

# NIH Public Access

Author Manuscript

Soc Psychiatry Psychiatr Epidemiol. Author manuscript; available in PMC 2014 July 02

# Published in final edited form as:

Soc Psychiatry Psychiatr Epidemiol. 2014 July ; 49(7): 1129–1137. doi:10.1007/s00127-013-0799-3.

# The immigrant paradox: immigrants are less antisocial than native-born Americans

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# Abstract

**Purpose**—Although recent research on crime and violence among immigrants suggests a paradox—where immigrants are more socially disadvantaged yet less likely to commit crime—previous research is limited by issues of generalizability and assessment of the full depth of antisocial behavior.

**Methods**—We surmount these limitations using data from waves I and II of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) and compare immigrants (N = 7,320) from Asia, Africa, Europe, and Latin America to native-born Americans (N = 34,622) with respect to violent and nonviolent forms of antisocial behavior.

**Results**—After controlling for an extensive array of confounds, results indicate that immigrants are significantly less antisocial despite being more likely to have lower levels of income, less education, and reside in urban areas. These findings hold for immigrants from major regions of the world including Africa, Asia, Europe, and Latin America.

**Conclusions**—This study confirms and extends prior research on crime and antisocial behavior, but suggests that it is premature however to think of immigrants as a policy intervention for treating high crime areas.

#### Keywords

Immigrant; Crime; Immigration; Antisocial behavior; Race and ethnicity

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# Introduction

Popular culture depictions of immigrants have tended toward characterizing immigrants as criminogenic and dangerous. These depictions are partly fueled by media images of "foreign born" drug lords and mafia kingpins and also by the socioeconomically disadvantaged state of new immigrants [1–4]. While it is true that immigrants to the United States are more socially disadvantaged than most citizens, this does not necessarily mean that they are more likely to resort to crime and violence [5]. This belief, to some extent, is partly nourished by traditions of sociological theorizing on crime that places the sources of crime squarely on the shoulders of inequality, concentrated disadvantage, and neighborhood social disorder [6–12].

Recent research on immigrants in the US, however, casts doubt on the universality of these sources of crime and violence leading to what can be termed the *immigrant paradox*, where immigrants are more socially disadvantaged yet also less likely to commit crime and evince other forms of social pathology [5, 13–16]. The immigrant paradox finding has emerged from studies using various data sources, research designs, and geographic areas.

#### **Prior research**

Concerns about immigrants and crime are longstanding. Despite popular assumptions about immigrants, there is relatively little empirical research in support of the notions that immigrants are disproportionately likely to contribute to crime, violence, and correlated social problems [5, 14, 17]. For instance, Hagan and Palloni [18] studied numerous historical sources and found little evidence of an aggregate-level association between immigration and crime. In their study of recent immigrants to Miami, Martinez and Lee revealed that these newcomers had little to do with increased rates of violence [19]. Additional research along new immigrant destinations and border towns indicates a negative relationship between immigrant status and homicide [12, 15, 20]. In addition, these findings seem to hold across different contexts such as traditional and non-traditional residential destinations [21] and school behavioral problems [22].

At the macro level, rapid neighborhood change such as brought about by the influx of immigrants may theoretically erode neighborhood social norms that maintain informal behavioral controls and thus increase the probability of crime; studies have largely refuted these claims [23, 24]. In fact, recent evidence suggests that immigrants can actually lower neighborhood crime rates [13, 23, 25] and cities that experienced the greatest number of immigrants also experienced the largest decreases in robbery and homicide [26]. Moreover, it has been suggested that immigrants may be a major driver in the crime drop in the US [16, 27]. However, in a study of the unintended consequences of US immigration policy, Shihadeh and Barranco [28, 29] found that increased Latino immigration and concentration in US cities resulted in increased black unemployment and increased black violence.

While it appears that immigrants commit less crime, there is also evidence that the intergenerational continuity in the reductions in criminal behavior at the individual level is transitory. In a unique study of migration from Mexico to the United States and increasing exposure across generations on the prevalence of conduct disorder (CD), Breslau and

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colleagues [30] found that CD was lowest in immigrant families relative to the general population, higher in children of Mexican-born parents who were raised in the US, but highest in Mexican-American children of US born parents. This suggests that the mechanisms that serve to protect or decrease the odds of antisocial behaviors are attenuated as immigrants to the US begin to be distanced from their culture of origin and increase their assimilation to the host culture. Alternatively, the underlying propensity for crime and antisocial behavior may become expressed as a result of exposure to unfavorable environmental conditions that might occur due to acculturation processes and associated strains.

