

How Far Up the River? Assessing the Consequences of Criminal Justice Contact

April Fernandes

A dissertation

submitted in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy

University of Washington

2015

Reading Committee:

Robert Crutchfield, Chair

Hedwig Lee

Jerald Herting

Program Authorized to Offer Degree:

Sociology

© Copyright 2015
April Fernandes

University of Washington

Abstract

How Far Up the River?:
Assessing the Consequences of Criminal Justice Contact

April Fernandes

Chair of the Supervisory Committee:
Professor Robert Crutchfield
Department of Sociology

Existing research has shown that the rise of incarceration that occurred during the prison boom had a substantial effect on the stabilizing forces of employment and health. Incarceration hinders the ability to retain and procure employment as well as increasing the exposure to disease and magnifying negative mental health outcomes. Given that the jail population grew in line with prison incarceration during this period, investigating the effects of less severe forms of criminal justice contact is integral to understanding the full consequences of contact. The conditions and circumstances that render long-term incarceration impactful are also present for arrests, convictions and jail stays. Contact of any form and degree causes separation from society, which can hinder the attainment and maintenance of employment. Furthermore, the stigma from a criminal or arrest record can inhibit employment prospects and wage growth due to the proliferation of background checks for potential employees severed job networks. On the health side, the exposure to individuals with communicable diseases facilitates the transmission of disease while the stress of incarceration and lack of adequate medical facilities assist in exacerbating existing conditions. The stress and strain of even low level contact can facilitate the worsening of both physical and mental health outcomes. Using the NLSY97, this project explores employment and health outcomes as a result of arrests, convictions and jail stays. Results show that both wages and consistency of employment are detrimentally affected by an arrest, arrest without conviction and jail time. The

findings show a potential incapacitation effect of low level criminal justice contact that has short-lived but substantial impacts on employment outcomes. For health, the results find that low level forms of contact negatively impact both physical and mental health outcomes throughout the trajectory of the criminal justice system. However, there is a short-lived positive impact on physical health, due to the basic health care provided in the carceral institution. These results point to the salience of exploring all levels of contact in order to fully ascertain how the criminal justice system impacts levels of stratification and disadvantage.

Table of Contents

List of Tables	ii
Chapter 1: Introduction	1
Chapter 2: Data & Methods	16
Chapter 3: On the Job or In the Joint: Employment Outcomes & Criminal Justice Contact.....	23
Chapter 4: How Far Up the River? Assessing Health Consequences of Criminal Justice Contact.....	62
Chapter 6: Conclusion.....	102
List of References.....	112
Appendix A	117
Appendix B	121

List of tables

Table 3.1: Employment Descriptives	51
Table 3.2: Weeks worked & contact	52
Table 3.3 Weeks worked one year after contact.....	53
Table 3.4 Weeks worked two years after contact.....	54
Table 3.5 Wages & contact.....	55
Table 3.6 Wages one year after contact.....	56
Table 3.7 Wages two years after contact.....	57
Table 3.8 Weeks worked by conviction category.....	58
Table 3.9 Weeks worked by conviction type.....	59
Table 3.10 Wages by conviction category.....	60
Table 3.11 Wages by conviction type.....	61
Table 3.8 Weeks worked by conviction type.....	62
Table 3.8 Weeks worked by conviction type.....	63
Table 4.1: Health Descriptives	96
Table 4.2: Physical health & contact	97
Table 4.3 Physical health by conviction category.....	98
Table 4.4 Mental health & contact.....	99
Table 4.5 Mental health by conviction category	100
Table 4.6 Cross tabulations for conviction & contact.....	101
Table B.1 Good physical health & contact.....	121
Table B.2 Poor physical health & contact.....	122
Table B.3 Good mental health & contact.....	123
Table B.4 Poor mental health & contact.....	124

Acknowledgements

I am indebted to the mentors, advisors, professors, staff and colleagues that have informed and encouraged my scholarship and intellectual growth throughout this process.

I am beyond thankful for the thoughtful mentorship and advisement of Robert Crutchfield, who has been an incredible source of support, encouragement and advocacy from the beginning. His tireless efforts in not only imparting wisdom and knowledge but making me feel like a part of this institution have been invaluable. I would not be here without his indelible influence and incredible advisement and mentorship.

I cannot thank Becky Pettit enough for her efforts and support from the very nascent stages of this dissertation project to its completion. She is and was instrumental in asking challenging questions and motivating better and stronger work all along the way. And I am greatly appreciative, as always, for her “unsolicited advice.”

I am grateful to other members of my dissertation committee and their advisement throughout the drafts and defenses. Hedy Lee has been a phenomenal resource in providing guidance on public related issues. Jerry Herting provided a critical eye and hallways assurances and laughter.

I would not have lasted through those first few years without the support of my extraordinary cohort. They provided much needed support, levity and commiseration when it was needed most. Special thanks to Katrina Leupp for the miles and miles of therapeutic walking and talking and hashing out research and life problems... often at the same time. And Ryan Marenger for necessary movie and libation exchanges. And to Sabrina Bonaparte and Brandon Blake for providing me with endless hours of laughter and treats. And to Geoff Palmer for trying to keep me sane and always challenging me to keep thinking, questioning and doubting. And to Maria Grigoryeva for being an amazing source of support and love.

Special thanks to other colleagues: To ManChui Leung and Athena Pantazis for grounding me and engaging me in some of the best damn conversations I will ever have. And to Heather Evans for a shining example of grace, determination, compassion, drive, integrity and humility. She is truly a wonder, and I am grateful every day for having met her.

And to the other professors and scholars who were instrumental in forming my understanding of broader social, political, demographic, historical and criminological issues, both in the field and beyond: In particular, Paul Burstein, Charles Hirschman, Stew Tolnay, Patty Glynn, Julie Brines, Katherine Beckett, Ross Matsueda, Alexes Harris and George Lovell. And to Liz Collier, for getting us all through graduate school successfully.

Much thanks to my family: specifically my grandparents, my mom, Donna Fernandes, and my cousins, Cynthia Burgonio and Robert Fernandes. Thank you for all the love and patience throughout these many, many, many years. And to Bill Zebratksi for always being curious and asking the challenging questions. And to Benjamin, Zidane and Lulu for their enduring love and support.

And to Sophia, Dorothy, Blanche & Rose: for all the laughs & life lessons.

Dedication

To my grandparents, Mary & John Zebratski.
In recognition of their great sacrifices and their unconditional and unyielding love & support.
And the appreciation of their enduring & invaluable gifts of laughter & food.

Chapter 1: Introduction

Since the early 1980s, the incarceration rate in both jail and prison has climbed from 221 to 726 per 100,000 people (Western & Pettit, 2010). The rapid and steady increase of incarceration that characterized the contemporary prison boom has sparked an emerging scholarship, investigating the causes, consequences and costs of imprisonment on individuals, communities and institutions. The bulk of the empirical work, however, has focused on the effects of long-term incarceration in prisons, finding significant and detrimental outcomes in employment, health, family relations, educational opportunities and housing over the life course (Pager, 2003; Kruttschnitt, 2010; Massoglia & Uggen, 2010; Comfort, 2007). Given that the jail population grew in line with the prison incarceration during this period, delving into the effects of less severe forms of criminal justice contact seems significant, especially considering the potential impacts on a wider demographic than is captured in the prison population. According to the Bureau of Justice Statistics (BJS), the jail population rose steadily throughout the last twenty years, but growth slowed since 2009. As of the most recent census of jail facilities for mid-year 2010, the jail population stands at 748,728 inmates. In the 12 month period ending in June 2010, almost 13 million people were admitted to local jails (Minton, 2011). While this has largely remained unstudied, some of the potential consequences could be seen in a variety of institutional and organizational spheres in society. This project seeks to explore the possible effects of other forms of criminal justice contact such as arrests – both with and without conviction – and short term incarceration in a jail setting on employment and health.

Contact with the criminal justice system, whether in the form of an arrest, conviction or imprisonment, has been shown to result in detrimental outcomes for the individual. The effects range in their severity in accordance with the stigma, separation and exposure that accompanies

the various forms of contact. While the repercussions of a few days in jail will not be comparable to a multi-year prison stay, the cumulative effect, especially for marginalized and disadvantaged populations, can result in yet another hurdle in sustaining stable financial and social foundations. In the jail setting, the average length of stay is a shorter period of time but preliminary empirical results suggest effects on the procurement of employment and future wages (Pogrebin et al., 2009; Uggen et al., 2009). Such similarities suggest that the mechanisms that are driving detrimental results for formerly incarcerated individuals may be present for those who have minimal criminal justice contact. The aim of this current project is to assess the extent to which separation from society, exposure to the carceral environment and the stigma associated with an arrest or jail detention is similar or different from more protracted contact, especially in the form of imprisonment.

Arrests and jail stays remove the individual from their daily life, resulting in unpaid rent and unexplained absences from employment, and ultimately interrupting the patterns of responsibility that establish stability and consistency. The exposure to communicable diseases and the exacerbation of previous medical conditions in the jail setting can similarly damage the ability of the former inmate to engage fully in productive activities once released. These medical concerns combined with the psychological stressors that are present in the carceral environment can hinder reintegration and perpetuate higher levels of disadvantage. A temporary separation from conventional society can erect future barriers to quality housing and employment opportunities due to eviction or termination, respectively. Furthermore, contact with the criminal justice can foster stigma for the individual, marking them as unreliable or untrustworthy as a prospective employee or tenant. In the age of ubiquitous background checks, all types of criminal justice contact generate a record and allow for the continued existence of the these

encounters far beyond the time of the incident. Therefore, even arrests or short stints in jail can have a detrimental effect on the future prospects and life trajectories of those who come in contact with the system. We know the consequences of a prison stay may have lasting effects on employment due to the extended separation from the outside world and the diminution of job skills, but the full extent of less severe forms of criminal justice contact are largely unknown. This project will serve to further investigate the ways in which less severe forms of criminal justice contact can result in detrimental consequences for employment and health outcomes.

Background & theoretical framework

The increase in imprisonment has fostered an emerging literature on the significance and consequence of the steady rise in prison and jail populations and the unequal distribution of incarceration. Scholars have delved into a variety of outcomes that result from exposure to imprisonment, separation from family and community and the pervasive stigma that inevitably follows. Pettit and Western (2004, 2010) demonstrate the impact on life course trajectories, suggesting that imprisonment has become a common life transition, especially for young African American males without a high school education. The authors find that incarceration is more common than marriage and military service, with 30% of African American male dropouts having been imprisoned by their mid-thirties. The exposure to the criminal justice system and the stigma associated with a stint in a carceral institution facilitate the long-ranging effects of contact on life-course outcomes. Pager (2003) highlights the pervasive effect of stigma on employment prospects, finding that the mark of a criminal record is salient in the initial stages of the hiring process. On a broader level, Uggen et al. (2006) explore the restriction on voting rights for ex-felons and the impact that such policies have had on civic participation and the process and outcomes of the electoral system. Exposure to the criminal justice and the

subsequent labeling of the formerly incarcerated restrict the ability of these individuals to exercise their rights as citizens, placing them further outside of conventional society. The legal machinations that sustain this practice operate on the stigmatized image of the felony offender as untrustworthy, resulting in restrictions on their full engagement in the political and social systems. Such consequences are not limited only to the individual former offender. Comfort (2007), Rose and Clear (1998), Travis and Waul (2003) and others detail the broader effect of long-term incarceration on families, children of prisoners, communities and government coffers. Their work collectively details the repercussions of sustained absences from family and community and the stigma attached to criminal justice contact that can stain the trajectories of spouses, partners and children.

While the impact of prison incarceration has been documented in the empirical literature, little work has been done to record any possible deleterious – or beneficial – effects of short-term jail incarceration on both the individual and community. The incarceration sentence and severity of the offense for jail stays is often lower than for prison, however, involvement in the criminal justice system at the jail level has potentially significant implications for health, employment, education and housing outcomes. The mechanisms that drive the outcomes of prison stays, specifically exposure, separation and stigma, may be at play for other less protracted forms of contact with the criminal justice system, such as arrests and jail stays. The majority of this work, however has concentrated predominately on prison stays and the detrimental long-term consequences that result. The potential for short-term imprisonment to render similar consequences is a promising next step in determining the scope of the damage that criminal justice contact has on the individual. The current project will seek to broaden the discussion of

consequences beyond prison stays, and evaluate how the separation, stigma and exposure that is endemic to imprisonment operates in terms of less severe forms of criminal justice contact.

There have been some recent inroads into these particular outcomes as seen by the work of Uggen et al. (2009), Bell et al. (2004), Pogrebin et al. (2001), Binswanger et al. (2009) and Apel and Sweeten (2010). Bell et al. (2004) and Binswanger et al. (2009) focus on the public health effects of exposure to both jail and prison institutions, both finding detrimental consequences due to increased stress in the carceral environment and the uneven distribution of medical and mental health care and treatment. The exposure to communicable and infectious diseases in the jail facilities can lead to the establishment or exacerbation of medical and mental health complications due to lack of quality healthcare and access to medication while incarcerated and the exposure to communicable diseases. Pogrebin and colleagues (2001) concentrate on the separation of those temporarily incarcerated in jail and the aftereffects of the absence from family and community life. They suggest that the interruption and severing of social ties as a result of a short-term jail stay can have detrimental consequences for sustaining relationships and maintaining employment and housing stability. Incarceration, even in the short term, is often indicated in significant financial disadvantages, including the denial or delay of social benefits (e.g. welfare/EBT benefits, food stamps, unemployment), fines and fees in the forms of legal financial obligations (LFOs) levied by courts and penal institutions (Harris, Evans & Beckett, 2010) and wage garnishment due to work absence. An arrest or short stay in jail can also result in the inability to attend to personal and financial responsibilities, resulting in car repossession, shutting off of residential utilities due to nonpayment (and the possible fees associated with resuming utility operation), housing eviction or foreclosure and child and/or spousal support delays as well as the accumulation of arrears. An arrest, with or without

conviction, can lead to educational setbacks, with a loss of credit due to absence and a possibility of course failure; if the misdemeanor was a drug conviction, it could lead to the cessation of federal loan funding. In addition, an arrest or jail stay can restrict mobility and access to social services and community support, resulting in exclusion from certain urban areas (Beckett & Herbert, 2010). Recent work by the City of Seattle Office of Civil Rights suggests that the proliferation and ubiquity of criminal record background checks result in incidents of housing discrimination. Settlements were recently reached with five landlords accused of housing discrimination in Seattle due to the disproportionate effect on African American renters (Seattle Post-Intelligencer, December 5, 2011; Seattle Times, October 21, 2011). The contemporary landscape of criminal justice research is expanding to include lower level forms of contact due to its pervasiveness and impact on stratification-related outcomes. While an arrest or jail stay is not as severe as felony incarceration, these forms of contact can still restrict opportunities and curtail efforts towards a successful and lasting reentry.

Employment

The ability to secure and sustain employment is an essential marker of economic stability and security. Research has shown that for certain groups, the access to employment is limited (Pager and Quillian, 2005). In particular, felony imprisonment has been shown to have a detrimental effect on obtaining employment after release, with myriad studies documenting the damage that a felony criminal record has on the ability to secure gainful job opportunities (Pager, 2003; Holzer, Raphael and Stoll, 2006; Uggen, 2000). Pager's (2003) work on the impact of a criminal record on obtaining entry level positions suggests that race and offense background are key markers on which employers base hiring choices. Work on felony imprisonment has shown that due to the incarceration boom, felony imprisonment has become a milestone of adulthood,

especially for young African American men without a high school diploma (Pettit and Western, 2004). Increasing the individuals who are exposed to the carceral institution allows for greater effects on employment outcomes and increased economic, social and occupational disadvantage for society's marginalized groups. Employment has always been the key to stability and security, to building a solid future. The prison boom has erected substantial barriers to obtaining employment for certain segments of the population, thereby solidifying inequality and disadvantage between those who have been imprisoned and those who have not.

In order to better understand the relationship between felony incarceration and employment outcomes, the literature has explored three central mechanisms, namely incapacitation, loss of human capital and stigma. Felony contact results in a separation from every day responsibilities, including employment, education, child-rearing, paying mortgages and rent, and attending to health concerns. The incapacitation of a prison stay results in the inability to maintain a current job but feeds into a loss of human capital in the form of job skills. With increasing technological demands, any substantial time out of the labor force can render a prospective employee deficient in terms of requisite skills needed to perform even basic service and administrative jobs. The argument can be made that those most likely to be imprisoned do not possess a high level of job skills and experience even prior to felony incarceration, therefore, any erosion of skills may not be influential in affecting employability. However, this may depend on the length of sentence rather than the difference between prison and jail. Even in low-skilled service sector jobs, technology is becoming increasingly ubiquitous. A moderate length jail stay may be sufficient to affect future job prospects given the rapidly changing technological landscape. In addition, the stigma that results from a criminal record can result in negative perceptions of the prospective employee as untrustworthy and unreliable (Weisheit and Klofas,

1989). The ubiquitous use of online criminal background checks prolongs the indelible stain of a criminal record and the subsequent exclusion from viable employment prospects (Stoll and Bushway, 2008). The purpose of this project is to explore if such relationships hold for those who experience low level criminal justice contact in the form of an arrest, conviction or jail stay.

The existing research suggests that while low level contact represents a less severe form of contact than felony imprisonment, substantial effects can be seen on maintaining and obtaining employment (Potter et al., 2011; Grogger, 1992; Waldfogel, 1994; Freeman, 2008). Even an arrest or jail stay can prevent the individual from attending work and can jeopardize current employment (Sullivan, 1989; Grogger, 1992). The Bureau of Justice Statistics shows that 71% of those who are arrested are employed, whether full time or part time, at the time of their arrest (James, 2002). Therefore, any potential threat from even low level contact can place current employment in jeopardy. In his ethnographic study, Sullivan (1989) finds that the work absences due to an arrest and subsequent court hearings make individuals less desirable as current and prospective employees. A substantial portion of those who have had criminal justice contact are often employed in the secondary labor market (Crutchfield, 2014). These jobs are characterized by low wages, little to no benefits and a lack of flexibility in terms of days off, even for official court appearances. Therefore, those employed in the secondary labor market and who have had any form of contact are doubly disadvantaged, with their current employment at risk due to an arrest or short jail stay or attending the court hearings for a conviction, and subsequent employment prospects damaged by their contact-related absenteeism. Apel and Sweeten (2010) focus on the human capital deficits that result from imprisonment that affect the procurement of future employment. Their findings point to the effect of stigma being related to conviction status rather than incarceration history, especially for short-term imprisonment.

Instead they contend that employment difficulties stem from sustained separation from the legal work arena, which subsequently depresses future employment prospects as well as future wages.

Due to the increased use of background checks, research has found that even a misdemeanor arrest or conviction could result in the loss of current employment or the potential denial of future job opportunities due to the existence and accompanying stigma of a criminal record (Uggen et al., 2014; Weisheit and Klofas, 1989). Uggen et al. (2014) adapted Pager's (2003) audit study of white and African American men with felony convictions to determine the employment outcomes for a low-level misdemeanor offense of disorderly conduct. The results suggest the same pattern that Pager found, namely, that even the presence of a misdemeanor record affects job prospects for African American men. The outcomes were also consistent with Pager's findings of a race differential, showing that white men with a misdemeanor record were more likely to be called back for a job interview than African American men without a record. Uggen et al.'s results point to a pervasive effect of prior low-level criminal contact of any type on employment prospects. While the work on long-term prison incarceration has documented the detrimental outcomes of time in prison on employment, education, family life and health, there has been a limited amount of work done on the consequences of even short term stints in jail for minor convictions. This current proposed project will seek to uncover the impacts on employment that result from low level criminal justice contact and short-term incarceration to assess how even an arrest or short-term jail stay can impact levels of inequality and disadvantage.

Health

Prior to the prison boom, access to medical care, especially in disadvantaged communities, was largely lacking. The rise in incarceration since the early 1980s brought the

issue of health, and its linkages to other life outcomes, into sharp relief. The increase of the prison population resulted in a squeezing of state and county resources, which lead to massive overcrowding and a strain on carceral resources. The influx of individuals into carceral institutions created a breeding ground for virulent communicable diseases, such as hepatitis C and tuberculosis, and the exacerbation of existing physical and mental illnesses as a result of the stress and strain of institutionalized living (Travis, Solomon and Waul, 2001). Due to the lack of access to health care in disadvantaged neighborhoods and the increase in incarceration sentences, the carceral institution has become a de facto health care system, at best, and a warehouse for the physically and mentally ill, at worst. And with this unintended role, the empirical focus has been on the consequences of long-term imprisonment on health outcomes, both during and after incarceration.

The existing literature provides a complex set of dynamics that show while there is increased transmission of certain communicable diseases in the prison setting (Massoglia, 2008; Hoyert et al., 2006) and the development of stress-related illnesses, such as hypertension and heart disease (Schnittker and John, 2007; Massoglia, 2008), time in prison can also have an ameliorative effect (Schnittker, Massoglia and Uggen, 2011; Patterson, 2010). Massoglia (2008) and others have shown that the carceral environment fosters the exacerbation of stress-related illnesses such as hepatitis, heart disease hypertension and depression. The stress of traversing the criminal justice system and of the carceral environment fosters an increase in opportunistic infections and ailments. Schnittker and John (2007) find that such impacts on health persist after release due to the stigma associated with a criminal record and the subsequent barriers to reintegration. Their findings also point to any contact, rather than length of contact, being

significant in showing health impacts. This result lends credence to the expansion beyond the prison walls to lower level forms of contact.

However, Patterson (2010) finds that there is a racial difference in mortality rates for incarcerated populations, with African American men showing a lower rate of death than African American men not in prison. She attributes these results to the dangerous state of African American neighborhoods, with prison providing a safe haven from the high rates of gun violence, motor vehicle deaths and rampant drug use. In addition, she also cites the paltry state of health care in disadvantaged communities as a leading cause of mortality for African American men. The basic level of healthcare provided in the prison setting aids in the treatment of preexisting conditions as well as those illnesses contracted while incarcerated. As Patterson notes, "...prison is an unhealthy environment; yet, prison appears to be a healthier place than the typical environment of the nonincarcerated black male population" (587). The results from Patterson (2010) and others do not suggest that incarceration is positive but that for certain populations, it can address basic health needs that have long been neglected in their home communities. But as Schnittker, Massoglia and Uggen (2011) found, the health benefits of incarceration are short-lived, with medical conditions being treated in the carceral environment worsening after release. While jail stays are abbreviated as compared to felony incarceration, the conditions that exist in the prison are also present for low level forms of contact. Investigating the similarities and differences between these experiences will aid in determining the full costs and consequences of contact. In addition, exploring the effect of an arrest, conviction or jail stay can broaden the discussion of how health is impacted in the system, through transmission, stress and access to health care, and how this informs how the institutions functions in order to attend to the needs of individuals both during their incarceration and after release.

Research examining lower level forms of contact has established just cause for focusing on arrests, convictions and jail stays, showing a similarly complex landscape. As compared to a felony prison sentence, time in the carceral institution is relatively limited with an arrest or jail stay. However, the existing literature has shown that the transmission of disease or the exacerbation of existing ailments can occur even after short amounts of exposure (Potter et al., 2011; Binswanger et al., 2009; Wilper et al., 2009; Freudenberg, 2001). Binswanger and colleagues (2009) find similar disease profiles in both jail and prison, with jail inmates having persistently elevated odds of hypertension, asthma, and hepatitis. In addition, traversing the myriad processes of the criminal justice system, even for a misdemeanor offense, can elevate stress levels and increase physical and mental health concerns (Freudenberg, 2001; Wilper et al., 2009). Jails contend with similar mental health challenges, with a substantial number of those entering jail, either for an arrest or to serve a jail sentence, reporting an existing mental health condition. In a 2006 Bureau of Justice Statistics report, 64% of jail inmates reported either a recent history or symptoms of a mental illness (James & Glaze, 2006). According to the report, the incidences of depression and psychotic disorders in jail are greater than those in state prisons. Yet, only 17.5% of jail inmates who receive a mental health diagnoses after admission are treated (James & Glaze, 2006). Wilper and colleagues (2009) finds a comparable pattern, with 25% of jail inmates reporting a mental condition, compared with 25.5% of prison inmates. Only a small fraction, 24.4%, of those diagnosed with a mental illness, however, receive treatment in the jail setting, compared to 64.2% in state prisons. Wilper and colleagues attribute this discrepancy to a short average stay in jail but also to the lack of quality psychiatric care.

However, on par with the work on felony imprisonment, there are beneficial outcomes from a jail stay due to protection from other mortality risk factors as well as the access to health

care (Bell et al., 2004; Hammett et al., 2002; Patterson, 2010). Similar to prisons, jails are legally mandated to administer basic physical and mental health screenings at time of entry and to provide necessary treatments and medications for existing conditions. The consistency of service varies depending on jurisdiction and funding, however, even the most basic health diagnoses and treatments may boost health due to the lack of any health care services for marginalized and disadvantage populations (Wilper et al., 2009). And the incapacitation effect of the jail setting temporarily protects individuals from outside sources of death and injury. For those arrested or serving misdemeanor sentences in jail, however, they are often rapidly cycled back into their neighborhoods, thereby making such health concerns that much more salient for the individual and community.

