8: OLS regressions of beliefs on social environment and other controls. All beliefs are reported in percentages of event occurring between 1-100. All regressions use robust standard errors. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table 7 also shows some interesting and puzzling results as well. For instance, better economic outcomes for adults of the same race/ethnicity and gender is negatively associated with belief of being arrested next year. Not surprising, more past risky behavior and lower measures of academic ability are associated with a lower perceived probability of being arrested next year and jailed by age 20. Puzzling results include a positive association of belief of arrest and incarceration with social bachelor's index, and parental wealth.

Finally, Table 8 presents results for beliefs about mortality. Table 8 shows more exposure to crime, young sex, and experiencing more victim shocks are all strongly positively correlated with beliefs of dying next year and by the age of 20. Similar to Table 7, there are some puzzling results, where a one standard deviation increase in the social bachelor's index is associated with 1.55 percentage point increase in belief of dying next year and by age 20.

Overall the results in this section suggest that teen beliefs about certain outcomes, be it school, work, parenthood, or criminal justice outcomes are strongly positively correlated to the extent that they are exposed to similar outcomes occurring amongst their social network. Additionally there are interesting cross relationships between exposure to outcomes and beliefs about non corresponding outcomes. Teens who are are exposed to more crime, or more young sex, believe that events like early parenthood, death, and arrest are more likely, while bachelor's attainment is less likely holding all controls constant. More exposure to better education outcomes is positively associated with optimism regarding schooling and surprisingly death and arrest. Finally, teens from families with less family resources with less exposure to college education believe they are more likely to work, while those exposed to more crime and less education believe crime is less risky, holding all controls constant. The next section examines the relationship between actual outcome realizations and beliefs.

## 4.2 Outcomes Analysis

In this subsection we analyze the relationship between actual outcome realizations and beliefs recorded when respondents were ages 15-16. Outcomes analyzed are high school dropout, bachelor's attainment, work 20 plus hours a week in the year 2010(or about 30 years old) parent by age 20, ever arrested, and ever incarcerated. For all analysis, the first column corresponding to each outcomes are the results for the preferred specification using social indices, while the second column corresponding to each outcome includes the disaggregated social environment characteristics. For the most part there is little difference in the the coefficients between specifications.

Table 9 shows results for school outcomes. Table 9 shows that both belief of high school completion and obtaining a degree by age 30 are negatively correlated with high school dropout. On the other belief of being a parent by age 20 is positively correlated with being a high school dropout, where a 10 percentage point increase in belief of being a parent by age 20 is associated with a 1.3-1.4 percentage point increase in probability of dropping out of high school.

For bachelor's attainment there is a statistically significant relationship between belief of having a degree by age 30, where a 10 point percentage point increase in belief of having a degree by age 30 is associated with between a 2-2.2 percentage point increase in actual probability of obtaining a bachelor's degree. Surprisingly there is a negative relationship between belief of having a high school degree by age 20, and actual bachelor's attainment. This may reflect that teens perceive the question as asking probability of being a high school graduate only.

Table 9: School Outcomes Regressed on Past Beliefs

| VARIABLES | (1) HS Dropout | (2) HS Dropout | (3) Bachelor's | (4) Bachelor's |
|---|---|---|---|---|
| Prob Work 20+hrs at 30 (10 ppts) | 0.0023 | 0.0011 | -0.0004 | 0.0020 |
| | (0.0076) | (0.0076) | (0.0056) | (0.0050) |
| Prob HS Grad by 20 (10 ppts) | -0.0418*** | -0.0414*** | -0.0124*** | -0.0123** |
| | (0.0085) | (0.0086) | (0.0045) | (0.0052) |
| Prob Deg by 30 (10 ppts) | -0.0100*** | -0.0086** | 0.0217*** | 0.0200*** |
| | (0.0036) | (0.0035) | (0.0027) | (0.0030) |
| Prob Parent by 20 (10 ppts) | 0.0138*** | 0.0130*** | -0.0009 | -0.0004 |
| | (0.0040) | (0.0040) | (0.0035) | (0.0036) |
| Prob Arrested if Stole Car (10 ppts) | 0.0027 | 0.0025 | -0.0011 | -0.0000 |
| | (0.0020) | (0.0020) | (0.0023) | (0.0021) |
| Prob Arrest Next Year (10 ppts) | 0.0010 | 0.0021 | -0.0039 | -0.0057 |
| | (0.0048) | (0.0049) | (0.0064) | (0.0066) |
| Prob Die by 20 (10ppts) | -0.0050 | -0.0054 | -0.0023 | -0.0009 |
| | (0.0038) | (0.0042) | (0.0053) | (0.0053) |
| | | | | |
| Observations | 1,501 | 1,501 | 1,501 | 1,501 |
| Number of States | 41 | 41 | 41 | 41 |
| Social Indices | Yes | No | Yes | No |
| Disaggregated Social Chars. | No | Yes | No | Yes |
| $R^2$ | 0.279 | 0.287 | 0.369 | 0.380 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 9: Reports coefficients from OLS regressions of outcomes on beliefs and other controls. All regressions use robust standard errors. Regressions also control for social environment, academic ability, risky behavior before 1997, race, ethnicity, gender, whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county

Table 10: Work Hours 2010 Regressed on Past Beliefs

| VARIABLES | (1) Work 20+ hrs 2010 | (2) Work 20+ hrs 2010 |
|---|---|---|
| Prob Work 20+hrs at 30 (10 ppts) | 0.0065 | 0.0071 |
| | (0.0080) | (0.0082) |
| | | |
| Prob HS Grad by 20 (10 ppts) | 0.0035 | 0.0036 |
| | (0.0072) | (0.0073) |
| | | |
| Prob Deg by 30 (10 ppts) | 0.0042 | 0.0040 |
| | (0.0046) | (0.0044) |
| | | |
| Prob Parent by 20 (10 ppts) | 0.0041 | 0.0038 |
| | (0.0049) | (0.0053) |
| | | |
| Prob Arrested if Stole Car (10 ppts) | -0.0065** | -0.0061** |
| | (0.0028) | (0.0028) |
| | | |
| Prob Arrest Next Year (10 ppts) | -0.0193** | -0.0178** |
| | (0.0081) | (0.0079) |
| | | |
| Prob Die by 20 (10ppts) | 0.0054 | 0.0057 |
| | (0.0040) | (0.0040) |
| | | |
| Observations | 1,501 | 1,501 |
| Number of States | 41 | 41 |
| Social Indices | Yes | No |
| Disaggregated Social Chars. | No | Yes |
| $R^2$ | 0.110 | 0.116 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 10: Reports coefficients from OLS regressions of outcomes on beliefs and other controls. All regressions use robust standard errors. Regressions also control for social environment, academic ability, risky behavior before 1997, race, ethnicity, gender, whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county

Table 10 shows results for the outcome realization of working 20 plus hours a week in 2010, when respondents are approximately 30 year old. Surprisingly, there is no statistically significant relationship between working 20 plus hours a week in 2010, and it's corresponding belief. However, beliefs related to criminal justice events are strongly related to actually working 20 plus hours a week in 2010. A ten percentage point increase in belief of being arrested within the next year as a teen is associated with between a 1.8-1.9 percentage point decrease in working 20 plus hours in 2010, holding all controls constant. Belief of arrest risk is also negatively correlated with working 20 plus hours a week in 2010.

Table 11 shows results for the outcome realization of being a parent by the age of 20. Belief of being a parent by age 20 is strongly positively related to actually being a parent by age 20, while belief of having a degree by age 30 is strongly negatively correlated with actually being a parent by age 20. A ten percentage point increase in belief of being a parent by age 20 is associated with between a 1.3-1.5 percentage point increase in actual probability of being a parent by age 20, holding all controls constant. A ten percentage point increase in belief of having a degree by age 30 is associated with between a 0.6 and 0.8 percentage point decrease in actual probability of being a parent by age 20.

Finally Table 12 shows results for arrest and incarceration realizations. Belief of being arrested within the next year as a teen is strongly correlated with both arrest and incarceration realizations. A ten percentage point increase in belief of being arrested next year is associated with a between 2.4-2.5 percentage point increase in actual probability of arrest, and 1.8 percentage point increase in actual probability of being incarcerated, holding all other controls constant. Additionally, belief of being a parent by age 20 is positively correlated with actual probability of being arrested, where a 10 percentage point increase in this belief is associated with a 1.2 percentage point increase in actual probability of being arrested.

Table 11: Early Parenthood Regressed on Past Beliefs

| VARIABLES | (1) Parent by 20 | (2) Parent by 20 |
|---|---|---|
| Prob Work 20+hrs at 30 (10 ppts) | 0.0014 | 0.0022 |
| | (0.0092) | (0.0086) |
| | | |
| Prob HS Grad by 20 (10 ppts) | -0.0078 | -0.0054 |
| | (0.0086) | (0.0089) |
| | | |
| Prob Deg by 30 (10 ppts) | -0.0082** | -0.0062** |
| | (0.0032) | (0.0030) |
| | | |
| Prob Parent by 20 (10 ppts) | 0.0147*** | 0.0130*** |
| | (0.0048) | (0.0049) |
| | | |
| Prob Arrested if Stole Car (10 ppts) | 0.0012 | 0.0022 |
| | (0.0021) | (0.0022) |
| | | |
| Prob Arrest Next Year (10 ppts) | -0.0045 | -0.0019 |
| | (0.0063) | (0.0068) |
| | | |
| Prob Die by 20 (10ppts) | -0.0004 | -0.0001 |
| | (0.0045) | (0.0044) |
| | | |
| Observations | 1,501 | 1,501 |
| Number of States | 41 | 41 |
| Social Indices | Yes | No |
| Disaggregated Social Chars. | No | Yes |
| $R^2$ | 0.189 | 0.211 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 11: Reports coefficients from OLS regressions of outcomes on beliefs and other controls. All regressions use robust standard errors. Regressions also control for social environment, academic ability, risky behavior before 1997, race, ethnicity, gender, whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county

Table 12: Criminal Justice Outcomes Regressed on Past Beliefs

| VARIABLES | (1) Arrested | (2) Arrested | (3) Incarcerated | (4) Incarcerated |
|---|---|---|---|---|
| Prob Work 20+hrs at 30 (10 ppts) | -0.0012 | -0.0016 | 0.0082* | 0.0084* |
|  | (0.0055) | (0.0057) | (0.0045) | (0.0048) |
| Prob HS Grad by 20 (10 ppts) | 0.0045 | 0.0064 | 0.0034 | 0.0038 |
|  | (0.0077) | (0.0076) | (0.0055) | (0.0056) |
| Prob Deg by 30 (10 ppts) | -0.0031 | -0.0037 | -0.0038 | -0.0048 |
|  | (0.0039) | (0.0039) | (0.0033) | (0.0034) |
| Prob Parent by 20 (10 ppts) | 0.0121** | 0.0116** | 0.0019 | 0.0017 |
|  | (0.0050) | (0.0054) | (0.0040) | (0.0040) |
| Prob Arrested if Stole Car (10 ppts) | 0.0015 | 0.0010 | 0.0030** | 0.0022 |
|  | (0.0025) | (0.0024) | (0.0014) | (0.0015) |
| Prob Arrest Next Year (10 ppts) | 0.0235*** | 0.0249*** | 0.0180*** | 0.0184*** |
|  | (0.0079) | (0.0078) | (0.0054) | (0.0054) |
| Prob Die by 20 (10ppts) | -0.0013 | -0.0023 | -0.0032 | -0.0031 |
|  | (0.0055) | (0.0052) | (0.0034) | (0.0036) |
| Observations | 1,501 | 1,501 | 1,501 | 1,501 |
| Number of States | 41 | 41 | 41 | 41 |
| Social Indices | Yes | No | Yes | No |
| Disaggregated Social Chars. | No | Yes | No | Yes |
| $R^2$ | 0.203 | 0.218 | 0.141 | 0.154 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 12: Reports coefficients from OLS regressions of outcomes on beliefs and other controls. All regressions use robust standard errors. Regressions also control for social environment, academic ability, risky behavior before 1997, race, ethnicity, gender, whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county

For most of the outcomes examined in this analysis, outcomes realizations are strongly correlated with their corresponding beliefs, where a 10 percentage point increase in the corresponding belief is associated with between a 1.3 to 4.2 percentage point increase in the corresponding event occurring. The only exception to this is working 20 plus hours in 2010. Additionally, there are interesting cross relationships between non corresponding beliefs and outcomes. For instance belief of being a parent is positively correlated with being arrested and dropping out of high school. Belief of having a degree by age 30 is negatively correlated with being a parent by age 20, and belief of being arrested is negatively correlated with working 20 plus hours a week in 2010.