There are several explanations for the immigrant paradox [4–7, 16, 17, 31, 32]. One simple explanation is that immigrants have a lot to lose, including deportation, and avoiding law enforcement is an especially good idea when you are in a new and strange land. This is particularly true for illegal immigrants where contact with the criminal justice system will reveal their status. Another reason why immigrants are less crime prone may be found in selection processes. Immigrants are motivated to come to the US, work hard, and play by the rules. Thus, the antisocial liability of immigrants is low because immigration selects for persons who are motivated and ambitious to achieve.

Another explanation for the immigrant paradox that has received less attention is what can be termed the cultural armamentarium hypothesis. Essentially, this explanation is based on the premise that immigrants come to the US and bring with them their cultural practices (e.g., shared normative structures, similar ways of living, tendency to congregate around other immigrants) thus providing a social network and form of "herd immunity" from many of the challenges of moving to a new nation [33]. Although it is important to theorize why immigrants are less likely to commit crimes, explanations are difficult to test directly.

#### The present study

While there is an emerging literature showing that immigrants to the US may be less likely to commit crimes than their native-born counterparts, the emphasis in these investigations has been on arrests, official crime rates and other aggregate-level indices. The main weakness of this type of measurement strategy is that most people who commit transgressions are not arrested. Thus, the full depth of specific antisocial behaviors that are not detected by official sources has been understudied among immigrants. Further, to our knowledge, there have been no studies derived from nationally representative samples, hampering the generalizability of previous investigations. Another limitation of the literature is the over-emphasis on Latino immigrants and under-emphasis on immigrants from other regions of the world. These are major gaps that are addressed in the present study. First, we hypothesize that immigrants will report fewer violent and nonviolent antisocial behaviors than native-born Americans while controlling for a notable array of confounds including age, gender, race/ethnicity, education, household income, urbanicity, region of the country, any alcohol, drug, or mental health disorder, and family history of antisocial behavior. Second, we also hypothesize that the immigrant paradox will be invariant with lower prevalence of antisocial behavior found for immigrants from Asia, Latin America, Africa, and Europe.

# Methods

#### **Participants**

Study findings are based on data from waves I and II of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). The NESARC is a nationally representative sample of 43,093 non-institutionalized US residents aged 18 years and older [34]. The survey gathered background data and extensive information about substance use and comorbid psychiatric disorders from individuals living in households and group settings such as shelters, college dormitories, and group homes in all 50 states and the District of Columbia. The NESARC utilized a multistage cluster sampling design, oversampling young adults, Hispanics, and African-Americans in the interest of obtaining reliable statistical estimation in these subpopulations, and to ensure appropriate representation of racial/ethnic subgroups. Multistage cluster sampling design is a commonly used design when attempting to provide nationally representative estimates. This is because interviewing all participants is not feasible, so larger units (i.e., clusters) are identified and randomly selected from. With respect to the NESARC, 709 primary sampling units (PSUs) provided by the Census Supplementary Survey were selected (stage one). Within the sample PSUs, households were systematically selected (stage two). An individual aged 18 years or older was randomly selected from each household. The response rate for wave I data was 81 % and for wave II was 86.7 % (N = 34,653) with a cumulative response rate of 70.0 % for both waves. Data were weighted at the individual and household levels to adjust for oversampling and nonresponse on demographic variables (i.e., age, race/ethnicity, sex, region, and place of residence). Data were also adjusted to be representative (based on region, age, race, and ethnicity) of the US adult population as assessed during the 2000 Census. Study participants provided fully informed consent. The US Census Bureau and the US Office of Management and Budget approved the research protocol and informed consent procedures.