Chapter outline

The following substantive chapters explore distinct, yet interrelated, theoretical questions that build upon the foundation of empirical work on the costs and consequences of felony imprisonment. This project extends these contributions by investigating forms of criminal justice contact beyond prison, and how they impact life outcomes in terms of employment and health. Exploring the impact of low level forms of criminal justice contact on essential life outcomes allows for a broader and more comprehensive understanding of the collateral impact of the criminal justice system. These outcomes, namely employment and health, serve as substantial determinants of social and economic equality. The barriers erected by various forms of contact often result in curtailed access to opportunities to gain long-term employment and to sustain physical and mental health. Focusing solely on felony imprisonment curtails the conversation about how the system affects those who traverse it, and the impact that has on societal gains and levels of disadvantage. Arrests, convictions and jail stays are similar to felony imprisonment in

that they incapacitate the individual and erect barriers, however temporary, to economic security. The question then becomes if the severity of contact is the determinant of collateral consequences to employment prospects and physical and mental wellbeing or if it is contact of any sort that can result in unsavory outcomes. By exploring these levels of contact and their subsequent outcomes in the occupational and health arenas, we come one step closer to assessing the full range of the costs and consequences of criminal justice contact. This project widens the net to explore the impact of an arrest, conviction and jail stay on employment outcomes (Chapter 3) and health outcomes (Chapter 4). Chapter 5 ties these findings together to form a cohesive narrative about potential impacts of low level criminal justice contact on individuals, their families and communities.

Chapter summaries

Chapter 3: The existing research on criminal justice contact and employment outcomes finds largely detrimental effects (Grogger 1995; Western 2002; Pettit and Western 2004, 2010; Western 2006; Uggen 2000, 2014; Stoll & Bushway 2008; Pettit & Lyons 2009). The incapacitation of a prison stay matched with the loss of job skills and the subsequent stigma of a criminal record result in diminished employment prospects. Similar conditions exist for low level forms of criminal justice contact, therefore, it seems apt to explore how employment and wages are impacted by an arrest, conviction or jail stay. I use the National Longitudinal Study of Youth (1997) to explore facets of employment that may be impacted by an arrest, conviction or jail stay. Specifically, I use the NLSY97 to explore the consistency of current employment following various forms of contact, looking at the number of weeks worked in a given year as a proxy for consistent job attendance. Second, I also investigate the impact on wages from low level contact. Finally, the debate in the current literature suggests that any impacts of low level contact are

moderate and short-lived. Therefore, I explore the longevity of these outcomes to see if the effects persist a year or two years after initial contact. The findings suggest that low level forms of criminal justice contact negatively influence both the consistency of employment as well as wages. In addition, these effects, even for a short term jail stay, persist over time.

Chapter 4: The relationship between incarceration and health represents a complex landscape. Empirical work has found substantial disadvantages from exposure to the carceral environment and the stress and strain of contact (Schnittker and John, 2007; Wilper et al., 2009; Freudenberg, 2001). However, research also shows short-term benefits for marginalized populations due to access to health care in the carceral institution. The existing work on low level criminal justice contact suggests that similarly dynamics may be at play for arrests and jail stays. In this chapter, I use the NLSY97 to explore the physical and mental health impacts of an arrest, conviction and jail stay. The relationship shows similar patterns to felony imprisonment, with some forms of criminal justice contact negatively affecting both physical and mental health. However, the positive outcomes for a jail stay are present for general health, suggesting that even a low level of care can have temporary ameliorative effects.

Chapter 2: Data & Methods

Using the National Longitudinal Study of Youth (1997), I evaluate the effect of arrests, convictions and short term jail stays on employment outcomes and physical and mental health. The data set offers the ability to track respondents through fourteen waves of data from 1997 to 2010, and assess their level of contact with the criminal justice system¹. The sample (n= 8984) ranges in age between 12 and 31 years of age, however, for these analyses, the sample was restricted to those 18 years of age and older (n= 7882), in order to accurately measure adult employment and health outcomes. To investigate these potential relationships, models will be constructed that use appropriate measures of employment and health outcomes and various demographic and life circumstance controls.. There are only a limited number of data sets, especially those with a nationally representative sample, that capture both the incidence and effect of other forms of criminal justice contact. Therefore, the NLSY97 provides a substantial amount of data on low level criminal justice contact most often left out of traditional nationwide surveys. The NLSY97 is unique in that it records incidents of arrest (frequency and date), conviction status and type, offense charge, type of detention facility, and post-incarceration outcomes.

Employment measures

Two continuous measures were used to assess the effect of low level criminal justice contact on employment. First, the number of weeks worked in a given year is used as a proxy for the consistency of employment. The respondents reported the number of weeks worked throughout the year, and those variables were aggregated to explore the longitudinal nature of the data. Second, to explore the economic impact of contact, a monthly wage measure was

¹ Appendix A contains a listing of the variables contained in the NLSY97 and the wave(s) in which they were collected.

constructed using respondent's self-reported weekly wage earnings combined with the number of hours they reported working in each week. Using monthly wages, rather than yearly wages, captures even small changes in wage increase or decline due to contact.

Health measures

For physical health, the measure is a self-reported assessment of general health for all ten waves of data: "In general, how is your health?" coded 1 for poor, 2 for fair, 3 for good, 4 for very good and 5 for excellent. For mental health, the measure is a four category Likert-scale variable that asks how often the respondent has been depressed in the last month, ranging from all of the time, most of the time, some of the time and none of the time.

Criminal justice contact

Five measures are used to explore the trajectory of criminal justice contact and its potential impacts on employment and health: arrest, arrest without conviction, conviction, jail sentence and jail stay. All, with the exception of arrest without conviction, were measures provided by the NLSY97, asking respondents if they have experienced that form of contact in the last calendar year. Arrest without conviction was constructed by limiting the sample to those who did not go on to the conviction stage. The existing literature posits three potential mechanisms that drive impacts on health outcomes from criminal justice contact, namely exposure and transmission of disease, access to health care and stress and stigma. The arrest without conviction measure allows an exploration of the impact of incapacitation without the stigma that comes from a conviction. All five measures of criminal justice contact were included for a number of reasons. First, there are differential effects on employment and health based on the type of contact. For instance, Sullivan (1989) find that even arrest can inhibit maintaining future employment and negatively color the perceptions of prospective employees. Nagin and

Waldfogel (1998) focus on the impact of convictions on wages, finding a negative effect in relation the career status of the individual as well as the nature of the conviction. In order to test the impact of conviction type, three separate categories of conviction were constructed for violent offenses, property offenses and drug offenses². To see the variation in specific offense type, the type of conviction was broken down by individual offense. They include assault, robbery, burglary, theft, miscellaneous property, property destruction, drug possession, drug sale, traffic violations, public order violations and uncategorized offenses. Second, most of the current literature focuses just on a jail stay, if they look at low level contact at all. Investigating how even the most minor forms of contact, specifically an arrest and arrest without conviction, affect employment and health outcomes allows for a fuller understanding of the consequences of criminal justice contact, from a brief arrest to an extended sentence.

Covariates

All models control for basic demographic variables such as race³, age⁴, gender, marital status, presence of children in the household, individual income (logged), immigration status, and education level. Year dummy variables from 1998 to 2010 were also added in order to capture the effect of time on the models. For the employment models capturing the impact on wages, weeks worked was used as a control variable. For both the physical and mental health models, a measure asking if the respondent had health insurance in the last year was included in order to control for access to health care. In addition, In order to capture previous health

² Violent offenses include assault and robbery. Property offenses include burglary, theft, miscellaneous property offenses and property destruction. Drug offenses include drug possession and drug sales. Traffic, public disorder and other uncategorized offenses were excluded from the categorical conviction type analysis, but included in the individual conviction type models.

³ Race and ethnicity variables used: African American, Latino, Asian, Mixed and Native American. White was used as the referent category.

⁴ Age squared is also added as a control to capture the quadratic nature of age and its differential effects on employment outcomes.

concerns, there is also a measure of the parental report of health in 1997, asking parents to assess the nature of their child's physical health, from poor to excellent. The NLSY97 also includes a control for a parental report of mental health, asking parents to estimate how often their child was unhappy, sad or depressed in the last month, with options ranging from often, sometimes and never. Also, in additional models, a measure for number of doctor visits is used to capture use of health care and overall health. The NLSY97 also includes measures of cigarette, alcohol and drug consumption behavior, asking respondents how many cigarettes they smoked and how many drinks they consumed per day in the last thirty days. Drug consumption was captured by three measures, one looking at the number of days marijuana was used in the last thirty days, the number of times cocaine or other hard drugs were used since the last interview date and a combined measure that asked for any type of drug use in the last thirty days. Multiple imputation was used in Stata to account for missing data on key variables.

Methods

Two sets of models for employment were analyzed using random effects regression models in Stata. Within each set of models, the outcomes are assessed according to five different types of criminal justice contact: arrest, arrest without conviction, conviction, jail sentence and jail stay. Each model was run separately in order to assess the effect of each point of contact on employment health, respectively. The first outcome variable for these models was weeks worked in the next interview year from their arrest as reported by the respondent. Using weeks worked is a suitable proxy for labor force engagement, and is not necessarily subject to the same restrictions, such as weather or geographical location as income level. The second outcome variable was wages, calculated on the self-report of respondents' hourly wages from all of the jobs held in a calendar year. Using leads for both weeks worked and wages, we are able to see if

criminal justice contact has an effect on subsequent employment outcomes in the next calendar year following the arrest. Leads are the functional equivalent of lag variables, which substitute the next year's measure for weeks worked or wages, respectively, for each respondent. Five different models were run for the various types of criminal justice contact: arrested, arrested without conviction, convicted, sentenced to jail but not currently serving time and recently served time in jail. The models all control for sex, education, children, marital status, age, immigrant status and race and ethnicity. In the models with wages as the outcome variable, weeks worked is used as a control for consistency of employment.

Two sets of models for health were analyzed using random effects ordinal logistic models in Stata. Within each set of models, the health outcomes are assessed according to the type of criminal justice contact: arrest, arrest without conviction, conviction, jail sentence and jail stay. The first models look at general health with criminal justice contact and demographic variables, including the availability of health insurance and parental reports on physical health⁵. For mental health, the first set of models are estimated to ascertain the effect of low level criminal justice contact on mental health outcomes. In addition, both physical and mental health outcomes were evaluated based on conviction type: violent, property or drug offense to see if there was an effect on the nature of the conviction. The existing literature suggests that there might be a differential impact based on the type of conviction (Nagin, 1994; Lott, 1992).

There are some limitations in the data set that limit the scope of the results. Given the nature of the data, causal processes cannot be determined between low level contact and employment and health outcomes. While I use the language of causality to discuss these findings, the results can only be seen as correlational. The data set, however, only records self-

⁵ Additional models were run with other relevant health covariates to capture smoking and drinking behavior as well as drug use.

reported contact and is not verified by official records. It is possible that respondents may omit incidents of criminal justice contact. Also, the number of people in the original population that have had contact is small, which is a challenge given the nature of the research questions being posed for this current project. However, there are a limited number of data sets that ask questions about contact beyond prison stays and none that are currently available that assess questions about outcomes. Therefore, the NLSY97 provides a unique opportunity to gauge the effect of incarceration and less severe forms of criminal justice contact and evaluate the mechanisms that undergird these outcomes. The outcomes from incarceration, whether short-term or long-term, are only reflected for the latter three waves of the survey, limiting the ability of the data to record changes over time and control for multiple incidents of contact with the criminal justice system. The collateral consequences of short-term incarceration may be cumulative over time, however, the NLSY97 is not necessarily able to show such effects due to the time frame in which the data was collected. In addition, given the limited sample for these outcomes, racial and gender effects will not be analyzed, thereby limiting the scope of the analysis. The current project will only be able to focus on male respondents, which truncates the range of effects as well as the ability to fully ascertain the scope of effects on employment and health effects. Bell et al. (2004) find that pregnancy outcomes for women in jail range depending on the level of resources available and the institutional access provided. However, such questions will not be considered in this phase of the analysis given the limitations of the NLSY97. Similarly, race differentials for incarceration and arrest outcomes are an important component of incarceration effects research. Racial and ethnic factors often pattern both the exposure to the criminal justice system as well as the repercussions of contact. However, the availability of differences by race and ethnicity will not be possible in this current project. For

an initial project of this kind, however, the NLSY97 can provide an understanding of the potential outcomes of an arrest as compared with both short-term and extended incarceration.

Chapter 3: On the Job or in the Joint: Employment Outcomes and Criminal Justice Contact

Abstract

Existing research has shown that the rise of incarceration that occurred during the prison boom had a substantial effect on the ability of former inmates to retain and procure employment. Given that the jail population grew in line with prison incarceration during this period, investigating the effects of less severe forms of criminal justice contact is integral to understanding the full consequences of contact. The conditions and circumstances that render long-term incarceration impactful are also present for arrests, convictions and jail stays. Contact of any form & degree causes separation from society, which can hinder the attainment and maintenance of employment. Furthermore, the stigma from a criminal or arrest record can inhibit employment prospects and wage growth due to the proliferation of background checks for potential employees severed job networks. Using the NLSY97, this project explores employment outcomes as a result of arrests, convictions and jail stays. Results show that both wages and consistency of employment are detrimentally affected by an arrest, arrest without conviction and jail time. The findings show a potential incapacitation effect of low level criminal justice contact that has short-lived but substantial impacts on employment outcomes.

Introduction

Since the early 1980s, the incarceration rate in both jail and prison has climbed from 221 to 726 per 100,000 people (Western & Pettit, 2010). The rapid and steady increase of incarceration that characterized the contemporary prison boom has sparked an emerging scholarship, investigating the causes, consequences and costs of imprisonment on individuals, communities and institutions. The bulk of the empirical work, however, has focused on the effects of long-term incarceration in prisons, finding significant and detrimental outcomes in employment, health, family relations, educational opportunities and housing over the life course (Pager, 2003; Kruttschnitt, 2010; Massoglia & Uggen, 2010; Comfort, 2007). Given that the jail population grew in line with the prison incarceration during this period, delving into the effects of less severe forms of criminal justice contact seems significant. According to the Bureau of Justice Statistics (BJS), the jail population rose steadily throughout the last twenty years, but growth slowed since 2009. As of the most recent census of jail facilities for mid-year 2010, the jail population stands at 748,728 inmates. In the 12 month period ending in June 2010, almost 13

million people were admitted to local jails (Minton, 2011). While low level contact has largely remained unstudied, some of the potential consequences could be seen in a variety of institutional and organizational spheres in society.

Contact with the criminal justice system, whether in the form of an arrest, conviction or imprisonment, has been shown to result in detrimental outcomes for the individual (Pogrebin 2001; Pettit and Western 2004; Manza and Uggen 2006; Weisheit and Klofas 1989; Irwin 1985). While the repercussions of a few days in jail will not be comparable to a multi-year prison stay, the cumulative effect, especially for marginalized and disadvantaged populations, can result in yet another hurdle in sustaining stable financial and social foundations. Arrests and jail stays remove the individual from their daily life, resulting in unexplained absences from employment, and ultimately interrupting the patterns of responsibility that establish stability and consistency. A temporary separation from conventional society can erect further barriers to quality employment opportunities due to termination and loss of job skills. Furthermore, contact with the criminal justice can foster stigma for the individual, marking them as unreliable or untrustworthy as a prospective employee. In the age of ubiquitous background checks, all types of criminal justice contact generate a record and allow for the continued existence of these encounters far beyond the time of the incident. Therefore, even arrests or short stints in jail can have a detrimental effect on the future prospects and life trajectories for those who come in contact with the system.

While the impact of prison incarceration has been documented in the empirical literature, little work has been done to record any possible deleterious – or beneficial – effects of short-term jail incarceration on both the individual and community. The incarceration sentence and severity of the offense for jail stays is often lower than for prison, however, involvement in the criminal

justice system at the jail level has potentially significant implications employment outcomes. The mechanisms that drive the outcomes of prison stays, specifically incapacitation, diminishing of job skills and stigma, may be at play for other less protracted forms of contact with the criminal justice system, such as arrests and jail stays. The majority of this work, however, has concentrated predominately on prison stays and the detrimental long-term consequences that result. The potential for short-term imprisonment to render similar consequences is a promising next step in determining the scope of the damage that criminal justice contact wrought on the individual. This project will broaden the discussion of consequences beyond prison stays, and evaluate how the separation, erosion of job skills and stigma that is endemic to imprisonment operates for less severe forms of criminal justice contact.

Theoretical framework & existing evidence

The established scholarship on the consequences of imprisonment provides a theoretical framework for understanding the mechanisms that link criminal justice contact and employment outcomes. The deleterious effect of felony imprisonment on employment has been well-documented, suggesting a substantial effect of a criminal record on the career prospects and earning potential of former inmates (Grogger 1995; Western 2002; Pettit and Western 2004, 2010; Western 2006; Uggen 2000, 2014; Stoll & Bushway 2008; Pettit & Lyons 2009). The effect on earnings and obtaining employment have been linked to three main processes that disadvantage job seekers from maintaining or obtaining employment, namely incapacitation from current employment, loss of human capital and the stigma that accompanies incarceration or a criminal record. The conditions that lead to detrimental employment outcomes for felony records are similar to those for lower levels of criminal justice contact. The separation from everyday life, the passage of time and deterioration of skills and the stain of a criminal record are

all hallmarks of the incarceration experience. Such experiences, however, are common across even minor brushes with the criminal justice system. The question remains if it is the severity and length of sentence that matters in terms of employment outcomes or if contact alone can be sufficient to render deleterious effects on the ability to obtain and maintain employment. Given the initial forays into the effects of criminal justice contact on employment, I expect to find similar detrimental outcomes in employment prospects for individuals who experiences less severe forms of criminal contact. The existing literature suggests that time out of the labor force and the indelible stigma of a criminal record facilitates subpar outcomes for former offenders seeking employment.

Incapacitation

Absence from the labor force, due to an arrest or jail stay, can result in either the termination of current employment or the denial of wages. In the current project, a jail stay, regardless of length, is thought to result in a break in current employment, leaving current employment in jeopardy. According to the Bureau of Justice Statistics (2002), 71% male jail inmates were employed (both part and full time) at the time of their arrest and booking into the jail institution. About 41% of inmates reported monthly incomes of \$1000 or more, with only 6% receiving welfare benefits before their arrest. Compared to the imprisoned population, individuals in jail have a higher rate of employment at the time of arrest and therefore, have the potential to lose the stabilizing forces of employment and a steady income when arrested or when placed in jail. The incapacitation that results from an arrest or jail stay can place existing jobs and earnings in jeopardy, resulting in further disadvantage post-contact. If arrested individuals are employed in the secondary labor market (Crutchfield 2014), the lenience for a leave of absence, if only for a day or two, may not be present given the transient nature of this

type of employment. In the secondary labor market, schedule flexibility is low and the employees are highly interchangeable and expendable, with or without a prior criminal record. Therefore, any absence can result in a possible reprimand or the loss of employment. Those most often involved in the criminal justice system are those without a solid job record or high levels of experience and education (Travis, Solomon, & Waul, 2001; Holzer, et al., 2005). Therefore, their employment is precarious with or without the involuntary absences from work due to an arrest or jail sentence. The average jail stay for those arrested for a misdemeanor offense is about forty-eight hours (Potter et al., 2011). Without immediate access to a telephone, even a short stay in jail may result in a reprimand, at best, or a termination of employment in the worst case. The employee has the potential to be deemed unreliable and as a liability rather than as an asset to their employer. In times of recession, the ability to find employment is already hindered; adding an additional barrier of perceived liability, compounding the disadvantage that these individuals already face.

Any form of lower level criminal justice contact requires the accused to be absent from attending to their daily responsibilities and being present for personal and professional obligations. While an arrest may only result in temporary detention, even such minor incidents can take up to a minimum of three to five hours to resolve (Potter et al., 2011). Even a temporary absence can be detrimental to sustaining current employment, with the employee being labeled as untrustworthy and unreliable. The difficulty in obtaining a job in the secondary labor force without a record for certain populations has been effectively demonstrated (Pager, 2004); adding absence due to a criminal justice issue further compounds the difficulty especially for young African American men without a high school diploma (Pettit and Western, 2004). These men face considerable barriers to employment, and are more likely to face both minor and major

levels of criminal justice contact (Western, 2002). Exploring the effect of lower forms of contact in terms of arrests, convictions and jail stays can illuminate the barriers such men face and the potential consequences of such contact on their employment prospects.

Even short-term incarceration for a misdemeanor offense suggests a certain level of precariousness, with employers rationally opting for employees without potential complications. Grogger (1992) cites Sullivan's (1989) ethnographic work that documents the employment futures of young men after an arrest. Sullivan finds that employment was terminated due to chronic absenteeism, with the men attempting to conceal their contact with the criminal justice system and their subsequent need to attend legal proceedings for his case. For the unemployed men in his sample, Sullivan finds that they would not apply for employment until all court hearings were finished to avoid numerous absences from their job. Such decisions often resulted in a spotty work record, making the young men less attractive to prospective employers. The effect of an arrest, and subsequent jail stay, brands the individual as a potential risk, whether because of possible theft or extended periods of absence.

The time to resolve an arrest or jail stay typically revolves around the ability to satisfy bail requirements. The facility with which one is able to pay the bail amount is predicated on the resources of the individual or his social network. If neither family nor close friends have the funds to offer for bail, the individual may have their jail stay artificially increased due to the lack of resources. Research finds that the individuals caught up in the criminal justice system, while employed, exist in a financially tenuous environment where disposable and liquid assets are limited or non-existent (Desmond, 2012). The resources of their families and close personal ties are similarly limited, thereby hindering their ability to offer assistance in the case of an emergency (Desmond, 2012). Through extensive ethnographic work on the eviction process,

Desmond (2012) shows that the urban poor often rely on recent acquaintances rather than family members in times of financial crisis. These disposable ties, often fleeting and tenuous, fostered increased instability and insecurity. In addition, Holzer et al. (2005) find that the incapacitation effect of imprisonment further tears away at social networks that are often integral to finding and securing employment. The inability to post bond can increase the duration of a jail stay and prolong the absence from employment, potentially resulting in termination of employment and further alienation from a viable labor market (Potter et al., 2011; Bridges, 1997). Existing research has found that African Americans and Latinos are more likely to be subject to higher bail amounts and subsequently unable to pay these amounts (Bridges, 1997). Therefore, non-white arrestees are more likely to be in jail for even minor offenses, potentially increasing the penalty for criminal justice contact and compounding the effect on employment retention. Such financial limitations intensify the incapacitation effect of criminal justice contact, and highlight the potentially detrimental effects of even short term imprisonment.

Loss of human capital

The incapacitation effect of incarceration takes individuals out of the labor force, threatening their ability to maintain current employment, but also affecting future job prospects. Absence from the labor force can result in a decay of job skills and requisite experience necessary to be competitive for particular occupations. The incapacitation effect often works hand in hand with this deterioration, with incarceration representing a separation from opportunities to sharpen and advance needed job skills. Existing empirical work on the effect of imprisonment on employment suggests that the diminution of job skills while incarcerated detrimentally affects the ability to gain future employment after release (Western 2002; Pettit and Western 2004). Others suggest that the effects are not long-lasting or do not inhibit future

employment or earnings as previously reported (Grogger 1992; Kling 2006). Regardless, incarceration takes individuals out of the labor force for a period of at least a year or more, resulting in a loss of essential job skills and/or the ability to advance such skills. In prison, there are rarely opportunities to gain new job skills or hone existing expertise, therefore, time away from the labor force can lead to a deterioration of human capital and can detrimentally affect the ability to be competitive on the job market. Incarceration represents a gap in employment that signals both a lack of readiness for the current demands of a particular job but also concern about reliability, consistency and sustainability.

While an arrest or jail stay results in less time out of the labor force, these less severe forms of contact for minor incidents can affect the ability to develop and sharpen job skills. If an individual experiences multiple arrests or jail stays, the ability to amass and hone viable job skills may be hindered. In an increasingly technologically demanding job market, where proficiencies are ever-evolving and programs and devices become obsolete within a year, the absence from the labor force for even a limited amount of time can be detrimental to keeping up with current trends in skill acquisition, especially for those who lack specialized training or education credentials in such arenas. The nature of the post-industrial labor market, with its segmented strains of service sector jobs and high-skilled technology-based professions, demands consistent attendance to either assist customers and clients in the service sector positions or to maintain those specialized skills necessary for the technology sector. Nagin and Waldfogel (1998) investigate the effect of a federal fraud conviction on income, finding a more severe penalty on wages for mid-career professionals compared to those earlier in their careers. The ability of young professionals to rely on spot market employment raises their income initially post-conviction but leaves them in positions with limited upward wage mobility and little to no

job stability. The post-conviction prospects for those who had established careers prior to their conviction suffer, suggesting that the effect of contact can range depending on the type of contact but also on the employment history of the individual. Waldfogel (1994) finds similar effects for those convicted for fraud and larceny, with an increased penalty with multiple convictions, suggesting that a cumulative effect of contact may be at play. Conviction type may also have a substantial effect on the resulting penalties on employment outcomes. Lott (1992) finds substantial income penalties for a felony drug conviction, with a stiffer penalty levied on those with higher pre-conviction earnings. Lott shows a 35 to 96 percent loss in post-conviction wages, which renders a more substantial penalty compared to the loss of income from incarceration and legal fees and fines. In an earlier article, Lott (1992) investigates the effect of a conviction for embezzlement, fraud, larceny and theft offenses, showing a less severe, but still substantial, penalty on post-conviction income. These findings suggest that even the conviction stage constitutes a significant effect on post-conviction employment and earnings.

The existing literature focuses on both the ability to procure employment after incarceration and the effect on earnings that may result from time out of the labor force. Apel and Sweeten (2010) focus on the human capital deficits that result from imprisonment that affect the procurement of future employment. Their findings point to the effect of stigma being related to conviction status rather than incarceration history, especially for short-term imprisonment. Instead they contend that employment difficulties stem from sustained separation from the legal work arena, which subsequently depresses future employment prospects as well as future wages. In contrast, Kling (2006) finds that the loss of job experience and human capital as a result of incarceration has a relatively small effect on post-release earnings. He posits that such contradictory findings may be due to prison work release programs that bridge the gap between

imprisonment and reintegration as well as weakening ties to criminal elements as a result of incarceration. His findings, which show a positive effect of sentence length on earnings, echo Grogger's (1992, 1995) earlier work, suggesting that longer incarceration spells may increase exposure to ameliorative work programs that can assist in developing and sustaining viable job skills. Kling's work also shows a differential effect depending on the type of crime committed; while longer sentences are usually given to those with lower human capital, inmates who were convicted of the most severe crime types, homicide and sex crimes, often had the best employment prospects based on pre-incarceration earnings. This finding points to the necessity of exploring types of contact that affect a more varied population than prison incarceration. Lower levels of criminal justice contact cast a wider net than felony convictions, therefore, the effect on employment may be more nuanced when taking in other forms of contact into account. While Kling only looked at prison sentences, the depreciation of job skills and work experience may be potential hindrances for those who experience lower levels of criminal justice contact. The exposure to work release and job training programs in the jail setting should be a central focus in their potential to mitigate the negative effects of criminal justice contact.

