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Parental Incarceration and the Transition to Adulthood

The growing literature on the intergenerational consequences of incarceration generally neglects to consider how paternal and maternal incarceration structures offspring's transition to adulthood, a fundamental life course stage that has become increasingly unequal. In this article, the authors use data from the National Longitudinal Study of Adolescent to Adult Health to explore the relationship between parental incarceration and both subjective (e.g., respondent feels older compared to others his or her age) and behavioral (e.g., respondent is a parent) indicators of adulthood transitions among respondents younger than age 24 (N = 10,937). The results suggest that both paternal and maternal incarceration is positively associated with the number of subjective and behavioral adulthood transitions. The results also suggest that parental incarceration is associated with some individual indicators, especially subjective indicators, of adulthood. Taken together, these findings highlight that the high incarceration rate in the United States has transformative intergenerational consequences.

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The transition from adolescence to adulthood has undergone dramatic changes in the second half of the 20th century in the United States. This transition was once a standardized process that most individuals experienced within a fairly narrow age range (Furstenberg, 2010). Today, in part because of demographic changes in family life and the increased importance of higher education, the transition to adulthood has become longer and progressively variegated (Shanahan, 2000). The transition to adulthood is a fundamental life course stage, characterized by a constellation of subjective indicators (e.g., feeling older compared to others one's age) and behavioral indicators (e.g., becoming a parent), that together shape future life course trajectories (Furstenberg, 2010).

One phenomenon that may structure transitions into adulthood is mass incarceration, the historically and comparatively high imprisonment rates in the United States (Garland, 2001). More than 2.6 million children currently have a parent incarcerated in jail or prison, most of them for nonviolent offenses, and many more will experience parental incarceration at some point during childhood or adolescence (Sykes & Pettit, 2014). Incarceration is considered a stressor that proliferates from the incarcerated to his or her offspring (Turney, 2014b). Although a growing literature documents the consequences of parental incarceration, little research considers the relationship between parental incarceration and behavioral and subjective indicators of adulthood (although see Foster & Hagan, 2013; Mears & Siennick, 2015). Incarceration reduces

family income (e.g., Western, 2006), disrupts parental relationships (e.g., Turney & Wildeman, 2013), and impairs the mental health of both offspring and romantic partners (Foster & Hagan, 2013; Wildeman, Schnittker, & Turney, 2012), all of which may accelerate adulthood transitions among offspring of the incarcerated. Alternatively, insofar as parental incarceration increases offspring delinquency (e.g., Roettger & Swisher, 2011), which is associated with fewer behavioral and subjective adult transitions (Massoglia & Uggen, 2010), parental incarceration may delay the transition to adulthood. It is also possible the relationship between parental incarceration and the transition to adulthood results from individual or family characteristics associated with experiencing parental incarceration such as household poverty or physical abuse (Johnson & Easterling, 2012).

In this article, we use data from the National Longitudinal Study of Adolescent to Adult Health (Add Health; <http://www.cpc.unc.edu/projects/addhealth>) to provide the first systematic examination of the relationship between parental incarceration—distinguishing between paternal and maternal incarceration—and subjective and behavioral markers of the transition to adulthood (Shanahan, 2000). Increased variability in the transition to adulthood means that the social construction of adulthood relies less on traditional demographic markers (Silva, 2012), and, accordingly, it is critical to consider both subjective and behavioral indicators of adulthood (Galambos, Turner, & Tilton-Weaver, 2005; Massoglia & Uggen, 2010; Shanahan, 2000). Importantly, understanding the life course consequences of parental incarceration may shed light on how inequality is created and maintained. Adolescents from disadvantaged social backgrounds, who often lack family and institutional supports that allow for lengthened transitions to adulthood, are more likely than their advantaged peers to experience constrained and accelerated transitions to adulthood (Burton, 2007; Osgood, Foster, Flanagan, & Ruth, 2005; also see Benson & Elder, 2011).

LINKING PARENTAL INCARCERATION AND THE TRANSITION TO ADULTHOOD

Parental Incarceration and the Increased Likelihood of Adulthood Transitions

Family stress process theory provides guidance for understanding how parental incarceration

may structure the transition to adulthood by accelerating behavioral and subjective adulthood transitions (Conger et al., 1990). This theory, mostly used to explain how economic insecurity generates stress within families, can be extended to document how incarceration, and the stress associated with it, affects family life (Turney, 2014a). Nearly all accounts of incarceration describe it as a stressful life event accompanied by substantial trauma and stigma. Incarceration affects not only affects the incarcerated but also proliferates to family members of the incarcerated (Pearlin, Aneshensel, & Leblanc, 1997; Turney, 2014b), consistent with principles of the life course perspective that underscore the inter-connectedness of individuals' lives (Elder, Johnson, & Crosnoe, 2003).

To begin with, children of incarcerated parents are a particularly vulnerable group who experience a number of stressors (Osgood et al., 2005), all of which may be associated with behavioral and subjective adulthood transitions. For one, given that individuals have few opportunities to earn income while incarcerated and, upon release, have difficulty garnering employment, parental incarceration—especially paternal incarceration—increases economic hardship among families (Western, 2006). Incarceration also increases the likelihood parents divorce or separate, as maintaining contact and a high-quality relationship with an incarcerated partner is difficult (Western, 2006). Incarceration also affects other domains of family life; for example, children exposed to parental incarceration are more likely than their counterparts to experience maternal neglect (Turney, 2014a). Finally, time spent in jail or prison increases mental and physical health problems of the incarcerated, their children, and their other family members (e.g., Foster & Hagan, 2013; Wildeman et al., 2012).

