

PAID YOUR DEBT TO SOCIETY? LEGAL FINANCIAL OBLIGATIONS  
AND THEIR EFFECTS ON FORMER PRISONERS

---

A Dissertation Submitted to the  
Temple University Graduate Board

---

In Partial Fulfillment  
of the Requirements for the Degree  
DOCTOR OF PHILOSOPHY

---

By Nathan Wong Link  
August 2017

Examining Committee Members:

Caterina G. Roman, Ph.D., Advisory Chair, Department of Criminal Justice

Wayne N. Welsh, Ph.D., Department of Criminal Justice

Jeffrey T. Ward, Ph.D., Department of Criminal Justice

Christy A. Visher, Ph.D., External Member, Department of Sociology and Criminal  
Justice, University of Delaware

©

Copyright 2017

by

Nathan W. Link

All Rights Reserved

## ABSTRACT

Within the last decade, scholars and practitioners alike have noted a surge in the use of legal financial obligations (LFOs) in criminal justice processing. These include fines, fees, and costs that are applied to defendants' cases from "upstream" agencies such as police departments to "downstream" agencies including jails, prisons, probation and parole agencies, and treatment centers. Legal financial obligations can be large, and the result is that outstanding balances often accumulate into unwieldy amounts of criminal justice debt. Recently, a small handful of qualitative studies have shown that these LFOs and debts can have adverse impacts on returning prisoners and their families, including increased stress, strained family relationships, worsened depression, and longer periods spent under criminal justice surveillance for those too poor to pay off outstanding balances. In addition, some of this work suggests that these financial obligations can increase the likelihood of returning to crime.

This dissertation expands on the major contributions of these recent qualitative works by addressing the lack of quantitative research in this area. Toward this end, longitudinal data from the Returning Home Study (n=740) and structural equation modeling (SEM) techniques are used to test whether LFOs and debt indeed have adverse impacts on key outcomes of interest in reentry research, including family relationships, depression, justice involvement/entanglement, and recidivism. Findings reveal partial support for past research and theory. Legal financial obligations do not appear to have impacts on depression, family conflict, and several measures of recidivism on average. However, outstanding debt owed to community supervision agencies (i.e., probation/parole/mandatory community supervision) significantly increases the

likelihood of remaining under supervision, which, in turn, increases the likelihood of returning to prison. Implications for decision-making bodies from state legislatures to corrections agencies are discussed.

## ACKNOWLEDGMENTS

I probably should not admit this, but 22% of my life was spent in graduate school at Temple. That last sentence itself is but one example of the impact it has had on my development. It is hard for me to capture how I feel about my experience here; I've learned so much and, more importantly, learned that there is vastly more to learn. This represents a marked change in outlook compared to when—during my delinquent adolescent years—I once complained to my mom: “I can't wait for school and the learning to stop.” You were right, Mom, when you replied: “Sorry, the learning never stops.” The primary reason graduate school has been so enriching is that I've been surrounded by serious scholars—faculty and graduate students alike—and have benefitted enormously from their proximity and generosity toward me. I have also made some life-long friendships while here. I am excited to keep in touch with many of you as our careers develop or continue to develop. There are many people I need to acknowledge and thank—from faculty, friends, and family—who have helped me make this a productive journey.

I have had such great support from all three members of my committee—on my dissertation and on many other projects. Caterina—I've benefitted so much from being your advisee over the years. From the first project we did together on legal barriers to reentry with the Philadelphia Bar Foundation, to our NIJ project, Crime-PA, Focused Deterrence, and my dissertation, I've learned so much from working with you. You've taken me under your wing and introduced me to high-level scholars and local officials in your circles, shown me how to put together a winning grant proposal, and taught me to be more specific and clear in my writing (“Be more specific!”), among other things.

Although it's a crude indicator, my email account shows that I have 1,391 conversations between the two of us. This is conservative, of course, because it only accounts for the emails I kept. I really appreciate all the time and effort and I look forward to working on more things together in the future.

Jeff—I am so happy and lucky that you came to Temple. The amount of time and effort that you've invested in me was—although I know clichés are bad form—way above and beyond the call of duty. Remember when I emailed you and asked if we could meet to work on my dissertation and a related paper and your response was “How about Friday, we can start at 9 and work till 5 if need be”, which we did at various locations while we were office-less? And there were several other occasions like that, too. I really owe you a lot. I look forward to writing more papers together and, since I'll be local, expect me to knock on your door next year so that you can help me make sense of some construct's confusing item characteristic curves!

Wayne—I've really enjoyed working with you ever since MAT days. I've learned so much about community corrections, reentry, and rehabilitation from you, and it was in your class that I wrote my first paper on criminal justice debt. You've given me so much of your time; you've always been looking out for my best interests, and I can always go to you for sage and clear advice. I've really benefitted from working with you, and I hope we can collaborate more in the future.

I also want to acknowledge and thank Dr. Christy Visher for being my external reviewer on my dissertation. Having you on my committee is—as everyone who studies crime, substance abuse, corrections, or just about anything else in criminology knows—a real privilege and quite an honor. Thank you.

Apart from my committee, there are several other faculty whom I was fortunate enough to work with or get to know in some capacity. Jamie—I'm also really happy you came to Temple. You're a really sharp listener, and I've always found your advice so insightful. Thanks for all you do and for being such a great job market mentor! Phil—it's been great getting to know you and Ellen over the years. I know we'll stay in touch, and that makes me happy. Ralph—I learned many things from you, both in class and in drop-ins to your office hours (although, to be honest, I usually emerged from your office in dire need of Advil!). Steve—It was great working with you. I know I'll always be able to rely on you for guidance. Jen—Although we only worked together briefly here and there, it was always such a good experience (even if we were stuck coding transcripts together literally for thirty-five hours...). Kay—I've learned so much about corrections and prisons from you, and your "real world" work has helped me maintain motivation to tackle some of the issues in criminal justice. I'm limited by space constraints, but I'd also like to acknowledge and thank Kate, Doris, Matt, Tara, and Rely for their mentorship and friendship. You have all made this a rich, interesting, and enjoyable experience.

There are too many fellow graduate students to acknowledge here, but I'd like to mention a few whom I've had the pleasure of getting to know. Lauren—we did it! We kept each other on track and finished (everyone needs an accountabilibuddy!). I'm going to miss capitalizing on our mutual interest in food, drink, and disc golf. I hope B.C. treats you well, and if it gets much worse here, we may join you out there. Ingrid—it's been so great getting to know you. You are one of a kind, and I'm glad we'll be able to hike, camp, canoe, and devour delicious food for at least another year. Cory—it's great to have you as a friend and colleague. Thanks for answering all my frantic job market text

messages, and don't forget about me when you're famous. Leah—I really enjoyed collaborating with you on many endeavors, from writing papers to tackling new food establishments. I hope we continue these activities. Courtney—you're hilarious, and it was great to get to know you over these years. One day I'll make it to The Chilly Banana, I promise! Kelly and Jill—my cohort crew—it's been so great to get to know you both. I look forward to seeing you guys around locally and at conferences! Hannah—it was fun having you as an officemate, even if I didn't come in much during the past year. Never lose your dark and awesome sense of humor. Abby, Amber, Joe P., and anyone I may have missed, thanks for making the graduate school experience a positive one.

I am fortunate to be surrounded by some of the best family one could ask for. Mom and Dad—thanks for all the love and support throughout my development. You two really are special people and you've always given me so much, even when I perhaps didn't deserve it. Monica—you've always been such a caring figure in my life. I hope it's not too long before we share another long and exhausting family hike. Uncle Bruce—I'm so lucky that you're my uncle. Thanks for being an informal academic mentor over these years. Dan and Sam—you are growing into such amazing kids—I'm one of your biggest fans! You're all the best; I know you have my back, as I have yours. Love you guys.

To my closest family in the world, Laura and Elena: somehow I was lucky enough to get you two. Nothing in the world matters to me compared to having you both in my life. Laura—thanks for all your love and support over this wonderful past decade. As you know, we have something very special. I'm so excited to experience decades more. Elena—your mom and I feel so privileged to have front row seats as we watch and put our fingerprints on your development. You just started standing not too long ago and



we were utterly smitten by it (as were you). I suspect this is going to continue for some time. I love you both.

## TABLE OF CONTENTS

ABSTRACT .....	iii
ACKNOWLEDGMENTS .....	v
TABLE OF CONTENTS .....	x
LIST OF FIGURES .....	xiii
LIST OF TABLES .....	xiv
CHAPTER 1 – INTRODUCTION .....	1
CHAPTER 2 – LITERATURE REVIEW .....	6
Types of Legal Financial Obligations .....	6
Fees/Costs .....	7
Fines .....	8
Day Fines .....	9
Restitution .....	12
Child Support .....	12
Sources of Legal Financial Obligations in the U.S. ....	14
Historical Perspective on LFOs .....	20
Theorizing LFOs, Debt & the Relevant Empirical Literature .....	23
Who has LFOs and Criminal Justice Debt? .....	23
How Much Criminal Justice Debt Do People Have? .....	26
LFOs, Debt, and Justice Involvement and Recidivism .....	31
LFOs, Debt, and Depression .....	37
LFOs, Debt, and Family Conflict .....	41
Gaps in Knowledge and Current Study .....	44
CHAPTER 3 – METHODOLOGY .....	46
Research Questions and Hypotheses .....	46
Data .....	52
The Returning Home Studies .....	52
Returning Home Studies by State .....	54
Cleveland, Ohio .....	54
Chicago, Illinois .....	55
Houston, Texas .....	56
Returning Home Merged Data .....	57
Panel Data .....	58
Endogenous Outcomes .....	58
Depression .....	59
Financial strain .....	59
Family Conflict .....	60
Rearrest .....	60
Self-report acquisitive crime .....	61
Reincarceration .....	61
Exogenous Debt Variables .....	61
Covariates .....	62

Missing Data .....	67
Structural Equation Modeling .....	69
Measurement Models .....	69
Model Fit .....	71
Path Analysis .....	73
Hybrid Models .....	75
Analysis Steps .....	76
Institutional Review Exempt Status .....	78
<b>CHAPTER 4 – RESULTS .....</b>	<b>79</b>
Roadmap for Results Section .....	79
Descriptive Analyses—Research Question 1 .....	80
Debt and Amounts among Former Prisoners in the Returning Home Study .....	80
Logistic Regression Model of Whom Has CJ Debt at PR1 .....	83
Logistic Regression Model of Changes in CJ Debt between PR1-PR2 .....	86
Count Model Predicting Amount of CJ Debt at PR1 .....	88
Count Model Predicting Changes in Amount of CJ Debt by PR2 .....	90
Structural Equation Modeling Results—Research Questions 2-4 .....	92
Measurement Modeling via Confirmatory Factor Analysis .....	92
Model Fit for Individual Latent Constructs .....	96
Collective Measurement Model .....	97
Saturated and Nested Structural Measurement Model Results .....	97
Hybrid SEM Results .....	98
Hybrid Models Controlling Supervision Status at PR1 .....	108
Hybrid Models Exploring Supervision Debt on Criminal Justice Outcomes .....	111
Decomposing the Effects of Criminal Justice Debt .....	117
Summary of Findings – Descriptive Analysis (RQ1) .....	119
Summary of Findings – SEM Analysis (RQ2-RQ4) .....	121
<b>CHAPTER 5 – DISCUSSION AND CONCLUSION .....</b>	<b>124</b>
Interpreting Descriptive Findings in Relation to RQ1 .....	124
Interpreting SEM Findings in Relation to RQ2 – RQ4 .....	131
Limitations .....	138
Law, Policy, and Practice Regarding Community Supervision in Texas, Illinois, and Ohio .....	143
Implications .....	145
Correctional Programming, Policy, and Punishment .....	146
State Legislatures, Judicial Practices, and Reform .....	151
Criminological and Sociological Theory .....	155
Peculiar Pecuniary Incentives: Other Issues for Criminal Justice Reform .....	157
Conclusion .....	160
<b>REFERENCES .....</b>	<b>162</b>
Appendix A. Depressive Symptoms CES-D Scale Items .....	184
Appendix B. IRB Approval as Exempt Status .....	185
Appendix C. Multicollinearity Diagnostics .....	186

Appendix D. Weighted Model Results with Multiple Imputation on CJ Outcomes, N=740 .....	187
Appendix E. Weighted Model Results with Multiple Imputation on non-CJ Outcomes, N=740 .....	188
Appendix F. Weighted Model Results Examining Changes in CJ Supervision Status with Multiple Imputation, N=740 .....	189
Appendix G. Weighted Model Results Examining Debt from Supervision Fees on CJ Outcomes with Multiple Imputation, N=740.....	190
Appendix H. Decomposing the Effects—Standardized Total, Total Indirect, Specific Indirect, and Direct Effects of Supervision Debt on Recidivism with Multiple Imputation, N=740 .....	191
Appendix I. Debt and Supervision Status in a Cross-lagged Panel Design.....	192

## LIST OF FIGURES

<b>Figure 1.</b> Example of CFA Measurement Model Approach .....	70
<b>Figure 2.</b> Conceptual Model for the Hybrid SEM .....	77
<b>Figure 3.</b> Significant Paths of the Hybrid SEM Model.....	105
<b>Figure 4.</b> Significant Paths of the Hybrid SEM Model—Supervision Debt.....	114
<b>Figure 5.</b> Debt and Supervision Status in a Cross-lagged Panel Design.....	192

## LIST OF TABLES

<b>Table 1.</b> Summary Statistics.....	66
<b>Table 2.</b> Percentages with Specific Type of Debt .....	82
<b>Table 3.</b> Bivariate Odds Ratios (ORs) Between Risk Factors for Reporting Any Criminal Justice Debt, Supervision Debt, or Any Debt Excluding Supervision Debt.....	83
<b>Table 4.</b> Logistic Regression Model Predicting Owing Debt at PR1, N=668 .....	85
<b>Table 5.</b> Logistic Regression Model of Changes in Owing Debt PR1-PR2, N=667 .....	87
<b>Table 6.</b> Negative Binomial Model of Amount of Debt at PR1, N=516 .....	89
<b>Table 7.</b> Negative Binomial Model of Changes in Amount of Debt PR1-PR2, N=453 ..	91
<b>Table 8.</b> Standardized Factor Loadings for Latent Constructs via CFA .....	94
<b>Table 9.</b> Model Fit Statistics for CFA-derived Latent Constructs and Collective Measurement Model .....	96
<b>Table 10.</b> Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on Criminal Justice Endogenous Variables (WLSMV), N=648 .....	101
<b>Table 11.</b> Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on non-Criminal Justice Endogenous Variables (WLSMV), N=648 .....	103
<b>Table 12.</b> Weighted Model Results Examining Debt on Changes in Criminal Justice Supervision Status using WLSMV Estimator, N=648 (non-CJ outcomes omitted from table).....	110
<b>Table 13.</b> Weighted Model Results Examining Debt from Supervision Fees on Criminal Justice Outcomes using WLSMV Estimator, N=648 (non-CJ outcomes omitted from table) .....	112
<b>Table 14.</b> Weighted Model Results Examining Debt from Supervision Fees on Criminal	

Justice Outcomes Among Subsample of Those Under Supervision at PR1, N=505 (non-CJ outcomes omitted from table) .....	116
<b>Table 15.</b> Decomposing the Effects—Standardized Total, Total Indirect, Specific Indirect, and Direct Effects of Supervision Debt on Recidivism with WLSMV, N=648 .....	118
<b>Table 16.</b> Multicollinearity Diagnostics—VIF and Tolerance Levels for all Covariates in Model .....	186
<b>Table 17.</b> Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on Criminal Justice Endogenous Variables with Multiple Imputation, N=740 .....	187
<b>Table 18.</b> Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on non-Criminal Justice Endogenous Variables with Multiple Imputation, N=740 .....	188
<b>Table 19.</b> Weighted Model Results Examining Debt on Changes in Criminal Justice Supervision Status with Multiple Imputation, N=740 (non-CJ outcomes omitted from table).....	189
<b>Table 20.</b> Weighted Model Results Examining Debt from Supervision Fees on Criminal Justice Outcomes with Multiple Imputation, N=740 (non-CJ outcomes omitted from table) .....	190
<b>Table 21.</b> Decomposing the Effects—Standardized Total, Total Indirect, Specific Indirect, and Direct Effects of Supervision Debt on Recidivism with Multiple Imputation, N=740 .....	191

## CHAPTER 1 – INTRODUCTION

The U.S. Department of Justice recently concluded that local government officials in Ferguson, Missouri developed a scheme to systematically squeeze money from their residents—largely an economically disadvantaged African American population—by charging excessive fines, fees, and “exorbitant” late penalties, often for traffic or minor criminal infractions (U.S. Department of Justice, 2015). The revenue raised from these efforts funded a substantial portion of their local budgets—indeed, 20% of their 12.75 million dollar budget in 2013 came from these sources (United States Department of Justice, 2015). The system developed in Ferguson is not unique; rather, it is one example in a larger trend of “invisible punishments” and collateral consequences of justice system contact in America (Mauer & Chesney-Lind, 2003; Travis, 2005). Once thought to be outside of the sentencing realm for non-trivial crimes (Nagin, 2008; Tonry, 1996), scholars have noted a recent, seemingly dramatic increase in the application of legal financial obligations on a broad scale (Bannon, Nagrecha, & Diller, 2010; Beckett & Harris, 2011; Garland, 2013; Harris, Evans, & Beckett, 2010; Katzenstein & Nagrecha, 2011; Logan & Wright, 2014). These sanctions are seen as supplements, not replacements, to other forms of sanctioning, and therefore are applied to serious and minor offenses alike (Beckett & Harris, 2011; Harris et al., 2010; Levingston & Turetsky, 2007). As part of this “offender-funded” justice model (Finn & Parent, 1992), these financial obligations include fines, court fees, costs, “pay-to-stay” charges, jail and prison fees, and supervision fees, and they can produce large amounts of financial debt for people processed by the justice system. As a broad illustration of this pattern, 44 U.S.



states now charge fees for probation services, 43 charge public defender fees, and 41 charge fees for room and board for jail and prison stays (Beckett & Harris, 2011; Shapiro, 2014). Electronic monitoring fees for probationers can cost \$10-15 per day to \$300 per day depending on jurisdiction and type of probation agency (Albin-Lackey, 2014; Kilgore, 2012; Markowitz, 2015). These fees and costs appear to have become a fixture in U.S. justice practices despite the fact that some of them have been described as unequivocal and blatant violations of federal law and the U.S. Constitution (A. Karakatsanis, personal communication, October 2, 2015; Markowitz, 2015; Santo, 2015).<sup>1</sup>

In addition to the many other known obstacles (Visher & Travis, 2003; Visher & Travis, 2011), these debts serve as a barrier to successful prisoner reentry, yet little empirical scholarly work has been conducted in this area. A small handful of studies suggest that average debt amounts for released prisoners (discounting child support arrears) range from \$2,500 to \$5,000 (Bucklen & Zajac, 2009; Harris et al., 2010). With child support factored in, estimates average over \$15,000 (Ovwigbo, Saunders, & Born, 2005). Harris, Evans, and Beckett (2010) have argued that this legal debt—as a collateral consequence of justice involvement—acts as a barrier to reintegration by causing adverse effects on an already stratified and vulnerable population. They show qualitatively that legal debt emerging from the justice process is a source of constant stress, and that it might reproduce social and legal disadvantage in reentry and beyond. Others have echoed

---

<sup>1</sup> Specifically, the imposition of fines and fees that go toward funding justice operations, including salaries of judges, sheriffs, and other court actors, was deemed a violation of the due process clauses of the U.S. Constitution in *Ward v. Village of Monroeville*, *Tumey v. Ohio*, and *Marshall v. Jerrico* (A. Karakatsanis, personal communication, October 2, 2015).

this sentiment (Bannon et al., 2010; Beckett & Harris, 2011; Laub, 2014). Further, there is evidence that criminal justice debt places a heavy burden on the families of the recently released (Hairston, 2002; Western, Braga, Davis, & Sirois, 2015), and this can cause internal family conflict, as these family members often assist with paying off outstanding debt (Nagrecha, Katzenstein, & Davis, 2015). In terms of reoffending, some have argued that debt burdens can motivate reoffending (Martire, Sunjic, Topp, & Indig, 2007). Olson and Ramker (2001) stated it succinctly: “Economic sanctions put additional burdens on offenders that make it even more difficult for them to try to lead crime-free lives” (p. 264).

According to recent journalistic accounts, having outstanding criminal justice debt might increase involvement and time spent under supervision in the criminal justice system. In addition, non-adherence to debt repayment schedules can result in technical violations of probation or parole. In some cases, having outstanding debt obligations can lead directly to reincarceration (Dewan, 2015b; Markowitz, 2015). In fact, Harris, Beckett, and Evans (2010) found that *one in four* in their sample were reincarcerated for debt nonpayment—a finding they deemed alarming given “the virtual absence of any reference to the incarceration of legal debtors in the criminological literature” (p. 1783).

Little is known about the nature of these debt obligations and whom they affect (American Civil Liberties Union, 2010; Bannon et al., 2010; Beckett & Harris, 2011). Even less is known about what effects this form of justice might have on the recipients of these sanctions and their ability to reintegrate successfully. Further, what is known comes almost entirely from a handful of qualitative studies. Given this backdrop, the current study relies on longitudinal data from three states (Texas, Ohio, Illinois) and employs

quantitative methods, including regression analysis and structural equation modeling (SEM), to: (1) identify who among former prisoners gets assessed LFOs and how much debt they owe; (2) determine if having these legal obligations/debt indeed leads to increased or decreased criminal justice system involvement, including longer supervision terms, self-reported re-offending, rearrest, and reincarceration; and (3) test whether having LFOs or having high levels of LFOs adversely affects returning prisoners' depression levels and family relationships.

Findings showed little to no support for previous work arguing for links between LFOs and depression, family problems, and re-offending. However, the data showed support for recent theorists highlighting a pecuniary focus among court (i.e., probation or parole) agencies and state legislatures (Albin-Lackey, 2014; U.S. Department of Justice, 2015a). Results showed that owing debt to supervisory agencies significantly increased the likelihood of remaining under criminal justice supervision, which, in turn, increased the likelihood of being reincarcerated (debt→remaining on supervision→reincarceration).

This dissertation is structured as follows: Chapter 2 introduces LFOs in justice, reviews the relevant literature on LFOs/criminal justice debt and prisoner reentry, and outlines the gaps in our knowledge in these areas. With this literature as the backdrop, Chapter 3 introduces the key research questions and hypotheses, outlines the study's methodology, and introduces the reader to the Urban Institute's Returning Home Study and datasets. These longitudinal data were collected on 749 former prisoners from Ohio, Illinois, and Texas. Exogenous and endogenous variables, statistical and other methodological approaches and analysis plans are presented in the remainder of this

chapter. Chapter 4 presents the results. Chapter 5 includes a discussion of the findings, their implications for theory, policy, and practice, a discussion of the study's limitations, and a final conclusion.

## CHAPTER 2 – LITERATURE REVIEW

The following chapter begins with a review of the various types of legal financial obligations, including fees/costs, fines, day fines, restitution, and child support. Next, I provide a brief historical perspective on the use of LFOs in criminal justice, followed by a discussion on the current sources of LFOs and criminal justice debt in the U.S. Turning to more recent empirical scholarship, I review the studies on the characteristics of the people assessed LFOs, and how much they are assessed. This leads into a review of theoretical and empirical work on how and why LFOs might impact outcomes of interest such as family conflict, depression, recidivism, and justice involvement for former prisoners.

### **Types of Legal Financial Obligations**

Monetary sanctions used in the justice system are diverse in nature, size, and correctional purpose, and include fines, fees and costs, and restitution. They exist on a continuum from those that most benefit the victim (i.e., restitution) to those that most punish the defendant, such as fines (Ruback & Bergstrom, 2006). In between those poles is a large area where the correctional purpose of the financial sanction is not as neatly delineated. These include costs and “user fees.” Legal financial obligations (Harris et al., 2010) include all of these sanctions but also include formal child support orders, and any accrued interest on any of these obligations. When these balances are not paid off in time, and they frequently are not among reentry populations, they become what are termed “criminal justice debts” (Bannon et al., 2010). In the following section, each of the types

of legal financial obligations is defined and their use in criminal justice will be briefly discussed.

### **Fees/Costs**

Fees (sometimes known as “user fees”) and costs are purportedly charged to defendants to offset the cost of justice processing (Ruback & Bergstrom, 2006). Given the recent economic downturn, underfunded justice agencies may now have even more incentive to charge defendants for their own justice processing (Bannon et al., 2010). With respect to probation in particular, underfunded departments charge probationers supervision fees to offset budgetary shortcomings. This revenue is supposed to allow department officers to have smaller caseloads, thus increasing supervision and public safety (Petersilia, 1997). In fact, supervision fees represent the most common type of special conditions or stipulations of probation (Bonczar, 1997). Most often these fees are charged monthly, and can be combined with other fees such as those to pay for electronic monitors (Albin-Lackey, 2014; Kilgore, 2012). There is little empirical data on how many probationers have these fees imposed on them, but Olson and Ramker (2001) report that 55% of Illinois probationers in their sample were charged fees. Finn and Parent (1992) reported that, in 1992, probation departments nationally charged supervision fees ranging from \$10-\$40 per month. In some U.S. states, supervision fees are now reported to be much higher, given the emergence of private probation companies and the expansion of “offender-funded” justice models (Albin-Lackey, 2014).

Importantly, because fees such as supervision fees are purportedly used to offset administrative costs, their imposition is not considered to be punishment, unlike the fine. However, Harris, Evans, and Beckett (2010) argue that this is a false distinction. Citing

state law relevant to charging defendants fees, they highlight that the notion of accountability is *explicit* in the following statute:

“The purpose of this Act is to...hold offenders accountable to victims, counties, cities, the state, municipalities, and society for the assessed costs associated with their crimes...” (p. 1757).

They argue that since accountability is expressly highlighted as the justification for charging fees, then the fees are indeed a retributive sanction (Harris et al., 2010).

### **Fines**

Fines are court-ordered amounts that defendants must pay to the government (Hillsman, 1990). They are punitive, and thus theoretically satisfy the correctional aims of retribution and deterrence. Others have argued that their repayment is part of the rehabilitation process (Pritikin, 2010; Ruback & Bergstrom, 2006). Fines can be tailored to fit the seriousness of a crime proportionally, and they can also be adjusted upward or downward if the defendant’s resources are taken into account (Hillsman, 1990). Further, fines can be used as the sole punishment for a crime or in conjunction with other sanctions. Often with the intent of increasing the likelihood of fine payment, judges impose probation sentences in conjunction with monetary sanctions (Hillsman, 1990). According to the Bureau of Justice Statistics, fines are applied to defendants in 25% of felony convictions—20% of violent crimes, 24% of property crimes, 27% of drug offenses, 19% of weapons offenses, and 27% of other offenses (Durose & Langan, 2003).

According to Hillsman and Greene (1992), U.S. judges often apply a “going rate” when applying fines to particular cases, so that all defendants convicted of similar offenses are fined similar amounts. However, many judges have concerns with the use of these going rates, primarily because they are biased against the poor who cannot afford

them, and because they have little correctional value when imposed on wealthier defendants (Hillsman, 1990). This fact has prompted the American Civil Liberties Union (2010) to claim that fines create a “two-tiered” justice system.

### **Day Fines**

Day fines, sometimes called “structured fines,” are a method of applying court-imposed financial penalties that differ from typical fines in that the defendant’s income is taken into account. These fines are intended to structure judges’ decision-making vis-à-vis fines around the seriousness of the offense for which the defendant was convicted as well as the defendant’s ability to pay. This process was designed to make the fine system more fair by standardizing the sting of economic hardship caused by the fine (Hillsman, 1990; Mahoney, Greene, & Eigler, 1996; Turner & Petersilia, 1996).

The day fine process contains two elements: (1) a determination of how severe the fine should be is made, which is based directly on the type of crime committed; and (2) the defendant’s current income level is assessed. In the first step of the process, the type of crime committed determines how many “units” of payment the defendant is responsible for. Next, this number is multiplied by a set percentage of the defendant’s net daily income. Adjustments may be applied to lower this amount if the defendant is under special circumstances, such as having dependent family. The resulting amount represents the final figure.

The history of the day fine’s use traces back to Sweden in the 1920s. Quickly, it spread to many other Scandinavian countries, and was adopted in Germany by the 1970s. In Germany, however, the goal of its implementation was not to address high levels of



defendant debt; rather, it was aimed at reducing the country's reliance on incarceration as a criminal justice penalty (Mahoney et al., 1996).

In the U.S., day fines have been slow to catch on and defendants instead are charged with fines that are a set amount depending on the type of crime for which they were convicted. In one sense, these fines are fair in that they are uniform across people convicted of similar offenses. In another sense, these fines are not as equitable as day fines because the economic sting felt by one person charged with a \$500 fine might not be the same as another person facing the same fine amount. Further, this fine system presents problems when fines are too low and too high. When they are too low, more affluent offenders feel little punitive or deterrent effects from their imposition, and when they are too high, the burden that many low-income offenders face is often insurmountable and sometimes this results in the alternative jail sentence (Mahoney et al., 1996).

While courts in the U.S. largely continue to rely on these tariff-style fines, there have been a few jurisdictions that have experimented with a structured day fine system. The first jurisdiction to undertake this system was Richmond County, New York in 1988. As a collaborative effort between the County and the Vera Institute of Justice, the aim of the program was to implement a system of structured fines, similar to those of Europe. An evaluation of the program sponsored by the National Institute of Justice found that judges in the county used the structured fine system when it was made available as an alternative to the traditional tariff system (Mahoney et al., 1996). Judges used these fines as punishments for many types of offenses, but mainly those involving assault, drug possession, and petty property crimes. Further, judges reported that the new system was

efficient and easy to implement, with the simple product of “offense units” and “daily income” being an appropriate metric to assign fair values for monetary fines (Mahoney et al., 1996). Findings showed that fine amounts decreased for many people, especially for those with little income. Further, other defendants who otherwise would have been sentenced to short jail terms were instead penalized with a day fine. (Mahoney et al., 1996).

In terms of collecting fines, this effort showed that structuring fines according to how much a defendant earns allowed the court to recoup more revenue than it had previously. During the year in which the experiment was occurring, 85% of defendants who were assigned a day fine were able to pay the amounts in full. This represents nearly a 10% increase in the percentage of defendants who were able to pay their fines in full before the intervention occurred (Mahoney et al., 1996).

The successes of this day fine system in New York prompted a handful of other U.S. jurisdictions to implement their own pilot programs. Turner and Petersilia (1996), in conjunction with the RAND corporation, conducted evaluations of programs in Maricopa County, Arizona, and the states of Connecticut, Iowa, and Oregon. Several broad conclusions were drawn from these process and outcome evaluations. Turner and Petersilia concluded that structured day fines are simple and practical to implement. It is easy to assign a severity score to an offense that can inform how many units of fines should be applied. It is also simple to figure out how much a defendant earns, and the calculation of how much is ultimately owed is simple enough to require only minimal training for practitioners. Further, practitioners including judges, prosecutors, and defense attorneys generally regarded the new system favorably, and perceived that it was more

equitable than the traditional tariff-style system (Turner & Petersilia, 1996). Despite these successes, the day fine in the U.S. has largely not been adopted (Ruback & Bergstrom, 2006).

### **Restitution**

Restitution is court-ordered financial compensation to the victim for the amount of harm caused by the defendant. As such, scholars have argued that restitution satisfies both a sense of just deserts for the amount of harm caused, in addition to a respect for and elevation of the victim (Harland, 1981). In some states, restitution is justified on the grounds that it might have rehabilitative effects on the defendant (Ruback & Bergstrom, 2006). In the 1970s, state laws governing restitution were not specific and did not address when and how restitution should be implemented (Harland, 1980). By the 1990s, all states had more clear restitution laws codified in statutes (Shapiro, 1990). This trend resonates with Garland's (2001) observation of an increased concern for the victim during this period. Durose and Langan (2003) used nationally representative data from the 2000 National Judicial Reporting Program (NJRP) and reported that restitution is imposed on defendants in 14% of felony convictions—13% for violent offenses, 26% for property offenses, 6% for drug offenses, 6% for weapons offenses, and 10% for other offenses. Specific amounts or averages were not broken down by state, however.

### **Child Support**

Though not considered monetary sanctions per se, child support obligations and arrears are legal financial obligations that are faced by many with criminal justice involvement. Further, child support obligations become larger and more complicated once an obligor (i.e., the person with the obligation) becomes incarcerated, and many

former prisoners face large amounts of child support debt once released to their communities (Holzer, Offner, & Sorensen, 2005; Link & Roman, 2017; Ovwigho et al., 2005; Pearson, 2004; Roman & Link, 2015b). This is largely the result of two factors. First, under President Clinton’s “Personal Responsibility and Work Opportunity Reconciliation Act” of 1996 (“PRWORA” otherwise known as “Welfare Reform”), the “Bradley Amendment” stipulated that child support obligations could never be modified retroactively. In contrast, the states were given full discretion in determining whether child support orders could be modified prospectively. The legal principle applied by the states in this process is whether “substantial changes in earning capacity” have occurred that make modification necessary. Unemployment qualifies as one of these substantial changes, unless the unemployment is considered “voluntary” such as quitting a job. Much disagreement exists among the states regarding whether incarceration is a form of voluntary unemployment. Though most states have determined that incarceration is indeed a form of involuntary unemployment, twenty-one states currently deem incarceration to be voluntary unemployment. These states base their rationale on the logic that, because the conduct that resulted in prison confinement was voluntary, their status as unemployed is voluntary (Cammett, 2006; Legler, 1996; Miller & Mincy, 2015; Patterson, 2008). In practical terms, this means that prisoners in those twenty-one states cannot have their child support orders modified to reflect the change in their earning capacity during incarceration and, as a result, large debt obligations begin or continue to accrue while they remain incarcerated.

There are many types of monetary sanctions and legal financial obligations. They are diverse in nature, purpose, and effects and—because of wide discretion in

application—they vary in scope and size across, and even within, jurisdictions (Bannon et al., 2010). Further, monetary sanctions are used broadly among many types of justice agencies, not just by sentencing authorities. The following section takes these types of monetary sanctions and shows where they can be applied throughout the criminal justice process.

### **Sources of Legal Financial Obligations in the U.S.**

Sanctions such as fines, fees and other costs can accrue throughout the justice process—from “upstream” entities such as police departments to “downstream” entities such as probation, parole, and treatment organizations (Katzenstein & Waller, 2015). Upon arrest, suspects can be charged by police departments for transportation costs to and from court and jail (Bannon et al., 2010). Drug testing fees and other mandatory costs are often applied to a person’s case as a matter of routine (Bannon et al., 2010). After arrest but before adjudication, many suspects are afforded the opportunity to pay bail to stay out of pre-trial incarceration. If seeking public defense, he or she can be charged indigent defense application fees (Bannon et al., 2010) and, given the Supreme Court’s holding in *Fuller v. Oregon* (1974), can be charged for the public attorney’s services.