#### **Diagnostic assessment**

Data were collected through face-to-face structured psychiatric interviews conducted by US Census workers trained by the National Institute on Alcohol Abuse and Alcoholism and US Census Bureau. Interviewers administered the Alcohol Use Disorder and Associated Disabilities Interview Schedule–DSM-IV version (AUDADIS-IV), which provides diagnoses for mood, anxiety, personality, and substance use disorders. The AUDADIS-IV has shown to have good-to-excellent reliability in assessing alcohol and drug use in the general population [35, 36].

#### Measures

**Immigrant status**—Respondents were queried as to whether they were born in the United States of America. Respondents who reported having been born outside the US (N = 7,320, 14.60 %) were coded as 1 and those born in the US (N = 35,622, 85.40 %) were coded as 0.

**Violent and nonviolent antisocial behavior**—Violent and nonviolent antisocial behaviors were measured using 31 items from the antisocial personality disorder module of the AUDADIS-IV. Subjects self-reported whether they exhibited any of the behaviors in their lifetime (summarized in Tables 1 and 2). Each item was dichotomously scored (0 = no,

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1 = yes). In addition, for purposes of post hoc analyses, the violent and nonviolent items were also used to form two dichotomous measures representing any violent or nonviolent antisocial behavior, respectively. Psychometric tests of internal consistency reliability for violent and nonviolent antisocial behaviors indicated adequate reliability for both immigrants ( $\alpha = 0.67$  and 0.74) and non-immigrants ( $\alpha = 0.79$  and 0.80). Several studies have found evidence for concurrent validity of these items [37–39].

**Mental and behavioral health**—Numerous mental and behavioral health factors were used to reduce confounding, including: lifetime DSM-IV mood (major depression, dysthymia, and bipolar disorder) and anxiety disorder (social phobia, generalized anxiety disorder, panic disorder, and specific phobia); lifetime personality disorder (avoidant, dependent, obsessive compulsive, paranoid, schizoid, or histrionic personality disorder); lifetime alcohol use disorder (abuse/dependence), lifetime drug use disorder (abuse/ dependence on heroin, hallucinogens, cocaine/crack, marijuana, stimulants, painkillers, tranquilizers, or sedatives), and parental antisocial influence.

**Sociodemographic controls**—The following demographic variables were included as control variables: age, gender, race/ethnicity, household income, education level, marital status, region of the US, and urbanicity.

#### Statistical analysis

Logistic regression analyses were conducted that compared non-immigrants with immigrants to the US in terms of a variety of violent and nonviolent antisocial behavioral outcomes. Adjusted odds ratios (AORs) were considered to be statistically significant, if the associated confidence intervals did not cross the 1.0 threshold. For all statistical analyses, weighted prevalence estimates and standard errors were computed using Stata 12.1SE [40]. This system implements a Taylor series linearization to adjust standard errors of estimates for complex survey sampling design effects including clustered data.

# Results

Figure 1 displays the prevalence of violent and nonviolent antisocial behavior among nativeborn and immigrant adults aged 18 years and older in US. Across the board, the prevalence of antisocial behavior among native-born Americans was greater than that of immigrants. Particularly large differences were observed in terms of involvement in behaviors that could easily hurt oneself/others, truancy, staying out late without permission from one's parents, quitting a job without having other options, shoplifting, and taking part in illegal behaviors that could get one arrested.

Table 1 compares the prevalence of violent antisocial behaviors among native-born Americans and immigrants in the US. With only two non-significant associations (setting a fire on purpose, hurting an animal on purpose), immigrants were significantly less likely to take part in violent antisocial behaviors as compared to native-born Americans. When controlling for sociodemographic and mental/behavioral health factors, the strongest associations between immigrant status and antisocial behavior were found in terms of using

Table 2 compares the prevalence of nonviolent antisocial behaviors among native-born Americans and immigrants to the US. With the exception of non-significant associations between immigrant status and traveling around for more than 1 month without plans, lying a lot, using a false name or alias, failing to pay off one's debts, and making money illegally, immigrants were significantly less likely to take part in the majority of nonviolent antisocial behaviors. When controlling for sociodemographic and mental/behavioral health factors, the strongest associations identified between immigrant status and nonviolent antisocial behavior were in reference to being absent from work/school a lot, doing something you could have been arrested for, and shoplifting.

