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The Impact of Juvenile Correctional Confinement on the Transition to Adulthood

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Abstract

Justice-involved adolescents face significant roadblocks in the transition to adulthood when they navigate this period (roughly ages 18-25) while simultaneously reentering the community after a period of confinement. To explore this double transition, this study investigates how confinement delays the development of psychosocial maturity and in turn, how this affects the transition to adulthood. The study uses nationally representative data from the National Longitudinal Study of Adolescent Health (Add Health) to compare psychosocial maturity for three groups of adolescents: those placed in juvenile confinement before age 18, those who are arrested before age 18 but not confined, and those with no criminal justice involvement in adolescence. Psychosocial maturity is measured along three dimensions, responsibility, temperance, and perspective at Waves 1 (baseline, average age = 15.44) and Wave 3 (post-confinement, average age = 21.95) to assess the effects of confinement and psychosocial maturity development on the attainment (or non-attainment) of markers of a successful transition to adulthood at Wave 4 (average age = 28.31). Findings show significantly lower levels of psychosocial maturity measures for responsibility and perspective for confined youth compared to both non-delinquent and non-confined youth. Subsequently, confined youth have lower levels of educational and employment attainment in young adulthood compared to all other youth. Results suggest the need for juvenile facilities to rely less on correctional control and to incorporate programming that allows juveniles to build psychosocial maturity skills through activities that mirror typical adolescent responsibilities, behaviors, and tasks.

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INTRODUCTION

Being released from a correctional facility and transitioning to the community is difficult regardless of age. Justice-involved adults face numerous challenges upon release from prison including lack of access to employment and housing, barriers to civic reintegration, lack of social and family support, and the stigma of a felony conviction, all of which are risk factors for future criminal justice involvement (see Laub and Sampson 2003; Manza and Uggen 2006; Petersilia 2003; Travis and Petersilia 2001; Uggen 2000; Western 2002). Juveniles in confinement not only face the above reentry challenges but they also reenter the community with foregone or delayed development of key skills related to the successful transition to adulthood (e.g., finding and securing afterschool and summer jobs, establishing romantic relationships, selecting and registering for high school coursework, etc.) due to the restrictive environment in juvenile correction facilities (Steinberg, Chung, and Little 2004).

Time spent in correctional facilities affects youths' developmental trajectories, specifically their psychosocial maturity (PSM) development (Dmitrieva et al. 2012). The concept of psychosocial maturity includes three aspects of maturity generally referred to as *temperance* (control impulses), *responsibility* (resist peer influences and take responsibility for own behavior, and *perspective* (consider the implications of one's actions on others and other points of view). In particular, placement in a secure setting is associated with short-term declines in the adolescents' temperance, ability to function autonomously (responsibility), and may further dampen youths' hopes for the future (perspective). Although prior work suggests confinement impacts the development of PSM and increases subsequent recidivism, it raises the question of how delayed development of PSM caused by adolescent correctional confinement subsequently impacts youths' ability to capitalize on opportunities for success in adulthood. Concisely, this study is guided by the question: how does adolescent correctional confinement disrupt the development of psychosocial maturity and what are the long-term effects of this disruption on attainment in young adulthood?

CURRENT STUDY

The purpose of the current study is twofold: 1) to understand how confinement interrupts the development of PSM, and 2) to examine whether and how PSM predicts attainment of traditional adult markers of success such as education, employment, positive interpersonal

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relationships (Finlay, Wray-Lake, and Flanagan 2010; Massoglia and Uggen 2010; Shanahan 2000; Steinberg et al. 2004). Guided by prior research, we hypothesize that adolescents who are confined before age eighteen will experience delays in psychosocial maturity development and subsequently have diminished educational and work attainment in young adulthood. Findings from the current study advance knowledge in two important ways.

1. By utilizing the National Longitudinal Study of Adolescent Health (Add Health) to assess how confinement influences the development of PSM, the study can construct three groups: non-delinquent youth, youth who were arrested but not confined before age 18 (delinquent non-confined), and delinquent youth serving at least six months in placement (delinquent confined) to age eighteen to compare development and changes in PSM over time.
2. The study examines how changes in PSM pre- and post-confinement (roughly ages 15 and 21) impact attainment or nonattainment of traditional markers of a successful transition to adulthood measured by educational attainment, employment, and union formation (e.g. marriage or cohabitation) in the late 20s.

Psychosocial Maturity

Greenberger and Sorenson (1974) developed the concept of psychosocial maturity to address how the educational environment impacts personal and social growth beyond the traditional markers of achievement of cognitive skills measured by standardized test scores. Most broadly, psychosocial maturity is defined as the capacity for an individual to integrate the skills necessary for both socialization and individual development to meet the demands society requires of a mature adult (Greenberger and Sorenson 1974). Embedded in this concept are three universal aspects of individual development central to the overall development of psychosocial maturity; a mature individual will: 1) display an ability to operate autonomously (e.g., sense of control, initiative, internalized values); 2) display attributes that represent one's ability to interact with others (e.g. empathy, rational dependent, management of role conflict); and 3) encourage society to function smoothly (e.g. willingness to work for social goals, tolerance of individual and cultural differences). Further, and of great importance to this study, Greenberger (1984) argues that PSM does not simply occur due to biological maturation, but rather the development of PSM is more contingent upon the *opportunities* for development. Specifically, reciprocal

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interactions between individuals within social environments create the "opportunity structures" necessary for PSM development (Steinberg et al. 2004).

Scholars have explored how Greenberger's original concept of PSM could be applied to decision-making in other arenas, particularly one's "maturity of judgment" (Cauffman and Steinberg, 1995). Steinberg and Cauffman (1996) argue that three specific dispositions (responsibility, temperance, and perspective) associated with PSM, along with cognitive competence, impact an adolescent's ability to make mature decisions. As individuals mature along these three dimensions, they are less likely to engage in antisocial or criminal behavior (Cauffman and Steinberg 2000, Steinberg, Cauffman, and Monahan 2015). The current study uses the following three dispositions to operationalize the broad construct of psychosocial maturity (see Cauffman and Steinberg 1995, 2000; Steinberg and Cauffman 1996 for validation of these dispositions).

Responsibility

Responsibility relies on two characteristics: autonomy and identity. Common attributes associated with responsibility include one's ability to make decisions in the absence of others (i.e. knowing when to accept advice from others and resisting peer influence). Responsibility also captures dispositions that are related to one's identity including clarity of one's self, confidence, awareness of personal strengths and weaknesses, and consideration of life goals (Steinberg and Cauffman 1996).

Temperance

Temperance, or emotional functioning, relates to adolescents' ability to moderate their emotions for cognitive processes. Specifically, Steinberg and Cauffman (1996) define temperance as an adolescent's ability to control impulses and use self-restraint when faced with risk-taking opportunities. The concept takes into account adolescent mood as an important factor impacting youths' judgment, particularly for mature decision-making.