Once in court, defendants can be charged several types of fines and fees, many of which are not required to be applied by state legislation (Harris et al., 2010). In Washington State, up to twenty-four different fines and fees can be imposed on defendants charged with felonies (Beckett & Harris, 2011). Rosenthal and Weissman (2007) found that—because of existing statutes—judges in New York State can charge defendants up to nineteen fees. The Brennan Center for Justice, in a state-level study of criminal justice debt within the fifteen U.S. states with the largest prison populations,

found a case where a Pennsylvania woman found guilty of a drug offense was charged a \$500 fine, but the twenty-six fees that were added to her docket totaled nearly \$2,500 (Bannon et al., 2010). These ranged from “judgment fee” to “postage fee,” and included several fees funding substance abuse education and domestic violence programs. In line with Garland’s (2001) “rise of the victim” thesis, courts also charged mandatory fees to fund victims’ programs, regardless of the type of crime for which the person was convicted (such as a drug crime in this particular case where there is no particular third-party victim). In their research, they found that user fees and costs are ubiquitous across the states they studied, and that the frequency with which they are applied has increased (Bannon et al., 2010).

Jails and prisons—both public and private—increasingly charge their inmates daily fees for “room and board,” colloquially known as “pay to stay” fees (Eisen, 2015). Inmates can also be charged other fees such as commissary costs, and exploitatively-priced phone call fees (Eisen, 2015; Logan & Wright, 2014; Williams, 2015). Inmates are often charged fees for medical services, which some argue lowers prison costs as it provides a disincentive for inmates to seek aid for frivolous reasons (Anno, 2004). When outstanding balances from unpaid fees accrue, some correctional facilities deduct fees from inmates’ family-funded commissary accounts (Read, 2016). In the Brennan Center’s (2010) study of 15 states with the largest prison populations, each state’s Department of Corrections allowed inmates to be charged fees. In Krauth and Stayton’s (2005) survey of 224 U.S. jails, 90% reported charging inmates for certain programs, functions, or services. For those inmates who have child support orders, many states do not allow modification to the order because of incarceration. As such, these orders accrue into

potentially large arrears throughout incarceration (Cammett, 2006; Patterson, 2008; Pearson, 2004).

Before release from incarceration, some states charge their inmates a “release fee.” For example, in Pennsylvania, state inmates eligible for parole cannot be released until they pay a compulsory fifty-dollar fee (Evans, 2014). Once out, if they wish to begin the process to have their records legally expunged, they must first pay a fee (Logan & Wright, 2014). Child support arrears that accumulated during the incarceration are then subject to taxes, which are often very high (Sorensen, 2004). In California, using administrative data on noncustodial parents who owe arrears (or back child support), Sorensen (2004) found that taxes levied on these arrears represented the largest contributor to climbing debt burdens among these noncustodial parents.

Those under criminal justice supervision, either probation or parole, can be charged many different fees by various organizations. Released prisoners court-ordered to attend substance abuse or mental health treatment programs are often charged fees to attend this involuntary treatment (Bannon et al., 2010). Many departments of probation and parole charge inmates fees to be under supervision (Albin-Lackey, 2014; Kilgore, 2012). Some probationers are charged daily fees to have an electronic monitor placed on them (Albin-Lackey, 2014).<sup>2</sup> In recent years it appears that—in states where private probation companies are used—these fees can be quite high, up to \$100 per month (Albin-Lackey, 2014). For example, legal researchers from Human Rights Watch (2014)

---

<sup>2</sup> The idea behind the electronic monitoring system now commonplace in community supervision stemmed from a 1977 Spiderman comic in which William Fisk—also known as Kingpin—placed a GPS-like monitor that could not be removed onto Spiderman’s wrist. Inspired by this supervillain’s techniques, an avid comic reader and criminal court judge consequently implemented the first GPS monitoring system in his court (Markowitz, 2015).

reported that, in Georgia, a man who pled guilty to stealing one can of beer was ultimately put in jail for failing to pay over one thousand dollars to the private probation company overseeing his case. Moreover, this person's entire monthly income amounted to sixty dollars less than the \$360 he was being charged by probation in the form of monthly fees. The original charge of larceny for which he was convicted carried with it a \$200 fine.

Probation and parole departments are also often the entities that oversee and monitor repayment of criminal justice debt, and consequences for debt nonpayment can be serious. Late payments or failure to pay at all can result in wage garnishment and tax rebate interception (Beckett & Harris, 2011). In a study of fines and fees in California traffic court, Bender et al. (2015) found that millions of California residents had their driver's licenses suspended for failure to pay fines or failure to appear to pay fines. Between 2006 and 2013, there were over 4.2 million discrete license suspensions in California due to unpaid fines and fees. This figure represents 17% of Californians with driver's licenses. According to Bender et al. (2015), these suspensions made keeping or finding employment very difficult, which further hindered the ability to pay existing fines and fees.

Despite the Supreme Court ruling in *Bearden v. Georgia* (1983) that debtor's prisons are unconstitutional, incarceration because of nonpayment of debt continues to occur (Albin-Lackey, 2014; American Civil Liberties Union, 2010; Bannon et al., 2010; Levingston & Turetsky, 2007; Markowitz, 2015; Nagrecha et al., 2015). In fact, Weisburd et al. (2008) and the American Civil Liberties Union (2010) show us that probation revocation and reincarceration are some of the main tools used by the courts to



coerce the payment of fines. Though constitutionally required under *Bearden v. Georgia*, it appears that judges rarely perform an adequate assessment of a debtor's ability to pay before incarcerating him or her for nonpayment (Bannon et al., 2010; Dewan, 2015b; Logan & Wright, 2014).

Beckett and Murakawa (2012) describe this incarceration-for-nonpayment phenomenon within the context of what they call an emergent “shadow carceral state.” This parallel justice system is intended to increase social control and it operates outside of the traditional criminal law system. Importantly, fees are not considered punishment by the government bodies imposing them. Because of this status as “non-punishment,” their imposition is uninhibited by conventional procedural safeguards found in the Bill of Rights (Beckett & Murakawa, 2012). What has been created—according to Beckett and Murakawa—is a system whereby the state exercises increased social control over defendants using civil and administrative mechanisms. They argue that novel “civil pathways to incarceration” have emerged, whereby infractions for violating these non-criminal laws—such as debt nonpayment—can lead to incarceration.

Criminal justice populations in the U.S. are generally poor and debtors are often unable to pay off their debts on time (Pettit & Western, 2004; Rabuy & Kopf, 2015; Solomon, 2004; Western & Pettit, 2010). When this occurs, many jurisdictions apply what some have termed “poverty penalties” for failure to repay debt obligations (Bannon et al., 2010). This includes late fees, surcharges, interest, and collection fees. Harris, Evans, and Beckett (2010) report that interest on unpaid debt in Washington is 12%—the maximum allowable by state usury laws. In this same state, criminal justice defendants who owe LFOs are referred to as “customers” (Harris et al., 2010).

Findings from the Brennan Center’s study provide more detail on late fees. Fourteen out of the fifteen states investigated allowed by statute some form of poverty penalty, with Texas being the exception (Bannon et al., 2010). Thirteen of fifteen states permit interest or late fees if the person falls behind on payments regardless of their ability to pay, or if they have conflicting debts such as child support (Bannon et al., 2010). These added charges can be large, including a \$300 flat fee in California for late payments, and \$10-\$20 for every late payment in certain Florida counties. Courts in Michigan charge 20% on top of the total debt obligation for outstanding payments of more than fifty-six days. Nine of the states allowed “exorbitant collection fees” (Bannon et al., 2010). Examples of these fees are in Florida, where state law authorizes private companies to charge up to a 40% surcharge on the amount collected, and in Illinois, where charging 30% fees on the delinquent amount of debt is statutorily permissible (Bannon et al., 2010). Nine states assess a fee for entering into a debt repayment schedule. These fees range from a low in Virginia of \$10 to a high of \$100 in Louisiana. In Florida, debtors have two options: pay twenty-five dollars to enroll in a payment plan or pay an additional five dollars per month (Bannon et al., 2010). Lastly, the accumulation of these late penalties can be substantial: Bannon et al. (2010) reported that—in Arizona—surcharges stemming from late or nonpayment on average added 84% to debtors’ original fines and fees.

As others have noted, states do have a legitimate governmental interest in creating incentives to ensure compliance with their financial sanctions. Yet, the major issue in the U.S. is that many jurisdictions have not implemented systems that can discern who can afford to pay and chooses not to versus who truly cannot afford the payments (Beckett &

Harris, 2011; American Civil Liberties Union, 2010). As such, these systems operate as a *de facto* two-tiered system whereby the justice process punishes groups disproportionately—with low-income defendants in the U.S. facing enhanced punishment.

As we see, the use of financial sanctions has proliferated broadly among agencies that process criminal justice clients. Though the scope and scale of this reliance on financial sanctions may be unprecedented, their use in justice is not new. A complete understanding of how and why legal financial obligations are part of justice processes requires historical perspective. The next section traces the history of the use of LFOs in justice from their early roots in Europe through present day applications.

### **Historical Perspective on LFOs**

Although the current scale of legal financial obligations and associated criminal justice-related debt might be unprecedented (Bannon et al., 2010; Beckett & Murakawa, 2012; Harris et al., 2010), fines, fees, and other monetary sanctions have long played prominent roles in criminal justice (Blackmon, 2008). Restitution and fines have been used widely in Europe as a main feature of justice for centuries (Mullaney, 1988). In the U.S. colonial context, northern states often imposed financial sanctions for criminal wrongdoings minor in nature. Punishment for more serious crimes was more severe, including public floggings, though in some cases sentences for serious infractions carried with them financial penalties as well (Miethe & Lu, 2005).

Years later, in the antebellum American South, monetary sanctions were imposed on defendants for minor criminal infractions (Miethe & Lu, 2005). Apart from this more ordinary use, financial sanctions such as fines and fees were levied heavily on prisoners

by the courts and prison systems through the early 1940s. These fines and fees—*intentionally calibrated to be unaffordable for defendants and prisoners*—served as a critical feature that funded the infrastructure of the convict leasing system (Adamson, 1983; Blackmon, 2008; Logan & Wright, 2014; Perkinson, 2008). Those incarcerated for crimes were charged fines and fees by the courts and prisons that amounted to sometimes double or triple their *annual* earnings. Since there was no way to pay back these debts in any meaningful way, prison and court officials leased their prisoners to corporations, where they would work in factories, coal and steel mines, quarries, and on railroads and plantations (Adamson, 1983; Perkinson, 2008). In exchange for this labor, the corporations would pay the fines and fees “owed” to the justice system on behalf of the prisoners. The money recovered mostly went to pay judges’ and sheriffs’ salaries (Blackmon, 2008). President Franklin D. Roosevelt put an end to these practices in 1942 when he abolished the convict leasing system, in turn also abolishing the exorbitant financial sanctions applied to prisoners.

In 1963, the U.S. Supreme Court in *Gideon v. Wainwright* held that state courts are required under the 6<sup>th</sup> Amendment to provide counsel to defendants too poor to pay for their own attorneys. This decision was seen as a major victory for the poor, including many minorities. The victory was short-lived, however, as it was followed by another case in 1974 that brought the use of fees back into the justice process. In *Fuller v. Oregon*, the Supreme Court upheld an Oregon law stating that courts can charge indigent defendants a fee for the legal representation provided for them. This decision opened the door for justice systems across the states to begin charging indigent defendants fees for services, and indeed the national criminal justice landscape subsequently embraced fines

and fees more closely (Mullaney, 1988). In 1983, in *Bearden v. Georgia*, the U.S. Supreme Court held that “debtor’s prisons” are unconstitutional if the prisoners being incarcerated are unable to pay their fines or fees. In other words, people can only be incarcerated for nonpayment if they have the means to pay but willfully refuse to do so.

Contemporaneously, the U.S. criminal justice system was undergoing a paradigm shift toward a more punitive and control-oriented approach (Garland, 2001). This shift not only favored punitiveness vis-à-vis incarceration, but also punitiveness in the amounts of financial obligations imposed on defendants and inmates. This trend has continued into the 21<sup>st</sup> century, and some observers argue that the levels of monetary sanctions and associated debt among current inmates and former prisoners is unprecedented, and that this carries consequences as severe as reincarceration for nonpayment (Bannon et al., 2010; McLean & Thompson, 2007; Nagrecha et al., 2015).

By the 1990s, scholars and policymakers alike began to focus on prisoner reentry and the social barriers former prisoners face once released from incarceration (Petersilia, 2003; Travis, 2005). Emerging from this literature were discussions on the effects of collateral consequences of criminal convictions and incarcerations on domains such as employment, housing, health, family life, and education. By the late 1990s and early 2000s, a handful of legal scholars, social scientists, and practitioners began to research and write about the collateral effects of LFOs associated with the criminal justice system, with particular attention paid to identifying the varied sources of LFOs, and the implications they may have on the reintegration process (Bannon et al., 2010; Cammett, 2006; Harris et al., 2010; Legler, 1996).

## **Theorizing LFOs, Debt & the Relevant Empirical Literature**

### **Who has LFOs and Criminal Justice Debt?**

The following section reviews the extant descriptive literature on LFOs and criminal justice debt. This leads into a discussion of the theoretical frameworks for why LFOs and CJ debt might have implications for multiple aspects of prisoner reentry (Visher & Travis, 2003), such as family relations, aspects of mental health, and recidivism and other justice involvement, as well as a review of the empirical literature relevant to these outcomes.

In one of the earliest empirical studies of LFOs, Gordon and Glaser (1991) relied on a random sample of 824 probation cases from official records in Los Angeles, CA, between 1981-1984. With the goal of investigating the use and effects of financial sanctions (fines, restitution, supervision fees) in justice, they estimated four models predicting each of the following adjudications: (1) probation only; (2) probation + financial sanctions; (3) probation + jail; and (4) probation + jail + financial sanctions. Findings revealed that, when predicting who received probation + financial sanctions, offender characteristics played a significant role but offense type did not. Having a substance abuse problem and greater prior convictions reduced the likelihood of receiving financial sanctions without a jail term (Gordon & Glaser, 1991).

Interestingly, Gordon and Glaser's (1991) findings changed when they examined probation + jail + financial sanctions. In this model, offense type is what predicted this outcome, and offender characteristics held relatively little explanatory power. Convictions for assault, burglary, DUI, or theft (no indication of whether crimes were felonies or misdemeanors) significantly increased the odds of receiving this sanction

compared with those convicted of drug crimes. The only offender attribute that affected the imposition of this sentence was education level—with lower levels of education increasing the odds of receiving this penalty (Gordon & Glaser, 1991). In sum, Gordon and Glaser (1991) concluded that judges appear to be using financial sanctions in a rational manner—with low risk individuals most likely to receive financial sanctions and probation, and people convicted of more serious offense types more likely to be punished with jail and financial sanctions.

Similar to Gordon and Glaser's (1991) findings, Olson and Ramker (2001), depending on a representative sample of 2,400 probationers from across the state of Illinois, found that offender characteristics predicted who would be ordered to pay supervision fees. They found that race (White status), having a higher income, having a prior conviction, being convicted in a rural area, and treatment or criminal fines imposed as conditions of probation all increased the likelihood of being required to pay supervision fees (Olson & Ramker, 2001). The only offense type variable that predicted an increased likelihood of being charged probation fees was whether the probationer was convicted of a misdemeanor, which can be explained by the fact that felons, compared to misdemeanants, are more likely to be sentenced to incarceration rather than probation and financial penalties.

Harris, Evans, and Beckett (2010) used nationally representative data from the Survey of Inmates in State and Federal Correctional Facilities (SISFCF) and the Adult Correctional Populations data from the Bureau of Justice Statistics (BJS) to examine who among misdemeanants and felons sentenced to probation or prison have legal financial obligations. According to the SISFCF data, 66% of prison inmates in 2004 were assessed

LFOs by the courts. In 1991, the same data show that 25% were assessed LFOs (Harris et al., 2010). Data from the BJS show that felons not sentenced to prison and misdemeanants were more likely to be assessed LFOs than incarcerated felons. In 1995, 84% of felons sentenced to probation were sanctioned with fines and fees by the courts. Similarly, among those convicted of misdemeanors, 85% reported being assessed fines, fees, and court costs (Harris et al., 2010). That these data show that LFOs are commonly imposed on those convicted of felonies raises two interesting points: (1) it calls into question the assertion that these monetary sanctions are reserved for those convicted of less serious, minor offenses (Nagin, 2008; Tonry, 1996); and (2) it conflicts with prior studies such as Gordon and Glaser's (1991) and Olson and Ramker's (2001) who found that felons were substantially less likely than misdemeanants to be imposed with financial penalties. However, those studies occurred fifteen to twenty-five years ago, and now, as Bannon et al. (2010) and others have argued, fines and fees have increased in recent years across the board for all types of offenders.

Few prior studies exist regarding the characteristics of the people who have accumulated criminal justice debt deriving from legal financial obligations, though there are a couple of exceptions. Bucklen and Zajac (2009), in their examination of the differences between parole violators (N=542) and parole successes (N=186) in Pennsylvania, found that parole successes reported that debt was more of a problem compared to the violators. Regarding child support debt only, Lattimore et al. (2012) and Roman and Link (2015), using data from the Serious and Violent Offender Reentry Initiative (SVORI) Evaluation, found that 92% of those who entered prison with a child support order owed some amount of debt in the form of arrears. In terms of descriptive



data, Roman and Link (2015) showed that men with child support orders, compared to those without orders, are significantly older, less likely to be convicted of a violent crime for their most recent incarceration, and were incarcerated for fewer days. Those with child support debt were more likely to be employed during the six months prior to their incarceration, reported receiving a lower amount of money from illegal income, and reported working slightly more hours per week before their most recent incarceration than those without such debt.

### **How Much Criminal Justice Debt Do People Have?**

Little empirical work on the amounts of legal financial obligations and associated criminal justice debt owed by prisoners and other offenders exists in the literature, and a substantial portion of the data come from case studies in research reports (Bannon et al., 2010; American Civil Liberties Union, 2010). Given this fact, and because legal financial obligations vary in purpose, size, and imposition across jurisdictions, the numbers reported in the published literature vary widely. Of note, very little data exists on the amount of supervision fees owed by those under criminal justice supervision (i.e., probation or parole), despite some recent evidence that supervision fees are common and can be cumbersome (Albin-Lackey, 2014). A few reasons account for the lack of data on LFOs and criminal justice debt. First, LFOs and debt have increased dramatically in recent years, and data collection efforts have not yet begun to incorporate questions regarding financial sanctions and debt in a systematic way. Second, efforts that have attempted to delve into the degree of LFOs among prisoners have largely focused narrowly on individual states, as there are no national repositories that track and keep this information. For a national repository to exist, states would have to submit their LFO

data, or alternatively the Bureau of Justice Statistics would have to collect the data from the states. Third, the few studies that do ask about LFOs often ask very broad questions about having debt generally, and do not ask specifically about the sources or amounts of LFOs or debts.

Turning to the few studies of LFOs and debt amounts, Reynolds et al. (2009) found in Texas that those released to parole owe between \$500 and \$2,000 in debt related to their offense (excluding restitution). In Arizona, those convicted of driving under the influence (DUI) are assessed “special fees” of \$1,000 on top of other fines and fees totaling \$250 (Bannon et al., 2010). In one case in Cambria County, Pennsylvania, Bannon et al. (2010) reported on a case where a defendant convicted of a drug-selling violation was assessed \$2,464.91 in various fees, while her punishment included a \$500 fine and restitution totaling \$325.

Following the recent interest in LFOs in justice, the American Civil Liberties Union (2010) investigated the assessment of fines, fees, and costs in Louisiana, Michigan, Ohio, Georgia, and Washington. This effort resulted in qualitative interviews of justice officials including judges and public defenders, court administrators and staff, and personnel at local rehabilitation and reentry programs. Findings from all states produced cases in which relatively minor criminal or traffic violations resulted in large LFOs, and often these debtors were incarcerated for nonpayments (American Civil Liberties Union, 2010). A case in point: “Gregory,” a homeless man in New Orleans, Louisiana, was arrested for stealing forty dollars’ worth of food from a grocery store. Assessed with \$339 in fines and fees, “Gregory” was incarcerated for a total of 198 days for nonpayment—a sanction which cost the City \$3,500. In Georgia, a juvenile with a

mental disability was arrested for the theft of school supplies and placed on probation at a cost of forty dollars per month. At age seventeen, she was transferred to the adult system, missed a couple monthly payments, and was consequently incarcerated. Although her mother was able to secure her release soon after, she now owes the court over \$4,000 plus probation fees, and is experiencing more difficulty keeping up with payments because her social security disability income was revoked after missing these payments (American Civil Liberties Union, 2010).

Human Rights Watch (2014), in their investigation of probation fees in Mississippi, Alabama, and Georgia, conducted over seventy-five interviews with court officials, criminal attorneys, and probationers. Their findings revealed a narrative whereby probation companies were profiting on probationers who were too poor to pay court fines and fees upfront. This inability to pay allowed the private probation companies to charge probationers monthly supervision fees between \$35-\$40, on top of the repayment of other court-assessed LFOs (Albin-Lackey, 2014). In Georgia, 64-year-old veteran “Van” was interviewed on the day of his sentence to twenty-four months’ probation for a DUI. His income is a monthly \$599 social security check, totaling just over \$7,000 per year. Along with probation, he was sentenced to \$4,500 in fines and costs, and his supervision term was to be overseen by a private company that charges an additional \$40 per month. In total, his monthly payments amounted to \$216 per month, and by the end of the supervision term, he will have paid \$840 to the probation company (Albin-Lackey, 2014).

Apart from these case studies, a small handful of descriptive quantitative studies have examined amounts of legal financial obligations among prisoner and probation

populations (Bucklen & Zajac, 2009; A. Harris et al., 2010; Martire, Sunjic, Topp, & Indig, 2011).<sup>3</sup> Bucklen and Zajac's (2009) parole study alluded to earlier indicates that parole violators' median amount of debt was approximately \$2,000, which amounted to less than half of the median \$5,000 reported by those who did not violate parole. Harris, Evans, and Beckett (2010) describe the debt burdens of felons in Washington State using two different data sources. The first source was information gleaned from qualitative interviews of fifty people with at least one felony living in one of four counties in Washington State. The second source was from official records on the LFOs applied to all felony cases in Washington during the first two months of 2004 (N = 3,366). Among the qualitative sample of fifty, assessments of LFOs ranged from \$500 to approximately \$80,000, with a median of \$9,091. Quantitative data from Washington State showed wide variation in the imposition of LFOs for a conviction, with a minimum of \$500 for a single felony, to a maximum of \$256,257. The median LFO amount was \$1,347. From this sample, Harris, Evans, and Beckett (2010) extracted a random sample of 500 cases to examine how these LFOs accumulate into debt over time. By 2008, on average, these 500 individuals were assessed \$11,471 by the courts, and the average amount still owed was \$10,840. Harris, Evans, and Beckett note that this means that LFOs accumulate over the

---

<sup>3</sup> Though international data are extremely limited, there is evidence from one other nation that the use of LFOs in criminal justice is prevalent and the amounts of debt those in contact with the system face is high. Martire, Sunjic, Topp, and Indig (2011) studied the financial burdens of 156 prisoners participating in a reintegration program in Australia for those with substance abuse histories. Results from self-report questionnaires showed that 95% of their sample owed substantial debt to various Australian governmental agencies. The average amount owed was over \$12,000 with a range from \$50-\$200,000. Official data on debt owed to the government were obtained for 136 subjects, and the average in these records was \$8,579, with a range of \$110-\$34,743.

life course and create large and long-term debt among those involved in the U.S. justice system.

Other than descriptive work on LFOs and debt, the only two studies that predict the amount of financial penalties assessed on defendants is Gordon and Glaser's (1991) study referenced above, and Harris, Evans, and Beckett's (2010) study from Washington State. Gordon and Glaser (1991) showed that—compared with those convicted of drug offenses—people convicted of burglary, theft, and DUI received significantly higher financial sanctions. Other than offense type, those who were employed were more likely to receive higher financial penalties than those not employed (Gordon & Glaser, 1991). Turning to Harris et al. (2010), relying on county-level data from Washington State (N=3,366) from the first two months of 2004, the researchers sought to identify factors that could predict higher or lower amounts of assessed LFOs. Framed in a socio-cultural theory of punishment that focuses on the powerful role of stigmatized groups such as racial/ethnic minorities and drug offenders, Harris et al. (2010) found that indeed being Hispanic or African American was positively associated with the size of monetary sanctions. More starkly was the degree to which drug offenders were assessed more fines and fees—34% more on average compared to nondrug offenders. Harris et al. (2010) explain this last finding in terms of prior work on how certain groups—such as drug users—are often viewed unfavorably, often as incompetent and unsympathetic (Miller, 1997). As such, they elicit a high degree of moral condemnation from others (Harris & Fiske, 2006; Miller, 1997). This can manifest into punitiveness, such as ratcheting up monetary sanctions, among other punishments.

Taken together, the incipient literature documenting large amounts of LFOs and associated debt among criminal justice populations hints at the idea that LFOs could have important implications for the notoriously difficult process of prisoner reintegration. Unlike other forms of debt, legal debt accumulated from the criminal justice system is not subject to relief through mechanisms such as bankruptcy proceedings or offsetting by the value of property or services (Beckett & Harris, 2011). As a result, this debt can create or exacerbate intractable barriers to reentry, including reducing a person's access to housing, credit, loans for education, and employment (Bannon et al., 2010). It may also have effects on stress, mental health, and family conflict, during what is already known to be a stressful and tenuous time (Markowitz, 2015; Petersilia, 2003; J. C. Travis, 2005; Western et al., 2015). Heavy debt burdens may also be associated with more arrests, probation violations, and recidivism. Below, these potential yet unexplored effects of LFOs and debt in reentry are explored theoretically, drawing on relevant empirical literature where possible.

### **LFOs, Debt, and Justice Involvement and Recidivism**

Legal financial obligations and associated debt are theoretically associated with increased involvement or entanglement in the criminal justice system—such as longer terms of supervision (Dewan, 2015a; Nagrecha et al., 2015), and violations or incarcerations for nonpayment (Harris et al., 2010). Indeed, Shiraldi and Jacobson (2014) have argued that debt can act as “trip wire” back to prison. With respect to recidivism, theory suggests that LFOs, or high LFOs, could be criminogenic.

Regarding justice system involvement, supervisory agencies—working in conjunction with judges who oversee the cases—wield much discretion in determining if

community control sentences are shortened due to compliance with conditions (such as paying off all fees), or lengthened as a result of rule non-compliance. Having large debts as a result of LFOs could increase the amount of time one finds him- or herself under community correctional control. Anecdotally, this is especially the case for those who cannot afford to pay their LFOs (Albin-Lackey, 2014; Bannon et al., 2010; Nagrecha et al., 2015). A majority (79%) of state probation and parole authorities now require payment of fees and restitution as a condition of parole (Hartman, Travis, & Latessa, 1996; Travis & Stacey, 2010). For example, if a probationer has unpaid supervision fees, his or her supervision term may not be terminated until those fees are satisfied, or even can be violated and returned to incarceration for nonpayment. These longer periods of probation/parole supervision could link with increased reoffending and commission of technical violations as increased supervision intensity has shown to result in increased chances of violation detection (Grattet & Lin, 2016; Grattet, Lin, & Petersilia, 2011; Grattet, Petersilia, Lin, & Beckman, 2009). In many areas, late or nonpayment can result in formal discipline ranging from driver's license suspension to jail stints (Albin-Lackey, 2014; American Civil Liberties Union, 2010). The suspension of a driver's license could damage current employment situations, or at minimum limit potential employment opportunities.

A smaller, more critical body of scholarship suggests that LFOs lead to more entanglement with the justice system because of a profit motive that is enhanced if the debtor is trapped in the system for longer periods (Albin-Lackey, 2014; Armstrong, 2015; Dewan, 2015a, 2015b; Katzenstein & Waller, 2015; Logan & Wright, 2014; U.S. Department of Justice, 2015a). This perspective suggests that LFOs are not being used

according to traditional penological aims, but are purposely used by agencies to further enmesh certain groups in the justice system in order to advance their agencies' and their own pecuniary interests. From this vantage point, late or nonpayments are not seen as a problem; rather, they are an opportunity to raise more money from late penalties and interest (Albin-Lackey, 2014; Armstrong, 2015). In a scathing report from Louisiana, auditors concluded that monies from fees levied by criminal court judges were used to fund an account that paid for "Cadillac" health insurance plans for court staff (Robertson, 2015). Katzenstein and Waller (2015) recently argued that LFOs are a form of "poverty regulation" which have the effect of limiting the upward mobility of the poor: "This system of [LFO] seizure levies tariffs on the mother, grandmother, partner, sister, daughter, or friend (mostly women) of the incarcerated poor (mostly men) to subsidize the carceral state" (p. 639).

Empirical study in this domain is again limited, and includes a small handful of qualitative works. The Brennan Study (2010) cited earlier showed that, of the fifteen states studied, thirteen permitted the extension of probation/parole supervision if debts are not paid.<sup>4</sup> In many of these states, this practice is allowable even if it is indisputable that the probationer does not have the ability to pay (Bannon et al., 2010). The Human Rights Watch (2014) study of private probation of Georgia, Alabama, and Mississippi found similar patterns—they reported that poorer probationers were unable to pay as much per month and served longer supervision terms. In the end, this extended supervision not only meant they had an increased chance of being violated and punished

---

<sup>4</sup> These states are Alabama, Arizona, California, Florida, Georgia, Louisiana, Michigan, Missouri, North Carolina, Ohio, Pennsylvania, Texas, and Virginia.



with incarceration, but, because of additional supervision fees, they would pay substantially more than financially stable probationers (Albin-Lackey, 2014).

Although the theoretical link between LFOs and recidivism has not been articulated in the literature, a number of frameworks suggest that they may be associated. First, being required to pay what could amount to sizable monthly payments could act as a financial strain (Agnew, 2006) large enough to “push” or motivate people to offend, possibly in the form of revenue-generating or acquisitive crimes (Hairston, 2002; Martire et al., 2011). These offenses, according to general strain theory (GST), might be especially likely to occur if they engender anger or are able to offset the discomfort associated with the financial strain.

Second, because fines, fees, and other costs are often not calibrated to individual financial circumstances (i.e., assessments of “ability to pay” are rarely made), and that late penalties nearly reach levels that would violate usury laws, it is possible that debtors view the application of LFOs as unfair or unjust. In fact, recent theory and research have highlighted the important role of perceptions of legitimacy for returning prisoners and recidivism (Wallace, Papachristos, Meares, & Fagan, 2015). If it true that inmates and former prisoners believe they are being financially squeezed in an unjust way, this could breed disrespect and hostility toward police and the criminal justice system. Rather than relying on these institutions to address disputes, they may decide to handle matters using their own methods, which may include violence and other criminal behavior.

Third, if debt collection tactics including wage garnishment are based on traceable income from legitimate employment, it is possible that having debt could incentivize people to explore revenue-generating activities in the underground, possibly illicit

economy (Beckett & Harris, 2011; Cook, 2014; Kotloff, 2005). In fact, states are within federal law to garnish up to 65% of a debtor's income vis-à-vis child support debt (Cammett, 2006; Patterson, 2008). As such, from a rational choice perspective, it is not inconceivable that some debtors would prefer to work off-the-books in order to avoid this coerced payment.

Last, debt and recidivism might be mediated over time by other factors. For example, criminal justice debt is different from consumer debt in that it is “visible”—it appears in criminal history checks, reports accessed by landlords, and credit checks (Beckett & Harris, 2011). In Philadelphia, data on those with criminal justice debts, how much they owe, and to whom, are publicly available on the First Judicial District of Pennsylvania's website (<http://www.courts.phila.gov/casesearch/>). This fact not only might limit debtors' access to housing, employment, and banking establishments, but also might hinder smooth reintegration generally by increasing stigma. Further, in many areas, criminal records cannot be expunged if the person has outstanding criminal justice debt (Harris et al., 2010; Vallas & Patel, 2012). In this way, debt can prolong the mark of a criminal record (Pager, 2007).

There are more empirical studies in this area compared with family conflict and depression, yet the literature is still unbalanced with respect to quantitative studies. In Martire et al.'s (2011) descriptive study of former prisoners in Australia, thirteen percent of their sample reported the repayment of debt obligations was the reason they committed their last acquisitive crime. Harris, Evans, and Beckett (2010) reported that a few of their subjects indicated that debt can create incentives that encourage the return to quick money, such as prostitution. In a descriptive report from Alabama, Cook (2014) showed

that, of a sample of 928 people involved in the justice system across thirteen counties, 17% reported resorting to criminal activities to raise the revenue to pay off fines and fees.

In one of two quantitative studies in this area, Iratzoqui and Metcalfe (2015) studied monetary sanctions among probationers in Florida. Their data came from a combination of all the trial cases (N = 411) and a random sample of all the plea cases (N = 500) at the state circuit court level in Florida between 2002 and 2010. Among this sample of 912, their analysis sample consisted of 422 defendants who were sentenced to probation. Their key independent variables were court costs and fees, prosecution fees, restitution, and total costs and fees. Examining whether a probation violation occurred or not as their outcome, they found that having monetary sanctions did not increase the likelihood of violating probation (Iratzoqui & Metcalfe, 2015). However, they did find a pattern whereby those with larger amounts of financial obligations tended to commit more serious probation violations, such as leaving the county, and criminal offenses including drug or weapon possession (Iratzoqui & Metcalfe, 2015).

Gordon and Glaser's (1991) study from California also examined the likelihood that those with debt would be rearrested, reincarcerated, or receive a probation revocation. They found that, compared with those sentenced to jail, defendants assessed with financial penalties were less likely to recidivate on any of the three outcome measures. However, because they showed that jail had a detrimental (criminogenic) effect on the behavior of those in their sample, they argued that financial assessments did not have an effect on recidivism, but rather jail seemed to have a moderately strong impact on reoffending (Gordon & Glaser, 1991). This led to their conclusion that "financial penalties do not appear to have reduced the likelihood of further involvement

with the justice system, yet they also do not appear to have increased those odds, as seems to be the case with jailing” (Gordon & Glaser, 1991, p. 672).

### **LFOs, Debt, and Depression**

The following section explores the theoretical frameworks whereby legal financial obligations and associated debt burdens might impact important outcomes during the reintegration process. Three areas of interest—depression, family conflict, and recidivism and justice involvement—will be discussed vis-à-vis LFOs and, where possible, prior relevant literature in these areas will be reviewed.

Being confronted by legal financial obligations could affect aspects of mental health issues for a variety of reasons. Medical sociology and public health scholars have long examined how stressors affect behaviors such as substance use. Extensive research demonstrates that stress from traumatic life-events and as well as chronic issues are linked to negative health outcomes, particularly poor mental health, including substance abuse and depression (Mossakowski, 2013; Pearlin, Menaghan, Lieberman, & Mullan, 1981). Stress in one area of life will often have spill-over effects on other areas of life (Thoits, 1995). For example, having high LFOs and difficulty finding employment after prison can result in financial strain on a partner or a whole family, resulting in family and marital problems. In addition to the ripple effect of stressors, stress and associated problems can accumulate over the life-course (Laub & Sampson, 2003; Pearlin, Schieman, Fazio, & Meersman, 2005). Many major life stressors, particularly chronic issues and cumulative stressors concentrate among people of color, young adults, and those of lower socio-economic status, such as criminal justice populations (Thoits, 2010). Thus, it is not surprising that reentering inmates have particularly high stress loads

(Western et al., 2015). Indeed, some probationers have reported that being on supervised release after prison can be so stressful that they would prefer to complete their sentences in prison rather than under community supervision (Crouch, 1993). Furthermore, without adequate coping mechanisms such as social and family support—frequent difficulties for individuals returning to the community—these stressors are more likely to lead to health disorders (Taylor & Stanton, 2007).