Prior research on the impact of arrests on employment suggests a moderate effect on employment that accounts for black/white differentials in the rate of joblessness among arrestees (Grogger, 1992). In a follow-up study, Grogger (1995) assesses the role of arrests on both employment prospects and earning potential, finding that the detrimental effects are moderate and short-lived. According to Grogger, the analysis suggests that such outcomes are not the result of a causal effect of arrests; rather other unobserved characteristics are driving both criminal backgrounds and labor market behavior (70). In contrast, Freeman (2008) asserted that jail terms had significant long-term effects on both earnings and future employment prospects.

Grogger maintains that these empirical differences may be a result of sample differences between the two studies; Freeman analyzed the employment and earnings potential for individuals with longer records while Grogger assessed those with both short and long sentences. Therefore, the effect of arrests and short-term incarceration may hinge on the time spent in jail as opposed to the average transient stay of less than forty-eight hours. However, even a relatively short detention may pose a threat to the retention of current employment and the accessibility of future job opportunities.

Stigma

The existing research shows that the relationship between employment and imprisonment operates either on the basis of the overarching stigma of a criminal record or the loss of viable job skills. The time spent in jail, however, is often not long enough to result in the marked decline of job skills. Rather, time out of the labor force, even temporarily, can result in the loss of a current job, while the stigma from any contact with the criminal justice system that results in a record affects future employment opportunities and prospects. According to current research, a criminal record signals to potential employers that the individual is not trustworthy and that their performance and attendance will be inconsistent, posing a danger to the company's bottom line (Weisheit & Klofas 1989; Sullivan 1989). Even short-term incarceration for a misdemeanor offense suggests a certain level of precariousness, with employers rationally opting for employees without potential complications. Western (2002) finds a ten to twenty percent reduction in wages for formerly incarcerated individuals, and diminished wage growth by thirty percent. While a partial explanation for these findings is an education penalty rendered due to the lack of a college degree, Western does find support for a stigma-driven mechanism that disadvantages those with a criminal record over others without such contact. The effect of an

arrest, and subsequent jail stay, brands the individual as a potential risk, whether because of possible theft or due to extended periods of absence.

The role that misdemeanor convictions play in terms of employment, however, has not been fully explored. Uggen et al. (2014) adapted Pager's (2003) audit study of white and African American men with felony convictions to determine the employment outcomes for a low-level misdemeanor offense (disorderly conduct). The results suggest the same pattern that Pager found: namely, that even the presence of a misdemeanor record affects job prospects for African American men. The outcomes were also consistent with Pager's findings of a race differential, showing that white men with a misdemeanor record were more likely to be called back for a job interview than African American men without a record. Uggen et al.'s results point to a pervasive effect of prior low-level criminal contact of any type on employment prospects. While the work on long-term prison incarceration has documented the detrimental outcomes of time in prison on employment, education, family life and health, there has been a limited amount of work done on the consequences of even short term stints in jail for minor convictions.

As stated previously, the audit study conducted by Uggen et al. (2014) reinforces the salience of a criminal record, even for a non-violent misdemeanor conviction, on the potential for gainful future employment. The study also explores the persistent race effect that undergird employment decisions, showing that African Americans, with or without a misdemeanor conviction record, are subject to more severe employment penalties than their white counterparts. The ease of accessing criminal and arrest records has increased the utilization of such criterion to evaluate potential employees. Stoll and Bushway (2008) assert that the increased use of background checks does not necessarily result in restrictions to employment for former felons. Rather, they find that employers who are not legally required to perform background self-report

using the information as an information-gathering technique rather than a strike against hiring. On the other hand, Stoll and Bushway find that employers who are legally bound to check criminal histories are more likely to predicate their decision to hire on the presence or absence of a felony record. The ubiquitous availability of these records, and oftentimes for arrests and convictions in the distant past, has the potential to affect employment prospects especially for those individuals who are marginalized from the labor market due to racial discrimination (Holzer, Raphael, & Stoll, 2006; Pager, 2003, 2007; Pager & Quillian, 2005). In her audit study and subsequent extended analysis, Pager (2003, 2007) posits that the felon label and stigma erects barriers to future employment and self-sufficiency, affecting the possibility of recidivism as well as outcomes throughout the life course. Through the intensive audit process, Pager concluded that criminal records do in fact affect employment prospects for both racial groups. For whites, Pager found there was a significant effect of disclosing imprisonment history, with 34% of white testers without criminal records receiving a callback, when compared with 17% of those with a criminal record (955). Among African American testers without criminal records, 14% received a callback, compared with 5% of those with a record. As the numbers reflect, there seems to be a striking and critical disparity not only for those with a criminal record, but also for African Americans regardless of any history in the criminal justice system.

While some researchers, such as Stoll and Bushway (2008) find that employers self-report a tendency to hire those with felony records, similar outcomes have not been borne out in audit studies tapping into similar hiring behaviors. It may be that this is an evaluation of self-reported decision-making rather than an indicator of purposive hiring action. The reliance on self-reported behavior may explain the contradictory results, with the audit studies arguably measuring the demonstration of discriminatory behavior, which may not be subject to the same

level of social desirability bias seen with self-reports of behavior. For example, Pager and Quillian (2005) find significant discrepancies between self-reports of employers' hiring practices and their actual decisions to employ ex-offenders. In their study, employers often reported the willingness to hire ex-offenders, but their actions in the audit portion of the study often differed markedly from their expressed preferences. Therefore, the divergence between words and actions may be driving the differential in outcomes between the audit study results and those of employer surveys. Pager and Quillian maintain, however, that the survey results are still equally useful in understanding the motivations behind employers' beliefs and perceptions of potential employees. However, it seems that the audit studies may provide a more suitable framework for ascertaining the potential effect of criminal records, even for low-level offenses, on employment opportunities.

With this theoretical and empirical framework, I expect to find similar deleterious consequences even for low level criminal justice contact for both the consistency of employment and wages (Hypotheses #1 & 2). While the time out of the labor force differs between felony imprisonment and a jail stay, for example, even a short period of incapacitation can have detrimental effects, especially for low-wage workers in the secondary labor market. With the increasing ubiquity and scope of criminal background checks, an arrest or misdemeanor conviction can result in a similar level of stigma, inhibiting potential future employment. As the nature of contact becomes more severe, from an arrest to a jail stay, for instance, I expect to see a consistent increase of the penalties for employment outcomes (Hypothesis #3). A jail stay often involves a longer stay, and therefore greater incapacitation, than compared to an arrest. Therefore, it follows that being sentenced to jail may yield more stringent penalties on the ability to work and subsequent wages. In order to test Grogger's (1992, 1995) supposition that the

employment effects of low level contact are moderate and short-lived, I test for the longevity of these impacts, and anticipate that the effects will persist beyond the time of contact (Hypothesis #4). While low level criminal justice contact is often short-lived, especially as compared to felony imprisonment, the assumption is that the effects operate similarly. However, even short term incapacitation and the stain of misdemeanor record could have negative, sustained consequences on employment, especially for individuals early in their careers and in the low-wage, low-skill labor market.

Data & Methods

Using the National Longitudinal Study of Youth (1997), I will evaluate the effect of arrests, convictions and short terms jail stays on employment, both in the form of income and the presence or absence of a paying job. The data set offers the ability to track respondents over time and assess their level of contact with the criminal justice system. To investigate these potential relationships, models will be constructed that use appropriate measures of these employment outcomes and various demographic and life circumstance controls. The measures for employment ask if currently employed and current income level through fourteen waves of NLSY97 data.

Employment measures

Two continuous measures were used to assess the effect of low level criminal justice contact on employment. First, the number of weeks worked in a given year is used as a proxy for the consistency of employment. The respondents reported the number of weeks worked throughout the year, and those variables were aggregated to explore the longitudinal nature of the data. Second, to explore the economic impact of contact, a monthly wage measure was constructed using respondent's self-reported weekly wage earnings combined with the number of

hours they reported working in each week. Using monthly wages, rather than yearly wages, captures even small changes in wage increase or decline due to contact.

Criminal justice contact

Five measures are used to explore the trajectory of criminal justice contact and its potential impacts on physical and mental health outcomes: arrest, arrest without conviction, conviction, jail sentence and jail stay. All, with the exception of arrest without conviction, were measures provided by the NLSY97, asking respondents if they have experienced that form of contact in the last calendar year. Arrest without conviction was constructed by limiting the sample to those who did not go on to the conviction stage. The existing literature posits three potential mechanisms that drive impacts on employment outcomes from criminal justice contact, namely incapacitation, loss of human capital and stigma. The arrest without conviction measure allows an exploration of the impact of incapacitation without the stigma that comes from a conviction.

Covariates

All models control for basic demographic variables such as race⁶, age⁷, gender, marital status, presence of children in the household, income (logged), immigration status, and education level. Models that assess the impact on wages also use weeks worked as a control variable. Year dummy variables were also added in order to capture the effect of time on the models. Multiple imputation was used in Stata to account for missing data on key variables.

Descriptives are provided in table 1. The sample ranges in age between 12 and 31 years of age,

⁶ Race and ethnicity variables used: African American, Latino, Asian, Mixed and Native American. White was used as the referent category.

⁷ Age squared is also added as a control to capture the quadratic nature of age and its differential effects on employment outcomes.

however, for these analyses, the sample was restricted to those 18 years of age and older in order to accurately measure time in the labor force.

Two sets of models for employment were analyzed using random effects regression models in Stata. Within each set of models, the employment outcomes are assessed according to five different types of criminal justice contact: arrest, arrest without conviction, conviction, jail sentence and jail stay. Each model was run separately in order to assess the effect of each point of contact on weeks worked and wages, respectively. The first outcome variable for these models was weeks worked in the next interview year from their arrest as reported by the respondent. Using weeks worked is a suitable proxy for labor force engagement, and is not necessarily subject to the same restrictions, such as weather or geographical location as income level. The second outcome variable was wages, calculated based on respondent's hourly wages from all of the jobs held in a calendar year. Using leads for both weeks worked and wages, we are able to see if criminal justice contact has an effect on subsequent employment outcomes in the next calendar year following the arrest. Leads are the functional equivalent of lag variables, which substitute the next year's measure for weeks worked or wages, respectively, for each respondent. Five different models were run for the various types of criminal justice contact: arrest, arrest without conviction, conviction, sentenced to jail but not currently serving time and jail stay. The models all control for sex, education, children, marital status, age, a squared equation for age, immigrant status and race. In the models with wages as the outcome variable, weeks worked is used as a control for consistency of employment.

Results

The first set of models in Table 2 show a consistent negative effect of low level criminal justice contact on the employment outcome of weeks worked. In model 2.1, the results show that

being arrested decreases the number of weeks worked, significant at the 0.001 level. This result falls in line with previous research, suggesting that even a brief break in employment may affect the maintenance of current employment and the possibility of future job gains (Grogger 1992, 1995). Other control variables operate as expected with findings from the previous literature, with education increasing the number of weeks worked. Education is tightly linked to employment prospects and subsequent wages, therefore, this relationship is expected to be influential when discussing employment outcomes. Model 2.2 shows the results for an arrest without a subsequent conviction, finding that there is a significant, negative effect on weeks worked due to the CJS contact. The results hold for those convicted and sentenced to jail, as seen in models 2.3 and 2.4. For those currently incarcerated in jail in model 2.5, the number of weeks worked is negatively affected, with the largest coefficient out of the all of the models run. While the literature on the employment effects of low level incarceration are limited, these findings correspond to the existing scholarship, suggesting that even though the incarceration or hold time is abbreviated, as compared to a prison stay, there are still consequential effects of these various stages of contact that may be significant when considering the impact on employment and income. The result for a jail stay are consistent with the incapacitation hypothesis, which suggests that time out of the labor force has detrimental impacts for maintaining consistent employment.

Tables 3 and 4 include models that have lead variables, looking at weeks worked one and two years, respectively, after criminal justice contact. For one year after contact, the results are consistent with the previous set of models, with each level of contact increasing the penalty for the number of weeks worked, except for conviction. As seen in the previous models, being sentenced to jail and being incarcerated in jail have the most substantial effects. The outcome for

arrest with no conviction is also of note, showing a consistent effect of an arrest regardless of any subsequent prosecution. This penalty for such a minor form of contact can have substantial consequences for a wide swath of the general population in terms of maintaining employment and economic security. These results once again highlight the potential role of incapacitation in hindering the consistency of employment and job attendance. While an arrest or jail stay represents short-term absences, especially when compared with felony imprisonment, these findings suggest that even a temporary removal from every day responsibilities and commitments has an impact beyond the time of contact. And the consistency of employment has implications for not only subsequent wages but also for future employability and economic and occupational security.

Two years after contact, only an arrest, with or without conviction and being in jail remain significant and negatively related to weeks worked. These results partially confirm Grogger's (1995) supposition that minor criminal justice contact has short-lived consequences for employment outcomes. But these findings suggest a more nuanced understanding of those effects, showing that for some forms of contact, the impact is relatively temporary. However, there is a greater potential for multiple arrests or jail stays in the span of a year, thereby compounding the detrimental effect on job consistency. In addition, even a moderate penalty, especially during times of economic downturn and recession, can render a job seeker vulnerable to extended unemployment and other subsequent financial and social disadvantages. Taking other forms of contact into account may help to clarify the landscape of occupational and economic disadvantage for those who have been processed through the criminal justice system.

In table 5, the impact of the criminal justice system on wages tells a different story. Arrest, conviction and a jail stay register significant effects, but show a positive relationship, in

contrast to the models on weeks worked. The results for arrest without conviction and a jail sentence are not significant. The conviction results harken back to work by Nagin and Waldfogel (1998), which shows differential effects on employment outcomes by conviction type. The authors assert that those early in their career, and especially those with criminal records, are often relegated to spot market jobs, which are characterized by a lack of mobility and stability. These jobs, however, are easier to procure than reentering more stable careers for those post-conviction. Therefore, there is a temporary increase in wages that is soon diminished due to the precarious nature of spot market jobs and the lack of subsequent wage growth. The relationships between wages and other control variables are consistent with previous research. Education and marriage remain factors which consistently elevate wages. As compared to the earlier models for weeks worked, it seems that marriage is positively associated with wages, which is also consistent with the prevailing literature (Neumark 1988). However, being African American in the labor force depresses wages, which is consistent with the work of Pager (2003) and Pager and Quillian (2005), among others. Immigrant status results in a positive association with wages levels, pointing to possibly consistent engagement in the labor force. Interestingly, being male in the models for weeks worked was not significant but in the models for wages, it is significant throughout. This may suggest that in terms of consistent employment, gender may not be a factor when controlling for criminal justice contact but wages may be jeopardized based on gender. When the measure for weeks worked is added to the model, arrests, convictions and jail stays show significant and positive relationships with wages. These findings solidify the connection between immediate employment and subsequent wages after CJS contact.

Table 6 reveals a substantially more complex story about the relationship between wages and CJS contact, with significant and negative relationships for all forms of contact except for

convictions and jail sentences a year after contact. These findings note a delayed wage penalty for criminal justice contact and the precarious nature of employment outcomes for those processed through the system. The results immediately after contact register no detrimental impact on wages, but these findings suggest that the true impact of low level criminal justice contact may not be evident until the following year. In addition, the findings seem to lend credence to an incapacitation effect that may render more substantial penalties than other types of contact. Therefore, exploring the differential impacts of various types of contact offers a more nuanced view of the full impact of criminal justice contact. Furthermore, as posited by Nagin and Waldfogel (1998), the effects of a conviction may be highly dependent on the type of conviction. A felony conviction may garner more substantial impacts on wages than a minor misdemeanor charge or it is possible that a fraud conviction may garner more penalties than a DUI. As for jail sentence, it is possible that the effect for a jail sentence is not seen at this stage because either the individual has yet to be incarcerated or the jail sentence is short enough to not render an immediate effect on wages. It also possible that due to the limited sample, we are unable to see an effect. This result may be dependent on the type of employment an individual holds. Those in the secondary labor market are often subject to inflexible work schedules and a lack of sick or vacation time. Therefore, a few days can jeopardize current employment. However, for those in more stable labor markets, a brief absence from the office may not have the same impact. Unfortunately, the NLSY97 does not provide information on the length of a sentence, which would shed more light on the impact of a jail sentence on employment outcomes. Regardless, the results provided show a strain on wages due to some forms of criminal justice contact, warranting further investigations into the dynamics between employment and contact across the spectrum.

In table 7, only the results for those recently incarcerated in jail show a negative and significant relationship with wages. These results suggest that overall the penalty on employment outcomes is relatively short-lived compared with felony incarceration, but that the impact of incarceration, even for a shorter time period, may be more detrimental than the other forms of contact. However, low level criminal justice contact is unique in that the incapacitation duration is shorter when compared with imprisonment, meaning that multiple encounters of an arrest, conviction or jail stay can occur multiple times in a year. While these results show at most a two year effect the potential for a cumulative effect of multiple arrests or jail stays, it is possible that looking at total arrests or jail stays may yield more stringent penalties. Overall, however, exploring the consequences of an arrest, conviction or jail stay aids in understanding the full extent of the impact of criminal justice contact on employment prospects and earnings.

In order to more fully investigate the role of conviction type on employment outcomes, tables 8, 9, 10 and 11 provide model results for convictions broken down by category (violent, property and drug offenses) as well as by individual conviction type⁸ For weeks worked, only property conviction category shows a significant and negative relationship. This finding points to a potential stigmatizing effect depending on the type of conviction. A property conviction may signal to current or potential employers that the individual is untrustworthy, especially in the handling of money or goods. The employers may perceive that the individual poses a risk to business. This result can also be an artifact of the difficulty of finding work after a property conviction, both due to the stigma of the offense but also the incapacitation that follows criminal justice contact. When conviction is broken down by type, only burglary, theft, property

⁸ Violent crimes were recorded as assault, robbery and burglary. Property crimes were measured as theft, miscellaneous property offenses, property and property destruction. Drug offenses were recorded for drug possession and drug sales. Offenses that were provided in the NLSY97 such as traffic violations and public order convictions were not categorized but results can be seen in the results by conviction type.

destruction, miscellaneous property crimes and the selling of drugs are significantly related to a decrease in weeks worked. These offenses could render more stringent effects due to the type and severity of sentences. Unfortunately, the NLSY97 does not provide information on sentence length in order to investigate any possible connection on the consistency of employment. For wages, there are consistent positive effects across all conviction categories. While it seems that consistent employment may be contingent on the type of conviction, wages remain consistent regardless. These results could be a result of these individuals being at the start of their careers and having an easier time obtaining employment through precarious spot market jobs. Since the NLSY97 sample consists of those in the late twenties and early thirties, such results dovetail with Nagin and Waldfogel's (1998) work on individuals with convictions who experience lighter penalties initially compared to their mid-career counterparts.

Discussion

Existing research on the effect of prison incarceration has shown consistent detrimental consequences that arise from imprisonment and sustained contact with the criminal justice system (Pager 2003; Pettit and Western 2004; Kruttschnitt 2010; Wildeman 2009). These findings suggest that less severe forms of contact, such as an arrest, conviction or jail stay, can hinder employment outcomes, both in terms of weeks worked and wages. As the results show, as the level of contact becomes more severe, there is a greater effect on the regularity of job attendance. However, the effect on wages does not appear until a year after contact, suggesting a lagged penalty for certain forms of contact. While the incapacitation effect of an arrest or a jail stay is not as sustained as prison incarceration, these results suggest that similar mechanisms may be at play in terms of the consequences of contact, regardless of the length of contact. The findings suggest that the consequences from criminal justice contact are even more far reaching

than previously imagined. While prison admissions constitute over one percent of the United States population, there are over thirteen million people, or roughly four percent of the nationwide population, who are processed through the lower levels of the criminal justice system. There are potential implications for increasing disadvantage even for minor brushes with the law that could hinder the opportunities and life chances for those individuals involved, their families and communities. This population has higher rates of engagement in the legal work force, therefore, the ramifications for their viability on the job market and the potential for heightening economic disadvantage are substantial.

Less severe forms of criminal justice contact, such as an arrest, conviction or jail stay, are similar to prison incarceration in that they remove an individual from the population and incapacitate them, inhibiting their ability to attend to every day responsibilities. Even these forms of contact hinder job attendance and can result in termination from existing employment, a decrease in job prospects and skills or a decrease in wages. These results suggest that even the most minor form of contact, an arrest, which only results in usually less than a day of imprisonment, can negatively affect the number of weeks worked as well as monthly wages. Furthermore, it is substantial that even an arrest without conviction results in a decrease in weeks worked and wages. This result suggests that a criminal conviction is not needed to have a detrimental effect on employment outcomes. Those with arrests that were either unwarranted or unsubstantiated by solid evidence could be disadvantaged simply because of the time away from their current job as well as the stigma of an arrest record. While the collateral consequences are not as severe as those seen for prison incarceration, these minor forms of contact can impact a wider swath of the population, especially those with steady employment histories and familial and social responsibilities. Compared to prison incarceration, individuals may experience

multiple arrests or jail stays within a given year or in subsequent years, thereby compounding the effect of these consequences on employment. Given the ubiquity of criminal and background records monitoring for employment and housing, these minor brushes with the law have the potential to have a similar impact to a prison sentence, especially because most employers and prospective landlords are concerned about the presence of any criminal record and not necessarily the type of offense (Uggen et al. 2014; Pager 2003). The incapacitation of these various forms of contact and the subsequent stigma that results can hinder the ability for these formerly incarcerated individuals to create stable and productive lives.

Even low level criminal justice contact has the potential to effect substantial stratification markers that limit access to opportunities for economic and occupational stability. The precarious position of these men prior to the imprisonment boom made them susceptible to engagement in the illicit underground economy or employment in low wage, low-skilled jobs. However, the rise of incarceration has further disadvantaged this population, leaving them with limited options when they return to their communities. The results suggest that the effect is similar for those with minor brushes with the law, impacting their ability to maintain or obtain employment and a living wage. Ties to work in the secondary labor market, where job stability and benefits are nearly nonexistent, are not able to provide the requisite control that will lead to desistance from further criminal offending (Crutchfield 1989, 2014; Fagan & Freeman 1999; Uggen 2000; Sampson & Laub 2003). Even an arrest for an infraction or misdemeanor can prevent the individual from showing up to work, putting current employment in jeopardy. If the individual is employed in the secondary labor market, the leniency for absences resulting from an arrest, conviction or jail stay is at a minimum (Crutchfield 2014). Oftentimes workers in the low-skilled labor market are largely expendable and do not have access to sick or personal days

in order to attend to court appearances and other requirements that occur after contact. The incapacitation effect reflected by the findings suggests absences of any length of time can be detrimental to both current and future employment outcomes.

Given that the results show a sustained effect, the individual who experiences low level contact can be impacted in both the consistency of employment as well as the earnings from employment well beyond the time of contact. Such impacts, even for an arrest or jail stay, can impede the ability to obtain future employment, thereby furthering levels of inequality and stratification. Decreasing options in the legal labor market, due both to their former incarcerated status and the health of the current market, can force these marginal individuals into illicit work, which will leave them vulnerable to eventual re-apprehension. Furthermore, given the increasing debt accrued through legal financial obligations charged for even short term jail stays, individuals may be arrested for failure to pay, resulting in a feedback loop due to their previous contact (Harris, Evans and Beckett 2010). Such financial debts can make even a relatively moderate effect on the employment or wages due to an arrest, conviction or jail stay substantial given the compounded penalty from contact. Additional stints in jail or prison will affect not only the individual offender, but will tear at the already fraying fabric that binds them to family and community. Goffman (2009) has suggested that the threat of outstanding warrants or parole violations similarly impacts the connection to the broader community and the interaction and trust in institutions and relationships. Therefore, the stain of a felony conviction has long-lasting and detrimental effects across the life course. Low-level incarceration for misdemeanor convictions may not erect such substantial barriers, however, as the results suggest, any contact with the criminal justice system could result in a cumulative disadvantage over time. Only

focusing on prison stays and felony convictions limits the scope of the analysis on the full effect of incarceration, both low-level and long-term, on the trajectory of former offenders.

Several important limitations exist. The NLSY97 only records self-reported contact and is not verified by official records. It is possible that respondents may omit incidents of criminal justice contact. Also, the number of people in the original population that have had contact is small (approximately 22%), which is a challenge given the nature of the research questions being posed for this current project. However, there are a limited number of data sets that ask questions about contact beyond prison stays and none that are currently available that tap into questions about outcomes. Therefore, the NLSY97 provides a unique opportunity to gauge the effect of incarceration and less severe forms of criminal justice contact and evaluate the mechanisms that undergird these outcomes. The collateral consequences of short-term incarceration may be cumulative over time, however, the NLSY97 is not necessarily able to show such effects due to the time frame in which the data was collected. In addition, given the limited sample for these outcomes, racial and gender effects will not be analyzed, thereby limiting the scope of the analysis. This project will only be able to focus on male respondents, which truncates the range of effects as well as the ability to fully ascertain the scope of effects on employment outcomes. Similarly, race differentials for incarceration and arrest outcomes are an important component of incarceration effects research. Racial and ethnic factors often pattern both the exposure to the criminal justice system as well as the repercussions of contact. However, the availability of differences by race and ethnicity will not be possible in this current project. For an initial project of this kind, however, the NLSY97 can provide an understanding of the potential outcomes of an arrest as compared with both short-term and extended incarceration.

