Working Paper

Adults Behaving Badly: The Effects of Own and Peer Parents' Incarceration on Adolescent Criminal Activities[1]

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Abstract

A maturing literature across the social sciences suggests important impacts of the intergenerational transmission of crime as well as peer effects that determine youth criminal activities. This paper explores these channels by examining gender-specific effects of maternal and paternal incarceration from both own-parents and classmate-parents. This paper also adds to the literature by exploiting across-cohort, within school exposure to peer parent incarceration to enhance causal inference. While the intergenerational correlations of criminal activities are similar by gender (father-son/mother-son), the results suggest that peer parent incarceration transmits effects largely along gender lines, which is suggestive of specific learning mechanisms. Peer maternal incarceration increases adolescent female criminal activities and reduces male crime and the reverse is true for peer paternal incarceration. These effects are strongest for youth reports of selling drugs and engaging in physical violence. In contrast, the effects of peer parental incarceration on other outcomes, such as GPA, do not vary by gender.

Introduction

There are large literatures in economics, sociology and criminology that examine the

principal determinants of youth criminal activities (e.g. Levitt and Lochner 2001). One of the

most active areas of research interest is in understanding the extent to which social and

contextual effects are important in explaining the large variations in crime rates across space

and over time. These social effects can operate at both the macro and micro levels. For

example, there is a large literature that examines the effects of policy and macroeconomic

conditions on criminal activities (e.g. Levitt 1998). At the micro level, much research takes as a

starting point the rational choice approach pioneered by Becker (1968) where potential

criminals weigh the benefits (social and financial) of undertaking criminal activities against the

costs (social and financial). Extensions have included a range of spillover effects related to

crime (e.g. Sah 1991).

More recent work has examined how the social environment, including social networks,

may affect the benefits and costs of criminal activities. Peers, and a broader set of social

contacts, may change the likelihood of engaging in crime by providing information and learning

opportunities (Bayer et al. 2009) or by enforcing social norms that may either prohibit or

require criminal activities. Understanding these social effects, both how they operate and the

extent of the relevant "peer group", is still needed to facilitate both our understanding of

criminal determinants and process as well as in suggesting policies that may further reduce

crime rates.

Indeed, many current policies appear to take as given that social effects are important

determinants of crime. "Broken Windows" targets lower level criminal activity in hopes of

reducing more important criminal activity[2] (e.g. Corman and Mocan 2005). Anonymous "Tip Lines" require individuals linked in some way to a crime (e.g. a bystander) to report it without receiving any rewards. "Hot Spot" policing takes advantage of the spatial concentration of crime to deploy resources in high crime areas. On the other hand, policies that are theoretically derived from an economic perspective are rarer. In part, this is because the tools of game theory often make the derivation of clear policies difficult[3]. To suggest further refinements in current policy, a mix of empirical approaches may complement each other to help understand the variety of social processes that may determine youth offending choices.

This paper uses the unique design aspects of the National Longitudinal Study of Adolescent Health (Add Health), which collected information from up to six cohorts of students in over 100 schools as well as detailed self-reported criminal outcomes of both the students and their parents, to explore new dimensions in the examination of the determinants of adolescent criminal activities. Specifically, across-cohort, within school differences in exposure to the criminal activities of peers' parents is linked to own crime outcomes. This strategy allows many commonly unobservable determinants of crime to be absorbed in school-level fixed effects controls. It leverages the fact that, within schools, there are disjoint "communities" of students who are more likely to share the same classes and almost uniformly select same-grademates as their nominated "close friends" (e.g. Fletcher and Ross 2012), but for

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[2] As James Q. Wilson describes it, "If a factory or office window is broken, passersby observing it will conclude that no one cares or no one is in charge. In time, a few will begin throwing rocks to break more windows. Soon all the windows will be broken, and now passersby will think that, not only no one is in charge of the building, no one is in charge of the street on which it faces. So, more and more citizens will abandon the street to those they assume prowl it. Small disorders lead to larger ones, and perhaps even to crime." (see Corman and Mocan 2005).
[3] However, see emerging work on the "key player policy" for a counter-example that is micro-founded and has specific policy predictions (Ballester et al. 2006, 2010, Liu et al. 2012).

idiosyncratic reasons, some grades have higher rates of parental incarceration than others, which leads to different exposures for individuals who are otherwise very similar.