In criminology, the parallel to medical sociology's social stress perspective is Agnew's (1992; 2006) general strain theory (GST). GST argues that certain life events and conditions, such as exposure to noxious stimuli, removal of positive stimuli, or the failure to achieve a positively-valued goal, create a pressure for "corrective action"—anything that is perceived as confronting the discomforting effects of the experienced strain. This can lead to criminal behavior, especially if alternative means of dealing with the strain—such as coping skills or family supports—are absent (Agnew, 2006). An example of this process is when prisoners are confronted with a financial strain they cannot handle, and family resources for assistance are lacking, they may resort to offending behavior, or else may become depressed and possibly resort to substance abuse.

With these frameworks as the backdrop, the relevant empirical question then is: To what extent do former prisoners and other offenders actually perceive LFOs as a source of stress and strain and, if so, is the stress great enough that it can manifest in deteriorated mental health, such as increased stress and depressive symptoms? A small handful of qualitative and descriptive quantitative studies have addressed this question. Martire et al. (2011), in their descriptive analysis of 156 participants of a reentry program

in Australia, reported that 64% of their subjects found their debts to be “very” or “quite” stressful. Pogrebin, West-Smith, Walker, and Unnithan (2014) interviewed seventy parolees from the Colorado State prison system in their study addressing hurdles and barriers in reentry. Their most prominent finding was that debt accumulated from LFOs was consistently reported as being an overwhelming financial strain. One respondent was required to pay \$207 in LFOs per month, yet was only able to find sporadic, minimum-wage work (Pogrebin et al., 2014). In Harris et al.’s (2010) study of LFOs in Washington State, eighty percent of the sample reported LFOs to be overly burdensome, and that “respondents who made regular payments were less able to meet other pressing needs, such as paying for rent, medicine, and food, or to financially support their children” (p. 1778).

Western, Braga, Davis, and Sirois (2015), in the Boston Reentry Study designed to learn about the dynamics of community reintegration after state prison, found that former prisoners faced overwhelming financial stress and anxiety. Following 122 men and women leaving state corrections and returning to the Boston area, through interview data they found that a severe lack of employment opportunities and financial demands in their and their family’s lives created substantial financial strain and frustration for both the returning prisoners and their families. Often this lack of employment coupled with financial needs resulted in months of dependence on family members—mostly women—such as mothers, sisters, grandmothers and, to a lesser extent, partners (Katzenstein & Waller, 2015; Western et al., 2015).

In medical sociology, a small literature exists on the effects of non-criminal justice-related debt on mental health (Drentea, 2000; Drentea & Lavrakas, 2000; Nelson,

Lust, Story, & Ehlinger, 2008) and physical health (Drentea & Lavrakas, 2000; Nelson, Lust, Story, & Ehlinger, 2008). Though it focuses on financial debt from a different source, findings from this literature could be relevant to the question of the effects of LFOs and criminal justice debt on depression.

Drentea (2000), relying on a representative survey sample of more than 1,000 adults from Ohio, examined the associations between credit card debt, income, and stress and anxiety. Findings showed that anxiety did increase as the ratio of credit card debt to income increased. Being in credit default was also positively associated with anxiety. Findings from mediation analyses showed that stress mediated part of the association between the debt to income ratio and anxiety, and stress fully mediated the connection between credit default and anxiety (Drentea, 2000). In a similar study, Nelson, Lust, Story, and Ehlinger (2008) examined the cross-sectional associations between credit card debt, stress, and a battery of health risk behaviors among a sample of undergraduate and graduate students (N=3,206). Their results showed that having credit card debt was positively associated with binge drinking and other forms of substance abuse, along with a variety of adverse physical health outcomes (Nelson et al., 2008). While these works from cognate disciplines may be useful in clarifying empirically how debt might harm certain mental health outcomes, an important distinction is that these studies do not focus on criminal justice samples.

In sum, despite the ubiquitous increase in the use of LFOs, no more than a small handful of previous works have examined the impacts of LFOs on stress and depression. Further, the few empirical studies on LFOs reviewed above relied on small samples of in-depth interviews with former prisoners and those with criminal records. As rich and

informative as they are, there remains a lack of symmetry in this literature with respect to quantitative evidence on the question of LFOs, debt, and depression.

### **LFOs, Debt, and Family Conflict**

Apart from health issues, having legal financial obligations and owing debt can cause strain and conflict among family members. Research has shown that this is particularly the case among those leaving institutional corrections (Bannon et al., 2010; Nagrecha et al., 2015). For example, prisoners often do have the ability to work in prison, but since the pay is meager (often ranging from \$0.23-\$1.10 per hour, see Solomon, 2004), any debt burdens cannot be reasonably addressed on this income. As a result, upon leaving prison—in many cases—they are required to pay back debts and supervision fees despite not having any savings or meaningful income stream (Bannon et al., 2010; Pogrebin et al., 2014). Rather than risk facing the legal consequences of nonpayment (such as incarceration, see Weisburd et al., 2008), the former prisoner will seek others, usually family members, to borrow money to pay off debts, or for other forms of financial assistance (Cook, 2014; Katzenstein & Waller, 2015; Western et al., 2015). Because many family members want to support their recently released kin and do not want to see he or she reincarcerated for debt nonpayment, they provide financial or alternative forms of tangible support (i.e., housing, food, transportation, etc.). And, as the families of the formerly incarcerated are generally not among wealthy populations (Nagrecha et al., 2015; Pettit & Western, 2004), it is likely not easy for them to bear this fiscal burden. This difficulty may put a strain on the relationship between former prisoners and their families.

Strained family relationships and resulting conflict are per se serious problems



worth studying, particularly among former prisoners who might have little in terms of alternative social support networks. However, family strain and conflict is also of great concern to criminologists because it can lead to more problems—including substance abuse and recidivism—according to multiple theoretical perspectives. Life course criminology (Laub & Sampson, 2003), which focuses on the factors implicated in crime continuity and desistance beyond infancy and adolescence, posits that decreases in family involvement could spawn future recidivism. This is because having family members with whom you interact with on a daily basis shapes routines and structures time in a way that usually is anti-criminogenic. Family members also provide a degree of supervision (Laub & Sampson, 2003), in addition to emotional social support, which has been implicated in crime and desistance (Cullen, 1994; Taylor, 2015). Finally, strong family connections can foster identity change that is associated with desistance from crime (Maruna, 2001). In terms of parenting, former criminals have offered historical narratives indicating that parenting responsibilities can act as a turning point (Laub & Sampson, 2003). Family conflict among former prisoners has also shown to be correlated with substance abuse after prison (Mowen & Visser, 2013).

In addition to life course theory, strained family relationships might bring about more crime according to GST. As stated above, strains that are perceived as being uncomfortable can lead to crime or substance abuse if that behavior is perceived as addressing the discomfort of the strain. This strain-causes-crime relationship is moderated by many factors, including social and family support (Agnew, 2006), so that those who have strong family support systems are less likely to react to strains with crime. As such, if family relationships between former prisoners and their families are

strained, then they are precluded from leveraging this support in the event of experiencing criminogenic strains.

Empirical work in this area is limited, yet evidence from three qualitative studies provides some evidence for the hypothesis that LFOs and criminal justice debt can put a strain on the families of released prisoners. Nagrecha et al. (2015) of the Center for Community Alternatives investigated the role of criminal justice debt in reentry among 39 men and women with criminal justice histories in New York and New Jersey. These in-depth interviews probed about income and expenses, employment and employment prospects, public assistance, and other areas with the goal of understanding each person's ability to pay his or her debts. The main finding of their investigation was that former prisoners were unable to juggle the debt burdens required of them, and, as a result, were heavily reliant on family members (mostly mothers, sisters, uncles, and aunts and to a lesser degree partners, similar to the findings in Western et al., 2015), for cash and other forms of instrumental support (Nagrecha et al., 2015). Of the 39 interviewees, 28 (71%) reported depending on their families for some type of financial support. Twelve (31%) received cash directly from family members, fifteen (38%) relied on family members for housing, and often paid little to no rent, and seven (18%) reported relying on their families for food. Importantly, some of these individuals receiving tangible family support were employed, yet still could not raise the money necessary to keep up with their costs. Nagrecha et al. (2015) argued that when family members helped their justice-involved family members financially, intra-family strain and tension would arise, though they only offer one example of this occurring in their data.

Similarly, Pogrebin et al.'s (2015) study from Colorado found that released

prisoners depended heavily on their families. Although their study consisted of adults, forty percent of their sample resided with family upon release from prison (Pogrebin et al., 2014). It was also largely through family that these former prisoners were able to find any sort of employment. Pogrebin et al. (2015) reported on one instance in which an imprisoned father's child support debt adversely affected his wife and child living on the outside. Since this inmate had accrued large debts in prison, the state child support office retained all of his wife's tax refund, amounting to \$6,800, to pay off the debt burden he owed to the state. (In many states, including Colorado, child support payments do not necessarily go to the custodial parent but to the state as reimbursement for Temporary Assistance to Needy Families (TANF) benefits.) Echoing the findings from Nagrecha et al. (2015), Pogrebin et al. (2014) concluded that employment often does not provide enough support for former prisoners to overcome their financial obligations. Harris, Evans, and Beckett's (2010) findings from Washington State revealed a similar pattern, whereby respondents who paid off LFO debts regularly were consequently less able to financially support their children.

### **Gaps in Knowledge and Current Study**

The current work expands on the reentry and collateral consequences literature by using longitudinal data from the Urban Institute's multi-state Returning Home Study to evaluate the impact of supervision fees and other debts on stress and depression, family conflict, and recidivism and justice involvement among a sample of male former prisoners. This work contributes to the literature in at least four ways. First, almost all of the previous work in this area is qualitative or journalistic in nature, and this study seeks to support or challenge previous findings by evaluating the effects of LFOs and

associated debt quantitatively. Second, with the exception of Roman and Link (2015a) who examined child support debt only, almost all of the prior published studies have depended on small, non-representative samples from within individual states (Washington, Florida, California, Colorado), thus limiting our ability to understand the role of LFOs on a broader scale. Third, the previous work has largely relied on cross-sectional data, whereas the Returning Home data permit examination of how LFOs and associated debt may manifest over the course of one year after release from prison. This is critical as prisoner reentry is a longitudinal process (Visher & Travis, 2003). In addition, leveraging longitudinal data is important for determining temporal ordering, and because the adverse effects of LFOs are theoretically lagged (Bender et al., 2015; Eisen, 2015; Nagrecha et al., 2015). Finally, previous work has focused on the role of fines, court fees, and child support, yet very little work has examined the nature and impact of possibly large and consequential supervision fees—now a common feature among probation and parole departments (Albin-Lackey, 2014). These data allow for the study of supervision fees in prisoner reentry.

## CHAPTER 3 – METHODOLOGY

### Research Questions and Hypotheses

Informed by theory and the limited extant literature, the current study proposes the following research questions and hypotheses:

Research Question 1 (RQ1): Who has LFOs, what predicts having more LFOs, and do certain sub-populations have higher LFOs than others?

*Hypothesis 1a*. Those convicted of drug offenses will be more likely to have LFOs (or to have higher LFOs) than those convicted of other offenses.

*Hypothesis 1b*. Former prisoners with substance abuse disorders will be more likely to have LFOs (or to have higher LFOs) than those without substance use disorders.

*Hypothesis 1c*. Released inmates on community supervision/parole are more likely to have LFOs (or to have higher LFOs) than those not on community supervision/parole.

*Hypothesis 1d*. African Americans and Latinos are more likely to have LFOs (or to have higher LFOs) than white former prisoners.

Since little is known about the imposition of LFOs, the purpose of this research question is to paint a descriptive picture of who has debt from LFOs and how much they owe. I also want to examine whether certain categories of prisoners experience more of a burden regarding LFOs. Because some theory suggests that offenders with substance abuse disorders might be the target of heightened condemnation and punishment (Harris, Evans, & Beckett, 2011; Harris & Fiske, 2006; Miller, 1997), my first two hypotheses

predict that those with substance abuse disorders and those convicted of drug crimes are more likely to have LFOs and to have higher LFOs than those without substance abuse disorders or not convicted of drug crimes. Recent work has suggested that fees associated with community supervision and parole are increasing (Albin-Lackey, 2014; Bannon et al., 2010), as more jurisdictions are adopting aspects of the “offender-funded” justice model (Finn & Parent, 1992). As such, I predict in Hypothesis 1c that those released inmates under community supervision will be more likely to report having LFOs and having higher amounts of LFOs than those not released under community supervision. Given what appears to be an increase in the use of supervision fees on a broad scale, I also anticipate that supervision fees will represent the most ubiquitous type of LFO among the men in this sample. Regarding Hypothesis 1d, recent work has argued that LFOs are not distributed evenly across demographic groups (Harris et al., 2011), and that minorities in the criminal justice system are often treated more punitively (Kutateladze, Andiloro, Johnson, & Spohn, 2014). Further, a number of studies in the sentencing literature focusing on racial threat theory have found that racial minorities—African Americans in particular—face enhanced punishment at various stages of justice compared to their white counterparts (Crawford, Chiricos, & Kleck, 1998; Eitle, Alessio, & Stolzenberg, 2014; Feldmeyer, Warren, Siennick, & Neptune, 2014; Wang & Mears, 2010). As such, I expect that—controlling for measures of socioeconomic status such as income and employment status—African Americans and Latinos are more likely to have LFOs and are more likely to have greater amounts of LFOs than their White counterparts.

Research Question 2 (RQ2): Are LFOs associated with former prisoners’ depression levels upon release?

*Hypothesis 2a.* Former prisoners with LFOs (or with higher LFOs) are more likely to report more symptoms associated with depression than those without (or with lower LFOs).

*Hypothesis 2b.* Former prisoners with LFOs (or with higher LFOs) report higher financial strain compared to those without (or with lower LFOs).

*Hypothesis 2c.* Increased financial strain/stress mediates part of the association between LFOs and depression.

Theoretically informed by the social stress literatures in sociology (Mossakowski, 2013; Pearlin et al., 1981, 2005; Thoits, 2010), and by two previous qualitative works on debt and stress (Harris, Evans, & Beckett, 2010; Martire, Sunjic, Topp, & Indig, 2011), I hypothesize that owing LFOs—or owing higher amounts of LFOs—will have adverse consequences on depression. Specifically, with respect to Hypothesis 2a, I anticipate that those who have LFOs or higher amounts of LFOs, compared to those who have lower or no LFOs, will report increased symptoms of depression. Similarly, in Hypothesis 2b, I also expect that having LFOs or having higher LFOs will have a positive impact on financial strain. Thinking about causal mechanisms, I anticipate that LFOs will have an effect on depressive symptoms via their link with financial strain. Thus, in Hypothesis 2c, I anticipate that the impact of LFOs on depression is at least partly mediated by increased financial strain (LFOs→increased financial strain→increased depressive symptoms). I anticipate that financial strain only partly mediates this association because I expect that LFOs might also have direct effects on depression, as having debt related to the criminal

justice system that needs to be paid back on a regular basis might adversely affect one's mood whether or not the debt is causing financial strain.

Research Question (RQ3): Are LFOs associated with levels of family conflict after prison?

*Hypothesis 3.* Those with LFOs (or higher LFOs) report higher levels of familial conflict after prison than those without (or with lower LFOs).

Recent works show that former prisoners receive much material support from family members—often mothers, sisters, and grandmothers—once released to the community (Katzenstein & Waller, 2015; Nagrecha et al., 2015; Western et al., 2015). Based on these works, and because former inmates facing legal financial obligations might have very tenuous financial circumstances, I expect that those who have LFOs or those with higher LFOs will depend heavily on family members for financial support. Because many prisoners return to low-income communities and families (Clear, 2007), there is reason to expect that this form of material support can put a strain on the financial circumstances of the family should they provide support, and that this can influence conflict within the family. Alternatively, family conflict may also arise in cases where the former prisoner needs instrumental support, but the family is unwilling to provide it. Thus, in Hypothesis 3, I expect to find that having LFOs or having higher LFOs can increase levels of family conflict.

Research Question (RQ4): Do LFOs increase or decrease recidivism, and justice system contact and involvement?



*Hypothesis 4a.* Those with LFOs (or with higher LFOs) are more likely to be under criminal justice supervision (community supervision/parole) than those without (or with lower LFOs).

*Hypothesis 4b.* Those with LFOs (or those with higher amounts of LFOs) commit a greater number of new crimes compared to those without (or with lower LFOs).

*Hypothesis 4c.* Those with LFOs (or those with higher amounts of LFOs) are more likely to be rearrested than those without (or with lower LFOs).

*Hypothesis 4d.* Those with LFOs (or with higher amounts of LFOs) are more likely to be reincarcerated than those without (or with lower LFOs).

*Hypothesis 4e.* The link between having LFOs and reincarceration is partly mediated by self-reported crime, rearrests, depression, financial strain, family conflict, and community supervision/parole status.

Recent publications have focused on the discretionary role that probation agencies play in overseeing the reentry process and—in conjunction with judges—influencing the amount of time one is under correctional supervisions and control (Albin-Lackey, 2014; American Civil Liberties Union, 2010; Bannon et al., 2010; Nagrecha et al., 2015). Looking at the totality of these works, the implication is that LFOs can cause former prisoners to become “entangled” or “trapped” in a criminal justice system whereby traditionally non-criminal justice matters, such as repayment of debts, can lead to increased or extended formal involvement with the justice system (Beckett & Murakawa, 2012). One example is that it has been suggested that those who have LFOs or owe outstanding criminal justice debts are more likely to remain under formal supervision

than those who do not have LFOs, or those could afford to pay off their debts. As such, I predict in Hypothesis 4a that those who have or who have greater LFO debts at PR1 are more likely to be on parole or mandatory supervision at PR2 than those who have no or lower LFO debts.

Regarding Hypothesis 4b through 4e, little work has examined how and whether LFOs might impact recidivism, yet existing theoretical frameworks suggest that LFOs might inspire illegal conduct, including general strain and rational choice theories (Agnew, 2006; Beckett & Harris, 2011; Kotloff, 2005). Empirical research is virtually absent in this area, but a recent study suggests that LFOs in large amounts are associated with more serious probation violations compared to those with lower LFOs (Iratzoqui & Metcalfe, 2015). This finding accords with theory informing how LFOs and recidivism might be associated. As such, in Hypotheses 4b and 4c, respectively, I predict that those with or those with higher amounts of LFOs are more likely to commit new crimes or be arrested than those with no or lower amounts of LFOs. Apart from illegal conduct, much anecdotal evidence suggests a pattern whereby those who owe LFOs are treated punitively and reincarcerated for late or nonpayment (Bannon et al., 2010; Patterson, 2008). As such, in Hypothesis 4d, I anticipate a direct effect whereby those who owe LFOs or greater LFOs are more likely to be reincarcerated after one year compared to those with no or lower LFOs. In Hypothesis 4e, I expect that self-reported crime, rearrest, and probation/parole supervision status partly mediate the association between LFOs and reincarceration. I also expect financial strain, depression, and family conflict to mediate the association between LFOs and reincarceration. Regarding financial strain, Agnew's (1992) GST, in addition to more recent works on the effects of financial strain (Langton

& Piquero, 2007), might suggest that this type of reaction to LFOs and debt increase the odds of recidivism. Regarding depression, mental illness does appear to increase the risk for crime and violence (Silver, 2006), even if the effect is small with respect to more traditional predictors of recidivism (Bonta, Blais, & Wilson, 2014). Another mechanism linking depression and reincarceration involves the process whereby people with mental illnesses are criminalized to a degree beyond those without mental illness (Teplin, 1984).

Finally, based on the important role that family and family relations have on desistance and offending (Laub & Sampson, 2003; Sampson & Laub, 1995), in Hypothesis 4e, I also expect to find that increased family conflict—as an indicator of damaged family bonds—mediates the association between LFOs and reincarceration (LFOs→increased family conflict→reincarceration).

## **Data**

### **The Returning Home Studies**

Between 2002 and 2006, the Returning Home Studies were conducted in Texas, Ohio, and Illinois by researchers at the Urban Institute.<sup>5</sup> Specifically, former state prisoners of at least one year were tracked over time in the following cities and the surrounding areas: Chicago, Houston, and Cleveland. This multi-site, longitudinal effort aimed to explore the pathways out of prison and back into the community, with emphasis on clarifying the reentry process for citizens returning to metropolitan contexts. In addition, emphasis was placed on understanding the factors that promote or hinder successful reintegration. The original purpose of the study sought to investigate three areas: (1) the reentry experiences as reported by individuals before and after release, (2)

---

<sup>5</sup> In addition, a smaller-scale pilot study was implemented in Baltimore, Maryland, but is not included in the current analysis.

the perspective of the family of the returning prisoner through interviews, and (3) the perspective of key stakeholders and community members within the communities to which the prisoners return. These data are suitable for investigating the research questions for the present work as they contain questions about LFOs, debt, depression, recidivism, family relationships, and other key variables important to reentry studies surrounding the implications of debt obligations. In addition, these data follow the respondents longitudinally through what is understood as a very critical period in reentry (Draine & Herman, 2007; Petersilia, 2003; Western et al., 2015).

Collected approximately thirty days prior to release from prison, baseline interview data (pre-release or PR) in the Returning Home Study sought to assess pre-prison characteristics and experiences, as well as experiences during incarceration including services and programming. Data were also collected on inmates' perceptions of aspects of the reentry process, expectations, and plans once released to the community. Upon release to the community, trained researchers conducted up to three additional follow-up interviews with members from the baseline sample. These interviews occurred at thirty to sixty days post-release, between 6-9 months post-release—with an average of 8 months, and 12-15 months post-release (Mowen & Visher, 2013; Visher, Debus-Sherrill, & Yahner, 2011). The post-release interviews were similar across research sites and generally sought to gather information regarding reentry experiences, including employment, family support and conflict, substance abuse mental and physical health, housing, accrual of debt and other legal financial obligations, community reintegration, and criminal behavior. Those who returned to prison or jail during the follow-up period were re-interviewed within the correctional facilities. Respondents were paid twenty-five

dollars for each follow-up interview conducted in the community; those interviewed within correctional institutions were not paid.

### **Returning Home Studies by State**

The main Returning Home Studies were conducted at three U.S. sites. These sites were chosen based on many criteria, including availability and quality of data, and because they displayed variation in sentencing and release practices (Visher, Baer, & Naser, 2006). Respondents in the study samples were interviewed from 2002 to 2003 in Illinois, and from 2004 to 2005 in both Ohio and Texas. In total, over 80% of potential respondents agreed to take the survey in Texas, Illinois, and Ohio. Participant groups from each state were fairly representative of their state's inmate populations. To protect the inmates, research procedures ensured that correctional staff were unaware of who did and did not participate in the self-administered survey. Below details the procedures for data collection within each of the three sites.

#### **Cleveland, Ohio**

Unlike the pilot study in Baltimore, MD, the Returning Home Study in Ohio was a full-scale research study conducted from 2004 to 2005. The study design at this site was composed of several data collection efforts over time in the Cleveland and surrounding areas of Cuyahoga County. To recruit sample members who were currently incarcerated (those sentenced to at least one year in state prison), interviewers visited correctional facilities and explained the purpose of the study to those inmates willing to participate. Informed consent from these potential participants was obtained. Of the inmates who attended this orientation session, 75 percent agreed to participate in the self-administered survey. At baseline, approximately one month before the respondents' prison release

date, 424 prisoners completed the self-administered survey. Upon institutional release, three follow-up interviews were attempted at approximately one month (n=358), six months (n=322), and 14 months (n=294). A concurrent effort attempted to gather information from community residents in the County's neighborhoods that received a disproportionate share of returning citizens, as well as one-on-one interviews with local policymakers and practitioners in the field of corrections and reentry. Respondents in the study were generally similar to other releases to Cuyahoga County, but differed in three ways: participants were less likely to be incarcerated for a drug offense, more likely to be housed under medium security at release, and more likely to be released under community supervision (Visher et al., 2006).

### **Chicago, Illinois**

The Returning Home Study in Chicago and the surrounding area was conducted between 2002 and 2004. This effort was also composed of several different data collection components. The baseline study sample was recruited through an existing prerelease program in which groups of prisoners were identified as soon-to-be-released. Returning Home researchers delivered an orientation to the study and its purposes, and distributed the self-administered survey to those willing to participate. Informed consent from these potential participants was obtained. This effort yielded a baseline sample of 400 males who were interviewed between one to three months before their release. After release to the community, researchers attempted to contact respondents for re-interview at approximately two months out (n=296), seven months (n=266), and sixteen months (n=198). A second, concurrent data collection program involved one-on-one interviews with family members of 247 members in the baseline sample. These interviews probed

the family's perceptions of aspects of the reintegration process. A final, concurrent effort entailed a number of focus groups with residents of Chicago neighborhoods to which large portions of former prisoners were returning, as well as face-to-face interviews with criminal justice professionals in Chicago. A comparison of the Returning Home-Chicago sample and all male prisoners released from Illinois prisons in 2001 showed no significant differences with respect to age, race, sentence length, time served, and conviction offense, though respondents in the sample had somewhat greater prior incarcerations, were less likely to have been incarcerated for a technical violation, were more likely to be housed at a medium-security prison, and more likely to be released under community supervision (Visher, La Vigne, & Farrell, 2003).

### **Houston, Texas**

The Returning Home Study in Texas was conducted between 2004 and 2006, and tracked prisoner reentry in the Houston area in Harris County, Texas. This effort entailed three waves of data collection involving interviews with state prisoners and state jail inmates returning to Harris County. Unlike most correctional systems in the U.S., defendants in Texas can be sentenced to serve more than one year in a "state jail" facility. As such, because these are somewhat comparable to state prisons of other states, inmates from these state jails were included in the sampling design at this site. Study respondents were recruited from two state prisons that all prisoners in Texas are transferred to before their release into the community. The two state jails where recruitment took place contained many inmates who were both serving sentences of more than one year and were slated to return to the Houston area. At each site, researchers explained the study and its purposes in an orientation session, obtained informed consent, and subsequently

distributed the self-administered survey to those inmates willing to participate. In addition, researchers offered the surveys to inmates who were already planning to participate in a prerelease program. This strategy returned a baseline sample of 676 prisoners (n=414 men, n=262 women) interviewed approximately one week prior to their institutional release. The follow-up surveys were conducted at approximately two to four months out (n=509), and eight to ten months out (n=379). Respondents appeared to be similar to other releases in Harris County between 2004-2005, with the exception of being slightly older, and less likely to be male (La Vigne & Kachnowski, 2005).

### **Returning Home Merged Data**

Across all three sites, 1,238 males were interviewed at baseline (pre-release or PR) in total. After release, 60.5% (n=749) of the original sample was successfully interviewed at two follow-up periods, one at approximately two months out (post-release 1 or PR1) and the other at approximately seven to eight months out (post-release 2 or PR2). The present study relies on the merged sample from Ohio, Texas, and Illinois containing longitudinal data (three time points) on 749 men.<sup>6</sup> Statistical strategies such as inverse probability weighting and multiple imputation via maximum likelihood was applied to the final analysis sample to make it comparable to the original, baseline sample. This is discussed in more detail in the “Missing Data” section of this chapter and in the results section.

---

<sup>6</sup> Of this sample, nine were reincarcerated very soon after release, before the first follow-up interview. These nine men will be excluded from the analyses. This decision was made because their outcomes, due to their location in prison/jail, would appear artificially good or bad.



## Panel Data

Panel data consists of repeated observations of the same people over time and therefore prior levels of key outcomes can be controlled in the models. Panel data have two strong advantages for increasing the ability to make causal inferences. First, it can establish time order (direction) for key variables, and second, the panel structure allows for unobserved confounders to be controlled (Wooldridge, 2010). Some relationships examined in this structure no longer reflect the effect of X on Y, but rather X on later *changes* in Y. It is still impossible to preclude the possibility that some third, unidentified, time-varying variable is causing changes in Y or changes in X and Y, but by controlling for relevant predictors, one makes the assumptions of non-spuriousness more tenable. This study accounts for many, though not all, potential confounding variables of the key theoretical pathways of interest.

## Endogenous Outcomes

Seven variables examined in the structural equation analyses are endogenous—in other words they are predicted by the model either as mediating or outcome variables.<sup>7</sup> These include (1) depressive symptoms and financial strain, (2) family conflict, and (3)

---

<sup>7</sup> LFOs and debt theoretically have impacts on other important outcomes including perceptions of procedural justice and anger. Regarding the former, many ex-prisoners have noted that they feel their debt burdens—especially after growing large due to interest and late payments—are unfair and are reflective of an unfair system. However, perhaps due to the fact that the Returning Home data set was collected in the early 2000s, there are no scales that allow me to measure procedural justice as an endogenous outcome affected by LFOs. Similarly, having debt burdens, especially if perceived as unfairly applied, may also provoke anger. From a general strain theory (GST) perspective, it may be critical to study debt, anger, and further offending. However, there was only one binary anger item in the data (“R felt irritable/had angry outburst since release”). Bivariate logit models did not show any significant associations between this item and any of the debt variables, so anger was not pursued further as an endogenous variable affected by debt.

criminal justice variables such as probation/parole supervision status, rearrest, self-reported crime, and reincarceration.

**Depression and strain** variables are depressive symptoms and financial strain, and both are measured PR2 (post-release 2).

**Depression** was measured as depressive symptoms using a scale created by the Center for Epidemiologic Studies called the CES-Depression (CES-D) (Radloff, 1977). This measure is not used to diagnose clinical major depression but is used to identify depressive symptoms in clinical and non-clinical populations. The scale has demonstrated strong validity and reliability (DeVellis, 2012; Tinetti, Speechley, & Ginter, 1988). Cronbach's alpha for this scale in the Returning Home data is 0.9. The 19 items used to create this scale (all items listed in

Appendix A. Depressive Symptoms CES-D Scale Items) were used to create a latent construct using confirmatory factor analysis (CFA).

**Financial strain** was operationalized as a latent construct using a measurement model created via CFA. The following six factors are used to estimate this model: "Have you... (1) had trouble paying bills since release? (2) had trouble paying for housing since release? (3) worried about surviving financially since release? (4) had trouble getting

food for self/family since release? (5) had barely enough money to get by since release? and (6) had conflicts with friends of family because you didn't have enough money to get by since release?" Cronbach's alpha is 0.88 for these six items at PR2.

**Family Conflict.** A latent construct was created for family conflict using three items in the data from PR2. Asked whether respondents strongly disagree, disagree, agree, or strongly disagree, respondents were presented with the following three statements: (1) Do you fight a lot with your family members? (2) Do you disappoint your family? and (3) Does your family criticize you? Cronbach's alpha for these three items is fairly low at .65, which is another reason why I explored the creation of a latent factor for this construct.

**Recidivism/Justice System Involvement** was measured in four ways: (1) probation/parole/mandatory supervision status; (2) rearrest; (3) self-report acquisitive crime; and (4) reincarceration.

**Probation/parole/mandatory supervision status** is a binary measure (coded "0" for No; coded "1" for Yes) that captures whether the respondent is currently under community supervision. This is measured at each follow-up wave (PR1 and PR2).

**Rearrest** was measured at PR2 as a self-reported binary variable capturing whether the person was rearrested for a new crime between PR1 and PR2. The self-report nature of this variable is a limitation as it is possible that respondents may underreport their criminal behavior due to social desirability bias, fear of consequences, or other reasons. However, in general, self-report methods have been shown to have at least acceptable validity and reliability in crime and justice research (Thornberry & Krohn, 2000).

**Self-report acquisitive crime** was measured at PR2 as a binary variable that captures whether the respondent engaged in acquisitive crimes that theoretically might offset the burdens of LFOs and debt. Respondents were asked whether they did (1=yes) or did not (0=no) engage in any of the following crimes since the last interview: (1) robbery, (2) burglary, (3) theft, (4) fraud or forgery, and (5) drug dealing.

**Reincarceration** used official state-level data to measure whether the respondent was reincarcerated in a state facility (coded “0” for No; coded “1” for Yes) between the second post-release interview (PR2) and one year after release from incarceration.<sup>8</sup> Thus, it captures incarcerations generally occurring between 7 months and one year post-release.

### **Exogenous Debt Variables**

Exogenous variables are predictors that are not themselves predicted anywhere in the model. Debt indicators assessed at PR1 are binary measures in the data that indicate whether respondents owed debts related to supervision fees, fines, drug testing fees, child support, and court costs.<sup>9</sup> Contingency questions probed how much (in dollars) of each of these fees are owed in total. A composite binary indicator was made assessing if the respondent had any debt in any of these categories. In addition, scales were created summing the *total amount* of debt respondents owe as a result of fines, court costs,

---

<sup>8</sup> In the *Returning Homes Studies*, reincarceration data for Ohio and Illinois indicates a reincarceration in a state prison. In Texas, however, some of the respondents were reincarcerated in “state jails.” These state jails house offenders for terms longer than one year and so in effect are similar to state prisons, although the most serious offenders in Texas are sent to the state prisons.

<sup>9</sup> Since child support is different in nature and is not technically a criminal justice financial obligation, a separate binary debt indicator was created that contains all types of LFOs including child support. A scale in dollars was also be created that contains child support debt.

supervision fees, and child support. Note that there is almost no missing data on these variables (see Table 1) for the binary indicators, but the scale indicators measuring amount in dollars have a moderate amount of missing data. Although these debt variables are exogenous in the SEM model, in the descriptive analysis (RQ1) they are the dependent variables.

In addition, though debt has not been measured frequently in criminology, public health work on stress has examined the effect of debt. Some of this work has argued that debt matters as a ratio to income, so whereas moderate debt may not matter to the high-income earner, the same amount of debt is of great consequence to the low-income earner (Nelson, Lust, Story, & Ehlinger, 2008). As such, where possible, these analyses measured debt burdens as the ratio of debt in dollars to income in dollars, by using the variable “What is the amount of income you earn per hour?” from PR1.

### **Covariates**

Analyses accounted for the effects of several other factors known to affect the outcomes under investigation, such as socio-demographic variables. These covariates are all time-invariant and measured at pre-release (PR). Age is measured in chronological years. Race is measured with a series of dummy indicators where African American and Other race are compared to the category white. Education level was measured on a scale from 1 through 8 where 1=6<sup>th</sup> grade or less, 2=7<sup>th</sup> through 9<sup>th</sup> grade, 3=10<sup>th</sup> through 11<sup>th</sup> grade, 4=GED, 5=high school graduate, 6=some college, 7=college graduate, and 8=post-grad study. Marital status was measured using a binary (0/1) indicator where 1=married or living with someone as married. Income, measured at PR1, is measured and controlled in the descriptive analysis using hourly wage in dollars. Whether the respondent was

employed at PR1 was measured using a binary indicator where 1=employed and 0=unemployed and used in the descriptive analyses addressing RQ1.