Ample empirical evidence exists to show that prison incarceration has long-term detrimental consequences for those imprisoned, often extending beyond individual impacts to families and communities (Massoglia and Uggen 2010; Comfort 2007; Pettit and Western 2004; Manza and Uggen 2006; Schnittker, Massoglia and Uggen 2012). Assessing the breadth and depth of these effects continues to be a rich landscape for scholarly research. This project is built on the foundations of such work, exploring the outcomes of imprisonment on wages, employment retention and prospects. These outcomes have been found to affect other facets of existence, namely family stability, dependent children's educational prospects and the crime rate of neighborhoods, to name a few. The effects of prison incarceration have significant implications for the viability of communities that house large proportions of returning prisoners, especially if those individuals' employment, housing and health prospects are unduly compromised by their incarceration. Research has shown that economic mobility for this population is irretrievably harmed by the presence of a criminal record and the time out of the labor force due to incarceration (Western 2002; Pettit and Western 2010). Therefore, expanding the focus of this scholarship to low level forms of contact allows for a more comprehensive understanding of the scope of the consequences of criminal justice contact and the potential for more severe impacts on economic disadvantage. These results suggest that there is nothing minor about an arrest or jail stay. Rather, there are significant penalties to be paid, whether short or long term, when exposed to the system that can affect other mainstays of stability and equality. Exploring less severe forms of contact allows for an understanding of the full range of collateral consequences of involvement in the criminal justice system and the potential implications for increased inequality and stratification.

Table 3.1: Employment Descriptives

	Mean	Standard deviation
<i>Arrest</i>	0.05	0.22
<i>Arrest, no conviction</i>	0.03	0.18
<i>Conviction</i>	0.02	0.13
<i>Jail sentence</i>	0.01	0.08
<i>Jail stay</i>	0.003	0.06
<i>Male</i>	0.51	0.49
<i>Years of education (1 year before contact)</i>	12.8	3.83
<i>Married (1 year before contact)</i>	0.12	0.33
<i>Children (1 year before contact)</i>	0.15	0.36
<i>Age</i>	23.09	3.27
<i>Age2</i>	461.74	190.09
<i>African American</i>	0.27	0.44
<i>Immigrant</i>	0.02	0.15
<i>Weeks worked per year</i>	29.66	21.83
<i>Monthly wage (logged)</i>	7.06	0.78
<i>Monthly wage</i>	1523.82	1264.88
<i>N = 7882</i>		

Table 3.2: Random effects models for the effect of an arrest, conviction, charge, jail sentence and jail stay on weeks worked.

	Model 2.1 Arrest (n=1871)	Model 2.2 Arrest, no conviction (n=1076)	Model 2.3 Conviction (n=795)	Model 2.4 Jail sentence (n=392)	Model 2.5 Jail stay (n=167)
<i>CJS Contact</i>	-2.392*** (0.45)	-2.147*** (0.51)	-2.191** (0.76)	-2.903** (1.00)	-5.374*** (1.36)
<i>Male</i>	0.413 (0.29)	0.366 (0.29)	0.332 (0.29)	0.322 (0.29)	0.333 (0.29)
<i>Educational status</i>	0.865*** (0.06)	0.871*** (0.06)	0.879*** (0.06)	0.877*** (0.06)	0.879*** (0.06)
<i>Children</i>	-0.303 (0.27)	-0.303 (0.27)	-0.318 (0.27)	-0.310 (0.27)	-0.314 (0.27)
<i>Married</i>	0.221 (0.28)	0.226 (0.28)	0.249 (0.28)	0.240 (0.28)	0.244 (0.28)
<i>Age</i>	1.054** (0.39)	1.116*** (0.39)	0.971* (0.39)	1.058** (0.39)	1.056** (0.39)
<i>Age²</i>	-0.021** (0.01)	-0.022** (0.01)	-0.019* (0.01)	-0.021* (0.01)	-0.021* (0.01)
<i>African American</i>	-5.796*** (0.35)	-5.804*** (0.35)	-5.819*** (0.35)	-5.824*** (0.35)	-5.789*** (0.35)
<i>Latino</i>	-1.567*** (0.37)	-1.563*** (0.38)	-1.564*** (0.38)	-1.556*** (0.38)	-1.555*** (0.38)
<i>Mixed race</i>	-5.797*** (1.51)	-5.813*** (1.51)	-5.829*** (1.51)	-5.839*** (1.51)	-5.776*** (1.51)
<i>Immigrant</i>	-1.751* (0.83)	-1.744* (0.83)	-1.733* (0.83)	-1.741* (0.83)	-1.744* (0.83)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.3: Random effects models for the effect of an arrest, conviction, charge, jail sentence and jail stay on weeks worked in the year after the CJS contact.

	Model 3.1 Arrest (n=1871)	Model 3.2 Arrest, no conviction (n=1076)	Model 3.3 Conviction (n=795)	Model 3.4 Jail sentence (n=392)	Model 3.5 Jail stay (n=167)
<i>CJS Contact</i>	-2.502*** (0.48)	-2.838*** (0.54)	-0.798 (0.89)	-3.161** (1.10)	-4.763*** (1.48)
<i>Male</i>	0.368 (0.31)	0.342 (0.30)	0.248 (0.31)	0.268 (0.30)	0.275 (0.30)
<i>Educational status</i>	0.979*** (0.06)	0.980*** (0.06)	1.002*** (0.06)	0.995*** (0.06)	0.998*** (0.06)
<i>Children</i>	-0.658* (0.31)	-0.658* (0.31)	-0.681* (0.31)	-0.671* (0.31)	-0.672* (0.31)
<i>Married</i>	0.379 (0.32)	0.361 (0.32)	0.424 (0.32)	0.402 (0.32)	0.412 (0.32)
<i>Age</i>	1.700*** (0.60)	1.758*** (0.60)	1.657** (0.60)	1.698** (0.60)	1.678** (0.60)
<i>Age²</i>	-0.035** (0.01)	-0.036** (0.01)	-0.034** (0.01)	-0.035** (0.01)	-0.034** (0.01)
<i>African American</i>	-5.822*** (0.36)	-5.828*** (0.36)	-5.845*** (0.36)	-5.845*** (0.36)	-5.812*** (0.36)
<i>Latino</i>	-1.483*** (0.39)	-1.481*** (0.39)	-1.469*** (0.39)	-1.462*** (0.39)	-1.465*** (0.39)
<i>Mixed race</i>	-4.635*** (1.57)	-4.614** (1.57)	-4.667** (1.57)	-4.671*** (1.57)	-4.643*** (1.57)
<i>Immigrant</i>	-2.400** (0.91)	-2.399** (0.91)	-2.382** (0.91)	-2.393** (0.91)	-2.394** (0.91)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.4: Random effects models for the effect of an arrest, conviction, charge, jail sentence and jail stay on weeks worked two years following the CJS contact.

	Model 4.1 Arrest (n=1871)	Model 4.2 Arrest without Conviction (n=1076)	Model 4.3 Conviction (n=795)	Model 4.4 Jail sentence (n=392)	Model 4.5 Jail stay (n=167)
<i>CJS Contact</i>	-1.804*** (0.49)	-1.987*** (0.55)	-0.916 (0.90)	-2.043 (1.11)	-4.145** (1.51)
<i>Male</i>	0.741* (0.31)	0.720* (0.31)	0.660* (0.31)	0.665* (0.31)	0.679* (0.31)
<i>Educational status</i>	1.082*** (0.07)	1.084*** (0.07)	1.098*** (0.07)	1.093*** (0.07)	1.095*** (0.07)
<i>Children</i>	-0.533 (0.32)	-0.534 (0.32)	-0.550 (0.32)	-0.546 (0.32)	-0.541 (0.32)
<i>Married</i>	0.202 (0.33)	0.191 (0.32)	0.236 (0.33)	0.220 (0.33)	0.226*** (0.33)
<i>Age</i>	-0.492 (0.71)	-0.464 (0.71)	-0.532 (0.71)	-0.498 (0.71)	-0.516 (0.71)
<i>Age²</i>	0.014 (0.02)	0.013 (0.02)	0.015 (0.02)	0.014 (0.02)	-0.014 (0.02)
<i>African American</i>	-5.952*** (0.36)	-5.955*** (0.36)	-5.968*** (0.36)	-5.971*** (0.36)	-5.938*** (0.36)
<i>Latino</i>	-1.594*** (0.39)	-1.589*** (0.39)	-1.581*** (0.39)	-1.578*** (0.39)	-1.575*** (0.39)
<i>Mixed</i>	-4.902*** (1.57)	-4.885*** (1.57)	-4.939*** (1.58)	-4.939*** (1.58)	-4.915*** (1.58)
<i>Immigrant</i>	-0.985 (0.94)	-0.984 (0.94)	-0.971 (0.94)	-0.980 (0.94)	-0.983 (0.94)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.5: Random effects models for the effect of an arrest, conviction, charge, jail sentence and jail stay on logged monthly wages

	Model 5.1 Arrest (n=1871)	Model 5.2 Arrest without Conviction (n=1076)	Model 5.3 Conviction (n=795)	Model 5.4 Jail sentence (n=392)	Model 5.5 Jail stay (n=167)
<i>CJS Contact</i>	0.030* (0.02)	0.007 (0.02)	0.066** (0.03)	0.040 (0.03)	0.123* (0.06)
<i>Male</i>	0.278*** (0.01)	0.279*** (0.01)	0.278*** (0.01)	0.279*** (0.01)	0.278*** (0.01)
<i>Educational status</i>	0.044*** (0.00)	0.044*** (0.00)	0.044*** (0.00)	0.044*** (0.00)	0.044*** (0.00)
<i>Children</i>	0.021* (0.01)	0.021* (0.01)	0.021* (0.01)	0.021* (0.01)	0.021* (0.01)
<i>Married</i>	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)
<i>Age</i>	0.371*** (0.01)	0.371*** (0.01)	0.374*** (0.01)	0.371*** (0.01)	0.371*** (0.01)
<i>Age²</i>	-0.006*** (0.01)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)
<i>African American</i>	-0.036** (0.01)	-0.036** (0.01)	-0.036** (0.01)	-0.036** (0.01)	-0.036** (0.01)
<i>Latino</i>	0.075*** (0.01)	0.075*** (0.01)	0.075*** (0.01)	0.075*** (0.01)	0.075*** (0.01)
<i>Mixed</i>	-0.039 (0.06)	-0.039 (0.06)	-0.038 (0.06)	-0.039 (0.06)	-0.040 (0.06)
<i>Immigrant</i>	0.131*** (0.03)	0.131*** (0.03)	0.131*** (0.03)	0.131*** (0.03)	0.131*** (0.03)
<i>Weeks worked</i>	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.6: Random effects models for the effect of an arrest, conviction, charge, jail sentence and jail stay on logged monthly wages in the year following the CJS contact.

	Model 6.1 Arrest (n=1871)	Model 6.2 Arrest without Conviction (n=1076)	Model 6.3 Conviction (n=795)	Model 6.4 Jail sentence (n=392)	Model 6.5 Jail stay (n=167)
<i>CJS Contact</i>	-0.049** (0.02)	-0.074*** (0.02)	0.038 (0.03)	-0.070 (0.04)	-0.411*** (0.08)
<i>Male</i>	0.290*** (0.01)	0.290*** (0.01)	0.287*** (0.01)	0.288*** (0.01)	0.289*** (0.01)
<i>Educational status</i>	0.056*** (0.00)	0.056*** (0.00)	0.056*** (0.00)	0.056*** (0.00)	0.056*** (0.00)
<i>Children</i>	0.016 (0.01)	0.016 (0.01)	0.015 (0.01)	0.016 (0.01)	0.016 (0.01)
<i>Married</i>	0.098*** (0.01)	0.097*** (0.01)	0.098*** (0.01)	0.098*** (0.01)	0.098*** (0.01)
<i>Age</i>	0.355*** (0.02)	0.357*** (0.02)	0.356*** (0.02)	0.356*** (0.02)	0.354*** (0.02)
<i>Age²</i>	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)
<i>African American</i>	-0.043*** (0.01)	-0.042*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.042*** (0.01)
<i>Latino</i>	0.084*** (0.02)	0.084*** (0.02)	0.084*** (0.02)	0.084*** (0.02)	0.084*** (0.02)
<i>Mixed</i>	-0.046 (0.06)	-0.045 (0.06)	-0.046 (0.06)	-0.046 (0.06)	-0.045 (0.06)
<i>Immigrant</i>	0.066* (0.03)	0.066* (0.03)	0.067* (0.03)	0.067* (0.03)	0.066* (0.03)
<i>Weeks worked</i>	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.7: Random effects models for the effect of an arrest, conviction, charge, jail sentence and jail stay on logged monthly wages two years following the CJS contact.

	Model 7.1 Arrest (n=1871)	Model 7.2 Arrest without Conviction (n=1076)	Model 7.3 Conviction (n=795)	Model 7.4 Jail sentence (n=392)	Model 7.5 Jail stay (n=167)
<i>CJS Contact</i>	-0.020 (0.02)	-0.018 (0.02)	-0.026 (0.03)	0.023 (0.04)	-0.265*** (0.07)
<i>Male</i>	0.280*** (0.01)	0.280*** (0.01)	0.280*** (0.01)	0.279*** (0.01)	0.281*** (0.01)
<i>Educational status</i>	0.075*** (0.00)	0.075*** (0.00)	0.075*** (0.00)	0.075*** (0.00)	0.074*** (0.00)
<i>Children</i>	0.016 (0.01)	0.016 (0.01)	0.016 (0.01)	0.016 (0.01)	0.016 (0.01)
<i>Married</i>	0.061*** (0.01)	0.061*** (0.01)	0.062*** (0.01)	0.062*** (0.01)	0.062*** (0.01)
<i>Age</i>	0.304*** (0.02)	0.304*** (0.02)	0.303*** (0.02)	0.303*** (0.02)	0.303*** (0.02)
<i>Age²</i>	-0.005*** (0.00)	-0.005*** (0.00)	-0.005*** (0.00)	-0.005*** (0.00)	-0.005*** (0.00)
<i>African American</i>	-0.054*** (0.01)	-0.054*** (0.00)	-0.054*** (0.01)	-0.054*** (0.01)	-0.053*** (0.01)
<i>Latino</i>	0.079*** (0.02)	0.079*** (0.02)	0.079*** (0.02)	0.079*** (0.02)	0.079*** (0.02)
<i>Mixed</i>	-0.033 (0.06)	-0.033 (0.06)	-0.033 (0.06)	-0.033 (0.06)	-0.032 (0.06)
<i>Immigrant</i>	0.069* (0.04)	0.069* (0.04)	0.070* (0.04)	0.070* (0.04)	0.069* (0.04)
<i>Weeks worked</i>	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.8: Random effects models for the effect of a conviction, by category, on weeks worked

	Model 8.1 Violent Conviction	Model 8.2 Property Conviction	Model 8.3 Drug Conviction
<i>Conviction type</i>	-2.554 (2.48)	-7.976*** (2.11)	-1.172 (1.90)
<i>Male</i>	0.254 (0.29)	0.266 (0.29)	0.253 (0.29)
<i>Educational status</i>	0.879*** (0.06)	0.878*** (0.05)	0.878*** (0.06)
<i>Children</i>	-0.338 (0.27)	-0.342 (0.27)	-0.338 (0.27)
<i>Married</i>	0.276 (0.28)	0.288 (0.28)	0.274 (0.28)
<i>Age</i>	0.955** (0.35)	0.925** (0.34)	0.957** (0.35)
<i>Age²</i>	-0.019* (0.01)	-0.018** (0.00)	-0.019** (0.01)
<i>African American</i>	-5.843*** (0.34)	-5.843*** (0.34)	-5.846*** (0.34)
<i>Latino</i>	-1.582*** (0.37)	-1.581*** (0.37)	-1.583*** (0.37)
<i>Mixed</i>	-5.754*** (1.49)	-5.765*** (1.49)	-5.752*** (1.49)
<i>Immigrant</i>	-1.836* (0.82)	-1.839* (0.82)	-1.839* (0.82)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***
n=795

Table 3.9: Random effects models for the effect of a conviction, by type, on weeks worked

	Model 1 Assault	Model 2 Robbery	Model 3 Burglary	Model 4 Theft	Model 5 Property Property	Model 6 Property destruction	Model 7 Drug possession	Model 8 Drug sale	Model 9 Traffic	Model 10 Public Order	Model 11 Other offenses
<i>Conviction type</i>	-0.202 (3.09)	-5.127 (3.62)	-8.233* (3.44)	-7.602** (2.66)	-17.25** (5.91)	-8.690* (3.59)	-0.262 (1.98)	-9.200** (3.72)	1.979 (1.91)	1.859 (2.25)	-1.961 (1.81)
<i>Male</i>	0.614* (0.31)	0.619* (0.31)	0.626* (0.31)	0.624* (0.31)	0.620* (0.31)	0.623* (0.31)	0.614* (0.31)	0.621* (0.31)	0.606* (0.31)	0.609* (0.31)	0.619* (0.31)
<i>Educational status</i>	0.857*** (0.06)	0.857*** (0.06)	0.858*** (0.06)	0.856*** (0.06)	0.857*** (0.06)	0.857*** (0.06)	0.857*** (0.06)	0.857*** (0.06)	0.857*** (0.06)	0.857*** (0.06)	0.856*** (0.06)
<i>Children</i>	-0.265 (0.29)	-0.262 (0.29)	-0.262 (0.28)	-0.268 (0.28)	-0.266 (0.28)	-0.269 (0.28)	-0.265 (0.28)	-0.258 (0.28)	-0.266 (0.28)	-0.263 (0.28)	-0.263 (0.28)
<i>Married</i>	0.281 (0.29)	0.284 (0.29)	0.289 (0.29)	0.288 (0.29)	0.287 (0.29)	0.288 (0.29)	0.280 (0.29)	0.286 (0.29)	0.279 (0.29)	0.279 (0.29)	0.283 (0.29)
<i>Age</i>	0.822* (0.37)	0.815* (0.37)	0.289* (0.37)	0.798* (0.37)	0.813* (0.37)	0.802* (0.37)	0.821* (0.37)	0.812* (0.37)	0.826* (0.37)	0.830* (0.37)	0.813* (0.37)
<i>Age²</i>	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)	-0.016* (0.01)
<i>African American</i>	-5.026*** (0.35)	-5.022*** (0.35)	-5.025*** (0.35)	-5.025*** (0.35)	-5.025*** (0.35)	-5.025*** (0.35)	-5.026*** (0.35)	-5.018*** (0.35)	-5.025*** (0.35)	-5.025*** (0.35)	-5.025*** (0.35)
<i>Immigrant</i>	-1.912* (0.88)	-1.909* (0.88)	-1.909* (0.88)	-1.915* (0.88)	-1.913* (0.88)	-1.914* (0.88)	-1.913* (0.88)	-1.914* (0.88)	-1.911* (0.88)	-1.911* (0.88)	-1.911* (0.88)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***

Table 3.10: Random effects models for the effect of a conviction, by category, on wages

	Model 10.1 Violent Conviction	Model 10.2 Property Conviction	Model 10.3 Drug Conviction
<i>Conviction type</i>	0.295*** (0.09)	0.204** (0.07)	0.164** (0.07)
<i>Male</i>	0.277*** (0.01)	0.277*** (0.01)	0.277*** (0.01)
<i>Educational status</i>	0.044*** (0.00)	0.044*** (0.00)	0.044*** (0.00)
<i>Children</i>	0.020* (0.01)	0.020* (0.01)	0.020* (0.01)
<i>Married</i>	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)
<i>Age</i>	0.386*** (0.01)	0.387*** (0.01)	0.387*** (0.01)
<i>Age²</i>	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)
<i>African American</i>	-0.031** (0.01)	-0.031** (0.01)	-0.031*** (0.01)
<i>Latino</i>	0.076*** (0.01)	0.076*** (0.01)	0.076*** (0.01)
<i>Mixed</i>	-0.037 (0.06)	-0.037 (0.06)	-0.037 (0.06)
<i>Immigrant</i>	0.130*** (0.03)	0.131*** (0.03)	0.131** (0.03)
<i>Weeks Worked</i>	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***
n=795

Table 3.11: Random effects models for the effect of a conviction, by type, on wages

	Model 1 Assault	Model 2 Robbery	Model 3 Burglary	Model 4 Theft	Model 5 Misc. Property	Model 6 Property destruction	Model 7 Drug possession	Model 8 Drug sale	Model 9 Traffic	Model 10 Public Order	Model 11 Other offenses
<i>Conviction type</i>	0.353*** (0.11)	0.231 (0.16)	0.280* (0.13)	0.195* (0.09)	0.209 (0.24)	0.295* (0.13)	0.186*** (0.07)	0.057 (0.14)	0.105 (0.06)	0.039 (0.07)	0.162** (0.07)
<i>Male</i>	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)	0.282*** (0.01)
<i>Educational status</i>	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)	0.042*** (0.00)
<i>Children</i>	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)	0.026** (0.01)
<i>Married</i>	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)	0.120*** (0.01)
<i>Age</i>	0.387*** (0.01)	0.387*** (0.01)	0.387*** (0.01)	0.387*** (0.01)	0.387*** (0.01)	0.387*** (0.01)	0.388*** (0.01)	0.387*** (0.01)	0.387*** (0.01)	0.387*** (0.01)	0.387*** (0.01)
<i>Age²</i>	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)	-0.006*** (0.00)
<i>African American</i>	-0.044*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)	-0.043*** (0.01)
<i>Immigrant</i>	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)	0.173*** (0.03)
<i>Weeks worked</i>	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)

Note: Standard errors in parentheses

p < 0.05 * p < 0.01 ** p < 0.001***

Chapter 4: How Far Up the River? Assessing the Health Consequences of Criminal Justice Contact

Abstract

The rapid and steady increase of felony incarceration has had substantial consequences on health outcomes due to exposure and transmission of disease. Research has shown that physical and mental health outcomes for imprisoned populations are affected by residence in a carceral institution. The exposure to individuals with communicable diseases facilitates the transmission of disease while the stress of incarceration and lack of adequate medical facilities assist in exacerbating existing conditions. Given that the jail population grew in line with prison incarceration during this period, the health effects of less severe forms of criminal justice contact should be investigated. Using the NLSY97, this project explores both the transmission and exacerbation of previous medical illnesses as a result of arrests, convictions and short jail stays. In addition, I ascertain the effect on mental health as a result of criminal justice contact. The results find that low level forms of contact negatively impact both physical and mental health outcomes throughout the trajectory of the criminal justice system.

Introduction

Since the early 1980s, the felony incarceration⁹ rate has climbed from 221 to 492 per 100,000 people (Carson & Sabol, 2012). One in 34 Americans are under criminal justice surveillance, including those who are incarcerated, on parole or probation (Glaze and Parks, 2012). According to the Bureau of Justice Statistics (BJS), the jail population rose steadily throughout the last twenty years, in line with the felony prison population. In the 12 month period ending in June 2010, almost 13 million people were admitted to local jails, with 9 million unique admissions (Minton, 2011). The rising imprisonment rate captured a significant proportion of economically and socially disadvantaged individuals who often lack access to basic health services. Over one-third of male jail inmates and more than half of female inmates report an existing medical condition at admission (BJS, 2011). The rapid increase in population resulted in overcrowded conditions in the nation's prison, jails and detention centers. These conditions provide prime opportunities for the transmission of disease, the worsening of existing medical

⁹ In order to avoid confusion, I will use the terms felony or prison incarceration or imprisonment to refer to long-term stays in prison. Low level, short-term or jail incarceration will refer to jail stays of varying lengths.

illnesses and the increased susceptibility to negative mental health outcomes as a result of heightened stress levels in the carceral environment. This project seeks to explore the possible effects of other forms of criminal justice contact such as arrests – both with and without conviction – and short term incarceration in a jail setting on physical and mental health outcomes through the mechanisms of exposure, lack of medical care and stress.

Felony incarceration has been shown to have a myriad of impacts on health, with the vast majority of the literature finding negative outcomes for both physical and mental wellbeing (Massoglia, 2008; Schnittker and John, 2007). The negative effects are often due to the transmission of diseases and the stress and strain produced in the carceral setting. However, some studies have found short-lived ameliorative effects of imprisonment due to the access to care and protection from other common forms of mortality (Schnittker, Massoglia and Uggen, 2011). The focus in the empirical literature has largely been on the incarcerated population due to length of time spent in the carceral institution and the toll prolonged sentences take on both physical and mental health. However, low level forms of criminal justice contact, in the form of an arrest, conviction or jail stay, have the potential to function similarly on health outcomes due to the exposure to disease, the access to care and the stress of traversing the criminal justice system. This project seeks to explore the potential influence of low level criminal justice contact on health, and subsequently, markers of stability and equality such as employment, housing and educational outcomes.

The aim of this project is to assess the extent to which exposure to the carceral environment is similar or different from more protracted contact, especially in the form of imprisonment. Research has shown that both physical and mental health outcomes for imprisoned populations are affected by residence in a carceral institution. The exposure to

individuals with communicable diseases in a crowded and contained environment facilitates the transmission of disease while the stress of incarceration and lack of adequate medical facilities assist in exacerbating existing conditions. Using the NLSY97, I explore the effect of low-level criminal justice contact on the transmission and exacerbation of medical conditions as well as the effect on mental health outcomes in order to assess the full impact of criminal justice contact on the individual, their families and communities.