Appendix Tables A2-A5 reports how coefficients on social environment indices, wealth, adverse shocks academic ability, and past risky behavior change with the inclusion of beliefs on the outcome regressions. For most statistically significant coefficients, the coefficients shrink in magnitude. However these changes are likely not statistically significant. This suggest beliefs may be part of the relationship between outcomes and social environment. Overall these results suggest an independent effect of beliefs. In the next section we perform a Oaxaca Blinder decomposition to see how much socioeconomic inequality can be explained by socioeconomic inequality in teen beliefs of the future.

## 4.3 Oaxaca Blinder Decomposition: Socioeconomic Gaps

In this subsection, I explore to what extent socioeconomic differences in outcomes can be explained by differences in beliefs. I also report how much of this inequality can be explained by differences in peer activities, parent history, neighborhood attributes, exposure to adverse shocks, academic ability, and past risky behavior (pre 1997). I do this by performing a Oaxaca Blinder decomposition of outcomes, first comparing low to high parental wealth adolescents then mid to high parental wealth adolescents.

Table 13: Low vs High Gaps Oaxaca Blinder Pct Explained Results

| VARIABLES | (1) Arrest | (2) Incarc | (3) Parent | (4) HS Drop | (5) Bachelor's | (6) Work |
|---|---|---|---|---|---|---|
| Beliefs | 0.0188 | 0.0047 | 0.0099 | 0.0576*** | 0.0207** | 0.0019 |
| % Explained | 12.78 | 6.47 | 4.89 | 26.17 | 4.93 | 1.21 |
| | | | | | | |
| Neighborhood | -0.0229 | -0.0090 | 0.0412* | -0.0386 | 0.0015 | -0.0048 |
| % Explained | -15.57 | -12.4 | 20.34 | -17.54 | 0.36 | -3.06 |
| | | | | | | |
| Household | -0.0031 | -0.0070 | 0.0544*** | 0.0252 | 0.0874*** | -0.0187 |
| % Explained | -2.11 | -9.64 | 26.85 | 11.45 | 20.8 | -11.93 |
| | | | | | | |
| Wealth | -0.0222 | -0.0219 | 0.0085 | -0.0072 | 0.0642** | -0.01 |
| % Explained | -15.09 | -30.17 | 4.2 | -3.27 | 15.28 | -6.38 |
| | | | | | | |
| Shocks | 0.0239* | 0.0026 | -0.0154 | 0.0008 | 0.0420*** | 0.0421*** |
| % Explained | 16.25 | 3.58 | -7.6 | 0.36 | 10 | 26.85 |
| | | | | | | |
| Peers | 0.0043 | 0.0053 | 0.0408*** | 0.0272** | 0.0055 | 0.008 |
| % Explained | 2.92 | 7.3 | 20.14 | 12.36 | 1.31 | 5.1 |
| | | | | | | |
| Academic | 0.0336 | 0.0296** | -0.0095 | 0.0955*** | 0.1546*** | 0.1031*** |
| % Explained | 22.84 | 40.77 | -4.69 | 43.39 | 36.79 | 65.75 |
| | | | | | | |
| Risky Behavior | 0.0518*** | 0.0233*** | 0.0513*** | 0.0204** | 0.0314*** | 0.0031 |
| % Explained | 35.21 | 32.09 | 25.32 | 9.27 | 7.47 | 1.98 |
| | | | | | | |
| Other | -0.0242 | -0.0023 | -0.0001 | -0.0030 | -0.0570*** | -0.035 |
| % Explained | -16.45 | -3.17 | -0.05 | -1.36 | -13.56 | -22.32 |
| | | | | | | |
| Low Mean | 0.3384*** | 0.1158*** | 0.2559*** | 0.2492*** | 0.1633*** | 0.6229*** |
| High Mean | 0.1913*** | 0.0395*** | 0.0533*** | 0.0291*** | 0.5835*** | 0.7797*** |
| Difference | 0.1471*** | 0.0763*** | 0.2026*** | 0.2201*** | 0.4202*** | 0.1568*** |
| Explained | 0.0601 | 0.0160 | 0.1811*** | 0.1778*** | 0.3503*** | 0.0898** |
| Unexplained | 0.0870* | 0.0603** | 0.0215 | 0.0423 | 0.0700 | 0.0669 |
| | | | | | | |
| Observations | 1,007 | 976 | 1,007 | 1,007 | 1,007 | 1,007 |
| N High | 413 | 380 | 413 | 413 | 413 | 413 |
| N Low | 594 | 596 | 594 | 594 | 594 | 594 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 13: Reports results from a Oaxaca Blinder decomposition. Only results for the explained portion for each group of coefficients is shown. The reference equation used to conduct the analysis pools low and high wealth youth together. Percent explained is calculated by dividing the explained portion of the difference in outcomes corresponding to each group of variables by the difference in mean outcomes between the groups.

Table 13 shows the results for the Oaxaca Blinder decomposition comparing socioeconomic inequality for youth from the bottom tercile of parental wealth to youth from the top tercile of parental wealth tercile. Beliefs explain a statistically significant 26% percent of HS dropout gaps and 5% of Bachelor's attainment gaps for low versus high parental wealth youth.

For the other groups of results, importance differs by outcome as well. Neighborhood differences explain only a marginally significant 20% of early parenthood gaps. Differences in household attributes explain 27% of early parenthood, and 21% of bachelor's attainment gaps. Differences in peer composition explain early parenthood and high school dropout gaps. Wealth is important for higher education while shocks are important for college and work. Academic ability plays an important role explaining incarceration, education attainment, and work inequality. Pre 1997 risky behavior plays an important role in explaining criminal justice, early parenthood, and education attainment inequality for low versus high parental wealth youth.

Table 14 shows the results for the Oaxaca Blinder decomposition comparing socioeconomic inequality for youth from the middle tercile of parental wealth to youth from the top tercile of parental wealth tercile. Beliefs explain a statistically significant 16% of early parenthood gaps, 20% percent of HS dropout gaps and 10% of Bachelor's attainment gaps for mid versus high parental wealth youth.

For mid versus high parental wealth youth neighborhood differences explain a statistically significant 22% of high school dropout gaps. Differences in household attributes explain only 22% of bachelor's attainment gaps. Differences in peer composition explain only 15% of high school dropout gaps. parenthood and high school dropout gaps. Similar to low versus high wealth is important for higher education while shocks are important for college and work. Academic ability and risky behavior are important for almost every other gap for mid versus high wealth youth.

Table 14: Mid vs High Gaps Oaxaca Blinder Pct Explained Results

| VARIABLES | (1) Arrest | (2) Incarc | (3) Parent | (4) HS Drop | (5) Bachelor's | (6) Work |
|---|---|---|---|---|---|---|
| Beliefs | 0.0073 | 0.0017 | 0.0193*** | 0.0203*** | 0.0278*** | 0.0054 |
| % Explained | 6.62 | 3.74 | 16.25 | 19.8 | 9.72 | 8.29 |
| | | | | | | |
| Neighborhood | -0.0040 | -0.0128 | 0.0147 | 0.0226** | -0.0154 | 0.0196 |
| % Explained | -3.63 | -28.13 | 12.37 | 22.05 | -5.38 | 30.11 |
| | | | | | | |
| Household | 0.0105 | 0.0138 | 0.0137 | -0.0164* | 0.0636*** | 0.0008 |
| % Explained | 9.52 | 30.33 | 11.53 | -16 | 22.24 | 1.23 |
| | | | | | | |
| Wealth | -0.0039 | -0.0098 | 0.0113 | -0.0008 | 0.0396* | -0.0056 |
| % Explained | -3.54 | -21.54 | 9.51 | -0.78 | 13.85 | -8.6 |
| | | | | | | |
| Shocks | 0.0121* | 0.0028 | 0.0081 | 0.0000 | 0.0312*** | 0.0194*** |
| % Explained | 10.97 | 6.15 | 6.82 | 0 | 10.91 | 29.8 |
| | | | | | | |
| Peers | -0.0027 | 0.0053 | 0.0067 | 0.0154*** | 0.0078 | 0.0051 |
| % Explained | -2.45 | 11.65 | 5.64 | 15.02 | 2.73 | 7.83 |
| | | | | | | |
| Academic | 0.0471*** | 0.0146* | 0.0138 | 0.0634*** | 0.1201*** | 0.0579*** |
| % Explained | 42.7 | 32.09 | 11.62 | 61.85 | 41.99 | 88.94 |
| | | | | | | |
| Risky Behavior | 0.0387*** | 0.0217*** | 0.0186*** | 0.0136** | 0.0202*** | 0.0141* |
| % Explained | 35.09 | 47.69 | 15.66 | 13.27 | 7.06 | 21.66 |
| | | | | | | |
| Other | -0.0132 | 0.0024 | -0.0001 | -0.0274** | -0.0181 | -0.0273 |
| % Explained | -11.97 | 5.27 | -0.08 | -26.73 | -6.33 | -41.94 |
| | | | | | | |
| Mid Mean | 0.3016*** | 0.0891*** | 0.1721*** | 0.1316*** | 0.2976*** | 0.7146*** |
| High Mean | 0.1913*** | 0.0436*** | 0.0533*** | 0.0291*** | 0.5835*** | 0.7797*** |
| Difference | 0.1103*** | 0.0455*** | 0.1188*** | 0.1025*** | 0.2860*** | 0.0651** |
| Explained | 0.0920*** | 0.0397** | 0.1061*** | 0.0907*** | 0.2768*** | 0.0894*** |
| Unexplained | 0.0184 | 0.0058 | 0.0127 | 0.0119 | 0.0092 | -0.0243 |
| | | | | | | |
| Observations | 907 | 907 | 907 | 907 | 907 | 907 |
| N High | 413 | 413 | 413 | 413 | 413 | 413 |
| N Mid | 494 | 494 | 494 | 494 | 494 | 494 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 14: Reports results from a Oaxaca Blinder decomposition. Only results for the explained portion for each group of coefficients is shown. The reference equation used to conduct the analysis pools mid and high wealth youth together. Percent explained is calculated by dividing the explained portion of the difference in outcomes corresponding to each group of variables by the difference in mean outcomes between the groups.

Overall the results in this section validate the importance of social environment, wealth, academic ability, risky behavior, and adverse shocks for many of these outcomes. Most importantly beliefs explain a statistically significant amount of education attainment gaps for low versus high wealth youth and mid versus high wealth youth. Additionally beliefs explain a statistically significant amount of early parenthood gaps for mid versus high wealth youth.

# 5 Conclusion

Overall this paper shows that teens beliefs about the future are strongly correlated to their social environment, while holding wealth, academic ability, exposure to adverse shocks, and past risky behavior constant. These beliefs are also strong predictors of future outcomes. Additionally socioeconomic differences in beliefs can explain a statistically significant amount of education attainment gaps, as well as some early parenthood gaps. These results suggests that future work should further investigate belief formation and social networks. This can help us further understand how environment effects economic efficiency as well as how systemic inequalities shape outcomes for minorities and low socioeconomic status youth.

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# A Appendix

## A.1 Sample Selection and Variable Creation

Table A1: Sample Selection Criterion

| Sample Criterion | Dropped | Sample Remaining |
|---|---|---|
| Whole Sample | | 8984 |
| Not Missing Demographics | 346 | 8638 |
| Not Missing Outcomes | 1975 | 6663 |
| Not Missing Parent Measures | 1345 | 5318 |
| Not Missing Peer Measures | 139 | 5179 |
| Not Missing Tract Measures | 1811 | 3368 |
| Not Missing Shocks | 349 | 3019 |
| Not Missing Academic | 32 | 2987 |
| Not Missing Risky Behavior | 2 | 2985 |
| Born in 1980-1981 | 1249 | 1736 |
| Not Missing Beliefs or Peer Sex Measure | 112 | 1624 |
| No Criminal Justice History Pre-1997 | 123 | 1501 |

Table A1: Shows criterion used to construct sample. 1980 and 1981 cohort were selected since many of the belief variables and some peer characteristics were only available for these cohorts. Only one observation reported any children by the start of the survey, so no further restriction on prior children was required.

