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CRIMINAL TRAJECTORIES AND ACHIEVED FERTILITY IN EARLY-MID ADULthood

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Abstract

Although there is research examining how fertility impacts criminal behavior, there is less research investigating how criminal offending is linked to fertility. We test whether patterns of criminal activity during adolescence and young adulthood lower achieved fertility in early mid-adulthood (perhaps due to fewer partnerships or incarceration experiences) or raise fertility (perhaps due to more sexual risk-taking). This study uses multiple waves of the National Study of Adolescent to Adult Health (Add Health) and considers both timing and persistence of offending as well as types/intensity of offending as a predictor of parity at the end of the childbearing years. Compared to men and women who did never engaged in deviance, late-onset offenders had lower fertility. This is true for those who reported any offending and those who reported intense offending (three or more acts) but not for those engaging in acts of violence or threats of violence.

Deviant behavior, especially when it persists past ages when deviance is relatively common (Massoglia and Uggen 2010), could be linked to fertility in early mid-adulthood. The age-crime curve generally shows that most offending occurs in adolescence, but involvement usually fades in early adulthood (Hirschi and Gottfredson 1983); early adulthood, in turn, is when individuals start engaging in family formation behaviors, such as becoming a parent, more commonly. In the United States context, the age-crime curve means that there are time periods when deviance, though not encouraged, may be more socially acceptable. Those who continue to engage in deviance at non-normative ages or who have a delayed onset of deviant behavior – particularly when it involves criminal acts – may experience a range of issues throughout the prime childbearing years that ultimately impact achieved fertility. For instance, sustained deviance could lead to fewer children if it makes individuals less attractive to potential partners and thus less likely to form and maintain relationships in which to have children.

Alternatively, persistent or delayed offending may signify impulsivity and risky behaviors, perhaps increasing sexual risk-taking which could increase fertility. Thus, although patterns of deviance in adolescence and adulthood may impact adult fertility in the long run, the direction of the link is unclear. In this study, we use several waves of the National Study of Adolescent to Adult Health (Add Health) to assess the impact of the timing and duration of deviance during adolescence and young adulthood on the number of children among individuals approach the end of their childbearing years. We consider different degrees of deviance (any offending, serious or violent offending, and intense offending) and account for possible confounding characteristics, such as union experiences, sexual risk-taking, and incarceration experiences.

Deviance and Offending

There is a voluminous literature on deviance and offending, with much of it focused on the effects of delinquency. Delinquency by age 16, for example, reduces the odds of completing high school (Tanner et al. 1999; Ward and Williams 2015). Deviant behaviors in adolescence have also been found to have detrimental effects on future occupational outcomes (Tanner et al. 1999). Studies have also identified multiple offending patterns (Bushway, Thornberry, and Krohn 2003; Moffitt 1997; Sampson and Laub 2003), noting, in particular, variation by timing and persistence and across types/intensity of deviance. While many adolescents offend as a way to gain status, offending after adolescence is less acceptable and relatively rare (Moffitt 1997). Those who do not offend at all or who desist after adolescence are unlikely to experience long-term impacts of deviance later in the life course, whereas individuals following other patterns – such as late-onset offending (not engaging in criminal acts in adolescence but doing so in young adulthood) and persistent offending – may have very different experiences. For instance, Reising et al. find that depression and anxiety are highest for those who started offending in adulthood (2019), which could mean that late-onset offending could inhibit the ability to form intimate partnerships. Persistent offending might be particularly problematic, as might be engaging in more serious crimes, such as those involving violence, or engaging in multiple deviant acts. High-rate, persistent offending is associated with worse physical and psychological health, along with other problems such as food insecurity, than low-rate offending (Semenza et al. 2020; Testa and Semenza 2020). Similarly, the monetary cost of high-rate persistent offending is almost 2.5-10 times greater than the cost of the other types of offending (Piquero et al. 2013), with persistent offenders have significantly lower odds of employment in adulthood and higher odds of lifetime mental illness (Drury et al. 2020). Offending, of course, also carries the risk of criminal justice

contact, especially after the adolescent years; criminal justice intervention, in terms, also impacts multiple life domains and key events in the transition to adulthood, such as home-leaving (Warner and Remster, 2021). Incarceration is also linked to a lower general health status and higher risk of depression (Esposito et al. 2011).