The main findings are that, while peer parental incarceration is only weakly tied to youth offending, these average effects fail to uncover opposing impacts based on the gender of the parent and the student. Specifically, <u>peer</u> paternal incarceration appears to elevate the risk of offending for males but reduce the risk for females, and the opposite is true for peer maternal incarceration. These findings are suggestive of specific learning mechanisms involved in youth crime as well as potential intergenerational spillover effects from parental incarceration.

<u>Literature Review</u>

This paper contributes to the literature on how social effects work to change youth criminal activities as well as examining novel intergenerational effects of incarceration. Although there are large literature that examine the principal determinants of youth crime, this review focuses on two strands—peer effects in crime and the social spillovers of incarceration.

The empirical peer effects literature devoted to crime outcomes in the economics literature started with Glaeser et al. (1996) who showed evidence of excess variance in criminal activities across cities that could imply the existence of social effects and interactions. Since this paper, there has been a small but important set of papers that have used reduced form and structural approaches to estimate peer effects. For example, Bayer et al. (2009) examines

whether sharing a correctional facility while incarcerated affects the social transmission of criminal outcomes and finds effects on a variety of offenses[4].

A larger set of theoretical and structural papers has focused on the importance of social networks on juvenile crime outcomes (e.g. Calvó-Armengol and Zenou 2004, Ballester et al. 2010). One paper in particular has outlined a dynamic network formation and criminal choice game and focused on the importance of network centrality in criminal networks (Liu et al. 2012). However, a broader focus on the mechanisms linking peer crime (and peer's family crime) is still lacking in the literature[5]. In particular, many papers focus on "peer effects" stemming from strategic complementarities but fewer focus on learning mechanisms. This paper outlines two mechanisms that could potentially offset each other. First, individual may learn specific methods that help them be better criminals, similar to on the job training. However, a second learning effect that has not been examined in the literature is that of observing negative outcomes of peers and deciding against pursuing similar choices. The latter is the motivation for "scared straight" programs that attempt to provide a specific type of information[6]. This paper finds some suggestive evidence of both types of learning.

Data

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[4] More general neighborhood effects related to poverty have been shown by use of the Moving to Opportunity experiment by Ludwig et al. (2001).

[5] Another small set of papers has linked peer and family criminal outcomes to student outcomes. For example, Carrell and Hoekstra (2010) have shown that domestic violence in families spills over to the achievement of classmates of affected children. However, very little is known about other measures of peer parental activities and the channels through which the effects occur.

[6] This channel was a main focus of Yakusheva and Fletcher (2015), which showed evidence that having a close friend experience a teenage birth reduced the risk of own teen births.

The data in this study come from the restricted version of the National Longitudinal Study of Adolescent Health (Add Health). Add Health is a school-based, longitudinal study of the health-related behaviors of adolescents and their outcomes in young adulthood. Beginning with an in-school questionnaire administered to a nationally representative sample of students in grades 7 through 12 in 1994-95, the study follows up with a series of in-home interviews of students approximately one year, six years, and 13 years later. Other sources of data include questionnaires for parents, siblings, fellow students, and school administrators. By design, the Add Health survey included a sample stratified by region, urbanicity, school type, ethnic mix, and size. Preexisting databases (e.g. census data) have been linked with the individuals in the sample and provide information about neighborhoods and communities.[7]