Given the stress associated with incarceration, parental incarceration may accelerate the life course and, specifically, subjective and behavioral indicators of adulthood (Osgood et al., 2005; Shanahan, 2000). First, consider how paternal or maternal incarceration may be associated with subjective indicators of adulthood. Subjective indicators include dimensions such as how old individuals perceive themselves to be and are increasingly decoupled from behavioral indicators of adulthood (Silva, 2012). Paternal or maternal incarceration, either directly or indirectly (e.g., via placement in

foster care), can prompt children to take on adult responsibilities earlier than their peers (Burton, 2007). These children may have to care for younger siblings, provide instrumental support to the family (e.g., grocery shopping, housework, transportation for younger siblings), and offer emotional support to household members. Indeed, a recent study documented that hardship in childhood—measured by family structure, poverty, feeling unsafe, and being a victim of or witness to violence—is associated with older subjective ages, and parental incarceration may be another hardship that leads to older subjective ages (Johnson & Mollborn, 2009). This is consistent with other research documenting how household and financial responsibilities are associated with older subjective ages. For example, in her conceptual model of adultification—the idea that some children are forced to grow up faster than their peers and shoulder large and premature adult roles—Burton (2007) noted that parental incarceration may facilitate adultification (also see Foster, Hagan, & Brooks-Gunn, 2008).

In addition to the proposed link between parental incarceration and subjective indicators of adulthood, parental incarceration may be simultaneously associated with behavioral indicators of adulthood (e.g., full-time employment). When family resources are scarce, as they often are during and after parental incarceration, children may take on adult roles. Family finances may not allow these children to pursue post-secondary education (e.g., Crosnoe, Mistry, & Elder, 2002), and, instead, children may secure full-time employment and contribute to household finances (e.g., Bozick & DeLuca, 2011). Economic hardship is also associated with early nonmarital childbearing, cohabitation, and marriage (e.g., Harknett & Kuperberg, 2011). Moving beyond economic hardship, other familial consequences of incarceration may accelerate the transition to adulthood. For example, recent research finds that family instability is associated with a lower likelihood of college completion, early entry into the labor market, leaving home early, and nonmarital childbearing (Aquilino, 1996; Fomby, 2013; Fomby & Bosick, 2013).

Parental Incarceration and the Decreased Likelihood of Adulthood Transitions

It is also possible that parental incarceration is negatively associated with subjective and behavioral indicators of adulthood transitions. For

one, it is well known that parental incarceration increases delinquency and criminal involvement (Roettger & Swisher, 2011; although see Porter & King, 2015), at least partly because of intergenerational labeling, which may delay behavioral and subjective adulthood transitions (Hagan, 1991). For example, research by Mas-soglia and Uggen (2010) found that individuals who are arrested or self-report criminal activity are less likely than their counterparts to make adulthood transitions.

HETEROGENEITY IN THE RELATIONSHIP BETWEEN PARENTAL INCARCERATION AND ADULTHOOD TRANSITIONS

There are several possibilities for heterogeneous relationships between parental incarceration and adulthood transitions. For one, paternal and maternal incarceration may have different implications for behavioral and subjective adulthood transitions. It could be that both paternal and maternal incarceration may impose strains on family life that similarly alter the life course of offspring. It could also be that maternal incarceration is more consequential than paternal incarceration given that children more commonly live with their mothers than fathers and, correspondingly, the removal of a residential mother may be more consequential (Howard, Martin, Berlin, & Brooks-Gunn, 2011). A final possibility, given that incarcerated mothers are likely a more select group than incarcerated fathers (given that paternal incarceration is normative for some population groups), is that the relationship between maternal incarceration and adulthood transitions results not from maternal incarceration but from demographic, socioeconomic, and behavioral factors that select mothers into incarceration (Wildeman & Turney, 2014).

In addition, consistent with the life course perspective that posits the consequences of life events vary by when they occur, the timing of parental incarceration may differentially influence children's transitions to adulthood (Elder, 1998). Early childhood is a critical life course period, and, therefore, parental incarceration occurring early in a child's life may ignite an array of cascading and reverberating consequences that families have difficulty escaping (Entwisle & Alexander, 1989). Alternatively, parental incarceration during adolescence may render children especially vulnerable, as these

children are likely chronologically old enough to assume adult responsibilities (such as providing instrumental support to family members).

Finally, the life course perspective also suggests that the consequences of life events are context dependent and that the accumulation of disadvantage is especially deleterious (Elder, 1998; also see Sampson & Laub, 1993). In accordance with this perspective, children experiencing more than one episode of parental incarceration, compared to those experiencing only one episode, may be especially likely to experience accelerated transitions to adulthood. The churning of parents into and out of households, which accompanies multiple incarcerations, may be especially stressful (Sobolewski & Amato, 2007). Furthermore, children exposed to chronic parental incarceration may also be exposed to persistent economic hardship, recurrent conflict between parents, continual impaired parenting, and severe parental mental health problems, all of which may accelerate the interconnected behavioral and subjective indicators of adulthood.

SPURIOUS RELATIONSHIP BETWEEN PARENTAL INCARCERATION AND ADULTHOOD TRANSITIONS

A serious consideration is the idea that the relationship between parental incarceration and adulthood transitions is spurious. The unequal distribution of incarceration across the population means that, by and large, children of incarcerated parents are quite different than children without incarcerated parents, even prior to experiencing parental incarceration (Wakefield & Uggen, 2010). Therefore, although it is quite possible that parental incarceration accelerates or delays adulthood transitions, it is also possible that offspring of incarcerated parents would experience similar adulthood transitions regardless of parental incarceration.

The multivariate analyses account for characteristics associated with parental incarceration and adulthood transitions. For example, exposure to incarceration is concentrated among race and ethnic minorities, the socioeconomically disadvantaged, the unmarried, and those with substance abuse problems (Wakefield & Uggen, 2010). Additional characteristics that may structure the transition to adulthood include delinquency (Massoglia & Uggen, 2010), closeness to parents (Aquilino, 1997), and number of siblings (Conger & Little, 2010).