These differences in health and socioeconomic outcomes based on the timing, persistence, and type/intensity of offending category suggest that fertility is another domain that could be impacted. There is relatively little research directly connecting deviance and subsequent fertility, though. Instead, much of the work on deviance, crime, and fertility focuses on the role of parenthood in affecting desistance (e.g., Abell, 2018; Kreager, Matsueda, and Erosheva, 2010; Zeigler, Kuhl, Swisher, and Chavez, 2017). What evidence is available suggests there is a link between deviant behavior and at least certain aspects of fertility. A macro-level study in Taiwan found that crime had a positive, moderate, significant effect on fertility (Huang Jr. et al. 2015). Landeis et al. (2020) used the Toledo Adolescent Relationship Study and discovered that both men and women who experienced arrest transitioned to parenthood earlier than those who had not been arrested. All things equal, an earlier transition to parenthood is associated with higher fertility.

How might deviance and offending be linked to fertility? There are several possible mechanisms. One, deviance is often stigmatized or raises concerns from potential partners. Deviance that occurs past the more socially acceptable adolescent stage may reflect individual personality or social problems. As such, late-onset and persistent offenders may be less attractive to potential partners and thus less likely to form the kinds of unions that are conducive to childbearing. Two, even if they form serious romantic relationships, men and women who engage in deviance may be evaluated by partners as unfit to parent or unlikely to stick around for

the long term. As such, fertility would be lower because partners and would-be partners could be reluctant to have children with individuals who engage in persistent deviance or delayed-onset deviance. Three, the higher risk of incarceration among those who offend in young adulthood could potentially remove these men and women for periods of their childbearing years. In this sense, offending would reduce fertility in a largely mechanical way, by limiting exposure to births. All of these associations would likely be stronger for those engaging in serious crimes (those involving violence or the threat of violence) and for those engaging in more acts of deviance. For instance, Edwards and Mottarella find that individuals preferred more distance from those convicted of violent offenses versus nonviolent offenses (2014).

Conversely, it is also possible that fertility would be higher among offenders. If individuals with extended deviant involvement are also sexual risk-takers – perhaps having an early sexual debut or having multiple partners – it is possible that they could have more children than both their counterparts with no criminal activity and those whose criminal activity did not extend past adolescence. Lansford et al (2014), for example find that deviance at age 16 has a significant direct effect on risky sexual behavior through age 27. Moreover, to the extent that extended criminal behavior may make it difficult to maintain relationships, patterns of frequent repartnering may also increase fertility.

Current research

We address one key research question: How do patterns of deviance across adolescence and young adulthood affect achieved fertility? We test competing hypotheses:

Hypothesis 1a: Compared to those with no deviance in adolescence and young adulthood, those who have any deviance will have fewer children, especially among those with persistent deviance and late-onset deviance.

Hypothesis 1b: Compared to those with no deviance in adolescence and young adulthood, those who have any deviance will have more children, especially among those with persistent deviance and late-onset deviance.

In general, we expect that Hypothesis 1a is more likely to be supported, but we cannot dismiss Hypothesis 1b. Additionally, we consider whether the association between deviance varies across types and intensity of offending, with the following hypothesis.

Hypothesis 2: The association between the patterns of deviance and subsequent fertility will be stronger for those engaging in more serious acts and those who engage in more acts of deviance.

We account for three sets of potentially confounding factors: (1) partnership experiences (number of marriages and cohabiting unions), (2) sexual risk-taking (age at first sex and number of sexual partners), and (3) incarceration experiences. All analyses also control for characteristics linked to both fertility and offending. For instance, as noted above, those with histories of delinquency often have lower socioeconomic status as adults; socioeconomic status, in turn, is linked to fertility. Less advantaged adults, as measured by educational attainment, have more children than their more educated counterparts (Martinez, Daniels, and Febo-Vazquez 2018). The socioeconomic and demographic characteristics included in analyses include age, gender, race-ethnicity, education, income, and religiosity.

It is worth noting that some have argued that the causal link between fertility and offending could run in the opposite direction. For instance, Augustyn and Jackson highlight that socioeconomic status and other factors can influence the impact of precocious exits (early entry into adult statuses, such as parenthood) on criminal activity (2020). In this project, we restrict

analyses to those who have yet to have any children prior to the first round of data collection to better establish causal links between deviance and subsequent fertility.