Perspective

Perspective refers to a collection of dispositions that "permit the adolescent to frame a decision within a 'bigger picture'" (Steinberg and Cauffman 1996: 262). Dispositions related to

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perspective support mature judgment, including one's ability to understand both short-term and long-term consequences, to understand how decisions impact society, and to appreciate diverse perspectives.

Cauffman and Steinberg (2000) argue that both cognitive and noncongnitive factors (such as responsibility, perspective, and temperance) impact an adolescent's judgment to make decisions. The current study explores how the development of these noncognitive factors of PSM differs across three groups of adolescents based on justice involvement, in particular confinement.

The Context of Confinement and Development Psychosocial Maturity

As stated above, the development of PSM, measured by responsibility, temperance, and perspective, is achieved through the opportunity structures and reciprocal interactions during adolescence. For the general population of adolescents, daily tasks and interactions within social environments (e.g. family, school, and with peers) allow adolescents to develop psychosocial maturity and achieve the necessary skills to successfully transition to young adulthood (Dmietriva et al. 2012; Monahan, Steinberg, Cauffman and Mulvey 2009, 2011). The "typical" opportunity structures that create "well-rounded" young adults consist of school and work activities, extracurricular activities and social relationships. Specifically, research shows that work (both paid and unpaid) during adolescence can inhibit antisocial behavior while also increasing independence (responsibility) and increasing future employment prospects (perspective) (Johnson, Beebe, Mortimer, and Snyder 1998; Mortimer 2003; Uggen and Janikula 1999, Wilson 2000). Further, extracurricular activities during adolescence are associated with higher grades in high school and higher rates of college enrollment and graduation (perspective), while the peer context of activities shapes adolescents' identities (responsibility) (Eccles, Barber, Stone, and Hunt 2003). The formation of social relationships during adolescence, from friendships to romantic relationships, provides a supportive environment for adolescents who are experimenting with new (adult) roles and identities (Mortimer and Call 2001).

However, correctional disruptions such as out-of-home placement during adolescence create challenges to a youth's psychological development and maturation by "knifing off" opportunities for development. Because juvenile correctional facilities operate under strict surveillance and are gender-segregated, the social context for development changes; confined

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youth are not able to practice skills associated with developing perspective (e.g., consideration for others and future orientation), responsibility (autonomous decision-making and resistance to peer influence) and temperance (e.g., self-control and suppression of anger) that in turn promote the successful transition to adulthood (Chung, Little, and Steinberg 2005).

Juvenile correctional facilities are highly structured and often emphasize strict control (evidenced by locked day and sleeping areas, razor wire fencing, and limited access to family and friends) over rehabilitation (Sedlak, McPherson, and Basena 2013). As such, the context of confinement differs significantly from the "typical" juvenile social context that includes the freedom to choose one's own friendships and extracurricular activities, the support of family and friends, and the experience and skills gained in educational and vocational pursuits. Of particular relevance to this study, correctional confinement during adolescence takes away the reciprocal interactions and opportunities to develop PSM that may in turn delay or foreclose attainment of successful markers of transition for adulthood.

To understand the context of adolescent confinement, we offer descriptive analyses of the 2003 Survey of Youth in Residential Placement (SYRP). The SYRP contains information on both physical facilities and demographic, background, and criminal justice involvement from a representative sample of 7,073 youth in confinement across the United States (Sedlak 2003). The survey also includes additional information on individual offense histories, service needs and use during confinement, perceptions about safety and security, and future expectations. Table 1 provides a descriptive snapshot of the context of confinement for youth in detention or training schools[1]. According to Table 1, corrections administrators report that a majority of the detention and training school facilities employ the use of locks to restrict movement within the facility, including locked sleeping rooms (80.5%), locked day room doors (78.7%), locked buildings (86.6%), and an external wall with razor wire (58.5%). Responses from youth show that approximately one-third of confined youth report being disciplined by placement in solitary confinement (i.e., locked up alone), 34.4% report being confined to their room, and 53.7% report the longest time being locked into their room exceeds one day but less than one month.

Compared to the general public, youth confined to detention or training schools have

[1] The subsample is restricted to detention or training school to represent the most likely type of placement for youth in 2003. According to the Census of Youth in Residential Placement, 83.2% of youth in placement resided in detention, training schools, or long-term secure placement. Thus, restricting our analysis of SYRP data to this subsample most likely captures the type of placement youth confined in our Add Health data.

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higher rates of victimization.[2] Even with restrictions on movement within a juvenile facility, youth state that they fear for their safety and that victimizations are prevalent within the facility. According to Table 1, 45% of confined report some form of victimization while confined; 43.8% state they were a victim of stolen property; 31.1% of youth were physically or verbally assaulted in the facility, and of those incidents 9.6% resulted in injury. In addition to physical, verbal, and property victimizations, 40.1% of youth state they believe staff uses force when it is not necessary. Thus, it is not surprising that youth report fear, particularly 15.1% state fear makes it difficult to sleep. Coupled with the lack of sense of care from staff (31.9% of youth report that staff generally care) and limited contact with family (22.9% report having contact with family less than once a week, the conditions of confinement are less likely to provide the opportunity structures and reciprocal relationships to develop PSM among confined adolescence. We hypothesize that this in turn, will limit justice-involved youths' successful transitions to adulthood.

DATA FOR ANALYSIS

The National Longitudinal Study of Adolescent Health (Add Health).

The National Longitudinal Study of Adolescent Health (Add Health) provides a longitudinal, nationally representative sample of adolescents in grades 7-12 during the 1994-1995 school year. From school rosters, 20,745 students completed in-home Wave 1 interviews, which were augmented with audio computer assisted self-interviews. Follow up interviews were conducted in 1996 (Wave 2, N=14,738) and 2001-2002 (Wave 3, N=15,197). The most recent wave of data (Wave 4, collected in 2008) includes 15,701 respondents ranging in age from 25-32.

Add Health data provide many advantages for the goals of the current research. First, Add Health offers data points throughout adolescence and the transition to adulthood, across 15 years from the mid-teens to the early 30s. Specifically, Wave 1 captures adolescents before the onset of serious delinquency and by Wave 4 most have desisted from crime (Sickmund and Puzzanchera 2014). Second, Add Health is drawn from a nationally representative sample from school rosters and thus includes adolescents missed by many in-school samples (that might

[2] The National Crime Victimization Survey (NCVS) reports that approximately 1.1% of individuals age 12 or older experienced a violent victimization and 8% experience a property crime. See Langton and Truman (2015) http://www.bjs.gov/index.cfm?ty=pbdetail&iid=5366.

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exclude adolescents in alternative school settings, drop-outs, and truants). Third, the variety of social, psychological, developmental, educational, employment, and behavioral variables make Add Health ideal for examining the transition to adulthood in the current study.

The current research uses retrospective reports from Wave 4 to measure adolescent confinement. Respondents report on any arrests and periods of detention, jail, or prison before or after age 18. The analytic sample consists of 162 respondents who report any correctional confinement before age eighteen, 396 respondents who report an arrest before age 18 but who did not experience juvenile correctional confinement, and 11,606 non-delinquent youth yielding a total sample size of 12,164. Adolescents placed in correctional facilities report an average of just under one year in detention (10 months). Full descriptive information is found in Table 2.