Over 20,000 individuals completed the Wave 1 survey, have valid school identification codes, and reported whether they were involved in any criminal activities.[8] One limitation is that the data represent a sample of the population of students within schools, so that the measures of grademates' characteristics will contain measurement error. Since the sampling scheme was random within grades and by gender, the measures should be correct, on average, though. In order to capture parental incarceration information, I use reports from Wave IV (when the respondents were 30 years old on average) that measure whether their biological father or mother had ever spent time in jail or prison. In particular, I use information from "How old were you when your biological mother/father went to jail or prison (the first time)?" (these are two separate questions). If the respondent reports an incarceration before age 18,

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[7] See Udry 2003 for full description of the Add Health data set. Also see for further information: http://www.cpc.unc.edu/projects/addhealth
[8] In order to keep 3,000 students whose parent did not complete the separate parental survey, I impute family income and maternal education and create a dummy variable for missing parental data.

they are considered "exposed" to parental incarceration for the purposes of this study. Two

percent of respondents reported having incarcerated mothers and seven percent reported

having incarcerated fathers[9].   The variation across school-grades in rates of incarcerated

parents is quite high—with some school-grades having over 40% of fathers incarcerated and

others having zero[10].

The Add Health contains a variety of criminal outcomes for the students sampled,

contained in Table 1. At Wave 1, when the students were on average 16 years old, almost 6

percent of the sample reports stealing something worth $50 or more in the previous year, more

than 8 percent of the sample reports selling drugs in the last year, 5 percent reported

committing burglary ("break in") in the past 12 months,[11] 4 percent committed a robbery in the

past twelve months.[12]   Nearly 40 percent of the sample reported ag least one of these

outcomes, which is labeled as "any crime."[13]

Results

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[9] Individuals not followed in Wave 4 are imputed a value of zero for each of the parental incarceration variables, which should make the results shown conservative.

[10] One might be worried that there would be little or no variation across cohorts within schools. However, a regression that predicts school-grade parental incarceration rates with controls for school and grade only has an R-squared of 0.55. A similar regression for school-grade racial composition has an R-squared of over 0.9.

[11] The question reads, "…how often did you go into a house or building to steal something?" *Burglary* is defined as "An unlawful entry of a structure to commit a felony or theft" by the FBI.

[12] The question reads, "…how often did you use or threaten to use a weapon to get something from someone?" *Robbery* is defined as, "The taking or attempting to take anything of value from the care, custody, or control of a person by force or threat of force or violence and/or by putting the victim in fear" by the FBI.

[13] Mocan and Rees (35) use these data in an analysis of links between crime and deterrence. In doing so they compare the self reported frequency of crime by adolescents in this survey to that reported in information from official sources. They find that these self reported rates of assault, robbery and burglary are greater than those from the Bureau of Justice Statistics while those for theft appear to be underreported. (Mocan and Rees (35), table 4.)

In order to first explore the validity of the research design, Table 2 presents a series of "Balancing Tests" (following Lavy and Schlosser 2011, Bifulco et al. 2011, and Fletcher 2012). These specifications examine associations between exposure to peer incarceration and pre-determined family and individual level factors to assess the level of purposeful sorting of students to schools. The top panel shows that, without school fixed effects, most of the demographic factors are correlated with peer parental incarceration, such as own family income, own maternal education, and race/ethnicity. However, the bottom panel shows that the inclusion of school fixed effects eliminates all these relationships, suggesting that the school-grade composition of peer parental incarceration is orthogonal to individual characteristics. This series of tests suggests that individuals select into *schools* based on characteristics correlated with peer parental incarceration rates but do not select into *school-grades* based on these same factors. Thus, idiosyncratic variation in peer parental incarceration rates, after the inclusion of school level fixed effects, appears to be plausibly exogenous.

Table 3 presents pooled results linking grademates' parental incarceration (both paternal and maternal) with own reports of criminal activities. In Column 1 (without school fixed effects) we find large correlations between peer parental incarceration and own reports of "any crime." However the remaining columns show that this result is not robust to the inclusion of school fixed effects. The other noteworthy finding is the large intergenerational correlations in criminal activities, which replicates previous results in the literature (Eriksson et al. 2016).