Table A2: Principle Component Analysis Academic

| Variable | Comp1 | Comp2 | Comp3 | Comp4 | Comp5 |
|---|---|---|---|---|---|
| ASVAB AR Score | 0.4755 | -0.1413 | -0.5231 | 0.1627 | 0.6737 |
| ASVAB MK Score | 0.4802 | -0.0337 | -0.4932 | -0.0197 | -0.7243 |
| ASVAB PC Score | 0.4694 | -0.1814 | 0.3579 | -0.7805 | 0.0971 |
| ASVAB WK Score | 0.4537 | -0.3211 | 0.5705 | 0.598 | -0.089 |
| Avg 8th | 0.3422 | 0.9181 | 0.1716 | 0.0793 | 0.0651 |

| | Eigenvalue | Difference | Proportion | Cumulative | |
|---|---|---|---|---|---|
| Comp1 | 3.65098 | 2.98516 | 0.7302 | 0.7302 | |
| Comp2 | 0.665824 | 0.356373 | 0.1332 | 0.8634 | |
| Comp3 | 0.309451 | 0.0918822 | 0.0619 | 0.9253 | |
| Comp4 | 0.217569 | 0.0613914 | 0.0435 | 0.9688 | |
| Comp5 | 0.156177 | | 0.0312 | 1 | |

| | | | | | |
|---|---|---|---|---|---|
| Std Dev | 1.910754 | | | | |
| Observation | 1501 | | | | |
| Number of Comp | 5 | | | | |
| Trace | 5 | | | | |
| Rho | 1 | | | | |

Table A2: Reports results from Principle component analysis. First principle component was used for the construction of the index.

| Table A3: Principle Component Analysis Crime | | | | |
|---|---|---|---|---|
| Variable | Comp1 | Comp2 | Comp3 | Comp4 |
| County: Crime Rate Per 100k | 0.4394 | -0.1566 | 0.8575 | 0.2171 |
| Parent: Incarcerated | 0.2527 | 0.9649 | 0.0302 | 0.0653 |
| Peers: Pct Cut Class | 0.58 | -0.179 | -0.4886 | 0.6268 |
| Peers: Pct Gang | 0.6377 | -0.1116 | -0.1584 | -0.7455 |
| | Eigenvalue | Difference | Proportion | Cumulative |
| Comp1 | 1.54173 | 0.576972 | 0.3854 | 0.3854 |
| Comp2 | 0.964753 | 0.0808274 | 0.2412 | 0.6266 |
| Comp3 | 0.883925 | 0.274329 | 0.221 | 0.8476 |
| Comp4 | 0.609597 | | 0.1524 | 1 |
| Std Dev | 1.242 | | | |
| Observation | 1501 | | | |
| Number of Comp | 4 | | | |
| Trace | 4 | | | |
| Rho | 1 | | | |

Table A3: Reports results from Principle component analysis. First principle component was used for the construction of the index.

Table A4: Principle Component Analysis Sex Young Ages

| Variable | Comp1 | Comp2 | Comp3 | |
|---|---|---|---|---|
| County Pct Birth Under 20 | 0.5682 | 0.8212 | -0.0525 | |
| Peers: Pct Sex | 0.5828 | -0.3565 | 0.7302 | |
| Mom's Age First Birth | -0.5809 | 0.4455 | 0.6812 | |

| | Eigenvalue | Difference | Proportion | Cumulative |
|---|---|---|---|---|
| Comp1 | 1.27411 | 0.404734 | 0.4247 | 0.4247 |
| Comp2 | 0.869378 | 0.0128682 | 0.2898 | 0.7145 |
| Comp3 | 0.85651 | | 0.2855 | 1 |

| | | |
|---|---|---|
| Std Dev | 1.129 | |
| Observation | 1501 | |
| Number of Comp | 3 | |
| Trace | 3 | |
| Rho | 1 | |

Table A4: Reports results from Principle component analysis. First principle component was used for the construction of the index.

Table A5: Principle Component Analysis Bachelor's +

| Variable | Comp1 | Comp2 | Comp3 | |
|---|---|---|---|---|
| Parent: Bachelor's + | 0.5878 | -0.5366 | 0.6054 | |
| Tract: Pct Bachelor's + | 0.6463 | -0.1386 | -0.7504 | |
| Peers: Pct College Plans | 0.4865 | 0.8324 | 0.2653 | |
| | Eigenvalue | Difference | Proportion | Cumulative |
| Comp1 | 1.59422 | 0.753003 | 0.5314 | 0.5314 |
| Comp2 | 0.84122 | 0.276662 | 0.2804 | 0.8118 |
| Comp3 | 0.564558 | | 0.1882 | 1 |
| Std Dev | 1.263 | | | |
| Observation | 1501 | | | |
| Number of Comp | 3 | | | |
| Trace | 3 | | | |
| Rho | 1 | | | |

Table A5: Reports results from Principle component analysis. First principle component was used for the construction of the index.

Table A6: Principle Component Analysis High School Non Bachelor's

| Variable | Comp1 | Comp2 | Comp3 |
|---|---|---|---|
| Tract: Pct HS Grad | 0.7105 | -0.104 | 0.6959 |
| Tract: Pct Some College | -0.0607 | 0.9763 | 0.2079 |
| Parent High School Grad | 0.701 | 0.19 | -0.6874 |

| | Eigenvalue | Difference | Proportion | Cumulative |
|---|---|---|---|---|
| Comp1 | 1.187 | 0.178471 | 0.3955 | 0.3955 |
| Comp2 | 1.0081 | 0.202786 | 0.336 | 0.7316 |
| Comp3 | 0.805319 | | 0.2684 | 1 |

| | |
|---|---|
| Std Dev | 1.089 |
| Observation | 1501 |
| Number of Comp | 3 |
| Trace | 3 |
| Rho | 1 |

Table A6: Reports results from Principle component analysis. First principle component was used for the construction of the index.

Table A7: Principle Component Analysis Military

| Variable | Comp1 | Comp2 | | |
|----------|-------|-------|---|---|
| Parent Military | 0.7071 | 0.7071 | | |
| Tract Pct Milever | 0.7071 | -0.7071 | | |
| | Eigenvalue | Difference | Proportion | Cumulative |
| Comp1 | 1.0507 | 0.101407 | 0.5254 | 0.5254 |
| Comp2 | 0.949297 | | 0.4746 | 1 |
| Std Dev | 1.025 | | | |
| Observation | 1501 | | | |
| Number of Comp | 2 | | | |
| Trace | 2 | | | |
| Rho | 1 | | | |

Table A7: Reports results from Principle component analysis. First principle component was used for the construction of the index.

Table A8: Principle Component Analysis Local Economic

| Variable | Comp1 | Comp2 |
|---|---|---|
| Tract: Median Earnings | -0.7071 | 0.7071 |
| Tract: Unemployment Rate | 0.7071 | 0.7071 |

| | Eigenvalue | Difference | Proportion | Cumulative |
|---|---|---|---|---|
| Comp1 | 1.36691 | 0.733813 | 0.6835 | 0.6835 |
| Comp2 | 0.633093 | | 0.3165 | 1 |

| | |
|---|---|
| Std Dev | 1.169 |
| Observation | 1501 |
| Number of Comp | 2 |
| Trace | 2 |
| Rho | 1 |

Table A8: Reports results from Principle component analysis. First principle component was used for the construction of the index.