Theoretical framework & existing evidence

The established scholarship on the consequences of imprisonment provides a theoretical framework for understanding the mechanisms that link criminal justice contact and health outcomes. The deleterious effect of felony imprisonment on health has been well-documented, suggesting increased transmission of diseases and the aggravation of stress-related physical and mental illnesses (Schnittker, Massoglia and Uggen, 2011; Schnittker and John, 2007; Hoyert et al., 2006). The effect on physical and mental health have been linked to three main processes that affect health, namely exposure to communicable diseases, access to health care services and the stress and strain produced by contact. The conditions that lead to detrimental health outcomes for felony records are similar to those for lower levels of criminal justice contact. The transmission of disease in the carceral setting, the ability to obtain health care and coverage both inside and outside of the criminal justice system and the stress that contact brings are all hallmarks of the felony incarceration experience. Such experiences, however, are common in even minor brushes with the criminal justice system. In addition, as a collateral consequence of the meteoric rise of all types of incarceration, jail and prison systems have become de facto health care facilities for state and local jurisdictions. Disadvantaged populations are often without adequate health services, as well as the insurance to pay for them, in their neighborhoods, therefore, first contact

with diagnosis and treatment may be during a criminal intake screening. While similar effects are seen for felony imprisonment, the increased number of individuals funneled through jail facilities widens the potential for a more widespread impact. It is important to consider low level forms of criminal justice contact and the jail institution as key to ascertaining the full extent of the collateral consequences of the expanded reach of the criminal justice system. Given the initial forays into the effects of criminal justice contact on health, I expect to find similar detrimental outcomes for both physical and mental health for individuals who experiences less severe forms of criminal contact.

Exposure to disease

The mechanisms at play for health outcomes can be explained by the exposure to and transmission of disease in the carceral environment. An arrest, conviction or jail stay represents a separation from society, removing the individual from their daily life and exposing them to conditions that may heighten risk of injury or disease. Exposure to individuals with communicable diseases in a crowded environment facilitates the transmission of disease while the stress of incarceration and lack of adequate medical facilities assist in exacerbating existing conditions. These medical complications, combined with the psychological stressors that are associated with exposure to the carceral environment, can hinder reintegration and increase disadvantage. This project will draw on theories of incapacitation, disease exposure and stress to investigate the ways in which low-level forms of criminal justice contact affect the transmission of disease.

In terms of transmission, the existing literature documents the relative ease of infectious disease transmission given the existing conditions of the population, the lack of health care in the communities that inmates generally originate from and the close quarters, which facilitate both

the transference of new diseases and exacerbate existing conditions (Massoglia, 2008; Hoyert et al., 2006). Schnittker, Massoglia and Uggem (2011) report that the levels of communicable diseases such as tuberculosis and Hepatitis C are elevated for imprisoned populations. Furthermore, increased stays, whether due to the inability to pay bail or a lengthy sentence, exacerbate existing conditions due to overcrowding and lack of quality health care services available. In an attempt to evaluate the effect of imprisonment on health, Massoglia (2008) uses the NLSY79 to parse out factors that contribute to racial differences in health disparities. He contends that the introduction of felony incarceration attenuates racial differences in health by almost 70% and renders racial differences non-significant, with incarceration contributing to persistent racial differences in midlife health functioning. Massoglia suggests that the lack of control over life processes and the barriers to full participation in society serve as the mechanisms between felony incarceration and mental and physical health outcomes, with imprisonment serving as a fundamental system of stratification (297). The presence of similar elements in the jail environment suggests that comparable effects and mechanisms might influence the health outcomes for a low-level offender population.

A number of public health studies have investigated the link between short-term imprisonment and a range of health effects, but with a concentrated focus on chronic diseases, sexually-transmitted infections and injuries (Binswanger et al., 2009; Potter et al., 2011; Conklin et al., 2000; Van Hoeven et al., 1990; Minshall et al., 1993; Kahn et al., 2004; Solomon et al., 2004; MacGowan et al., 2009; Javanbakht et al., 2009; Hammett et al., 2002). Compared to the general non-incarcerated and prison populations, the death rate from heart disease for jailed populations is lower at 32 per 100,000 inmates compared to 233 and 69, respectively. Chronic diseases such as cancer, HIV/AIDS and liver disease make up 11% of deaths overall. The

remainder of natural deaths (19%) occurs from a varied host of communicable and chronic diseases, ranging from influenza and hepatitis to diabetes and cerebrovascular diseases (e.g. strokes). The majority of deaths from heart disease (32%) occur within the first seven days after admission. The first seven days of incarceration appears to be critical to the health and wellbeing of inmates, suggesting that even the short term exposure to the jail environment can be detrimental. Furthermore, the jail inmate populations differ from the prison population not only in terms of age, education level, marital and employment status but also in their rapid cycling back into the larger community.

Potter et al. (2011) provide an accounting of the medical health studies to date that have focused on jail inmates, finding that substantial empirical work has been conducted across a range of infectious and chronic diseases as well as serious injury. In the review section of the paper, the authors register concern that most studies do not obtain information about the average length of stay for the surveyed or interviewed inmates, thereby introducing a fair amount of selection bias into the ultimate findings. Also, the existing literature depends largely on felony offenders, who are not representative of the jail population as a whole, and the measure of health issues focuses predominately on diseases present at time of admission, inhibiting the assessment of health impacts while incarcerated. Potter and colleagues suggest that the current body of research does not reflect the true nature of jail inmate health given the sampling design of both offenders and jail sites. The authors caution against making generalizations from the existing empirical conclusions, especially in terms of the influence of jail imprisonment on both the health of the former inmate as well as detrimental health effects to the broader community. They suggest that jail, similar to the lack of quality health care and the high price of prescriptions, may serve as yet another factor that endangers the health of disadvantaged populations.

This evidence suggests that exposure, whether short-term or long-term, can have detrimental consequences for the individual. In line with the existing evidence, the project's research hypothesis argues that exposure to individuals with communicable diseases in a crowded carceral environment facilitates the transmission of disease. While much of the existing empirical evidence centers on prisons as the venue of interest, it stands to reason that similar conditions that facilitate transmission would be present in jails, resulting in similar exposure effects to longer term incarceration. Exploring exposure effects beyond prison walls can assist in informing the scope of the consequences of criminal justice contact, especially the forms of contact that capture the greatest number of individuals. The implications of detrimental outcomes from low-level forms of contact can be widespread, especially for the populations most often caught in the net of the criminal justice system.

Access to medical services

The populations that are disproportionately represented in jails and prisons are also those who have limited access to medical health services and treatments in their communities (Smedley et al., 2003). Public health research has shown a wide disparity in health outcomes, especially among low-income African American males. Such outcomes result from lower rates of health insurance in these communities and decreased access to low-cost medical clinics. The increase in incarceration among these populations can potentially improve pre-existing conditions due to the mandated access to basic medical screenings and treatment. Any access to health care may assist in ameliorating the medical disadvantage that exists in their outside communities. However, this effect is largely conditional on the time spent incarcerated and the availability and quality of the medical services available in the jail institution. This project will

determine how access to medical services, both inside and outside of the carceral institution, affects general health outcomes for arrests, convictions and jail stays.

The current state of research on public health related outcomes of felony incarceration show mixed results. On the one hand, incarceration can lead to the transmission of communicable disease and the potential for problematic injuries (Pogrebin et al., 2001; Binswanger et al., 2009). However, empirical work has suggested that time in the carceral institution can provide medical screenings and treatment for a segment of the population that is not generally privy to these services (Hammett et al., 2002; Schnittker & John, 2007). In the first case, exposure to communicable and infectious diseases in the jail facilities can lead to the establishment or exacerbation of medical and mental health complications due to lack of quality healthcare and/or access to medication while incarcerated and the exposure to communicable diseases (Bell et al., 2004; Binswanger et al., 2009; Wilper et al., 2009). Schnittker, Massoglia and Uggen (2011) report elevated levels of communicable diseases such as tuberculosis and Hepatitis C are elevated imprisoned populations, but also find improved outcomes for African American inmates given the availability of medical services in the carceral environment.

Bell et al. (2004) and Binswanger et al. (2009) focus on the public health effects of exposure to both jail and prison institutions, both finding detrimental consequences due to increased stress in the carceral environment and the uneven distribution of medical and mental health care and treatment. Wilper et al. (2009) explore the prevalence of chronic illnesses in both the jail and prison environment, finding that a sizable proportion of inmates report conditions such as diabetes, asthma, hypertension and HIV/AIDS upon admission. Their results also suggest divergent levels access to medical care depending on the type of carceral facility; 13.9% of federal inmates and 20.1% of state prison inmates did not receive a medical screening after

incarceration. However, 68.4% those held in local jails did not receive a medical examination. Such results are in line with the Department of Justice investigation (2007) into conditions at King County¹⁰ (Washington state) jails. They confirmed the allegations of former inmates, uncovering substantial evidence that staff regularly delayed or refused medical treatment. The investigation found that the assessment procedures for identifying and treating acute and chronic conditions were inadequate and attempts at emergency care and medication management were deficient (DOJ, 2007). Treatment for acute and chronic conditions was delayed or refused by jail personnel, resulting often in a worsening of conditions or death in at least one instance.

Empirical findings have also shown that inmates' conditions can be markedly improved in the carceral setting. Bell et al. (2004) find that pregnancy outcomes for women in jail range depending on the level of resources available and the institutional access provided. Schnittker, Massoglia and Uggen (2011) review the existing literature on the link between felony incarceration and health for African Americans. They report moderate positive outcomes from incarceration for African American men due to access to medical assessments and treatment that may have been neglected when in the community: "... at least 70% of prisoners with a medical problem report seeing a medical professional while incarcerated, and slightly more report receiving a medical exam or blood test since admission" (Schnittker et al., 2011: 3). Health clinic services and the availability of medical insurance are largely lacking in predominately low-income African American communities (Smedley et al., 2003). Therefore, the sustained exposure to even inconsistent health care services in the prison environment may be a vast improvement over the health resources that are generally accessible for this population. The quality and certainty of medical attention and treatment, however, is often predicated on the

¹⁰ County seat of Seattle, Washington.

geographical location of the jail and is not consistent across all populations. Schnittker and colleagues, however, find that existing research shows consistent negative effects from long-term incarceration that far outweigh the positive outcomes, especially after release. They document evidence of intra-prison transmission for chronic diseases and the exacerbation of existing conditions because of insufficient treatment options and the increase in stress in the prison environment. The race effects for health are mixed; the sheer racial disproportionality of felony incarceration pointing to a potential contributor to health disparities while other research shows weaker racial links. This research is focused solely on prison incarceration; the effects for shorter jail stays might reveal similar complexities, if only on a limited scale.

This project will seek to uncover the effect of an arrest or jail stay on the development or worsening of an illness while controlling for the access to health care both inside and outside of the jail. In line with the split in the literature, the hypothesis for this project argues that the availability of medical care and treatment in jail can either improve or worsen health, conditional on the length of time incarcerated and the access to health care services for the individual outside of jail. The availability of services and the efficacy of treatment range dramatically across carceral institutions. Therefore, there is not a standardization of medical care nor are there static outcomes, as can be seen in the divergent the findings of various empirical studies. In addition, due to the short average length of stay in the jail, it is often difficult for medical personnel, given their current protocols, to assess the physical and mental health concerns of all incoming inmates. However, it seems that there is a consensus which suggests that the mandating of health care in carceral institutions provides services and treatment that many inmates would not be able to procure otherwise on the outside. Since lower-levels of criminal justice contact capture a greater proportion of the public than prison incarceration, the investigation of these outcomes

and mechanisms for arrests, convictions and jail stays may be significant in understanding the role that these institutions play in offering health care services to disadvantaged populations.

Effect of stressful environment

The psychological stress from the loss of freedom, conditions of prison incarceration and impending legal proceedings detrimentally affects both the physical and mental health of the inmate. While the length of exposure is extended for those in prison compared to jail, the health outcomes suggest that brief jail stays can have detrimental and debilitating health and wellbeing effects for inmates. Scholars have identified the source and consequences of stressors in the prison environment (Wilper et al., 2009; Massoglia, 2006; Schnittker & John, 2007). Since conditions between jail and prison are operationally similar, it would follow that mental health outcomes may be similarly affected for those incarcerated for a relatively shorter time period. In a 2006 Bureau of Justice Statistics report, 64% of jail inmates reported either a recent history or symptoms of a mental illness (James & Glaze, 2006). According to the report, the incidences of depression and psychotic disorders in jail are greater than those in state prisons. Yet, only 17.5% of jail inmates who receive a mental health diagnoses after admission are treated (James & Glaze, 2006). The stigma that accompanies felony incarceration and other forms of criminal justice contact can heighten stress effects, allowing them to persist after contact or imprisonment has ended. In their investigation of stigma-related effects of prison incarceration on health, Schnittker and John (2007) find that it is not the length of contact with the prison institution but any contact at all that results in pervasive stigma effects. The potential for similar effects for low-level contact has long-ranging mental health implications for even fleeting encounters with the criminal justice system.

The incidences of mental illness in the carceral environment are increased by the conditions present in the institution, the stress and strain of impending court proceedings and the separation from family and responsibilities as well as the lack of consistent mental health services (Freudenberg, 2001). According to Noonan (2007), on behalf of the Bureau of Justice Statistics, nearly a quarter of deaths in jail custody occurred within 2 days of admission, and more than a third (approximately 38% between 2000 and 2007) happened in the first seven days. The majority of deaths (56%) occur within the first thirty days after admission. The majority of deaths (53%) were due to illness, with heart disease constituting the bulk of those deaths (22%). The ineffective implementation of protective procedures for medically and psychologically fragile inmates, especially at the time of admission, fails to safeguard the jail atmosphere for the inmate population. Suicide is the leading cause of unnatural death for inmates, with 29% of deaths attributable to self-inflicted harm. Sixty-four percent of suicides occurred within the first thirty days of confinement, with 47% of such incidents occurring within 7 days of admission (Noonan, 2007). In comparison to prison inmates from 2001-2007, the rate of suicides in jail was nearly three times that of prison inmates. From 2001 to 2007, the rate of suicide deaths in prison was 16 per 100,000 prisoners while the rate for jail inmates was 42 (Noonan, 2007; Tartaro and Lester, 2009). The lack of access to mental health services in smaller institutions appears to be a significant contributing factor to the vast differences between jail facilities. The quick turnover in these smaller jail institutions may affect the timing and access to such services, especially in the critical period in the first seven days of confinement. Wilper and colleagues (2009) report that approximately 25% of prison inmates have a psychiatric diagnosis; if the rates are similar for jailed populations, there is a clear need for more immediate and intensive attention to psychological issues. Given these stark numbers, it seems

imperative to investigate the role of all forms of criminal justice contact on mental and physical health outcomes in order to realize the full impact of incarceration, whether temporary in the form of an arrest or protracted in terms of a jail sentence, on the individual.

Detrimental mental health outcomes are largely predicated on the availability of mental health services in a given institution. If such services are not provided or are denied, the potential consequences for mental health outcomes following a stint in jail may be dire. The Bureau of Justice Statistics finds that the rate of suicide for jail inmates far outstrips the rate for prison inmates. The report cites the lack of proper staff intervention practices as a key factor in driving the suicide rate in jail. As an illustration, the Department of Justice report on King County jails details the failures of correctional staff to adequately monitor and protect inmates from suicide attempts. Only a small fraction of King County administrative staff were given cursory training in suicide prevention techniques, and the procedures for supervising inmates who had attempted suicide fell well below acceptable corrections standards. The standardization of jail procedures across jurisdictions is inconsistent; as the King County jail facilities case illustrates, while corrections procedures often mandate a standard level of treatment and assessment, actual conditions and practices are often far from ideal. And even with standard protocols in place, the rapid cycling of individuals through the jail system makes it difficult to diagnose and treat both physical and mental health concerns

The available evidence suggests that criminal justice contact can have a profound effect on stress levels for the individual and can pattern outcomes such as depression, mental illness and in the extreme, suicide. This project will attempt to determine how criminal justice contact in the form of an arrest, conviction or jail stay affects mental health outcomes, arguing that the stress of incarceration worsens existing conditions and detrimentally affects mental health

outcomes. Stress in these situations can result from the separation from family and community as well as the weight of impending court appearances and legal wranglings. When incarcerated in jail, the environment can provide heightened stress levels without mental health services to mitigate the emotional effects. Given that a significant portion of the jailed population reports an existing mental illness or emotional disturbance such as depression, the potential for negative outcomes when exposed to such institutions could be substantial.

Data & methods

Using the National Longitudinal Study of Youth (1997), I evaluate the effect of arrests, convictions and short term jail stays on physical and mental health. The data set offers the ability to track respondents through fourteen waves of data from 1997 to 2010, and assess their level of contact with the criminal justice system. To investigate these potential relationships, models will be constructed that use appropriate measures of these health outcomes and various demographic and life circumstance controls. Descriptives are provided in table 1. The sample (n= 8984) ranges in age between 12 and 31 years of age, however, for these analyses, the sample was restricted to those over 18 years of age, resulting in n= 7882, in order to accurately measure adult health outcomes.

The NLSY97 is unique in that it records incidents of arrest (frequency and date), conviction status and type, offense charge, type of detention facility, and post-incarceration outcomes. There are only a limited number of data sets, especially those with a nationally representative sample, that capture both the incidence and effect of other forms of criminal justice contact. Therefore, the NLSY97 provides a substantial amount of data about anything less than a prison stay, most often left out of traditional nationwide surveys.

Health measures

For physical health, the measure is a self-reported assessment of general health for all ten waves of data: “In general, how is your health?” coded 1 for poor, 2 for fair, 3 for good, 4 for very good and 5 for excellent¹¹. For mental health, the measure is a four category Likert-scale variable that asks how often the respondent has been depressed in the last month, ranging from all of the time, most of the time, some of the time and none of the time.

Criminal justice contact

Five measures are used to explore how criminal justice contact impacts physical and mental health outcomes: arrest, arrest without conviction, conviction, jail sentence and jail stay. All, with the exception of arrest without conviction, were measures provided by the NLSY97, asking respondents if they have experienced that form of contact in the last calendar year. Arrest without conviction was constructed measuring those who were arrested but who did not go on to the conviction stage. The existing literature posits three potential mechanisms that drive impacts on health outcomes from criminal justice contact, namely exposure and transmission of disease, access to health care and stress and stigma. The arrest without conviction measure allows an exploration of the impact of incapacitation without the stigma that comes from a conviction.

Covariates

All models control for basic demographic variables such as race¹², age¹³, gender, marital status, presence of children in the household, income (logged), immigration status, and education level. Year dummy variables were also added in order to capture the effect of time on

¹¹ Models were also run with the health measures dichotomized, looking at good physical and mental health and poor physical and mental health. Those results are included in Appendix B.

¹² Race and ethnicity variables used: African American, Latino, Asian, Mixed and Native American. White was used as the referent category.

¹³ Age squared is also added as a control to capture the quadratic nature of age and its differential effects on employment outcomes.

the models. The NLSY97 also includes measures of cigarette, alcohol and drug consumption behavior, asking respondents how many cigarettes they smoked and how many drinks they consumed per day in the last thirty days. Drug consumption was captured by three measures, one looking at the number of days marijuana was used in the last thirty days, the number of times cocaine or other hard drugs were used since the last interview date and a combined measure that asked for any type of drug use in the last thirty days. In addition, there is a measure asking if the respondent had health insurance in the last year in order to control for access to health care. Also, in additional models, a measure for number of doctor visits is used to capture use of health care. In order to capture previous health concerns, there is also a measure of the parental report of health in 1997, asking parents to assess the nature of their child's physical health, from poor to excellent. The NLSY97 also includes a control for a parental report of mental health, asking parents to estimate how often their child was unhappy, sad or depressed in the last month, with options ranging from often, sometimes and never. Multiple imputation was used in Stata to account for missing data on key variables. A total of fifteen imputations were used on variables such as income, education and number of children. The imputations were created on regression-based analysis of the full models for all outcomes.

Two sets of models for health were analyzed using random effects ordinal logistic models in Stata. Within each set of models, the health outcomes are assessed according to five different types of criminal justice contact: arrest, arrest without conviction, conviction, jail sentence and jail stay. Each model was run separately in order to assess the effect of each point of contact on physical and mental health, respectively. The first models look at general health with criminal justice contact and demographic variables, including the availability of health insurance and parental reports on physical health. For mental health, the first set of models are estimated to

ascertain the effect of low level criminal justice contact on mental health outcomes. In addition, both physical and mental health outcomes were evaluated based on conviction type: violent, property or drug offense to see if there was an effect on the nature of the conviction. The existing literature suggests that there might be a differential impact based on the type of conviction (Nagin, 1994; Lott, 1992).

Results

Table 2 provides results for the models for physical health, showing an impact of criminal justice contact on health outcomes. Model 2.1 finds that arrests result in negative outcomes for self-reported physical health. The findings are consistent with the limited literature on health outcomes and arrests, with previous work finding that the stress of an arrest and subsequent processing through the criminal justice system can result in stress-related ailments or the exacerbation of existing illnesses (Schnittker & John, 2007). An arrest can result in time away from treatment for certain physical ailments such as diabetes or hypertension, thereby resulting worse health outcomes, even temporarily. However, model 2.1 shows that having access to health insurance has an ameliorative effect on physical health, even controlling for an arrest. In addition, being male and having higher educational attainment show similar positive effects on health.

Model 2.2 shows a non-significant result for an arrest without conviction. This finding suggests that the detrimental impact of an arrest may only be salient when the contact continues beyond the initial arrest event. It is possible that the physical stress of an arrest may only have short-lived consequences, but that sustained contact with the criminal justice system through the conviction and sentencing phases may lead to worsening health outcomes. It is also possible that this result is reflecting those who were arrested for driving under the influence offenses or

similar minor offenses that may not cause the same level of life disruption as arrest for other offenses, such as theft or drugs. In addition, the demographic profile of those arrested for misdemeanor differs from those charged with felonies. Therefore, it is possible that this result reflects those individuals with minor offenses who are in better health at baseline than other misdemeanor offenders for more serious crimes.

Model 2.3 finds that a conviction shows similar results to an arrest, resulting in poor physical health outcomes. This result lends credence to the supposition that having continued contact passed an initial arrest may be the source of the negative consequences to health. While causality cannot be determined from the nature of the data, this finding may be the result of two possible mechanisms: stress and incapacitation. The stress that comes from traversing the criminal justice system may result in new illnesses or exacerbate existing ones. Especially if an individual is facing a jail sentence, it is possible that the stress preceding their incarceration might aid in sparking detrimental health outcomes. Furthermore, the incapacitation of an arrest or the process of going through the criminal justice process may curtail the individual's ability to attend to medical needs and treatments, thereby worsening an already existing condition. The control variables for conviction function similarly as for arrests, with health insurance and education benefiting physical health outcomes even when controlling for criminal justice contact. The health insurance result is consistent with the current literature, which shows better health outcomes with access to even basic health care (Smedley et al., 2003; Wilper et al., 2009).

In order to investigate the relationship between conviction and physical health further, models were run with type of conviction, shown in table 3. The type of conviction was broken down by type of offense, specifically violent, property and drug offenses. The results show that property convictions show a negative and significant effect on physical health, while violent and

drug convictions are not significant. One possible explanation is that violent convictions are not as prevalent, therefore, this result is capturing the impact of the overrepresentation of property offenses. Additionally, traversing the processes and procedures of the criminal justice system does not remove an individual from daily life like an arrest or jail or prison stay. However, attending court dates and attorney consultations may hinder an individual's ability to visit a doctor or obtain medical treatments. Alternatively, those convicted of property crimes may be more disadvantaged compared to those convicted of other types of offenses, and therefore, may have worse health outcomes at baseline. Therefore, the property conviction may worsen existing health conditions due to the stress and strain of the criminal justice process.

For those sentenced to jail, in model 2.4, there is no significant effect of contact. There is not an established literature on the sentencing phase of criminal justice processing, therefore, it is difficult to say definitely why no result is seen in the results for a jail sentence. It is possible that the incapacitation that results from an arrest and subsequent court hearings for the conviction phase wears on the individual, isolating them from regular doctor visits or their course of treatment and medication. It is also possible that those who advance to the sentencing phase and are facing a jail stay are more likely to be in poor health, with contact at this stage having little to no effect in either direction on their physical health outcomes. This finding could be the result of a selection effect on who is sentenced to jail and how that impacts whether or not we would see unfavorable impacts on health.

In model 2.5, those who experienced a jail stay reported an ameliorative effect. This finding supports work by Schnittker, Massoglia and Uggen (2011) that finds a positive effect of prison incarceration on health outcomes due to the access to health care. For many of those who face imprisonment, it is difficult to obtain even basic health care in their communities prior to

their incarceration. Therefore, the state-mandated health care that is provided in the prison setting is vital to diagnosing, treating and medicating certain physical conditions such as hepatitis C, tuberculosis and hypertension. In addition, those imprisoned are often shielded from other sources of mortality in their neighborhoods and communities such as homicide, vehicle accidents and risky behaviors such as binge drinking or smoking (Patterson, 2010). Research looking at jails find mixed results on health, with studies finding negative outcomes due to the exposure to infectious diseases, subpar health care and the emergence of stress-related ailments (Pogrebin et al., 2001; Binswanger et al., 2009; Bell et al., 2004). However, others find that health is improved due to access to basic diagnosis and treatment that can occur in the jail environment (Hammett et al., 2002; Bell et al., 2004). The positive result for those who have experienced a jail stay suggests that similar to felony imprisonment, a jail stay can provide a beneficial effect on physical health outcomes given a modicum of access to health care. However, as several studies and research reports have shown, the quality of health care in jails is not standardized across facilities and jurisdictions, therefore, it is possible that this ameliorative effect only holds depending on geographical location and the size of the jail facility. Schnittker, Massoglia and Uggen (2011) shows that in smaller jails, the access to physical and mental health care is lacking due to the shortage of resources and personnel. However, in metropolitan areas, the outcomes for those in jail are improved due to increased access to basic health care services. As Schnittker, Massoglia and Uggen (2011) found, however, these beneficial results for health in the carceral environment are short-lived. After release, most individual return to their home communities, without the access to necessary health services. The lack of access to affordable and quality health services serves as a further impediment to the process of reentry for individuals at every stage of criminal justice processing.