Table 4 separates the parental incarceration measure into maternal and paternal components. Column 1 (without school fixed effects) again shows large associations between

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parental incarceration and youth criminal outcomes, however the principal effect is through

maternal incarceration. Column 2 shows the results are sensitive to the inclusion of school

fixed effects. Column 3 then explores whether the average effects of peer maternal and

paternal incarceration differ by gender of the student. The result suggest large gender specific

effects, where peer maternal incarceration increases the likelihood of reporting criminal

activities for females and lowers the likelihood for males. There is no effect of peer paternal

incarceration for female students but a suggestion of a positive effect for male students.

Columns 4 and 5 further stratify the results by gender to show the main gender-specific results.

A test of differences in the effects by gender are statistically significant at $p<0.05$ in each case.

Table 5 further investigates the types of crimes that students are pursuing. Panel A

shows that male students increase reports of selling drugs as peer parental incarceration rates

are increased and decrease reports as peer maternal incarceration rates increase—see

especially Column 4. Column 5 finds suggestive reversed results for females but they are not

statistically significant. Panel B shows similar results for reports of violence (i.e. fighting).

Again, peer paternal/male student associations are positive as are peer maternal/female

student associations, and the opposite-gender associations are negative. The differences by

peer parental gender are statistically different at $p<0.13$ for males and $p<0.03$ for females.

Finally, to assess whether these findings of peer parental gender and own gender are

more general, Table 6 reports similar specifications for an outcome from a different domain—

grade point average. Here, in contrast to previous results, the findings are relatively more

consistent, where peer parental incarceration is associated with reductions in GPA for all

students, though many results are not statistically different from zero.   The results are also not

statistically different based on the gender of the student. These findings are suggestive that the findings linking peer parental incarceration to student criminal outcomes by gender are specific to criminal outcomes and are not more general effects of higher rates of peer parental incarceration. This is evidence for a learning or role model hypotheses, where the net mechanism of how peer fathers affect males and peer mothers affect females is through providing information whereas the net mechanism of how peer fathers affect females and peer mothers affects males is through providing a "cautionary tale".

Conclusions

This paper presents new evidence of social spillovers in criminal activities. Linking idiosyncratic variation in peer parental incarceration to youth patterns of criminal activities suggests some robust patterns. First, on average the effects of peer parental incarceration on youth are small and not statistically significant. However, examinations that link the gender of the peers' parents and the youths show large differences that offset in the aggregate. Specifically, peer paternal incarceration is associated with increases in male offending and reductions in female offending. Mirroring these results, the association between peer maternal incarceration is positive for female offending and negative for male offending. However, these patterns are not generally true for non-crime outcomes: for example, analysis of GPA shows no such patterns.

One simple theory that may explain these patterns is that there are two types of learning effects of peer parental incarceration. First, there are contextual effects that "scare kids straight". That is, having peer parents in jail may make youths less likely to want to pursue

similar avenues—they learn from others' mistakes (see Yakusheva and Fletcher 2015 for related

evidence). A second effect is a different aspect of learning—some adults may teach youths

how to be criminals. In order to then fit the empirical patterns in this paper, we would need

the same-gender effects to be "teaching" effects and different-gender effects to be "scared-

straight" effects. There is much evidence in the literature that criminal intergenerational

transmission follows this type of gendered lines (see Hjalmarsson and Lundquist 2012) that are

consistent with these learning effects. However there is no evidence of broader effects, like

peer parents, or of different-gender protective effects in the literature.

Compliance with Ethical Standards:

The author declares no conflict of interest.

References

Ballester, C., Calvó-Armengol, A. and Y. Zenou (2006), "Who's who in networks. Wanted: the key player," Econometrica 74, 1403-1417.

Ballester, C., Calvó-Armengol, A. and Y. Zenou (2010), "Delinquent networks," Journal of the European Economic Association 8, 34-61.

Bayer, P., Hjalmarsson, R. and D. Pozen (2009), "Building criminal capital behind bars: Peer effects in juvenile corrections," Quarterly Journal of Economics 124, 105-147.