## A.2 Disaggregated Belief Results



Figure 1: Presents statistically significant coefficients and 10% significant level confidence intervals from OLS analysis of beliefs. Full specification includes peer measures, parent measures, neighborhood outcomes, county attributes, demographics, parental wealth, academic ability, risky behavior, and adverse shocks as independent variables. Standard errors are robust standard errors.
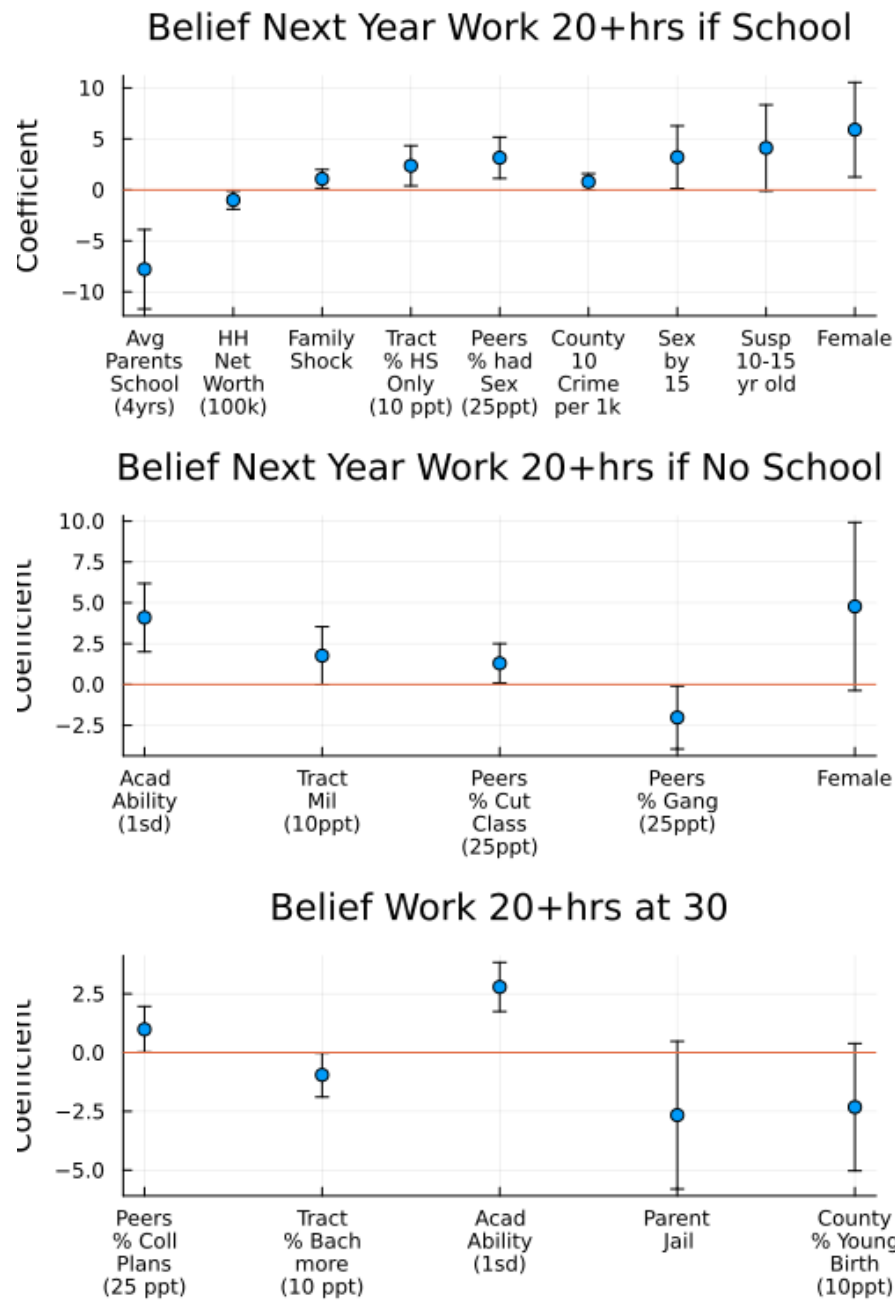
Figure 2: Presents statistically significant coefficients and 10% significant level confidence intervals from OLS analysis of beliefs. Full specification includes peer measures, parent measures, neighborhood outcomes, county attributes, demographics, parental wealth, academic ability, risky behavior, and adverse shocks as independent variables. Standard errors are robust standard errors..
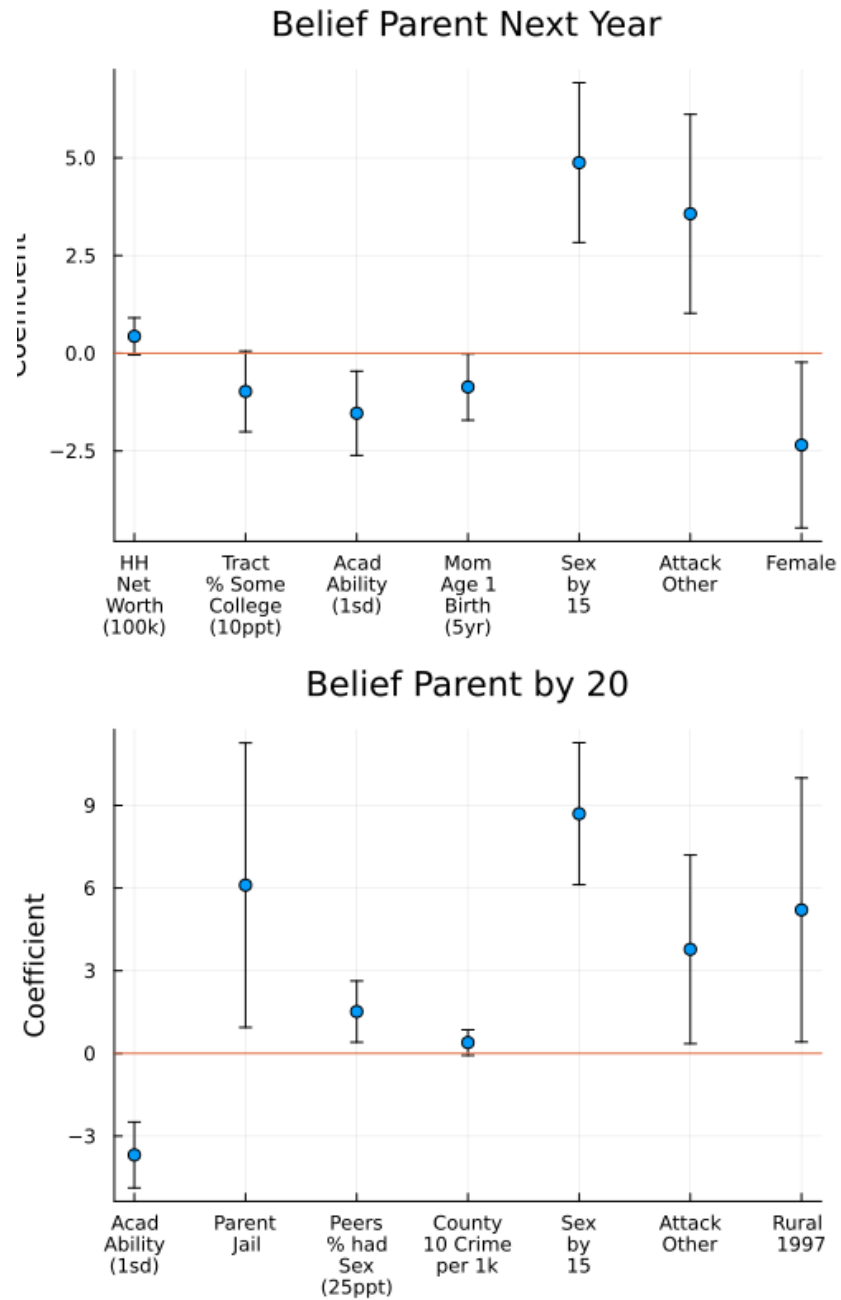
Figure 3: Presents statistically significant coefficients and 10% significant level confidence intervals from OLS analysis of beliefs. Full specification includes peer measures, parent measures, neighborhood outcomes, county attributes, demographics, parental wealth, academic ability, risky behavior, and adverse shocks as independent variables. Standard errors are robust standard errors..
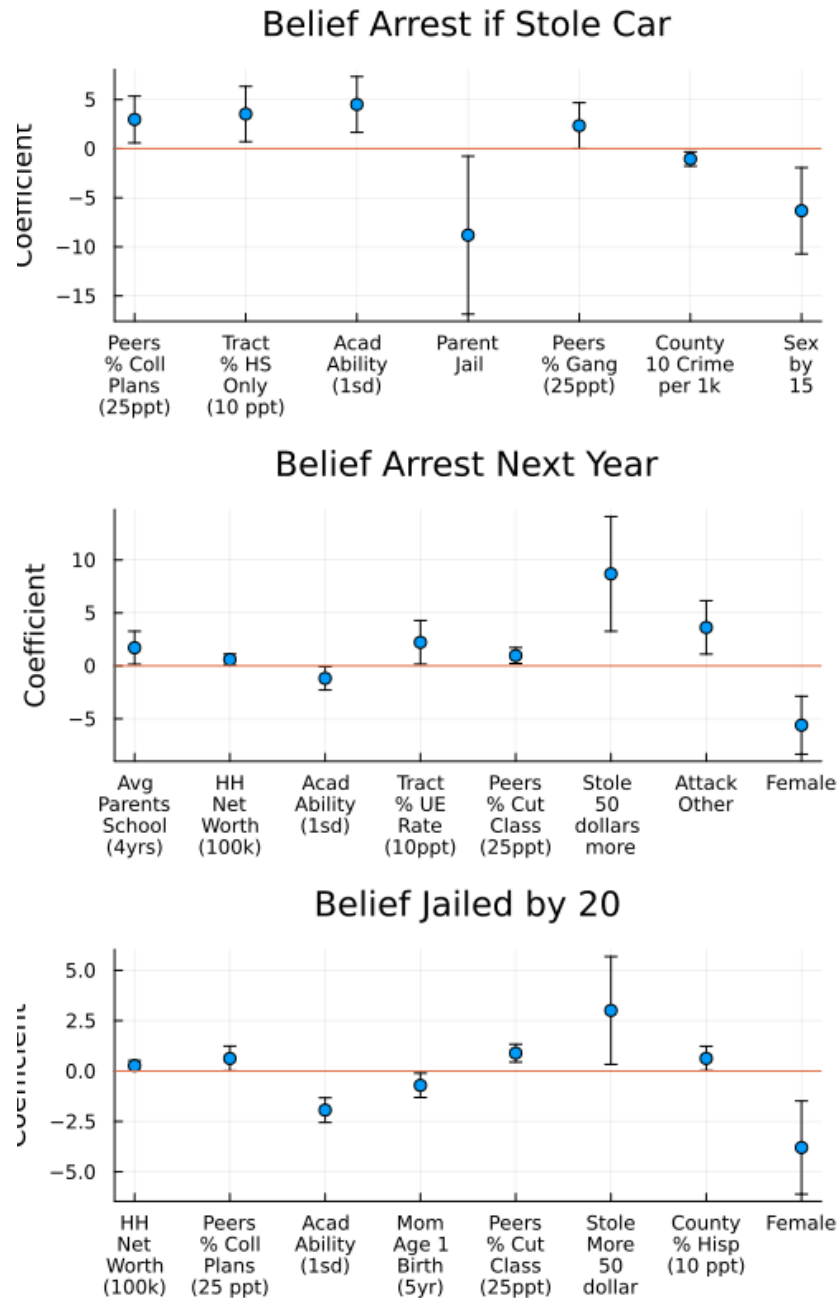
Figure 4: Presents statistically significant coefficients and 10% significant level confidence intervals from OLS analysis of beliefs. Full specification includes peer measures, parent measures, neighborhood outcomes, county attributes, demographics, parental wealth, academic ability, risky behavior, and adverse shocks as independent variables. Standard errors are robust standard errors..
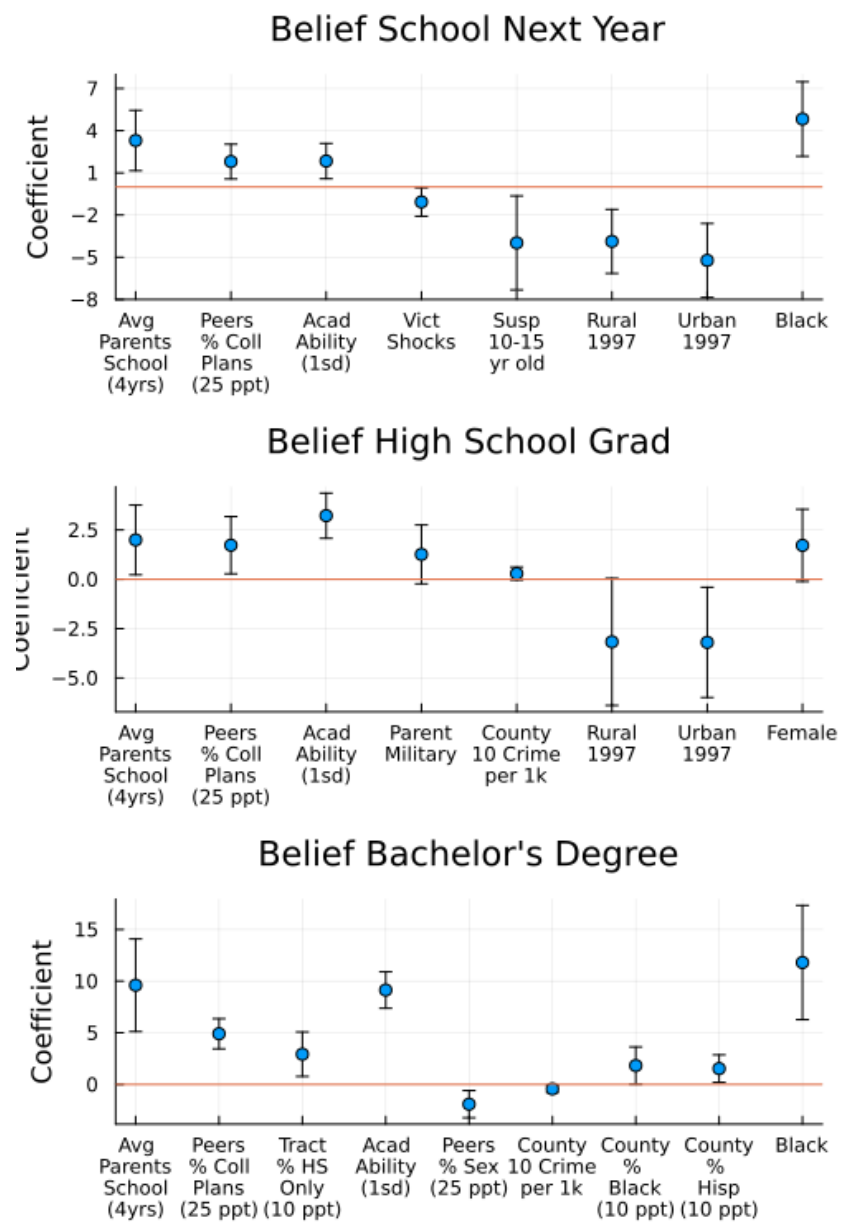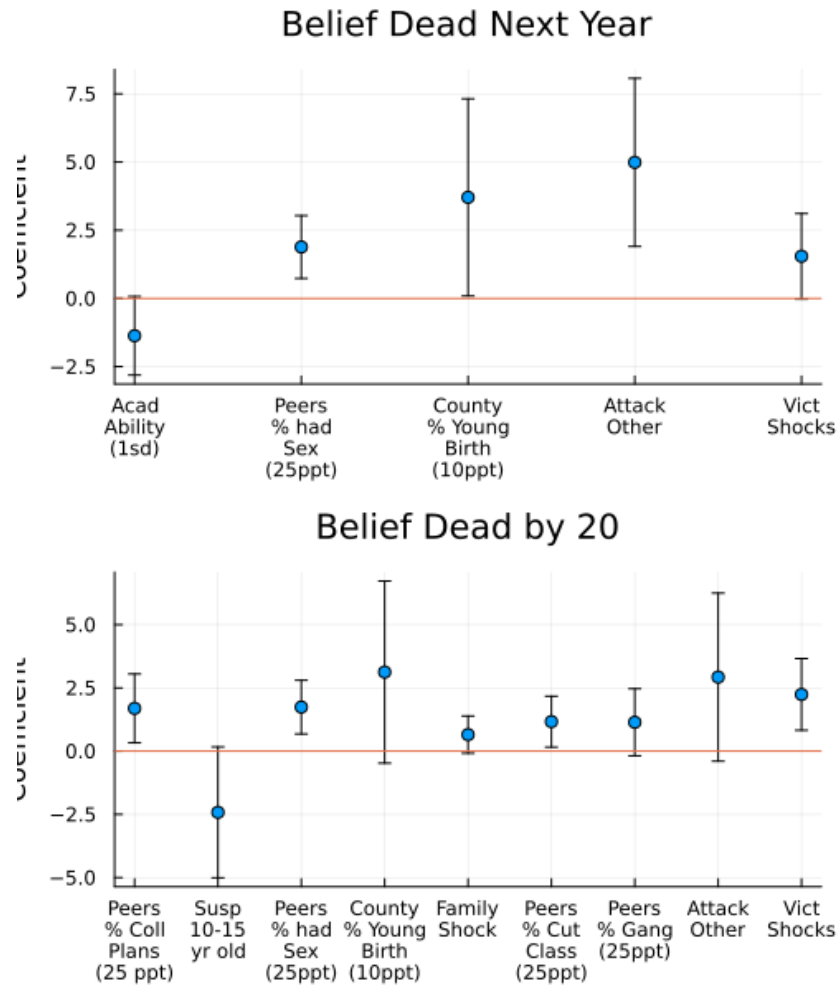
Figure 5: Presents statistically significant coefficients and 10% significant level confidence intervals from OLS analysis of beliefs. Full specification includes peer measures, parent measures, neighborhood outcomes, county attributes, demographics, parental wealth, academic ability, risky behavior, and adverse shocks as independent variables. Standard errors are robust standard errors..