All of the above models were run with a variety of covariates that could influence physical health outcomes, specifically alcohol, drug and cigarette consumption as well as doctor visits. In the existing literature, these measures often result in negative outcomes for individuals due to the overconsumption of alcohol, drugs and cigarettes. Doctor visits seem to measure the illness level of the individual, with more doctor visits resulting in worsening health outcomes. The results from these models follow the pattern of the above models, with arrests and convictions showing a negative effect on health, while jail stays reflect a consistent positive effect on health outcomes. The covariates all show a negative effect on health, which is consistent with the public health literature. Doctor visits are thought to differ from the included measure for health insurance in that those who visit the doctor more often are generally in worse health than those who have fewer doctor visits. Conversely, those who have access to health insurance often have better health outcomes due to their access to health care services and preventative treatments. These results are available upon request.

For mental health, model 4.1 in table 4 shows a decrease in mental health as the result of an arrest. This result suggests that contact with the system, even in terms of an arrest, can be detrimental to feelings of sadness and depression. It is possible that an arrest occurs concurrently with already established depression and decreased mental health functioning. A control for prior parental mental health assessment is placed in the model to account for pre-existing difficulties that may account for any change in mental health status. Other additional controls are consistent with the current literature, with increased education, income and marriage showing positive effects, while being African American and Latino exhibit negative impacts. The potential mechanism behind the relationship between arrests and mental health could be similar to the relationship between physical health and minor criminal justice contact. Namely, that arrests

result in incapacitation that remove individuals from their everyday environment and support systems and thrusts them into a stressful and often contentious atmosphere. The individual may be fearful about the outcome of their arrest as well as the collateral consequences of contact that may occur such as missing days from work, potentially losing employment or being unable to attend to every day responsibilities such as paying bills or rearing children. The stigma of an arrest and the potential consequences in their familial and friend networks may also be at play. In addition, an arrest, or any other form of low level criminal justice contact, may trigger pre-existing mental health concerns that are exacerbated by the contact.

Model 4.2 finds that an arrest without conviction results in a negative and significant effect on mental health. This result differs from the findings for physical health, suggesting that these two health outcomes operate differentially in terms of criminal justice contact. Furthermore, it may be that physical health impacts take more time to develop and are not necessarily exhibited immediately, especially if the contact is not on-going. For an arrest without conviction, contact and communication with the criminal justice system usually stops after the individual is bailed out or released from holding. Therefore, it is possible that any physical ramifications are mitigated by the short amount of contact. However, the mental health implications could still be at play given that even an arrest can incapacitate the individual, keeping them from support networks as well as potential treatments for existing mental health diagnoses. Interestingly, the control for health insurance is significant, showing an ameliorative effect of mental health. For those who have access to health care, and are receiving either psychoanalytical or pharmaceutical treatment for mental health difficulties, even a temporary incapacitation in the form of an arrest can limit access to these corrective therapies. In addition,

these low level points of contact may be a potential negative life event that triggers a stressful response that may impact self-reported mental health scores on depression and happiness.

Model 4.3 shows a similar pattern, with a conviction resulting in a negative and significant outcome, furthering the supposition that even low level forms of criminal justice contact can be influential in terms of mental health outcomes. The conviction stage can be a stressful period due to the multiple rounds of court appearances and legal paperwork that is required. There is also the potential for added stress due to the expense of legal counsel and the burden from missing work due to the timing and frequency of court dates. While the conviction stage does not fully incapacitate the individual like an arrest or jail stay, it does occupy time, taking the individual from their daily routine and preventing them from attending to their financial, employment and familial responsibilities. And the stigma from a resulting conviction may prove to be another stressor in addition to those already present from the process of criminal justice contact.

In order to investigate the relationship between conviction and mental health further, models were run with type of conviction, shown in table 5. The type of conviction was broken down by type of offense, specifically violent, property and drug offenses. The results show that violent and property convictions show a negative and significant effect on mental health, while drug convictions are not significant. One possible explanation is that the majority of misdemeanor drug crimes are for low-level possession, therefore, it is possible that the such a minor offense does not affect mental health in a significant manner. Another potential reason could be that drug convictions may result in lower or deferred sentences, and therefore, do not impact daily life responsibilities in the same way as those convicted of low level drug crimes. In fact, only one third of the sample who were convicted of a drug possession offense were

sentenced to jail A series of cross tabulations, shown in table 6, shows the breakdown of conviction offense types by the probability of a jail sentence. The results show that individuals are more likely to serve out a sentence in jail with a violent or property conviction than a drug conviction. If drug conviction is broken down into sale and possession, we see that the penalty for selling drugs largely drives the effect for drug conviction, with forty percent of those convicted of selling drugs sentenced to jail but only 13.8% of them serve their sentences in jail. Compared to violent convictions, with 18.4% of individuals convicted are sentenced to jail, and almost 12% serve their sentences in jail. While jail sentences are more likely for drug possession convictions at 27.2%, they are less likely to serve those sentences in jail, with only 10.8% of the sample doing so. While this is a limited swath of the broader population, it does speak to what may be an important pattern to investigate further. It may be that the mental health implications of a conviction hinge on the severity of the punishment and those who are less likely to serve a jail sentence may be buffered by other community surveillance options such as parole or house arrest.

Model 4.4 shows that receiving a jail sentence also has a negative and significant effect on mental health. This result further demonstrates the potential for even a short term sentence in jail to have an impact on depression outcomes. The sentencing stage shares similarities to the other forms of criminal justice contact already investigated in that it involves time away from work and family in order to attend court meetings. It also has the additional distinction of rendering a sentence that will result in individuals being absent from employment as well as other responsibilities. Research has shown that even a temporary absence from work can result in either a decrease in wages or a potential loss of employment, especially if the individual is employed in the secondary labor market (Holzer, et al., 2005; Crutchfield, 2014). Secondary

labor market jobs are characterized by being less flexible and offering less personal or vacation time, if any, compared with other segments of the job market. The stress and strain of serving an impending jail sentence has the potential to negatively impact mental health.

Model 4.5 shows the results for those recently released from jail, finding that there is no significant impact of a jail stay on mental health. Although a jail stay represents the most sustained form of incapacitation for points of low level criminal justice contact, it also has the distinction of providing basic physical and mental health diagnoses and treatments. As with physical health, the results from an incarceration period, whether in jail or in prison, can have ameliorative effects on mental health. Jail facilities are mandated to provide a modicum of mental health screenings and treatments in order to maintain order within the institution and also to ensure the protection of the individual and other inmates. The non-significant result may be a reflection of such services that may not result in improved mental health but are a stop-gap measure against worsening mental health in a stressful jail environment. As previous work has shown, the quantity and quality of mental health services in a jail setting ranges depending on the jurisdiction and the funding available for such services. Therefore, in future studies, it may be worthwhile to explore the location of the jail stay, if such data are available, to ascertain if the results would be different depending on the level of care. However, this result may be a result of a small number of individuals who have served time in jail in the sample. Further research with a larger sample size of those who have experienced low level criminal justice contact would be useful to ascertain the full effect of any potential relationships between a jail stay and mental health. Currently, the NLSY97 is one of the only existing data sets that includes sufficient data on criminal justice contact less than prison. At a minimum, this result, along with the others for

physical and mental health, suggest that low level criminal justice contact should be explored further for its potential impacts on important aspects of health and wellness.

Discussion

The rise in felony incarceration resulted in a wealth of scholarship that found substantial impacts on the individuals incarcerated as well as their families and communities (Pager, 2003; Kruttschnitt, 2010; Massoglia & Uggen, 2010; Comfort, 2007; Pettit and Western, 2004; Irwin, 1985; Weisheit and Klofas, 1989). The focus on health-related outcomes shed light on the severity of the collateral consequences of imprisonment, with many results showing negative outcomes from increased transmission of communicable diseases to higher rates of pregnancy complications to heightened suicide rates (Pogrebin et al., 2001; Bell et al., 2004, 2009; Tartaro and Lester, 2009). But the outcomes for those exposed to less severe forms of contact have not been fully investigated and documented. These results suggest that even low level forms of criminal justice contact can detrimentally impact both physical and mental health. However, the findings from this work, as well as others, show a complicated relationship between the criminal justice system and health-related outcomes, with incarceration in jail resulting in positive outcomes in certain cases. Due to the dismal state of health care services, especially for marginalized populations, state and local jail facilities have emerged as one of the leading providers of physical and mental health care services, often having first contact with these populations. Therefore, investigating the impact of even a short term arrest or jail stay is important to understand the implications that these forms of contact can have on creating and maintaining physical, mental, financial and familial wellbeing.

These results highlight the importance of looking beyond prison to lower level forms of criminal justice contact and their potential impacts on physical health outcomes. As these results

suggest, even an arrest or misdemeanor conviction can negatively impact an individual's health, erecting another barrier to gainful and consistent employment and other markers of stability. The health impacts of felony imprisonment were thought to hinge on the length of time in the carceral institution. Due to prolonged sentences and harsh surroundings, the prevailing empirical conclusion settled on time out of society and length of exposure as the key mechanisms that drove negative health outcomes. These results suggest that criminal justice contact can be detrimental even at the very earliest stages of the process, with negative results consistently shown for an arrest. Therefore, it is not necessarily about the length of sentence or the severity of contact but rather any level of exposure to the criminal justice system that can either create stress-related illnesses or exacerbate existing health conditions. Worsening physical health can impede individual's efforts towards a successful reentry by increasing their absences from work, making them unable to financially attend to core responsibilities such as paying rent or a mortgage or providing for family members. For those employed in the secondary labor market, where flexibility and time off are at a premium, any absence could place a job in jeopardy. Add to that increased absences or time off to attend to subsequent medical or mental health concerns post-contact, and the ties to gainful and steady employment are increasingly frayed. The nature of these relationships can provide insight into how even less severe forms of contact can influence health outcomes and can heap more disadvantage onto those individuals who face economic, occupational, educational and social barriers. The effect of low-level contact may further isolate these individuals and communities by restricting potential job and educational opportunities due to their criminal record and poor physical and mental health.

The findings hint at potential beneficial effects of a jail stay on physical health. While such a result seems counterintuitive in light of the research on increased transmission of diseases

in the carceral environment, it is consistent with Schnittker, Massoglia and Uggen's (2011) work, among others. As previously discussed, such positive effects may be the result of protective measures taken in jail, where individuals are shielded from the violence in their neighborhoods or other leading causes of mortality or injury such as car accidents. In addition, certain habits, such as smoking¹⁴ or drug use, are curtailed, which can have an ameliorative effect on health. Also, jails increase access to medical screenings and treatment for individuals who do not have such services available to them in their communities. But research suggests that such benefits are short-lived, and that often individuals show negative health outcomes after release. Without access to health care in their home communities, and the cessation of state-mandated physical and mental health care, it is possible that health outcomes can deteriorate after release.

The impact of mental health difficulties has a similar impact to those of physical health related concerns. Individuals are hindered in their ability to attend to every day responsibilities, which can affect their successful reentry into society, even after a short term stay for an arrest or jail sentence. For mental health, however, the results show no effect of a jail stay, but all other forms of contact exhibiting a negative effect. These findings suggest that the stress and strain of the process of criminal justice proceedings may produce or lower mental health outcomes due to the fear of unknown consequences and the anticipatory fear of facing the sentencing stage. However, it is possible that the modicum of mental health services provided in the jail environment can help to stem the tide of emerging and/or established bouts of depression. Existing research has found that increasing numbers of inmates, in both the felony and

¹⁴ While smoking does occur in carceral settings, the Federal Bureau of Prisons officially banned the use of all tobacco products in 2014 and stopped the sale of tobacco products in prison commissaries in 2006 (United States Department of Justice, 2015). The rates of smoking in prisons have decreased substantially since the 2006 ban (Binswanger et al., 2014). While this change only affects federal prisons, a number of states have followed suit, with 48 states either smoke or tobacco-free and 25 states banning tobacco use both inside and outside of all state correctional facilities, including jails (American Nonsmokers' Rights Foundation, 2015).

misdemeanor systems, are reporting a mental illness diagnosis during intake (Schnittker, Massoglia and Uggen, 2012). However, cities and counties have often been unprepared for the influx of cases, lacking adequate facilities or mental health personnel. Therefore, it may be the case that a jail stay offers a basic level of mental services to aid in stabilizing the individual but may not be sustained or adequate enough to improve mental health outcomes while in the facility. Similar to physical health, it is possible that the stresses and strains of reentry and establishing the structure of employment, housing and education, without the aid of sufficient mental health services, can result in negative mental health outcomes.

While the implications of a negative health impact loom large for felony incarceration, those arrested or sentenced to a jail stay constitute a larger segment of the population, with jails reporting around nine million individual admissions per year (Minton, 2011). The majority of these individuals are employed and are supporting families at the time of contact. Therefore, widening the net to look at lower level forms of criminal justice contact allows a greater understanding of the broad implications of criminal justice expansion that occurred alongside the prison boom. And with these forms of contact showing similarly detrimental results in almost every case, it suggests a more widespread concern about the impact of criminal justice contact across the spectrum. These results point to the barriers that emerge from contact that can increase levels of stratification and disadvantage. If these negative health outcomes persist beyond the point of contact, they have the real potential to not only impact but derail efforts to obtain employment or future educational attainment. Therefore, it is possible that even low forms of contact can extend beyond court dates and jail stays to raise levels of inequality and disadvantage by impacting access to employment, education, housing and other essential markers of stability.

The findings signal the potential for even low level criminal justice contact to widen the inequality gap further, creating another strata between those who have had contact and those who have not. Those who experience the lowest forms of contact, specifically an arrest, show negative outcomes on both physical and mental health. And those who are arrested but are not convicted of a criminal offense face declining mental health outcomes. With worsening health comes impediments to employment, education and other springboards to stability and security. These results suggest that the contact need not be of the felony variety in order to make a substantial impact on life chances and access to opportunities. The reliance on certain law enforcement practices, such as stop and frisk, that increase arrest rates, especially within predominately poor and African American neighborhoods, makes these results that much more salient. If negative physical and mental health outcomes can be seen from even the lowest form of contact, the continued use of these tactics, that only seek to curtail minor forms of disorder, may be doing more harm than good. Increasing broken windows-type arrests seems to have the unintended consequence of funneling more individuals through the system for disorder offenses. If even the most minor forms of contact produce negative outcomes on health, such tactics are thereby raising future barriers to gainful employment, extended/additional educational prospects as well as overall financial and social stability. Even the shortest amount of contact, in the form of an arrest, is sufficient to produce a temporary negative effect on health outcomes. Increasing contact for a wider swath of the population makes the detrimental impacts of criminal justice contact more widespread, and heightens the levels of disadvantage for a broader portion of society.

Several important limitations exist. The NLSY97 only records self-reported contact and is not verified by official records. It is possible that respondents may omit incidents of criminal

justice contact. Also, the number of people in the original population that have had contact is small, which is a challenge given the nature of the research questions being posed for this project. The collateral consequences of short-term incarceration may be cumulative over time, however, the NLSY97 is not necessarily able to show such effects due to the time frame in which the data was collected. In addition, given the limited sample for these outcomes, racial and gender effects will not be analyzed, thereby limiting the scope of the analysis. This project will only be able to focus on male respondents, which truncates the range of effects as well as the ability to fully ascertain the scope of effects on employment outcomes. Similarly, race differentials for incarceration and arrest outcomes are an important component of incarceration effects research. Racial and ethnic factors often pattern both the exposure to the criminal justice system as well as the repercussions of contact. However, the availability of differences by race and ethnicity will not be possible in this current project. For a project of this kind, however, the NLSY97 can provide an understanding of the potential outcomes of an arrest as compared with both short-term and extended incarceration. There are a limited number of data sets that ask questions about contact beyond prison stays and none that are currently available that tap into questions about outcomes. Therefore, the NLSY97 provides a unique opportunity to gauge the effect of incarceration and less severe forms of criminal justice contact and evaluate the mechanisms that undergird these outcomes.

Furthermore, given the nature of the data, I am not able to make causal claims about the relationships between low level contact and employment and health outcomes. While I use the language of causality for purposes of discussing findings and their potential implications, I cannot definitively identify the specific mechanisms at work and the results should be understood as correlational relationships. In addition, it is possible that the employment and

health outcome results are artifacts of selection effects. Individuals who have less human capital and lower employability may be more likely to commit crimes or come to the attention of criminal justice agents such as law enforcement, thereby affecting their future job prospects. Furthermore, those who have contact with the criminal justice system may have a different mental and physical health profile than those not engaged in the system. I have placed controls in all models in order to mitigate selection bias, however, it is still an existing concern that should be addressed. These limitations, however, do not diminish the potential implications of these findings, which suggest that low level contact can be an influencing factor in the employment and health spheres of the individual.

The empirical work on health and both felony and misdemeanor contact presents a complex landscape of mechanisms that at certain points worsen health outcomes but at others, show an improvement over baseline physical health reports (Schnittker, Massoglia and Uggem 2012; Bell et al., 2004; Patterson, 2010). The literature points to the potential collateral consequences of health impacts on a variety of employment, academic and social outcomes. This project is built on the foundations of such work, exploring the outcomes of criminal justice contact on physical and mental health. The results suggest that there are consistent relationships between low-level forms of criminal justice contact and health outcomes. The findings hint at potential beneficial effects for being incarcerated in jail, provided that certain behaviors are curtailed. The negative results for being arrested and convicted may reflect the disadvantage in terms of health care services and treatment that generally plagues those most likely to be arrested and convicted. These relationships can provide insight into how even less severe forms of contact can register influence on health outcomes and can heap more disadvantage onto those individuals who face economic, occupational, educational and social barriers. The effect of low-

level contact may further isolate these individuals and communities by restricting potential job and educational opportunities due to their criminal record and poor health. These findings highlight the importance of investigating all forms of contact, showing that even an arrest or a short-term jail stay can pose substantial risks to the individual and their pursuit of a stable and secure future. To truly understand the full impact of how criminal justice contact affects the individual and the broader community, all forms of contact should be explored. These low level forms of contact may be key to truly understanding the interplay between the criminal justice system and disadvantage and inequality.

Table 4.1: Health Descriptives

	Mean	Standard deviation
<i>Arrest</i>	0.05	0.22
<i>Arrest, no conviction</i>	0.03	0.18
<i>Conviction</i>	0.02	0.13
<i>Charged</i>	0.03	0.18
<i>Jail</i>	0.01	0.08
<i>Recently in jail</i>	0.003	0.06
<i>Male</i>	0.51	0.49
<i>Years of education (1 year before contact)</i>	12.8	3.83
<i>Married (1 year before contact)</i>	0.12	0.33
<i>Children (1 year before contact)</i>	0.15	0.36
<i>Age</i>	23.09	3.27
<i>Age2</i>	461.74	190.09
<i>African American</i>	0.28	0.45
<i>Latino</i>	0.21	0.41
<i>Asian</i>	0.02	0.13
<i>Native</i>	0.006	0.08
<i>Mixed</i>	0.01	0.10
<i>Immigrant</i>	0.02	0.15
<i>Physical health</i>	3.83	0.95
<i>Mental health</i>	3.62	0.62
<i>N=7882</i>		

Table 4.2: Random effects ordinal logistic regression results for the effect of criminal justice contact on physical health

	Arrest (n=1871)	Arrest, no conviction (n=1076)	Conviction (n=795)	Jail sentence (n=392)	Jail stay (n=167)
<i>Type of contact</i>	-0.132*** (0.043)	-0.065 (0.049)	-0.256*** (0.070)	0.049 (0.101)	0.411** (0.164)
<i>Health insurance</i>	0.077*** (0.022)	0.078*** (0.022)	0.078*** (0.022)	0.080*** (0.022)	0.080*** (0.022)
<i>Male</i>	0.542*** (0.049)	0.538*** (0.049)	0.540*** (0.049)	0.536*** (0.049)	0.534*** (0.049)
<i>Education</i>	0.008** (0.003)	0.008** (0.003)	0.008** (0.003)	0.008** (0.003)	0.008** (0.003)
<i>Married</i>	-0.006 (0.028)	-0.006 (0.028)	-0.005 (0.028)	-0.005 (0.028)	-0.005 (0.028)
<i>Children</i>	-0.074*** (0.026)	-0.073*** (0.026)	-0.074*** (0.026)	-0.073*** (0.026)	-0.073*** (0.026)
<i>Age</i>	0.068 (0.053)	0.068 (0.053)	0.068 (0.053)	0.068 (0.053)	0.068 (0.053)
<i>Age²</i>	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)
<i>Income (log)</i>	0.001 (0.011)	0.001 (0.011)	0.001 (0.011)	0.001 (0.011)	0.002 (0.011)
<i>African American</i>	-0.068 (0.059)	-0.068 (0.059)	-0.069 (0.059)	-0.069 (0.059)	-0.070 (0.059)
<i>Latino</i>	-0.218*** (0.065)	-0.217*** (0.065)	-0.218*** (0.065)	-0.217*** (0.065)	-0.217*** (0.065)
<i>Asian</i>	-0.174 (0.232)	-0.172 (0.232)	-0.174 (0.232)	-0.170 (0.232)	-0.170 (0.232)
<i>Mixed race</i>	-0.127 (0.261)	-0.129 (0.261)	-0.128 (0.261)	-0.130 (0.261)	-0.130 (0.261)
<i>Native American</i>	-0.268 (0.292)	-0.270 (0.292)	-0.271 (0.292)	-0.272 (0.292)	-0.271 (0.292)
<i>Immigrant</i>	0.111 (0.072)	0.111 (0.072)	0.111 (0.072)	0.111 (0.072)	0.112 (0.072)
<i>Parental report</i>	-0.570*** (0.029)	-0.570*** (0.029)	-0.570*** (0.029)	-0.571*** (0.029)	-0.571*** (0.029)

Notes:

Standard errors in parentheses

p < 0.05 * p < 0.01 ** p < 0.001 ***

Year dummies (1997 to 2009) were included in each model but excluded for space consideration.

Table 4.3: Ordinal logistic regression results for the impact of conviction category on physical health

	Violent conviction	Property conviction	Drug conviction
<i>Conviction type</i>	-0.340 (0.396)	-0.929** (0.348)	-0.052 (0.292)
<i>Health insurance</i>	0.180*** (0.029)	0.180*** (0.029)	0.180*** (0.029)
<i>Male</i>	0.487*** (0.055)	0.489*** (0.055)	0.487*** (0.055)
<i>Education</i>	0.024*** (0.003)	0.024*** (0.003)	0.024*** (0.003)
<i>Married</i>	-0.027*** (0.035)	-0.026*** (0.035)	-0.027*** (0.035)
<i>Children</i>	-0.106 (0.035)	-0.107 (0.035)	-0.106 (0.035)
<i>Age</i>	0.111 (0.077)	0.109 (0.077)	0.113 (0.077)
<i>Age²</i>	-0.003* (0.002)	-0.003 (0.002)	-0.003* (0.002)
<i>Income (log)</i>	0.043*** (0.014)	0.043*** (0.014)	0.043*** (0.014)
<i>African American</i>	-0.283*** (0.066)	-0.283*** (0.066)	-0.283*** (0.066)
<i>Latino</i>	-0.490*** (0.070)	-0.490*** (0.070)	-0.490*** (0.070)
<i>Asian</i>	-0.473* (0.212)	-0.473* (0.212)	-0.473* (0.212)
<i>Mixed race</i>	-0.217 (0.277)	-0.218 (0.277)	-0.217 (0.277)
<i>Native American</i>	-0.504 (0.326)	-0.505 (0.326)	-0.504 (0.326)
<i>Immigrant</i>	0.043 (0.087)	0.043 (0.087)	0.043 (0.087)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***
n=795

Table 4.4: Random effects ordinal logistic regression results for the effect of criminal justice contact on mental health

	Arrest (n=1871)	Arrest without conviction (n=1076)	Conviction (n=795)	Jail sentence (n=392)	Jail stay (n=167)
<i>Type of contact</i>	-0.597*** (0.094)	-0.574*** (0.109)	-0.522*** (0.152)	-0.488* (0.215)	-0.436 (0.438)
<i>Health insurance</i>	0.309*** (0.046)	0.318*** (0.046)	0.322*** (0.046)	0.325*** (0.046)	0.328*** (0.046)
<i>Male</i>	0.358*** (0.066)	0.350*** (0.066)	0.344*** (0.066)	0.341*** (0.066)	0.336*** (0.066)
<i>Education</i>	0.039*** (0.006)	0.039*** (0.006)	0.039*** (0.006)	0.039*** (0.006)	0.039*** (0.006)
<i>Married</i>	-0.256*** (0.054)	-0.255*** (0.054)	-0.259*** (0.054)	-0.258*** (0.054)	-0.259*** (0.054)
<i>Children</i>	0.009 (0.054)	0.008 (0.054)	0.004 (0.054)	0.005 (0.054)	-0.004 (0.054)
<i>Age</i>	-0.063 (0.116)	-0.064 (0.116)	-0.055 (0.116)	-0.061 (0.116)	-0.059 (0.116)
<i>Age²</i>	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
<i>Income (log)</i>	0.133*** (0.021)	0.134*** (0.021)	0.133*** (0.021)	0.133*** (0.021)	0.134*** (0.021)
<i>African American</i>	-0.313*** (0.067)	-0.312*** (0.067)	-0.315*** (0.067)	-0.316*** (0.067)	-0.314*** (0.067)
<i>Latino</i>	-0.217*** (0.072)	-0.218*** (0.072)	-0.214*** (0.072)	-0.215*** (0.072)	-0.216*** (0.072)
<i>Asian</i>	-0.158 (0.217)	-0.157 (0.218)	-0.151 (0.218)	-0.150 (0.218)	-0.150 (0.218)
<i>Mixed race</i>	-0.009 (0.275)	-0.018 (0.276)	-0.009 (0.276)	-0.009 (0.276)	-0.019 (0.276)
<i>Native American</i>	0.040 (0.330)	0.030 (0.330)	0.040 (0.330)	0.031 (0.330)	0.032 (0.331)
<i>Immigrant</i>	-0.095 (0.121)	-0.091 (0.122)	-0.091 (0.121)	-0.089 (0.122)	-0.088 (0.122)
<i>Parental report (mental health)</i>	-0.024 (0.021)	-0.025 (0.021)	-0.025 (0.021)	-0.026 (0.021)	-0.025 (0.021)

Notes:

Standard errors in parentheses

p < 0.05 * p < 0.01 ** p < 0.001 ***

Year dummies (1997 to 2009) were included in each model but excluded for space consideration.

