How does paternal incarceration affect children's cognitive and noncognitive development?

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Nearly one in every 100 adults in the United States is in prison or jail, and an additional one in 50 is under probation or on parole.[1] Extensive research has documented the long- and short-term, direct and indirect consequences of this mass incarceration for the imprisoned individual or former inmate, and a quickly growing literature examines potential extended effects of incarceration on families and communities.[2] The number of school-age children in the United States with incarcerated or formerly incarcerated parents was recently estimated at over 32 million, or about one in every 28 schoolchildren.[3] The work summarized in this article adds to previous work on the effects of paternal incarceration on school-age children using newly available longitudinal data to assess the negative effects of a father's incarceration on child mental health, socioemotional development, and cognitive skills, focusing especially on 9-year-olds.[4]

What we know about mass incarceration's effects on children

There is mounting evidence that the effects of mass incarceration extend beyond the imprisoned individual to his family, community and especially his children. Given data availability and the high cumulative risk of paternal incarceration, the majority of work in this area has focused on fathers. Men are incarcerated at far higher rates than women. In fact, fathers account for 91 percent of all incarcerated parents.[5] The pathways through which parental incarceration may affect children's well-being include: trauma resulting from parent-child separation; a sense of social isolation and shame brought on by the stigma associated with having an incarcerated family member; and stress and strain caused by family disruption, dissolution, or the prolonged financial hardship experienced due to the loss of the incarcerated parent's income.[6] Recent work on paternal incarceration has also shown that harmful effects on child well-being can occur regardless of the resident status of the father at the time of his imprisonment, suggesting that there is something about incarceration that affects children beyond mere paternal absence.[7]

Paternal incarceration and child outcomes

The trauma, stigma, and strain theories allow for parental incarceration to affect both boys and girls, and to have consequences on child outcomes beyond behavior; however, evidence of these connections from empirical studies has been limited. Within the past decade, there has been an explosion of research investigating whether and in what ways a parent's (usually the father) incarceration affects his children.[8] Most consistently, studies have shown that paternal incarceration results in behavioral problems for children, concentrated primarily among boys. For example, paternal incarceration has been found to increase aggression, depression, anxiety, attention problems, and delinquency in young boys and adolescent men. These negative effects on behavioral functioning and mental health have been identified throughout boys' and young mens' lives, from age 5 into early adulthood.[9] The studies producing these findings focused mainly on antisocial behaviors. Few studies of parental incarceration on children in middle childhood have looked beyond these negative behaviors to measures of prosocial noncognitive skills, such as task completion or self-discipline, which are critical to future socioeconomic success.

The extremely consistent findings for boys and their behavioral outcomes have been pivotal in establishing the existence of harmful intergenerational consequences of paternal incarceration. However, the findings also may have narrowed the focus of policy interventions, the majority of which have revolved around addressing intergenerational transmissions of criminality in early childhood or adolescence.[10] Could the effects of paternal incarceration extend beyond boys' antisocial behaviors to have broader intergenerational implications?

Effects of paternal incarceration on direct measures of children's cognitive skills have yet to surface. In fact, some previous studies have found no effect of paternal incarceration on preschool children's receptive vocabulary, an often-used but incomplete measure of early cognitive ability.[11] Findings like these have led scholars to conclude that while paternal incarceration has strong negative impacts on children's socio-behavioral outcomes, its association with cognitive development is weak to nonexistent. However, few studies have yet to fully investigate the impact paternal incarceration has on the broad range of cognitive skills beyond receptive vocabulary that children possess and develop. Such skills may evolve or surface over time, calling for a need to assess the impact of paternal incarceration throughout childhood and across a larger range of child cognitive outcomes.