ADD HEALTH MEASURES

Psychosocial Maturity

To assess the development of psychosocial maturity prior to confinement and post-confinement, we use questions from Add Health Wave I (pre-confinement) and Wave III (post-confinement) to develop measures for the dispositions of responsibility, temperance, and responsibility. Table 3 outlines the Add Health questions used to develop each psychosocial maturity construct.

Responsibility

We operationalized the disposition of responsibility in both Wave 1 and Wave 3 through the creation of global responsibility scale at each wave. As shown in Table 3, the responsibility scale focuses on questions that ask respondents to rank their agreement with statements about their personal qualities, general self-esteem, and connectedness to others. The Wave 1 measure follows the work of Keeler (2010) and uses six questions asking if adolescents agree or disagree with the following: 1) they have a lot of good qualities, 2) they have a lot to be proud of, 3) they like themselves just the way they are, 4) they feel they are doing everything just about right, 5) they feel socially accepted, and 6) they feel loved and wanted. Scores on individual items range from 1 (strongly disagree) to 5 (strongly agree). Together, an averaged scale of these items ranges from 1-5, with a weighted mean of 4.11 and a Cronbach's alpha value of 0.85.

To measure change in responsibility post-confinement, we also create a responsibility scale at Wave 3. Table 3 shows the five questions used to measure responsibility at Wave 3. The final (item average) scale ranges 1-5 with a weighted mean of 3.96 an alpha of 0.75.

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Temperance

Temperance refers to one's emotional functioning, ability to control impulses and use self-restraint in making judgments and decisions. We operationalize temperance in Wave 1 using two scales. One scale assesses the impulsivity dimension of temperance, while the other scale assesses the self-control dimension of temperance. As shown in Table 3, the impulsivity dimension focuses on questions that ask respondents how much they agree or disagree (on a scale of 1 to 5, where higher values indicate greater impulsivity) with several items asking about their problem-solving behaviors and work ethic (e.g. thinking of as many different ways to approach the problem as possible, getting what you want because you worked hard for it). This scale has an average of 2.23 and an alpha of 0.71. The second temperance scale assesses self-control. These items include responses about trouble getting along with others, paying attention and getting work done (on a scale of 1 to 4). This scale has Cronbach's alpha of 0.68 and an average of 2.63.

Again, to measure change in PSM post-confinement, we create a six-item temperance scale at Wave 3 that asks respondents about things such as following their instincts, getting so excited they lose control, and going out of their way to avoid problems. The Wave 3 scale has a Cronbach's alpha 0.74 and a mean of 3.55 (on a scale of 1 to 5).

Perspective

To assess perspective (mature judgment and ability to see the "bigger picture") at Wave 1, we create two subscales; the first captures the social-temporal dimension of perspective, and the second captures future orientation. The social-temporal scale follows Keeler's (2010) measurement and includes questions that ask respondents how true each of the following has been for them in the past week: 1) enjoyed life, 2) felt just as good as other people, and 3) felt hopefully about the future. The scale ranges from 0 to 3, with an average of 1.99 and an alpha value of 0.63. The second scale for perspective, future orientation, incorporates respondents' answers to questions about how likely they think three events are: 1) living to age 35, 2) being killed by age 21, and 3) getting HIV/AIDS (the latter two reverse coded). The scale has an alpha score of 0.57 and a mean of 4.42 (see Table 3 for additional information).

Similar replication of the above perspective subscales occur at Wave 3, using an average of two items (enjoying life and feeling just as good as other people) in order to capture the

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social-temporal dimension of perspective. Here, scores range from 0 to 3 with a mean of 1.99. Two additional single items capture future orientation: living to age 35 and whether or not respondents live their lives without consideration for the future. Each item ranges from 1 to 5, with higher scores indicating greater levels of future orientation.

Outcome measures

Outcome measures are derived from Wave 4. Transition to adulthood is measured along three dimensions: education, employment, and relationship formation. Education is measured via highest degree attainment, including a dichotomous measure to assess lack of high school completion (25% of respondents) and attainment of a four-year college degree (roughly one-third of respondents). Employment is measured via full time employment status (30+ hrs per week) based on the combination of all jobs. Over half of respondents work full-time. Of those who are employed, a follow-up measure asks if respondents' jobs are part of their long-term career goals, either as a career itself or as preparation for career work. Seventy percent of workers are in career-type work by the late 20s. Finally, union formation is measured by marriage and cohabitation. Here, the outcome measure captures ever reporting a residential union. Roughly half of respondents are married and half report ever cohabiting. The measures of marriage and cohabitation are not mutually exclusive; while roughly half report either measures, together, 84% have either married *or* cohabited by their late twenties and early thirties (results not shown).

Control measures

The following demographic variables are controlled for in all models: age, race/ethnicity (black, Hispanic, other, compared to white), family structure (step family, single-parent, or other, compared to the omitted category two-parent intact family), highest educational attainment by either parent, gender (captured at the Wave 4 survey), and residential location in adolescence (suburban, urban, or rural). Table 2 shows descriptive information for all measures. Roughly one-third of the sample is non-white, with an average age of about 15 and a half at Wave 1 and just over 28 at Wave 4. Just over half of all adolescents lived with both parents at Wave 1, with over one-third of adolescents having at least one parent that completed college. Respondents are fairly evenly split between rural, urban, and suburban residence.

General delinquency is controlled for in Wave 1 using a summative measure of eleven adolescent behaviors (graffiti and property damage, theft, and fighting), each of which is scored

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as a 4-level ordinal measure (0-3); the general delinquency scale thus ranges from 0 to 33. This summative measure accounts for any remaining differences in delinquency not captured by the key measure of confinement in adolescence. The average delinquency level for all youth is 2.33, while those in the two delinquent groups report significantly higher (and statistically similar) levels of delinquency at Wave 1 – 6.92 for those who will be confined and 6.04 for those who will be arrested but not confined (t=1.23, *ns*).

METHOD

Analyses begin with significance tests to assess group-level differences in means for each measure of psychosocial maturity at Wave 1 and Wave 3. Next, the effects of confinement on psychosocial maturity in young adulthood are measured using standard regression models. Here, a lagged dependent variable is included to account for any differences in the baseline (Wave 1) measure of psychosocial maturity. The lagged variable model takes the following form: $Y_t = \beta_1 + \beta_2 X_t + \beta_3 Y_{t-1} + \varepsilon_t$, a standard regression equation with the inclusion of the $\beta_3 Y_{t-1}$ term representing the baseline measure of the dependent variables (in this case, the Wave 1 measure of psychosocial maturity). The model isolates the effect of confinement on development by minimizing any stable within-person or unmeasured elements psychosocial maturity.

Finally, to assess juvenile confinement effects and PSM affect attainment in early adulthood, we use logistic regression models for each outcome measures first assess the effect of confinement on our attainment measures (net of controls) and second include Wave 3 psychosocial maturity (the more proximal measure) to determine whether and how psychosocial maturity diminishes any direct effect of juvenile confinement on young adult attainment.