Figure 2 displays the prevalence of violent and nonviolent antisocial behavior among African, Latin American, European, and Asian immigrants and native-born Americans. Across the board, for both violent and nonviolent behaviors, native-born Americans reported the highest levels of antisociality. In terms of comparing immigrants from various regions of the world, European immigrants reported the highest levels of violent and nonviolent antisocial behavior. After European immigrants, the second highest level of both violent and nonviolent antisocial behavior was reported by Latin American immigrants. Asian immigrants reported the lowest levels of violent antisociality and Africans reported the lowest levels of nonviolent antisociality.

#### Supplemental analyses

**Three-year follow-up**—We assessed the stability of the lifetime measures in wave I results using wave II data that was based on the past 3 years of self-reported antisocial behaviors (see Fig. 3). Although as expected the prevalence of antisocial behaviors at three-year follow-up was substantially lower than that of wave I, results largely mirrored the overall pattern found for wave I with immigrants reporting lower levels of violent and nonviolent acts even after controlling for the same confounds as in the main analyses.

Age and length of time in the U.S—In these analyses, we wanted to examine whether the age of immigration altered the relationship between immigrant status and nonviolent and violent antisocial behavior. We contrasted these relationships among individuals who had immigrated before the age of 13 and after the age of 13. Controlling for all the same factors presented in our main findings, immigrants who came to the United States at the age of 12 or younger were significantly more likely to report involvement in at least one of the violent (AOR = 2.01, 95 % CI = 1.87–2.15) or nonviolent (AOR = 1.80, 95 % CI = 1.71–1.89) antisocial behaviors as compared with immigrants who arrived at the age of 13 or older. However, when compared to native-born Americans, immigrants who arrived as children or arrived at the age of 13 or older are still significantly less likely to take part in violent and nonviolent antisocial behavior than Native-born Americans, though the latter group begins to somewhat resemble the native-born behaviorally.

Finally, for all immigrants regardless of age, we estimated what each year in the US translates to with respect to an increased probability of reporting an antisocial act. Results

showed that each additional year an immigrant has lived in the United States is associated with a 1.9 % increase in the likelihood of violence and a 0.9 % increase in the likelihood of nonviolent antisociality.

# Discussion

Findings from the present study not only contradict popular culture depictions of immigrants but also provide several unique contributions. Consistent with prior studies that rely on arrests [20, 26], we find immigrants are also less likely to be antisocial. However, perhaps more substantially, no matter the region of the world, immigrants to the US are less likely to engage in violent or nonviolent antisocial behaviors than native-born Americans. Notably, nativeborn Americans were approximately four times more likely to report violent behavior than Asian and African immigrants and three times more likely than immigrants from Latin America. European immigrants were closest to native-born Americans in their antisociality. To our knowledge, this is the first study to examine the prevalence of antisocial behavior among immigrant to the US from all major regions of the world.

Study results also are paradoxical to conventional social scientific reasoning with respect to the social sources of crime and antisocial behavior. Immigrants in the present investigation were more likely to be male, poor, possess less than a high school education, and reside in urban areas. These results run counter to studies of crime among native-born Americans. As such, the immigrant paradox serves a valuable lesson by perhaps forcing us to question our assumptions about crime and antisociality. In this study, even after controlling for the effects of sociodemographic variables and potential confounds such as lifetime alcohol and drug use disorders and mental health conditions, immigrants were still about half less likely than native-born Americans to endorse committing a violent (e.g., using a weapon) or nonviolent antisocial act (e.g., shoplifting).

The immigration paradox has important implications and raises several questions. If increased immigration lowers the crime rate, then can immigration be thought of as a crime prevention strategy? In this scenario, incentives for immigrants to move into high crime areas would be a major component of such a strategy. Recent studies support this notion as the increased neighborhood concentration of immigrants has been associated with substantial reductions in the rates of serious crime [26, 27]. Still another tantalizing speculation is that the crime drop that has fascinated scholars for over a decade could be due to increased immigration [17]. Although provocative, this hypothesis has not been tested.