In terms of criminal history and criminal justice variables, the total number of prior convictions was created as a control for criminal history. In addition, chronological age at first arrest was inserted into the model as a similar control. The index offense—or type of offense for which the respondent was most recently incarcerated—was controlled with dummy indicators (drug offense and violent offense with property offense as the reference category). Though supervision status is an endogenous variable in the SEM model, it was a predictor in the descriptive analysis measured with 1=on parole/mandatory supervision and 0=not on parole/mandatory supervision. Because the length of time one spends in prison can affect recidivism, the number of months the respondent was incarcerated was controlled. Substance abuse problems are also relevant to several dimensions in the reentry process. As such, hard substance abuse from the period before the respondent’s incarceration was controlled in the analyses. This was measured as a binary variable capturing whether the respondent reported using heroin, cocaine/crack, or amphetamines during the six months prior to their incarceration.<sup>10</sup> In

---

<sup>10</sup> I explored two other possibilities regarding substance abuse. The first was treating it as an endogenous variable that is affected by LFOs, similar to depression. This was not chosen as it does not accord with prior literature in the realm of LFOs (as this dissertation is a quantitative test of prior qualitative work), but also because—with so many mediated pathways in my model—it makes the model unwieldy in size and scope. However, relationships between substance abuse and LFOs will be unpacked in future work. The second alternative was exploring the possibility of testing whether a single latent factor variable can be created for substance abuse as a control variable. This approach was also not taken for two reasons. First, the addition of another measurement model in this hybrid SEM model adds another degree of complexity, and the model is very complex already and could not handle any more complexity. The second reason is theoretical. It is likely that a latent factor for hard drug use would not exist given that many hard substance abusers—although sometimes engaging in poly-substance abuse—often have one “drug

the SEM model, reincarcerated status between release from incarceration and the PR2 interview was controlled with a binary variable.

Finally, the state in which the subject was incarcerated was also controlled to capture variation due specifically to state context (Illinois and Ohio with Texas as the reference category), and in doing so “fixes” the effects of the model at the individual level. This is important given the theoretical framework suggests that LFOs have effects on former prisoners at the individual level. A benefit of this approach is that it captures variation in the outcome variables that is due to observed or unobserved variables at the state level. This can be important if there are omitted variables at that level of analysis that are influencing the outcome variables. As a result, any significant findings with state context controlled represent effects that are not due solely to dynamics in one state (Halaby, 2004; Harding, 2003). Summary statistics for the variables in this analysis are displayed in Table 1.

Multicollinearity can potentially produce unreliable and unstable parameter estimates. Checks for multicollinearity were assessed by computing variance inflation factors (VIFs) and tolerance levels for all covariates in the model. Menard (1995) states that VIFs greater than 5 are potentially cause for concern, and VIFs above 10 are almost certainly cause for concern. Since tolerance is the inverse of VIF, this corresponds to tolerance levels of 0.20 and 0.10, respectively. Though still controversial, others have argued for similar, perhaps slightly less stringent thresholds for collinearity (O’Brien, 2007). In this dissertation, I used the more stringent threshold of a VIF of 5 as the cutoff.

---

of choice.” As such, one item (the preferred drug of choice) would likely be much stronger than the others. If this is the case, then creating this construct as a single underlying latent factor is problematic.

In the event that one or more variables violated this cutoff, these variables would have been re-coded into scales or, if appropriate, dropped from the model. However, in certain control variables or dummy indicators with a low proportion of cases in the reference category—it has been argued that high VIFs can be safely ignored (Allison, 2012).



**Table 1.** Summary Statistics

<b>Variable</b>	<b>n</b>	<b>Mean</b>	<b>S.D.</b>	<b>Min</b>	<b>Median</b>	<b>Max</b>
Any debt PR1	739	0.51	0.50	0	1	1
Any debt PR1 (no CS)	739	0.44	0.50	0	0	1
Supervision Debt PR1	736	0.38	0.48	0	0	1
Total amount PR1 (no CS)	572	225.37	1025.08	0	0	13200
Total amount PR2 (no CS)	582	249.73	1164.64	0	0	20000
Total amount PR1	543	1586.94	6784.70	0	0	100000
Total amount PR2	548	1816.76	10059.76	0	0	200800
Income at PR1*	731	9.76	7.45	2	8	80
Age at release	740	36.18	10.04	19	36	73
African American	736	0.76	0.43	0	1	1
White	736	0.14	0.35	0	0	1
Other race	736	0.10	0.30	0	0	1
Education level	734	4.04	1.46	1	4	8
Employed at PR1	740	0.31	0.46	0	0	1
Married	734	0.20	0.40	0	0	1
Hard drug abuse**	739	0.46	0.50	0	0	1
Age at 1 <sup>st</sup> arrest	740	18.55	7.25	7	17	62
Prior convictions	710	4.39	7.19	0	3	160
Property offense	717	0.31	0.46	0	0	1
Drug offense	717	0.38	0.49	0	0	1
Violent offense	717	0.30	0.46	0	0	1
Supervised at PR1	740	0.78	0.42	0	1	1
Supervised at PR2	740	0.76	0.43	0	1	1
Arrest PR2	737	0.22	0.41	0	0	1
Self-report crime PR2	740	0.08	0.27	0	0	1
Illinois	740	0.31	0.46	0	0	1
Ohio	740	0.41	0.49	0	0	1
Texas	740	0.28	0.45	0	0	1
Reincarcerated Pre-PR2	731	0.07	0.27	0	0	1
Reincarcerated Post-PR2	731	0.08	0.27	0	0	1

CS=child support

If not indicated as being measured at PR1 or PR2, covariate was measured at baseline (pre-release or PR). Total amount variables are in U.S. dollars.

\*Of the 731 responses for this variable, 509 reported an income of \$0/hr. To paint an accurate picture of the incomes among people who worked, the mean, standard deviation, median, and range presented here represent only the 222 who reported making more than \$0/hr.

\*\*Though measured at baseline, this captures substance abuse from the six months prior to the most recent incarceration.

## **Missing Data**

As in many panel studies and virtually all prisoner reentry studies, there is a non-trivial amount of missing data due to subject attrition in the Returning Home Studies. Just over sixty percent of the original sample completed three interviews—baseline and two follow-ups. The missing information on the nearly forty percent who attrited can introduce bias into the model if the data are not missing completely at random (MCAR) (Little & Rubin, 2014).

This study addressed the issue of missing data in two different ways: (1) through the use inverse probability weighting (IPW); (2) by estimating the models with multiple methods of handling missing data including multiple imputation, pairwise present analysis, and listwise deletion.

As discussed above, the analysis sample of 740, though not far off, is not perfectly representative of the baseline sample of 1,238. This fact can introduce bias in the analysis due to sample non-representativeness. Inverse probability weighting (IPW) procedures can address such issues related to subject attrition by weighting certain respondents by the inverse probability that he or she appears in the analysis sample, and thus addressing the problem that people of certain characteristics are either under- or overrepresented in the analysis sample. IPWs are created using logistic regression that uses several variables including demographics to predict the likelihood of dropping out of the sample. For example, if it is found that African Americans are under-represented in the follow-up sample compared to the baseline sample, then IPWs will inflate the weight of African American respondents in the analysis so that the results are more representative of the baseline sample (Wooldridge, 2007). Using these techniques with

this sample has shown to be an appropriate method to address the potential bias introduced by missing data (Mowen & Visher, 2013; Visher et al., 2011)

Second, to address missing data on the covariates among the sample of 740, models were estimated using the pairwise present approach, multiple imputation, and listwise deletion. Unlike listwise deletion, SEM techniques in Mplus software implement pairwise present analyses (similar to “equationwise deletion” in Stata) which does not necessarily drop a case if that respondent is missing data on one or more variables. Instead, much like available case analysis, pairwise present analysis estimates the model using as much data from each respondent as possible. For example, if a respondent was interviewed at baseline and 8-months only, data for those time periods would be used to estimate outcomes in those time periods, but that respondent would not contribute to the parameter estimates for the outcomes at two months—the interview missed. In this way, pairwise present analysis uses more information than traditional listwise deletion methods.

Although the pairwise present approach does maximize the use of the available data, its use still does result in a loss of information. Multiple imputation (MI) techniques were implemented to estimate what those missing values are, thus increasing sample size and consequently power (Allison, 2003). As a sensitivity check to the models using pairwise present analysis, all the core structural equation models were estimated on imputed datasets (5) estimated through chained equations in Mplus software. Results using both pairwise present and multiple imputation are presented, and any findings that differed between the three types of models are discussed.

## **Structural Equation Modeling**

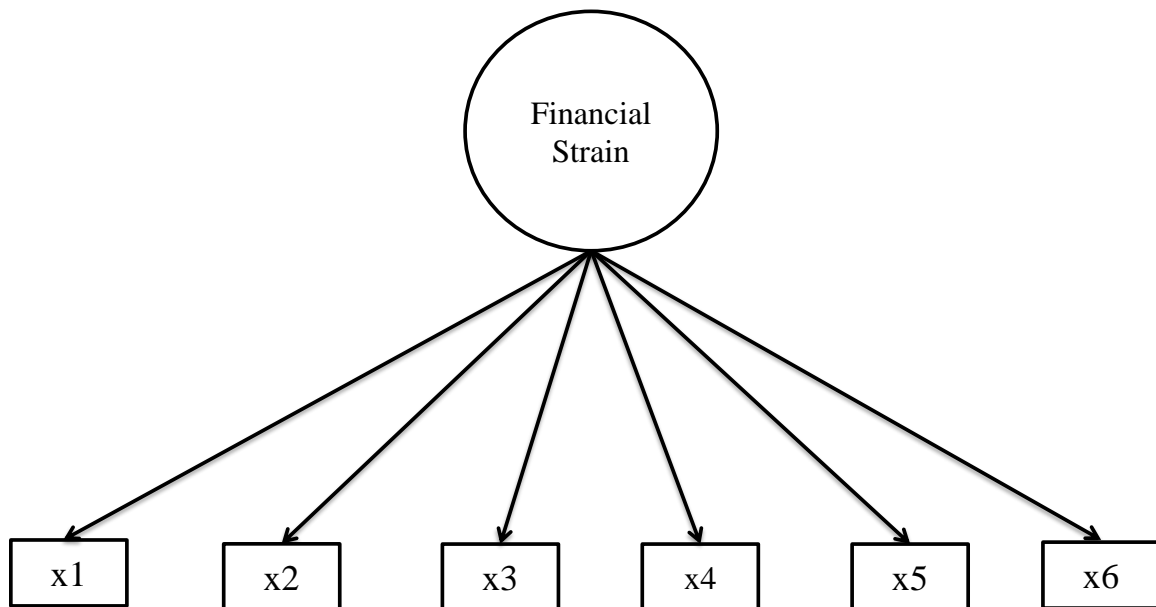
Structural equation modeling and generalized structural equation modeling (GSEM, for non-continuous outcomes) approaches were used to explore whether single factor solutions for certain constructs can be achieved, and subsequently to examine whether there are structural relationships between LFOs and the endogenous outcomes outlined above. Three SEM techniques that I employed in this dissertation are: (1) measurement models via confirmatory factor analysis (CFA), (2) structural (path) models, and (3) hybrid models (i.e., the use of both measurement and structural models within the same model).

## **Measurement Models**

Measurement models using CFA are used to create latent variables as an alternative to variables based on observed items only. Certain constructs in social sciences, such as family conflict or financial strain, can be difficult to capture using survey items. Inevitably, the scales created based on observed items will contain a degree of measurement error (Acock, 2013). Measurement models using CFA incorporate the same observed indicators but instead create a latent variable based on those indicators that better tap into the underlying construct of interest. This one-factor solution takes advantage of the fact that all of the observed factors are correlated because they have a *common cause* and share a common variance with a single, underlying factor. Once this shared variance is found, it is assumed that error is all that remains in the observed factors, and they should no longer be correlated (Acock, 2013; Kline, 2005).

The CFA approach assumes a “reflective” measurement model, whereby it is theorized that the single latent factor is driving the responses to the observed items, and

therefore the paths lead from the latent construct to the observed scale items. For example, if a researcher wanted to measure depression, it would be the underlying depression within the survey respondent that would be responsible for influencing his or her answers the survey questions. Put another way, the survey items are the endogenous or dependent variables being regressed on the latent construct of depression (see Figure 1 for causal direction of CFA models). In SEM language, it is said that the observed indicator will “load” onto the latent construct, and the variance that does not load—the measurement error—is dropped from the variable. The example in Figure 1 shows how the underlying construct of financial strain loads onto the six items. The result of this procedure is a variable that is error-adjusted, which—when used in analyses—produces more accurate parameter estimates and smaller standard errors (Acock, 2013).



**Figure 1.** Example of CFA Measurement Model Approach

In order to assess the shared variance among the survey items, one needs to scale a factor or set the scale, which can be done two different ways. The first method involves imposing a unit loading identification (ULI) constraint on one of the observed indicators.

This fixes the unstandardized coefficient effect on that observed factor to 1.0, and this item is now indicated as the reference variable (Kline, 2005). Under most conditions this reference variable can be chosen arbitrarily, although under some conditions it can be beneficial to choose the most reliable indicator—the observed indicator that is most strongly correlated with the single factor (Kline, 2005). The alternative approach is to set the factor variance to 1.0 by imposing a unit variance identification (UVI) constraint. This also standardizes the factor so that the explained variance (R-squared) in the scale item can be easily computed by squaring the factor loading (Kline, 2005). In other words, this procedure tells the researcher the amount of the variance in that scale item that can be accounted for by the single latent factor. In general, both methods produce similar outcomes in terms of model fit, but the UVI approach has the benefit of skipping a step by standardizing the factor (Kline, 2005). However, the ULI technique is valuable if one wants to assess whether there is significant factor variance in the construct.

### **Model Fit**

Model fit was assessed using conventional tests including the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean squared error of approximation (RMSEA). The CFI compares the theoretical model with a null model that assumes no relationships between the observed indicators. A cutoff of .90 indicates that our model fits the data 90% better than the null model, and is considered marginally acceptable, but a cutoff of .95 is preferable (Acock, 2013). The same cutoff levels are standard for TLI fit tests. The RMSEA considers the amount of error per each degree of freedom, and penalizes the model for too much complexity (e.g., too many loadings or correlated errors). Recommended cutoffs are 0.05 for good fit, and 0.08 for a reasonable

fit (Acock, 2013; Hu & Bentler, 1999). Ninety percent confidence intervals can also be reported for the RMSEA estimate.

In the event that model fit tests report less than acceptable fit, there are several remedies one can pursue. First, model modification indices might show that the model's fit could be improved with certain changes. For example, it may show that the error terms for certain indicators should be correlated, and correlating these error terms can improve the model's overall fit (Acock, 2013). This could happen in the event that certain "method effects" are having an impact on the model, such as if there are items that are too similarly worded, or if items that are negatively worded are causing issues. Error terms can also be correlated if there are substantive factors missing from the model (Kline, 2005). In essence, if item residuals are correlated, the single factor has not accounted for all of or has underestimated the shared variance between those scale items (Kline, 2005). Should any error terms be correlated in the CFA, a justification should be provided for doing so. The model may also show that one or more scale indicators are not significantly predicted by a single latent factor, or in other words the scale item does not load onto the factor. In this case, assuming there are a sufficient number of factors in the model, these items can be dropped from the model, which should improve the fit of the model (Acock, 2013).<sup>11</sup>

---

<sup>11</sup> It is possible that the model fit cannot be improved to acceptable levels using the CFA approach. In this instance, it could be that the items are not measuring a single latent factor but in fact could be tapping into two or more constructs. If this occurs, Exploratory Factor Analysis (EFA) techniques will be used to explore for the underlying relationships between the observed factors in an attempt to see if a single latent factor can be found. As such, this approach—as opposed to CFA—is more inductive and the process is driven less by theory (Acock, 2013). If this process does not result in an acceptable-fitting model, then the researcher will explore the advantages and disadvantages of depending on observed variables versus the single factor approach for that construct.

## Path Analysis

Path analysis has two key benefits. First, it can assess the structural relationships between several *observed* variables that are linked in a causal chain, and second, it can test the overall fit of a theoretical model. To the first advantage, path analysis provides the opportunity to examine multiple mediating factors that link variables  $X$  and  $Y$  in the same model. This can include mediators that are independent of one another (e.g.,  $X \rightarrow \begin{matrix} M1 \\ M2 \end{matrix} \rightarrow Y$ ) or are linked themselves in a causal chain as in three (or more) path mediation models (e.g.,  $X \rightarrow M1 \rightarrow M2 \rightarrow Y$ ). Not only does this allow the researcher to examine whether both mediating factors are empirically supported, but whether one mediating variable has more of an influence relative to the other. In other words, path analysis can *decompose the effects* of exogenous and mediating variables by calculating the relative proportion of variance that each variable can explain. It achieves this by allowing the researcher to calculate the total effects (TE), direct effects (DE), total indirect effects (TIE), and specific indirect effects (SIE) for all paths in the model, where:

$$\begin{aligned} \text{TE} &= \text{DE} + \text{TIE} \\ \text{TIE} &= \text{SIE1} + \text{SIE2} + \dots \end{aligned}$$

For example, if theory suggests that  $X$  not only has a direct effect on  $Y$ , but part of the effect is via  $M1$  and  $M2$  and they are independent of one another, path analysis can examine whether these hypotheses are supported, but also can estimate how much of the effect on  $Y$  is directly influenced by  $X$ , and how much is mediated through both  $M1$  and  $M2$  relative to one another. This approach has its obvious benefits for researchers attempting to adjudicate between competing theories of causality that emphasize different mechanisms of action.



The second feature is that path analysis can provide an overall test of a theoretical model. For example, if one were to create and test a path model whereby observed variable  $X$  impacts observed variable  $Y$  via mediators  $M1$  and  $M2$ , the first step in the analysis would be to estimate a “saturated model”—a model where all possible correlations between variables  $X$ ,  $Y$ ,  $M1$ , and  $M2$  are estimated. The chi-squared results from this model are then compared with that of the reduced theoretical model ( $X$  causing  $Y$  via  $M1$  and  $M2$ )—the model in which the researcher forces certain pathways not suggested by the theory to equal zero. Model fit is determined using the chi squared difference test between the saturated and theoretical model. If the results of the reduced theoretical model’s chi square difference test is *not* significant ( $p > .05$ ), this means that it does not fit significantly worse than the saturated model in which it is nested.<sup>12</sup> As such, the reduced model can be chosen as the superior theoretical model based on the principle of parsimony, as it has fewer pathways specified but does not fit the data significantly worse (Kline, 2005).

Should structural path models not fit the data acceptably, model building and model trimming techniques can be used in an attempt to adjust the fit. Modification indices such as the Lagrange Multiplier (LM) and the Wald  $W$  statistic can be used to add or remove paths from the model, as theoretically appropriate. For each path that is constrained to zero (because it is not predicted to be relevant given existing theory), the LM indicates how much the model’s chi square value would decrease should that path be freely estimated. The higher the LM value of a particular added path, the better the model will fit as indicated by the chi square value. The Wald  $W$  statistic is used to modify the

---

<sup>12</sup> A theoretical path model is “nested” within the saturated model if the saturated model can be trimmed such that the theoretical model can be obtained.

model, but, as opposed to the LM, it indicates how the model's fit changes should paths that are freely estimated be constrained to zero (Kline, 2005). In other words, this index tells the researcher whether the model would fit any worse if certain non-significant paths were dropped from the model. In the present work, these fit statistics were used where appropriate, but certain paths that are of key interest vis-à-vis the research questions in this study were not dropped from the model, as non-significant paths between certain theoretical variables are findings with implications in and of themselves (e.g., the path from LFOs to family conflict would not be dropped even if suggested by the Wald W test, as this path is directly relevant to addressing the third research question).

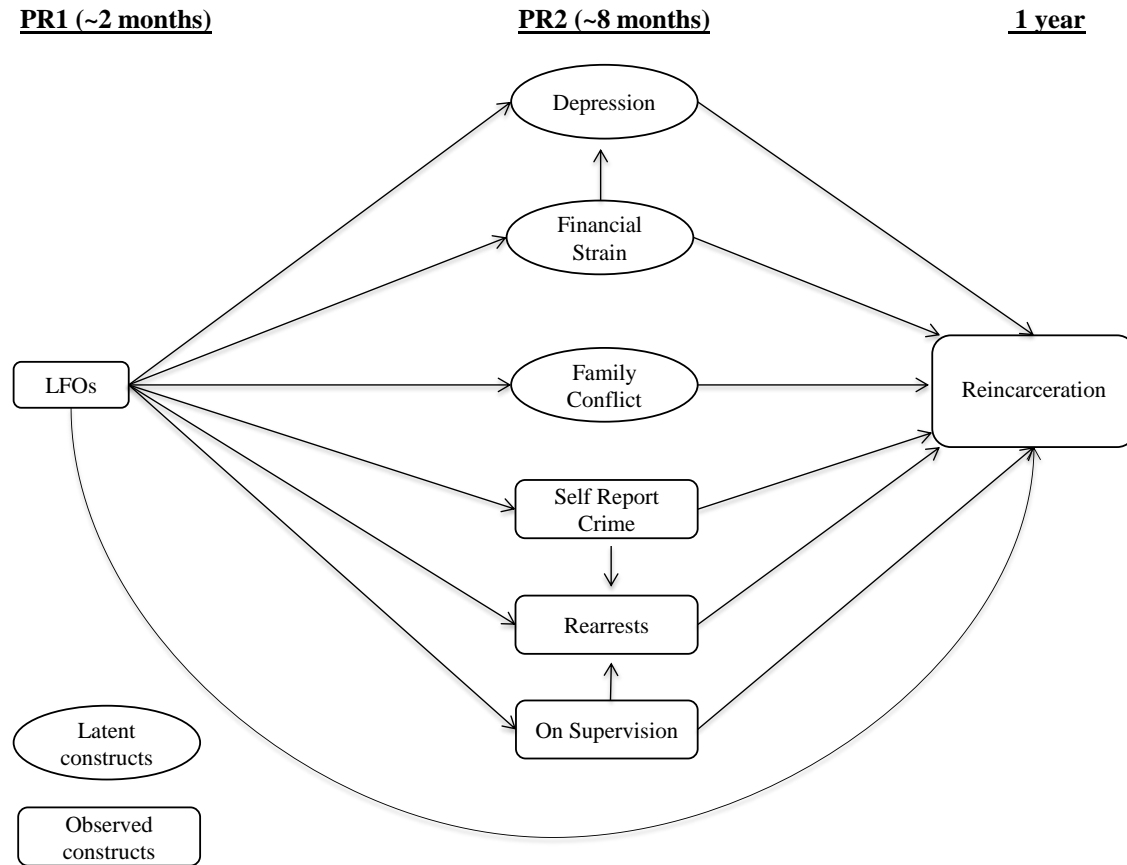
### **Hybrid Models**

The weakness of structural (path) analysis, however, is that it assumes the variables in the model are measured with an ignorable amount of measurement error. As a solution to this, hybrid models reflect the incorporation of CFA-derived measurement models into a structural analysis. The benefit of this type of model is that it allows the researcher to examine the structural relationships between variables of interest (a strength of the path model), but using latent constructs derived from measurement models that are theoretically free of measurement error (a strength of CFA measurement models). In this way, the researcher can be more confident that the relationships uncovered are not spurious or—perhaps even more common—underestimated due to poor measurement. Figure 2 below, which is the main analysis in this dissertation, is an example of a hybrid SEM. Importantly, the indicators for the latent constructs are not shown for simplicity.

## Analysis Steps

In sum, there are seven critical steps that were taken in the process of building and modifying the final hybrid SEM model and reporting results. (1) Using CFA, I created and assessed the fit for each proposed latent construct using the CFI, TLI, and RMSEA. This step ensures that each measure is defensible. (2) A collective measurement model was estimated wherein all the latent constructs are assessed simultaneously. This step shows how fit indices are changed when the constructs are in the same model and can identify potential problem areas including cross-loadings. (3) A saturated structural model was estimated next by correlating all of the variables in the model. (4) The reduced theoretical (hybrid) model that constrains certain paths to zero while leaving theoretical paths to be estimated freely was estimated. (5) I examined the chi-squared-difference test between the saturated and the reduced theoretical model and, as necessary, modified the reduced theoretical model using Mplus' model modification indices. (6) I reported on the significance and size of effects and associated standard errors for paths related to research questions. (7) Finally, I decomposed the effects of the model by reporting and discussing the breakdown of total effects (TE), direct effects (DE), indirect effects (IE), and specific indirect effects (SIE). All SEM analyses were conducted using Mplus 14 software (Muthen & Muthen, 2011).

The current study implemented two types of statistical models to test the proposed hypotheses: (1) general linear models testing who has LFOs and how much (this test is not reflected in Figure 2), and (2) the hybrid model in SEM examining the influence of key LFO and debt variables on the endogenous variables of interest (depression, financial strain, family conflict, and recidivism—see Figure 2) in the Returning Home data.



**Figure 2.** Conceptual Model for the Hybrid SEM

Regarding Research Question #1, I estimated two types of general linear models predicting who has LFOs and how much at both PR1 and PR2. The first type of model predicted who (Y/N) has LFOs using logistic regression analysis. The second model estimated the amount of LFOs former prisoners have, calculated as the sum of all the sources of LFOs. As such, negative binomial regression was used to predict the dollar amount of LFOs owed.<sup>13</sup>

<sup>13</sup> Regarding count models, if the mean and variance of the LFO variable are equal, Poisson regression can be used. But, if the variance is greater than the mean, as is most likely the case for this model, the data are considered overdispersed, and negative binomial regression is superior in this instance (Gardner, Mulvey, & Shaw 1995).

Regarding Research Question #2 (RQ2), I tested whether having LFOs or the amount of LFOs at PR1 have positive direct effects on financial strain and depressive symptoms at PR2. Turning to mediation analysis, this model tested whether increased financial strain at PR2 mediates any positive associations found between LFOs at PR1 and depressive symptoms at PR2.

Regarding Research Question #3 (RQ3), the impact of owing or owing more in LFOs at PR1 on family conflict at PR2 was assessed.

Research Question #4 (RQ4) examined the direct and indirect impacts of LFOs on recidivism and supervision status. LFOs from PR1 predicted self-reported crime, rearrests, supervision status, depression, and financial strain at PR2, which in turn predicted reincarceration status between PR2 and one year out. Because recent observers have noted that people with LFOs and debt can be reincarcerated for not paying on time, a direct effect of LFOs at PR1 and reincarceration one year later was estimated. With respect to recidivism and family variables, LFOs from PR1 predicted reincarceration at one year out via family conflict at PR2.

### **Institutional Review Exempt Status**

The Institutional Review Office at Temple University has determined that this research is exempt from human subjects review (See Appendix B. IRB Approval as Exempt Status).

## CHAPTER 4 – RESULTS

### Roadmap for Results Section

The analyses conducted to address the research questions for this dissertation were conducted in many stages. Further, the descriptive analyses associated with Research Question 1 were performed in separate analyses than the remaining research questions. As such, there are many findings to report. To aid interpretation, I present the results in logical steps, beginning with descriptive statistics on the sample, and then moving to Research Question 1 on who has criminal justice debt and how much they owe. Importantly, this chapter reports many empirical findings that will not be interpreted until the discussion chapter.

With respect to remaining research questions, I then show how I conducted confirmatory factor analyses in the process of building latent constructs for the SEM model. Once each of the latent constructs has been properly assessed, I report the model fit results for when I simultaneously added structure (paths) to the model in my reduced theoretical model and ran the saturated hybrid model. Upon finding an acceptably fitting theoretical model, I report on the significant path coefficients that speak to research questions two through four. I present several different models and comment on the consistency of the results across two techniques for handling missing data, specifically pairwise present analysis (WLSMV in Mplus) and multiple imputation (MI). For presentation purposes, I have placed the model results using MI in the appendices as sensitivity checks. Both types of models are weighted using inverse probability sampling weights to address sample non-representativeness due to subject attrition. Finally, I

present results where I decompose the effects in the model into direct, indirect, total indirect, and specific indirect effects. The chapter concludes with a brief summary of the key findings.

## **Descriptive Analyses—Research Question 1**

### **Debt and Amounts among Former Prisoners in the Returning Home Study**

Before examining the logistic and negative binomial models of the first research question, I review some basic univariate and bivariate statistics on debt among parolees, probationers, and those not under community supervision in the reentry process.

Excluding child support, 44% of the sample had criminal justice debt at PR1. With child support factored in, 51% reported being in debt. At PR1, the median amount of non-child support debt was \$260 (mean=\$872) with a range from \$10-\$13,200. With child support included, the median was \$540 (mean=\$4,814) with a range from \$10-\$100,000. At PR2, 53% reported owing any debt and 44% reported owing debt other than child support. In terms of amounts, excluding child support, the median amount for those who were in debt was \$250 (mean=\$831), with a range from \$10,000-\$20,000. With child support included, the median was \$513 (mean=\$4929), with a range from \$35 to \$200,800. Thus, it appears that debt amounts were fairly similar between the PR1 and PR2 time points.

Among the 222 who reported making an hourly wage, the average amount was \$9.76. Those who reported having any type of criminal justice-related debt made less money on average. At PR1, those with debt earned \$9.14 per hour while those without debt earned \$10.57 per hour, but this difference slightly missed conventional significance levels ( $p=0.07$ ). At PR2, however, those with debt earned \$8.97 per hour on average while those without debt earned \$10.78, a difference that was statistically significant

( $p < .05$ ). Examining the same numbers but only among those under supervision at PR1, those with debt obligations earned \$9.13 per hour on average while those not in debt earned \$9.28 on average. At PR2, a similar pattern persists with those who owed debt earning \$9.05 per hour and those without debt earning \$9.31 per hour on average.

After release from prison (PR1), 78% of the respondents were under community supervision via probation, parole, or mandatory supervision. Among those under supervision, about half (52%) reported owing criminal justice debt of any kind. Forty-eight percent of those under supervision reported having debt obligations owed to probation or parole agencies in particular. Seventeen percent of respondents not under community supervision reported owing some form of criminal justice debt. Within that same group, only 1% (2 people) reported owing very small debts to probation or parole in particular. Table 2 below breaks down the percentages for the sources of debt among the entire sample and subsamples of those under and not under supervision. As the table shows, the most prevalent source of debt from a legal financial obligation was supervision fees, as 48% of the supervised sample reported having debt from this obligation, or 38% of the total sample. Child support, although not quite in the same category as the other types of LFOs, was the second most common, with 17% of the total sample reporting having child support debt.



**Table 2.** Percentages with Specific Type of Debt

Type of debt	% Who Owe Debt		
	Sample under Supervision (N=573)	Sample not under Supervision (N=164)	Whole Sample (N=737)
Fines	3.8%	11.6%	5.6%
Supervision fees	47.8%	1.2%	37.5%
AOD fees	1.7%	0.6%	1.5%
Court costs	5.6%	10.9%	6.8%
Child support	15.4%	22.0%	16.8%

Notes: AOD=alcohol or drug

Respondents asked if they owed debt due to any of the above obligations (Y/N) at PR1.

Table 3 below displays the results of a series of logistic regression models (odds ratios displayed) probing the bivariate relationships between key debt variables and sociodemographic, criminal justice/criminal history, and state context variables. Results show that, compared to whites, African Americans were significantly less likely to report having any debt, supervision debt, or any debt excluding supervision debt. Those who were employed were significantly more likely to report owing any debt or supervision debt. Respondents convicted of a drug or property offense for their most recent incarceration were less likely to report having any debt or supervision debt. Violent offenders were more likely to report any debt or supervision debt. Prisoners released on parole or mandatory supervision at PR1 were more likely to report owing any debt or supervision debt, however, there was a negative association between being under supervision and reporting non-supervision related debt. In terms of state variation, compared with those from Texas, respondents from Ohio were significantly more likely to report being in debt and those from Illinois were significantly less likely to report owing debt.

**Table 3.** Bivariate Odds Ratios (ORs) Between Risk Factors for Reporting Any Criminal Justice Debt, Supervision Debt, or Any Debt Excluding Supervision Debt

	Any Debt	Any Debt Excluding Supervision Debt	Supervision Debt
	OR	OR	OR
<i>Sociodemographics</i>			
Age at release	1.00	0.98*	1.00
African American	0.40***	0.47**	0.40***
Other race	0.66	0.55	0.80
Income at PR1	1.02	0.99	1.03*
Education	1.05	1.10	1.00
Employed at PR1	1.84***	1.11	2.04***
Married	0.84	0.79	0.81
<i>Criminal Justice/Criminal History</i>			
Age 1 <sup>st</sup> arrest	0.99	0.98	0.99
Prior Convictions	1.00	1.04	0.97
Hard Drug Abuse	0.86	1.36	0.77
Drug Offense	0.46***	1.01	0.35***
Violent Offense	4.13***	0.93	4.97***
Property Offense	0.59***	1.07	0.61**
Supervised at PR1	5.19***	0.56*	74.48***
<i>State Location</i>			
Illinois	0.06***	0.58	0.01***
Ohio	2.20***	2.01*	1.79**

\*p<.05; \*\*p<.01; \*\*\*p<.001

OR=odds ratio

Separate bivariate logistic regression models were estimated for each of the risk factors above. Due to varying levels of missing data for each covariate, Ns ranged from 709-739. All predictor variables are measured at baseline (PR) unless otherwise noted. Reference categories: White for African American and Other race; Texas for Illinois and Ohio.

### Logistic Regression Model of Whom Has CJ Debt at PR1

Table 4 through Table 7 below display findings from the descriptive analyses probing whom has criminal justice debt and what predicts increases in the amounts of debt owed. The debt binary dependent variable here includes whether the person reported

owing debt from: (1) fines, (2) court costs, (3) AOD (alcohol or drug) fees, or (4) supervision fees. The count dependent variable includes amounts of debt accumulated from: (1) court costs, (2) supervision fees, and (3) fines (AOD treatment debt amounts were not asked). Among the predictor variables for all these models are: (1) demographics or person characteristics, (2) criminal justice or offense-related variables, and (3) controls for state context. There were no issues of multicollinearity among the predictors in the present analyses.<sup>14</sup>

---

<sup>14</sup> Variance inflation factors and tolerance levels were well within the appropriate ranges. All VIFs < 2.5 (mean=1.46), and the lowest tolerance level was 0.32. All variance inflation factors and tolerance levels displayed in Table 16 in Appendix C. Multicollinearity Diagnostics.

**Table 4.** Logistic Regression Model Predicting Owing Debt at PR1, N=668

	<b>OR</b>	<b>RSE</b>
Income at PR1	0.991	0.020
Age at release	0.970*	0.013
African American	0.823	0.287
Other race	1.427	0.645
Education	1.247*	0.113
Employed at PR1	1.079	0.407
Married	1.620	0.477
Hard drug abuse	1.455	0.412
Age 1 <sup>st</sup> arrest	0.976	0.017
Prior Convictions	1.034***	0.008
Drug offense	1.479	0.461
Violent Offense	1.598	0.539
Supervised at PR1	27.079***	9.312
Illinois	0.018***	0.007
Ohio	1.392	0.419

\*p<.05; \*\*p<.01; \*\*\*p<.001

OR=odds ratio, RSE=robust standard error.

Reference categories: for black and other race is white; drug and violent offense is property offense; IL and OH is Texas.

Subjects interviewed at the first post-release interview occurring approximately 2 months after release. Predictor variables are measured at baseline (pre-release) unless otherwise noted.

Model weighted to address subject attrition using inverse probability weights.