RESULTS

Differences in Psychosocial Maturity across Groups

Results in Figure 1 show differences in PSM levels across groups in adolescence (Wave 1). Non-delinquent adolescents report significantly higher levels of temperance self-control than delinquent youth (non-confined or confined) (2.65 vs. 2.25 and 2.12, respectively) and future-orientation perspective (4.43 vs. 4.27 and 4.26, respectively). Non-delinquent youth have significantly higher baseline levels of responsibility and social-temporal perspective than delinquent confined youth (4.11 vs. 3.99 and 1.99 vs. 1.86, respectively). Delinquent non-

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confined and delinquent confined groups are statistically similar on all measures of PSM except responsibility. Thus, prior to subsequent detention, delinquent youth are fairly similar in their levels of psychosocial maturity.

Figure 2 shows differences in psychosocial maturity as youth enter early adulthood (Wave 3). Here all delinquent youth (non-confined and confined) report lower levels of perspective – believing they will live to age 35 than nondelinquent youth (4.56 and 4.32 vs. 4.66, respectively). Youth who were incarcerated during adolescence report significantly lower levels than either non-delinquent or delinquent non-confined youth, or both on all dimensions except social-temporal perspective. Confined youth report significantly lower levels of responsibility (3.38 vs. 3.96 for both other groups), temperance (3.18 vs. 3.57 for non-delinquent youth), and perspective – future orientation (3.40 vs. 3.94 for non-delinquent youth). It appears juvenile correctional confinement depresses delinquent youths' levels of responsibility and outlook for their future.

Psychosocial Maturity in Young Adulthood

Table 4 presents multivariate regression results for PSM post-confinement. For each of the five measures of PSM at Wave 3, Table 4 presents two models – the odd-numbered columns show results for confinement and our socio-demographic control measures regressed on PSM at Wave 3; the even-numbered columns build on the first model to include our lagged dependent variable (Wave 1 PSM) to help isolate the effect of confinement on PSM in young adulthood.

Model 1 of Table 4 shows youth confined in adolescence report significantly lower levels of responsibility in the transition to adulthood ($b = -0.13$) than their delinquent non-confined and non-delinquent peers, net of demographic differences, though these differences are reduced ($b = -0.11$, $p<.10$) when we account for baseline differences in psychosocial maturity. Models 3 and 4 suggest that delinquency rather than juvenile detention reduces temperance ($b = -0.20$ in model 4). Results for perspective – future orientation in models 5 and 6 show confined youth lag about a one-third of a point behind non-delinquent youth ($b=-0.32$ in model 4 and $b=-0.30$ in model 5), but again this difference is reduced to non-significance with the inclusion of our baseline measures of PSM. Further, models 7 and 8 show confined youth report significantly lower levels of perspective (prospects for living to age 35) than their non-delinquent and delinquent non-confined peers, even when controlling for baseline differences in psychosocial maturity and other demographic controls ($b=-0.22$ in the full model 8). Models 9 and 10 reveal that juvenile

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delinquency and confinement do not affect social-temporal perspective. Thus, after controlling for our lagged dependent variable (the baseline measures of PSM), juveniles who are incarcerated exhibit decreased responsibility and future-orientation relative to non-delinquent youth, and confined youth report significantly lower hopes of living to age 35 than both non-delinquent you and non-confined delinquent youth.

Confinement and Adult Transitions

Table 5 presents odds ratios for two models for each of six different measures of the transition to adulthood. Similar to Table 4, the odd-numbered columns show results for confinement and our socio-demographic control measures regressed on attainment at Wave 4; the even-numbered columns build on the first model to include Wave 3 PSM to assess whether and how psychosocial maturity diminishes any direct effect of juvenile confinement on young adult attainment. Model 1 shows young adults who were confined as adolescents are significantly less likely than delinquent youth to work full-time (OR 0.67 vs. 1.13). This effect is not reduced by the inclusion of psychosocial maturity in early adulthood (see model 2). Higher levels of social-temporal perspective are associated with greater odds of full-time employment (OR = 1.16). However, for young adults who are working, confinement and delinquency reduce (though not significantly) the odds of being in career-type work, while responsibility (OR = 1.39), temperance (OR = 1.20), and social-temporal perspective (OR = 1.10) are associated with higher odds of being in career-type work in young adulthood (see models 3 and 4)

Models 5-8 of Table 4 present odds for educational attainment in adulthood. Model 5 shows that net of demographic controls and PSM, confined young adults are over four times more likely not to complete high school (OR = 4.08). Youth who were arrested in adolescence but not confined are over twice as likely to not complete high school (OR = 2.45). When controlling for psychosocial maturity in early adulthood in model 6, formerly confined young adults are almost twice as likely non-confined delinquent youth to not complete high school (4.01 vs 2.31). Temperance and perspective – likelihood of living to age 35 significantly decrease odds of failing to complete high school; put conversely, temperance and perspective significantly increase the odds of completing high school.

Model 7 of Table 5 shows justice-involvement in adolescence (arrest or confinement) significantly decreases the likelihood of college completion by the late twenties (ORs = 0.38 and 0.04, respectively). Net of controls and psychosocial maturity (model 8), correctional

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confinement in adolescence reduces the likelihood of college completion by 96%. This is significantly lower even than the 59% reduction in odds of college completion for arrested but not confined adolescents. Temperance and two measures of perspective (likelihood of living to age 35 and social-temporal perspective) significantly increase odds of college completion (ORs = 1.44 and 1.39, respectively).

Finally, Models 9-12 present odds for union formation (marriage and cohabitation) in young adulthood. Confinement has no effect on the odds of marriage (models 9 and 10), however those who were arrested in adolescence but did not serve time in a correctional facility have roughly 30% lower odds of marriage than non-delinquent youth. Higher levels of responsibility (OR = 1.46) and temperance (OR = 1.34) are associated with increased odds of ever marrying by the late twenties. Criminal justice involvement in adolescence increases the odds of cohabitation (see models 11 and 12). Those who reported an arrest or correctional detention before age 18 are about twice as likely as those who did not experience a criminal justice intervention in adolescence to report cohabitation by early adulthood (ORs = 2.28 and 1.90 in model 12). Only one measure of PSM, temperance (emotional functioning and impulsivity), is associated with the odds of cohabitation; higher levels of temperance are associated with lower odds of cohabitation.

Figure 3 condenses the results in Table 5 to show the odds of adult transitions by criminal justice involvement. Net of demographic controls for age, gender, race, parental education, family structure, and residential location, and psychosocial maturity, adolescent criminal justice involvement (arrest or confinement) reduces the odds of attainment in young adulthood. Young adults who were confined as youth report significantly lower odds of full-time employment in their late 20s than youth who were arrested before age 18 but did not serve time in a juvenile correctional facility. Among those who work, delinquency is associated with reduced (though not significantly) odds of being in career-type work. Criminal justice involvement in adolescence increases the risk of high school non-completion and reduces the odds of college completion; for those who were confined as adolescents, odds of on-time college completion (by the late 20s) are reduced almost to zero (OR = 0.04). Finally, juvenile delinquency (arrest but not confinement) reduces the odds of marriage by the late 20s and any criminal justice involvement (arrest or confinement) increase the odds of cohabitation relative non-delinquent youth. We discuss the implications of these findings below.