## A.3  How Beliefs Change Other Coefficients in Outcome Regression

Table A9: How Beliefs Change Coefficients on Schooling

| VARIABLES | (1) HS Dropout | (2) HS Dropout | (3) %Change | (4) Bachelors | (5) Bachelors | (6) %Change |
|---|---|---|---|---|---|---|
| Crime Index | 0.0274*** | 0.0241*** | -12 | -0.0048 | 0.0002 | -104.2 |
| | (0.0093) | (0.0093) | | (0.0119) | (0.0122) | |
| Young Sex Index | 0.0147 | 0.0126 | -14.3 | -0.0200 | -0.0164 | -18 |
| | (0.0120) | (0.0099) | | (0.0183) | (0.0183) | |
| Bachelor's Index | -0.0105 | -0.0002 | -98.1 | 0.0768*** | 0.0687*** | -10.5 |
| | (0.0093) | (0.0098) | | (0.0173) | (0.0169) | |
| HS Non BA Index | -0.0186* | -0.0152 | -18.3 | -0.0170* | -0.0180* | 5.9 |
| | (0.0108) | (0.0108) | | (0.0099) | (0.0102) | |
| Military Index | -0.0026 | 0.0022 | -184.6 | -0.0162 | -0.0159 | -1.9 |
| | (0.0106) | (0.0108) | | (0.0124) | (0.0116) | |
| Neg Economic Index | 0.0016 | 0.0080 | 400 | 0.0250 | 0.0245 | -2 |
| | (0.0155) | (0.0146) | -5.8 | (0.0162) | (0.0161) | -0.6 |
| HH Net Worth ($10k) | -0.0004 | -0.0002 | -50 | 0.0027*** | 0.0026*** | -3.7 |
| | (0.0003) | (0.0003) | | (0.0007) | (0.0008) | |
| Family Shocks | 0.0052 | 0.0030 | -42.3 | -0.0412*** | -0.0403*** | -2.2 |
| | (0.0066) | (0.0065) | | (0.0089) | (0.0089) | |
| Victim Shocks | 0.0015 | -0.0002 | -113.3 | -0.0153* | -0.0133 | -13.1 |
| | (0.0137) | (0.0125) | | (0.0089) | (0.0087) | |
| Academic Index | -0.1255*** | -0.0964*** | -23.2 | 0.1726*** | 0.1557*** | -9.8 |
| | (0.0112) | (0.0098) | | (0.0114) | (0.0124) | |
| Past Risky Behavior | 0.0520*** | 0.0406*** | -21.9 | -0.0432*** | -0.0383*** | -11.3 |
| | (0.0122) | (0.0115) | | (0.0101) | (0.0100) | |
| | | | | | | |
| Beliefs | No | Yes | | No | Yes | |
| Observations | 1,501 | 1,501 | | 1,501 | 1,501 | |
| Number of state | 41 | 41 | | 41 | 41 | |
| $R^2$ | 0.225 | 0.279 | | 0.353 | 0.369 | |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A9: Reports coefficients from OLS regressions of outcomes on covariates. All regressions use robust standard errors. For each outcome, the first column does not include belief variables while the second column does. The third column reports the percentage change in coefficients after including beliefs. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table A10: How Beliefs Change Coefficients on Work Hours

| VARIABLES | (1) Work 20+ hrs 2010 | (2) Work 20+ hrs 2010 | (3) %Change |
|---|---|---|---|
| Crime Index | -0.0115 | -0.0083 | -27.8 |
| | (0.0124) | (0.0122) | |
| Young Sex Index | -0.0180 | -0.0181 | 0.6 |
| | (0.0147) | (0.0155) | |
| Bachelor's Index | -0.0082 | -0.0070 | -14.6 |
| | (0.0172) | (0.0181) | |
| HS Non BA Index | 0.0169 | 0.0178 | 5.3 |
| | (0.0123) | (0.0127) | |
| Military Index | -0.0120 | -0.0123 | 2.5 |
| | (0.0131) | (0.0134) | |
| Neg Economic Index | -0.0295* | -0.0267 | -9.5 |
| | (0.0172) | (0.0171) | |
| HH Net Worth ($10k) | -0.0000 | 0.0001 | -50 |
| | (0.0006) | (0.0006) | |
| Family Shocks | -0.0275*** | -0.0266*** | -3.3 |
| | (0.0074) | (0.0070) | |
| Victim Shocks | -0.0278* | -0.0270* | -2.9 |
| | (0.0161) | (0.0157) | |
| Academic Index | 0.0978*** | 0.0927*** | -5.2 |
| | (0.0120) | (0.0121) | |
| Past Risky Behavior | -0.0169 | -0.0140 | -17.2 |
| | (0.0122) | (0.0127) | |
| | | | |
| Beliefs | No | Yes | |
| Observations | 1,501 | 1,501 | |
| Number of state | 41 | 41 | |
| $R^2$ | 0.102 | 0.110 | |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A10: Reports coefficients from OLS regressions of outcomes on covariates. All regressions use robust standard errors. For each outcome, the first column does not include belief variables while the second column does. The third column reports the percentage change in coefficients after including beliefs. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table A11: How Beliefs Change Coefficients on Parenthood

| VARIABLES | (1) Parent by 20 | (2) Parent by 20 | (3) %Change |
|---|---|---|---|
| Crime Index | 0.0264** | 0.0233* | -11.7 |
| | (0.0127) | (0.0131) | |
| Young Sex Index | 0.0241** | 0.0202* | -16.2 |
| | (0.0110) | (0.0107) | |
| Bachelor's Index | -0.0314*** | -0.0250** | -20.4 |
| | (0.0104) | (0.0108) | |
| HS Non BA Index | -0.0228* | -0.0214* | -6.1 |
| | (0.0117) | (0.0117) | |
| Military Index | -0.0137 | -0.0123 | -10.2 |
| | (0.0125) | (0.0123) | |
| Neg Economic Index | 0.0234*** | 0.0264*** | 12.8 |
| | (0.0088) | (0.0096) | |
| HH Net Worth ($10k) | -0.0007** | -0.0006* | -14.3 |
| | (0.0003) | (0.0003) | |
| Family Shocks | 0.0039 | 0.0029 | -25.6 |
| | (0.0068) | (0.0065) | |
| Victim Shocks | -0.0072 | -0.0077 | 6.9 |
| | (0.0139) | (0.0132) | |
| Academic Index | -0.0272** | -0.0118 | -56.6 |
| | (0.0116) | (0.0113) | |
| Past Risky Behavior | 0.0705*** | 0.0628*** | -10.9 |
| | (0.0109) | (0.0118) | |
| | | | |
| Beliefs | No | Yes | |
| Observations | 1,501 | 1,501 | |
| Number of state | 41 | 41 | |
| $R^2$ | 0.175 | 0.189 | |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A11: Reports coefficients from OLS regressions of outcomes on covariates. All regressions use robust standard errors. For each outcome, the first column does not include belief variables while the second column does. The third column reports the percentage change in coefficients after including beliefs. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

Table A12: How Beliefs Change Coefficients on Criminal Justice Outcomes

| VARIABLES | (1) Incarcerated | (2) Incarcerated | (3) % Change | (4) Arrested | (5) Arrested | (6) %Change |
|---|---|---|---|---|---|---|
| Crime Index | 0.0252*** | 0.0213** | -15.5 | 0.0107 | 0.0025 | -76.6 |
| | (0.0095) | (0.0093) | | (0.0167) | (0.0170) | |
| Young Sex Index | 0.0009 | -0.0001 | -111.1 | -0.0016 | -0.0054 | 237.5 |
| | (0.0097) | (0.0094) | | (0.0137) | (0.0136) | |
| Bachelor's Index | 0.0023 | 0.0009 | -60.9 | 0.0291 | 0.0266 | -8.6 |
| | (0.0102) | (0.0098) | | (0.0201) | (0.0201) | |
| HS Non BA Index | 0.0020 | 0.0014 | -30 | 0.0085 | 0.0075 | -11.8 |
| | (0.0071) | (0.0071) | | (0.0122) | (0.0122) | |
| Military Index | 0.0024 | 0.0020 | -16.7 | 0.0167 | 0.0157 | -6 |
| | (0.0110) | (0.0111) | | (0.0138) | (0.0135) | |
| Neg Economic Index | 0.0067 | 0.0043 | -35.8 | 0.0273 | 0.0236 | -13.6 |
| | (0.0111) | (0.0103) | | (0.0184) | (0.0178) | |
| HH Net Worth ($10k) | 0.0002 | 0.0001 | -50 | -0.0003 | -0.0004 | 33.3 |
| | (0.0003) | (0.0003) | | (0.0005) | (0.0005) | |
| Family Shocks | 0.0032 | 0.0023 | -28.1 | 0.0177* | 0.0166 | -6.2 |
| | (0.0048) | (0.0048) | | (0.0106) | (0.0108) | |
| Victim Shocks | 0.0021 | 0.0014 | -33.3 | 0.0386** | 0.0368** | -4.7 |
| | (0.0103) | (0.0102) | | (0.0151) | (0.0152) | |
| Academic Index | -0.0339*** | -0.0328*** | -3.2 | -0.0567*** | -0.0486*** | -14.3 |
| | (0.0095) | (0.0092) | | (0.0130) | (0.0121) | |
| Past Risky Behavior | 0.0522*** | 0.0460*** | -11.9 | 0.1130*** | 0.1001*** | -11.4 |
| | (0.0073) | (0.0089) | | (0.0121) | (0.0133) | |
| | | | | | | |
| Beliefs | No | Yes | | No | Yes | |
| Observations | 1,501 | 1,501 | | 1,501 | 1,501 | |
| Number of state | 41 | 41 | | 41 | 41 | |
| $R^2$ | 0.127 | 0.141 | | 0.190 | 0.203 | |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A12: Reports coefficients from OLS regressions of outcomes on covariates. All regressions use robust standard errors. For each outcome, the first column does not include belief variables while the second column does. The third column reports the percentage change in coefficients after including beliefs. Regressions also control for whether pooled tract level outcomes were used, birth year, and racial/ethnic composition of county.