Pseudo r-squared=0.432

Table 4 displays results of a logistic regression model related to the first research question assessing whom in the reentry process has debt related to criminal justice processing at the PR1 interview. Examining the significant coefficients (odds ratios presented), the first thing of note is that the odds ratio for supervision status is significant and large. Those on supervision at PR1 were 27 times more likely to report having

criminal justice related debt than those not on supervision (OR=27.079\*\*\*, SE=9.312).<sup>15</sup> This is expected given criminal justice supervision agencies frequently assess fees on their clients. Perhaps in an unexpected direction, education status was also significant, as a one-unit increase in education level was associated with a 25% increase in the likelihood of reporting debt (OR=1.247\*, SE=0.113). Prior convictions also had a significant yet small effect, as an increase in one prior conviction was linked with a 3% increase in the odds of reporting having debt (OR=1.034\*\*\*, SE=0.008). In terms of negative effects, an increase in age was associated with a 3% reduction in the likelihood of reporting debt (OR=0.970\*, SE=0.013). Perhaps due to state-level policy differences, being from Illinois (as opposed to Texas) was also significantly related to owing debt (OR=0.018\*\*\*, SE=0.007).

### **Logistic Regression Model of Changes in CJ Debt between PR1-PR2**

Table 5 displays the results of the model predicting who has criminal justice debt at PR2 (~7 months post-release). However, this model is conceptually different, and complementary to the previous model, in that having debt at PR1 is controlled in the analyses. In this way, the model is highlighting factors that are associated with *changes* in whether someone reported having debt between the first and second post-release interview.

Again, the OR for being under supervision is significant and very strong. Those under probation or parole supervision were nearly 20 times more likely (OR=19.891\*\*\*,

---

<sup>15</sup> A logistic regression model was estimated as a sensitivity test to assess whether the large coefficients for supervision status were artificially capturing variation of other variables. This model was estimated on the subsample of only those under supervision, and so supervision was removed as a predictor. Findings (available upon request) from this model show the same significant coefficients in the same direction as reported in Table 4.

SE=6.949) to report owing a debt obligation since the previous interview. Similar to the previous model, education level predicted changes in having debt (OR=1.248\*, SE=0.121). As expected, being in debt at PR1 significantly predicted being in debt at PR2 (6.750\*\*\*, SE=2.105). State context (being from Illinois as opposed to Texas) had a similar effect in this model as well (OR=0.019\*\*\*, SE=0.009).

**Table 5.** Logistic Regression Model of Changes in Owing Debt PR1-PR2, N=667

	<b>OR</b>	<b>RSE</b>
Income at PR1	0.965	0.026
Any Debt at PR1	6.750***	2.105
Age at release	0.989	0.015
African American	1.090	0.374
Other race	1.598	0.874
Education	1.248*	0.121
Employed at PR1	1.609	0.464
Married	0.601	0.236
Hard drug abuse	1.038	0.334
Age 1 <sup>st</sup> arrest	0.972	0.018
Prior Convictions	0.988	0.012
Drug offense	0.950	0.333
Violent Offense	0.712	0.285
Supervised at PR1	19.891***	6.949
Illinois	0.019***	0.009
Ohio	0.681	0.228

\*p<.05; \*\*p<.01; \*\*\*p<.001

OR=odds ratio, RSE=robust standard error.

Reference categories: for black and other race is white; drug and violent offense is property offense; IL and OH is Texas.

Subjects interviewed at the second post-release interview occurring approximately 8 months after release. Predictor variables are measured at baseline (pre-release) unless otherwise noted.

Model weighted to address subject attrition using inverse probability weights.

Pseudo r-squared=0.544

## Count Model Predicting Amount of CJ Debt at PR1

Table 6 shows the results of a negative binomial model<sup>16</sup> predicting the amount of debt owed in dollars for all types of legal financial obligations combined at PR1. There were more missing data in these analyses compared to the above as fewer respondents knew or reported how much they owed in dollars. Incidence rate ratios (IRRs) are presented in the table.<sup>17</sup> Again, the first coefficient that stands out is that of supervision status: the incident rate of reporting an increase in dollars of debt was nearly 20 times higher for those under community supervision (IRR=19.600\*\*\*, SE=9.716). There were several other significant coefficients in this model. In terms of positive effects, education level (IRR =1.528\*\*, SE=0.212), being employed (IRR =13.119\*\*\*, SE=7.417), having a hard drug problem (IRR=4.495\*\*, SE=2.284), being incarcerated for a drug offense (IRR =3.321\*, SE=1.165), and age at first arrest (IRR =1.085\*, SE=0.040) were all significantly related to having more debt in dollars. State context variables Illinois and Ohio also captured significant variation compared with Texas (IRR =0.013\*\*\*, SE=0.008 and IRR =4.512\*\*, SE=2.290, respectively). In terms of inverse relationships, an increase in income (hourly wage), as expected, reduced the incident rate of debt in dollars by 14%

---

<sup>16</sup> The -countfit- function was used in Stata13 to choose negative binomial over Poisson for this count model analysis. The likelihood-ratio test of  $\alpha=0$  assesses if the dispersion parameter ( $\alpha$ ) is equal to zero. These negative binomial models produced large values for this test, indicating that the data are over-dispersed and are not captured well in a Poisson distribution. This was expected given the wide dispersion in the amount of debts owed. A large proportion of the sample reported not having any debt. However, a zero-inflated model would not be appropriate here given there is no distinction between artificially-created and real zeros in this variable—there are no artificial zeros and all zeros represent the same thing.

<sup>17</sup> The IRR is interpreted as the effect a predictor variable has on the incident rate of an event occurrence. More specifically, take the coefficient for income in Table 6 as an example. This would be interpreted as a one-unit increase in income (in dollars) has a 0.858 times impact on the incident events of debt (in dollars).

(IRR=0.858\*\*\*, SE=0.030)<sup>18</sup>. A one-year increase in age was related to a 9.5% decrease in the incident rate of reporting debt in dollars (IRR=0.905\*\*\*, SE=0.018).

**Table 6.** Negative Binomial Model of Amount of Debt at PR1, N=516

	<b>IRR</b>	<b>RSE</b>
Income at PR1	0.858***	0.030
Age at release	0.905***	0.018
African American	1.612	0.957
Other race	0.348	0.254
Education	1.528**	0.212
Employed at PR1	13.119***	7.417
Married	0.901	0.415
Hard drug abuse	4.495**	2.284
Age 1 <sup>st</sup> arrest	1.085*	0.040
Prior Convictions	1.016	0.050
Drug offense	3.321*	1.615
Violent Offense	0.501	0.239
Supervised at PR1	19.600***	9.716
Illinois	0.013***	0.008
Ohio	4.512**	2.290

\*p<.05; \*\*p<.01; \*\*\*p<.001

IRR=incidence rate ratio, RSE=robust standard error.

Reference categories: for black and other race is white; drug and violent offense is property offense; IL and OH is Texas.

Subjects interviewed at the first post-release interview occurring approximately 2 months after release. Predictor variables are measured at baseline (pre-release) unless otherwise noted.

Model weighted to address subject attrition using inverse probability weights.

<sup>18</sup> Indeed there are many respondents (507) who reported \$0/hr. in this continuous variable. This was deemed not to be problematic in these analyses given both that the variable behaves as theoretically expected in the model, and also because a sensitivity model was estimated that measured income as binary (1=any income, 0=no income) and the coefficient was significant and in the same direction as the continuous variable.



## Count Model Predicting Changes in Amount of CJ Debt by PR2

Table 7 displays the results of the model predicting the amount of debt owed in dollars at PR2. Similar to the logistic model in Table 5 above, this model controls for the amount of debt owed at PR1. As such, the model predicts factors that shape changes in the amount of debt owed between PR1 and PR2. Consistent with the previous models, the effect of being under supervision is significant and extremely large (IRR=103.309\*\*\*, SE=96.559). Similar to the last model, being employed increased the incidence rate 17-fold for reporting more in debt. A race effect appeared in this model: African Americans, compared with whites, were significantly more likely to report changes (increases) in the amount of debt owed since the previous interview (IRR=3.913\*, SE=2.382)—a finding to which I will return in the discussion section. Education level was again significantly and positively related to increases in debt amounts owed (IRR=2.189\*\*\*, SE=0.400).

There were several factors negatively related to reporting increases in debt: an increase in income was associated with a 27% reduction in the incidence rate for reporting debt in dollars (IRR=0.729\*\*, SE=0.076), a one-year increase in age was linked with a 9.5% decrease in the IRR for debt in dollars (IRR=0.905\*\*, SE=0.034), a one-year increase in age-at-first-arrest was related to an 8.5% reduction in the incidence rate (IRR=0.915\*, SE=0.034), having been most recently incarcerated for a drug offense (compared to a property offense) was associated with a 72% decrease in the incidence rate (IRR=0.284\*, SE=0.174), and having been most recently incarcerated for a violent offense was linked with a 93% reduction in the incidence rate of debt in dollars (IRR=0.070\*\*\*, SE=0.051). Finally, though small in effect, there was significant

variation in changes in amounts of debt along state lines (Illinois vs. Texas; IRR=0.004\*\*\*, SE=0.004).

**Table 7.** Negative Binomial Model of Changes in Amount of Debt PR1-PR2, N=453

	<b>IRR</b>	<b>RSE</b>
Amount Debt at PR1	1.002***	0.000
Income at PR1	0.729**	0.076
Age at release	0.905**	0.034
African American	3.913*	2.382
Other race	1.441	1.597
Education	2.189***	0.400
Employed at PR1	17.441**	18.586
Married	1.905	1.332
Hard drug abuse	1.045	0.413
Age 1 <sup>st</sup> arrest	0.915*	0.034
Prior Convictions	0.932	0.037
Drug offense	0.284*	0.174
Violent Offense	0.070***	0.051
Supervised at PR1	103.309***	96.559
Illinois	0.004***	0.004
Ohio	1.329	0.778

\*p<.05; \*\*p<.01; \*\*\*p<.001

IRR= incidence rate ratio, RSE=robust standard error.

Reference categories: for black and other race is white; drug and violent offense is property offense; IL and OH is Texas.

Subjects interviewed at the second post-release interview occurring approximately 8 months after release. Predictor variables are measured at baseline (pre-release) unless otherwise noted.

Model weighted to address subject attrition using inverse probability weights.

## **Structural Equation Modeling Results—Research Questions 2-4**

### **Measurement Modeling via Confirmatory Factor Analysis**

Table 8 displays the results of confirmatory factor analytic models for the endogenous latent variables depression, financial strain, and family conflict. Family conflict and financial strain were modeled using a standard unidimensional factor structure whereby one underlying factor of family conflict or financial strain impacts the items directly. As indicated in the table, all of the items loaded strongly or fairly strongly and significantly onto the underlying factors. In addition, factor loadings are generally very strong; none are below a threshold of 0.5, which has been identified as a cutoff (Hair, Black, Babin, & Anderson, 2009). Although items are listed 1 through 7 in Table 8 for the three latent constructs (depression, financial strain, family conflict), each construct has their own set of distinct item indicators that are listed below. Each item number corresponds to numbers 1 through 7 in Table 8.

#### **Financial Strain**

- 1=trouble keeping housing since release
- 2=trouble getting food for family/self since release
- 3=barely enough money to get by since release
- 4=conflicts with friends of family because didn't have enough money since release

#### **Family Conflict**

- 1=respondent fights a lot with family members
- 2= respondent disappoints family
- 3=respondent is criticized by family

#### **Depressive symptoms (4 sub-factors)**

- 1=depressed affect
- 2=positive affect
- 3=somatic complaints
- 4=disturbed relationships

**Depressed Affect**

- 1= could not shake off the blue even w/ help from family
- 2= felt depressed
- 3= thought life had been a failure
- 4= felt fearful
- 5= felt lonely
- 6= had crying spells
- 7= felt sad

**Positive Affect**

- 1= felt just as good as other people
- 2= felt hopeful about the future
- 3= I was happy
- 4= I enjoyed life

**Somatic Complaint**

- 1= bothered by things that usually don't bother me
- 2= didn't feel like eating/appetite was poor
- 3= has trouble keeping mind on what I was doing
- 4= felt everything I did was an effort
- 5= sleep was restless
- 6= talked less than usual
- 7= could not get going

**Disturbed interpersonal relationships:**

- 1= people were unfriendly
- 2= felt people disliked me

**Table 8.** Standardized Factor Loadings for Latent Constructs via CFA

<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Depressive Symptoms (DS)	.989***	.716***	.952***	.851***	--	--	--
Depressed Affect (DA)	.852***	.867***	.760***	.798***	.718***	.847***	--
Positive Affect (PA)	.583***	.698***	.861***	.866***	--	--	--
Somatic Complaints (SC)	.759***	.649***	.760***	.346***	.770***	.644***	.774***
Disturbed Relationships (DR)	.861***	.862***	--	--	--	--	--
Financial Strain	.781***	.884***	.653***	.628***	--	--	--
Family Conflict	.698***	.562***	.946***	--	--	--	--

\*\*\*p &lt; .001

Note: although items are listed 1 through 7 for the three latent constructs (depression, financial strain, family conflict), each construct has their own set of distinct item indicators. Family conflict and family strain were modeled as unidimensional CFAs. Depressive Symptoms (DS) was best measured as a higher-order factor model whereby a single higher-order factor affects 4 lower-order latent factors, which, in turn, affect the individual items.

Regarding the financial strain construct, one of the five items originally proposed was dropped from the CFA model. The item “Have you worried about surviving financially since release?” showed that it did not correlate well with the other four items. Examining the items together, this appeared to make sense as this item captured a degree of emotion (worry), whereas the remaining four items captured material problems such as trouble finding housing, trouble paying bills, etc., which did not have a concomitant “worry” component.

The model for depression, however, did not fit well under a unidimensional factor structure ( $CFI < .90$ ). Therefore, I consulted the psychological and epidemiological literatures and found that a “higher order model” has shown to be a better fit in previous analyses compared to a unidimensional model (Edwards & Cheavens, 2010). This higher order model has a broad factor of depression that affects four latent factors within the construct: depressed affect (DA), positive affect (PA), somatic complaints (SC), and disturbed relationships (DR). These four factors in turn affect the individual survey items. When replicated with the Returning Home data, this higher order model, as indicated in the next section, also showed to be a better fit than a unidimensional factor structure. As Table 8 shows, all depression items loaded significantly and fairly strongly onto the underlying constructs.

Based on the idea of the generality of deviance, I explored whether I could create the self-reported acquisitive crime variable as a latent factor. However, upon modeling this construct, it became apparent that the items together could not adequately capture a single factor, indicating that there is likely not an underlying criminality that can account for the incidence of these five behaviors. This is an interesting finding in and of itself. As

indicated in the Methods section, this construct was ultimately modeled as an observed dichotomous variable.

### **Model Fit for Individual Latent Constructs**

Table 9 displays the results the model fit index analyses for the three latent constructs. Standard cutoffs for good-fitting CFA models are as follows: CFI and TLI >0.95; RMSEA<0.06. For the RMSEA, a cutoff of <0.08 has been described as indicating reasonable or acceptable fit (MacCallum, Browne, & Sugawara, 1996). Based on these criteria, model results indicate that the models generally fit very well. Regarding depressive symptoms, the model fit indices for the higher order model indicated a very good-fitting model (RMSEA=0.038; TLI=0.98; CFI=0.98). Similarly, the financial strain CFA showed very good fit along most indices (RMSEA=0.07; CFI=0.97; TLI=0.99). This is a good indication that there may indeed be a single underlying factor for financial strain and that future research may wish to model this construct using a latent variable approach.

**Table 9.** Model Fit Statistics for CFA-derived Latent Constructs and Collective Measurement Model

	<b>RMSEA</b>	<b>TLI</b>	<b>CFI</b>
Depressive Symptoms	0.04	0.98	0.98
Family Conflict	--	--	--
Financial Strain	0.07	0.97	0.99
Collective Measurement Model	0.03	0.98	0.98

Notes: RMSEA= Root Mean Squared Error of Approximation, TLI= Tucker-Lewis Index, CFI= Comparative Fit Index. Standard cutoffs for good-fitting CFA models are as follows: CFI and TLI >0.95; RMSEA<0.06 (Hu & Bentler, 1999). For the RMSEA, a cutoff of <0.08 has been described as indicating reasonable or acceptable fit (MacCallum et al., 1996). The collective measurement model is a model that estimates all three CFAs simultaneously and was assessed after each individual latent construct was deemed to have good fit. Depressive symptoms is modeled as a higher order factor model and financial strain and family conflict are modeled as unidimensional constructs.

With respect to family conflict, only three indicators were available in the data for the construct. As such, it is a just-identified rather than an over-identified model. Therefore, fit statistics are not available as models need to be over-identified to test measurement models (Acock, 2013; Kline, 2005). In effect, rather than testing a measurement model, this variable uses CFA to describe the family conflict construct (Acock, 2013).

### **Collective Measurement Model**

After constructing depressive symptoms and financial strain models that were good-fitting and determining that family conflict is a just-identified model, I ran all three factor analytic models to test a collective measurement model. This approach estimated all three factors simultaneously. The purpose of this model was to examine whether fit issues emerged when all the factors were present in one analysis, such as issues with items significantly cross-loading onto other constructs (Acock, 2013). Model fit indices indicate no issues when all three constructs appear in the same model. In fact, fit statistics showed very strong support for this collective measurement approach (RMSEA=0.03; CFI=0.98; TLI=0.98).

### **Saturated and Nested Structural Measurement Model Results**

The first structural model I estimated was the saturated model whereby all the covariates in the model are correlated with one another. At the same time, I estimated the reduced, more parsimonious theoretical model that is nested within the saturated model. This is my theoretical model that has several pathways constrained to zero compared to the saturated model. The analysis used the weighted least squares means and variances (WLSMV) estimator as this is required for chi-squared difference testing capabilities.



Initially, the chi-squared difference test indicated that my theoretical model did not fit well relative to the saturated model wherein all possible pathways are freely estimated ( $p < .05$  for chi-squared difference test). This indicated that my theoretical model fit the data significantly worse than the saturated model. As such, I requested and examined the Mplus model modification indices and engaged in model building to examine which pathways should be added to the model so that adequate fit could be achieved. After the following five specific paths were added to the model the chi-squared difference test was no longer significant: depression  $\rightarrow$  self-report crime; family conflict  $\rightarrow$  arrests; family conflict  $\rightarrow$  depression; family conflict  $\rightarrow$  financial strain; family conflict  $\rightarrow$  self-report crime (chi-squared=9.826; 7 degrees of freedom;  $p=0.19$ ). This result indicates that this new adjusted reduced model does not fit significantly worse than the saturated model. The 7 degrees of freedom in the chi-squared difference test indicates that my theoretical model has 7 pathways constrained to zero compared to the saturated model. In other words, those 7 pathways are not statistically essential and can be constrained. In sum, having fewer pathways but not significantly worse fit than the saturated model means my reduced theoretical model can be preferred to the saturated model on the basis of parsimony.

### **Hybrid SEM Results**

Table 10 and Table 11 show the results when I added structural paths to the model. Because there are so many endogenous variables in this analysis, I have broken the tables into two types of outcomes: criminal justice outcomes (reincarceration, supervision status, arrest, self-reported crime) and non-criminal justice outcomes (depression, family conflict, financial strain). Thus, Table 10 contains criminal justice

outcomes and Table 11 contains non-criminal justice outcomes. This represents the main theoretical model (including all covariates) proposed as the main SEM analysis in the dissertation. The key debt variable in this model is binary and measures whether the person responded “yes” to having debt from any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. These findings use the WLSMV estimator that uses pairwise present as the default method for addressing missing data. (Note: WLSMV models produce probit coefficients.) Findings of the model using multiple imputation (tables located in the appendices) largely echo the findings from the WLSMV models.

I begin by reviewing the probit coefficients in the WLSMV model related to research questions two through four on the impacts of debt in reentry, followed by a review of the other significant or interesting coefficients in the model. The results presented in the tables are standardized coefficients (in Mplus output: STDY for binary predictors and STDYX for continuous predictors).<sup>19</sup> Below the table, in Figure 3, is the conceptual model with the significant coefficients from the model. The first thing of note is that there is a significant and strong effect of being in debt on supervision status (i.e., probation/parole/mandatory supervision) at PR2. Those who reported having debt at PR1 were much more likely to be under community supervision at PR2 ( $b=1.016^{***}$ ,  $SE=0.097$ ). With respect to the other endogenous outcomes, the impact of having debt

---

<sup>19</sup> STDYX results are presented for continuous predictors and are interpreted as a change in Y in Y standard deviation units for a standard deviation change in X. For binary predictors, the STDY results are reported as a standard deviation change of a binary X variable is not meaningfully interpretable. STDY coefficients can be interpreted as a change in Y in Y standard deviation units when X changes from zero to one (Muthen & Muthen, 2011).

did not significantly affect reincarceration, likelihood of arrest, or self-reported acquisitive crime.

I present the remaining significant coefficients of the model by outcome. Regarding reincarceration, there appears to be a significant and strong impact of being under criminal justice supervision on reincarceration ( $b=0.559^{***}$ ,  $SE=0.147$ ). Although I have yet to decompose the effects of the model and examine indirect pathways, this hints at the possibility of an indirect chain whereby having debt increases the likelihood of being on supervision which in turn increases the likelihood of reincarceration (debt  $\rightarrow$  on supervision  $\rightarrow$  reincarceration).

With respect to predictors of being under community supervision, education ( $b=-0.100^{**}$ ,  $SE=0.035$ ) and being convicted of a drug offense ( $b=-0.366^{**}$ ,  $SE=0.140$ ) were both significantly negatively associated with supervision status. The covariates capturing state context were the only variables positively related to supervision status: former prisoners from Illinois or Ohio, compared to Texas, were more likely to report being under supervision at PR2 ( $b=1.774^{***}$ ,  $SE=0.114$  and  $b=0.324^{**}$ ,  $SE=0.117$ , respectively).

**Table 10.** Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on Criminal Justice Endogenous Variables (WLSMV), N=648

	Reincarcerated		Supervised PR2		Arrest		SR Crime	
	Std b	SE	Std b	SE	Std b	SE	Std b	SE
Depression	-0.024	0.096	--	--	--	--	0.237**	0.068
Family Conflict	-0.004	0.114	--	--	0.083	0.077	0.225**	0.085
Financial Strain	0.004	0.115	--	--	--	--	--	--
Any Debt at PR1	-0.457	0.261	1.016***	0.097	0.015	0.161	-0.155	0.178
Supervised PR2	0.559***	0.147	--	--	0.022	0.081	--	--
Arrest	0.327	0.241	--	--	--	--	--	--
Self-report crime	0.285	0.265	--	--	0.679***	0.092	--	--
Age at release	0.010	0.118	0.164	0.069	0.095	0.092	-0.305**	0.100
White	0.398	0.226	-0.108	0.137	0.060	0.207	-0.298	0.264
Married	0.037	0.214	-0.139	0.127	-0.163	0.171	0.182	0.216
Education	0.031	0.062	-0.100**	0.035	-0.024	0.053	-0.015	0.059
Drug Abuse	0.199	0.193	-0.151	0.114	-0.178	0.157	0.472**	0.183
Drug Offense	0.264	0.196	-0.366**	0.140	0.151	0.148	-0.181	0.171
Violent Offense	-0.487 <sup>^</sup>	0.270	0.164	0.148	-0.019	0.186	-0.124	0.218
Age 1 <sup>st</sup> arrest	0.144	0.098	-0.009	0.055	-0.032	0.090	-0.134	0.112
Prior Convictions	-0.051	0.216	-0.113	0.133	0.097	0.124	0.047	0.091
# Mos. incarcerated	0.033	0.092	-0.104	0.055	-0.111	0.067	0.155*	0.073
Illinois	-0.231	0.370	1.774***	0.114	0.091	0.254	-0.254	0.262
Ohio	-0.043	0.227	0.324**	0.117	-0.206	0.161	0.143	0.204
Reinc. Pre-PR2			0.114	0.250	1.046***	0.252	0.846***	0.230

Two-tailed tests: <sup>^</sup>p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Chi-squared value for difference testing: 9.826, 7 degrees of freedom, p > .05. RMSEA=.023; TLI=.97; CFI=.96.

Probit coefficients displayed. Blank cells either represent theoretical pathways constrained to zero in the model and not required as indicated by the model modification indices, or represent non-estimated relationships between criminal justice endogenous variables and themselves. Key debt variable (any debt) is binary and represents whether the respondent reported owing debt to any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense.

Examining the rearrest outcome, the effect of self-reporting criminal behavior and being reincarcerated<sup>20</sup> were strongly associated with being rearrested ( $b=0.679^{***}$ ,  $SE=0.092$  and  $b=1.046^{***}$ ,  $SE=0.252$ , respectively).<sup>21</sup> There were several significant predictors of self-reported acquisitive crime. First, the latent constructs of depression and family conflict were both positively related to self-reported crime ( $b=0.237^{**}$ ,  $SE=0.068$  and  $b=0.225^{**}$ ,  $SE=0.085$ , respectively). Other than that, hard drug use ( $b=0.472^{**}$ ,  $SE=0.183$ ), months incarcerated ( $b=0.155^*$ ,  $SE=0.073$ ), and reincarceration before PR2 ( $b=0.846^{***}$ ,  $SE=0.230$ ) were all significantly and positively related to self-reported acquisitive crime. As expected, age was significantly negatively associated with self-reported crime ( $b=-0.305^{**}$ ,  $SE=0.100$ ).

---

<sup>20</sup> The reincarceration control variable was entered into the model as a control analogous to “time on the street” variables that are sometimes used in reentry research, as the amount of time one is out of incarceration and on the streets affects certain outcomes. I ran sensitivity models that excluded the reincarcerated before PR2 interview variable (reinc pre-PR2) to see if controlling that artificially ate up too much variation in some of the outcomes, especially the arrest and self-report outcomes, which may then make it more difficult for the debt variables to show significant effects. The results with this removed are similar, and there is still no significant effect of debt on any of the outcomes other than supervision status. The significant effects of supervision status on reincarceration also persisted in this model.

<sup>21</sup> The finding that self-reported crime significantly and strongly predicts self-reported rearrests suggests a degree of validity for these measures.

**Table 11.** Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on non-Criminal Justice Endogenous Variables (WLSMV), N=648

	Family Conflict		Depressive Symptoms		Financial Strain	
	Std b	SE	Std b	SE	Std b	SE
Depression	--	--	--	--	--	--
Family Conflict	--	--	0.320***	0.059	0.545***	0.051
Financial Strain	--	--	0.178**	0.066		
Any Debt at PR1	0.028	0.121	0.015	0.103	-0.108	0.118
Supervised PR2	--	--	--	--	--	--
Arrest	--	--	--	--	--	--
Self-report crime	--	--	--	--	--	--
Age at release	-0.041	0.061	0.000	0.005	0.001	0.006
White	0.262 <sup>^</sup>	0.146	0.098	0.157	0.015	0.150
Married	-0.060	0.130	0.068	0.118	-0.030	0.143
Education	0.008	0.033	-0.013	0.032	-0.069*	0.034
Drug Abuse	0.352***	0.106	-0.112	0.101	0.119	0.115
Drug Offense	0.253*	0.113	-0.110	0.123	-0.006	0.132
Violent Offense	-0.063	0.137	-0.148	0.122	-0.211	0.148
Age 1 <sup>st</sup> arrest	-0.004	0.007	0.004	0.007	0.083	0.055
Prior Convictions	-0.001	0.008	0.006	0.010	0.003	0.008
# Mos. incarcerated	-0.014	0.013	0.003	0.012	0.013	0.014
Illinois	-0.520***	0.139	-0.799***	0.156	0.123	0.161
Ohio	0.220	0.123	-0.261**	0.099	0.000	0.137
Reinc. Pre-PR2	0.351	0.170	0.414	0.205	-0.265	0.199

Two-tailed tests: <sup>^</sup>p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001.

Chi-squared value for difference testing: 15.082, 8 degrees of freedom, p > .05.

RMSEA=.024; TLI=.97; CFI=.97.

Weighted least squares means and variances adjusted (WLSMV) estimator produces probit coefficients. Blank cells represent theoretical pathways not specified by the model and not required as indicated by the model modification indices, or the unestimated relationships between non-criminal justice endogenous variables and themselves. All endogenous non-CJ variables are measured as latent constructs. Key debt variable (any debt) is binary and represents whether the respondent reported having debt from any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense.

Model is weighted using inverse probability weights to account for differences between the initial and analysis samples due to subject attrition.

Pivoting to the non-criminal justice outcomes in Table 11, those with serious substance abuse issues (b=0.352\*\*\*, SE=0.106), and those convicted of drug offenses, as

opposed to property or violent offenses ( $b=0.253^*$ ,  $SE=0.113$ ), were significantly more likely to report higher levels of family conflict. Only state context—Illinois in contrast to Texas—was significantly negatively associated with family conflict ( $b=-0.520^{***}$ ,  $SE=0.139$ ). In terms of the depression outcomes, family conflict and financial strain were positively associated with levels of depression ( $b=0.320^{***}$ ,  $SE=0.059$  and  $b=0.178^{**}$ ,  $SE=0.066$ , respectively). Other than that, only state context variables were negatively associated with levels of depression ( $b=-0.799^{***}$ ,  $SE=0.156$  and  $b=-0.261^{**}$ ,  $SE=0.099$  for Illinois and Ohio, respectively, in contrast to Texas). Finally, looking at predictors of financial strain, family conflict was positively and strongly associated with levels of financial strain ( $b=0.545^{***}$ ,  $SE=0.051$ ). Only one other covariate, education, was significantly negatively associated with financial strain ( $b=-0.069^*$ ,  $SE=0.034$ ).

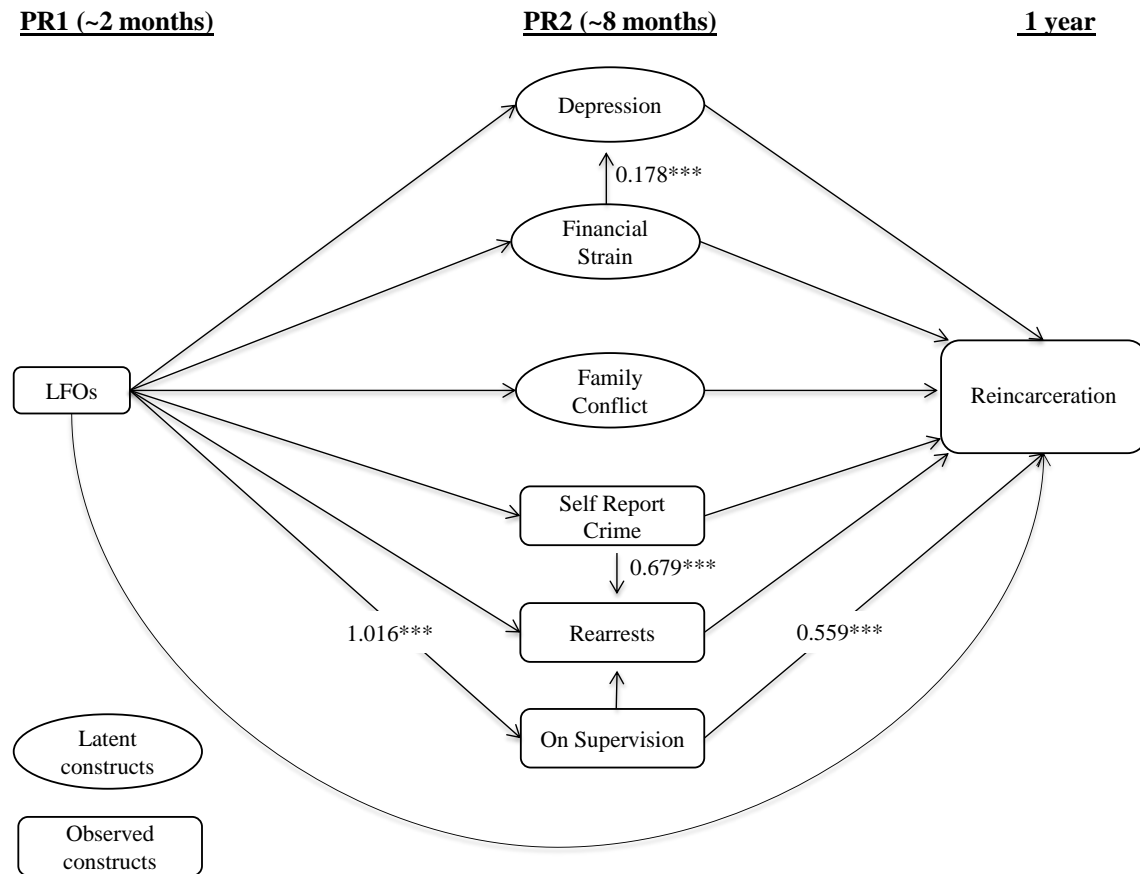
Figure 3 below highlights the significant paths of this model within the original conceptual model proposed in this dissertation (significant paths in red). Other significant coefficients of the model that are unrelated to the research questions are omitted from this graphic for ease of interpretation.

Table 17 and Table 18 in Appendix D and E display the results of the same model estimated with multiple imputation.<sup>22</sup> The results of this model presented in Table 17 are nearly identical to the WLSMV model in Table 10, with debt strongly predicting an increase in the likelihood of being under supervision later in time ( $b=1.041^{***}$ ,

---

<sup>22</sup> Multiple imputation analysis was employed using chained equations in Mplus14 software. Five imputed datasets were created in the process and the SEM results are pooled results across the five datasets. Multiple imputation analyses are carried out using maximum likelihood; therefore, logit coefficients are produced. Standardized logit coefficients are reported for binary (STDY) and continuous (STDYX) predictors in the tables in the appendices.

SE=0.090). As in the previous model, there are no other significant effects of debt on any other criminal justice outcomes.



**Figure 3.** Significant Paths of the Hybrid SEM Model

There were several other significant predictors of being under criminal justice supervision at PR2 in the MI model. Contrary to expectations, given the well-known age-crime relationship, increases in age were associated with an increase in the likelihood of being under supervision ( $b=0.134^*$ ,  $SE=0.057$ ). Violent offenders were also more likely than property offenders to be supervised ( $b=0.313^*$ ,  $SE=0.132$ ). Apart from that, only state context variables showed significant, positive associations with supervision status. Two variables were negatively associated with supervision status, including education



level ( $b=-0.081^*$ ,  $SE=0.034$ ), and number of months incarcerated during the most recent prison term ( $b=-0.031^*$ ,  $SE=0.015$ ).

The MI model again showed very similar results with respect to reincarceration, as being under supervision at PR2 was strongly associated with an increase in the likelihood of incarceration during the time between PR2 and one year post release ( $b=0.484^{**}$ ,  $SE=0.172$ ). One minor change in this model is that this effect is significant at  $p<.01$ , and in the WLSMV model it is significant at  $p<.001$ .

Examining the arrest outcome, as expected, self-reported acquisitive crime was significantly and strongly associated with reporting being arrested ( $b=0.734^{***}$ ,  $SE=0.081$ ). Reincarcerated status between release and PR2 was also significantly related to arrest ( $b=0.907^{***}$ ,  $SE=0.256$ ). Depression and family conflict both positively and significantly predicted self-report crime ( $b=0.253^{***}$ ,  $SE=0.071$  and  $b=0.256^{**}$ ,  $SE=0.083$ , respectively). As in the rearrest equation, reincarcerated status also significantly predicted self-reported crime. In terms of predictors negatively related to self-report crime, as expected, increases in age were associated with significant decreases in the likelihood of reporting committing crimes ( $b=-0.234^*$ ,  $SE=0.093$ ).