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Implications for Criminal Justice Policy and Practice

The current research provides many implications for criminal justice policy and practice. First, this research fills a gap in the current literature related to the impact of juvenile confinement on the development of psychosocial maturity and the transition to adulthood. Qualitative research suggests that individuals reentering society from a period of confinement struggle in many facets of their life related to relationships, friendships, education, employment and chemical and mental health issues (Fader 2013; Abrams 2006). However, it is wrong to assume that juveniles recidivate simply as a product of what Fader (2013) terms "poor choices." Fader's work uncovered the complexity between incarceration and psychosocial maturity that ultimately made it difficult for young offenders to meet the demands and expectations of adulthood upon release. Our quantitative findings suggest that not only confinement, but also formal criminal justice involvement (arrest) negatively impacts outcomes for youth compared to youth who never experience confinement criminal justice intervention.

Importantly, prior to confinement, youth with similar levels of delinquency had roughly equal levels of psychosocial maturity. However, post-criminal justice involvement (confinement or arrest), delinquent youth lag behind their non-delinquent peers on the psychosocial maturity measures of temperance (impulsivity and control) and perspective (believing they will live to 35). But, *confined* youth have significantly lower development of responsibility and perspective compared to delinquent youth who are not confined. Therefore, as youth exit correctional facilities and struggle to transition to the community, they are lagging further behind other youth in their self-clarity, self-esteem, decision-making, and future orientation. This results in reduced likelihood of working full-time and dismal college completion rates by their late 20s. Despite hopes that a period of confinement can be the turning point leading youth out of future offending behavior, the barriers produced by the context of confinement have real consequences for the development of psychosocial maturity and attainment in adulthood. Comparing these findings with the adult desistance literature, confined youth struggle to achieve success in the exact areas shown to promote desistance from crime in adulthood: employment and education (see Laub and Sampson 2003; Maruna 2001).

The most robust finding in our analysis relates to educational outcomes for individuals in their late twenties and early thirties. Confined youth are four times more likely to *not* complete

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high school even when we control for psychosocial maturity. Thus, the combination of confinement with the decreased development of perspective leads to significantly lower levels of educational attainment. The decrease in the likelihood of high school completion also leads to a shocking reduction (96% reduction) in the likelihood of college completion for confined youth, net of all controls including parents' educational attainment and psychosocial maturity. This finding is particularly interesting considering that 92.8% of confined youth in the SYRP data report that they attend school in the facility. Thus, it appears the increased risk of not completing high school and the decreased odds of college completion are not from lack of educational *access* in juvenile correctional facilities but rather it appears the conditions of confinement, along with the decreased development of perspective and future orientation during this time, have long-term impacts post-confinement.

Findings from this study point to a few interventions for practitioners and juvenile correction administrators. First, formal criminal justice interventions, particularly confinement of youth, should be used as last resorts. It is important to point out here that our study uncovered that not only confined youth, but also arrestees (our delinquent non-confined sample) have poorer outcomes in the transition to adulthood. This suggests that it is not just delinquency (as we controlled for general self-reported delinquency) but rather formal juvenile justice intervention that leads to negative outcomes, an outcome surprising given this is the very system intervening on the "best interests of the child" (Feld 1995: 971). Therefore, even short-term stays in confinement can impact PSM development and success in adulthood. Although the national Juvenile Detention Alternatives Initiative (JDAI) has decreased the use of detention and increased the used of community-based alternatives, there continues to be just over 107,000 youth admitted to detention annually in the United States (Annie E. Casey Foundation 2014). We must continue to seek ways to divert youth not only from confinement but also from formal justice involvement.

Second, our findings suggest that practitioners and juvenile correction administrators change the conditions of confinement to promote greater development of psychosocial maturity, particularly related to the development of perspective. Research shows that delinquent youths' fears about their future exceed their hopes and long-term expectations for success (Osyerman and Markus 1990). Thus, even though a correctional facility may offer programs related to "events" that promote positive change, the context and ability for young adults to exercise

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developmental skills necessary to mature and subsequently translate these skills into successful outcomes in young adulthood is imperative for capitalizing on positive turning points (Chung et al. 2005; Steinberg et al. 2004). At the facility level, this could mean implementing a step-down process in the level of control over juveniles, particularly through transitional housing for confined youth. In the transitional housing structure, youth could investigate educational or vocational career paths in the community, while also allowing room for youth to fail and use this failure as an opportunity for development rather than a technical violation that sends them deeper into the justice system. For the "typical" adolescent, the transition to adulthood is marked with trial and error (e.g., loss of a job, romantic breakups, oversleeping for school) yet youth in highly regulated confinement environments experience few opportunities for developmental failure. This begs the question: how can one expect that confined youth understand failure as a developmental process rather than a projection of future outcomes? Programming in juvenile correctional facilities should allow room for autonomy and failure and subsequent teach youth to build on failure as a natural part of development.

We are not suggesting there is not a place for juvenile correctional facilities in society, but if and when the juvenile court deems confinement is required, it is necessary to revise the physical and programmatic structure of juvenile correctional facilities. For example, the Missouri Model replaces secure confinement facilities with smaller facilities with a group-home-like structure. This emphasizes the ability to integrate community-based interventions, closer proximity to family, independent decision-making, and wrap-around services for youth. Although preliminary findings examining the Missouri Model's outcomes do not explicitly test the development of PSM over time, the reduced recidivism and increased attainment of education and employment for youth in Missouri suggests that the restructured conditions of confinement may allow more room for PSM development, and in turn have positive outcomes as youth transition to the community and adulthood (Annie E. Casey Foundation 2010).

Limitations

This study is not without limitations. First, Add Health does not include information on the type or security of placement for confined youth; however it is likely that confined youth in the Add Health data were in detention or training facilities because on average, 65.1% of youth confined during 1997 (two years post Wave 1 collection and around the time many Add Health

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respondents would have been confined) resided in one of these two types of facilities (Sickmund et al. 2015). We have attempted to mitigate some of this limitation by using the SYRP to provide a picture of adolescent confinement in general terms. Second, Add Health survey items and questions change slightly across waves and thus the measures of psychosocial maturity in Waves 1 and 3 are not consistent. We have attempted to replicate measures to the extent possible and present the measures for Wave 1 and Wave 3 side-by-side in Table 3 to make differences in survey items and variable operationalization clear. Third, because Add Health data does not allow researchers to directly match each offence reported to a specific outcome, the study does not include measures of offense severity for youth arrested and confined. However, prior research by Snyder (2004) suggests that this might not matter. Finally, while we have controlled for many demographic factors, this research does not break down outcomes by race, gender, or socioeconomic status. Future research should explore how the effects of psychosocial maturity and criminal justice involvement on attainment in young adulthood vary across demographic groups.