Data

Data come from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a nationally representative longitudinal survey of adolescent boys and girls in grades 7-12 (ages 12-19) in the 1994-95 school year. The original sampling frame included 80 high schools and their feeder middle schools, stratified by region, urbanicity, sector, race, and size. From school rosters, adolescents were selected to complete in-home interviews at Wave I (1995); some of these were oversamples of key groups (certain minority groups, sibling pairs, disabled youth, and adopted youth). Youth still in school one year later (grades 8-12) were re-interviewed at Wave II (1996). The original Wave I respondents were re-interviewed three more times: 2001-02, ages 18-24; 2008, ages 26-31; 2016-18, 35-40.¹ Our measures of deviance in adolescence and young adulthood are taken from Waves I and III; the smaller sampling frame of Wave II (enrolled students only) and the shorter time period between waves (roughly a year later) precluded the inclusion of that wave. The focus on deviance during adolescence and young adulthood precluded the use of Wave IV, and Wave V did not include the same set of deviance questions. The dependent variable is taken from Wave V. There are 12,300 respondents in Wave V of Add Health, of whom 10,220 were interviewed at Waves I and III. Of those, 213 were part of the oversamples, without sample weights, and were excluded from the analyses. To better establish causality, we drop respondents who reported a pregnancy at Wave I ($n = 366$). At this point, we have a possible sample size of 9,641 respondents, but missing or inconsistent data on the dependent variable or key independent variables led to further excluded cases, discussed below.

¹ At Wave IV, the full age range is 24-34, but 93% of the sample was between 26-31. At Wave V, the full age range is 33-44, but 91% of the sample was 35-40.

Dependent Variable

The dependent variable is number of live births at Wave V. This is missing for 12 cases.

However, because individuals who have never had sex with a member of the opposite sex cannot have children, by definition, we exclude the 419 respondents who have never had sex with a member of the opposite sex.

Focal Independent Variables

We used several questions to assess criminal behavior in adolescence and young adulthood, taken from Waves I and III, using the same measures as others using Add Health to study deviance during these life course stages (Demuth and Brown 2004; Dennison and Swisher 2019; Haynie, Giordano, Manning, and Longmore 2005; McGloin 2009). At both waves, respondents were asked about a variety of criminal activities in the past year: 1) deliberately damage property that didn't belong to you, 2) steal something worth more than \$50, 3) hurt someone badly enough to need bandages or care from a doctor or nurse, 4) go into a house or building to steal something, 5) sell marijuana or other drugs, 6) steal something worth less than \$50, 7) take part in a fight where a group of your friends was against another group, and 8) use or threaten to use a weapon to get something from someone. Respondents who were missing on any of these measures at either wave were dropped from the analysis (n=301), producing a final sample size of 8,909 respondents. From these measures, we constructed three measures at each wave to capture different patterns of offending. First, we have any offending, which is a dichotomous measure of whether the respondent reporting engaging in any criminal acts. Second, we have serious offending, a dichotomous measure indicating whether the respondent reported any of the behaviors that involved violence or the threat of violence (questions 3, 7, and 8). Third, we have intensity of offending, a dichotomous measure indicating whether the respondent engaged in

three or more crimes. Next, we combined the information from the two waves to indicate both onset and duration of offending. This produced a measure, for each type of offending, with four categories: 1) engaged at neither wave, 2) engaged at Wave I, but not Wave III (desistance), 3) engaged at Wave III, but not Wave I (late-onset), and 4) involved in deviance at both waves (persistence).

Control Variables

Analyses include several Wave V socioeconomic and demographic controls linked to fertility: age, gender, race-ethnicity, educational attainment, household income, and religiosity. Race categories include non-Hispanic white, non-Hispanic black, Hispanic, and Asian/other.

Educational attainment has the following categories: 1) less than high school, 2) high school degree or GED, 3) some college or vocational training, 4) college degree or completed vocational training, 5) some graduate school, and 6) graduate school degree. Household income is a categorical variable (13 income groupings), entered in the models as a linear variable.

Religiosity includes four categories about the importance of religion: 1) not important, 2) somewhat important, 3) very important, and 4) more important than anything else. We include categorical measures of the numbers of marriages (0, 1, 2 or more) and cohabiting unions (0, 1, 2, 3 or more) at Wave V. The measures of risky sexual behavior are age at first sex and number of opposite sex partners, both taken at Wave V. Age at first sex is a categorical variable, with categories based on the distribution of the measure: 15 or younger (representing the 25th percentile or younger), 16-18 (representing the middle 50% of ages), and 19 or older (75th percentile or older). The number of opposite sex partners is also categorical, with the categories as originally specified in the questionnaire: 1-4, 5-9, 11-20, 21-30, and more than 30. Finally, we have a categorical measure of the number of incarcerations as of Wave V: no incarcerations, one

incarceration, and two or more incarcerations. The control variable characteristics for the analytical sample are shown in Table 1.