THE CURRENT STUDY

In response to the large number of children exposed to parental incarceration, a rapidly expanding literature documents the intergenerational consequences of parental incarceration, especially paternal incarceration (for a recent review, see Foster & Hagan, 2015). This research demonstrates that paternal incarceration is deleterious for the well-being of children and adolescents. The less extensive research on the consequences of maternal incarceration is more inconclusive, with some research suggesting harmful effects (e.g., Huebner & Gustafson, 2007), other research suggesting inconsequential effects (e.g., Wildeman & Turney, 2014), and still other research suggesting heterogeneous effects (e.g., Turanovic, Rodriguez, & Pratt, 2012).

This study contributes to the existing literature by (a) simultaneously considering paternal and maternal incarceration and (b) providing the first examination of the relationship between parental incarceration and a constellation of subjective and behavioral factors comprising the transition to adulthood (Shanahan, 2000). The focus on subjective indicators is especially important given the increased variability in traditional behavioral markers of the transition to adulthood (Silva, 2012). Considering subjective indicators is also important because behavioral indicators have different meanings and implications depending on their context (e.g., if they occur early or off-time; Bachman & Schulenberg, 1993). For example, becoming a parent, a traditional marker of the transition to adulthood, is not necessarily a negative or positive outcome but has different implications depending on the context in which one becomes a parent (e.g., if one has stable employment, if one has a romantic partner). Relatedly, securing full-time employment is usually not considered a deleterious outcome unless it takes the place of attending school. Therefore, the goal of this article is to understand the life course patterns of children who experience parental incarceration.

METHOD

Data

To investigate the relationship between parental incarceration and the transition to adulthood, we use data from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a

nationally representative sample of adolescents in 7th through 12th grade during the 1994–1995 school year. Respondents were interviewed four times: in 1994–1995 (Wave 1, when respondents were in Grades 7 through 12), in 1996 (Wave 2), in 2001–2002 (Wave 3), and in 2008 (Wave 4). Parents were also interviewed at Wave 1. About 79% of the sampled adolescents participated in Wave 1; of these adolescents, 88%, 77%, and 80% participated in Waves 2, 3, and 4, respectively.

The Add Health data, although limited in some ways, are the only nationally representative data appropriately situated to address our research questions. First, the sample is large enough that it includes a relatively large number of respondents who experienced paternal or maternal incarceration. In addition, the study includes a number of subjective and behavioral measures of adulthood transitions. These data also include myriad information that allows us to adjust for observed characteristics that might alter the relationship between parental incarceration and adulthood transitions. Furthermore, these data are commonly used to estimate the intergenerational consequences of parental incarceration (e.g., Foster & Hagan, 2013).

The analytic sample comprises 10,937 respondents. Of the original 20,745 respondents, we exclude the 5,575 observations that did not complete an interview at Wave 3 and the additional 848 observations not part of the probability sample. Of those 14,322 observations, we then exclude 75 cases with missing values on any of our dependent variables and 3,310 observations who are aged 24 years and older at Wave 3, as age 24 has been used in other research as a cutpoint for understanding the transition to adulthood (see, especially, Fomby & Bosick, 2013), and our indicators of the transition to adulthood are more normative for these older respondents (e.g., Manning, Brown, & Payne, 2014). Given Add Health's complex sampling design (Harris et al., 2009), we weight all analyses with the Wave 3 cross-sectional weight (see Chen & Chantala, 2014) and also adjust for the appropriate primary stratification unit and strata. Importantly, the weight accounts for attrition and nonresponse, making the estimates nationally representative.

Relatively few covariates are missing values. On average, control variables are missing data for 3% of observations (ranging from

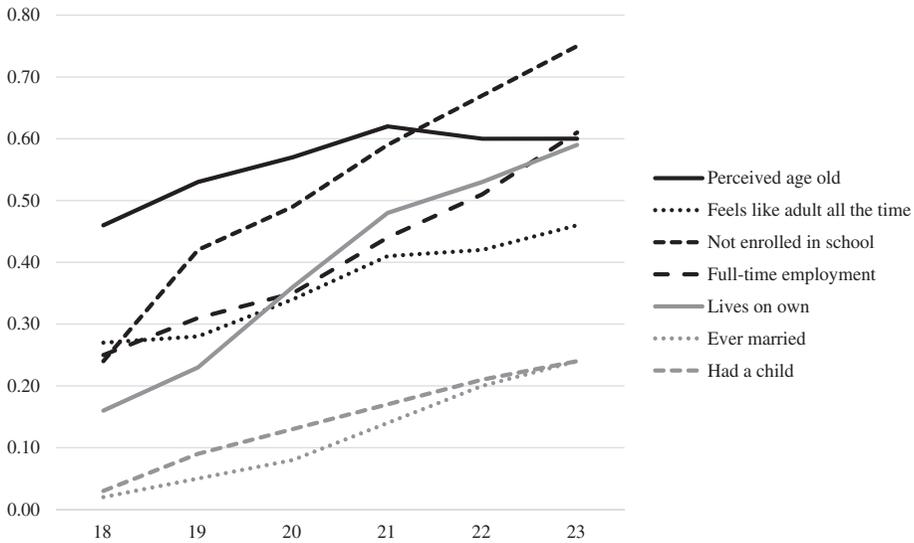
0%–20% [household income]). We preserve these missing values with multiple imputation, averaging results across 20 data sets (Allison, 2001).