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Table 1: Context of Confinement for Youth in Detention and Training Schools

	Weighted Sample %
Physical Conditions of Confinement	
Facility has locked sleeping rooms	80.50%
Facility has locked day room doors	78.70%
Facility has locked buildings	86.60%
Facility has external fence/wall with razor wire	58.80%
Restrictive Control within Facility	
Youth reports being placed in solitary confinement or locked up alone	33.60%
Locked in room	34.40%
Longest time locked in room (more than 1 day but less than 1 month	53.70%
Victimizations in Facility	
Youth experienced some form of victimization in facility	45%
Youth experienced property victimization	44%
Youth was physically or verbally assaulted in facility	31.10%
Youth received injury as result of physical victimization	9.60%
Staff use excessive force	8.80%
Youth states fear makes it difficult to sleep	15.10%
Interpersonal Relationships	
Belief that staff generally care about them	31.90%
Less than once a week	22.90%

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Table 2: Descriptive Information for all Variables

	Weighted Mean or % (Standard Error) or Sample N
Juvenile Confinement	
No Serious Delinquency	94.48%
	11,606
Confinement	1.71%
	162
Juvenile Arrest, no Confinement	3.81%
	396
Psychosocial Maturity (Wave 3)	
Responsibility	3.96
	-0.01
Temperance	3.55
	(0.01)
Perspective - Future Orientation	3.93
	(0.05)
Perspective - Live to 35	4.65
	(0.01)
Perspective - Social-Temporal	2.35
	(0.01)
Psychosocial Maturity (Wave 1)	
Temperance - Self-Control	2.63
	(0.01)
Temperance - Impulsivity	2.23
	(0.01)
Responsibility	4.11
	(0.01)
Perspective - Future Orientation	4.42
	(0.01)
Perspective - Social-Temporal	1.99
	(0.01)
Young Adult Outcomes	
Full-time Work	55.30%
	6,727
Career-type Work	70.64%
	5,652
No High School	9.61%
	1,169
College Completion	33.48%
	4,073
Ever Married	49.79%
	6,057
Ever Cohabited	48.35%
	5,881
Race	
White	55.84%

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	6,792
Black	20.75%
	2,524
Hispanic	15.71%
	1,911
Other Race	7.70%
	937
Female	50.57%
	6,629
Age (Wave 1)	15.44
	(0.12)
Age (Wave 4)	28.31
	(0.12)
Adolescent Delinquency	2.33
	(0.07)
Family Status	
Two-Parent Intact	57.08%
	6,881
Step Family	15.34%
	1,864
Single-Parent Family	22.25%
	2,796
Other Family Structure	5.34%
	623
Parent Education	
High School (or less)	36.44%
	4,198
Some College	29.68%
	3,597
College Completion	33.88%
	4,375
Residential Location	
Urban	32.65%
	4,338
Suburban	38.12%
	4,488
Rural	29.23%
	3,338
Total Sample Size	12,164

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Table 3: Psychosocial Maturity Constructs

Temperance	
Question Wave 1	***Question Wave 3***
Impulsivity. Alpha = 0.71	*Wave 3 Temperance Alpha = 0.74*
Do you agree or disagree with the following statement? When you have a problem to solve, one of the first things you do is get as many facts about the problem as possible.	I like it when people can do whatever they want, without strict rules and regulations
Do you agree or disagree with the following statement? When you are attempting to find a solution to a problem, you usually try to think of as many different ways to approach the problem as possible.	I often follow my instincts, without thinking through the details
Do you agree or disagree with the following statement? When making decisions, you generally use a systematic method for judging and comparing alternatives.	I sometimes get so excited that I lose control of myself
Do you agree or disagree with the following statement? After carrying out a solution to a problem, you usually try to analyze what went right and what went wrong.	I change my interest a lot because my attention often shifts to something else.
Do you agree or disagree with the following statement? When you get what you want, it's usually because you worked hard for it.	Do you agree or disagree with the following statement? You usually go out of your way to avoid having to deal with problems in your life.
	When making decisions, you usually go with your "gut feeling" without thinking too much about the consequences of each alternative.
Self-control. Alpha = 0.68	
How often have you had trouble: getting along with your teachers?	
In past school year, how often have you had trouble: paying attention in school?	
How often have you had trouble: getting your homework done?	
How often was the following true during the past week? You had trouble keeping your mind on what you were doing.	
Do you agree or disagree with the following statement? When you have a problem to solve, one of the first things you do is get as many facts about the problem as possible.	

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Perspective

Wave 1	***Wave 3***
Social-temporal. Alpha = 0.63	*Social-temporal. Alpha = 0.60*
How often was the following true during the past week? You enjoyed life.	How often was the following true during the past seven days? You enjoyed life.
How often was the following true during the past week? You felt you were just as good as other people.	How often was the following true during the past seven days? You felt you were just as good as other people.
How often was the following true during the past week? You felt hopeful about the future.	
Future orientation. Alpha = 0.57	*Future orientation (single items)*
What do you think are the chances that each of the following things will happen to you? You will live to age 35.	What do you think the chances that the following will happen to you? You will live to age 35. (single item)
What do you think are the chances that each of the following things will happen to you? You will be killed by age 21.	Do you agree or disagree that you live life without the consideration for future? (single item)
What do you think are the chances that each of the following things will happen to you? You will get HIV or AIDS.	

Responsibility

Wave 1	***Wave 3***
Alpha = 0.85	*Alpha = 0.75*
Do you agree or disagree with the following statement? You have a lot of good qualities.	Do you agree or disagree that you have many good qualities?
Do you agree or disagree with the following statement? You have a lot to be proud of.	Do you agree or disagree that you have a lot to be proud of?
Do you agree or disagree with the following statement? You like yourself just the way you are.	Do you agree or disagree that you like yourself just the way you are?
Do you agree or disagree with the following statement? You feel like you are doing everything just about right.	Do you agree or disagree that you feel you are doing things just about right?
Do you agree or disagree with the following statement? You feel socially accepted.	How satisfied are you with your life as a whole?
Do you agree or disagree with the following statement? You feel loved and wanted.	