- Table 1 here -

All analyses are weighted using Stata's *svy* commands to account for Add Health's sampling design, and *mi* commands were used to impute missing data for all but the fertility and deviance variables. Missing data occurred for less than 30 respondents for most measures, with the household income, which was missing for 104 respondents in the analytical sample.

Analytical Approach

We begin by showing the weighted descriptive statistics of the analytical sample. We then show the mean number of children in early mid-adulthood across the four patterns of deviance timing and duration, for all three offending measures. Then, we move on to multivariate models.

Because of the skewed nature of the number of children, we use Poisson regression to predict parity. For each variation of the offending measures, we present four models. Model 1 includes the focal deviance measure and the socioeconomic and demographic variables. Model 2 adds relationship experiences to Model 1. Model 3 adds sexual risk-taking to Model 2, and Model 4 adds incarceration experiences to Model 3.

Results

Table 1 shows the offending patterns for the analytical sample. For any offending, the most common scenario was one in which the respondent did not engage in any criminal activities at either Wave I or Wave III (46%). Just under one in three respondents (29%) reported engaging in at least one deviant behavior in adolescence but did not report doing so in early young adulthood, indicative of a pattern of desistance. Conversely, nearly one in ten respondents (9%) reported not engaging in any acts at Wave I but engaging in them at Wave III, indicating of late-

onset offending. Slightly more than one in six respondents (16.6%) reported persistent offending, engaging in at least one criminal activity at both waves.

In terms of serious offending – engaging in acts involving violence or the threat of violence – this was less common, with 70% of respondents not engaging in any serious deviance in either adolescence or young adulthood, and 21% desisting from such acts. Less than 10% were engaging in these acts in young adulthood, with 5.6% reporting no serious acts at Wave I but at least one serious act at Wave III and 3.8% consistently reporting engaging in serious acts.

Intense offending was the least common type of offending, with only a quarter of respondents engaging in three or more deviant acts at either Waves I or III. About 15% reported intense offending in adolescence but none in early adulthood, with 6.1% reporting the opposite pattern, and 3.6% reporting engaging in three or more acts of deviance at each wave.

Table 2 shows mean parity at Wave V, when respondents had an average age of 38. The overall parity (shown in Table 1) was 1.62, but as Table 2 demonstrates, this varies substantially among patterns of offending. In general, across all three deviance measures, parity is lowest among those with late-onset offending and highest among those desisted. The differences in mean parity are not significant between those who never engaged in deviance and those who desisted, across all three offending measures. For instance, for any offending, the average number of children was 1.68 for those who had never engaged in any acts, and 1.74 for those who reporting engaging in at least one act during adolescence but no acts in early adulthood. Similarly, the differences between those who had a late onset of deviance or who consistently engaged in deviance in both adolescence and early adulthood were typically not significant, with an average of 1.28 and 1.43, respectively, for any offending.

- Table 2 here -

Multivariate Results

Table 3 shows the Poisson regression results predicting the number of children in early mid-adulthood by the measure of any offending during adolescence and young adulthood. We present four models, beginning with a model with the offending measure and the socioeconomic and demographic controls, then adding union experiences, sexual experiences, and incarceration in the following models. In the interest of brevity, we focus this discussion only the offending measure and the possible confounding factors added in Models 2-4. In Model 1, compared to individuals with no offending in either adolescence or young adulthood, late-onset offenders and persistent offenders had significantly fewer children at ages 35-40 ($b = -0.21$ and $b = -0.102$, respectively). Adding in cohabitation and marriages experiences in Model 2, the difference between persistent offenders and those who never offended are no longer significant, but those who did not engage in deviance in adolescence but did during young adulthood remain significantly different ($b = -0.179$). Not surprisingly, union experiences matter – never-married men and women have significantly fewer children than those who had been married once ($b = -0.765$). Model 3 adds in sexual experiences, and late-onset offenders continue to have significantly lower fertility than those who never engaged in criminal activity during adolescence and young adulthood. Sexual risk-taking measures are, as expected, related to fertility. Compared to those who had first had sex ages 16-19, those who had sex earlier had more children and those who had sex later had fewer children. Compared to those with 5-9 lifetime opposite-sex partners, those with fewer partners had more children ($b = 0.162$) whereas those with more than 20 partners had significantly fewer children. Adding incarceration experiences (Model 4) does not change the magnitude or significance of late-onset offending compared to never offending ($b = -0.156$) from Model 3, although incarceration experiences are significant, with those who have