Table 18 presents the results of debt and covariates on the non-criminal justice endogenous outcomes using MI. As in the WLSMV model, debt did not show any significant effects on any of these outcomes. Race (white status) ( $b=0.342^*$ ,  $SE=0.134$ ), having a hard drug problem ( $b=0.351^{***}$ ,  $SE=0.096$ ), and being incarcerated most recently for a drug offense ( $b=0.231^*$ ,  $SE=0.103$ ) were significantly and positively associated with levels of family conflict. Former prisoners from Illinois, as opposed to

Texas, reported significantly lower levels of family conflict at PR2 ( $b=-0.594^{***}$ ,  $SE=0.124$ ).

Both family conflict and financial strain were significantly and positively related to depressive symptoms ( $b=0.314^{***}$ ,  $SE=0.059$  and  $b=0.212^{***}$ ,  $SE=0.062$ , respectively). Former prisoners released in Ohio and Illinois reported lower levels of depression compared to those released in Texas ( $b=-0.540^{**}$ ,  $SE=0.175$  and  $b=-1.388^{***}$ ,  $SE=0.286$ , respectively).

The final endogenous outcome in this model is financial strain. Only two variables significantly predicted financial strain: family conflict ( $b=0.546^{***}$ ,  $SE=0.050$ ), and being from Illinois, as compared to Texas ( $b=0.577^*$ ,  $SE=0.295$ ).<sup>23</sup>

The full models displayed in Table 10 through Table 18 were also estimated using a very computationally complex multiple imputation model with bootstrap standard errors (1000 draws). This model eventually converged after seven hours. The key finding of a significant effect of debt on supervision status remained strong and significant in this model ( $b=1.099^{***}$ ,  $SE=0.085$ ). In addition, the effect from supervision status to reincarceration also remained strong, positive, and significant ( $b=0.514^*$ ,  $SE=0.217$ ). I chose to present the IPW-weighted multiple imputation models over the imputation

---

<sup>23</sup> The above models presented in Table 10 through Table 18 were also run using the more conservative listwise deletion approach. Results were substantively very similar, especially with respect to the significant effect of debt on supervision status. There were a few predictors that missed significance in this model, which was expected given the loss of cases and therefore reduction in statistical power ( $N=568$  in the listwise deletion model versus  $N=648$  in the pairwise present model and  $N=740$  in the multiple imputation model). The pairwise present and multiple imputation models are arguably better techniques of addressing missing data, which is why those models are presented as the main findings. The present model, likely because of its complexity, would not converge using the full information maximum likelihood estimator.

models with bootstrap standard errors because the bootstrap procedure does not allow for sampling weights in the analysis. In this way, the bootstrapped multiple imputation models are limited in that they do not address sample non-representativeness due to attrition in the way that the IPW-weighted models do. This decision was made easier given the findings between the bootstrapped and non-bootstrapped models were similar.

### **Hybrid Models Controlling Supervision Status at PR1**

In light of the above results that consistently indicated significant relationships involving debt and supervision status, I estimated the model where supervision status at PR1 was controlled in the equations predicting supervision status at PR2. In adding this stability coefficient to the model, the PR2 supervision outcome conceptually transforms to *changes* in supervision status between PR1 and PR2. Therefore, the covariates in this model, including owing debt, now predict changes in supervision status. This addition makes for a fairly strict test of the effect of earlier debt on changes in later supervision status. These results are displayed below in Table 12.

Examining the effect of debt on changes in supervision status between PR1 and PR2, a similar effect of debt remains, although the significance level slightly missed conventional alpha levels ( $b=0.280$ ,  $SE=0.158$ ,  $p=0.06$ ). As expected, supervision status strongly predicted itself. Like the other models, debt had no significant impact on any other outcome. Glancing at the reincarceration outcome, supervision status continued to have a significant, positive impact on reincarceration ( $b=0.334^*$ ,  $SE=0.136$ ). Table 19 shows the results of the same model estimated with MI. Results are largely similar to those in Table 12, especially with respect to the effect of debt on changes in supervision status ( $b=0.271$ ,  $SE=0.147$ ,  $p=0.065$ ) and supervision status on reincarceration

( $b=0.301^*$ ,  $SE=0.154$ ). Because these models differ from the above on only one level (adding in prior supervision status), it is not surprising that the remaining significant results are similar to previous models.

The results thus far suggest that debt likely does play a role in whether or not a person stays under criminal justice supervision in the reentry process. However, in the models controlling prior supervision status (Table 12 and Table 19), the effect missed significance at the  $p<.05$  level, though very slightly ( $p=0.06$ ). Further, theoretically, it may make sense that outstanding debt that is owed specifically to probation and parole may be more important in keeping the former prisoner under formal supervision, as compared with debts owed to other entities, such as fines, court processing, or drug testing fees. This is based on the argument that there is a financial incentive for criminal justice supervision agencies to keep debtors in their system until they receive the maximum amount of money they are owed (Albin-Lackey, 2014; Katzenstein & Waller, 2015; Logan & Wright, 2014; U.S. Department of Justice, 2015). Taken together, it may make sense that debts specific to supervision agencies, as opposed to other debts, are driving the phenomenon whereby being in debt keeps one under supervision. Below, in Table 13 and Table 20, I examine this possibility by inserting a debt variable that solely captures debt owed to supervisory bodies.

**Table 12.** Weighted Model Results Examining Debt on Changes in Criminal Justice Supervision Status using WLSMV Estimator, N=648 (non-CJ outcomes omitted from table)

	Reincarcerated		Supervised PR2		Arrest		SR Crime	
	Std. b	SE	Std. b	SE	Std. b	SE	Std. b	SE
Depression	-0.035	0.095	--	--	--	--	0.232***	0.068
Family Conflict	-0.025	0.115	--	--	0.084	0.077	0.229**	0.085
Financial Strain	0.052	0.114	--	--	--	--	--	--
Any Debt at PR1	-0.227	0.265	0.280^	0.158	0.000	0.167	-0.195	0.190
Supervised PR2	0.334*	0.136	--	--	-0.055	0.086	--	--
Supervised PR1	--	--	1.688***	0.112	--	--	--	--
Arrest	0.319	0.211	--	--	--	--	--	--
Self-report crime	0.284	0.247	--	--	0.677***	0.095	--	--
Age at release	0.005	0.011	0.043	0.093	0.009	0.009	-0.309***	0.101
White	0.409^	0.239	-0.181	0.207	0.046	0.211	-0.300	0.264
Married	0.015	0.220	-0.088	0.217	-0.165	0.173	0.186	0.222
Education	0.004	0.063	-0.026	0.047	-0.024	0.053	-0.012	0.060
Drug Abuse	0.144	0.192	0.083	0.172	-0.167	0.158	0.474**	0.182
Drug Offense	0.187	0.198	-0.309	0.207	0.136	0.152	-0.179	0.170
Violent Offense	-0.386	0.269	-0.177	0.238	-0.035	0.187	-0.132	0.217
Age 1 <sup>st</sup> arrest	0.136	0.099	0.071	0.079	-0.023	0.091	-0.133	0.114
Prior Convictions	-0.082	0.228	-0.021	0.353	0.101	0.130	0.052	0.092
# Mos. incarcerated	0.011	0.095	-0.066	0.083	-0.113	0.071	0.157*	0.075
Illinois	0.236	0.328	0.466**	0.166	0.085	0.281	-0.317	0.312
Ohio	-0.050	0.243	0.353*	0.151	-0.185	0.181	0.123	0.219
Reinc. Pre-PR2	--	--	0.087	0.334	1.040***	0.253	0.838***	0.226

Two-tailed tests: ^p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Probit coefficients displayed. Blank cells either represent theoretical pathways constrained to zero in the model and not required as indicated by the model modification indices, or represent non-estimated relationships between criminal justice endogenous variables and themselves. Key debt variable (any debt) is binary and represents whether the respondent reported owing debt to any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense. RMSEA=.022; TLI=.97; CFI=.97.

## Hybrid Models Exploring Supervision Debt on Criminal Justice Outcomes

Table 13 displays the results of the model using debt stemming solely from supervision fees as the main predictor. Looking at the coefficient for supervision debt, it shows that there is a strong and significant positive association between having supervision debt and supervision status ( $1.487^{***}$ ,  $SE=0.115$ ). This coefficient is larger than the coefficients from the debt variable that captured any debts in the previous models. Similar to previous models, age was significantly and positively associated with being under supervision ( $b=0.127^*$ ,  $SE=0.064$ ). Education was inversely related to being under supervision ( $b=-0.086^*$ ,  $SE=-0.020$ ). Other than that, only state context variables were significant in predicting variation in supervision status ( $b=1.739^{***}$ ,  $SE=0.019$  and  $b=0.496^{***}$ ,  $SE=0.245$  for Illinois and Ohio, respectively, compared to Texas). Model fit:  $RMSEA=.024$ ;  $TLI=.96$ ;  $CFI=.97$ .

**Table 13.** Weighted Model Results Examining Debt from Supervision Fees on Criminal Justice Outcomes using WLSMV Estimator, N=648 (non-CJ outcomes omitted from table)

	Reincarcerated		Supervised PR2		Arrest		SR Crime	
	Std. b	SE	Std. b	SE	Std. b	SE	Std. b	SE
Depression	-0.030	0.109	--	--	--	--	0.240***	0.068
Family Conflict	-0.011	0.120	--	--	0.085	0.078	0.226**	0.084
Financial Strain	0.011	0.124	--	--	--	--	--	--
Supervision Debt	-0.724 <sup>^</sup>	0.404	1.487***	0.115	0.012	0.244	-0.279	0.175
Supervised PR2	0.659**	0.217	--	--	0.076	0.138	--	--
Arrest	0.281	0.750	--	--	--	--	--	--
Self-report crime	0.334	0.684	--	--	0.675***	0.094	--	--
Age at release	0.021	0.156	0.127*	0.008	0.009	0.008	-0.295**	0.098
White	0.455	0.279	-0.197	0.058	0.215	0.165	-0.280	0.265
Married	0.042	0.263	-0.140	0.145	0.17	0.169	0.187	0.219
Education	0.035	0.066	-0.086*	0.020	0.053	0.048	-0.021	0.057
Drug Abuse	0.200	0.257	-0.142	0.165	0.156	0.129	0.462*	0.185
Drug Offense	0.272	0.262	-0.296	0.168	0.155	0.134	-0.194	0.171
Violent Offense	-0.482 <sup>^</sup>	0.285	0.079	0.039	0.186	0.188	-0.078	0.226
Age 1 <sup>st</sup> arrest	0.119	0.101	0.040	0.005	0.013	0.010	-0.136	0.110
Prior Convictions	-0.079	0.207	-0.034	0.011	0.013	0.013	0.035	0.093
# Mos. incarcerated	0.016	0.135	-0.062	0.028	0.018	0.019	0.146*	0.074
Illinois	-0.324	0.459	1.739***	0.019	0.311	0.352	-0.292	0.254
Ohio	-0.205	0.316	0.496***	0.245	0.177	0.183	0.140	0.204
Reinc. Pre-PR2	--	--	0.119	1.045	0.255***	0.257	0.846*	0.351

Two-tailed tests: <sup>^</sup>p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Probit coefficients displayed. Blank cells either represent theoretical pathways constrained to zero in the model and not required as indicated by the model modification indices, or represent non-estimated relationships between criminal justice endogenous variables and themselves. All endogenous CJ variables are binary. Key debt variable (any debt) is binary and represents whether the respondent reported having debt from any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense.

Regarding reincarceration, this model also showed that supervision status was a strong and significant predictor of reincarceration ( $b=0.659^{**}$ ,  $SE=0.217$ ). The direct effect of having debt related to supervision fees on reincarceration, though strong, did not reach statistical significance ( $b=-0.724$ ,  $SE=0.404$ ). Because the only change to this model was swapping out the main debt predictor variable, the other findings in the model were largely unchanged from previous models. Debt from supervision fees did not show significant impacts on arrest, self-reported crime, family conflict, financial strain, or depression.<sup>24</sup> Figure 4 below displays the significant paths from Table 13 model that were associated with the research questions.

---

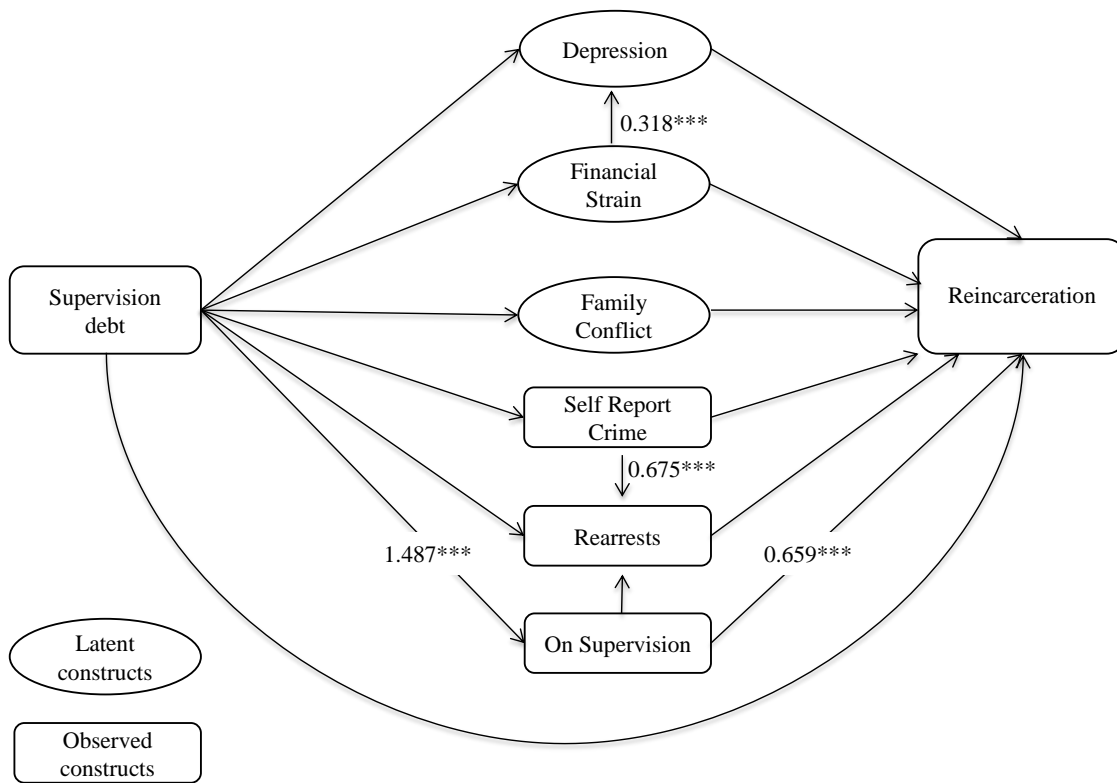
<sup>24</sup> Table 20 in Appendix G displays the results of the same weighted model estimated with multiple imputation. The effect of supervision debt on supervision status is almost identical to that of the model estimated without multiple imputation ( $b=1.493^{***}$ ,  $SE=0.105$ ). In terms of reincarceration, the effect of supervision status on reincarceration remained significant ( $b=0.417^*$ ,  $SE=0.215$ ). As in the results in Table 13, findings are similar across outcomes given the only change to this model is the addition of the debt from supervision fees predictor.<sup>24</sup>



PR1 (~2 months)

PR2 (~8 months)

1 year



**Figure 4.** Significant Paths of the Hybrid SEM Model—Supervision Debt

The analysis below in Table 14 displays the results of a model estimated using the subsample of only those under mandatory community supervision or parole at PR1. The main finding that having unpaid supervision debt increases the likelihood of being under supervision at PR2 remained significant and strong ( $b=0.779^*$ ,  $SE=0.389$ ). This indicates that—among all the respondents under community supervision at PR1—those with outstanding debt payments to their supervisory agency were more likely to report being under supervision at the next interview than the people who were not behind on payments, net of many other factors.<sup>25</sup> The coefficient for the effect of being under

<sup>25</sup> I also estimated this subsample analysis in Stata and the results also showed a significant effect of having supervision debt at PR1 on supervision status at PR2.

supervision at PR2 on reincarceration was not significant; however, this is to be expected given the model is a subsample of only those under supervision at PR1. In other words, most of the people selected into this model were also on supervision at PR2, so there were very few people *not* under supervision at PR2 with whom to compare the effect of supervision status on reincarceration.

The above models relied on a dichotomous indicator of owing criminal justice debt excluding child support. Debt variables for the total amounts of debt were created, but had serious limitations due to missing data. Still, the key models were estimated using these total amount scales as the key predictors. There were no significant findings when the total amount variables were used in the analysis. Similarly, I created a debt to income ratio variable using hourly wages as the income indicator. This model also did not show any significant impacts on any outcomes.<sup>26</sup> Taken together, these patterns suggest that— with respect to the main significant findings about debt and supervision status—that merely having a debt obligation in place is sufficient to trigger the supervision effect; one need not have huge sums of debt to remain under supervision.

---

<sup>26</sup> Another predictor variable was created that included child support as a legal financial obligation. This variable did not show significant impacts on any recidivism or other outcomes, which is line with some other recent research (Link & Roman, 2016).

**Table 14.** Weighted Model Results Examining Debt from Supervision Fees on Criminal Justice Outcomes Among Subsample of Those Under Supervision at PR1, N=505 (non-CJ outcomes omitted from table)

	Reincarcerated		Supervised PR2		Arrest		SR Crime	
	Std. b	SE	Std. b	SE	Std. b	SE	Std. b	SE
Depression	-0.072	0.258	--	--	--	--	0.247***	0.072
Family Conflict	-0.060	0.306	--	--	0.085	0.078	0.271***	0.068
Financial Strain	0.050	0.290	--	--	--	--	--	--
Supervision Debt	-0.313	1.511	0.779*	0.389	0.130	0.309	-0.313	0.248
Supervised PR2	0.323	1.786	--	--	-0.158	0.394	-0.009	0.135
Arrest	0.163	5.028	--	--	--	--	--	--
Self-report crime	0.591	4.326	--	--	0.678***	0.196	--	--
Age	0.007	0.022	0.005	0.015	0.001	0.011	-0.023^	0.013
White	0.649	0.921	-0.366	0.397	0.142	0.296	-0.449*	0.222
Married	0.189	0.609	-0.128	0.274	0.081	0.250	-0.307	0.296
Education	-0.076	0.253	0.027	0.101	-0.054	0.056	-0.017	0.064
Drug Abuse	0.053	0.238	0.025	0.321	0.006	0.160	0.224	0.189
Drug Offense	0.088	0.377	-0.213	0.323	0.117	0.195	-0.069	0.215
Violent Offense	-0.343	0.264	0.001	0.414	0.018	0.205	-0.238	0.228
Age 1 <sup>st</sup> arrest	-0.002	0.097	0.023	0.027	0.007	0.016	-0.025	0.017
Prior Convictions	-0.016	0.139	0.017	0.061	0.019	0.021	0.001	0.019
# Mos. incarcerated	0.007	0.222	-0.020	0.043	-0.033^	0.018	0.024	0.021
Illinois	0.280	2.040	0.930*	0.367	0.212	0.417	-0.228	0.411
Ohio	-0.069	0.344	0.637*	0.310	-0.007	0.435	0.475	0.318
Reinc. Pre-PR2	--	--	-0.257	4.845	1.051*	0.418	0.856	2.005

Two-tailed tests: ^p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Multiple imputation produces logit coefficients. Blank cells either represent theoretical pathways constrained to zero in the model and not required as indicated by the model modification indices, or represent non-estimated relationships between criminal justice endogenous variables and themselves. Key debt variable (any debt) is binary and represents whether the respondent reported having debt from any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense. RMSEA=.024; TLI=.97; CFI=.98

## Decomposing the Effects of Criminal Justice Debt

The analyses presented above show fairly consistent, significant temporal links between debt, being under criminal justice supervision, and reincarceration. The models wherein the effect of debt was the strongest were the ones in which debt attributed to supervision agencies in particular were used as the key exogenous variable. As such, in Table 15 and Table 21 (with multiple imputation), I show the results of decomposing the effects of supervision debt on reincarceration into specific indirect, total indirect, direct, and total effects (SIE, TIE, DE & TE). This analysis allowed for parsing out and assessing the strengths of mediated causal pathways.

The key finding presented in Table 15 is that there is a significant, strong indirect link whereby owing debt to supervision agencies leads to reincarceration via being under community supervision. The specific indirect effect for this link is  $b=0.979^{**}$ ,  $SE=0.330$ , which is calculated by multiplying the coefficient between debt and supervision status with the coefficient from supervision status to reincarceration. The total indirect effect of debt on reincarceration is  $b=0.874^{**}$ ,  $SE=0.324$ . Since none of the other five endogenous variables at PR2 showed significant links with debt at PR1 (i.e., none of the specific indirect effects are significant), this TIE of debt on reincarceration essentially is only capturing the specific indirect effect of debt  $\rightarrow$  supervision  $\rightarrow$  reincarceration. Interestingly, Mplus indicates that the total effect of debt on reincarceration is not significant ( $b=0.150$ ,  $SE=0.222$ ,  $p=0.497$ ). The reason this is likely occurring is that there is also a strong direct effect that is close to statistical significance ( $b=-0.724$ ,  $SE=0.404$ ,  $p=0.07$ ), but operates in the *opposite direction* as the significant indirect link. As such, because the indirect effect is positive and the direct effect is negative, in effect they cancel each other out

**Table 15.** Decomposing the Effects—Standardized Total, Total Indirect, Specific Indirect, and Direct Effects of Supervision Debt on Recidivism with WLSMV, N=648

Pathway	Estimate	SE	<i>p</i> value
Debt to reincarceration			
Total	0.150	0.222	0.497
Direct	-0.724	0.404	<b>0.073</b>
Total indirect*	0.874	0.324	<b>0.007</b>
Specific indirect (D→S→R)	0.979	0.330	<b>0.007</b>
Debt to self-reported crime			
Total	-0.202	0.178	0.111
Direct	-0.297	0.175	0.258
Total indirect	0.010	0.043	0.811
Specific indirect (D→DEP→C)	0.003	0.024	0.905
Specific indirect (D→FC→C)	0.017	0.028	0.555
Specific indirect (D→FC→DEP→C)	0.003	0.006	0.564
Specific indirect (D→FS→DEP→C)	-0.015	0.011	0.153
Specific indirect (D→FC→FS→DEP→C)	-0.279	0.175	0.111
Debt to rearrest			
Total	-0.050	0.136	0.715
Direct	0.012	0.244	0.960
Total indirect	-0.062	0.234	0.791
Specific indirect (D→S→A)	0.113	0.206	0.584
Specific indirect (D→C→A)	-0.188	0.120	0.118
Specific indirect (D→FC→A)	0.006	0.012	0.611
Specific indirect (D→FC→C→A)	0.011	0.019	0.552
Specific indirect (D→DEP→C→A)	0.002	0.016	0.905
Specific indirect (D→FC→DEP→C→A)	0.002	0.004	0.562
Specific indirect (D→FS→DEP→C→A)	-0.010	0.007	0.163
Specific indirect (D→FC→FS→DEP→C→A)	0.002	0.244	0.960

Abbreviations: D=Supervision Debt, R=Reincarceration, C=Self-reported Crime, A=Arrest, S=Supervised PR2, DEP=Depression, FC= Family Conflict, FS= Family Strain.

Standardized probit coefficients shown. Exogenous debt variable is binary and represents whether the respondent reported having debt specifically from supervision fees.

\*For presentation purposes, 19 non-significant ( $p > .10$ ) specific indirect pathways from debt to reincarceration are omitted from the table.

Model is weighted using inverse probability weights.

when Mplus calculates the total effect of debt on incarceration. This revelation underscores the value and importance of modeling theoretically relevant mediating mechanisms in path analysis. Without doing so, a basic regression model assessing the direct effect of debt on incarceration could miss two significant ways by which debt actually does impact incarceration, one direct, one indirect. This is noteworthy in and of itself as a methodological finding.

The model results show that there are no significant direct or indirect links between debt and self-reported crime or rearrest. The analysis also revealed (findings not presented in the tables) that debt has no mediated links with family conflict, depression, or financial strain. This is expected given the previous tables show no associations between debt and the non-criminal justice outcomes.

The MI results found in Table 21 with regard to the self-reported crime, arrest, and non-criminal justice outcomes are the same, with no significant indirect links uncovered. Regarding to the link between debt and reincarceration, the specific indirect effect of debt on incarceration via supervision status in this model is still strong ( $b=0.623$ ,  $SE=0.323$ ), but the significance level changes so it slightly misses the conventional alpha cutoff ( $p=0.054$ ). The direct effect of debt on incarceration in this model does not reach statistical significance.

### **Summary of Findings – Descriptive Analysis (RQ1)**

The most consistent and notable finding of the descriptive models was the very strong association between owing debt and being under criminal justice supervision. Significant links were found in all four types of models (logistic and negative binomial regression at PR1 and PR2). Further, results showed that associations persisted in models

where supervision status and debt were measured in the same wave (PR1) and in lagged models in which supervision status at PR1 predicted debt between PR1 and PR2. This indicates that being under supervision affected whether respondents were in debt and how much they owed in dollars (supervised → more debt), which is expected given that supervision agencies have various fees that are charged to probationers or parolees.

Apart from supervision and debt, there were a couple other consistent predictors of having debt in the logistic regression models. There was a consistent inverse relationship between age and debt. Perhaps surprisingly, education was consistently found to be positively associated with debt. Those from Illinois were less likely than those from Texas to report having debt, and those from Ohio were more likely to report debt than those from Texas.

Turning to the count models, there were many significant predictors of amounts of debt. In these analyses, age was generally inversely related to debt, education was positively associated with owing more in debt, and income, as expected, was inversely related to the amount of debt owed. Being employed was a very strong predictor of reporting more in debt and more in changes in the amount of debt owed. In one of the count models, hard substance use and being convicted of a drug offense for the most recent incarceration were positively related to the amount of debt owed. As in the logistic regression models, respondents from Illinois generally reported less in debt and respondents from Ohio reported more in debt compared to those from Texas.

Importantly, a race effect appeared in the PR2 model predicting changes in the amount of debt over time. Compared with whites, the incident rate of increases in debt for African Americans was nearly four times larger. However, the effects for race were

not significant in the model predicting the amount at PR1. Interestingly, this suggests that this disparity in amount of debt owed is something that unfolds over time in the prisoner reentry process.

Finally, a glance at hourly wages among respondents in the sample indicates that those who report being in debt earn less per hour than those without debt. This is true for the sample as a whole and for the subsample of just those under probation or parole supervision.

### **Summary of Findings – SEM Analysis (RQ2-RQ4)**

The most notable finding from the SEM models is that owing criminal justice debt at PR1 increases the likelihood of remaining under criminal justice supervision by PR2 (debt → supervision). This effect is strong and it holds across various types of models that address missing data in different ways, bootstrap standard errors, models that control for being on supervision at PR1, and the model restricted to the subsample of those under supervision at PR1. After exploring various types of operationalizations of the debt construct, it was found that debt stemming from supervision fees in particular was driving the phenomenon whereby being in debt keeps you on probation or parole. Further analyses showed that the effect is the result of people with debt not being released from supervision, as opposed to people with debt being later placed under supervision (very few went from being unsupervised at PR1 to supervised at PR2). Indeed, among the former prisoners in this sample who were released from supervision between PR1 and



PR2, only two (both from Ohio) reported owing an outstanding debt to a supervision agency.<sup>27</sup>

This finding, in conjunction with analyses from the first research question, indicate a mutually reinforcing, positive relationship between debt and supervision status. In the descriptive analysis, being on supervision at PR1 predicted increases in debt amounts by PR2, and the SEM model showed having debt at PR1 increased the chances of being under supervision at PR2. Debt can accrue from being under supervision, and it also appears to keep people under supervision. Results from a cross-lagged panel model (see Figure 5 in Appendix I) confirm this positive, mutually reinforcing dynamic.

A tandem finding is that there is a link between being under supervision at PR2 and becoming reincarcerated between PR2 and one year post-release. Again, this effect is fairly consistent across various types of models. In analyses decomposing the effects of the model, it is shown that there is likely an indirect effect of debt on reincarceration that works through being under surveillance via probation or parole. Interestingly, being under supervision at PR2 was not linked with arrests for new crimes in the model, suggesting that the indirect link between debt, supervision, and reincarceration is more driven by technical violations. In fact, a majority of the reincarcerations in these data were for technical violations as opposed to new crimes.

In terms of the other criminal justice outcomes of the model, we saw very little influence of criminal justice debt at all. Being in debt showed no significant impacts on arrests or self-reported crime in any of the models. However, owing did seem to have a

---

<sup>27</sup> One respondent reported owing \$18 and the other reported owing \$20. As these are small amounts, perhaps there is a threshold under which supervisees can be released even if they still owe debt.

significant impact on reincarceration in some models, but the association was in an unexpected direction (negative). In the decomposition of effects analysis, this large but perhaps non-significant effect worked in the opposite direction as the positive indirect effect. Other than this indirect effect, the decomposition of effects analysis showed no significant indirect links between debt and any outcomes in the model.

With respect to the non-criminal justice outcomes, again, there were no effects of debt on depression, family conflict, or financial strain. There were, however, some interesting patterns between other covariates in the model and significant associations among latent constructs that may provide avenues for further research.

## CHAPTER 5 – DISCUSSION AND CONCLUSION

This dissertation sought to build both on a small body of recent work addressing legal financial obligations among those in contact with the criminal justice system and a larger body of work examining hurdles and processes that prisoners face when leaving incarceration. Based on prior qualitative work, descriptive reports, journalistic accounts, and theory, this dissertation tested the impacts of legal financial obligations and debt on family conflict, depression, financial strain, and recidivism and surveillance outcomes in the reentry process. Before delving into the implications and limitations of the study, here I interpret the findings from both the descriptive analyses and the structural equation models in the context of the research questions originally proposed.

### **Interpreting Descriptive Findings in Relation to RQ1**

Research Question 1 (RQ1): Who has LFOs, what predicts having more LFOs, and do certain sub-populations have higher LFOs than others?

*Hypothesis 1a.* Those convicted of drug offenses will be more likely to have LFOs (or to have higher LFOs) than those convicted of other offenses.

*Hypothesis 1b.* Former prisoners with substance abuse disorders will be more likely to have LFOs (or to have higher LFOs) than those without substance use disorders.

*Hypothesis 1c.* Released inmates on community supervision/parole are more likely to have LFOs (or to have higher LFOs) than those not on probation or parole.

*Hypothesis 1d.* African Americans and Latinos are more likely to have LFOs (or to have higher LFOs) than white former prisoners.

With respect to the four hypotheses associated with the first research question, three received partial support by the data and one received strong support. Hypothesis 1a and 1b predicted that those with hard drug problems and those convicted of drug offenses were more likely to have debt and more likely owe more debt in dollars. The results of the multivariate logistic regression models found no support for the prediction that these groups were more likely to owe debt than their non-using or property offender counterparts. Users and non-users alike appear to have debt burdens related to criminal justice. However, a different pattern emerged from the count models. At PR1, those with hard drug problems or those convicted of drug offenses were more likely to report owing more debt compared to property offenders. This was expected given evidence that people convicted of drug offenses can be subject to enhanced financial penalties (Bannon et al., 2010; Harris et al., 2011; Harris & Fiske, 2006). But in the count model for PR2 that assesses changes in amounts of debt over time, having a hard drug problem did not significantly influence the amount of debt owed. Further, the coefficient for being convicted of a drug offense was significant but negative, meaning that fluctuations in amounts of debt owed over time trended downward for this group compared to non-users of hard drugs.<sup>28</sup>

---

<sup>28</sup> The negative significant effect of being convicted of a drug offense at PR2 held after running a model removing the previous amount of debt variable from the model. This was done to test if the reason the significant effects in opposite directions between PR1 and PR2 were due to have slightly different outcomes. The significance and size of the effect was almost identical in this model.

Taken together, these findings indicate a nuanced pattern among drug users, those convicted of drug crimes, and debt. Straight out of incarceration, those with drug use problems or those convicted of drug crimes may have a higher debt obligation because of additional judge-imposed penalties at the sentencing stage (Harris, 2016; Harris et al., 2011). For example, judges in certain jurisdictions have been known to charge those convicted of drug offenses with added fines or fees to fund anti-drug or drug treatment programs (Bannon et al., 2010). Another factor that could contribute to higher debt amounts for this group is the fact that substance abuse treatment has associated costs such as co-payments. If it is the case that substance users and those convicted of drug offenses are subject to these additional up-front costs, it makes sense that they report higher outstanding debt levels immediately after their release from prison. Another scenario could be that substance abusers have more financial strain and more debts generally and so are less able to pay for the fines and fees associated with adjudication and incarceration.

The opposite, negative effect of the drug offense variable at PR2 might be explained by the fact that property offenders was the reference category. Unlike those convicted of drug offenses, those convicted and sent to prison as a result of property offenses may face hefty financial obligations such as restitution upon returning to the community. Importantly, however, the outcome variable in this analysis did not specifically include restitution, but it did include “court costs” which some respondents may associate with restitution payments (since restitution is paid via the court system). Alternatively, though supervision was controlled in the analysis, it could be that supervision intensity was higher for drug offenders compared to property offenders after

prison. If this occurred, then those convicted of drug offenses may have perceived more pressure to pay back financial sanctions in a timely manner.

Turning to Hypothesis 1c, the analyses supported the idea that released inmates on parole or mandatory community supervision were more likely to have LFOs and to have higher amounts in LFOs. The supervised variable was significant, positive, and very strong in both the logistic regression models and the negative binomial models. Findings in Table 4 and Table 6 found strong correlations between being under supervision and both owing debt and higher debt amounts during the same wave. Results from Table 5 and Table 7 predicted forward in time, showing associations between being on supervision at PR1 and, respectively, changes in whether someone reported being in debt and increases in the amount of debt owed by PR2. These consistent associations between supervision status and debt obligations are in accord with prior literature, as monthly supervision—and possibly initial upfront—fees appear to be broadly applied across jurisdictions (Beckett & Harris, 2011; Shapiro, 2014), and the amounts of these obligations can be large (Albin-Lackey, 2014; Harris, 2016).<sup>29</sup>

Regarding Hypothesis 1d, there was partial support for the idea that, controlling for income, racial and ethnic minorities face higher amounts of debt in reentry compared to whites. Although no race effects emerged in either of the logistic models predicting

---

<sup>29</sup> Although it is common that supervision agencies charge several fees, which in turn may increase debt obligations, it could also be that those under supervision are more aware of the existence and extent of their debt obligations compared to those not under supervision. For example, probation officers are sometimes referred to, pejoratively, as “pee and fee collectors” because so much time and energy is spent tracking down probationers for debts they owe. Therefore, it could be that non-probation respondents actually do have debts or higher debts than reported but are less aware of them because they are not reminded of them as often. This could highlight a potential issue surrounding the self-report nature of debt obligations.

being in debt or in the count model predicting the amount at PR1, a significant effect appeared by PR2 for African Americans. Compared to whites, the amount of debt owed by African Americans between PR1 and PR2 grew significantly faster. The pattern of these null race findings followed by a significant effect could suggest that financial obligations may affect African Americans in the reentry process differently. Although certain aspects of socioeconomic status, such as employment and income, were controlled in the models, there may be other aspects of SES that make it more difficult for African Americans to keep up with debt repayment. Family or community networks among white former prisoners may have better financial resources that can benefit their returning family or friend. Further, given geographical residential segregation along racial lines (Peterson & Krivo, 2010), African Americans may find themselves in generally poorer communities with fewer jobs and consequently access to fewer family or friends with steady incomes.