Two new studies of paternal incarceration's effects

The studies summarized here use data from the Fragile Families and Child Wellbeing Study (FFS), a longitudinal

birth-cohort study that follows nearly 5,000 children and their parents. The FFS data set is one of the few broadly representative data sources currently available to explore contemporary questions related to the effect of paternal incarceration on child outcomes. Not only does it follow both parents over time as their child develops, it also allows sufficient variation by race and paternal incarceration experiences to assess the effects of a father's incarceration on his children.

Effects on noncognitive skills

Children's noncognitive skills can include dimensions of physical health or motor functioning as well as social and emotional behaviors, personality traits, or abilities linked to self-discipline and effortful control. In my analysis, I look specifically at the attention, social, and behavioral components of learning, which correspond to a child's ability to concentrate, stay on task, cooperate, interact appropriately with peers, and exercise emotional self-regulation.[12] Noncognitive skill development is cumulative, begins during the earliest years of life, and is powerfully shaped—both negatively and positively—by experiences and environments in early childhood.[13] During early childhood (approximately birth to age 5) the foundation for one's skill capacities is laid, while in middle childhood (approximately ages 5 to 10) these skills crystalize, establishing a trajectory for future development.[14] Thus, negative experiences—whether social, environmental, or physical—occurring during the first 10 years of a child's life have the potential to influence a range of later outcomes, such as schooling, employment, and earnings.[15]

I consider how paternal incarceration may affect children's behavioral functioning and socioemotional skill development by age 9, relying for the first time on children's self-reports of prosocial and antisocial behaviors recorded in FFS data.[16] My findings suggest that experiencing first-time paternal incarceration between the ages of 1 and 9 is associated with higher child-reported antisocial behaviors, including internalizing, externalizing, and early delinquency problems. The overall effect of paternal incarceration on these antisocial behaviors suggests a schooling setback in the range of 1 to 2 months.

However, no detrimental effects of paternal incarceration are found for one particular measure of children's prosocial skills—task completion—suggesting that there may be types of noncognitive skills that paternal incarceration affects less than others. While promising, this finding is far from conclusive, as there is potential for measurement concerns.[17] Very few studies to date have explored the impact of parental incarceration on children's prosocial skill development, so these early findings may stimulate more work in this area.[18] Prosocial skills are important to future socioeconomic success, so efforts made toward fine-tuning our understanding of the ways in which paternal incarceration is most detrimental to children's development can help us better develop targeted policy interventions.

Just as previous work has documented the deleterious effects of paternal incarceration for parent reports of preschool-age boys' behavior, analyses by gender subgroup across this diverse set of child-reported noncognitive outcomes demonstrates that among 9-year-old boys in the FFS sample, the negative impacts of paternal incarceration persist into middle childhood. Among girls, associations are in the expected direction—increasing self-reports of antisocial behaviors—but the magnitude of the effect is much weaker than that for boys and does not reach statistical significance. While a growing literature shows that compared to girls, young boys are more sensitive to family disruptions across a range of outcomes, some recent research suggests that paternal incarceration is negatively associated with cognitive skills and likelihood for early grade retention at age 9 among both boys and girls.[19] Thus, while evidence is mounting for the vulnerability of young boys to paternal incarceration, future work should continue to explore effects for girls across a range of outcomes and developmental stages.

Lastly, comparisons across parent and child reports of externalizing and internalizing behaviors illuminate differences in both the perceived magnitude of overall effects of paternal incarceration and how effects by respondent perceptions might vary depending on the gender of the child. Parent reports of behavioral outcomes produced the largest impacts of paternal incarceration, while child self-reports of their own behaviors showed fewer significant differences and were of smaller magnitude (often nearly half the size). If this study relied only on reporting by parents, slightly different conclusions by gender would have been made, since parent reports of both externalizing and internalizing problem behaviors for girls with incarcerated fathers reached significance while child self-reports did not. These findings suggest a more nuanced understanding is needed. If we believe children are the most accurate reporters of their own behavior and skills, and social desirability bias is not a major concern, then it is possible that studies relying solely on parent perceptions of children's behaviors may be overestimating impacts of paternal incarceration. Future work comparing agreement of child and parent reports across a range of outcomes would better inform our understanding of both the lived experiences of children of the incarcerated and how non-incarcerated parents, educators, and other interested adults perceive the well-being and skill capacities of this growing group of children.