Despite the promise of immigration as an antidote for crime, an important caveat is that this effect may be fleeting in that the progeny of immigrants over time begins to resemble their adopted culture. We found that each year spent in the US was associated with an increased probability of engaging in antisocial behavior. In other words, while immigrants are less likely to engage in antisocial behavior, the positive benefit lies with the immigrant and as previous research indicates, this pattern may not be intergenerationally stable [30]. In the present study, we found that each additional year an immigrant spends in the US is associated with a 1.9 and 0.9 % increase in nonviolent and violent crime, respectively. Another factor is jobs. Employment opportunities attract immigrants and it is difficult to

promote immigration to a city that has limited gainful work. Further, increased immigration has been shown to impact employment among urban blacks which in turn leads to increases in the crime rate [28, 29].

Future studies should attempt to test some of the explanations that lie behind the immigrant paradox. While it may seem obvious that immigrants have a lot to lose such as deportation, especially illegal immigrants, if they engage in antisocial behavior, little research has accrued on this explanation. Deeper mechanisms involving selection processes and cultural armamentarium theories also have received little attention. Selection processes can be tested by examining the levels of motivation and perseverance of immigrants compared to a matched sample of non-immigrants from the home nation using counterfactual designs. Although it is observable that existing social networks are an important reason as to where immigrants locate themselves in a new country, examining the shielding effects of these networks and communities in relation to crime and antisocial behavior can be undertaken using ethnographic and social network analysis. This is important not only to better understand the processes behind the genesis of antisocial behavior and crime but also because it may illuminate strategies by which national polices and local initiatives can better prevent crime.

#### Strengths and limitations

The present study has three major assets. First, we extend previous research on immigrants and crime by examining self-reported acts of antisocial behavior, which are likely to go undetected. Our findings add validity to previous investigations on arrest and official crime rates among immigrants by showing that self-report data converge with these studies indicating that immigrants are indeed less criminogenic and antisocial. Second, prior studies have relied on data from geographically circumscribed areas and the present study is nationally representative. Thus, our findings suggest that previous work is likely generalizable. Third, the present study is novel in that we are able to provide results on antisocial acts from immigrant groups from around the world. This extends the scope of previous work and, to our knowledge, represents the broadest study of immigrants and antisocial behavior or crime ever conducted.

However, despite these strengths, the current study findings require interpretation within the context of several limitations. One limitation is the data are cross-sectional. We rely on retrospective lifetime measures of antisocial behavior and are unable to clarify the causal mechanisms that are associated with antisocial behavior among immigrants. Further, we do not know what the longer term prevalence of antisocial behaviors will be. However, it seems unlikely that immigrant antisocial behavior will make up the difference to that of nativeborn Americans. This will require life-course study designs. Although the NESARC is a nationally representative sample, it is uncertain how the association between immigrant status and antisocial behavior would be similar or different, if enriched correctional or clinical samples were employed. An additional limitation is that the data did not include important contextual information (e.g., neighborhood) which could be useful to understand the immigrant paradox. Future studies on immigration and antisocial behavior will benefit from including these study features.

In summary, the immigrant paradox is a novel empirical finding that challenges classic criminological theory and both classic and contemporary public opinion. That persons with multiple risk factors for antisocial behavior engage in less antisocial behavior is an important insight into resilience and should serve as a primary focus for both researchers and policy makers.

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#### Fig. 1.

Lifetime prevalence of violent and nonviolent antisocial behavior among native-born and immigrants aged 18 and older in the United States (wave I)

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## Fig. 2.

Prevalence of violent and nonviolent antisocial behavior among native-born and immigrants aged 18 and older by immigrant country of origin (wave I)

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Three year follow-up of the prevalence of violent and nonviolent antisocial behavior among native-born and immigrants aged 18 and older in the United States (Wave II)

# Table 1

Violent antisocial behaviors of native-born and immigrants aged 18 and older in the United States