been incarcerated more than once having more children than those who were never incarcerated. Tables 4 and 5 repeat the same analysis but for serious offending and intense offending, respectively. In general, serious offending patterns in adolescence and young adulthood are unrelated to fertility in the late 30s (Table 4). But intense offending functions similarly to any offending – late-onset offenders have fewer children than those who never offended in all models (Table 5).

- Table 3 here –

- Table 4 here -

- Table 5 here -

Discussion

In this paper, we examined how patterns of offending in adolescence and young adulthood influenced achieved fertility among a cohort of adults approaching the end of their childbearing years. While the criminology literature has considered how parenthood affects criminal behavior (Giordano, Seffrin, Manning, and Longmore 2011; Ziegler, Kuhl, Swisher & Chavez, 2017), there is considerably less research linking criminal behavior to later fertility. Criminal behavior could disrupt the process of forming relationships that ultimately produce children (perhaps by making individuals less attractive to partners or, at the extreme, limiting relationships by incarceration). Alternatively, it could increase fertility to the extent that criminal behavior is associated with risk-taking more generally, including sexual risk-taking, which may lead to more births. It is also possible that criminal behavior may reduce relationship stability, creating exposure to more births through repartnering. On balance, we expected those engaging in criminal activity – especially in young adulthood and especially for more serious acts or a greater number of acts – would have lower fertility (Hypothesis 1a)

In general, Hypothesis 1a was partially supported. We found that men and women with a pattern of late-onset offending had lower fertility than those who had no deviance in either adolescence or young adulthood. However, there was no evidence that persistent deviance – those who engaged in deviance in both adolescence and young adulthood – had significantly higher or lower fertility than those who engaged, at least once the models included for controls for union experiences. For persistent but low-level offenders (i.e., no violent acts and fewer than three such acts), lower fertility towards the end of the childbearing years is largely due to nonmarriage. We also did not find evidence supporting Hypothesis 2 – the pattern of lower fertility among those with late-onset offending was present both for any offending and for intense offending (three or more acts) but not for serious offending. Interestingly, the associations between late-onset offending and fertility for both any offenders and those with intense offending were not attenuated by including incarceration experiences. In fact, those who had been incarcerated at least once had higher fertility than those who had never been incarcerated.

Limitations

There are several limitations to this project. As a school-based longitudinal sample, Add Health's respondents are likely a select group, with those most likely to engage in criminal activity less likely to be in the initial sampling frame and more likely to attrite from the sample over time. Individuals also under-report sensitive information like criminal behavior. We also lack information on contraceptive inconsistency, another aspect of sexual risk-taking. In general, we could not identify specific pathways or mechanisms, such as stigmatization or partners limiting their fertility with deviant individuals. Additionally, Add Health lacks prospective measures of intended childbearing, so it is not possible to know whether these groups differed in their desire

to have children, and the analyses did not consider whether offending patterns were linked to unintended vs intended childbearing.

Conclusion

Men and women who began engaging in deviant acts in their late teens and early twenties have lower fertility than their peers who never engaged in deviance. This pattern is not related to their union experiences, their sexual experiences, or their incarceration experiences, suggesting that this particular group faces unique issues related to childbearing. Future work should identify which factors are linked to late-onset offending that may influence childbearing.

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Table 1. Weighted Descriptive Statistics, N = 8,909