Becker, G. (1968) "Crime and punishment: An economic approach," Journal of Political Economy 76, 169-217.

Bifulco, R., Fletcher, J.M. and S.L. Ross (2011), "The effect of classmate characteristics on postsecondary outcomes: Evidence from the Add Health," American Economic Journal: Economic Policy 3, 25-53.

Calvó-Armengol, A., Patacchini, E. and Y. Zenou (2009), "Peer effects and social networks in education," Review of Economic Studies 76, 1239-1267.

Calvó-Armengol, A. and Y. Zenou (2004), "Social networks and crime decisions: The role of social structure in facilitating delinquent behavior," International Economic Review 45, 935-954.

Carrell, S. E., & Hoekstra, M. (2010). Externalities in the classroom: How children exposed to domestic violence affect everyone's kids. American Economic Journal: Applied Economics, 2, 211–228.

Corman, Hope and Naci Mocan. "Carrots, Sticks, and Broken Windows," Journal of Law and Economics, 2005, v48(1,Apr), 235-266

Eriksson, K.H., Hjalmarsson, R., Lindquist, M.J. and Sandberg, A., 2016. The importance of family background and neighborhood effects as determinants of crime. *Journal of Population Economics*, *29*(1), pp.219-262

Fletcher, J.M., 2012. Peer influences on adolescent alcohol consumption: evidence using an instrumental variables/fixed effect approach. *Journal of Population Economics*, *25*(4), pp.1265-1286.

Glaeser, E.L., Sacerdote, B. and J. Scheinkman (1996), "Crime and social interactions," Quarterly Journal of Economics 111, 508-548.

Hjalmarsson, Randi and Matthew Lindquist (2012). "Like Godfather, Like Son: Exploring the

Intergenerational Nature of Crime". *Journal of Human Resources*, 47(2): 550-582.

Hoxby, C.M. (2000b). Peer effects in the classroom: Learning from gender and race variation. NBER Working Paper No. 7867. Cambridge, MA: NBER.

Lavy, V., & Schlosser, A. (2011). Mechanisms and impacts of gender peer effects at school. American Economic Journal: Applied Economics, 3, 1–33.

Levitt, Steven D. (1998). Juvenile Crime and Punishment. *Journal of Political Economy* 106 (December): 1156-85.

Levitt, Steven D. and Lance Lochner (2001). The Determinants of Juvenile Crime. In *Risky Behavior Among Youths: An Economic Analysis*, ed. Jonathan Gruber Chicago, IL: University of Chicago Press.

Liu, X., Patacchini, E., Zenou, Y. and L.-F. Lee (2012), "Criminal networks: Who is the key player?" CEPR Discussion Paper No. 8772.

Ludwig, J., Duncan, G.J. and Hirschfield, P. (2001), "Urban poverty and juvenile crime: Evidence from a randomized housing-mobility experiment," Quarterly Journal of Economics 116, 655-679.

Manski, C.F. (1993), "Identification of endogenous effects: The reflection problem," Review of Economic Studies 60, 531-542.

Sah, Raaj (1991). Social Osmosis and Patterns of Crime: A Dynamic Economic Analysis." Journal of Political Economy, 99(6):

Yakusheva, Olga and Jason Fletcher. (2015). "Learning from Teen Childbearing Experiences of Close Friends: Evidence Using Miscarriages as a Natural Experiment." Review of Economics and Statistics

Tables

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Table 1
Summary Statistics
Add Health Wave 1