# A.4 Belief Results Within Racial Ethnic Groups

| | White HS Grad by 20 | Hispanic HS Grad by 20 | Black HS Grad by 20 | White Deg by 30 | Hispanic Deg by 30 | Black Deg by 30 |
|---|---|---|---|---|---|---|
| Table A13:School Beliefs Regressed Separately by Race | | | | | | |
| VARIABLES | | | | | | |
| Crime Index | -0.6888 | 1.5739 | -0.3956 | -0.5069 | -1.6438 | -3.4493* |
| | (0.5889) | (1.0857) | (0.9353) | (1.2346) | (1.1959) | (1.9339) |
| Young Sex Index | -0.0600 | 0.3090 | 0.1708 | -3.2235* | -0.5948 | 0.9275 |
| | (0.5749) | (1.3519) | (1.4914) | (1.6622) | (2.6447) | (1.8267) |
| Bachelor's Index | 1.1576** | 3.7731* | -0.7265 | 3.9692*** | 5.5740*** | 4.4402** |
| | (0.5174) | (2.1703) | (1.4968) | (1.4643) | (2.1397) | (1.9849) |
| HS Non BA Index | 0.9986** | 1.2535 | -1.6697** | -0.5924 | 1.5110 | 0.5398 |
| | (0.4364) | (1.3427) | (0.7131) | (1.0865) | (1.6410) | (1.2023) |
| Military Index | 0.0566 | 3.6764*** | 1.2329* | -1.1129 | -0.5772 | 2.1831 |
| | (0.5140) | (0.8911) | (0.6771) | (1.3195) | (1.2433) | (2.2962) |
| Economic Index | -1.3233 | -1.1132 | -1.7743* | -4.6967*** | 1.9002 | -0.1526 |
| | (1.2789) | (1.4180) | (0.9612) | (1.8210) | (1.9344) | (1.6199) |
| HH Net Worth ($10k) | 0.0247** | -0.0591 | 0.0438 | 0.0531 | 0.1234 | 0.0439 |
| | (0.0097) | (0.1048) | (0.0623) | (0.0353) | (0.2030) | (0.1182) |
| Family Shocks | -0.4793** | -0.8524 | 0.8307 | -0.1436 | -2.1593** | 0.3559 |
| | (0.2282) | (0.7947) | (0.9502) | (0.7037) | (0.9122) | (1.4321) |
| Victim Shocks | -0.2306 | -2.6543* | -0.2014 | -0.6644 | -1.2715 | -0.0999 |
| | (0.6987) | (1.4725) | (0.9962) | (1.0629) | (1.6031) | (1.6898) |
| Academic Index | 2.6356*** | 5.2261*** | 5.4347*** | 10.6719*** | 8.5638*** | 9.5702*** |
| | (0.6215) | (1.5963) | (1.5889) | (1.3258) | (1.7384) | (1.8459) |
| Past Risky Behavior | -1.0478 | -2.1140 | 0.0936 | -2.3775** | -2.4904 | -1.1986 |
| | (0.6639) | (1.6266) | (1.0324) | (1.1703) | (2.2787) | (2.0810) |
| Rural 1997 | -0.5517 | -9.4542 | -9.5173*** | 3.7970 | -11.3477** | -9.3413 |
| | (1.5898) | (7.9816) | (2.9336) | (3.5485) | (5.3210) | (7.4550) |
| Urban 1997 | -1.1983 | -7.7253* | -7.4181*** | 5.3977 | -8.4415 | -3.8672 |
| | (1.5068) | (4.6488) | (2.7151) | (3.7395) | (5.3681) | (7.2060) |
| Pct County Black 1990 | 0.0441 | -0.1126 | -0.0327 | 0.3409*** | 0.1722 | 0.1322 |
| | (0.0499) | (0.1471) | (0.0510) | (0.1040) | (0.1250) | (0.0939) |
| Pct County Hisp 1990 | 0.1324*** | -0.0605 | -0.2377 | 0.1776* | 0.1143* | 0.1491 |
| | (0.0512) | (0.0500) | (0.1452) | (0.1002) | (0.0608) | (0.2743) |
| Birth Year | 1.1742 | 3.6570** | 0.9579 | 1.3767 | 3.7121 | 7.3047*** |
| | (0.7330) | (1.7692) | (2.1073) | (1.8612) | (2.9765) | (2.5815) |
| Female | 0.3485 | 1.0506 | -0.6349 | 5.4739** | 4.7151 | 0.5446 |
| | (1.1351) | (2.6274) | (1.5038) | (2.7216) | (4.6808) | (4.2310) |
| NBHD Pooled | -0.6017 | 0.3638 | -0.6087 | -23.3179*** | -1.4050 | -12.0943 |
| | (1.2021) | (3.5018) | (5.0669) | (2.3340) | (6.2494) | (10.2549) |
| Constant | 96.0390*** | 108.7839*** | 103.8792*** | 61.6796*** | 85.5904*** | 81.0131*** |
| | (1.7100) | (6.5712) | (4.2984) | (5.0791) | (7.9865) | (9.8108) |
| | | | | | | |
| Observations | 808 | 316 | 390 | 808 | 316 | 390 |
| Number of state | 36 | 30 | 35 | 36 | 30 | 35 |
| $R^2$ | 0.121 | 0.134 | 0.105 | 0.274 | 0.186 | 0.196 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A13: Reports coefficients from OLS regressions of beliefs on covariates performed separately by race. All regressions use robust standard errors.

| VARIABLES | White NY Work 20+hrs if School | Hispanic NY Work 20+hrs if School | Black NY Work 20+hrs if School | White Work 20+hrs at 30 | Hispanic Work 20+hrs at 30 | Black Work 20+hrs at 30 |
|---|---|---|---|---|---|---|
| Crime Index | 0.5691 | 1.4769 | 3.1586* | -0.8293 | -1.1218 | 0.2301 |
| | (1.7427) | (1.2970) | (1.8950) | (0.6168) | (1.1426) | (1.2210) |
| Young Sex Index | 4.2723*** | -4.0845* | 4.1835* | 0.8103 | -1.2293 | -0.6853 |
| | (1.5346) | (2.2113) | (2.4039) | (0.9211) | (1.8043) | (1.3756) |
| Bachelor's Index | -3.9639** | -1.8307 | 1.4910 | -0.1041 | 0.7670 | 2.2693 |
| | (1.6014) | (2.3510) | (3.6966) | (0.5364) | (1.7549) | (1.8980) |
| HS Non BA Index | 1.0665 | 2.6739** | 0.1907 | 0.3993 | -1.1511 | -1.2769 |
| | (1.4134) | (1.2949) | (1.4308) | (0.4556) | (1.0139) | (1.2040) |
| Military Index | 1.6148 | 1.1127 | 1.8156 | -0.0044 | 0.7247 | -0.5020 |
| | (1.3127) | (2.1589) | (2.1091) | (0.4897) | (0.8158) | (0.7989) |
| Economic Index | 3.1057 | 1.7361 | 1.2295 | 0.0001 | -0.6586 | 1.096 |
| | (2.0258) | (2.0682) | (2.0140) | (0.8276) | (0.9118) | (1.2443) |
| HH Net Worth ($10k) | -0.0750* | -0.1215 | -0.2709 | 0.0159 | -0.0102 | -0.2150 |
| | (0.0455) | (0.1572) | (0.1992) | (0.0113) | (0.0805) | (0.1443) |
| Family Shocks | 1.0296 | 3.6526* | -1.7736 | 0.0919 | 0.2759 | 0.3696 |
| | (0.6880) | (1.8732) | (1.4832) | (0.3118) | (0.7060) | (1.1299) |
| Victim Shocks | -1.3025 | 1.5229 | 1.3394 | -0.7410 | 0.4956 | -0.2501 |
| | (1.1738) | (2.1716) | (1.5432) | (0.5661) | (0.8960) | (0.7137) |
| Academic Index | -3.8252** | 0.6299 | 0.6506 | 2.1599*** | 5.7103*** | 3.5609*** |
| | (1.7638) | (2.6694) | (1.8008) | (0.6890) | (1.7232) | (1.3219) |
| Past Risky Behavior | 3.4954*** | 3.4450 | 2.3629 | 0.7309 | 0.6809 | -0.9680 |
| | (1.1814) | (2.1362) | (1.5198) | (0.7880) | (1.4355) | (1.2542) |
| Rural 1997 | 2.4617 | 0.6386 | -5.4701 | 1.2125 | -1.8329 | -7.2786 |
| | (4.8208) | (11.0052) | (8.8810) | (2.7346) | (4.4302) | (5.0710) |
| Urban 1997 | 4.9085 | -6.2333 | 0.7945 | 0.8677 | -0.1490 | -4.2597 |
| | (4.9834) | (7.6921) | (10.1196) | (2.6969) | (3.5358) | (4.4450) |
| Pct County Black 1990 | -0.2779* | -0.4005** | -0.0463 | 0.0106 | 0.0053 | -0.0050 |
| | (0.1682) | (0.1624) | (0.1209) | (0.0523) | (0.0800) | (0.0504) |
| Pct County Hisp 1990 | 0.2272** | -0.1179* | 0.1713 | 0.0314 | -0.0974* | 0.0028 |
| | (0.0995) | (0.0607) | (0.2078) | (0.0423) | (0.0525) | (0.1378) |
| Birth Year | -4.2808** | -1.9491 | -2.9483 | -1.4118 | 1.7362 | 0.4606 |
| | (2.1333) | (2.9874) | (3.0724) | (0.8961) | (1.3007) | (1.7279) |
| Female | 1.6051 | 8.9931*** | 6.1390 | 0.2095 | 1.5019 | -1.3867 |
| | (2.1228) | (2.2918) | (4.8050) | (0.7246) | (2.9411) | (2.8278) |
| NBHD Pooled | -0.4570 | -5.5126 | -9.3820 | -1.9581 | -0.7637 | -5.0682 |
| | (2.6459) | (5.1846) | (6.3136) | (1.3140) | (2.9152) | (5.0225) |
| Constant | 58.8845*** | 63.3610*** | 61.9331*** | 93.3648*** | 93.2858*** | 103.1533*** |
| | (5.3050) | (8.8584) | (10.6864) | (2.8519) | (6.7006) | (7.2318) |
| | | | | | | |
| Observations | 808 | 316 | 390 | 808 | 316 | 390 |
| Number of state | 36 | 30 | 35 | 36 | 30 | 35 |
| $R^2$ | 0.130 | 0.0922 | 0.0786 | 0.0353 | 0.130 | 0.0799 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A14: Reports coefficients from OLS regressions of beliefs on covariates performed separately by race. All regressions use robust standard errors.

Table A15:Early Parenthood Beliefs Regressed Separately by Race

| VARIABLES | White Parent by 20 | Hispanic Parent by 20 | Black Parent by 20 |
|---|---|---|---|
| Crime Index | 2.1996* | -0.6631 | 2.7637* |
| | (1.2150) | (1.1032) | (1.5938) |
| Young Sex Index | 2.0847* | 4.0977** | 1.9025* |
| | (1.1677) | (1.7116) | (1.0966) |
| Bachelor's Index | -0.2253 | -3.3289* | 1.3761 |
| | (1.0690) | (1.8462) | (1.8831) |
| HS Non BA Index | 0.6505 | -0.0385 | -0.8277 |
| | (1.0174) | (1.7220) | (1.2478) |
| Military Index | 1.1769 | -0.9202 | -1.0842 |
| | (0.7511) | (1.5600) | (1.3410) |
| Economic Index | 0.366 | 2.0747 | -0.0553 |
| | (1.6338) | (1.8042) | (1.7472) |
| HH Net Worth ($10k) | -0.0128 | 0.0846 | 0.0589 |
| | (0.0292) | (0.1274) | (0.1069) |
| Family Shocks | 0.4340 | 0.0226 | 0.7455 |
| | (0.5626) | (0.8325) | (1.2362) |
| Victim Shocks | -0.4384 | 0.0752 | 0.8655 |
| | (1.2494) | (2.1254) | (1.5975) |
| Academic Index | -3.3466*** | -4.3393*** | -5.1335*** |
| | (0.8766) | (1.5209) | (1.4500) |
| Past Risky Behavior | 4.1356*** | 6.1849*** | 5.5189*** |
| | (1.0388) | (1.1999) | (1.7916) |
| Rural 1997 | 2.4399 | 12.3052** | 14.8074* |
| | (2.9389) | (5.1099) | (7.7773) |
| Urban 1997 | -0.4091 | 6.1122 | 10.7904 |
| | (2.8993) | (3.9183) | (7.1135) |
| Pct County Black 1990 | -0.0610 | -0.0085 | -0.0505 |
| | (0.0820) | (0.1236) | (0.1057) |
| Pct County Hisp 1990 | -0.0354 | -0.0157 | -0.1124 |
| | (0.0727) | (0.0609) | (0.1775) |
| Birth Year | 2.0135 | -0.7670 | -1.4929 |
| | (1.5542) | (3.0430) | (2.2210) |
| Female | 2.7706 | -4.2094* | -3.2496 |
| | (2.8538) | (2.2235) | (4.1134) |
| NBHD Pooled | 10.4796*** | -5.2276 | 8.3758 |
| | (2.2220) | (4.2236) | (5.7380) |
| Constant | 10.8800*** | 8.4283 | -2.1530 |
| | (3.5297) | (7.0909) | (10.3823) |
| | | | |
| Observations | 808 | 316 | 390 |
| Number of state | 36 | 30 | 35 |
| $R^2$ | 0.132 | 0.163 | 0.168 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A15: Reports coefficients from OLS regressions of beliefs on covariates performed separately by race. All regressions use robust standard errors.