Measures

Transition to adulthood. We examine seven subjective and behavioral indicators of adulthood (Shanahan, 2000). Subjective indicators of the transition to adulthood are the following two binary variables ascertained at Wave 3: (a) the respondent feels older than others his or her age (compared to feeling younger and feeling neither older nor younger) and (b) the respondent feels like an adult all of the time (compared to most of the time, sometimes, seldom, and never). Behavioral indicators of the transition to adulthood are the following five binary variables, all ascertained at Wave 3: (a) the respondent has his/her own residence (and does not live with parents, in another person's home, etc.), (b) the respondent is not enrolled in school, (c) the respondent is employed full-time (working at least 35 hours per week), (d) the respondent has ever been married, and (e) the respondent has at least one child (measured by affirmative responses that the respondent ever had a live birth [for women] or that the respondent's partner ever had a live birth in the context of their relationship [for men]). Figure 1 describes the respondents who have made each transition by age.

We construct a summary variable that indicates the number of affirmative responses to these subjective and behavioral indicators (range 0–7). Higher values of this measure indicate that the respondent has made a greater number of adulthood transitions, although we remain agnostic as to whether a greater number of adulthood transitions indicates a positive or negative outcome. Indeed, a given value on the summary indicator may have qualitatively different meanings for different respondents, and it is likely that the combination of specific types of adulthood transitions are particularly consequential (an important point but outside the scope of this article). Given the great variability both across and within these measures (e.g., perceived adulthood may be experienced as a positive experience for some respondents and a negative experience for other respondents), we also consider the seven specific indicators (also see online Appendix Table A for a correlation matrix of these individual indicators,

FIGURE 1. PROPORTION OF RESPONDENTS REPORTING EACH TRANSITION, BY AGE.



which shows a moderate correlation between subjective and behavioral indicators).

Parental incarceration. We consider the independent influences of paternal and maternal incarceration. To construct our indicators of paternal incarceration, we use information from the following three questions ascertained at Wave 4 (for an extended discussion of the reliability of these measures, see Foster & Hagan, 2013): (a) “Has/did your biological father ever (spend/spent) time in jail or prison?” (b) “How old were you when your biological father went to jail or prison for the first time?” (c) “How old were you when your biological father was released from jail or prison most recently?” Mutually exclusive dummy variables indicate paternal incarceration: never incarcerated (reference group), first-time paternal incarceration between ages 0 and 17, and first-time paternal incarceration occurring prior to birth or after age 17. This last category allows us to separate out paternal incarceration that did not occur during the respondent’s childhood or adolescence and ensures appropriate time ordering between the independent and dependent variables (all of which were measured when respondents were at least 18 years old). Although we include respondents in this last category in the multivariate models, the analyses focus on comparisons between respondents

experiencing paternal incarceration between ages 0 and 17 and respondents never experiencing paternal incarceration. The measures of maternal incarceration parallel those of paternal incarceration.

Control variables. The multivariate analyses adjust for two sets of control variables, all measured at Wave 1 unless otherwise noted. The first set of control variables includes basic demographic characteristics that are almost certainly set prior to parental incarceration: respondent’s race or ethnicity, respondent’s age (measured at Wave 3), respondent’s gender, respondent’s nativity status (a binary variable indicating he or she was born in the United States), mother’s age, and parent’s educational attainment (the education of the most highly educated parent). Furthermore, a binary variable indicates the parent respondent participated in Wave 1.

The second set of control variables includes an extended set of individual and family characteristics, at least some of which may be endogenous to parental incarceration. A continuous variable indicates the respondent’s number of siblings. Binary variables indicate the following: the respondent reported verbal, physical, or sexual abuse prior to age 12 (measured at Wave 4); the respondent is extremely close to his or her biological father; the respondent is extremely close to his or her biological mother;

and the respondent reports drugs are available at home. Respondent's delinquency is measured by averaging responses to 15 questions about the frequency (0 = *never* to 3 = *5 or more times*) of engagement in delinquent activities such as theft, fighting, or vandalism ($\alpha = .84$). Respondent's exposure to violence averages responses to five questions (e.g., respondent saw someone shoot or stab another person measured as 0 = *never* to 2 = *more than once*; $\alpha = .66$). We adjust for parent-reported household income (logged), and binary variables include the following: the parent has enough money to pay bills, either parent receives public assistance, the parent is married, the parent drinks at least 3 days per week, and the parent reports drugs are a big problem in the neighborhood.

Analytic Strategy

The analyses estimate the association between paternal and maternal incarceration between ages 0 and 17 and the transition to adulthood. We use ordinary least squares regression models to estimate our summary indicator of the transition to adulthood, as this indicator is normally distributed, and logistic regression models to estimate our seven individual indicators of subjective and behavioral transitions. Model 1 presents the unadjusted association, Model 2 adjusts for basic demographic controls, and Model 3 extends this model to also adjust for the extended control variables. These extended control variables (e.g., household income) may predict paternal or maternal incarceration or may result from paternal or maternal incarceration (and, consequently, be pathways linking parental incarceration to adulthood transitions), although the data do not allow us to distinguish between these two possibilities. Because both processes likely occur simultaneously, we consider Model 2 to be a lower bound estimate and Model 3 to be an upper bound estimate, a point we return to in the discussion.

Sample Description

Table 1 presents descriptive statistics for all variables. Respondents report, on average, affirmative answers to 2.8 indicators of the transition to adulthood. Nearly three fifths (58.9%) of respondents report their perceived age is older than their objective age, and nearly two fifths (38.9%) report feeling like an adult all the time.

Transitions that do not involve family formation are relatively common among respondents, with 44.9% living on their own, 59.0% not being enrolled in school, and 45.2% having full-time employment at Wave 3. Family formation transitions, including having married (14.8%) and having had a child (17.2%), are less common. About 8%, 17%, 20%, 21%, 17%, 11%, 5%, and 2% of the sample report making zero, one, two, three, four, five, six, or seven transitions to adulthood, respectively (descriptives not shown). In terms of parental incarceration, about one tenth (10.4%) of the respondents experienced paternal incarceration and 2.3% experienced maternal incarceration between ages 0 and 17.