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Variable	Obs	Mean	Std Dev	Min	Max
Any Crime	20474	0.38	0.49	0	1
Steal	20456	0.06	0.23	0	1
Sell Drugs	20436	0.08	0.27	0	1
Fight	20439	0.32	0.47	0	1
Break In	20456	0.05	0.22	0	1
Armed Robbery	20456	0.04	0.20	0	1
GPA	19924	2.75	0.77	1	4
Age	20615	16.16	1.74	12	21
Male	20632	0.49	0.50	0	1
Black	20632	0.23	0.42	0	1
Hispanic	20632	0.16	0.37	0	1
Other Race	20632	0.08	0.27	0	1
Family Income	20632	45.09	39.13	0	990
Maternal Education	20632	13.16	2.25	0	17
Missing Family Information	20632	0.34	0.47	0	1
Dad Incarceration	20632	0.07	0.25	0	1
Mom Incarceration	20632	0.02	0.14	0	1
School Grade Dad Incarceration	20632	0.07	0.05	0	0.43
School Grade Mom Incarceration	20632	0.02	0.02	0	0.17
Grade = 7	20073	0.13	0.34	0	1
Grade = 8	20073	0.13	0.34	0	1
Grade = 9	20073	0.18	0.38	0	1
Grade = 10	20073	0.20	0.40	0	1
Grade = 11	20073	0.19	0.39	0	1
Grade = 12	20073	0.17	0.37	0	1

Table 2
Balancing Tests:
First Row Without School Fixed Effects; Second Row with School Fixed Effects

Outcome	Male	Age	Black	Hispanic	Family Inc	Mom Education
Fixed Effects	Grade	Grade	Grade	Grade	Grade	Grade
School-Grade Mom Incarceration	0.086	0.573	1.460***	0.223	-123.703***	-4.358***
	(0.120)	(0.454)	(0.517)	(0.348)	(34.863)	(1.479)
School-Grade Dad Incarceration	0.026	0.629***	0.321	0.042	-83.741***	-3.854***
	(0.067)	(0.222)	(0.306)	(0.198)	(24.418)	(1.061)
Observations	20,103	20,097	20,103	20,103	14,872	17,940
R-squared	0.001	0.838	0.012	0.007	0.007	0.003
Outcome	Male	Age	Black	Hispanic	Family Inc	Mom Education
Fixed Effects	School, Grade	School, Grade	School, Grade	School, Grade	School, Grade	School, Grade
School-Grade Mom Incarceration	0.212	0.451	0.070	0.073	4.735	-0.537
	(0.133)	(0.426)	(0.094)	(0.075)	(21.242)	(0.605)
School-Grade Dad Incarceration	0.067	0.061	-0.021	-0.036	-0.906	0.177
	(0.078)	(0.148)	(0.059)	(0.040)	(6.744)	(0.321)
Observations	20,103	20,097	20,103	20,103	14,872	17,940
R-squared	0.011	0.849	0.389	0.341	0.164	0.143

Note: Each cell is a separate regression, Standard errors in parentheses clustered at the school level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3
The Effects of Peer Parental Incarceration on Youth Criminal Activities

Outcome	Any Crime	Any Crime	Any Crime	Any Crime
Sample	Full	Full	Male	Female
Fixed Effects?	Grade	School, Grade	School, Grade	School, Grade
Dad Incarceration	0.081***	0.079***	0.052**	0.100***
	(0.016)	(0.015)	(0.022)	(0.024)
Mom Incarceration	0.125***	0.105***	0.120***	0.093**
	(0.029)	(0.029)	(0.041)	(0.036)
School-Grade Any Parent Incarcerated	0.214**	0.045	0.070	0.006
	(0.085)	(0.068)	(0.103)	(0.108)
Age	0.032***	0.036***	0.038***	0.032***
	(0.005)	(0.005)	(0.006)	(0.008)
Male	0.188***	0.186***		
	(0.006)	(0.006)		
Black	0.096***	0.094***	0.058***	0.123***
	(0.013)	(0.013)	(0.017)	(0.019)
Hispanic	0.059***	0.056***	0.047*	0.060***
	(0.022)	(0.015)	(0.024)	(0.016)
Other Race	-0.012	-0.039***	-0.068***	-0.012
	(0.013)	(0.012)	(0.018)	(0.020)
Family Income	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Maternal Education	-0.007***	-0.006***	-0.003	-0.009***
	(0.002)	(0.002)	(0.003)	(0.003)
Missing Family Information	-0.000	0.000	-0.005	0.005
	(0.008)	(0.008)	(0.011)	(0.009)
Grade = 8	-0.009	-0.011	-0.018	-0.001
	(0.014)	(0.014)	(0.020)	(0.020)
Grade = 9	-0.059***	-0.056***	-0.083***	-0.023
	(0.017)	(0.017)	(0.022)	(0.027)
Grade = 10	-0.112***	-0.121***	-0.135***	-0.102***
	(0.024)	(0.021)	(0.025)	(0.033)
Grade = 11	-0.170***	-0.186***	-0.201***	-0.164***
	(0.026)	(0.023)	(0.029)	(0.039)
Grade = 12	-0.226***	-0.246***	-0.268***	-0.216***
	(0.030)	(0.027)	(0.033)	(0.043)
Constant	-0.069	-0.128*	0.017	-0.055
	(0.075)	(0.073)	(0.092)	(0.113)
Observations	19,967	19,967	9,882	10,085
R-squared	0.065	0.085	0.042	0.076
Own Mom = Own Dad	1.489	0.484	2.157	0.022
P-value	0.224	0.488	0.144	0.881