| Violent antisocial behaviors                                       | Immig              | ated to the Ur  | nited S1        | ates             | Unad | justed        | Adjus | sted          |
|--------------------------------------------------------------------|--------------------|-----------------|-----------------|------------------|------|---------------|-------|---------------|
|                                                                    | No (N =<br>85.40 % | = 35,622,<br>6) | Yes (7<br>14.60 | V = 7,320,<br>%) |      |               |       |               |
|                                                                    | %                  | 95 % CI         | %               | 95 % CI          | OR   | (95 % CI)     | QR    | (95 % CI)     |
| Bullied people                                                     | 6.78               | (6.6–7.0)       | 3.28            | (3.1 - 3.5)      | 0.47 | (0.44 - 0.50) | 0.63  | (0.57–0.69)   |
| Destroy others' property                                           | 4.17               | (4.0-4.3)       | 1.29            | (1.0-1.6)        | 0.30 | (0.24 - 0.37) | 0.66  | (0.50 - 0.86) |
| Harass/threatened/blackmail someone                                | 1.92               | (1.8-2.0)       | 0.67            | (0.6-0.8)        | 0.35 | (0.29 - 0.42) | 0.69  | (0.54 - 0.88) |
| Set a fire on purpose                                              | 1.25               | (1.2 - 1.3)     | 0.45            | (0.2 - 0.8)      | 0.36 | (0.20 - 0.64) | 0.99  | (0.45 - 2.19) |
| Hurt an animal on purpose                                          | 1.95               | (1.8-2.0)       | 1.12            | (1.0-1.2)        | 0.57 | (0.51 - 0.63) | 0.92  | (0.78 - 1.08) |
| Do things that could have easily hurt you/others                   | 15.91              | (15.6–16.2)     | 3.72            | (3.5 - 3.9)      | 0.20 | (0.19 - 0.22) | 0.54  | (0.48 - 0.60) |
| Hurt another person on purpose                                     | 5.62               | (5.4–5.8)       | 1.89            | (1.7 - 2.1)      | 0.32 | (0.29 - 0.36) | 0.67  | (0.59–0.77)   |
| Get into a fight that came to swapping blows with romantic partner | 7.35               | (7.1-7.6)       | 2.56            | (2.4–2.7)        | 0.33 | (0.31 - 0.35) | 0.47  | (0.43 - 0.51) |
| Hit someone so hard that you injure them                           | 6.67               | (6.5–6.8)       | 2.25            | (2.1 - 2.4)      | 0.32 | (0.30 - 0.35) | 0.52  | (0.47 - 0.58) |
| Get into lots of fights that you started                           | 3.04               | (2.9–3.2)       | 1.56            | (1.4–1.7)        | 0.50 | (0.45-0.57)   | 0.82  | (0.71 - 0.96) |
| Use a weapon in a fight                                            | 3.00               | (2.9 - 3.1)     | 0.99            | (0.9-1.1)        | 0.32 | (0.29 - 0.37) | 0.46  | (0.38 - 0.56) |

anxiety and mood disorders, personality Adjusted odds ratios adjusted for age, gender, race/ethnicity, household income, education level, mantal status, region of the United States, urbanicity, and at disorders, drug use disorders, drug use disorders, and parental antisocial influence Odds ratios and confidence intervals in bold are statistically significant

# Table 2

Nonviolent antisocial behaviors of native-born and immigrants aged 18 and older in the United States