RESULTS

Subjective and Behavioral Transition to Adulthood Measures, by Parental Incarceration

Table 2 presents descriptive statistics of the seven subjective and behavioral transitions to adulthood indicators, by paternal and maternal incarceration. We compared respondents who experienced paternal or maternal incarceration between ages 0 and 17 to those who never experienced paternal or maternal incarceration, respectively. By and large, children who experienced paternal incarceration were more likely than their counterparts to report both subjective and behavioral indicators of the transition to adulthood. For example, the mean number of adulthood transitions was 3.3 for respondents who experienced paternal incarceration and 2.7 for those who did not ($p < .001$). Respondents who experienced paternal incarceration were more likely to report perceived ages that are older than their objective age (69.8% compared to 57.0%, $p < .001$) and feel like an adult all of the time (59.1% compared to 37.3%, $p < .001$). They were also more likely to be living on their own (49.9% compared to 44.2%, $p = .013$), not be enrolled in school (73.3% compared to 56.7%, $p < .001$), have married (19.4% compared to 14.1%, $p = .002$), and have had a child (28.4% compared to 15.8%, $p < .001$).

There were also statistically significant descriptive differences by maternal incarceration. The mean number of adulthood transitions was 3.5 for respondents who experienced maternal incarceration and 2.8 for respondents who did not ($p < .001$). Specifically, respondents

Table 1. *Weighted Descriptive Statistics of Variables in Analysis (N = 10,937)*

Variable	Mean or %	SD
Transition to adulthood measures		
Summary measure of adulthood transitions	2.788	1.693
Perceived age is older than objective age	58.9%	
Feels like an adult all the time	38.9%	
Lives on own	44.9%	
Not enrolled in school	59.0%	
Full-time employment	45.2%	
Ever married	14.8%	
Had a child	17.2%	
Covariates		
Paternal incarceration		
Never	85.9%	
Between ages 0 and 17	10.4%	
Before birth or after age 17	3.8%	
Maternal incarceration		
Never	96.7%	
Between ages 0 and 17	2.3%	
Before birth or after age 17	1.0%	
Respondent race		
Non-Hispanic White	66.3%	
Non-Hispanic Black	14.9%	
Hispanic	11.4%	
Non-Hispanic other race	7.4%	
Respondent age (range 18 to 23)	21.567	1.370
Respondent female	50.3%	
Respondent native-born	94.7%	
Mother age (range 30 to 89)	40.861	6.405
Parent educational attainment		
Less than high school	11.9%	
High school diploma or GED	31.0%	
Some college	21.8%	
College degree or higher	35.3%	
Completed parent survey	90.6%	
Respondent number of siblings (range 0 to 12)	1.429	1.194
Respondent reports verbal/physical/sexual abuse prior to age 12	24.0%	
Respondent quite or extremely close to biological mother	87.3%	
Respondent quite or extremely close to biological father	67.5%	
Respondent reports drugs available at home	2.9%	
Respondent delinquency (range 0 to 3)	0.283	0.351
Respondent exposure to violence (range 0 to 2)	0.092	0.225
Parent household income (\$)	33,546	2,368
Parent has enough money to pay bills	83.4%	
Mother or father receives public assistance	10.8%	
Parent married	73.1%	
Parent drinks at least 3 days a week	4.1%	
Parent reports drugs a big problem in neighborhood	8.6%	

Note. Analytic sample restricted to respondents younger than age 24. Analyses account for Add Health’s stratified sampling design. Results presented for first imputed data set.

Table 2. Descriptive Statistics of Subjective and Behavioral Transition to Adulthood Measures, by Paternal and Maternal Incarceration (N = 10,937)

Outcome variable	Paternal incarceration		Maternal incarceration	
	Between ages 0–17	Never	Between ages 0–17	Never
Summary measure of adulthood transitions	3.337	2.702***	3.530	2.763***
Subjective measures, %				
Perceived age is older than objective age	69.8	57.0***	68.9	58.6*
Feels like an adult all the time	49.1	37.3***	57.0	38.4***
Behavioral measures, %				
Lives on own	49.9	44.2*	50.5	44.7
Not enrolled in school	73.3	56.7***	78.8	58.3***
Full-time employment	43.9	45.1	52.1	45.0
Ever married	19.4	14.1**	16.8	14.7
Had a child	28.4	15.8***	29.0	16.7**
<i>n</i>	1, 181	9, 358	265	10, 561

Note. Analytic sample restricted to respondents younger than age 24. Respondents with parents incarcerated before birth or after age 17 ($n = 398$ for paternal incarceration, $n = 111$ for maternal incarceration) are also omitted. Chi-square tests and t tests (depending on the distribution of the outcome variable) indicate statistically significant differences between individuals who experience paternal or maternal incarceration between ages 0 and 17 and those who never experience paternal or maternal incarceration. Analyses account for Add Health's stratified sampling design.

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).

who experienced maternal incarceration, when compared with their counterparts, were more likely to report older perceived ages (68.9% compared to 58.6%, $p = .017$) and felt like an adult all of the time (57.0% compared to 38.4%, $p < .001$). They were also more likely to not be enrolled in school (78.8% compared to 58.3%, $p < .001$) and have had a child (29.0% compared to 16.7%, $p = .001$).