Table 4.5: Ordinal logistic regression results for the impact of conviction category on mental health

	Violent conviction	Property conviction	Drug conviction
<i>Conviction type</i>	-2.132*** (0.604)	-1.129* (0.530)	-0.237 (0.474)
<i>Health insurance</i>	0.330*** (0.046)	0.328*** (0.046)	0.329*** (0.046)
<i>Male</i>	0.298*** (0.056)	0.296*** (0.056)	0.294*** (0.056)
<i>Education</i>	0.039*** (0.006)	0.039*** (0.006)	0.039*** (0.006)
<i>Married</i>	0.263*** (0.054)	0.263*** (0.054)	0.260 (0.054)
<i>Children</i>	0.004 (0.054)	0.005 (0.054)	0.005 (0.054)
<i>Age</i>	-0.059 (0.115)	-0.050 (0.115)	-0.044 (0.115)
<i>Age²</i>	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
<i>Income (log)</i>	0.135*** (0.021)	0.134*** (0.021)	0.135*** (0.021)
<i>African American</i>	-0.309*** (0.067)	-0.311*** (0.067)	-0.311*** (0.067)
<i>Latino</i>	-0.213*** (0.072)	-0.213*** (0.072)	-0.214*** (0.072)
<i>Asian</i>	-0.141 (0.218)	-0.141 (0.218)	-0.141 (0.218)
<i>Mixed race</i>	-0.010 (0.276)	-0.010 (0.276)	-0.009 (0.276)
<i>Native American</i>	0.037 (0.331)	0.037 (0.330)	0.375 (0.330)
<i>Immigrant</i>	-0.089 (0.122)	-0.086 (0.122)	-0.087 (0.122)

Note: Standard errors in parentheses
p < 0.05 * p < 0.01 ** p < 0.001 ***
n=795

Table 4.6: Cross-tabulations for conviction categories and type of contact

	Violent conviction	Property conviction	Drug conviction
<i>Jail sentence</i>	37	61	62
<i>No jail sentence</i>	103	140	162
<i>Jail stay</i>	24	30	24
<i>No jail stay</i>	116	171	200

	Drug possession	Drug sale
<i>Jail sentence</i>	58	26
<i>No jail sentence</i>	155	39
<i>Jail stay</i>	23	9
<i>No jail stay</i>	190	56

Chapter 5: Conclusion

The prison boom of the 1980s ushered in a wealth of scholarship that largely found the increase in incarceration to be detrimental to the life prospects of the men and women enveloped in the system (Pettit and Western, 2004; Kruttschnitt, 2010; Petersilia, 2009). As the rate of incarceration increased, so did the residual influence of the criminal justice system on the lives of those individuals, their families and communities. The collateral consequences of felony imprisonment have been well-documented in the existing empirical literature (Comfort, 2007; Pager, 2003; Massoglia and Uggen, 2010). The impact of any contact less severe than prison, however, has not received the same level of attention. The findings of this dissertation suggest that expanding the investigation of criminal justice outcomes to lower level forms of contact, namely arrests, convictions and jail stays, can broaden the understanding of how the criminal justice system operates in the lives of those subject to its processes and procedures. Chapter 3 finds a substantial impact on employment outcomes due to an arrest, with both consistency of employment and wages negatively impacted by minor forms of contact. Chapter 4 finds similar impacts on physical and mental health even from the least severe forms of contact. These results suggest that expanding the net of criminal justice contact and looking beyond the prison walls may be beneficial to ascertaining the true costs and consequences of contact, from a roadside arrest to the prison cell.

Expanding beyond imprisonment

The findings from the empirical chapters support the prevailing conclusions of the existing literature on felony incarceration, namely that the consequences of an arrest, conviction or jail stay persist well after the contact has ceased. The work on felony imprisonment has shown that the employment, housing, health and educational consequences of incarceration are

detrimental to economic and social stability (Wildeman, 2009; Rumbaut, 2005; Uggen and Manza, 2004; Travis and Waul, 2003; Western, 2006). To understand how the prison boom and subsequent expansions of the criminal justice system affect markers of disadvantage and occupational, educational and health-related stratification, all forms of contact should be included in empirical studies of the system. With over 2 million people imprisoned and 9 million people cycling through local and county jails per year, there is potential for a widespread impact even for an arrest or misdemeanor conviction. By expanding the net to include those impacted by low level contact, there can be a greater understanding of how the criminal justice system, in all of its iterations, functions in the lives of individuals to either help or hinder development and stability.

The work that resulted from the rise in felony imprisonment provided clear evidence of the consequences of a prison stay, influencing access to employment and educational opportunities and posing an added burden by exacerbating physical and mental health conditions (Western, 2002; Massoglia, 2008). These results suggest that similar processes may be at work for low level forms of contact. For employment, for instance, every point of contact, from an arrest to a jail stay, results in substantial disadvantage to the number of weeks worked in a given year. Maintaining a consistent level of employment, especially for low wage, secondary labor market employees, is essential for sustaining employment but also in being a good candidate for future job opportunities. The results suggest that even a short term absence from a current job can impact consistency, and thereby future prospects. Wages are similarly impacted, with a negative effect occurring a year after contact. Given that most low level points of contact result in only a 48 to 72 hour stay, the potential burden to these individuals and their livelihoods can

hinge on even a short absence from their daily lives and responsibilities. Such a result highlights the potential for increasing barriers to security and stability as a result of a misdemeanor arrest.

The absences that occur as a result of low level criminal justice contact can also be seen in the health ramifications of an arrest, conviction or jail stay. The results show that the relationship between health and criminal justice contact represents a unique and complex landscape. On the one hand, contact in the form of an arrest or conviction, worsens physical and mental health. Such findings may be the result of the incapacitation effect of these forms of contact, which keep individuals from attending to medical needs. In addition, these outcomes may signal the stress that accompanies the processes and procedures of traversing the systems of criminal justice prosecution. However, on the other hand, a jail stay results in an ameliorative effect on physical health and registers a neutral impact on mental wellbeing. The supposition in these results is that the basic health care mandated by state law assists those most in need of medical and mental health services, providing, possibly for the first time, diagnosis and consistent treatment of existing conditions. The incapacitation in a carceral setting, even temporarily, can also provide protection from other forms of injury or mortality, especially for those hailing from troubled and violent neighborhoods (Patterson, 2010). Work on felony imprisonment suggest that such benefits, however, are short-lived, with negative health repercussions rebounding after release (Schnittker, Massolgia and Uggen, 2011). The results from the dissertation suggest a congruent pattern for low level contact, with benefits to physical health do not persist beyond the point of contact. Therefore, the health care provided by either a short term or long term carceral institution is not adequate or sufficient to ameliorate the negative health impacts that arise from the interplay between a substandard public health care system and the exposure and stress that accompanies any form of criminal justice contact.

Building on the empirical foundations of felony imprisonment and low level incarceration, this dissertation project focuses on arrests, convictions and jail stays as substantial life events that can have a sustained impact beyond the point of contact. Previously, such low level forms of contact were thought to cause minor and fleeting effects, if any, on daily duties and responsibilities. However, with the expanding empirical focus on the increasing penalties for those with minor penalties or misdemeanor convictions, comes a greater recognition of the expansion of the criminal justice system and its potential real impacts on the livelihood of individuals, their families and communities. Similar to felony imprisonment, the impact of low level contact can be seen through the curtailing of opportunities and the ability to attend to responsibilities. For the economically disadvantaged, any disruption in attending work or paying bills and taking medication can result in a derailment of stability and security. These results suggest it may not be about the severity or length of contact, but rather any contact at all that can render an impact on important markers of stability and wellbeing.

For imprisonment scholars, the research emphasis revolves around the effect on reentry, with the lasting impacts of felony incarceration erecting barriers to establishing a secure and stable post-release environment. Low level or misdemeanor forms of contact may not result in the sustained sentences of a prison stay, however, they do result in a period of incapacitation that renders the individual unable to attend to daily responsibilities and puts existing efforts towards stability in jeopardy. In addition, even an arrest or misdemeanor conviction can result in the stigma of a criminal record due to the proliferation of criminal background checks. In these empirical chapters, I argue that even the relatively abbreviated duration of low level contact can result in similar detrimental outcomes for maintaining and establishing solid employment and

impacting physical and mental health. And as with felony imprisonment, these effects can damage the ability of individuals to secure a foothold on a foundation of safety and security.

These results indicate that even low level contact is integral in creating a new strata between those who have had misdemeanor contact and those who have not. If felony imprisonment represents a turning point in the lives of those incarcerated, blocking them from opportunities for occupational, educational and social advancement, an arrest, conviction and jail stay can be seen in a similar light. Compared to felony incarceration, the level of contact for an arrest or conviction is not nearly as sustained or severe. However, the implications for employment, health and other markers of stability demonstrate that contact, in any form, represents substantial barriers to stability. And these barriers are a major force in in the widening gap between those with any criminal background and those without, producing yet another criteria of stratification to further disadvantage those with few opportunities and prospects.

These findings suggest a broader stratification story as low level contact, similar to felony imprisonment, increases and exacerbates existing inequalities. Contact appears to be part of this system of stratification, becoming yet another criterion by which individuals are disadvantaged due to their exposure and contact at any level. The employment and health effects that are shown in these results have the potential to impact other stabilizing forces such as education, housing and financial security. Looking at low level forms of contact can shed light on not only the ramifications of criminal justice contact but the reverberations of this contact into other spheres that are integral to establishing and maintaining security and stability, economically, occupationally, educationally and socially. The issue of criminal justice contact is situated within broader patterns of systemic inequality and injustice. Therefore, low level contact should be added to the discussion surrounding collateral consequences of the system and their resulting

inequalities in order to ascertain how an arrest, conviction or jail stay interacts with and contributes to other forms and forces of stratification.

Policy implications

The empirical work on the collateral consequences of the prison boom has highlighted the practices and policies of the criminal justice system as contributing to the occurrence of deleterious outcomes. The adoption of mandatory minimums and the increasing severe sentences for drug convictions lie at the heart of the overcrowding of prisons and the overrepresentation of African Americans and Latinos behind bars. Concurrent with the prison boom, the populations of local and county jails were increasing at a steady rate, bolstered by law enforcement practices that increased the numbers of people who had any contact with the system. Practices such as stop and frisk and broken windows policing strategies aided in increasing arrest for those suspected of committing minor disorder offenses (Harcourt, 2001). The increased reliance on these strategies added to the individuals being processed in the system for a misdemeanor or infraction arrest. If even an arrest without conviction can detrimentally affect the consistency of employment or wages or health outcomes, increasing these types of arrests only results in further disadvantage for already marginalized populations.

The criminal justice system, from law enforcement to jails to prisons, became a de facto health care provider, attending to the medical and psychological needs of those who did not have access to such services in their home communities. The health results suggest that medical and mental health screenings should be a mandatory and immediate part of the intake process, even for those being processed for minor offenses. The findings for health dovetail with foundational work by Massoglia (2008) and Schnittker, Massoglia and Uggen (2011), among others, who find that for felony imprisonment, health can temporarily improve due to the diagnostic and treatment

services provided in the institution. For individuals whose access to such services is blocked in their home communities, a carceral institution can offer access that may prove to be beneficial during the length of their stay. However, as the results suggest for both felony and jail incarceration, these effects are moderate and fleeting (Schnittker, Massoglia and Uggen, 2011; Patterson, 2010). Therefore, a more sustained solution would be to increase the access to health care for low income and marginalized communities in order to improve health without the need to enter a carceral institution.

Furthermore, the empirical and social service concentration on reentry typically focuses solely on those who have served felony sentences. This research, and other such studies (Petersilia, 2009), suggest that the perception of reentry should be widened to include those with any form of contact in order to alleviate the strain of the barriers faced due to an arrest, conviction or jail stay and also to reduce recidivism even for misdemeanor offenses. Jail differs from prison in that, although the sentences are shorter, individuals can be arrested, convicted or serve jail time multiple times in one year. If an impact on the consistency of employment or health can be seen after one arrest, multiple points of misdemeanor or infraction-level contact can compound such effects and lead to more long-standing difficulties in obtaining employment, improving physical and mental health, enrolling in school or securing affordable and quality housing. Focusing efforts on those affected by the full range of contact, not just felony imprisonment, can expand the understanding of how the criminal justice system operates in the lives of those who come in contact with it.

The results of this dissertation are integral to the discussion about legislative reforms on conviction status, especially in light of reforms such as Proposition 47 in California, which reduces certain non-violent felony convictions to misdemeanors. While there is an obvious

benefit to downgrading low-level felonies in terms of the stigma of a felony criminal record for purposes of employment and educational attainment, the results from this dissertation suggest that such changes may not be sufficient in order to lessen or eradicate the detrimental impact of contact, even for an arrest or jail stay. Work from Uggen and colleagues (2014), as well as others, suggests that the nature of the criminal record may not be the salient issue, but rather any record may paint the prospective employee or tenant as untrustworthy or unreliable. These dissertation findings lend credence to this supposition, suggesting that even the lowest form of contact, an arrest without conviction, can be a stumbling block towards maintaining a consistent level of employment and wages. While lessening the number of felony convictions is laudable, it is only a preliminary step in an on-going struggle to equalize the playing field for those with any criminal justice contact to afford them access to equitable opportunities for employment, education, housing and health care.

Future directions

The results from the dissertation chapters reveal a complex landscape for the relationship between low level contact and employment and health outcomes. To expand this course of study, I plan to publish two separate articles from the employment chapter 3, one looking at the impact on the consistency of employment, both at the time of the contact and the periods afterward. Second, I will publish a paper on the wage effect, emphasizing the necessity of exploring not only the immediate impact of low level contact but lagged effects as well. The health chapter will also yield two separate chapters, one looking at the impact on physical health and the other exploring mental health outcomes. The results from the health chapter reveal a complex relationship between health and a jail stay, therefore, future work will expand on the connection between access to health care and the criminal justice system as a necessary and salient piece of

the narrative. While this is on its face a public health story, the implications are also salient for a stratification analysis that looks at the role of the criminal justice system, especially for minor forms of contact, in providing basic health care services for marginalized and disadvantaged populations. These negative health effects can bleed over into other realms of social life, affecting the occupational and educational attainment of the individual as well as the collateral ramifications for partners and children.

Employment and health are, arguably, among the most essential markers of stability that can either strengthen or derail the process of reentry from even a short-term jail stay. I would like to expand beyond these outcomes to explore other similarly influential factors that can impact stratification outcomes. I intend to explore how housing fits into the equation, with housing instability affecting not only employment prospects but also health and wellbeing outcomes. The existing literature shows that even low level criminal justice contact can be detrimental to securing and maintaining consistent housing (Metraux and Culhane, 2006; Weisheit and Klofas, 1989; Geller and Curtis, 2011). Researchers have found that those released from even a short-term jail stay have difficulties finding affordable and stable housing, and are often more likely to experience a spell of homelessness after release (Culhane and Metraux, 1999). The incapacitation that results from an arrest or jail stay can endanger current housing situations, with the individual unable to pay rent or utility bills. Those who are released from a jail stay often have difficulty in finding a place to live due to parole restrictions or the stigma that results from even a short stint in jail. Increasingly, potential landlords are including criminal background checks on rental applications to weed out those with any criminal offense, from low level misdemeanor to felonies. The expansion to online criminal record checks has made it that much easier for potential employers and landlords to obtain information about convictions and

incarceration spells, but also arrests and infractions. Examining barriers such as housing allows for a deeper exploration of the expansion of collateral consequences, which are seemingly extended beyond felony imprisonment to the lowest and yet most ubiquitous forms of criminal justice contact.

The quantitative piece of this dissertation answers some essential questions about the basic relationship between low level contact and employment and health outcomes. And while I speculate on the mechanisms at work in these relationships, it is not possible to pinpoint how the proposed mechanisms of incapacitation or stigma are operating with the data provided. Therefore, I would like to expand this quantitative work with a qualitative look into these relationships and the mechanisms that undergird and drive them. Conducting qualitative interviews with individuals recently released from jail, whether as a result of an arrest or a sentence for an offense conviction, will give me insight into the difficulties faced in keeping and obtaining employment. I am interested to see how such short absences play out in the occupational realm, especially for those employed at the time of their arrest. Speaking with these individuals would give me insight into the barriers they faced in keeping their current job and how the process of letting them go was handled by their employer. The interviews may illuminate whether it was the loss of job skills, even after a short absence from the labor force, or if the stigma of even a minor criminal record cost them in looking for work after their release. On the health side, it would be illuminating to track self-reported physical and mental health concerns, and how contact was perceived to have impacted these outcomes. In addition, I would try to recruit different populations of individuals affected by criminal justice contact, including those with multiple arrest, convictions or jail stays in order to get a sense of the cumulative cost of repeated contact at the misdemeanor level.

In this concluding chapter, I have attempted to synthesize the results from these empirical chapters, and highlight the salience of these findings in both an empirical and policy context. The difficulties of studying low level contact persist given the rapidly cycling population and the abbreviated length of jail stays, which results in a dearth of suitable data. However, these results suggest that arrests, convictions and jail stays deserve attention due to their detrimental impacts on essential life markers such as employment and physical and mental health. Shedding light on these effects can hopefully provide a more complete picture of the consequences that result from criminal justice contact. And in addition, explore how these consequences can provide related barriers to the achievement of economic and occupational stability and physical and mental wellbeing. Focusing solely on prison obscures the true cost of criminal justice system contact, but expanding this view can improve the functioning of these systems in order to ensure a less stratified and more equitable system of justice for all.

References

- Bell, J., Zimmerman, F., Cawthon, M., Huebner, C., Ward, D. and Schroeder, C. 2004. "Jail Incarceration and Birth Outcomes". *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 81 (4): 630-644.
- Binswanger, I.A., P.M. Krueger, and J.F. Steiner. 2009. "Prevalence of chronic medical conditions among jail and prison inmates in the USA compared with the general population". *Journal of Epidemiology and Community Health*. 63 (11): 912-919.
- Bridges, George S. 1997. *A study on racial and ethnic disparities in Superior Court bail and pre-trial detention practices in Washington: final report*. Olympia, Wash. (P.O. Box 41174, Olympia 98504-1174): Washington State Minority and Justice Commission, Washington State Supreme Court, Temple of Justice.
- Carson, E.A. and Sabol, W.J. 2012. "Prisoners in 2011". Washington, D.C.: U.S. Dept. of Justice, Bureau of Justice Statistics.
- Comfort, Megan. 2007. "Punishment Beyond the Legal Offender". *Annual Review of Law and Social Science*. 3 (1): 271-296.
- Conklin TJ, T Lincoln, and RW Tuthill. 2000. "Self-reported health and prior health behaviors of newly admitted correctional inmates". *American Journal of Public Health*. 90 (12): 1939-41.
- Crutchfield, Robert D. 1989. "Labor Stratification and Violent Crime". *Social Forces (University of North Carolina Press)*. 68 (2).
- Crutchfield, Robert D. 2014. *Get a job: Labor markets, economic opportunity, and crime*. New York: NYU Press.
- Culhane, D., & Metraux, S. (1999). One-year rates of public shelter utilization by race/ethnicity, age, sex and poverty status for New York City (1990 and 1995) and Philadelphia (1995). *Population Research and Policy Review*, 18(3), 219-236.
- Department of Justice. 2007. "Report on the King County Correctional Facility". United States Department of Justice, Civil Rights Division: Washington, D.C.
- Desmond, Matthew. 2012. "Disposable Ties and the Urban Poor". *American Journal of Sociology*. 117 (5).
- Fagan, Jeffrey, and Richard B. Freeman. 1999. "Crime and Work". *Crime and Justice*. 25: 225-290.
- Freeman, Richard. 2008. "Incarceration, Criminal Background Checks, and Employment in a Low(er) Crime Society." *Criminology & Public Policy*. 7 (3).
- Geller, Amanda, & Curtis, Marah A. (2011). A Sort of Homecoming: Incarceration and the housing security of urban men. *Social Science Research*, 40(4), 1196-1213.
- Glaze, L. and Parks, E. 2012. "Correctional Populations in the United States, 2011". Washington, D.C.: U.S. Dept. of Justice, Bureau of Justice Statistics.

- Goffman, Alice. 2009. "On the Run: Wanted Men in a Philadelphia Ghetto". *American Sociological Review*. 74 (3): 339-357.
- Grogger, Jeff. 1992. "Arrests, Persistent Youth Joblessness, and Black/White Employment Differentials". *The Review of Economics and Statistics*. 74 (1): 100-106.
- Grogger, Jeffrey. 1995. "The Effect of Arrests on the Employment and Earnings of Young Men". *The Quarterly Journal of Economics*. 110 (1): 51-71.
- Hammett, T., Harmon, M., & Rhodes, W. 2002. The burden of infectious disease among inmates of and releasees from US correctional facilities, 1997. *American Journal of Public Health*, 92(11), 1789-94.
- Harcourt, B. (2001). *Illusion of order : The false promise of broken windows policing*. Cambridge, Mass.: Harvard University Press.
- Harris, Alexes, Heather Evans, and Katherine Beckett. 2010. "Drawing Blood from Stones: Legal Debt and Social Inequality in the Contemporary United States". *American Journal of Sociology*. 115 (6).
- Holzer, Harry J., Paul Offner, and Elaine Sorensen. 2005. "Declining Employment among Young Black Less-Educated Men: The Role of Incarceration and Child Support". *Journal of Policy Analysis and Management*. 24 (2): 329-350.
- Holzer, Harry J., Steven Raphael, and Michael A. Stoll. 2006. "Perceived criminality, criminal background checks, and the racial hiring practices of employers". *Journal of Law and Economics*. 49 (2): 451-480.
- Hoyert DL, MP Heron, SL Murphy, and HC Kung. 2006. "Deaths: final data for 2003". *National Vital Statistics Reports : from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System*. 54 (13): 1-120.
- Irwin, J. 1985. *The jail managing the underclass in American society*. Berkeley: University of California Press.
- James, D. and Glaze, L. 2006. "Mental Health Problems of Prison and Jail Inmates". Washington, D.C.: U.S. Dept. of Justice, Bureau of Justice Statistics.
- Javanbakht M., Murphy R., Smith L.V., Hayes M., Chien M., Kerndt P.R., and Harawa N.T. 2009. "Sexually transmitted infections and HIV prevalence among incarcerated men who have sex with men, 2000-2005". *Sexually Transmitted Diseases*. 36 (SUPPL. 2): S17-S21.
- Kahn RH, RF Voigt, E Swint, and H Weinstock. 2004. "Early syphilis in the United States identified in corrections facilities, 1999-2002". *Sexually Transmitted Diseases*. 31 (6): 360-4.
- Kling, Jeffrey R. 2006. "Incarceration Length, Employment, and Earnings". *American Economic Review*. 96 (3): 863-876.
- Kruttschnitt, Candace. 2010. "The Paradox of Women's Imprisonment.(Essay)". *Daedalus*. 139 (3).
- Laub, John H., and Robert J. Sampson. 2003. *Shared beginnings, divergent lives: delinquent boys to age 70*. Cambridge, Mass: Harvard University Press.

- Lott, John R. 1992. "An Attempt at Measuring the Total Monetary Penalty from Drug Convictions: The Importance of an Individual's Reputation". *The Journal of Legal Studies*. 21 (1): 159-187.
- Manza, Jeff, and Christopher Uggen. 2006. *Locked out: felon disenfranchisement and American democracy*. Oxford: Oxford University Press.
- Massoglia, M. 2006. Desistance or Displacement? The Changing Patterns of Offending from Adolescence to Young Adulthood. *Journal of Quantitative Criminology*, 22(3), 215-239.
- Massoglia, Michael. 2008. "Incarceration, Health, and Racial Disparities in Health". *Law & Society Review*. 42 (2): 275-306.
- Massoglia, Michael, and Christopher Uggen. 2010. "Settling Down and Aging Out: Toward an Interactionist Theory of Desistance and the Transition to Adulthood". *American Journal of Sociology*. 116 (2).
- Macgowan R, A Margolis, A Richardson-Moore, T Wang, M Lalota, PT French, J Stodola, et al. 2009. "Voluntary rapid human immunodeficiency virus (HIV) testing in jails". *Sexually Transmitted Diseases*. 36 (2): 9-13.
- Metraux, Stephen, & Culhane, Dennis P. (2006). Recent Incarceration History among a Sheltered Homeless Population. *Crime & Delinquency*, 52(3), 504-517.
- Minshall, M E, D J Dickinson, and M L Fleissner. 1994. "Prevalence of Syphilis, Hepatitis B Virus (HBV), and Human Immunodeficiency Virus (HIV) Infection in New Arrestees at the Lake County Jail, Crown Point, Indiana". *Journal of Prison and Jail Health*. 12 (2): 135-155.
- Minton, T. 2011. "Jail Inmates at Midyear 2010 - Statistical Tables". Washington, D.C.: U.S. Dept. of Justice, Bureau of Justice Statistics.
- Nagin, Daniel S., and Joel Waldfogel. 1998. "The effect of conviction on income through the life cycle". *International Review of Law and Economics*. 18 (1): 25-40.
- Neumark, David. 1988. "Employers' Discriminatory Behavior and the Estimation of Wage Discrimination". *The Journal of Human Resources*. 23 (3): 279-295.
- Noonan, M. 2007. "Mortality in Local Jails, 2000-2007". Washington, D.C.: U.S. Dept. of Justice, Bureau of Justice Statistics.
- Pager, Devah. 2003. "The Mark of a Criminal Record". *American Journal of Sociology*. 108 (5).
- Pager, Devah. 2007. *Marked: race, crime, and finding work in an era of mass incarceration*. Chicago: University of Chicago Press.
- Pager, Devah, and Lincoln Quillian. 2005. "Walking the Talk? What Employers Say Versus What They Do". *American Sociological Review*. 70 (3): 355-380.
- Patterson, E. 2010. Incarcerating Death: Mortality in U.S. State Correctional Facilities, 1985–1998. *Demography*, 47(3), 587-607.