An alternative explanation for this disparity is that African American offenders are actually being charged larger amounts or treated more punitively with regard to financial sanctions. This is not entirely implausible given the research indicating that African Americans can pay enhanced penalties at other junctures in the criminal justice system, including at sentencing (Eitle et al., 2014; Feldmeyer et al., 2014; Kutateladze et al., 2014). However, if this were the case, one might expect the findings from the count model at PR1 to show the same effect, which it does not. Therefore, if racial bias of some kind is responsible for creating this disparity, it is a phenomenon that is occurring during community supervision far downstream in the reentry process.

There were a few control variables from the logistic regression models worth noting. First, education level was significantly and positively related to owing debt. This was unexpected given it seems reasonable to assume that lower-educated people might be more likely to suffer financial problems and be in debt. However, these results can be understood given prior work examining who has debt obligations. Vigorita (2002) proposed that judges were more likely to impose financial obligations on those they thought would be likely to pay the debts back to the courts. Education level could be an indicator or sign of ability to pay. If so, then it makes sense that higher educated people are more likely to have debt.<sup>30</sup>

The other two significant effects with reasonable effect sizes were age and state context (being from Illinois). An increase in age being associated with a reduction in the odds of reporting debt can be understood based on the idea that older respondents may have accumulated more financial resources and may be in a less tenuous stage in the life-course compared to younger respondents. With respect to state context, we would expect to see variation at the state level given that many of the fees and fines imposed on criminal defendants are sanctions set and enforced by state-level authorities. Further, there is some evidence that supervision agencies in certain southern states have more firmly adopted the offender-funded model of supervision (Albin-Lackey, 2014), which could explain the pattern that those from Illinois owed less in debt compared to those from Texas.

---

<sup>30</sup> It could also be the case that the higher educated among the sample are more aware of their debt obligations. For example, probation and parole supervision can entail legal paperwork that can be hard to understand for someone with little formal education. If the financial obligations are spelled out in these hard-to-penetrate legal documents, perhaps the less educated are less likely to know about them. This again speaks to a potential self-report debt validity issue that will be explored in future research.



The findings of the count models showed more significant effects among control variables, some of which corroborate the findings from the logistic regression models. Again, education level in both models was positively related to the amount of debt owed. Employment was also significant and positive, lending credence to the idea that financial sanctions might be levied more so on people thought by judges and other judicial decision-makers to be able to pay back the sanction. Alternatively, being in debt could also motivate one to find employment (although Link & Roman, 2016 did not find that with respect to child support debt and legitimate employment). As expected, income levels were significantly negatively related to debt amounts, as having more money clearly allows you to pay down debt burdens. As in the logistic models, older respondents reported lower amounts of debt. Age at first arrest was entered into the models as a control for criminal history, and it showed interesting and hard-to-interpret patterns across the two count models. At PR1, as age-of-first-arrest went up, so did the amount owed in debt, but at PR2 increases in age-of-first-arrest were associated with decreases in amount owed over time. One might expect the finding at PR2 to be more intuitive given that less serious and lower risk offenders probably own less debt tied to the justice system and are more likely to pay off debts. The finding at PR1 could have something to do with the types of offenses that are committed among those whose first official arrest was later in life; offenses that may be more frequently remedied with financial sanctions as opposed to other forms of punishment. These two ideas are not incompatible: higher age-at-first-arrest defendants—being in a lower risk group—could be punished more by courts with financial sanctions, and are also more likely to pay off debts after prison compared to those with lower ages-at-first-arrest.

## Interpreting SEM Findings in Relation to RQ2 – RQ4

Research Question 2 (RQ2): Are LFOs associated with former prisoners' depression levels upon release?

*Hypothesis 2a.* Former prisoners with LFOs (or with higher LFOs) are more likely to report more symptoms associated with depression than those without (or with lower LFOs).

*Hypothesis 2b.* Former prisoners with LFOs (or with higher LFOs) report higher financial strain compared to those without (or with lower LFOs).

*Hypothesis 2c.* Increased financial strain/stress mediates part of the association between LFOs and depression.

Contrary to prior theorizing, debt did not show any significant impacts on either depression or financial strain.<sup>3132</sup> Further, there were no indirect effects between debt, financial strain and depression, although there was a significant link between financial strain and depression. This null finding persisted across various operationalizations of debt. Though some prior work and theory supports the notion that being in debt would influence both of these outcomes, there is also reason to believe that debt might not cause the harms claimed in prior qualitative literature. For example, the prisoner reintegration

---

<sup>31</sup> It remains possible that certain threshold levels matter with respect to the amount of debt owed and its impact on certain outcomes, including depression. For example, it could be that debt burdens could indeed matter for certain people up to a certain point, but then once the debts become so large the effects subside as the person may perceive the situation as not fixable. Alternatively, perhaps smaller amounts of debt are not problematic but then at a certain point they become unmanageable and cause problems.

<sup>32</sup> It also remains possible that debt matters in certain contexts but not as much in others. In other words, debt may not be universally regarded as problematic; some people may be in positions where it does not cause much of an issue in their lives (perhaps because of a good job or access to family instrumental support, etc.), and still others may perceive the issue as less of a problem than others.

context is a very stressful, complicated, and busy process (Western et al., 2015). From issues reconnecting with family that the former prisoner has not seen in years, to finding housing or shelter (Roman & Travis, 2006), food, medical care, employment, legal documents, and more, prisoner reentry is a tenuous time fraught with material and emotional hardship. On top of this, former prisoners may be surveilled closely by law enforcement and other governmental agencies (such as child support enforcement offices) and rearrest and reincarceration is a looming reality for many (Beckett & Murakawa, 2012; Brayne, 2014; Goffman, 2014). Given the multiple difficulties and stresses in this common scenario, it may be that having or not having debt from legal financial obligations does not rise to the level of these other major issues that increase strain and depression. After all, if one does not have a safe place to sleep, food to eat, family to re-engage with, or medical coverage to pay for needed prescription medication, the presence of a financial obligation that must be paid off over time may pale in comparison to importance of these other life exigencies.

Research Question (RQ3): Are LFOs associated with levels of family conflict after prison?

*Hypothesis 3.* Those with LFOs (or higher LFOs) report higher levels of familial conflict after prison than those without (or with lower LFOs).

Similarly, there were no significant effects of debt on family conflict. Again, this accounts for both the binary and continuous operationalizations of debt. This finding stands in contrast to recent qualitative scholarship linking debt and former prisoners'

dependence on family networks and resources (Katzenstein & Waller, 2015; Nagrecha et al., 2015). Similar to the null effect of debt on depression, from at least a couple perspectives it makes sense that debt might not have the deleterious impacts on family conflict asserted in prior work.<sup>33</sup> For one, family relationships can be weakened when a person is separated from his or her family and incarcerated (Hairston, 2002; Petersilia, 2003). This may be especially pronounced in the instance where someone is incarcerated in places far from their family (Cochran, 2014). This can cause perhaps long-term harm to familial relationships, and a large part of the prisoner reintegration process is spent trying to re-connect with family and strengthen those weakened bonds. In this context of harmed or conflicted family relationships, having a debt burden and relying on family for instrumental and financial needs (Nagrecha et al., 2015; Western et al., 2015) may do little in the way of worsening a family relationship that is already damaged. Years of separation as a result of incarceration and the problems stemming from that gap likely make much stronger contributions, on average, to family conflict than relying on family because of a financial burden. In some cases, family members of former prisoners may even show eagerness to support financially their loved one during this difficult transition (Western et al., 2015).

There is the possibility, however, that having a debt burden may influence family conflict (or depressive symptoms) for certain people but not others. The findings here showed that, *on average*, an effect was not apparent, but it remains possible that certain

---

<sup>33</sup> Scatterplots between the family conflict scale and the amount of debt in dollars were examined to see if there were any discernable patterns in the data that may have been missed, such as non-linear relationships. There were no apparent non-linear relationships, tipping points, or other visual patterns that suggest a relationship between family conflict and the amount of debt owed.

individual-level characteristics may moderate any associations between debt and these outcomes. Future work—possibly with the aid of qualitative techniques—can assess whether relationships may be uncovered when individual or personality-based factors are taken into account, or among specific subsamples of former prisoners.

Research Question (RQ4): Do LFOs increase or decrease recidivism, and justice system contact and involvement?

*Hypothesis 4a.* Those with LFOs (or with higher LFOs) are more likely to be under criminal justice supervision (community supervision/parole) than those without (or with lower LFOs).

*Hypothesis 4b.* Those with LFOs (or those with higher amounts of LFOs) commit a greater number of new crimes compared to those without (or with lower LFOs).

*Hypothesis 4c.* Those with LFOs (or those with higher amounts of LFOs) are more likely to be rearrested than those without (or with lower LFOs).

*Hypothesis 4d.* Those with LFOs (or with higher amounts of LFOs) are more likely to be reincarcerated than those without (or with lower LFOs).

*Hypothesis 4e.* The link between having LFOs and reincarceration is partly mediated by self-reported crime, rearrests, depression, financial strain, family conflict, and community supervision/parole status.

With regard to research question four, hypothesis 4a found strong support in the data. Those with criminal justice (supervision) debt were much more likely to remain under supervision compared to those without debt. Hypothesis 4e found some support, as

there was an indirect pathway whereby debt increased the likelihood of reincarceration via supervision status, but self-reported crime, rearrests, depression, financial strain, family conflict did not mediate any association between debt and reincarceration. The implications of these significant direct and indirect links—being the key findings of the study (see results in Figure 4, for example)—will be more thoroughly unpacked in later sections. But it is worth noting here that most of the respondents were reincarcerated for technical violations as opposed to new crimes (although the type of technical violations are unknown). Further, the link between being on supervision at PR2 and reincarceration was driven more so by technical violations. Supporting this pattern is the fact that being under supervision at PR2 did not have a significant link with arrests for new crimes. This means that there is a pathway between supervision status and return to prison, but not as much because people are being arrested for new crimes but because they are under surveillance and get caught for non-criminal behaviors that trigger violations. Recent studies stemming from the California Parole Study found a similar pattern as uncovered here—net of other relevant factors, those under closer parole supervision were more likely to be detected for technical and less-serious (e.g., failing a drug test) criminal violations (Grattet & Lin, 2016; Grattet et al., 2009).

In addition, with respect to hypothesis 4d, the direct effect of debt on reincarceration was not significant in most models, but in the few models where it was, it was in the opposite direction as expected (negative). This is contrary to expectation because prior work discusses a direct link between having debt and reincarceration as a result of the fact that people can be imprisoned for not paying debts back on time (American Civil Liberties Union, 2010; Weisburd et al., 2008). Extant literature has not

mentioned the possibility that debt could possibly be protective against reincarceration. However, if there really is a negative effect of having debt on reincarceration, it could be understood through at least three different lenses. The first is deterrence theory. Theoretically, financial sanctions such as fines hold specific and general deterrence value (Ruback & Bergstrom, 2006). If one has accumulated a large amount of debt because of these types of sanctions, he or she may constrain his or her behavior in ways that minimize further involvement with the criminal justice system that produced this debt. If this is the case, however, one may expect that debt variables would also have significant negative impacts on the other recidivism variables (for example, arrest and self-report crime), which was not the case in the analyses. Deterrence does work in patterned, perhaps non-intuitive ways (Nagin & Pogarsky, 2001), though, and it could be that having debt may influence certain types of behaviors—such as those whose detection can lead to technical violations—but not others.

The second possibility involves rehabilitation. Some legal scholars have argued that financial sanctions have rehabilitative value because they have “corrective value”—they foster a sense in former offenders that they are making themselves whole again (Dickman, 2009). This is especially argued for vis-à-vis restitution where there is a clear attempt to remedy harms caused to the victim (Pritikin, 2010; Ruback & Bergstrom, 2006). If this idea has merit, then, among debtors, one might expect to see fewer types of behaviors that can result in reincarceration. However, this author does not find this idea wholly plausible or satisfying as respondents in other recent studies did not convey the idea that their debt obligations fostered reflection on their identity or change for the better (Harris, 2016; Martire et al., 2011; Nagrecha et al., 2015).

Finally, the present finding could be viewed through critical perspectives. Some recent scholarship and journalistic accounts have criticized aspects of the criminal justice system—probation, parole, and bail systems in particular—for being too focused on revenue generation, often at the expense of traditional criminal justice aims (Albin-Lackey, 2014; Dewan, 2015a, 2015b; Harris, 2016; U.S. Department of Justice, 2015). Perhaps another explanation for why those in debt were less likely to be reincarcerated is that the governmental agencies know that they benefit financially if those individuals are left in the community—under supervision—and paying back debts over time. The possibility of this being the case is compatible with the main finding of this dissertation—that those who owe public debts, net of other relevant factors, are less likely to be released from control of supervising bodies.

Pivoting to hypotheses 4b and 4c, no evidence was found that owing debt or owing higher amounts of debt inspired illegal conduct or led to a heightened risk for rearrest. Certain descriptive analyses and anecdotal reports have described criminal justice debt obligations as being criminogenic (Cook, 2014; Martire et al., 2011). If this is so, their imposition by the criminal justice system may be self-defeating if a key aim of the justice system is to reduce criminal behavior. Further, certain theoretical perspectives such as general strain theory (Agnew, 2006) might predict that those with hefty debt burdens—being the presence of an uncomfortable stimuli—could lead to offending behavior. The present results, however, are some of the first analyses to quantitatively assess the impact of debt on recidivism. The findings, along with those of other recent studies (Iratzoqui & Metcalfe, 2015; Link & Roman, 2017), challenge the proposition that, on average, having debt somehow leads to an increased likelihood of illegal conduct



among certain populations. One caveat, though, is that these studies have involved rather unique sample of criminal justice populations, including non-random samples from a select number of U.S. states. Further, the analyses that have been conducted relied on samples of adult men. Whether LFOs and debt have criminogenic impacts on younger or female populations are questions unanswered in this study. Indeed, there is some very recent evidence that debt burdens may have criminogenic impacts on certain younger, teenage offenders (Piquero & Jennings, 2016).

### **Limitations**

Though the use of the Returning Home data to address the research questions described in this dissertation represents a unique opportunity to assess the role of LFOs in the lives of former prisoners and their reintegration process, the findings are qualified by several limitations.

First, the data are longitudinal and cover an observation period from pre-release to one year out (only reincarceration data in this sample are available up to one year out). Of course, longitudinal data are ideal for studying reentry issues, yet they may not follow the respondents for long enough to uncover important reentry processes over time, and certainly not long enough to fully study desistance processes. For example, recent theory and research hints at the idea that LFOs and debt can alter the life-course trajectory by creating an insurmountable financial hurdle (Bannon et al., 2010; Harris et al., 2010; Nagrecha et al., 2015). As this hurdle perpetuates and grows larger over time, it rapidly can cause more problems. Though some negative effects of LFOs and debt may appear quickly after release from incarceration, some effects may be sufficiently lagged so that they cannot be captured in these data. Indeed, Link & Roman (2016) found the effects of

child support debt on employment did not emerge until after one year post release from incarceration. Only future investigations that follow former prisoners for even longer time periods can broaden the scope to empirically unpack if and how legal debt and the LFOs that created it manifest into problem areas in the reentry process.

Second, in both the descriptive and SEM analyses I controlled for the state in which the person was released. In both sets of analyses, state context variables showed to have significant impacts on the outcomes under investigation (e.g., models predicting debt in RQ1 or predicting any of the endogenous variables in RQ2-RQ4). On the one hand, this fixed effect approach is beneficial for analyses using multistate data (or data nested in some other geographic unit) as it controls for interstate differences that could bias the results if one is attempting to find general patterns that emerge across geographies. On the other hand, it indicates that the legal financial obligation landscape differs across states—as one might expect due to differing laws and policies—and that intrastate analyses would be appropriate. In the current work, examining each state individually would have resulted in relying on fairly small sample sizes; however, this type of fine-grained within-state analysis is necessary will be pursued in future work.

Third, I was not able to study the extent to which former prisoners in this sample were paying back their debt burdens. Theoretically, this may matter as the person who is paying the debt back on a regular basis compared to the person who it not, all else equal, may feel more financial strain and experience more negative consequences stemming from debt. However, given the key finding that just having debt keeps people under supervision, the amount being paid back on a monthly basis may be irrelevant to the main findings in this dissertation if the person has not paid back the full debt. Studying the

repayment of debts may also be useful for future work as it may serve as a signal of desistance.

Fourth, the official reincarceration data indicate whether the reincarceration was for a new arrest or a technical violation. Unfortunately, it is not possible to discern from the data the nature of the technical violation. This seems especially important in the instance where someone is reincarcerated specifically for not repaying his or her debt burden on time. Further, if people are receiving technical violations for behaviors other than debt nonpayment, knowing the nature of such violations could inform what types of behaviors are monitored closely by supervision agencies that put people at risk for reincarceration (such as electronic monitoring, absconding, or failing drug tests).

Fifth, the official reincarceration data capture reincarcerations to state prisons, and in the case of Texas, state jails as well. As such, they do not capture reincarcerations to local or county jails. However, it could very well be that most, if not all, former inmates who were rearrested and sent to local or county jails eventually ended up back in state-level facilities.

Sixth, as discussed earlier, there is a non-trivial degree of missing data due to subject attrition in the Returning Home data. Although this is the hard reality of most longitudinal studies, it is an important limitation that can affect the study's results. I have attempted to address this potential threat to validity in several ways. The first was by implementing inverse probability weighting techniques that make the analysis sample appear similar to the entire initial sample. This technique has been shown to be quite effective in addressing sample non-representativeness in longitudinal studies (Wooldridge, 2007) including prisoner reentry studies (Mowen & Visher, 2013; Visher et

al., 2011). Another method of addressing missing data due to subject attrition was by taking advantage of estimation techniques in structural equation modeling that leverage pairwise present analysis and multiple imputation. The findings largely corroborate one another across the various ways of handling missing data, boosting confidence in the patterns uncovered. Though these techniques represent advanced ways of addressing the problem of missing data due to subject attrition, it remains a source of potential bias in this work.

Seventh, the data are not the product of a random sampling strategy. Therefore, the samples from each of the three states are not perfectly representative of all prisoners leaving prison and returning to those three counties within those states. However, the samples did appear to be reasonably similar to all exiting prisoners in those states on several key dimensions including demographics (Visher et al., 2003). While the matter of external validity is always an empirical question that only further testing can confirm (Taylor, 1993), the nature of this sample limits the generalizability of the present findings. There are a couple of related limitations, the first being that the sample used in this dissertation does not contain women, and little other quantitative work investigating LFOs have relied on samples that included women. Further, the sample used in this study was not particularly young, and the role that LFOs and debt play in the lives of juveniles is essentially uncharted research territory. Finally, the data only contain information on the impacts of LFOs in the lives of those returning to the community from incarceration. As such, the present study was not able to speak to the degree that LFOs and debt affect other criminal justice populations, including those who do not become incarcerated.

Eighth, bail obligations are noticeably absent from this and other analyses and discussions of legal financial obligations in the reentry process. When a defendant posts bail and subsequently fails to appear to court, he or she forfeits his or her bail money, and that money then has to be repaid by the defendant. As such, bail is—by definition—a legal financial obligation. As bail amounts can be especially large—and therefore perhaps consequential—this avenue should be pursued in future research.

Ninth, LFOs and debt theoretically could have impacts on perceptions of procedural justice and legitimacy (Tyler, 2003), yet were not able to be studied in this dissertation. Former prisoners and those who have cycled through the justice system have conveyed sentiments that their debt burdens—especially after growing large due to interest and late payments—are unfair (Harris et al., 2010). This perception could color how former prisoners view the legitimacy of the criminal justice system, and could possibly translate into increased offending should they harbor feelings that the system is unjust. Future work can pursue this important and perhaps consequential relationship.

Finally, because this is an empirical study of the impacts that LFOs might have on the lives of former prisoners and their families after prison, it is narrowly focused on uncovering empirical phenomena that may allow the researcher to reject or fail to reject certain specific hypotheses vis-à-vis LFOs and debt. As such, I do not delve into an in-depth legal analysis of the practice of financial sanctioning or the implementation of LFOs in U.S. justice processes. I also do not consider the degree to which the current use of financial sanctions does or does not pass muster on moral levels. Nor do I wrestle fully with how LFOs fare vis-à-vis theories of criminal sanctioning (e.g., what would retribution theorists say about mounting fee obligations after sentence completion? What

would restorative justice advocates think about financial sanctions other than restitution?). Indeed these domains of analysis are important, but they are beyond the scope of this project, as these pursuits may constitute dissertations topics on their own. Moreover, to best engage with these types of questions, one might first want to know empirically how LFOs impact former prisoners returning to the community.

### **Law, Policy, and Practice Regarding Community Supervision in Texas, Illinois, and Ohio**

Before delving into potential implications of the current study, here I briefly report on an effort to understand the main pattern uncovered in this analysis (debt→remaining under supervision). I conducted Internet searches to explore whether debt repayment is implicated in the particular laws or policies regarding release or early termination from probation or mandatory supervision, with particular attention paid to Cook, Cuyahoga, and Harris counties.<sup>34</sup> Though legal codes and official policies are of limited accessibility online, it appears that in (at least some) jurisdictions in all three states where the Returning Home study took place, those under probation or mandatory supervision are required by law or supervision policy to pay fines and fees as a condition of their supervision (see, for example, Afeef, Bostwick, Kim, & Reichert, 2012; Community Supervision and Corrections Department, 2017). However, information could not be found for the specific counties where the Returning Home Studies occurred. As such, future work will have to probe these areas.

---

<sup>34</sup> I also performed searches looking for city-level policies and laws for Chicago, Cleveland, and Houston. Unfortunately, there is no publicly accessible information regarding fines, fees, and supervision terms on these websites.

In at least two of the states (Ohio and Texas) it appears that debt repayment in full is a requirement for termination or early release from community supervision (no policy or law regarding early release could not be found online for Illinois).<sup>35</sup>

In Texas, for example, the Community Supervision and Corrections Department of Caldwell, Comal, and Hays Counties state on their webpage regarding early termination from supervision:

“...All fines, court costs, restitution, etc., must be paid-in-full, probation supervision fees must be up-to-date and all programs completed for the Court to reconsider an early discharge...” (Community Supervision and Corrections Department, 2017).

Importantly, it is unclear whether this is a rule or policy created and enforced by that particular corrections agency or whether it reflects a state law. If the latter, then the agency’s discretion is severely limited. The state of Ohio, by contrast, makes their probation laws easily accessible online, and they have clear mandates regarding financial obligations and termination from community supervision:

“...the supervising court shall determine when supervision will be terminated but shall not terminate supervision until all financial obligations are paid or otherwise resolved. Any unpaid financial obligation is a judgment in favor of the state or a political subdivision in which the court that imposed the financial sanction is located, and the offender subject to the financial sanction is the judgment debtor

---

<sup>35</sup> Though I was able to find some information regarding probation and other community supervision for Texas and Ohio, I was unable to find laws or policies with respect to parole release and supervision termination in particular.

pursuant to sections 2929.18 and 2929.28 of the Revised Code” (Ohio Chapter 2951, 2017)

The above revelations clearly support the main finding in this dissertation; it appears that supervision agencies are operating by the laws and policies that govern them. However, it remains an unresolved question whether state law (and therefore the legislature) entirely accounts for the phenomenon by which debtors remain tethered to supervision agencies or whether particular agencies themselves hold discretion and have adopted this payment-in-full practice on their own. This author is unaware of any studies on this particular topic, other than Bannon et al.’s (2010, p. 25) related finding that thirteen of the fifteen states they studied have “a statute or practice” allowing the extension of community supervision terms for debt nonpayment. As such, in the following sections I address potential implications for the use of LFOs under the assumption that there may be multiple agencies or decision-making bodies—including state legislatures, judges, and corrections departments—responsible for the empirical patterns uncovered in the dissertation.

### **Implications**

Despite the limitations of this study, there are several implications with respect to correctional policy and practice, lawmaking, courts and sentencing, and criminological and sociological theory. Below I expand on what the key findings mean in the context of these areas, beginning with more practical issues and moving toward more theoretical and broader-scope issues.



## **Correctional Programming, Policy, and Punishment**

The findings have implications for how correctional institutions—from courts, to prisons and jails, to supervision bodies—operate. There are at least five areas in particular worth discussing. First, probation and parole agencies and the broader judicial systems in which they are situated may need to revisit and reconsider the role LFOs play in the context of the stated aims of probation and parole. Second, correctional agencies could create processes that allow them to be more aware of total debt burdens and where debt accumulates in the justice process. Third, corrections and rehabilitation efforts ought to hone in on what types of services and programs can be offered so as to reduce the likelihood that LFOs turn into or exacerbate debt problems. Fourth, the null findings on several outcomes in this study have their own implications for policy and practice. And finally, the findings can be useful for discussions on taming America’s system of mass incarceration.

With respect to the first point, the chief responsibility of probation/parole is to monitor defendants in the community context in such a way that reduces the chances that they recidivate. Simply, monitoring risk is critical to the contemporary mission of probation. This is even more so the case given the paradigm shift in probation from a social work to law enforcement orientation (Petersilia, 1997). However, another oft-cited goal of probation is to encourage or facilitate the opportunities for rehabilitation (Morris & Tonry, 1991). A third aim of supervision sentences is punishment; indeed, probation is often a key part of intermediate punishments or sanctions (Tonry, 1998). With these three purposes and goals in mind, is the practice of keeping debt-ridden probationers under supervision because they owe fees consistent with any of the goals of probation? The

answer seems quite clear that it is not. First, it does not enhance public safety to keep debtors under supervision; a main finding of this study was that debt was not associated with increases in criminal behavior. If anything, it could have a protective effect. Second, there is little to no evidence for arguing that keeping debtors under supervision has rehabilitative value. Third, because an aim of probation is punishment, is there a basis for arguing that people who owe debt should be punished more severely—in this case kept in the grips of the correctional system longer? On this question, too, there is little justification for this practice based on the historical, fundamental principle that the poor should not face enhanced punishment as a result of their unfortunate financial circumstances.<sup>36</sup> This principle was also the basis for the few relevant Supreme Court cases including *Bearden v. Georgia* (1983) that held it is unconstitutional to violate someone's probation for debt nonpayment if that person cannot afford it.

Given this finding, it appears that oversight could be needed. Ironically, it appears that judges and supervision agencies could be in need of some supervision. Harris (2016) recently made the same point with regard to LFOs and discretion. Supervision agencies could be monitored by some higher body to ensure that only factors relevant to the goals of probation and parole are used in determinations of who stays under supervision. This could be the administrative judges who oversee the criminal courts and probation departments. Alternatively, similar to the discussion in the next section on sentencing and LFOs, it could well be the case that some criminal court judges do not know that debt owed to supervisory agencies should not play a role in decisions to keep them under

---

<sup>36</sup> Of course one could make the argument that keeping debtors under probation longer is not punishment per se. However, the practice does keep them entangled in the justice system for longer, and thereby increases their chances of further punishment including reincarceration. So at a minimum it increases their exposure to potential punishment.

supervision. If this is so, a commission could be formed and tasked with the creation of a set of guidelines on how LFOs can and cannot be used among law enforcement in community corrections. The disjuncture between the goals, perspectives, and knowledge among higher-level correctional authorities (e.g., high-level judges and commissioners) and lower-level correctional staff has been documented before. Despite near consensus among correctional leaders that discretion in the application of punishments for technical violations is too broad and non-transparent, there is evidence that rank-and-file probation and parole officers continue to use their discretion in ways counter to the goals of the higher-level authorities (Lin, Grattet, & Petersilia, 2010; Rudes, 2012).

Moving to the second point, though a degree of monetary sanctions are certainly warranted in American justice, agencies might be encouraged to rethink certain fees and costs that are applied to cases arbitrarily or as a matter of routine. This can be done by tailoring LFOs to individuals based on their employment status, family financial obligations, or other relevant factors. Further, since criminal justice defendants travel through so many agencies from upstream to downstream processing, various agencies might find a way to examine an individual's total financial burdens and incorporate that sum into any decision-making process to apply new or more financial sanctions. If this can be achieved, prisoners may exit institutional corrections with more manageable amounts of debt so that they can afford to make regular payments to probation or parole. This would, however, require a degree of inter-agency cooperation among agencies already strained for resources and time.

Alternatively, and to the third point, instead of reducing or eliminating the debt burdens faced by former prisoners, another option is to implement strategies that can

moderate or offset the adverse effect of LFOs. This option could be supported by the argument that LFOs are now a here-to-stay fixture in U.S. justice and so time is better spent on figuring out how to assist defendants in paying them off before they turn into large debt burdens. For example, training programs in financial or employment skills, job placement programs, or other services may lead to former prisoners having greater employment opportunities and consequently more financial security. In this way, they will be better equipped to handle LFOs and the chances of them turning into debt will be lessened. Whether certain targeted services or programs can successfully achieve these outcomes, however, is an unanswered question. Scholarship in this area is very limited, but preliminary research suggests that there are very few services to address legal and financial needs of former prisoners (Berger & DaGrossa, 2013; La Vigne, Davies, Palmer, & Halberstadt, 2008; Roman & Link, 2015b; Roman & Link, 2011).

Fourth, the null findings of debt on depression, financial strain, family conflict, and recidivism (arrest and self-report crime) have implications for how correctional agencies operate. Recently, various mainstream media have relied on anecdotal evidence to surmise that debt has impacts on all of these areas, that it creates extra stress during an already difficult transition home, and that, ultimately, the chances of reoffending become elevated. Based on this empirical presupposition, it is then argued that the reliance on LFOs is counter to the very fundamentals of criminal justice. This dissertation highlighted one way in which debt from LFOs can cause harm in the lives of former prisoners, but the vast majority of these links were not found to be significant. What this means is that—although correctional agencies and state legislatures should think hard about possible pecuniary motivations and conflicts of interest—there is perhaps less of a

need to worry that the measured use of LFOs will necessarily lead to broad-scale, untoward outcomes such as worsened mental health, family problems, and heightened recidivism.

Fifth, the finding that owing outstanding debt obligations keeps you in contact with the justice system and can lead to reincarceration can inform policy discussions on how to address and reduce mass incarceration. Shiraldi and Jacobson (2014) noted that debt from the criminal justice system can create dysfunction in the lives of former prisoners, and that this debt can act as “trip wire” back to incarceration. The main finding of this dissertation supports the idea that debt can be trip wire, but it also expands on this notion by suggesting that the trip wire works through an indirect process as opposed to the direct, reincarcerated-because-of-nonpayment effect. Two adjustments in this realm may temper the issue of mass incarceration. First, if debt amounts can become more manageable and/or if former prisoners can be equipped with resources to pay off these debts, then fewer former prisoners may find themselves reincarcerated. Second, probation authorities can revisit their formal set of conditions of supervision they impose on probationers, which have been described as arbitrary, overly burdensome, and sometimes unrelated to the goals of justice (e.g., in some jurisdictions a probationer can be violated if anyone on the premises where the probationer is living drinks alcohol, or if the probationer associates with someone of “low moral character”) (Crouch, 1993; Doherty, 2016). Another common condition of supervision is the requirement of debt payment. If this is a policy instituted by supervision agencies (and not mandated by state law), they may think about jettisoning debt nonpayment as a justification to violate probationers or keep them under supervision for longer (American Civil Liberties Union, 2010; Weisburd

et al., 2008). Should this occur, fewer people will find themselves under surveillance, at risk for being violated and sent back to incarceration.

A final broader and related point is that limiting a government's reliance on LFOs has been argued to be an important check on state power (Beckett & Harris, 2011). Governments and their incarceration laws and policies are more likely to be moderate when targets of the criminal justice system are not funding the system that is punishing them. To ensure that governments use severe and restrictive punishments selectively and judiciously, they should be obligated to pay for the punishment. If not, governments can implement large-scale social control of its citizens. One historian captured this sentiment well. In identifying similarities between current LFO practices and financial punishments during the era of the Salem Witch Trials, Baker (2006) noted that: "A government that can fob off costs on criminals has an incentive to find criminals everywhere."

### **State Legislatures, Judicial Practices, and Reform**

Certain reforms at the level of the state legislature may prove fruitful in reducing burdensome debt burdens that keep people under supervision. Just as state legislatures in the U.S. are responsible for crafting and passing legislation vis-à-vis criminal punishments, they are also responsible for crafting many fine and fees sanctions that shape the way criminal courts operate. For example, many states have passed laws that fund programs and services (often programs geared toward drug abuse and victim's assistance) by taxing criminal defendants who pass through the court system. Although we know that courts impose many of their own financial obligations on defendants, the legislature has removed judicial discretion when deliberating over whether to apply many fees and costs (Bannon et al., 2010; Harris et al., 2010). In other words, if a person is

charged with crime X, then he or she is automatically charged Y fees by law. The issue here is that legislatures have largely not kept track of the cumulative effect that passing all these crime bills has on people who pass through the justice system (Bannon et al., 2010). Further, though an understudied area, some state legislatures are also responsible for designing and passing laws that force debtors to remain under supervision—in effect removing discretion on when to release someone from the supervision authorities. In this sense, as legislators have shaped much of the financial sanctioning context in which the judicial system operates, they too could adopt various reform strategies aimed at taming the financial sanctioning system.

Similar to how legislative bodies have been encouraged to think about potential disparate racial impacts when crafting legislation, they might also make assessments of the impacts that LFOs will have on individuals and the justice system before creating legislation that creates new fines and fees. Logan and Wright (2014) are among the people calling for such “LFO Commissions” that create processes that must occur before new LFOs are assessed. These commissions can be part of existing sentencing commissions or else can be comprised of legislators themselves. The Massachusetts State Legislature is one example that has implemented such a process. As part of their 2011 budget, legislators of the State created a special commission to assess the impact that various fees would have on numerous outcomes, including but not limited to: (1) the types and amount of fees to be charged, including a daily room and board fee and medical co-pays; (2) the revenue that could be generated from the fees; (3) the cost of administering the fees; (4) the impact on the affected population; (5) the use of the collected fees by the respective sheriff’s office; (6) the method and sources of collecting

the fees; (7) the impact on the prisoner work programs; (8) waiver of the fees for indigents; (9) exemptions from the fees for certain medical services; and (10) forgiveness of the balance due for good behavior (State of Massachusetts, Budget Summary, Outside statement 177, 2011). If more state legislatures adopted this type of process, we may see reductions in large amounts of debt for former prisoners moving forward.

In terms of judicial reforms, there are three avenues currently being discussed as pathways to ameliorate large LFO burdens. First, judges should make assessments of ability to pay when applying financial penalties. In fact, this is supposed to be occurring already, especially if the defendant is at risk of being incarcerated for nonpayment. In practice, however, it appears that such assessments are not being made, or are being made in inconsistent and arbitrary ways, such as determining that someone has the ability to pay because he or she has a visible tattoo (Bannon et al., 2010; Shapiro, 2014). Further, other judicial actors—such as probation and parole officers—could use the ability to pay criterion when deciding who should be subject to various fines, fees, and costs and how much. This may result in fairer applications of LFOs and may reduce the likelihood that people may rack up debt burdens that keep them tied into the criminal justice system.