Table A16:Criminal Justice Beliefs Regressed Separately by Race

| VARIABLES | White Arrested if Stole Car | Hispanic Arrested if Stole Car | Black Arrested if Stole Car | White Jailed at 20 | Hispanic Jailed at 20 | Black Jailed at 20 |
|---|---|---|---|---|---|---|
| Crime Index | -1.5452 | 1.3060 | 1.0468 | 0.2471 | 1.9312*** | 0.4499 |
| | (1.5236) | (2.4251) | (2.1800) | (0.4413) | (0.5578) | (0.6195) |
| Young Sex Index | 1.1269 | 1.7441 | 0.0101 | 1.1940** | -1.2900 | 0.8368 |
| | (1.8174) | (3.6091) | (3.5134) | (0.5394) | (1.1397) | (0.5472) |
| Bachelor's Index | -0.1725 | 4.2106 | 0.4857 | 1.0298 | -0.2679 | 2.2178** |
| | (1.9255) | (5.0775) | (3.9687) | (0.6610) | (0.7025) | (1.0047) |
| HS Non BA Index | -0.7913 | 7.7261*** | 0.4720 | 0.0120 | 1.4799 | -0.7656 |
| | (1.8283) | (2.3048) | (2.3945) | (0.4920) | (1.0537) | (0.6912) |
| Military Index | -0.6164 | -0.5774 | -3.4690 | 0.2381 | 0.3087 | -0.3533 |
| | (1.2295) | (1.8557) | (3.1263) | (0.4151) | (0.7608) | (0.6310) |
| Neg Economic Index | -1.7532 | -3.8788** | -3.1887 | -0.5545 | -0.4487 | -0.4711 |
| | (2.6816) | (1.5828) | (2.3982) | (0.8093) | (0.7221) | (0.7029) |
| HH Net Worth ($10k) | 0.0294 | 0.3680* | -0.2687 | 0.0108 | 0.0764 | 0.0654 |
| | (0.0609) | (0.1902) | (0.2299) | (0.0146) | (0.0946) | (0.0557) |
| Family Shocks | -0.2370 | 2.0596 | 1.8875 | 0.2665 | 0.7332* | 0.0225 |
| | (0.9227) | (1.5888) | (2.5488) | (0.2896) | (0.4298) | (0.4803) |
| Victim Shocks | -0.8704 | 0.6348 | -2.0990 | 0.0957 | 0.9829 | 1.2003** |
| | (1.8716) | (1.2407) | (1.9598) | (0.5176) | (1.0268) | (0.4763) |
| Academic Index | -0.0162 | 7.0958** | 8.7974*** | -1.1823** | -3.3983*** | -2.6046*** |
| | (1.9940) | (2.8190) | (2.1795) | (0.5872) | (0.9533) | (0.5557) |
| Past Risky Behavior | -2.3148 | -6.5767*** | -1.2584 | 1.8085*** | 1.3189 | 0.2382 |
| | (1.7442) | (1.8520) | (2.2149) | (0.5703) | (1.3525) | (0.6963) |
| Rural 1997 | 9.8838 | -19.0284** | -36.3001*** | -0.5194 | 7.0614 | 6.5908*** |
| | (6.7291) | (8.1746) | (8.3218) | (2.0310) | (5.5248) | (1.6709) |
| Urban 1997 | 11.5691* | -19.2230** | -48.2776*** | -0.8004 | 3.4978 | 5.9975*** |
| | (5.9907) | (8.5556) | (7.9763) | (2.0589) | (3.7229) | (1.6136) |
| Pct County Black 1990 | -0.3013*** | -0.5806*** | -0.0443 | -0.0441 | -0.0000 | -0.0927*** |
| | (0.1133) | (0.2177) | (0.1033) | (0.0371) | (0.0641) | (0.0306) |
| Pct County Hisp 1990 | 0.1030 | -0.3552*** | 0.4624** | 0.0323 | 0.0579 | 0.1314 |
| | (0.1087) | (0.1181) | (0.2285) | (0.0289) | (0.0580) | (0.1282) |
| Birth Year | 3.0826 | -3.4010 | 5.5942 | -0.6450 | 2.1274 | 0.6765 |
| | (2.4652) | (4.4085) | (4.0377) | (0.5872) | (1.8525) | (1.3989) |
| Female | 2.7512 | -3.0500 | -12.3543* | -2.5342** | -2.5498** | -4.0272** |
| | (2.7712) | (3.8514) | (6.5735) | (1.0340) | (1.1349) | (1.6335) |
| NBHD Pooled | 3.9987 | -9.3521 | -3.5013 | -0.8830 | -1.1988 | -2.8660 |
| | (4.6348) | (8.3481) | (9.2814) | (0.7875) | (2.6554) | (1.9919) |
| Constant | 54.4009*** | 96.5102*** | 103.9618*** | 5.3257*** | -3.4205 | -0.7251 |
| | (6.9283) | (11.9187) | (12.1048) | (1.9311) | (4.3826) | (2.8411) |
| | | | | | | |
| Observations | 808 | 316 | 390 | 808 | 316 | 390 |
| Number of state | 36 | 30 | 35 | 36 | 30 | 35 |
| $R^2$ | 0.0260 | 0.143 | 0.0997 | 0.103 | 0.125 | 0.120 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A16: Reports coefficients from OLS regressions of beliefs on covariates performed separately by race. All regressions use robust standard errors.

Table A17:Mortality Beliefs Regressed Separately by Race

| VARIABLES | White Die by 20 | Hispanic Die by 20 | Black Die by 20 |
|---|---|---|---|
| Crime Index | 2.2434** | 3.3274** | 2.1793 |
| | (1.0982) | (1.3951) | (1.8947) |
| Young Sex Index | 3.9159*** | -0.2840 | 0.4225 |
| | (1.1956) | (1.4372) | (1.5439) |
| Bachelor's Index | 1.8375** | -0.0007 | 1.6518 |
| | (0.8935) | (1.5768) | (1.9729) |
| HS Non BA Index | 1.7614** | 1.9742 | -0.2168 |
| | (0.8587) | (1.8074) | (1.4608) |
| Military Index | 1.3600** | 0.3881 | -2.9509** |
| | (0.6649) | (0.9880) | (1.3456) |
| Economic Index | 0.4149 | -1.223 | -3.0012* |
| | (1.6319) | (1.2523) | (1.6122) |
| HH Net Worth ($10k) | -0.0433 | 0.1561 | 0.0955 |
| | (0.0385) | (0.1681) | (0.0950) |
| Family Shocks | 0.5395 | 0.3161 | 0.6227 |
| | (0.5325) | (0.8203) | (0.9024) |
| Victim Shocks | 1.6485 | 1.9923 | 3.9937*** |
| | (1.1161) | (1.2260) | (1.0278) |
| Academic Index | -1.5666* | 0.5322 | 0.9278 |
| | (0.8915) | (0.8489) | (1.3566) |
| Past Risky Behavior | -0.6901 | 1.5646 | 0.8601 |
| | (0.6478) | (0.9835) | (1.3878) |
| Rural 1997 | -4.8520 | 15.3238** | 14.0434* |
| | (3.0778) | (6.9794) | (7.6923) |
| Urban 1997 | -4.4152 | 12.5800** | 10.3137 |
| | (3.0230) | (5.1591) | (7.4022) |
| Pct County Black 1990 | -0.1231* | 0.1700 | -0.1041 |
| | (0.0654) | (0.1331) | (0.1036) |
| Pct County Hisp 1990 | -0.0083 | 0.0456 | -0.1970 |
| | (0.0439) | (0.0613) | (0.1277) |
| Birth Year | 0.6566 | 2.9067* | 2.1435 |
| | (1.4813) | (1.6721) | (2.3709) |
| Female | 3.7191** | 5.7705** | -4.1397 |
| | (1.8885) | (2.5653) | (3.0465) |
| NBHD Pooled | -3.3109 | -4.1001 | 3.0539 |
| | (2.3514) | (3.9796) | (6.1885) |
| Constant | 23.1923*** | -3.6842 | 7.9839 |
| | (3.2810) | (6.2987) | (9.2957) |
| | | | |
| Observations | 808 | 316 | 390 |
| Number of state | 36 | 30 | 35 |
| $R^2$ | 0.0906 | 0.0732 | 0.0822 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A17: Reports coefficients from OLS regressions of beliefs on covariates performed separately by race. All regressions use robust standard errors.

## A.5 Beliefs Relation to Opposite Race Same Gender Tract

Table A18: School Beliefs Regressed on Opposite Race Outcomes

| VARIABLES | Pooled HS Grad by 20 | White HS Grad by 20 | Non White HS Grad by 20 | Pooled Deg by 30 | White Deg by 30 | Non White Deg by 30 |
|---|---|---|---|---|---|---|
| Opposite: HS Grad | 0.0080 | -0.0631 | -0.1809 | 1.3562 | 2.0479 | 2.4729 |
| | (0.8397) | (1.1009) | (1.1898) | (1.9400) | (2.2850) | (2.8386) |
| Opposite: Some College | -0.0781 | -0.2381 | 0.0720 | 0.5170 | 3.9405** | -1.0334 |
| | (0.7554) | (0.9493) | (0.9029) | (1.3498) | (1.7797) | (2.2636) |
| Opposite: Bach More | -0.8993 | -2.5128* | -0.8028 | -0.5187 | -1.8738 | -0.2297 |
| | (0.7119) | (1.3387) | (0.9068) | (1.1194) | (1.8686) | (1.4604) |
| Opposite: Military | 0.5109 | 0.6547 | 0.4835 | -0.0085 | -2.4846 | 1.6926 |
| | (0.3710) | (0.4819) | (0.5898) | (1.2886) | (2.1157) | (1.6687) |
| Opposite: Med Earnings | 0.0000 | 0.0000 | 0.0000 | -0.0000 | -0.0000 | 0.0000 |
| | (0.0000) | (0.0000) | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| Opposite: UE Rate | 0.0160* | 0.0119 | 0.0344* | 0.0009 | 0.0184 | -0.0003 |
| | (0.0095) | (0.0118) | (0.0179) | (0.0191) | (0.0210) | (0.0260) |
| Academic Ability | 0.4408*** | 0.4389** | 0.4077*** | 0.8994*** | 0.7729*** | 0.9075*** |
| | (0.0940) | (0.1792) | (0.1009) | (0.1457) | (0.2396) | (0.1699) |
| Past Risky Behavior | -0.0074 | 0.1401 | -0.0522 | -0.1166 | -0.3488 | -0.0633 |
| | (0.0926) | (0.1523) | (0.1047) | (0.1097) | (0.2517) | (0.1191) |
| Female | 0.2259 | 0.4551 | 0.2224 | 0.3867 | 0.6124 | 0.7033 |
| | (0.1541) | (0.3177) | (0.2476) | (0.3802) | (0.6865) | (0.5519) |
| Hispanic | -0.0101 | | -1.2681** | 0.4217 | | -0.5980 |
| | (0.1684) | | (0.6017) | (0.2979) | | (0.8052) |
| Black | 0.2089 | | -1.2889** | 1.0481*** | | 0.0026 |
| | (0.1420) | | (0.6020) | (0.3072) | | (0.9239) |
| Tract: Pooled Data | 0.0627 | -0.0039 | -0.0713 | 0.1738 | -2.7895*** | 0.1075 |
| | (0.2062) | (0.2905) | (0.2321) | (0.4295) | (0.5918) | (0.5905) |
| Constant | 7.3563*** | 7.0973*** | 8.8408*** | 3.2470** | 3.1559* | 3.7490 |
| | (0.7087) | (1.0973) | (1.0994) | (1.5254) | (1.8951) | (2.4314) |
| | | | | | | |
| Observations | 730 | 196 | 534 | 730 | 196 | 534 |
| Number of States | 36 | 27 | 36 | 36 | 27 | 36 |
| $R^2$ | 0.132 | 0.249 | 0.140 | 0.237 | 0.439 | 0.219 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A18: Reports coefficients from OLS regressions of beliefs. Instead of tract outcomes for adults of same race, same gender, white adults of same gender is used for Black and Hispanic respondents, while black or hispanic outcomes are used for white respondents. Independent Variables include demographics, parental wealth and outcomes, peer attributes, county attributes, state fixed effects and adverse shocks. All standard errors are robust standard errors.