Estimating Adulthood Transitions as a Function of Parental Incarceration

Estimating summary measure of adulthood transitions. Table 3 presents ordinary least squares regression models estimating the summary indicator of adulthood transitions. Again we focus our discussion on differences between those who experienced parental incarceration between ages 0 and 17 and those who never experienced parental incarceration. Model 1, the unadjusted association, showed that respondents who experienced paternal incarceration, when compared with their counterparts, reported a greater number of transitions ($b = 0.574$, $p < .001$). Maternal incarceration was also associated with a greater number of transitions ($b = 0.551$, $p = .001$). Model 2, which adjusted for basic demographic controls, showed that

both paternal incarceration ($b = 0.368$, $p < .001$) and maternal incarceration ($b = 0.457$, $p = .003$) were associated with a greater number of transitions. In Model 3, which adjusted for an extended set of covariates, the coefficients for paternal incarceration ($b = 0.218$, $p = .006$) and maternal incarceration ($b = 0.261$, $p = .074$) were reduced in magnitude but remained statistically or marginally statistically significant.

Supplemental analyses. We conducted two sets of supplemental analyses. First, we considered the possibility there may be age variation in the association between parental incarceration and adulthood transitions among 18- to 23-year-olds. In supplemental analyses (not presented), we included interaction terms between parental incarceration and respondents' age at Wave 3. Interaction terms were not statistically significant across any of the outcome variables (e.g., for the summary measure, Paternal Incarceration Between Ages 0 and 17 \times Age: $b = 0.003$, $p = .787$; Maternal Incarceration Between Ages 0 and 17 \times Age: $b = 0.017$, $p = .699$).

Second, we considered the possibility that the timing and chronicity of parental incarceration may be differentially associated with adulthood transitions. Among respondents exposed to

Table 3. Ordinary Least Squares Regression Models Estimating Summary Measure of Adulthood Transitions as a Function of Paternal and Maternal Incarceration (N = 10,937)

Variable	Model 1 Unadjusted	Model 2 + Basic controls	Model 3 + Extended controls
Paternal incarceration, reference = never			
Between ages 0 and 17	0.574*** (0.088)	0.368*** (0.079)	0.218** (0.076)
Before birth or after age 17	0.546*** (0.116)	0.406*** (0.109)	0.300** (0.109)
Maternal incarceration, reference = never			
Between ages 0 and 17	0.551** (0.160)	0.457** (0.147)	0.261† (0.144)
Before birth or after age 17	0.519* (0.198)	0.315† (0.183)	0.110 (0.173)
Respondent race, reference = non-Hispanic White			
Non-Hispanic Black		-0.084 (0.078)	-0.235** (0.078)
Hispanic		-0.082 (0.086)	-0.197* (0.090)
Non-Hispanic other race		-0.166† (0.088)	-0.235** (0.083)
Respondent age		0.425*** (0.022)	0.401*** (0.022)
Respondent female		0.240*** (0.047)	0.258*** (0.046)
Respondent native born		0.343** (0.114)	0.339** (0.113)
Mother age		-0.024*** (0.003)	-0.025*** (0.003)
Parent educational attainment, reference = less than high school			
High school diploma or GED		-0.123 (0.075)	-0.001 (0.075)
Some college		-0.390*** (0.079)	-0.223** (0.081)
College degree or higher		-0.866*** (0.083)	-0.615*** (0.084)
Completed parent survey		-0.010 (0.066)	0.010 (0.069)
Respondent number of siblings			-0.017 (0.019)
Respondent reports verbal/physical/sexual abuse prior to age 12			0.052 (0.048)
Respondent quite or extremely close to biological mother			-0.211** (0.066)
Respondent quite or extremely close to biological father			-0.226*** (0.049)
Respondent reports drugs available at home			-0.188 (0.117)
Respondent delinquency			0.222** (0.072)
Respondent exposure to violence			0.559*** (0.115)

Table 3. *Continued.*

	Model 1 Unadjusted	Model 2 + Basic controls	Model 3 + Extended controls
Parent household income, log			-0.171*** (0.035)
Parent has enough money to pay bills			-0.148* (0.059)
Mother or father receives public assistance			0.055 (0.079)
Parent married			0.093† (0.051)
Parent drinks at least 3 days a week			-0.064 (0.097)
Parent reports drugs a big problem in neighborhood			0.147† (0.081)
Intercept	2.692***	-5.445***	-4.145***
F test	21.830***	64.700***	46.290***

Note. Analytic sample restricted to respondents younger than age 24. Standard errors are in parentheses. All models account for Add Health's stratified sampling design.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).

paternal incarceration, about 50% first experienced it in early childhood (ages 0 to 6), 33% in middle childhood (ages 7 to 12), and 17% in adolescence (ages 13 to 17). About 47% of children who experienced any paternal incarceration experienced it only once, and 53% experienced it two or more times. Among respondents exposed to maternal incarceration, about 33%, 40%, and 28% experienced it in early childhood, middle childhood, and adolescence and 48% and 52% experienced it once and more than once, respectively. Results showed the timing of parental incarceration was not differentially associated with the summary indicator of adulthood transitions. Results also showed that paternal incarceration chronicity was not differentially associated with adulthood transitions but that, relative to children exposed to one maternal incarceration spell, children exposed to more than one maternal incarceration spell experienced more adulthood transitions ($p = .083$ after adjusting for all covariates).

Estimating individual measures of adulthood transitions. These analyses are limited because they did not consider the individual (subjective and behavioral) measures of the transition to adulthood, all of which may have different implications for well-being. We consider these individual indicators in Table 4. With respect to the first subjective indicator, perceived age,

Model 1 showed that paternal incarceration was associated with a greater likelihood of having a perceived age that is older than one's objective age ($b = 0.528$, odds ratio [OR] = 1.70, $p < .001$). These associations persisted when adjusting for a limited set of controls ($b = 0.443$, OR = 1.56, $p < .001$) and an extended set of controls ($b = 0.292$, OR = 1.34, $p = .006$).