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Table 4: Psychosocial Maturity in Young Adulthood

	1	2	3	4	5	6	7	8	9	10
	Responsibility	Responsibility	Temperance	Temperance	Perspective - Future Orientation	Perspective - Future Orientation	Perspective - Live to 35	Perspective - Live to 35	Perspective - Social-Temporal	Perspective - Social-Temporal
Juvenile Confinement										
Confinement	-0.13*†	-0.11†	-0.10	-0.06	-0.32*	-0.30	-0.22*†	-0.21*†	-0.02	0.00
	(0.06)	(0.06)	(0.08)	(0.08)	(0.16)	(0.16)	(0.10)	(0.10)	(0.08)	(0.08)
Juvenile Arrest, no Confinement	-0.01†	-0.02†	-0.23***	-0.20***	0.14	0.15	-0.01*†	-0.00*†	0.02	0.02
	(0.03)	(0.03)	(0.05)	(0.05)	(0.39)	(0.40)	(0.05)	(0.04)	(0.06)	(0.06)
Psychosocial Maturity (Wave 1)										
Temperance		0.03**		0.20***		0.08		0.02		0.05**
(Self-Control)		(0.01)		(0.02)		(0.11)		(0.02)		(0.02)
Temperance		-0.03*		-0.07**		-0.06		-0.01		-0.02
(Impulsivity)		(0.01)		(0.03)		(0.07)		(0.01)		(0.02)
Responsibility		0.19***		-0.07**		0.05		0.02		0.10***
		(0.01)		(0.02)		(0.13)		(0.02)		(0.02)
Perspective (future orientation)		0.01		0.03^		-0.04		0.18***		0.02
		(0.01)		(0.02)		(0.13)		(0.02)		(0.02)
Perspective		0.03***		0.10***		0.23*		0.03*		0.19***
(Social-Temporal)		(0.01)		(0.01)		(0.10)		(0.01)		(0.02)
Constant	3.85***	2.88***	3.07***	2.57***	2.84***	2.27*	4.76***	3.62***	2.27***	1.24***
	(0.06)	(0.11)	(0.11)	(0.22)	(0.66)	(1.13)	(0.08)	(0.14)	(0.09)	(0.17)
Observations	12,164	12,164	12,164	12,164	12,164	12,164	12,164	12,164	12,164	12,164
R-squared	0.03	0.11	0.08	0.11	0.01	0.01	0.04	0.08	0.03	0.10

*** p<0.001, ** p<0.01, * p<0.05, † a significant difference between confinement and no confinement groups, p<0.1

Note: All models control for race, sex, age, juvenile delinquency, family structure, parent education, and residential location.

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Table 5: Odds Ratio for Adult Transitions

Model	1	2	3	4	5	6	7	8	9	10	11	12
	FT Work	FT Work	Career Work	Career Work	No HS	No HS	College	College	Ever Marry	Ever Marry	Ever Cohab	Ever Cohab
Juvenile Confinement												
Confinement	0.67†	0.70†	0.76	0.80	4.08***	4.01***†	0.04***†	0.04***†	1.01	1.12	2.40**	2.28**
	(0.14)	(0.15)	(0.22)	(0.25)	(1.18)	(1.12)	(0.02)	(0.03)	(0.23)	(0.27)	(0.73)	(0.72)
Juvenile Arrest, no Confinement	1.13†	1.14†	0.78	0.83	2.45***	2.31***†	0.38***†	0.41**†	0.70*	0.74*	2.04***	1.90***
	(0.18)	(0.18)	(0.14)	(0.15)	(0.42)	(0.40)	(0.09)	(0.11)	(0.10)	(0.10)	(0.34)	(0.33)
Psychosocial Maturity (Wave 3)												
Responsibility		1.02		1.39***		1.05		0.96		1.46***		0.98
		(0.06)		(0.11)		(0.13)		(0.08)		(0.10)		(0.07)
Temperance		1.04		1.20***		0.71***		1.44***		1.34***		0.72***
		(0.04)		(0.06)		(0.04)		(0.06)		(0.06)		(0.03)
Perspective - Future Orientation		1.00		1.01		1.00		1.01		1.01		0.99
		(0.01)		(0.02)		(0.01)		(0.01)		(0.01)		(0.01)
Perspective - Live to 35		1.08		1.00		0.79**		1.39***		1.03		1.00
		(0.04)		(0.05)		(0.06)		(0.07)		(0.04)		(0.04)
Perspective - Social-Temporal		1.16***		1.10*		0.88		1.19**		1.08		0.96
		(0.05)		(0.05)		(0.06)		(0.07)		(0.05)		(0.04)
Observations	12,164	12,165	8,001	8,001	12,164	12,164	12,164	12,164	12,164	12,164	12,164	12,164

*** p<0.001, ** p<0.01, * p<0.05, † a significant difference between confinement and no confinement groups, p<0.1

Note: All models control for race, sex, age, juvenile delinquency, family structure, parent education, and residential location.

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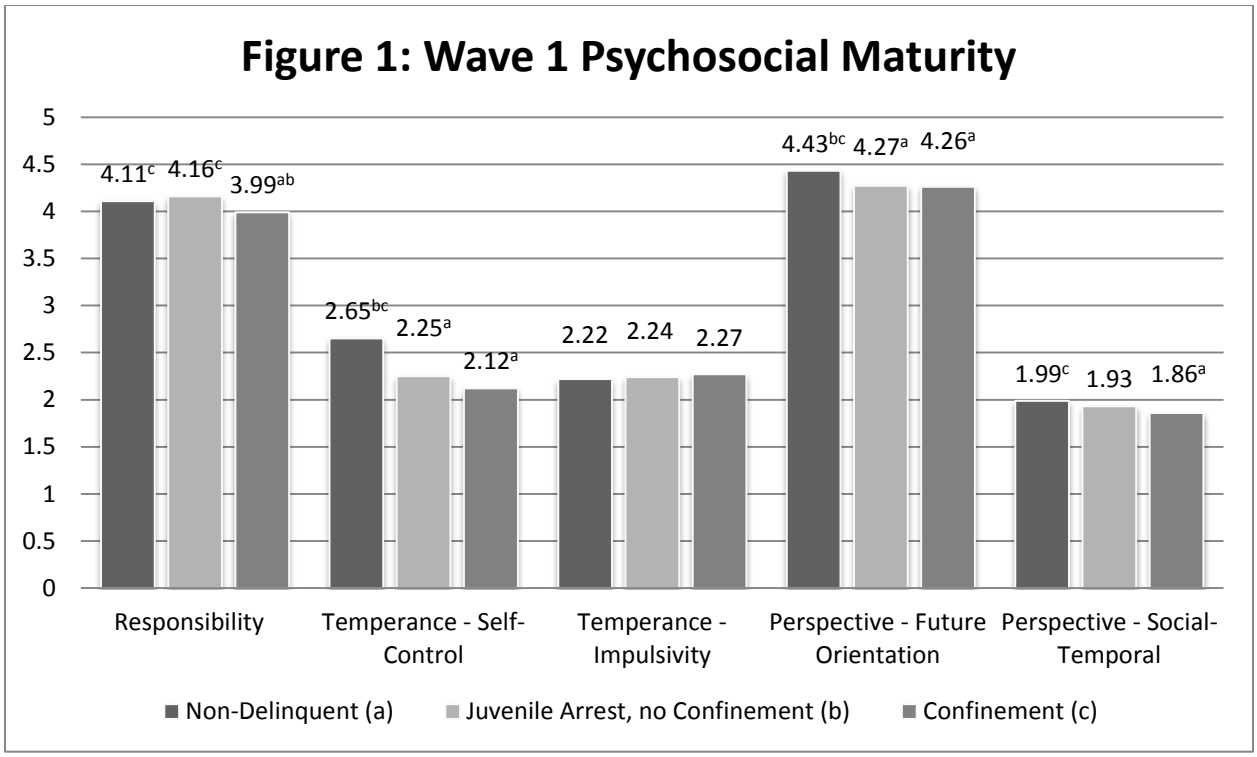