Effects on cognitive skills

Of the nearly two million minor children in the United States with currently incarcerated fathers, the majority are under age 12.[20] For children, the developmental stages of early and middle childhood are marked by time in primary school and are often when children build their academic competencies, learn to understand societal roles, begin to interact with peers, and develop intimate relationships with friends, family, and other significant adults. It is also a time when socioemotional behaviors and academic competencies begin to crystalize into relatively consistent patterns of behavior

and skill trajectories that persist into adolescence and early adulthood. Therefore, this is a time in young children's lives when they are especially vulnerable to disruption and instability.

The incarceration of a parent could certainly be seen as an event capable of producing trauma, stigma, and strain, all of which might negatively affect elementary-age children's sense of academic competence. Moreover, earlier impacts on behavior and attentional capacities may have lagged impacts on cognitive skill acquisition via mechanisms such as grade retention and special education placement (Haskins 2014, Turney and Haskins 2014) or decreased connection to school, as evidenced in work by Dallaire (2007) and Dallaire and Aaron (2010), which finds that parental incarceration for school-age children produces unique risk factors related to the stable development of strong school ties and healthy academic environments. Lastly, a fairly extensive literature indicates there are benefits of paternal involvement for children's cognitive ability; consequently, through inhibited involvement, a father's incarceration has the potential to have damaging consequences.[21] Thus, the social and emotional volatility along with inhibited involvement produced by paternal incarceration can place school-age children at a heightened risk for academic difficulties.

Previous work has consistently documented the negative influence of paternal incarceration on boys' behavioral capacities across the life course. This study's finding of detrimental effects on cognitive outcomes for both boys and girls in middle childhood contributes new knowledge and an expanding accounting of the negative effects of paternal incarceration on school-age children in the United States.[22] Girls with incarcerated fathers have statistically significant lower reading comprehension and math problem-solving skills compared to same-gender matched peers, while boys have reduced attentional capacities. The differences I find in cognitive skills between various groups of children with incarcerated fathers and their matched controls are equivalent to a loss within the range of 1 to 3 months of schooling. The surfacing of effects on cognitive skill acquisition may be attributed to a number of factors. First, this study investigated a much larger range of cognitive outcomes than previously studied. In addition, the majority of prior studies have focused on either preschoolers or adolescents, missing the developmental age of middle childhood, an important stage for the growth of academic skill competencies. The novelty of these findings, however, should not lead one to conclude that children of incarcerated parents have a lack of intellectual capacity. Rather, as noted in a recent report by the National Research Council (2014), paternal incarceration's role in school failure, and in this case, decreases in scores on cognitive assessments, may arise initially from socioemotional problems that then produce lagged impacts on cognitive skill acquisition via mechanisms such as stress, teacher stigma leading to grade retention, or placement in special education.

Conclusions

Early to middle childhood is a critical period in young children's lives for the healthy development of both noncognitive and cognitive skills. During the first 10 years of life, children's cognitive, social, and behavioral skills begin to solidify into relatively consistent patterns that persist into adulthood. Paternal incarceration during this critical childhood period can cause disruptions, stress, and instability that may have not only short-term implications for children's development, but also long-term ramifications for future academic attainment and labor market experiences.

My findings on noncognitive skills corroborate recent work suggesting that the incarceration of a father presents a significant hindrance to a child's healthy socio-emotional development, especially among boys, and consequently to the child's future prospects. I also present findings on paternal incarceration's impact on a large range of cognitive skills that contribute new knowledge, and offer a nuanced account of the effects of paternal incarceration on child well-being and development.

Together, these findings of negative effects on both noncognitive and cognitive outcomes for children provide additional evidence that paternal incarceration is likely an important avenue through which educational inequality is produced and reproduced among children in the United States.