	Percentage or Mean (Std Error)
Any Offending	
Engaged at Neither Wave	45.5%
Engaged at Wave I, but not Wave III	28.7%
Engaged at Wave III, but not Wave I	9.2%
Engaged at Both Waves	16.6%
Serious Offending	
Engaged at Neither Wave	69.9%
Engaged at Wave I, but not Wave III	20.7%
Engaged at Wave III, but not Wave I	5.6%
Engaged at Both Waves	3.8%
Intense Offending	
Engaged at Neither Wave	75.8%
Engaged at Wave I, but not Wave III	14.5%
Engaged at Wave III, but not Wave I	6.1%
Engaged at Both Waves	3.6%
Wave V Parity	1.62 (0.02)
<i>Socioeconomic & Demographic Characteristics</i>	
Age	37.7 years (0.121)
Gender	
Female	50.9%
Male	49.1%
Race-Ethnicity	
Non-Hispanic White	69.6%
Non-Hispanic Black	12.6%
Hispanic	10%
Asian/Other	7.8%
Education	
Less than HS	4.5%
HS Degree/GED	14.9%
Some College	24.9%
College Degree	16.3%
Some Graduate School	21.2%
Graduate Degree	14.7%
Household Income	
Less than \$5000	4%
\$5,000-\$9,999	2.8%
\$10,000-\$14,999	3%
\$15,000-\$19,999	2.2%
\$20,000-\$24,999	3.5%
\$25,000-\$29,999	3.5%
\$30,000-\$39,999	6.8%
\$40,000-\$49,999	7.5%
\$50,000-\$74,999	17.3%
\$75,000-\$99,999	15.9%

\$100,000-\$149,999	18.2%
\$150,000-\$199,9999	8.2%
\$200,000 or More	7.2%
Religiosity	
Not Important	23.1%
Somewhat Important	29.1%
Very Important	34.8%
More Important Than Anything Else	12.9%
<i>Union Experiences</i>	
Times Married	
0	24.5%
1	64.2%
2 or more	11.3%
Times Cohabited	
0	44.7%
1	27.9%
2	15%
3 or More	12.4%
<i>Sexual Risk-Taking</i>	
Age at First Sex	
15 or less	30.3%
16-18	46.6%
19 or Older	23.1%
Lifetime Number of Sex Partners	
1-4	28.6%
5-10	34.7%
11-20	19.2%
21-30	7.2%
30 or More	10.3%
<i>Incarceration Experience</i>	
Lifetime Number of Incarcerations	
Never Incarcerated	86.2%
Incarcerated Once	6.7%
Incarcerated More Than Once	7.5%

Table 2. Mean Parity by Offending Pattern, N = 8,909

	Mean	Linearized SE
<i>Any Offending</i>		
Engaged at Neither Wave	1.68 ^{c,d}	0.03
Engaged at Wave I, but not Wave III	1.74 ^{c,d}	0.04
Engaged at Wave III, but not Wave I	1.28 ^{a,b}	0.06
Engaged at Both Waves	1.43 ^{a,b}	0.05
<i>Serious Offending</i>		
Engaged at Neither Wave	1.61	0.02
Engaged at Wave I, but not Wave III	1.72 ^c	0.05
Engaged at Wave III, but not Wave I	1.44 ^b	0.09
Engaged at Both Waves	1.65	0.11
<i>Intense Offending</i>		
Engaged at Neither Wave	1.63 ^c	0.02
Engaged at Wave I, but not Wave III	1.71 ^c	0.06
Engaged at Wave III, but not Wave I	1.32 ^{a,b}	0.08
Engaged at Both Waves	1.50	0.11

Superscripts indicate significant differences across categories at $p < .05$ ^a=different from engaged at neither wave. ^b=different from engaged at Wave I, but not Wave III. ^c=different from engaged at Wave III, but not Wave I. ^d=different from engaged at both waves.