Table A19: Work Beliefs Regressed on Opposite Race Outcomes

| VARIABLES | Pooled Work 20+hrs NY if School | White Work 20+hrs NY if School | Non White Work 20+hrs NY if School | Pooled Work 20+hrs at 30 | White Work 20+hrs at 30 | Non White Work 20+hrs at 30 |
|---|---|---|---|---|---|---|
| Opposite: HS Grad | -8.0894 | -20.3181 | 2.0241 | -0.8834 | -1.3440 | -0.6541 |
| | (16.1829) | (21.3716) | (18.8877) | (1.1063) | (1.5406) | (1.5414) |
| Opposite: Some College | 4.3322 | 10.4616 | 2.1053 | -1.3173* | -1.2102 | -1.6672 |
| | (19.2873) | (28.5946) | (24.6003) | (0.7730) | (1.1493) | (1.1661) |
| Opposite: Bach More | -14.3593 | -46.8199* | -2.3774 | -1.1965 | -3.0479* | -0.6284 |
| | (15.7441) | (26.7024) | (16.3062) | (0.8710) | (1.7085) | (1.1233) |
| Opposite: Military | 5.3947 | 10.0045 | -4.6858 | 0.3921 | 0.6901 | 0.5592 |
| | (12.4020) | (17.9479) | (18.2905) | (0.6450) | (0.8384) | (0.7089) |
| Opposite: Med Earnings | 0.0002 | 0.0001 | 0.0002 | 0.0000* | -0.0000 | 0.0000** |
| | (0.0002) | (0.0003) | (0.0002) | (0.0000) | (0.0000) | (0.0000) |
| Opposite: UE Rate | -0.1323 | -0.3051 | -0.0754 | 0.0178** | -0.0072 | 0.0303*** |
| | (0.2236) | (0.2420) | (0.2196) | (0.0078) | (0.0113) | (0.0085) |
| Academic Ability | -0.0594 | -1.4422 | 0.1335 | 0.3552*** | 0.3884** | 0.3507*** |
| | (1.4404) | (2.2898) | (1.8431) | (0.0952) | (0.1636) | (0.1046) |
| Past Risky Behavior | 3.6955*** | 5.3730*** | 2.5534* | 0.0433 | 0.3058 | -0.0434 |
| | (1.2654) | (1.9563) | (1.4645) | (0.1127) | (0.1887) | (0.1321) |
| Female | 4.3185 | 2.0103 | 3.9281 | 0.1401 | 0.0499 | 0.2558 |
| | (3.0569) | (7.7035) | (3.9932) | (0.2853) | (0.3200) | (0.3540) |
| Hispanic | -0.3394 | | -12.0190 | 0.0104 | | -0.9470 |
| | (3.9566) | | (8.0842) | (0.2131) | | (0.5839) |
| Black | -1.6476 | | -15.0970** | -0.0810 | | -1.0059* |
| | (3.7110) | | (7.0985) | (0.1943) | | (0.5670) |
| Tract: Pooled Data | -5.6958 | -19.5866*** | -8.7172* | 0.0655 | -0.0120 | -0.0345 |
| | (4.2997) | (7.2691) | (4.7341) | (0.2330) | (0.5518) | (0.2995) |
| Constant | 63.7984*** | 105.8662*** | 65.9412*** | 9.5938*** | 11.4881*** | 9.6569*** |
| | (14.4169) | (22.4191) | (19.5551) | (0.9487) | (1.1794) | (1.2530) |
| | | | | | | |
| Observations | 730 | 196 | 534 | 730 | 196 | 534 |
| Number of States | 36 | 27 | 36 | 36 | 27 | 36 |
| $R^2$ | 0.0973 | 0.336 | 0.0689 | 0.0884 | 0.184 | 0.118 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A19: Reports coefficients from OLS regressions of beliefs. Instead of using neighborhood outcomes of adults of the same race and gender, for non-white(Black and Hispanic) respondents white adults of same gender is used, while for white respondents black or Hispanic adults of the same gender is used. Other independent variables include, academic ability measure, risky behavior, demographics, parental wealth and outcomes, peer attributes, county attributes, state fixed effects and adverse shocks. All standard errors are robust standard errors.

Table A20: Parenthood Beliefs Regressed on Opposite Race Outcomes

| VARIABLES | Pooled Parent by 20 | White Parent by 20 | Non White Parent by 20 |
|---|---|---|---|
| Opposite: HS Grad | 1.0452 | 3.7542 | 0.6574 |
| | (1.2501) | (2.5300) | (1.8864) |
| Opposite: Some College | 1.2913 | 3.6835** | 0.6390 |
| | (1.0030) | (1.6052) | (1.4029) |
| Opposite: Bach More | 2.3012** | 4.5669** | 2.1449* |
| | (1.0520) | (2.2599) | (1.1495) |
| Opposite: Military | -0.1226 | 0.4086 | -1.0511 |
| | (0.6122) | (0.9155) | (0.9580) |
| Opposite: Med Earnings | -0.0000 | -0.0000 | -0.0000 |
| | (0.0000) | (0.0000) | (0.0000) |
| Opposite: UE Rate | 0.0019 | 0.0209 | -0.0045 |
| | (0.0115) | (0.0206) | (0.0178) |
| Academic Ability | -0.3570*** | -0.0625 | -0.4501*** |
| | (0.0849) | (0.2303) | (0.1189) |
| Past Risky Behavior | 0.4959*** | 0.0791 | 0.6127*** |
| | (0.1166) | (0.2242) | (0.1411) |
| Female | -0.3372 | -0.2317 | -0.6975 |
| | (0.2822) | (0.3952) | (0.4264) |
| Hispanic | 0.0931 | | 0.3732 |
| | (0.3033) | | (0.8356) |
| Black | -0.5486 | | -0.3054 |
| | (0.3607) | | (0.8033) |
| Tract: Pooled Data | 0.0099 | 0.2820 | -0.0309 |
| | (0.3590) | (0.3996) | (0.3555) |
| Constant | 0.4126 | -0.7708 | 0.8763 |
| | (1.3543) | (2.1770) | (1.9410) |
| | | | |
| Observations | 730 | 196 | 534 |
| Number of States | 36 | 27 | 36 |
| $R^2$ | 0.165 | 0.189 | 0.182 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A20: Reports coefficients from OLS regressions of beliefs. Instead of using neighborhood outcomes of adults of the same race and gender, for non-white(Black and Hispanic) respondents white adults of same gender is used, while for white respondents black or Hispanic adults of the same gender is used. Other independent variables include, academic ability measure, risky behavior, demographics, parental wealth and outcomes, peer attributes, county attributes, state fixed effects and adverse shocks. All standard errors are robust standard errors.

Table A21: Criminal Justice Beliefs Regressed on Opposite Race Outcomes

| VARIABLES | Pooled Arrested if Stole Car | White Arrested if Stole Car | Non White Arrested if Stole Car | Pooled Jailed by 20 | White Jailed by 20 | Non White Jailed by 20 |
|---|---|---|---|---|---|---|
| Opposite: HS Grad | 2.3644 | 4.9883 | 0.3013 | -2.1020 | -6.9981 | 3.3109 |
| | (3.0545) | (4.6852) | (3.3105) | (5.5643) | (7.0607) | (5.9768) |
| Opposite: Some College | 2.0570 | 4.5460* | -0.1366 | 6.6657 | 1.1598 | 10.1220** |
| | (2.1330) | (2.7294) | (2.3826) | (4.9257) | (7.9906) | (4.7729) |
| Opposite: Bach More | -0.1741 | 3.4897 | -2.3859 | -0.0176 | -8.1064 | 5.8308 |
| | (2.7640) | (4.4213) | (2.9289) | (5.2664) | (12.5815) | (5.6626) |
| Opposite: Military | 0.2166 | 2.3933 | -0.6919 | -3.3334 | 5.0603 | -8.0283 |
| | (1.6364) | (2.3845) | (1.9054) | (3.2349) | (5.2629) | (5.8267) |
| Opposite: Med Earnings | -0.0000 | -0.0000 | -0.0000 | -0.0001 | 0.0001 | -0.0002 |
| | (0.0000) | (0.0000) | (0.0000) | (0.0001) | (0.0001) | (0.0001) |
| Opposite: UE Rate | -0.0163 | -0.0093 | -0.0206 | -0.0687 | -0.0456 | -0.1072* |
| | (0.0205) | (0.0279) | (0.0262) | (0.0583) | (0.0960) | (0.0624) |
| Academic Ability | 0.4997** | -0.2758 | 0.8271*** | -1.5873*** | 0.0095 | -2.3113*** |
| | (0.2055) | (0.4164) | (0.2059) | (0.4481) | (0.8640) | (0.6227) |
| Past Risky Behavior | -0.2327 | 0.2686 | -0.3388 | 0.6271 | -0.5777 | 1.0526** |
| | (0.2410) | (0.2832) | (0.2788) | (0.4166) | (0.8613) | (0.4954) |
| Female | -0.6216 | 0.7235 | -1.0901 | -3.7549*** | -2.1286 | -4.5776** |
| | (0.6349) | (1.0749) | (0.9251) | (1.1082) | (1.5550) | (1.7839) |
| Hispanic | 0.0669 | | 1.4396 | 1.6694 | | 2.1175 |
| | (0.5975) | | (1.4084) | (1.1999) | | (2.4529) |
| Black | -0.2986 | | 1.2933 | -1.1776 | | -0.5052 |
| | (0.4395) | | (1.4768) | (1.5011) | | (3.2892) |
| Tract: Pooled Data | -0.5958 | 1.7608** | -0.3385 | -1.6203 | -7.3050** | -2.2964* |
| | (0.5965) | (0.7263) | (0.6196) | (1.2479) | (3.3254) | (1.2041) |
| Constant | 10.7054*** | 3.8051 | 12.3792*** | -1.3785 | -4.7749 | -1.9846 |
| | (2.4250) | (2.9608) | (2.7620) | (4.7219) | (8.2281) | (5.8529) |
| | | | | | | |
| Observations | 730 | 196 | 534 | 730 | 196 | 534 |
| Number of States | 36 | 27 | 36 | 36 | 27 | 36 |
| $R^2$ | 0.1000 | 0.169 | 0.122 | 0.0993 | 0.176 | 0.139 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A21: Reports coefficients from OLS regressions of beliefs. Instead of using neighborhood outcomes of adults of the same race and gender, for non-white(Black and Hispanic) respondents white adults of same gender is used, while for white respondents black or Hispanic adults of the same gender is used. Other independent variables include, academic ability measure, risky behavior, demographics, parental wealth and outcomes, peer attributes, county attributes, state fixed effects and adverse shocks. All standard errors are robust standard errors.

Table A22: Mortality Beliefs Regressed on Opposite Race Outcomes

| VARIABLES | Pooled Die by 20 | White Die by 20 | Non White Die by 20 |
|---|---|---|---|
| Opposite: Pct HS Grad | 0.2690 | -0.8846 | 0.7960 |
| | (0.7673) | (2.0220) | (0.9909) |
| Opposite: Pct Some College | 1.8533* | 0.1222 | 3.1016*** |
| | (1.0025) | (2.0907) | (0.9012) |
| Opposite: Pct Bach More | 0.3753 | 1.2695 | 0.7834 |
| | (0.7625) | (1.9325) | (0.8633) |
| Opposite: Pct Military | -1.7720* | 0.1825 | -3.6773*** |
| | (1.0019) | (1.4739) | (0.8983) |
| Opposite: Medain Earnings | -0.0000 | 0.0000 | -0.0000** |
| | (0.0000) | (0.0000) | (0.0000) |
| Opposite: UE Rate | 0.0113 | -0.0069 | 0.0219 |
| | (0.0180) | (0.0209) | (0.0201) |
| Academic Ability | 0.0479 | 0.3400 | -0.0653 |
| | (0.0950) | (0.2269) | (0.0887) |
| Past Risky Behavior | 0.0187 | -0.2265* | 0.1091 |
| | (0.0600) | (0.1231) | (0.0851) |
| Female | -0.3604 | -0.2123 | -0.8032*** |
| | (0.2868) | (0.6214) | (0.2779) |
| Hispanic | 0.0333 | | -1.1594*** |
| | (0.2492) | | (0.3814) |
| Black | -0.0477 | | -1.4082*** |
| | (0.2206) | | (0.3324) |
| Tract: Pooled Data | -0.0336 | -1.3288** | -0.2053 |
| | (0.2288) | (0.5247) | (0.2573) |
| Constant | -0.6936 | 1.1199 | 0.4483 |
| | (1.3352) | (1.8864) | (1.4286) |
| | | | |
| Observations | 730 | 196 | 534 |
| Number of States | 36 | 27 | 36 |
| $R^2$ | 0.0811 | 0.166 | 0.111 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A22: Reports coefficients from OLS regressions of beliefs. Instead of using neighborhood outcomes of adults of the same race and gender, for non-white(Black and Hispanic) respondents white adults of same gender is used, while for white respondents black or Hispanic adults of the same gender is used. Other independent variables include, academic ability measure, risky behavior, demographics, parental wealth and outcomes, peer attributes, county attributes, state fixed effects and adverse shocks. All standard errors are robust standard errors.