Some reassurance can be found in work that shows that socioemotional and behavioral capacities appear to be quite responsive to social policy, so it may be possible to develop interventions that would restrict transmission of disadvantage attributable to paternal incarceration.[23] The finding that paternal incarceration does not appear to be detrimental for a measure of children's prosocial development suggests that more research is needed on the potential protective functions of prosocial behaviors for children of the incarcerated. Future empirical work on the intergenerational effects of paternal incarceration is also necessary, and qualitative work should be done in order to better understand the mechanisms through which these effects operate.

The two studies summarized here contribute to a growing body of literature on the implications of mass incarceration for inequality among children in the United States, suggesting consequences may be more expansive than previously documented.■

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[1]L. E. Glaze and L. Parks, "Correctional Populations in the United States, 2011," *Bureau of Justice Statistics Bulletin*, NCJ 239972, U.S. Department of Justice, November 2012.

[2]For a recent review, see J. Travis, B. Western, and S. Redburn, eds., *The Growth of Incarceration in the United States: Exploring Causes and Consequences* (Washington, DC: The National Academies Press, 2014).

[3]See, for example, The Pew Charitable Trusts, "Collateral Costs: Incarceration's Effect on Economic Mobility," Washington, DC: 2010. Accessed at http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2010/collateralcosts1pdf.pdf.

[4]This article draws on two papers: A. R. Haskins, "Paternal Incarceration and Child-Reported Behavioral Functioning at Age 9," *Social Science Research* 52 (2015): 18–33; and A. R. Haskins, "Mass Imprisonment and the Intergenerational Transmission of Disadvantage: Paternal Incarceration and Children's Cognitive Skill Development," Fragile Families Working Paper WP13-15-FF, 2013, at http://crcw.princeton.edu/workingpapers/WP13-15-FF.pdf

[5]L. M. Maruschak, L. E. Glaze, and C. J. Mumola, "Incarcerated Parents and Their Children," in *Children of Incarcerated Parents: A Handbook for Researchers and Practitioners*, eds. J. M. Eddy and J. Poehlmann (Washington, DC: Urban Institute Press, 2010).

[6]For trauma, see, for example, D. Braman, *Doing Time on the Outside: Incarceration and Family Life in Urban America* (Ann Arbor, MI: University of Michigan Press, 2004); for stigma, see, for example, J. Murray and D. P. Farrington, "The Effects of Parental Imprisonment on Children," *Crime and Justice* 37 (2008): 133–206; for stress and strain, see, for example, R. R. Swisher and M. R. Waller. "Confining Fatherhood: Incarceration and Paternal Involvement among Nonresident White, African American, and Latino Fathers," *Journal of Family Issues* 29, No. 8 (2008): 1067–1088.

[7]A. Geller, C. E. Cooper, I. Garfinkel, O. Schwartz-Soicher and R. B. Mincy, "Beyond Absenteeism: Father Incarceration and Child Development," *Demography* 49, No. 1 (2012): 49–76. doi: 10.1007/s13524-011–0081–9

[8]For a recent review, see J. Murray, D. P. Farrington, and I. Sekol, "Children's Antisocial Behavior, Mental Health, Drug Use, and Educational Performance after Parental Incarceration: A Systematic Review and Meta-Analysis," *Psychological Bulletin* 138 (2012): 175–210. doi: 10.1037/a0026407

[9]See, for example, C. Wildeman, "Paternal Incarceration and Children's Physically Aggressive Behaviors Evidence from the Fragile Families and Child Wellbeing Study," *Social Forces* 89, No. 1 (2010): 285–309; and J. Murray, R. Loeber, and D. Pardini, "Parental Involvement in the Criminal Justice System and the Development of Youth Theft, Marijuana Use, Depression, and Poor Academic Performance," *Criminology* 50, No. 1 (2012): 255–302. doi: 10.1111/j.1745-9125.2011.00257.x

[10]For early childhood, see, for example, Wildeman, "Paternal Incarceration and Children's Physically Aggressive Behaviors"; for adolescence, see, for example, M. E. Roettger and R. R. Swisher, "Associations of Fathers' History of Incarceration with Sons' Delinquency and Arrest among Black, White, and Hispanic Males in the United States," *Criminology* 49, No. 4 (2011): 1109–1147. doi: 10.1111/j.1745-9125.2011.00253.x

[11]See, for example, Geller et al., "Beyond Absenteeism."