Table 3. Poisson Regression of Wave V Fertility on Any Offending, N = 8,909

	Model 1		Model 2		Model 3		Model 4	
	b	Linearized SE	b	Linearized SE	b	Linearized SE	b	Linearized SE
Any Offending (Neither wave)								
Wave I, but not Wave III	0.032	0.028	0.031	0.027	0.021	0.027	0.016	0.026
Wave III, but not Wave I	-0.210	0.052***	-0.179	0.050**	-0.154	0.052**	-0.156	0.052**
Both Waves	-0.102	0.038**	-0.054	0.038	-0.052	0.040	-0.067	0.039
Age	0.032	0.006***	0.022	0.006***	0.025	0.006***	0.024	0.006***
Female	-0.085	0.028**	-0.067	0.027*	-0.026	0.029	-0.045	0.029
Race (non-Hispanic White)								
Non-Hispanic Black	0.016	0.041	0.174	0.037***	0.165	0.038***	0.170	0.0377***
Hispanic	0.022	0.028	0.046	0.043	0.054	0.041	0.056	0.042
Asian/Other	-0.040	0.052	0.026	0.051	0.029	0.049	0.027	0.049
Education (BA)								
Less than HS	0.481	0.071***	0.416	0.074***	0.328	0.073***	0.313	0.072***
HS/GED	0.257	0.045***	0.207	0.042***	0.141	0.042**	0.121	0.042**
Some college	0.224	0.039***	0.195	0.037***	0.157	0.037***	0.151	0.037***
AA/vocational degree	0.147	0.045**	0.095	0.044*	0.061	0.044	0.058	0.044
Some graduate school	0.133	0.060*	0.083	0.055	0.085	0.056	0.086	0.056
Graduate degree	0.007	0.041	-0.010	0.038	0.004	0.038	0.002	0.038
Household income	0.018	0.005***	-0.008	0.004	-0.010	0.004*	-0.007	0.005
Religiosity (Not at all important)								
Somewhat important	0.131	0.039**	0.114	0.038**	0.104	0.038**	0.101	0.038**
Very important	0.244	0.041***	0.183	0.040***	0.174	0.039***	0.172	0.039***
More important than anything else	0.393	0.047***	0.302	0.045***	0.290	0.44***	0.284	0.044***
Times married (1)								
0			-0.765	0.045***	-0.739	0.045***	-0.740	0.045***
2 or more			0.067	0.033*	0.077	0.033*	0.081	0.033*
Times cohabited (1)								
0			-0.015	0.029	-0.013	0.027	-0.011	0.027
2			0.070	0.044	0.092	0.044*	0.085	0.043
3 or more			0.040	0.046	0.072	0.049	0.050	0.050
Age at first sex (16-18)								
≤15					0.127	0.026***	0.121	0.026***

≥19					-0.234	0.031***	-0.231	0.031***
Number of sex partners (5-9)								
1-4					0.162	0.026***	0.168	0.026***
11-20					-0.029	0.034	-0.032	0.034
21-30					-0.137	0.048**	-0.142	0.048**
30+					-0.110	0.047*	-0.124	0.047**
Number of incarcerations (0)								
1							0.080	0.049
>1							0.185	0.054**
Intercept	-1.17	0.249***	-0.402	0.24	-0.516	0.229*	-0.482	0.225*
F		17.12***		27.17***		29.22***		28.26***

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

Table 4. Poisson Regression of Wave V Fertility on Serious Offending, N = 8,909

	Model 1		Model 2		Model 3		Model 4	
	b	Linearized SE	b	Linearized SE	b	Linearized SE	b	Linearized SE
Serious Offending (Neither wave)								
Wave I, but not Wave III	0.054	0.034	0.061	0.030*	0.048	0.030	0.043	0.030
Wave III, but not Wave I	-0.056	0.065	0.001	0.065	0.015	0.066	0.007	0.066
Both Waves	0.048	0.068	0.085	0.062	0.074	0.062	0.053	0.052
Age	0.037	0.006***	0.026	0.006***	0.029	0.006***	0.028	0.006***
Female	-0.115	0.027***	-0.092	0.026**	-0.047	0.028	-0.066	0.028*
Race (non-Hispanic White)								
Non-Hispanic Black	0.008	0.040	0.168	0.036***	0.160	0.037***	0.165	0.037***
Hispanic	0.019	0.048	0.042	0.043	0.051	0.042	0.052	0.042
Asian/Other	-0.047	0.051	0.021	0.051	0.024	0.049	0.022	0.049
Education (BA)								
Less than HS	0.484	0.071***	0.415	0.074***	0.328	0.073***	0.313	0.072***
HS/GED	0.249	0.045***	0.197	0.042***	0.131	0.042**	0.114	0.041**
Some college	0.215	0.039***	0.186	0.037***	0.148	0.037***	0.144	0.037***
AA/vocational degree	0.140	0.045**	0.086	0.044	0.053	0.044	0.05	0.044
Some graduate school	0.129	0.061*	0.079	0.055	0.082	0.056	0.083	0.056
Graduate degree	0.004	0.041	-0.013	0.039	0.001	0.039	-0.001	0.039
Household income	0.018	0.005***	-0.008	0.004	-0.010	0.004*	-0.008	0.004
Religiosity (not at all important)								
Somewhat important	0.134	0.039**	0.117	0.038**	0.107	0.038***	0.104	0.038**
Very important	0.251	0.041***	0.187	0.040***	0.176	0.039***	0.175	0.039***
More important than anything else	0.406	0.047***	0.311	0.045***	0.296	0.044***	0.291	0.044***
Times married (1)								
0			-0.771	0.045***	-0.744	0.045***	-0.745	0.045***
2 or more			0.070	0.032*	0.082	0.033*	0.087	0.033**
Times cohabited (1)								
0			-0.015	0.029	-0.014	0.028	-0.013	0.028
2			0.065	0.044	0.089	0.044*	0.082	0.043
3 or more			0.028	0.046	0.066	0.049	0.045	0.050
Age at first sex (16-18)								
≤15					0.127	0.026***	0.121	0.026***