Standard errors in parentheses clustered at the school level. *** p<0.01, ** p<0.05, * p<0.1

Table 4
The Effects of Peer Maternal and Paternal Incarceration on Youth Criminal Activities

Outcome	Any Crime	Any Crime	Any Crime	Any Crime	Any Crime
Sample	Full	Full	Full	Male	Female
Fixed Effects?	Grade	School, Grade	School, Grade	School, Grade	School, Grade
Dad Incarceration	0.081***	0.080***	0.079***	0.053**	0.099***
	(0.016)	(0.015)	(0.015)	(0.022)	(0.024)
Mom Incarceration	0.124***	0.104***	0.105***	0.118***	0.095***
	(0.029)	(0.029)	(0.029)	(0.040)	(0.036)
School-Grade Dad Incarceration	0.073	0.048	-0.018	0.159	-0.090
	(0.088)	(0.076)	(0.099)	(0.100)	(0.112)
School-Grade Mom Incarceration	0.535***	-0.019	0.581***	-0.317*	0.459*
	(0.191)	(0.142)	(0.208)	(0.175)	(0.236)
School Grade Dad X Male			0.121		
			(0.114)		
School Grade Mom X Male			-0.928***		
			(0.270)		
Observations	19,967	19,967	19,967	9,882	10,085
R-squared	0.066	0.085	0.086	0.042	0.077
Own Mom = Own Dad	1.402	0.470		2.016	0.006
P-value	0.238	0.494		0.158	0.938
Interaction Mom = Interaction Dad			12.088		
P-value			0.001		
School Grade Mom = School Grade Dad		0.148		5.317	4.182
P-value		0.701		0.023	0.043

Standard errors in parentheses clustered at the school level. *** p<0.01, ** p<0.05, * p<0.1,
Same Controls as Table 3

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Table 5
The Effects of Peer Maternal and Paternal Incarceration on Selling Drugs and Violence

Outcome	Sell Drugs	Sell Drugs	Sell Drugs	Sell Drugs	Sell Drugs
Sample	Full	Full	Full	Male	Female
Fixed Effects?	Grade	School, Grade	School, Grade	School, Grade	School, Grade
Dad Incarceration	0.040***	0.038***	0.038***	0.040***	0.033**
	(0.009)	(0.009)	(0.009)	(0.015)	(0.013)
Mom Incarceration	0.038**	0.029	0.029	0.047	0.022
	(0.019)	(0.019)	(0.019)	(0.034)	(0.020)
School-Grade Dad Incarceration	0.049	0.049	-0.002	0.119*	-0.039
	(0.045)	(0.037)	(0.050)	(0.062)	(0.052)
School-Grade Mom Incarceration	0.128	-0.078	-0.054	-0.224**	0.108
	(0.079)	(0.068)	(0.153)	(0.099)	(0.139)
School Grade Dad X Male			0.087		
			(0.076)		
School Grade Mom X Male			-0.042		
			(0.195)		
Observations	19,931	19,931	19,931	9,851	10,080
R-squared	0.024	0.045	0.045	0.051	0.037
Own Mom = Own Dad	0.006	0.144		0.035	0.176
P-value	0.938	0.705	0.564	0.853	0.676
Interaction Mom = Interaction Dad			0.334		
P-value					
School Grade Mom = School Grade Dad		2.863		7.897	1.004
P-value		0.093		0.006	0.318