| Nonviolent antisocial behaviors                                          | Immig              | rated to the Ur               | iited Sta         | tes            | D<br>D | adjusted      | •    | Adjusted      |   |
|--------------------------------------------------------------------------|--------------------|-------------------------------|-------------------|----------------|--------|---------------|------|---------------|---|
|                                                                          | No (N =<br>85.40 % | = 35,622,<br>( <sub>0</sub> ) | Yes (N<br>14.60 % | = 7,320,<br>() |        |               |      |               |   |
|                                                                          | %                  | 95 % CI                       | %                 | 95 % CI        | OR     | (95 % CI)     | OR   | (95 % CI)     |   |
| Cut class and leave without permission                                   | 23.16              | (22.8–23.5)                   | 14.94             | (14.6–15.3)    | 0.58   | (0.56-0.60)   | 0.63 | (0.60 - 0.65) |   |
| Stay out late at night                                                   | 27.37              | (27.1 - 27.6)                 | 16.78             | (16.4–17.2)    | 0.53   | (0.52 - 0.55) | 0.74 | (0.71 - 0.78) |   |
| Run away from home                                                       | 5.49               | (5.3–5.7)                     | 3.15              | (3.0 - 3.3)    | 0.56   | (0.53 - 0.59) | 0.61 | (0.55 - 0.67) |   |
| Be absent from work/school a lot                                         | 7.59               | (7.4–7.8)                     | 2.96              | (2.8 - 3.1)    | 0.37   | (0.35 - 0.40) | 0.43 | (0.39 - 0.48) |   |
| Quit a job without knowing where to find another                         | 12.61              | (12.4–12.8)                   | 5.82              | (5.5-6.1)      | 0.43   | (0.40 - 0.45) | 0.57 | (0.52 - 0.61) |   |
| With a school program without knowing what to do next                    | 4.02               | (3.9–4.1)                     | 2.69              | (2.5–2.8)      | 0.66   | (0.62 - 0.70) | 0.67 | (0.61 - 0.73) |   |
| Travel around more than 1 month without plans                            | 3.62               | (3.5 - 3.8)                   | 2.45              | (2.3 - 2.6)    | 0.67   | (0.62 - 0.72) | 1.00 | (0.88 - 1.14) |   |
| Have no regular place to live at least 1 month                           | 3.04               | (2.9–3.2)                     | 1.25              | (1.1-1.4)      | 0.40   | (0.37 - 0.44) | 0.56 | (0.49 - 0.65) |   |
| Live with others at least 1 month                                        | 11.80              | (11.5 - 12.1)                 | 7.53              | (7.2–7.8)      | 0.61   | (0.58 - 0.64) | 0.79 | (0.74 - 0.84) |   |
| Lie a lot                                                                | 5.52               | (5.4–5.7)                     | 3.98              | (3.7–4.3)      | 0.71   | (0.66 - 0.76) | 1.06 | (0.96 - 1.18) |   |
| Use a false or made-up name/alias                                        | 2.24               | (2.1 - 2.3)                   | 1.65              | (1.5-1.8)      | 0.73   | (0.66-0.81)   | 0.95 | (0.82 - 1.10) |   |
| Scam/con someone for money                                               | 1.69               | (1.6-1.8)                     | 0.52              | (0.4-0.6)      | 0.30   | (0.26 - 0.36) | 0.55 | (0.43 - 0.71) |   |
| Get three or more traffic tickets for reckless driving/causing accidents | 9.39               | (9.2 - 9.6)                   | 4.54              | (4.4-4.7)      | 0.46   | (0.44-0.48)   | 0.81 | (0.77 - 0.85) |   |
| Have a driver's license suspended/revoked                                | 8.40               | (8.2 - 8.6)                   | 4.24              | (4.0-4.5)      | 0.48   | (0.45 - 0.51) | 0.71 | (0.66 - 0.76) |   |
| Fail to pay off your debts                                               | 4.58               | (4.4-4.7)                     | 1.81              | (1.6-2.1)      | 0.52   | (0.41 - 0.66) | 0.86 | (0.70 - 1.05) |   |
| Steal anything from others                                               | 9.90               | (9.7 - 10.1)                  | 3.87              | (3.7–4.1)      | 0.37   | (0.35 - 0.39) | 0.67 | (0.61 - 0.73) |   |
| Forge someone's signature                                                | 2.35               | (2.2–2.5)                     | 0.99              | (0.9 - 1.0)    | 0.41   | (0.38 - 0.45) | 0.69 | (0.63 - 0.76) |   |
| Shoplift                                                                 | 12.61              | (12.3–12.9)                   | 3.95              | (3.7–4.2)      | 0.28   | (0.26 - 0.31) | 0.48 | (0.44 - 0.52) |   |
| Make money illegally                                                     | 3.10               | (3.0 - 3.2)                   | 0.86              | (0.6 - 1.2)    | 0.27   | (0.20 - 0.37) | 0.86 | (0.59 - 1.24) |   |
| Do something you could have been arrested for                            | 17.42              | (17.1–17.8)                   | 4.48              | (4.2–4.8)      | 0.22   | (0.21 - 0.24) | 0.46 | (0.41 - 0.52) |   |
|                                                                          |                    |                               |                   | -              |        |               | .    |               | - |

Soc Psychiatry Psychiatr Epidemiol. Author manuscript; available in PMC 2014 July 02.

Adjusted odds ratios adjusted for age, gender, race/ethnicity, household income, education level, marital status, region of the United States, urbanicity, anxiety and mood disorders, personality disorders, alcohol use disorders, drug use disorders, and parental antisocial influence Odds ratios and confidence intervals in bold are statistically significant