With respect to the second subjective indicator of the transition to adulthood, Model 1 showed that paternal incarceration was associated with a greater likelihood of feeling like an adult all the time ($b = 0.403$, OR = 1.50, $p < .001$). This association remained statistically significant in Model 2 ($b = 0.222$, OR = 1.25, $p = .044$) but not in Model 3 ($b = 0.151$, OR = 1.16, $p = .176$). Maternal incarceration was associated with a greater likelihood of feeling like an adult all the time in Models 1 and 2 and remained marginally significant in Model 3 ($b = 0.365$, OR = 1.44, $p = .074$). In supplementary analyses, which further adjusted for the behavioral indicators of the transition to adulthood, we found paternal incarceration was associated with perceived age ($b = 0.260$, OR = 1.30, $p = .014$), and maternal incarceration was associated with feeling like an adult ($b = 0.340$, OR = 1.41, $p = .088$), suggesting that parental incarceration was associated with perceived adulthood above and beyond behavioral transitions made.

Table 4. Logistic Regression Models Estimating Individual Transition to Adulthood Outcomes as a Function of Paternal and Maternal Incarceration (N = 10,937)

Outcome variable	Model 1		Model 2		Model 3	
	Unadjusted		+ Basic controls		+ Extended controls	
	<i>b</i>	<i>OR</i>	<i>b</i>	<i>OR</i>	<i>b</i>	<i>OR</i>
Subjective measures						
A. Perceived age is older than objective age						
Paternal incarceration between ages 0 and 17	0.528 (0.100)	1.70***	0.443 (0.102)	1.56***	0.292 (0.102)	1.34**
Maternal incarceration between ages 0 and 17	0.273 (0.210)	1.31	0.192 (0.203)	1.21	-0.006 (0.204)	0.99
B. Feels like an adult all the time						
Paternal incarceration between ages 0 and 17	0.403 (0.102)	1.50***	0.222 (0.108)	1.25*	0.151 (0.111)	1.16
Maternal incarceration between ages 0 and 17	0.622 (0.180)	1.86**	0.461 (0.191)	1.59*	0.365 (0.202)	1.44†
Behavioral measures						
C. Not enrolled in school						
Paternal incarceration between ages 0 and 17	0.665 (0.111)	1.94***	0.412 (0.117)	1.51**	0.238 (0.122)	1.27†
Maternal incarceration between ages 0 and 17	0.786 (0.230)	2.19**	0.682 (0.251)	1.98**	0.486 (0.277)	1.63†
D. Full-time employment						
Paternal incarceration between ages 0 and 17	-0.013 (0.098)	0.99	-0.065 (0.104)	0.94	-0.079 (0.106)	0.92
Maternal incarceration between ages 0 and 17	0.276 (0.218)	1.32	0.374 (0.231)	1.45	0.352 (0.234)	1.42
E. Lives on own						
Paternal incarceration between ages 0 and 17	0.203 (0.105)	1.23+	0.253 (0.106)	1.29*	0.167 (0.106)	1.18
Maternal incarceration between ages 0 and 17	0.137 (0.196)	1.15	0.257 (0.202)	1.29	0.129 (0.202)	1.14
F. Ever married						
Paternal incarceration between ages 0 and 17	0.282 (0.134)	1.33*	0.196 (0.131)	1.22	0.110 (0.134)	1.12
Maternal incarceration between ages 0 and 17	-0.053 (0.282)	0.95	-0.028 (0.304)	0.97	-0.150 (0.290)	0.86
G. Had a child						
Paternal incarceration between ages 0 and 17	0.715 (0.118)	2.04***	0.468 (0.129)	1.60***	0.281 (0.130)	1.32*
Maternal incarceration between ages 0 and 17	0.468 (0.241)	1.60†	0.262 (0.238)	1.30	0.005 (0.233)	1.01

Note. Analytic sample restricted to respondents younger than age 24. Panels A through G estimate each of the seven dependent variables. Coefficients for paternal incarceration between ages 0 and 17 (compared to no paternal incarceration) and maternal incarceration between ages 0 and 17 (compared to no maternal incarceration) are presented. Models 1, 2, and 3 correspond to Models 1, 2, and 3 in Table 3. Standard errors are in parentheses. All models account for Add Health's stratified sampling design.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).

Next we considered the five behavioral indicators of the transition to adulthood. The most conservative model, Model 3, suggested that paternal and maternal incarceration were associated with not being enrolled in school ($b = 0.238$, $OR = 1.27$, $p = .055$ and $b = 0.486$, $OR = 1.63$, $p = .082$, respectively) and paternal incarceration was associated with a greater likelihood of having had a child ($b = 0.281$, $OR = 1.32$, $p = .032$).

DISCUSSION

The transition to adulthood is an increasingly important life course period and, because of both demographic changes in family life and the increasing number of individuals obtaining higher education, this life course period has become longer and less standardized. In this article, we use data from Add Health—a nationally representative study designed to, among other things, understand the correlates and consequences of the transition to adulthood—to examine how parental incarceration structures adulthood transitions. This article contributes to existing literature by providing the first comprehensive examination of the relationship between parental incarceration and both subjective and behavioral adulthood transitions, extending our knowledge about the intergenerational consequences of parental incarceration.

The results suggest three main conclusions. First, we found that both paternal and maternal incarceration in childhood and adolescence (between ages 0 and 17) was associated with a greater number of adulthood transitions, measured as a constellation of subjective and behavioral indicators between ages 18 and 23. This suggests that parental incarceration may accelerate the life course of offspring. Relatedly, we found that the timing of parental incarceration matters little in predicting the number of adulthood transitions and that maternal incarceration chronicity, but not paternal incarceration chronicity, was associated with a greater number of adulthood transitions. We caution putting too much weight on the differences in the consequences of maternal and paternal incarceration chronicity, as the paternal incarceration and maternal incarceration coefficients are not statistically different from one another. By and large, both paternal incarceration and maternal incarceration are similarly associated with adulthood transitions.