- Petersilia, J. 2009. *When prisoners come home : Parole and prisoner reentry* (Studies in crime and public policy). Oxford ; New York: Oxford University Press.
- Pettit, Becky, and Bruce Western. 2004. "Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration". *American Sociological Review*. 69 (2): 151-169.
- Pettit, Becky, and Christopher J. Lyons. 2009. "Incarceration and the Legitimate Labor Market: Examining Age-Graded Effects on Employment and Wages". *Law & Society Review*. 43 (4): 725-756.
- Pogrebin, Mark, Mary Dodge, and Paul Katsampes. 2001. "The Collateral Costs of Short-Term Jail Incarceration: The Long-Term Social and Economic Disruptions". *Corrections Management Quarterly*. 5 (4).
- Potter, Roberto, Hefang Lin, Allison Maze, and Donell Bjoring. 2011. "The Health of Jail Inmates: The Role of Jail Population "Flow" in Community Health". *Criminal Justice Review*. 36 (4): 470-486.
- Rose, Dina R., and Todd R. Clear. 1998. "Incarceration, Social Capital, and Crime: Implications for Social Disorganization Theory." *Criminology*. 36 (3).
- Rumbaut, R. 2005. Turning points in the transition to adulthood: Determinants of educational attainment, incarceration, and early childbearing among children of immigrants. *Ethnic and Racial Studies*, 28(6), 1041-1086.
- Schnittker, J. and John, A. 2007. "Enduring Stigma: The Long-Term Effects of Incarceration on Health". *Journal of Health and Social Behavior*. 48 (2): 115-130.
- Schnittker, Jason, Michael Massoglia and Christopher Uggen. 2011. "Incarceration and the Health of the African American Community." *Du Bois Review*, 8(1): 1-9.
- Schnittker John, M Massoglia, and C Uggen. 2012. "Out and down: incarceration and psychiatric disorders". *Journal of Health and Social Behavior*. 53 (4): 448-64.
- Smedley, Brian D., Adrienne Y. Stith, and Alan R. Nelson. 2003. *Unequal treatment: confronting racial and ethnic disparities in health care*. Washington, D.C.: National Academy Press.
- Solomon, Liza, Colin Flynn, Kelly Muck, and John Vertefeuille. 2004. "Prevalence Of HIV, Syphilis, Hepatitis B, and Hepatitis C Among Entrants to Maryland Correctional Facilities". *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 81 (1): 25-37.
- Stoll, Michael A., and Shawn D. Bushway. 2008. "The Effect of Criminal Background Checks on Hiring Ex-offenders." *Criminology & Public Policy*. 7 (3): 371-404.
- Sullivan, Mercer L. 1989. *Getting paid: youth crime and work in the inner city*. Ithaca: Cornell University Press.
- Tartaro, C., & Lester, David. (2009). *Suicide and self-harm in prisons and jails*. Lanham, MD: Lexington Books.
- Travis, Jeremy, and Michelle Waul. 2003. *Prisoners once removed: the impact of incarceration and reentry on children, families, and communities*. Washington, D.C.: Urban Institute Press.

- Travis, Jeremy, Amy L. Solomon, and Michelle Waul. 2001. *From prison to home: the dimensions and consequences of prisoner reentry*. Washington, D.C.: Urban Institute.
- Uggen, Christopher. 2000. "Work as a Turning Point in the Life Course of Criminals: A Duration Model of Age, Employment, and Recidivism". *American Sociological Review*. 65: 529-546.
- Uggen, Christopher, Jeff Manza, and Melissa Thompson. 2006. "Citizenship, Democracy, and the Civic Reintegration of Criminal Offenders". *Annals of the American Academy of Political and Social Science*. 605: 281-310.
- Uggen, Christopher, Mike Vuolo, Sarah Lageson, Ebony Ruhland, and Hilary Whitham. 2014. "The Edge of Stigma: An Experimental Audit of the Effects of Low-Level Criminal Records on Employment." Forthcoming in *Criminology*.
- van Hoeven KH, Rooney WC Jr, and SC Joseph. 1990. "Evidence for gonococcal transmission within a correctional system". *American Journal of Public Health*. 80 (12): 1505-6.
- Waldfogel, Joel. 1994. "Does Conviction Have a Persistent Effect on Income and Employment?" *International Review of Law & Economics*. 14 (1).
- Weisheit, Ralph, and John Klofas. 1989. "The impact of jail: Collateral costs and affective response". *Journal of Offender Rehabilitation*. 14 (1): 51-65.
- Western, Bruce. 2002. "The Impact of Incarceration on Wage Mobility and Inequality". *American Sociological Review*. 67 (4): 526.
- Western, Bruce. 2006. *Punishment and inequality in America*. New York: Russell Sage.
- Western, Bruce, and Becky Pettit. 2010. "Incarceration & social inequality". *Daedalus*. 139 (3).
- Wildeman, Christopher. 2009. "Parental Imprisonment, the Prison Boom, and the Concentration of Childhood Disadvantage". *Demography*. 46 (2): 265-280.
- Wilper, A., Woolhandler, S., Lasser, K., McCormick, D., Bor, D., & Himmelstein, D. 2009. Health Insurance and Mortality in US Adults. *American Journal Of Public Health*, 99(12), 2289-2295.
- Wilper, Andrew P, Steffie Woolhandler, J Wesley Boyd, Karen E Lasser, Danny McCormick, David H Bor, and David U Himmelstein. 2009. "The Health and Health Care of US Prisoners: Results of a Nationwide Survey". *American Journal of Public Health*. 99 (4): 666

Appendix A: Selected NLSY97 Variables by Survey Round

Variable	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 1 0	R 1 1	R 12	R 13	R 14
I. EMPLOYMENT, UNEMPLOYMENT, AND JOB SEARCH (age restrictions as of interview date)														
A. Current Population Survey (CPS): Week before survey														
Labor force and employment status	Y≥15			≥15						*				
Worked for profit or pay; worked at unpaid position in family business or farm	Y≥15			≥15						*				
Hours per week worked or usually worked at main job	Y≥15			≥15						*				
Hours per week worked at main job last week	Y≥15			≥15						*				
Number of overtime hours	Y≥15			≥15						*				
Reason worked part time	Y≥15			≥15						*				
Reason absent from work	Y≥15			≥15						*				
Actual weeks or expected duration of layoff	Y≥15			≥15						*				
Disability prevents Y from working or accepting work	Y≥15			≥15						*				
Length of time spent looking for work	Y≥15			≥15						*				
Search methods used in last 4 weeks	Y≥15			≥15						*				
Is Y searching for part-time or full-time job	Y≥15			≥15						*				
B. Characteristics of employee jobs (starting in round 4, also self-employed jobs of youths age 18 at end of prior calendar year)														
1. Jobs of any length														
Job start and stop dates	Y≥14	≥14	*	*	*	*	*	*	*	*	*	*	*	*
Rate of pay at start date	Y≥14	≥14	*	*	*	*	*	*	*	*	*	*	*	*
Usual hours per week worked	Y≥14	≥14	*	*	*	*	*	*	*	*	*	*	*	*

Table codes: For round 1, Y=Youth Questionnaire, P=Parent Questionnaire, S=Screeener, Household Roster, and Nonresident Roster Questionnaire. An asterisk in subsequent rounds indicates the variable was present in the youth questionnaire. A number with the symbol \geq or $=$ in front of it (such as ≥ 15) indicates the question was asked in the youth questionnaire to an age-restricted subsample. In rounds 2–5, U=Household Income Update.

Appendix A: Selected NLSY97 Variables by Survey Round

Variable	R 1	R 2	R 3	R 4	R 5		R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14
Weeks Y had worked as of job's stop date	Y≥14	≥14	*	*	*		*	*	*	*	*	*	*	*	*
Class of worker	Y≥16	≥16	≥16	≥16	*		*	*	*	*	*	*	*	*	*
Occupation and industry at current or stop date	Y≥14		≥14	*		*	*	*	*	*	*	*	*	*	*
D. Military (Youths age 16 and older who report an ongoing job)															
Current or most recent military occupation			*	*		*	*	*	*	*	*	*	*	*	*
E. Periods not working at an employee job															
Number of weeks unemployed	Y≥14	≥14	*	*	*	*	*	*	*	*	*	*	*	*	*
II. SCHOOLING (age restrictions as of 12/31/96)															
Current enrollment status	Y, P	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Highest grade level completed	Y	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Variable	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14	
IV. INCOME, ASSETS, AND PROGRAM PARTICIPATION															
A. Income (all questions except wages/salary and parental allowance asked only of independent youths)															
Previous year's income from wages or salary (collected separately for Y and spouse)	Y, P	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Variable	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14	
V. FAMILY FORMATION (age restrictions as of end of previous calendar year—12/31/96 in rd 1, 12/31/97 in rd 2, and so on)															
A. Marital history															
Y's current marital status	Y≥16	≥16	≥16	≥16	*	*	*	*	*	*	*	*	*	*	
B. Fertility and children															
Number, sex, and ages of biological children	S, Y	*	*	*	*	*	*	*	*	*	*	*	*	*	

Variable	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14
B. Youth history														
Citizenship status					*	*	*	*		*	*	*	*	*

Variable	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14
B. Behaviors (age restrictions as of previous calendar year—12/31/96 in round 1, 12/31/97 in round 2, and so forth)														
Amount of cigarettes/alcohol/marijuana in past month	Y	*	*	*	*	*	*	*	*	*	*	*	*	*
Type of crimes Y committed	Y	*	*	*	*	*	*	6	*	*	*	*	*	*
Age when Y committed crime first time	Y													
Number of crimes committed in the previous year or since last interview	Y	*	*	*	*	*	*	6	*	*	*	*	*	*
# of times Y arrested	Y	*	*	*	*	*	*	*	*	*	*	*	*	*
Date of Y's first or most recent arrest	Y	5	5	5	5	5	5	5	*	*	*	*	*	*
Offense charged with for each arrest	Y	*	*	*	*	*	*	*	*	*	*	*	*	*
Y convicted or plead guilty for each arrest	Y	*	*	*	*	*	*	*	*	*	*	*	*	*
Facility, duration of sentence	Y	*	*	*	*	*	*	*	*	*	*	*	*	*

Variable	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14
IX. HEALTH (age restrictions as of 12/31/96)														
Y's general health	Y, P	*	*	*	*	*	*	*	*	*	*	*	*	*
Mental health in past month (series)				*		*		*		*		*	*	*
Y's health insurance coverage	Y,P					*	*	*	*	*	*	*	*	*
Visits to doctor in past 12 months						*	*	*	*	*	*	*	*	*

Appendix B

Table B.1: Random effects ordinal logistic regression results for the effect of criminal justice contact on individuals with good existing physical health

	Arrest (n=1871)	Arrest, no conviction (n=1076)	Conviction (n=795)	Jail sentence (n=392)	Jail stay (n=167)
<i>Type of contact</i>	-0.196* (0.092)	-0.168 (0.103)	-0.303 (0.167)	-0.220 (0.224)	0.745 (0.494)
<i>Health insurance</i>	0.184*** (0.043)	0.186*** (0.043)	0.187*** (0.043)	0.188*** (0.043)	0.190*** (0.043)
<i>Male</i>	0.491*** (0.060)	0.488*** (0.060)	0.487*** (0.060)	0.485*** (0.060)	0.482*** (0.060)
<i>Education</i>	0.159*** (0.011)	0.160*** (0.011)	0.160*** (0.011)	0.160*** (0.011)	0.161*** (0.011)
<i>Married</i>	0.044 (0.052)	0.044 (0.052)	0.045 (0.052)	0.045 (0.052)	0.047 (0.052)
<i>Children</i>	-0.110* (0.052)	-0.110* (0.052)	-0.110* (0.052)	-0.111* (0.052)	-0.112*** (0.052)
<i>Age</i>	0.096 (0.114)	0.096 (0.114)	0.097 (0.114)	0.096 (0.114)	0.095 (0.114)
<i>Age²</i>	-0.003 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
<i>Income (log)</i>	0.026 (0.020)	0.026 (0.020)	0.026 (0.020)	0.027 (0.020)	0.027 (0.020)
<i>African American</i>	-0.127 (0.072)	-0.127 (0.072)	-0.127 (0.072)	-0.128 (0.072)	-0.128 (0.072)
<i>Latino</i>	-0.346*** (0.079)	-0.346*** (0.079)	-0.345*** (0.079)	-0.345*** (0.079)	-0.345*** (0.079)
<i>Asian</i>	-0.442 (0.272)	-0.441 (0.272)	-0.442 (0.272)	-0.441 (0.272)	-0.439 (0.272)
<i>Mixed race</i>	-0.118 (0.327)	-0.119 (0.327)	-0.116 (0.327)	-0.116 (0.327)	-0.116 (0.327)
<i>Native American</i>	-0.177 (0.340)	-0.177 (0.340)	-0.179 (0.340)	-0.180 (0.340)	-0.177 (0.340)
<i>Immigrant</i>	0.209 (0.131)	0.210 (0.131)	0.210 (0.131)	0.209 (0.131)	0.211 (0.131)
<i>Parental report</i>	-0.477*** (0.036)	-0.477*** (0.036)	-0.478*** (0.036)	-0.478*** (0.036)	-0.477*** (0.036)

Table B.2: Random effects ordinal logistic regression results for the effect of criminal justice contact on individuals with poor existing physical health

	Arrest (n=1871)	Arrest, no conviction (n=1076)	Conviction (n=795)	Jail sentence (n=392)	Jail stay (n=167)
<i>Type of contact</i>	0.196* (0.092)	0.168 (0.103)	0.303 (0.167)	-0.220 (0.224)	-0.745 (0.494)
<i>Health insurance</i>	-0.184*** (0.043)	-0.186*** (0.043)	-0.187*** (0.043)	-0.188*** (0.043)	-0.190*** (0.043)
<i>Male</i>	-0.491*** (0.060)	-0.488*** (0.060)	-0.487*** (0.060)	-0.485*** (0.060)	-0.482*** (0.060)
<i>Education</i>	-0.159*** (0.011)	-0.160*** (0.011)	-0.160*** (0.011)	-0.160*** (0.011)	-0.161*** (0.011)
<i>Married</i>	-0.044 (0.052)	-0.044 (0.052)	-0.045 (0.052)	-0.045 (0.052)	-0.047 (0.052)
<i>Children</i>	0.110* (0.052)	0.110* (0.052)	0.110* (0.052)	0.111* (0.052)	0.112*** (0.052)
<i>Age</i>	-0.096 (0.114)	-0.096 (0.114)	-0.097 (0.114)	-0.096 (0.114)	-0.095 (0.114)
<i>Age²</i>	0.003 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
<i>Income (log)</i>	-0.026 (0.020)	-0.026 (0.020)	-0.026 (0.020)	-0.027 (0.020)	-0.027 (0.020)
<i>African American</i>	0.127 (0.072)	0.127 (0.072)	0.127 (0.072)	0.128 (0.072)	0.128 (0.072)
<i>Latino</i>	0.346*** (0.079)	0.346*** (0.079)	0.345*** (0.079)	0.345*** (0.079)	0.345*** (0.079)
<i>Asian</i>	0.442 (0.272)	0.441 (0.272)	0.442 (0.272)	0.441 (0.272)	0.439 (0.272)
<i>Mixed race</i>	0.118 (0.327)	0.119 (0.327)	0.116 (0.327)	0.116 (0.327)	0.116 (0.327)
<i>Native American</i>	0.177 (0.340)	0.177 (0.340)	0.179 (0.340)	0.180 (0.340)	0.177 (0.340)
<i>Immigrant</i>	-0.209 (0.131)	-0.210 (0.131)	-0.210 (0.131)	-0.209 (0.131)	-0.211 (0.131)
<i>Parental report</i>	-0.477*** (0.036)	-0.477*** (0.036)	-0.478*** (0.036)	-0.478*** (0.036)	-0.477*** (0.036)

Table B.3: Random effects ordinal logistic regression results for the effect of criminal justice contact on individuals with existing good mental health

	Arrest (n=1871)	Arrest without conviction (n=1076)	Conviction (n=795)	Jail sentence (n=392)	Jail stay (n=167)
<i>Type of contact</i>	0.633*** (0.107)	0.579*** (0.123)	0.627*** (0.186)	0.551* (0.249)	0.374 (0.498)
<i>Health insurance</i>	-0.231*** (0.052)	-0.240*** (0.052)	-0.246*** (0.052)	-0.249*** (0.052)	-0.253*** (0.052)
<i>Male</i>	-0.455*** (0.067)	-0.447*** (0.069)	-0.441*** (0.068)	-0.438*** (0.069)	-0.433*** (0.069)
<i>Education</i>	-0.110*** (0.011)	-0.112*** (0.011)	-0.114*** (0.011)	-0.114*** (0.011)	-0.114*** (0.011)
<i>Married</i>	-0.270*** (0.060)	-0.269*** (0.059)	-0.275*** (0.060)	-0.272*** (0.060)	-0.274*** (0.060)
<i>Children</i>	-0.042 (0.061)	-0.041 (0.061)	-0.040 (0.061)	-0.040 (0.061)	-0.038 (0.061)
<i>Age</i>	0.137 (0.124)	0.140 (0.124)	0.131 (0.124)	0.137 (0.124)	0.136 (0.124)
<i>Age²</i>	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
<i>Income (log)</i>	-0.104*** (0.022)	-0.105*** (0.022)	-0.104*** (0.022)	-0.104*** (0.022)	-0.104*** (0.022)
<i>African American</i>	0.150* (0.070)	0.149* (0.070)	0.150* (0.070)	0.152* (0.070)	0.149* (0.070)
<i>Latino</i>	0.095 (0.076)	0.095 (0.076)	0.090 (0.076)	0.091 (0.076)	0.090 (0.076)
<i>Asian</i>	0.213 (0.225)	0.209 (0.225)	0.205 (0.225)	0.206 (0.225)	0.203 (0.225)
<i>Mixed race</i>	0.093 (0.282)	0.093 (0.283)	0.083 (0.283)	0.085 (0.283)	0.087 (0.283)
<i>Native American</i>	-0.189 (0.344)	-0.189 (0.344)	-0.201 (0.344)	-0.195 (0.344)	-0.201 (0.344)
<i>Immigrant</i>	0.190 (0.129)	0.185 (0.129)	0.186 (0.129)	0.183 (0.129)	0.181 (0.129)
<i>Parental report (mental health)</i>	0.034 (0.022)	0.035 (0.022)	0.035 (0.022)	0.036 (0.022)	0.035 (0.022)

Table B.4: Random effects ordinal logistic regression results for the effect of criminal justice contact on individuals with poor existing mental health

	Arrest (n=1871)	Arrest without conviction (n=1076)	Conviction (n=795)	Jail sentence (n=392)	Jail stay (n=167)
<i>Type of contact</i>	-0.633*** (0.107)	-0.579*** (0.123)	-0.627*** (0.186)	-0.551* (0.249)	-0.374 (0.498)
<i>Health insurance</i>	0.231*** (0.052)	0.240*** (0.052)	0.246*** (0.052)	0.249*** (0.052)	0.253*** (0.052)
<i>Male</i>	0.455*** (0.067)	0.447*** (0.069)	0.441*** (0.068)	0.438*** (0.069)	0.433*** (0.069)
<i>Education</i>	0.110*** (0.011)	0.112*** (0.011)	0.114*** (0.011)	0.114*** (0.011)	0.114*** (0.011)
<i>Married</i>	0.270*** (0.060)	0.269*** (0.059)	0.275*** (0.060)	-0.272*** (0.060)	-0.274*** (0.060)
<i>Children</i>	0.042 (0.061)	0.041 (0.061)	0.040 (0.061)	0.040 (0.061)	0.038 (0.061)
<i>Age</i>	-0.137 (0.124)	-0.140 (0.124)	-0.131 (0.124)	-0.137 (0.124)	-0.136 (0.124)
<i>Age²</i>	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
<i>Income (log)</i>	0.104*** (0.022)	0.105*** (0.022)	0.104*** (0.022)	0.104*** (0.022)	0.104*** (0.022)
<i>African American</i>	-0.150* (0.070)	-0.149* (0.070)	-0.150* (0.070)	-0.152* (0.070)	-0.149* (0.070)
<i>Latino</i>	-0.095 (0.076)	-0.095 (0.076)	-0.090 (0.076)	-0.091 (0.076)	-0.090 (0.076)
<i>Asian</i>	-0.213 (0.225)	-0.209 (0.225)	-0.205 (0.225)	-0.206 (0.225)	-0.203 (0.225)
<i>Mixed race</i>	-0.093 (0.282)	-0.093 (0.283)	-0.083 (0.283)	-0.085 (0.283)	-0.087 (0.283)
<i>Native American</i>	0.189 (0.344)	0.189 (0.344)	0.201 (0.344)	0.195 (0.344)	0.201 (0.344)
<i>Immigrant</i>	-0.190 (0.129)	-0.185 (0.129)	-0.186 (0.129)	-0.183 (0.129)	-0.181 (0.129)
<i>Parental report (mental health)</i>	-0.034 (0.022)	-0.035 (0.022)	-0.035 (0.022)	-0.036 (0.022)	-0.035 (0.022)

Curriculum Vitae

April Fernandes

Department of Sociology
University of Washington
211 Savery Hall
Box 353340
Seattle, WA 98195
afern@uw.edu
(510) 329-6552

Education

PhD, Sociology, University of Washington, 2015

Dissertation title: "How Far Up the River? Assessing the Consequences of Criminal Justice Contact"

Dissertation Committee: Robert Crutchfield, Becky Pettit, Jerry Herting, Hedwig Lee

M.A., Sociology, University of Washington, 2010

M.A. Thesis title: "Red Lights & Handcuffs: The Effect of Arrests on Perceptions of Crime"

M.A. Committee: Robert Crutchfield, Katherine Beckett, Ross Matsueda

B.A., Sociology & Psychology, University of Southern California, 2003

Professional experience

Post-doctoral Fellow, Department of Sociology, University of Washington, beginning August 2015

Supervisor: Alexes Harris

Research Assistant, evaluation project for Post Prison Education Program (PPEP), May 2015 – present

Supervisor: Robert Crutchfield

Research Assistant, conducting data analysis of legal financial obligations for ACLU, May 2015 - present

Supervisor: Alexes Harris

Research assistant, Social Development Research Group, Seattle, WA, Summer 2010

Supervisor: Kevin Haggerty

Awards, Grants & Fellowships

National Science Foundation, "Doctoral Dissertation Research: Social and Economic Consequences of 'Minor' Contacts with the Criminal Justice System," Co-principal Investigator with Robert Crutchfield (PI), 2014.

Publications

Fernandes, A., Ramirez, S. & Crutchfield, R. 2013. "Race and Ethnicity in Social Disorganization Theory." In *Encyclopedia of Criminology and Criminal Justice*. eds. G. Bruinsma and D. Weisburd. New York: Springer. 4237-4245.

Fernandes, A., Skinner, M., Woelfel, T., Carpenter, T., & Haggerty, K. 2012. "Implementing Self-collection of Biological Specimens With a Diverse Sample." *Field Methods*. 25(1): 58-73.

Crutchfield, R., Fernandes, A. & Martinez, J. 2010. "Racial and Ethnic Disparity and Criminal Justice: How Much is Too Much?" *Journal of Criminal Law & Criminology*. 100 (3).

Publications under review

Fernandes, A. 2014. "Red Lights and Handcuffs: The Effect of Arrests on the Fear of Crime."
(Revise & resubmit at Social Science Research)

Conference & Seminar Presentations

"On the Job or in the Joint: Employment Outcomes and Criminal Justice Contact." Presenter, Population Association of America Annual Conference, Boston, MA, May 2014.

"How Far Up the River? Assessing the Health Consequences of Criminal Justice Contact." Presenter, Population Association of America Annual Conference, New Orleans, LA, April 2013.

"Red Lights & Handcuffs: The Effect of Arrests on Perceptions of Crime." Presenter, American Society of Criminology Annual Conference, Washington, D.C., November 2011

"Public & Private Crime: Evaluating the Fear of Crime using Drug & Domestic Violence Arrests." Roundtable Participant, University of Washington Graduate Research Symposium, Seattle, WA, April 2011

"Red Lights & Handcuffs: The Effect of Arrests on Perceptions of Crime." Roundtable Participant, American Society of Criminology Annual Conference, San Francisco, CA, November 2010

Professional Activities

Member, American Society of Criminology

Member, American Sociological Association

Member, Population Association of America

Student editorial board member, *Social Problems*: Fall 2011 to Spring 2014

Reviewer, *Law and Society Review*: Fall 2012

Reviewer, *Social Problems*: Spring 2014

Member, Racial Democracy, Crime and Justice Network: Summer 2012 to present

Fellow, Law, Societies and Justice program, University of Washington

Teaching Experience

Lead Teaching Assistant (Fall 2013 to Summer 2015)

Instructor, Sociology of Education Practicum (Fall 2010 to Spring 2013) & Introduction to Deviance and Social Control (Summer 2011-2014)

Teaching Assistant, Introduction to Sociology, Social Problems, Introduction to Deviance and Social Control, Society & Politics, Race & Ethnic Relations, Criminology, Law & Society, Fall 2007 to Spring 2010

Exam areas: Deviance and Social Control (major) and Social Statistics (minor)