[12]For a review, see G. Farkas, "Cognitive Skills and Noncognitive Traits and Behaviors in Stratification Processes," *Annual Review of Sociology* 29 (2003), 541–562. doi: 10.1146/annurev.soc.29.010202.100023

[13]See, for example, E. I. Knudsen, J. J. Heckman, J. L. Cameron, and J. P. Shonkoff, "Economic, Neurobiological, and Behavioral Perspectives on Building America's Future Workforce," *Proceedings of the National Academy of Sciences* 103 (2006): 10155–10162.

[14]See, for example, C. Blair, "School Readiness: Integrating Cognition and Emotion in a Neurobiological Conceptualization of Children's Functioning at School Entry," *American Psychologist* 57, No. 2 (2002), 111–127. doi: 10.1037//0003-066x.57.2.111

[15]See, for example, G. J. Duncan, C. J. Dowsett, A. Claessens, K. A. Magnuson, A. C. Huston, P. Klebanov, L. S. Pagani, L. Feinstein, M. Engel and J. Brooks-Gunn, "School Readiness and Later Achievement," *Developmental Psychology* 43, No. 6 (2007): 1428–1446.

[16]Haskins, "Paternal Incarceration and Child-Reported Behavioral Functioning at Age 9."

[17]While task completion is the only prosocial measure examined and the only behavioral measure with non-significant differences, it is also the measure with the lowest internal reliability, leaving room for potential measurement concerns to play a role in explaining this finding.

[18]For exceptions, see D. H. Dallaire and J. L. Zeman, "Empathy as a Protective Factor for Children with Incarcerated Parents," *Monographs of the Society for Research in Child Development* 78 (2013): 7–25. doi: 10.1111/mono.12018; and B. J. Myers, V. H. Mackintosh, M. I. Kuznetsova, G. M. Lotze, A. M., Best, and N. Ravindran, "Teasing, Bullying, and Emotion Regulation in Children of Incarcerated Mothers," *Monographs of the Society for Research in Child Development* 78 (2013): 26–40. doi: 10.1111/mono.12019

[19]Haskins, "Mass Imprisonment and the Intergenerational Transmission of Disadvantage"; K. Turney and A. R. Haskins, "Falling Behind? Children's Early Grade Retention after Paternal Incarceration," *Sociology of Education* 87, No. 4 (2014): 241–258. doi: 10.1177/0038040714547086

[20]L. E. Glaze and L. M. Maruschak, *Parents in Prison and Their Minor Children*, Bureau of Justice Statistics Special Report NCJ 222984, U.S. Department of Justice, August 2008.

[21]For a review of literature on paternal involvement, see S. Allen and K. Daly, "The Effects of Father Involvement: An Updated Research Summary of the Evidence Inventory," Centre for Families, Work & Well-Being, University of Guelph, May 2007. Accessed at: http://www.fira.ca/cms/documents/29/Effects_of_Father_Involvement.pdf.

[22]Haskins, "Mass Imprisonment and the Intergenerational Transmission of Disadvantage."

[23]See, for example, J. J. Heckman, S. H. Moon, R. Pinto, P. Savelyev, and A. Yavitz, "A New Cost-Benefit and Rate of Return Analysis for the Perry Preschool Program: A Summary," IZA Policy Paper No. 17, Institute for the Study of Labor, July 2010.