Second, as examining the summary measure of adulthood transitions potentially obscures qualitatively different types of transitions, we examined individual transitions and found that the consequences of parental incarceration depend on the outcome. We found that parental incarceration is associated with subjective transitions (in particular, paternal incarceration was associated with having a perceived age older than one's objective age and maternal incarceration was associated with feeling like an adult all the time), suggesting that parental incarceration has implications for offspring's identity and self-concept, as it does for their incarcerated parents (Arditti, 2012). These results provide additional evidence that transitions to adulthood in contemporary American society have a strong subjective dimension, corroborating recent research that the transition to adulthood is more complicated than when only considering behavioral transitions (Silva, 2012). Future research should examine the decoupling of objective and subjective transitions and its consequences for generating family inequalities.

Third, we found limited evidence that parental incarceration is associated with behavioral outcomes. We find that both paternal and maternal incarceration was positively associated with not being enrolled in school and that paternal incarceration was positively associated with having had a child, a finding that indicates parental incarceration curtails one of the few avenues for upward mobility in contemporary America. Nevertheless, we found that parental incarceration, above and beyond characteristics that lead to parental incarceration, was not associated with full-time employment, living on one's own, or marriage. A possible link between parental incarceration and school enrollment results from children leaving school to take on adult responsibilities, but it may also result from the fact that children of incarcerated parents experience lower grades and test scores than their counterparts (Foster & Hagan, 2007), the latter of which is especially likely given the predominantly null results for the other behavioral indicators of adulthood. These null results, in conjunction with the statistically significant unadjusted differences, suggest that characteristics associated with parental incarceration—such as race or ethnicity and parental educational attainment—render the relationship parental incarceration and behavioral transitions spurious. It is also possible

that these null average results mask significant heterogeneity in associations across subgroups, an important direction for future research.

Taken together, these findings are consistent with family stress process theory (Conger et al., 1990). Parental incarceration is a stressor that reverberates from the incarcerated to the family members of the incarcerated, which then accelerates adulthood transitions (Turney, 2014b). The findings suggest that the life course consequences of parental incarceration, similar to other types of hardship (e.g., Johnson & Mollborn, 2009), extend beyond adolescence and persist as youth transition to adulthood (for other research on postadolescent outcomes, see, e.g., Foster & Hagan, 2013; Mears & Siennick, 2015; Roettger & Swisher, 2011). These accelerated adulthood transitions are consistent with Burton's (2007, p. 329) notion of adultification, which suggests that children can "assume extensive adult roles and responsibilities within their family networks." Parental incarceration, and the corresponding loss of economic and social resources, may push children into adult roles more quickly than their counterparts (Burton, 2007).

Limitations

The Add Health study—with its nationally representative sample, longitudinal design, and rich measures of the transition to adulthood—is the most appropriate data source for pursuing our research questions, but limitations exist. First, these analyses preclude documenting a causal relationship between parental incarceration and adulthood transitions. In addition, as described earlier, we cannot always establish proper time ordering between the independent and control variables. Many of the control variables, measured at Wave 1, are likely endogenous to parental incarceration. This means that our final model may be an upper bound estimate of this association and that we cannot precisely estimate the mechanisms linking parental incarceration to accelerated transitions to adulthood, an important direction for research using different data.

There are limitations to the measurement of both parental incarceration and the transition to adulthood. For example, incarceration histories are unavailable. Relatedly, the transition to adulthood is certainly more complex than simply considering subjective and behavioral

indicators individually or by summing together these indicators. The combination of these measures is likely a more important predictor of future life course outcomes than any one individual measure. Future research should also examine how parental incarceration is associated with the clustering of transitions, the timing of transitions, the sequencing of transitions, and lengthy transitions, as well as examine transitions that occur after age 24 (as transitions such as marriage and childbearing become more normative in the late 20s) and how caregiver stability or instability during and after parental incarceration mediates or moderates the link between parental incarceration and adulthood transitions.

Finally, there are limitations regarding the sampling design. Add Health is a representative school-based sample of American children, which excludes individuals who have dropped out before data collection began (and, therefore, older respondents may be more selective than younger respondents). Because it is likely that high school dropouts are most likely to experience both parental incarceration and adulthood transitions, their absence is noteworthy, although the direction of potential bias is unclear. The inclusion of high school dropouts may strengthen the relationship between parental incarceration and transitions to adulthood, as they have already experienced one transition (leaving school). Conversely, the inclusion of high school dropouts, who are likely disadvantaged across a host of characteristics, may show the relationship between parental incarceration and adulthood transitions results from social selection (or the idea that unmeasured variables may render the relationship between parental incarceration and adulthood transitions spurious).

Conclusion

How youth transition to adulthood in the United States has become increasingly unequal, with advantaged youth experiencing lengthened transitions to adulthood and disadvantaged youth experiencing increasingly accelerated pathways to adulthood. However, the correlates of adulthood transitions, which are consequential for later life course trajectories, are not completely understood, and this study suggests that parental incarceration is linked to adulthood transitions. Because there are a disproportionate number of poor and minority children who

experience parental incarceration, many of whom are transitioning to adulthood without a safety net (Osgood et al., 2005), this has implications for increasing race, ethnic, and social class disparities in the transition to adulthood (Furstenberg, 2010). Indeed, young adults with a history of parental incarceration may benefit from supports to ease the transition to adulthood. Attention to young adults' subjective feelings of adulthood, potentially via supports in high school, may be especially important in setting the stage for a successful transition to adulthood. Furthermore, these findings suggest that the historically and comparatively high imprisonment rates in the United States have transformative consequences for adulthood transitions and, more generally, highlights an important way in which the prison boom has intergenerational consequences.

NOTE

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix Table A. *Correlation Matrix of Transition to Adulthood Indicators (N = 10,937)*

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