≥19						-0.234	0.031***	-0.231	0.031***
Number of sex partners (5-9)									
1-4						0.169	0.026***	0.175	0.026***
11-20						-0.033	0.033	-0.036	0.033
21-30						-0.148	0.048**	-0.153	0.048**
30+						-0.120	0.045*	-0.132	0.046**
Number of incarcerations (0)									
1								0.076	0.049
>1								0.174	0.054**
Intercept	-1.373	0.252***	-0.568	0.242	-0.665	0.231**	-0.634	0.228**	
F		17.18***		28.45***		29.62***		28.22***	

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

Table 5. Poisson Regression of Wave V Fertility on Intense Offending, N = 8,909

	Model 1		Model 2		Model 3		Model 4	
	b	Linearized SE	b	Linearized SE	b	Linearized SE	b	Linearized SE
Intense offending (Neither wave)								
Wave I, but not Wave III	0.037	0.037	0.038	0.036	0.024	0.036	0.011	0.037
Wave III, but not Wave I	-0.151	0.056**	-0.122	0.056*	-0.111	0.056	-0.128	0.058*
Both Waves	-0.027	0.075	0.033	0.074	0.032	0.075	0.011	0.073
Age	0.035	0.006***	0.024	0.006***	0.027	0.006***	0.026	0.006***
Female	-0.104	0.027***	-0.08	0.025**	-0.036	0.028	-0.054	0.028
Race (non-Hispanic White)								
Non-Hispanic Black	0.012	0.04	0.172	0.036***	0.164	0.038***	0.169	0.037***
Hispanic	0.022	0.048	0.045	0.043	0.054	0.042	0.056	0.042
Asian/Other	-0.051	0.051	0.017	0.050	0.022	0.048	0.020	0.048
Education (BA)								
Less than HS	0.484	0.071***	0.420	0.074***	0.332	0.073***	0.316	0.072***
HS/GED	0.252	0.045***	0.202	0.042***	0.135	0.042**	0.117	0.042**
Some college	0.218	0.039***	0.189	0.037***	0.152	0.036***	0.148	0.037***
AA/vocational degree	0.140	0.045**	0.088	0.044*	0.055	0.044	0.052	0.043
Some graduate school	0.130	0.061*	0.080	0.056	0.083	0.057	0.085	0.056
Graduate degree	0.003	0.041	-0.014	0.039	0.001	0.039	-0.001	0.039
Household income	0.018	0.005***	-0.008	0.004	-0.011	0.004*	-0.008	0.005
Religiosity (Not at all important)								
Somewhat important	0.134	0.039**	0.118	0.038**	0.108	0.038**	0.104	0.038**
Very important	0.251	0.041***	0.189	0.040***	0.178	0.039***	0.176	0.039***
More important than anything else	0.407	0.046***	0.312	0.045***	0.298	0.044***	0.292	0.043***
Times married (1)								
0			-0.770	0.045***	-0.742	0.045***	-0.744	0.045***
2 or more			0.069	0.033*	0.080	0.033*	0.084	0.033*
Times cohabited (1)								
0			-0.016	0.029	-0.014	0.028	-0.013	0.028
2			0.067	0.044	0.090	0.044*	0.083	0.043
3 or more			0.031	0.047	0.067	0.050	0.045	0.050
Age at first sex (16-18)								
≤15					0.127	0.026***	0.122	0.258***

≥19					-0.237	0.031***	0.234	0.031***
Number of sex partners (5-9)								
1-4					0.167	0.026***	0.172	0.026***
11-20					-0.032	0.034	-0.035	0.034
21-30					-0.141	0.049**	-0.146	0.048**
30+					-0.119	0.046*	-0.132	0.046**
Number of incarcerations (0)								
1							0.081	0.049**
>1							0.184	0.055**
Intercept	-1.292	0.245***	-0.485	0.237*	-0.592	0.225*	-0.561	0.222*
F		17.34***		26.54		29.46***		28.21***

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$