Standard errors in parentheses clustered at the school level. *** p<0.01, ** p<0.05, * p<0.1, Same Controls as Table 3

Table 5

The Effects of Peer Maternal and Paternal Incarceration on Selling Drugs and Violence

Outcome	Fight	Fight	Fight	Fight	Fight
Sample	Full	Full	Full	Male	Female
Fixed Effects?	Grade	School, Grade	School, Grade	School, Grade	School, Grade
Dad Incarceration	0.070***	0.070***	0.070***	0.044*	0.090***
	(0.014)	(0.015)	(0.015)	(0.024)	(0.023)
Mom Incarceration	0.123***	0.108***	0.109***	0.118***	0.099***
	(0.029)	(0.029)	(0.029)	(0.045)	(0.035)
School-Grade Dad Incarceration	0.062	0.053	-0.032	0.161	-0.081
	(0.079)	(0.069)	(0.098)	(0.099)	(0.115)
School-Grade Mom Incarceration	0.530***	0.070	0.623***	-0.178	0.506**
	(0.173)	(0.159)	(0.196)	(0.201)	(0.218)
School Grade Dad X Male			0.153		
			(0.116)		
School Grade Mom X Male			-0.858***		
			(0.255)		
Observations	19,933	19,933	19,933	9,856	10,077
R-squared	0.070	0.088	0.088	0.049	0.088
Own Mom = Own Dad	2.346	1.200		2.122	0.040
P-value	0.128	0.275	0.000	0.147	0.842
Interaction Mom = Interaction Dad			12.730		
P-value					
School Grade Mom = School Grade Dad		0.008		2.393	5.402
P-value		0.927		0.124	0.022

Standard errors in parentheses clustered at the school level. *** p<0.01, ** p<0.05, * p<0.1, Same Controls as Table 3

Table 6
The Effects of Peer Maternal and Paternal Incarceration on GPA

Outcome	GPA	GPA	GPA	GPA	GPA
Sample	Full	Full School,	Full School,	Male School,	Female School,
Fixed Effects?	Grade	Grade	Grade	Grade	Grade
Dad Incarceration	-0.135***	-0.127***	-0.127***	-0.104***	-0.147***
	(0.020)	(0.018)	(0.019)	(0.029)	(0.026)
Mom Incarceration	-0.148***	-0.114***	-0.114***	-0.117*	-0.107**
	(0.037)	(0.037)	(0.037)	(0.060)	(0.046)
School-Grade Dad Incarceration	-0.264	-0.049	-0.122	0.075	-0.214
	(0.209)	(0.151)	(0.203)	(0.183)	(0.206)
School-Grade Mom Incarceration	-1.208***	-0.348	-0.236	-0.457	-0.328
	(0.377)	(0.267)	(0.444)	(0.284)	(0.466)
School Grade Dad X Male			0.128		
			(0.205)		
School Grade Mom X Male			-0.179		
			(0.423)		
Observations	19,847	19,847	19,847	9,824	10,023
R-squared	0.116	0.177	0.177	0.158	0.177
Own Mom = Own Dad	0.090	0.084		0.035	0.579
P-value	0.765	0.772	0.546	0.853	0.448
Interaction Mom = Interaction Dad			0.365		
P-value					
School Grade Mom = School Grade Dad		0.922		2.118	0.053
P-value		0.339		0.148	0.818

Standard errors in parentheses clustered at the school level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$,
Same Controls as Table 3