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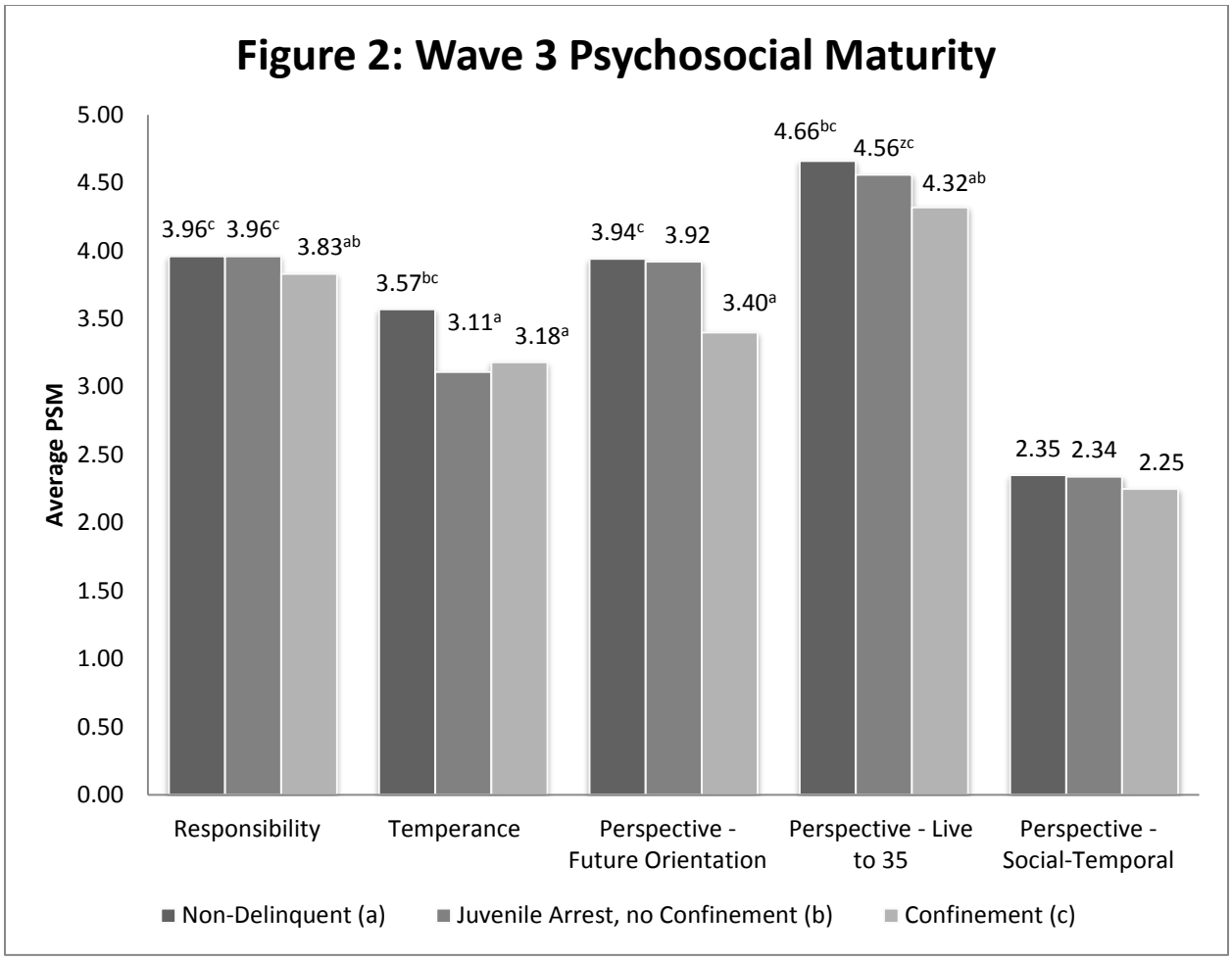

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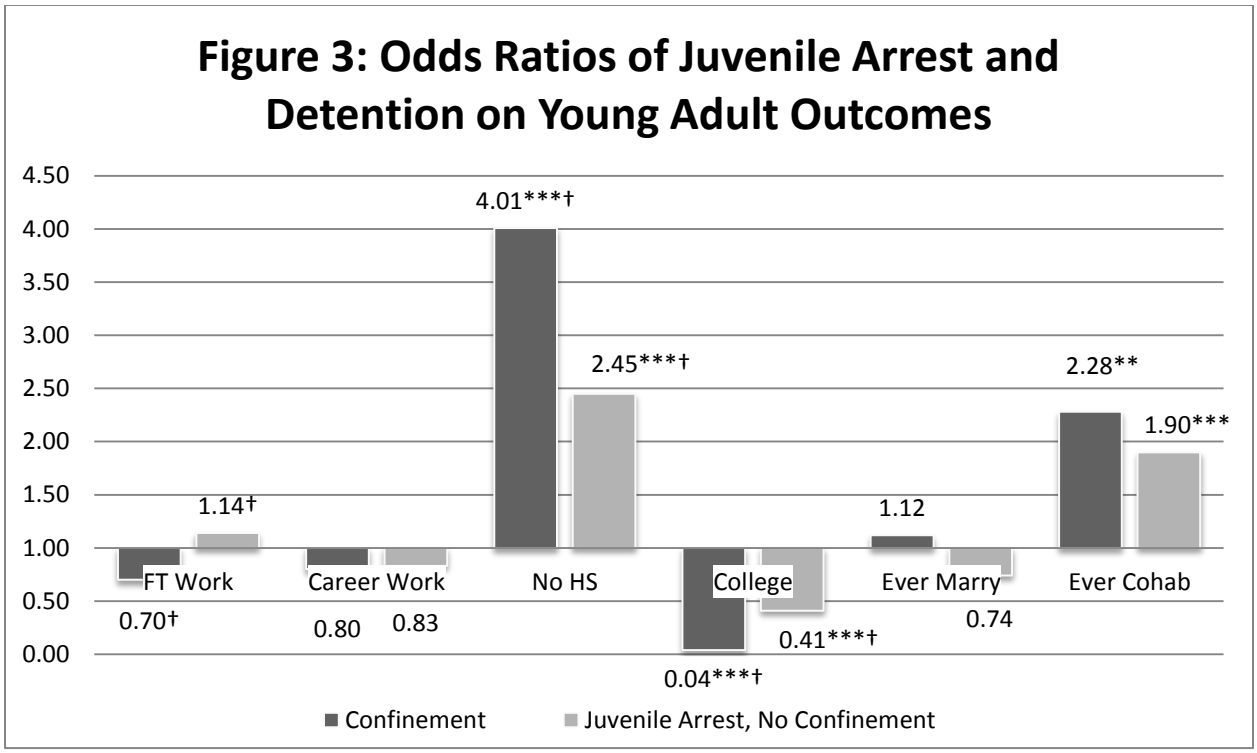

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