Second, and related, justice systems in the U.S. might consider the benefits of the European Day Fine Model whereby judges calculate the amount of financial penalties based on the seriousness of the crime and ability to pay (Hillsman, 1990; Mahoney et al., 1996). Though few areas have experimented with the implementation of the day fines model, evaluations of jurisdictions in Staten Island and Maricopa County, AZ found that the model yielded favorable results, marked by an increase in revenue for the courts and fairer fine applications based on one's ability to pay (Greene, 1990; Turner & Petersilia,



1996). At minimum, judicial actors ought to be cognizant of the fact that defendants accumulate hefty amounts of LFOs from legislatively-mandated programs, and that any LFO applied by the court is in addition to the fines and fees imposed by other bodies, including the legislature, police, jails and prisons, probation and parole, and treatment agencies. It is open question as to why the Day Fine Model has not gained more traction in the United States. One possibility is that the evaluations were conducted in the '80s and '90s, a time in which the U.S. was experimenting with mass incarceration and other punitive policies. Perhaps, given the current landscape and discussion of criminal justice reform, the Day Fine Model might now find political support.

A third, new avenue to address the large legal financial obligations that defendants face is to implement standard guidelines for state-level judges on how to use fines and fees. This is important, as recent work has shown that many criminal court judges are unaware that it is illegal to incarcerate someone for debt nonpayment (Shapiro, 2014). Just this year the *National Task Force on Fines, Fees, and Bail Practices*, comprised of high-level judges, was created to review financial sanctioning on a national level and come up with recommendations for reform (Shapiro, 2017). Among the key products of this meeting of minds was the generation of a two-page “bench card” to be distributed to state court systems throughout the country. These guides contain information regarding how fines and fees are to be used, how assessments of ability to pay should be properly executed, and suggestions for less punitive and restrictive sanctions in the event of late or nonpayment. They also clearly outline for judges what judicial responses to nonpayment are forbidden by law, such as incarceration in the event that the debtor cannot afford to pay (Shapiro, 2017).

Lastly, the topic of legal financial sanctioning may be well suited for states pursuing reforms based on the Justice Reinvestment Initiative model (JRI, see: Bureau of Justice Assistance, 2017). JRI efforts aim to bring various types of organizations that may ordinarily not interact (such as legislatures, judicial officers, corrections departments, and reentry clinics) together to examine pressing problems in criminal justice systems with the goal of identifying data-driven solutions. Since the issue of LFOs, their origins, and their implementation, is one that spans multiple domains, reforms in this realm based on the JRI model or process may be ideal.

### **Criminological and Sociological Theory**

This dissertation was not designed as a test of any particular criminological or sociological theory. However, a certain theoretical perspectives were used in trying to understand why debt might have impacts on various outcomes in the prisoner reentry process. Further, broadly speaking, theoretical perspectives coming from a conflict-based perspective found support in the data. Below I mention how the main findings do or do not conform to a couple different theoretical perspectives.

Before delving into the conflict-based perspective, it is worth mentioning that the stress and strain perspectives were not supported here. Much anecdotal evidence published in reports has theorized that debt can act as a general strain (Agnew, 2006). In response to the discomfort of the strain, people are thought to resort to crime in order to make ends meet. This did not find support in the data. Similarly, there were no effects of debt on depression as a health outcome, though it was theorized that debt—as a source of stress—would influence depression in a negative way. Though one could argue that these findings are not supportive of general strain theory (GST) or of the stress literature in

medical sociology, it could also be simply that debt in the reentry process does not rise to the level where it should be considered a strain. If criminal justice debt is not a strain, then the findings cannot be said to be evidence against GST.

The finding that poor people are supervised and controlled more closely could be understood through a conflict perspective lens that emphasizes the power and privilege gap between the poor and the non-poor.<sup>37</sup> In her recent book, Alexes Harris (2016) makes the argument that monetary sanctions increase both class and racial inequality and perpetuate social disadvantage. In terms of class, most of the people in touch with the justice system—and especially those incarcerated—are disadvantaged socioeconomically. After their sentence is served, they continue to face the growing debts that were applied at earlier stages of the process. Because people struggle to repay these debts on time, they are subject to seemingly endless late charges or “poverty penalties” (Bannon et al., 2010). As Harris (2016) shows, this can cause people who were already poor to be trapped in poverty for the long-term. Indeed, it seems uncontroversial to argue that financial punishments that continuously grow because of interest may perpetuate poverty for poor people. With respect to racial and ethnic inequality, Harris makes the

---

<sup>37</sup> One could argue that the people with debt who are being controlled more are not necessarily the poorer ones; they may simply be people who can but refuse to pay off their debts. Two points, one empirical and one theoretical, lead me to believe this is probably not the case. The first is that the descriptive data showed us that those who are in debt report earning less income, and it makes sense that those with lower incomes would have a harder time keeping up with payments. The second is that a good amount of evidence suggests that former prisoners are very afraid of reincarceration; they will do their best to stay off the radar of law enforcement and will do whatever they can to break ties with formal government institutions (Brayne, 2014; Crouch, 1993; Goffman, 2014). Allowing debt burdens to pile up and knowing that this will lead to an increase in contact and communication with law enforcement officers (as “pee and fee collectors”) is inconsistent with this literature on how former prisoners behave and interact with government institutions.

argument that because African Americans and Hispanics are disproportionately subject to the criminal justice system in the U.S., they are also disproportionately subject to financial punishments. It is these same racial and ethnic groups who are also generally more disadvantaged to begin with before incarceration and monetary sanctions became a reality in their lives. In other words, these are the groups that can least afford burdensome LFOs.

The findings here support and build on Harris's notion that LFOs can perpetuate inequality. Expanding on how LFOs might increase inequality, the present study found that those who cannot stay on top of their LFO repayment schedules are subject to more surveillance than those who can afford to pay them off. In a very real way, those who make less money and have debts are subject to tighter formal controls. And in some cases, their financial inability to repay their debts results in the literal loss of their freedom, which may then re-trigger the cycle of incarceration, reentry, debt, and poverty.

### **Peculiar Pecuniary Incentives: Other Issues for Criminal Justice Reform**

The United States has been described as a society that fetishizes money (Messner & Rosenfeld, 2012); it rewards moneymakers and dealmakers with extreme power and responsibility (Trump & Schwartz, 2009). The current system of relying so heavily on criminal justice defendants to pay LFOs was borne out of this capitalist context. Logan and Wright (2014) refer to the American style of punishment as “Mercenary Criminal Justice”—as many of the fines, fees, and costs applied to defendant cases either directly or indirectly pay for the salaries of justice officials or otherwise serve to maintain the organization that is charging the LFOs. Indeed, some of the fees charged in one court went directly to pay for comprehensive healthcare for its court workers (Robertson,

2015). There are at least two other problems worth mentioning that emerge as a result of this financial system of justice. The first is the constitutionality of assessing fees that benefit the person doing the assessing, and the second involves how this system of sanctioning impacts the perceptions of the people subjected to this system.

In terms of constitutionality, the first case to address the role of financial sanctions that benefit court employees was *Tumey v. Ohio* (1927). The holding in this case was that such practices were in violation of the due process clause of the U.S. Constitution. Key to this decision was that those doing the sanctioning (judges) could not administer justice in a neutral and impartial manner if they were positioned to benefit from a particular outcome. A number of more recent cases have built on these basic principles of neutrality and impartiality. In relation to the present findings, though the fees collected by probation officers presumably do not go into their own pockets, they are likely used to bolster the financial vitality of the court system, and therefore the probation officers benefit personally from fine and fee collection and enforcement. In Ferguson, MO, for example, we saw that such reliance on revenue from fines and fees funded a sizable portion of the local law enforcement and court budget (U.S. Department of Justice, 2015a).

The next question that arises is: if the practice of administering justice in the form of fines and fees that ultimately support one's own employment or financial security is unconstitutional, why does it continue? This is not an easy question. Logan and Wright (2014) have offered the idea that fines and fees are often set at local and county levels. Given the closed-off nature of most of these smaller scale court and law enforcement systems, there is little transparency into the practices of justice officials. It is within these

low visibility environments that abuses of discretion can occur (Walker, 1993). Further, because there are so many sovereign systems that implement their own LFO policy, there is extreme variation in the practice. This makes it hard for justice officials at higher levels to regulate and monitor. As an example, at the 2015 annual meeting of the American Society of Criminology, an Assistant U.S. Attorney General noted that he was well aware of numerous other locales whose fee practices violate the Constitution in the way that Ferguson's local government did, but his oversight ability is severely limited by resources. As such, their office needs to be very selective in who they target for investigation and reform.

The last issue discussed here that arises from this revenue-centered form of criminal justice is that it appears to affect perceptions of the justice system in a way that makes people think it is illegitimate.<sup>38</sup> Returning to the example of Ferguson, the report published by the Department of Justice noted that the heavy reliance on fines, fees, and late charges among the heavily African American population severely impacted police-community relations (U.S. Department of Justice, 2015a). Because law enforcement was spending so much time pursuing people for traffic and criminal violations that would yield large sums of money, the residents perceived that the government's primary aim was to extract money from them. Because the events in Ferguson were so widely publicized, people living in places far from Ferguson may also have increased feelings that justice systems are illegitimate. This perception of police and court system illegitimacy, of course, may have impacts on crime levels as well. There are certainly

---

<sup>38</sup> As a case study involving police, Ward, Nobles, Lanza-Kaduce, Levett, & Tillyer (2011) found that citizen perceptions of police legitimacy were adversely affected when speed traps—a productive tool for raising revenue—were instituted in Florida.

more issues stemming from mercenary criminal justice systems, but their dubious constitutionality on due process grounds and their impact on citizens and their perceptions are among the most pressing reasons to revisit these central and widespread features of American justice.

## **Conclusion**

This dissertation built on an emerging literature on legal financial obligations, their use in American justice, and the implications they might have for the notoriously tentative transition from incarceration to community release by applying quantitative methodologies to a longitudinal data set of former prisoners. On the bright side—and in contrast to prior qualitative and descriptive work—LFOs did not show to have adverse impacts on several important outcomes including depression and family conflict. However, LFOs—supervision debt in particular—did adversely affect those who could not pay them off in time by keeping them bound to the formal justice system, exposed to heightened law enforcement monitoring and increased risk for violation and return to prison. Financial sanctions certainly have legitimate uses in the criminal justice toolkit. However, should future work demonstrate that these findings hold a degree of external validity, then the critics’ argument that such heavy emphasis on financial sanctions creates a two-tiered justice system may be supported. Those who can afford to pay their LFOs are relieved of government intervention and surveillance while those who cannot afford to are subject to law enforcement monitoring and further punishment.

In 1891, Chief Justice Melville Fuller wrote on behalf of the unanimous Court in *Caldwell v. Texas*:

“By the Fourteenth Amendment, the powers of the states in dealing with crime within their borders are not limited, but no state can deprive

particular persons or classes of persons of equal and impartial justice under the law...” (137 U.S. 697).

Over a century later, American justice continues to wrestle with how to apply law and social control in ways that do not disproportionately impact certain vulnerable segments of society, such as the poor and disenfranchised. The horizon need not be dark, however. Not only is research on financial sanctioning and its implementation on the rise, the issues in this realm have caught the attention of the mainstream media. More broadly, this is occurring in a socio-political context where there is increasing bipartisan enthusiasm for criminal justice reform initiatives. It is through efforts like these that, incrementally, Justice Fuller’s wisdom may be realized.



## REFERENCES

- Acock, A. C. (2013). Discovering Structural Equation Modeling using Stata. *Stata Press*.
- Adamson, C. R. (1983). Punishment after slavery: Southern state penal systems 1865-1890. *Social Problems*, 555–569.
- Afeef, J., Bostwick, L., Kim, S., & Reichert, J. (2012). *Policies and Procedures of the Illinois Criminal Justice System*. Chicago, IL.
- Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*, 30(47). <http://doi.org/10.1111/j.1745-9125.1992.tb01093.x>
- Agnew, R. (2006). *Pressured into crime: An overview of general strain theory*. Oxford University Press. New York, NY: Oxford University Press.
- Albin-Lackey, C. (2014). *Profiting from probation: America's "offender-funded" probation industry*. Human Rights Watch.
- Allison, P. D. (2003). Missing data techniques for structural equation modeling. *Journal of Abnormal Psychology*, 112(4), 545–557. <http://doi.org/10.1037/0021-843X.112.4.545>
- Allison, P. D. (2012). When Can You Safely Ignore Multicollinearity? *Statistical Horizons*.
- American Civil Liberties Union. (2010). *In for a penny: The rise of America's new debtor's prisons*. *In for a penny: The rise of America's new debtor's prisons*.
- Anno, B. J. (2004). Prison health services: An overview. *Journal of Correctional Health Care*, 10(3), 287–301.

- Armstrong, K. (2015). The Woman Who Spent Six Years Fighting a Traffic Stop. *The Marshall Project*.
- Baker, K. (2006). Cruel and Unusual: Why Prisoners Shouldn't Pay Their Way. *American Heritage*.
- Bannon, A., Nagrecha, M., & Diller, R. (2010). Criminal Justice Debt: A Barrier to Reentry. *New York, NY: Brennan Center for Justice*.
- Beckett, K., & Harris, A. (2011). On cash and conviction. *Criminology & Public Policy*, 10(3), 509–537. <http://doi.org/10.1111/j.1745-9133.2011.00726.x>
- Beckett, K., & Murakawa, N. (2012). Mapping the shadow carceral state: Toward an institutionally capacious approach to punishment. *Theoretical Criminology*, 16(2), 221–244. <http://doi.org/10.1177/1362480612442113>
- Bender, A., Bingham, S., Castaldi, M., Piana, E. Della, Desautels, M., Herald, M., ... Zhen, T. (2015). *Not just a Ferguson problem: How traffic courts drive inequality in California*. Lawyers Committee for Civil Rights. San Francisco, CA: Lawyers Committee for Civil Rights.
- Berger, A. T., & DaGrossa, J. A. (2013). Overcoming legal barriers to reentry: A law school-based approach to providing legal services to the reentry community. *Federal Probation*, 77(3).
- Blackmon, D. A. (2008). *Slavery by Another Name: The Re-enslavement of Black People in America from the Civil War to World War II*. New York, NY: Doubleday.
- Bonczar, T. P. (1997). *Characteristics of adults on probation, 1995*. U.S. Department of

*Justice*. Washington, D.C.: U.S. Department of Justice.

Bonta, J., Blais, J., & Wilson, H. a. (2014). A theoretically informed meta-analysis of the risk for general and violent recidivism for mentally disordered offenders. *Aggression and Violent Behavior, 19*(3), 278–287. <http://doi.org/10.1016/j.avb.2014.04.014>

Brayne, S. (2014). Surveillance and system avoidance: Criminal justice contact and institutional attachment. *American Sociological Review, 79*(3), 367–391. <http://doi.org/10.1177/0003122414530398>

Bucklen, K., & Zajac, G. (2009). But some of them don't come back (to prison!): Resource deprivation and thinking errors as determinants of parole success and failure. *The Prison Journal, 89*(3), 239–264. <http://doi.org/10.1177/0032885509339504>

Bureau of Justice Assistance, Office of Justice Programs. (2017). Retrieved March 24, 2017, from [https://www.bja.gov/programs/justicereinvestment/what\\_is\\_jri.html](https://www.bja.gov/programs/justicereinvestment/what_is_jri.html)

Cammett, A. (2006). Expanding collateral sanctions: The hidden costs of aggressive child support enforcement against incarcerated parents. *Georgetown Journal on Law & Policy, 13*(2).

Clear, T. R. (2007). *Imprisoning communities: How mass incarceration makes disadvantaged communities worse*. Oxford University Press.

Cochran, J. C. (2014). Breaches in the Wall: Imprisonment, Social Support, and Recidivism. *Journal of Research in Crime and Delinquency, 51*(2). <http://doi.org/10.1177/0022427813497963>

- Community Supervision and Corrections Department - Probation Information. (2017). Retrieved March 23, 2017, from [http://caldwellcscd.org/index\\_files/Page342.htm](http://caldwellcscd.org/index_files/Page342.htm)
- Cook, F. (2014). *The burden of criminal justice debt in Alabama*. Retrieved from [http://www.uab.edu/medicine/substanceabuse/images/The\\_Burden\\_of\\_Criminal\\_Justice\\_Debt\\_in\\_Alabama-Part\\_1\\_Main\\_Report.pdf](http://www.uab.edu/medicine/substanceabuse/images/The_Burden_of_Criminal_Justice_Debt_in_Alabama-Part_1_Main_Report.pdf)
- Crawford, C., Chiricos, T., & Kleck, G. (1998). Race, racial threat, and sentencing of habitual offenders. *Criminology*, 36(3).
- Crouch, B. M. (1993). Is incarceration really worse? Analysis of offenders' preferences for prison over probation. *Justice Quarterly*, 10(1).
- Cullen, F. T. (1994). Social support as an organizing concept for criminology: Presidential address to the academy of criminal justice sciences. *Justice Quarterly*. <http://doi.org/10.1080/07418829400092421>
- DeVellis, R. F. (2012). *Scale Development: Theory and Applications*. Sage Publications, 26.
- Dewan, S. (2015a). Private Probation Company Accused of Abuses in Tennessee. *The New York Times*, p. A15.
- Dewan, S. (2015b). Surreptitious video of a judge's threats leads to changes in a Georgia town. *The New York Times*, p. A12.
- Dickman, M. (2009). Should crime pay?: A critical assessment of the mandatory victims restitution act of 1996. *California Law Review*, 97(6), 1687–1718.
- Doherty, F. (2016). Obey all laws and be good: Probation and the meaning of recidivism.

*The Georgetown Law Journal*, 104(291), 291–354.

<http://doi.org/10.1525/sp.2007.54.1.23>.

Draine, J., & Herman, D. (2007). Critical Time Intervention for Reentry From Prison for Persons With Mental Illness. *Psychiatric Services*, 58(12).

<http://doi.org/10.1176/ps.2007.58.12.1577>

Dreentea, P. (2000). Age, debt and anxiety. *Journal of Health and Social Behavior*, 41(4), 437–450.

Dreentea, P., & Lavrakas, P. J. (2000). Over the limit: The association among health, race and debt. *Social Science & Medicine*, 50(4), 517–529.

Durose, M. R., & Langan, P. A. (2003). *Felony sentences in state courts, 2003 (BJS Bulletin NCJ 198821)*. U.S. Department of Justice. Washington D.C.: U.S. Department of Justice.

Edwards, M. C., & Cheavens, J. S. (2010). Epidemiologic Studies Depression Scale: Is a One-Factor Model Plausible? *Psychological Assessment*, 22(3), 711–715.

<http://doi.org/10.1037/a0019917.A>

Eisen, L.-B. (2015). *Charging Inmates Perpetuates Mass Incarceration*. New York, NY.

Eitle, D., Alessio, S. J. D., & Stolzenberg, L. (2014). Racial Threat and Social Control : A Test of The Political , Economic , and Threat of Black Crime Hypotheses. *Social Forces*, 81(December 2002), 557–576. <http://doi.org/10.1353/sof.2003.0007>

Evans, D. N. (2014). *The debt penalty: Exposing the financial barriers to offender reintegration*. John Jay Research and Evaluation Center. New York, NY: John Jay

Research and Evaluation Center.

Feldmeyer, B., Warren, P. Y., Siennick, S. E., & Neptune, M. (2014). Racial, Ethnic, and Immigrant Threat: Is There a New Criminal Threat on State Sentencing? *Journal of Research in Crime and Delinquency*, 52(1), 62–92.

<http://doi.org/10.1177/0022427814548488>

Finn, P., & Parent, D. (1992). *Making the offender foot the bill: A Texas program*. National Institute of Justice. Washington, D.C.: National Institute of Justice.

Gardner, W., Mulvey, E. P., & Shaw, E. C. (1995). Regression analyses of counts and rates: Poisson, overdispersed Poisson, and negative binomial models. *Psychological Bulletin*, 118(3), 392–404. <http://doi.org/10.1037/0033-2909.118.3.392>

Garland, D. (2001). *The culture of control: Crime and social order in contemporary society*. University of Chicago Press. Chicago: University of Chicago Press.

Garland, D. (2013). Penalty and the penal state. *Criminology*, 51(3), 475–517.

<http://doi.org/10.1111/1745-9125.12015>

Goffman, A. (2014). *On the run: Fugitive life in an American city*. University of Chicago Press.

Gordon, M. A., & Glaser, D. (1991). The use and effects of financial penalties in municipal courts. *Criminology*, 29(4), 651–676. <http://doi.org/10.1111/j.1745-9125.1991.tb01083.x>

Grattet, R., & Lin, J. (2016). Supervision Intensity and Parole Outcomes: A Competing Risks Approach to Criminal and Technical Parole Violations. *Justice Quarterly*,

33(4), 565–583. <http://doi.org/10.1080/07418825.2014.932001>

Grattet, R., Lin, J., & Petersilia, J. (2011). Supervision Regimes, Risk, And Official

Reactions To Parolee Deviance. *Criminology*, 49(2), 371–399.

<http://doi.org/10.1111/j.1745-9125.2011.00229.x>

Grattet, R., Petersilia, J., Lin, J., & Beckman, M. (2009). Parole violations and

revocations in California: Analysis and suggestions for action. *Federal Probation*,

73(1), 1–11. <http://doi.org/10.1525/sp.2007.54.1.23>.

Greene, J. (1990). *The Staten Island Day Fine Experiment*. New York, NY.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data*

*Analysis* (7th ed.). Cranbury: Pearson.

Hairston, C. (2002). Fathers in Prison. *Marriage & Family Review*, 32(3–4), 111–135.

[http://doi.org/10.1300/J002v32n03\\_07](http://doi.org/10.1300/J002v32n03_07)

Halaby, C. (2004). Panel Models in Sociological Research: Theory into Practice. *Annual*

*Review of Sociology*, 30, 507–544.

<http://doi.org/10.1146/annurev.soc.30.012703.110629>

Harding, D. J. (2003). Counterfactual Models of Neighborhood Effects: The Effect of

Neighborhood Poverty on Dropping Out and Teenage Pregnancy. *American Journal*

*of Sociology*, 109(3), 676–719. <http://doi.org/10.1086/379217>

Harland, A. T. (1980). Restitution in criminal law. *Criminal Justice Research Center*,

*University at Albany*.

Harland, A. T. (1981). *Restitution to victims of personal and household crimes*. Bureau of

*Justice Statistics*. Washington, D.C.: Bureau of Justice Statistics.

Harris, A. (2016). *A Pound of Flesh: Monetary Sanctions as a Permanent Punishment for Poor People*. New York: Russell Sage.

Harris, A., Evans, H., & Beckett, K. (2010). Drawing Blood from Stones: Legal Debt and Social Inequality in the Contemporary United States. *American Journal of Sociology*, *115*(6), 1753–1799. <http://doi.org/10.1086/651463>

Harris, A., Evans, H., & Beckett, K. (2011). Courtesy Stigma and Monetary Sanctions: Toward a Socio-Cultural Theory of Punishment. *American Sociological Review*, *76*(2), 234–264. <http://doi.org/10.1177/0003122411400054>

Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the Lowest of the. *Psychological Science*, *17*(10), 847–853. <http://doi.org/10.1111/j.1467-9280.2006.01793.x>

Hartman, J., Travis, L., & Latessa, E. (1996). Thirty-nine years of parole rules. *Paper Presented at the Annual Meeting of the Academy of Criminal Justice Sciences, Las Vegas, NV*.

Hillsman, S. T. (1990). *Fines and day fines*. University of Chicago Press. Chicago: University of Chicago Press.

Hillsman, S. T., & Greene, J. A. (1992). The use of fines as an intermediate sanction. In *Sage*. Newbury Park, CA: Sage.

Holzer, H., Offner, P., & Sorensen, E. (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. <http://doi.org/10.1002/pam.20092>



- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.  
<http://doi.org/10.1080/10705519909540118>
- Iratzoqui, A., & Metcalfe, C. (2015). Set up for failure? Examining the influence of monetary sanctions on probation success. *Criminal Justice Policy Review*.  
<http://doi.org/10.1177/0887403415586595>
- Karakatsanis, A. (2015). Personal communication.
- Katzenstein, M. F., & Nagrecha, M. (2011). A new punishment regime. *Criminology & Public Policy*, 10(3), 555–568. <http://doi.org/10.1111/j.1745-9133.2011.00731.x>
- Katzenstein, M. F., & Waller, M. R. (2015). Taxing the poor: Incarceration, poverty governance, and the seizure of family resources. *Perspectives on Politics*, 13(3), 638–656. <http://doi.org/10.1017/S153759271500122X>
- Kilgore, J. (2012). Electronic monitoring: Some causes for concern. *Prison Legal News*. Retrieved from <https://www.prisonlegalnews.org/news/2012/mar/15/electronic-monitoring-some-causes-for-concern/>
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: The Guilford Press.
- Kotloff, L. J. (2005). Leaving the Street: Young fathers from hustling to legitimate work. *Public/Private Ventures*. Retrieved from [http://ppv.issuelab.org/resource/leaving\\_the\\_street\\_young\\_fathers\\_move\\_from\\_hustling\\_to\\_legitimate\\_work](http://ppv.issuelab.org/resource/leaving_the_street_young_fathers_move_from_hustling_to_legitimate_work)

- Krauth, B., & Stayton, K. (2005). *Fees paid by jail inmates: Fee categories, revenues, and management perspectives in a sample of U.S. jails*. U.S. Department of Justice, National Institute of Corrections. U.S. Department of Justice, National Institute of Corrections.
- Kutateladze, B. L., Andiloro, N. R., Johnson, B. D., & Spohn, C. C. (2014). Cumulative disadvantage: Examining racial and ethnic disparity in prosecution and sentencing. *Criminology*, 52(3), 514–551. <http://doi.org/10.1111/1745-9125.12047>
- La Vigne, N. L., Davies, E., Palmer, T., & Halberstadt, R. (2008). *Release planning successful reentry: A guide for corrections, service providers, and community groups*. Urban Institute. Washington, D.C.: Urban Institute.
- La Vigne, N. L., & Kachnowski, V. (2005). *Texas Prisoners' Reflections on Returning Home*. Washington D.C.
- Langton, L., & Piquero, N. L. (2007). Can general strain theory explain white-collar crime? A preliminary investigation of the relationship between strain and select white-collar offenses. *Journal of Criminal Justice*, 35, 1–15. <http://doi.org/10.1016/j.jcrimjus.2006.11.011>
- Lattimore, P. K., Barrick, K., Cowell, A., Dawes, D., Steffey, D., Tueller, S., & Visher, C. A. (2012). Prisoner reentry services: What worked for SVORI evaluation participants. Retrieved June 5, 2015, from <https://www.ncjrs.gov/pdffiles1/nij/grants/238214.pdf>
- Laub, J. H. (2014). *Understanding inequality and the justice system response: Charting a new way forward*. William T. Grant Foundation. William T. Grant Foundation.

- Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: delinquent boys to age 70*. Harvard University Press. Cambridge, MA: Harvard University Press.
- Legler, P. K. (1996). The coming revolution in child support policy: Implications of the 1996 Welfare Act. *Family Law Quarterly*, 30(3), 519–563.
- Levingston, K., & Turetsky, V. (2007). Debtor's prison--Prisoners' accumulation of debt as a barrier to reentry. *Clearinghouse Review*, 41, 187–197.
- Lin, J., Grattet, R., & Petersilia, J. (2010). "Back-end sentencing" and reimprisonment: Individual, organizational, and community predictors of parole sanctioning decisions. *Criminology*, 48(3), 759–795.
- Link, N. W., & Roman, C. G. (2017). Longitudinal Associations among Child Support Debt , Employment, and Recidivism after Prison. *The Sociological Quarterly*, 58(1), 140–160. <http://doi.org/10.1080/00380253.2016.1246892>
- Little, R. J., & Rubin, D. B. (2014). *Statistical analysis with missing data*. John Wiley & Sons, Ltd.
- Logan, W. A., & Wright, R. F. (2014). *Mercenary Criminal Justice*.
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130–149. [http://doi.org/10.1016/S1726-4901\(09\)70399-5](http://doi.org/10.1016/S1726-4901(09)70399-5)
- Mahoney, B., Greene, J. B., & Eigler, J. (1996). *How to use structured fines (day fines) as an intermediate sanction*. Bureau of Justice Assistance. Bureau of Justice

Assistance. Retrieved from <https://www.ncjrs.gov/pdffiles/156242.pdf>

Markowitz, E. (2015). Chain gang 2.0: If you can't afford this GPS ankle bracelet, you get thrown in jail. *International Business Times*.

Martire, K., Sunjic, S., Topp, L., & Indig, D. (2011). Financial sanctions and the justice system: Fine debts among New South Wales prisoners with a history of problematic substance use. *Australian & New Zealand Journal of Criminology*, 44(2), 258–271. <http://doi.org/10.1177/0004865811405258>

Maruna, S. C. (2001). *Making good: how ex-convicts reform and rebuild their lives*. American Psychological Association (1st ed). Washington, D.C: American Psychological Association.

Mauer, M., & Chesney-Lind, M. (2003). *Invisible punishment: The collateral consequences of mass incarceration*. New York: The New Press.

McLean, R. L., & Thompson, M. D. (2007). *Repaying debts*. Council of State Governments Justice Center. New York, NY: Council of State Governments Justice Center.

Menard, S. (1995). *Applied Logistic Regression Analysis: Sage University Series on Quantitative Applications in the Social Sciences*. Thousand Oaks, CA: Sage.

Messner, S. F., & Rosenfeld, R. (2012). *Crime and the American Dream*. Cengage Learning.

Miethe, T. D., & Lu, H. (2005). *Punishment: A Comparative Historical Perspective*. Cambridge University Press. New York: Cambridge University Press.

- Miller, D., & Mincy, R. B. (2015). Falling further behind? Child support arrears and fathers' labor force participation, *86*(4), 604–635.
- Miller, W. I. (1997). *Anatomy of Disgust*. Cambridge: Harvard University Press.
- Morris, N., & Tonry, M. H. (1991). *Between Prison and Probation: Intermediate Punishments in a Rational Sentencing System*. Oxford University Press.
- Mossakowski, K. N. (2013). Disadvantaged Family Background and Depression among Young Adults in the United States: The Roles of Chronic Stress and Self-Esteem. *Stress and Health, 62*, 52–62. <http://doi.org/10.1002/smi.2526>
- Mowen, T. J., & Visher, C. A. (2013). Drug use and crime after incarceration: The role of family support and family conflict. *Justice Quarterly, 32*(2), 337–359. <http://doi.org/10.1080/07418825.2013.771207>
- Mullaney, F. G. (1988). Economic sanctions in community corrections. *U.S. Department of Justice, National Institute of Corrections*.
- Muthen, L. K., & Muthen, B. O. (2011). *Mplus User's Guide. Sixth Edition*. Los Angeles, CA: Muthen & Muthen.
- Nagin, D. S. (2008). Thoughts on the broader implications of the “miracle of the cells.” *Criminology & Public Policy, 7*(1), 37–42. <http://doi.org/10.1111/j.1745-9133.2008.00488.x>
- Nagin, D. S., & Pogarsky, G. (2001). Integrating celerity, impulsivity, and extralegal sanction threats into a model of general deterrence: Theory and evidence. *Criminology, 39*(4), 865–892. <http://doi.org/10.1111/j.1745-9125.2001.tb00943.x>

- Nagrecha, M., Katzenstein, M. F., & Davis, E. (2015). *When all else fails, fining the family*. Center for Community Alternatives. New York, NY: Center for Community Alternatives.
- Nelson, M. C., Lust, K., Story, M., & Ehlinger, E. (2008). Credit card debt, stress and key health risk behaviors among college students. *American Journal of Health Promotion, 22*(6), 400–407.
- O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality and Quantity, 41*(5), 673–690. <http://doi.org/10.1007/s11135-006-9018-6>
- Ohio Chapter 2951: Probation. (2017). Retrieved March 23, 2017, from <http://codes.ohio.gov/orc/2951>
- Olson, D. E., & Ramker, G. F. (2001). Crime does not pay, but criminals may: Factors influencing the imposition and collection of probation fees. *Justice System Journal, 22*, 29.
- Ovwigbo, P., Saunders, C., & Born, C. (2005). *The Intersection of Incarceration and Child Support: A snapshot of Maryland's Caseload*. Baltimore, MD: Family Welfare Research and Training Group.
- Pager, D. (2007). *Marked: race, crime, and finding work in an era of mass incarceration*. Chicago, IL: University of Chicago Press.
- Patterson, E. G. (2008). Civil contempt and the indigent child support obligor: The silent return of debtor's prison. *Cornell Journal of Law and Public Policy, 18*(1), 95–141.
- Pearlin, L. I., Menaghan, E. G., Lieberman, M. a, & Mullan, J. T. (1981). The Stress

- Process. *Journal of Health and Social Behavior*, 22(4), 337–356.
- Pearlin, L. I., Schieman, S., Fazio, E. M., & Meersman, S. C. (2005). Stress, health, and the life course: Some conceptual perspectives. *Journal of Health and Social Behavior*, 46(2), 205–219.
- Pearson, J. (2004). Building debt while doing time: Child support and incarceration. *Judges' Journal*, 43(4), 5–12.
- Perkinson, R. (2008). *Texas tough: The rise of a prison empire*. Metropolitan Books. New York: Metropolitan Books.
- Petersilia, J. (1997). Probation in the United States. *Crime and Justice*, 149–200.
- Petersilia, J. (2003). *When Prisoners Come Home: Parole and Prisoner Reentry*. Oxford University Press.
- Peterson, R. D., & Krivo, L. J. (2010). *Divergent social worlds: Neighborhood crime and the racial-spatial divide*. Russell Sage Foundation.
- Pettit, B., & Western, B. (2004). Mass imprisonment and the life course: Race and class inequality in U.S. incarceration. *American Sociological Review*, 69(2), 151–169.
- Piquero, A. R., & Jennings, W. G. (2016). Research Note: Justice System-Imposed Financial Penalties Increase the Likelihood of Recidivism in a Sample of Adolescent Offenders. *Youth Violence and Juvenile Justice*, 1–16.  
<http://doi.org/10.1177/1541204016669213>
- Pogrebin, M., West-Smith, M., Walker, A., & Unnithan, N. P. (2014). Employment isn't enough: Financial obstacles experienced by ex-prisoners during the reentry process.

*Criminal Justice Review*, 39(4), 394–410. <http://doi.org/10.1177/0734016814540303>

Pritikin, M. H. (2010). Fine Labor: The Symbiosis Between Monetary and Work

Sanctions. *University of Colorado Law Review*, 1(81), 343–421.

<http://doi.org/10.1525/sp.2007.54.1.23>.

Rabuy, B., & Kopf, D. (2015). Prisons of poverty: Uncovering the pre-incarceration incomes of the imprisoned. *Prison Policy Initiative*.

Radloff, L. S. (1977). The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. *Applied Psychological Measurement*, 1(3).

Read, T. (2016). Court fines now collected from prisoners' commissary accounts. *The News-Herald*. Retrieved from <http://www.news-herald.com/article/HR/20160102/NEWS/160109960>

Reynolds, C., Cowherd, M., Barbee, A., Fabelo, T., Wood, T., & Yoon, J. (2009). *A Framework to Improve How Fines, Fees, Restitution, and Child Support are Assessed and Collected from People Convicted of Crimes*. New York, NY.

Robertson, C. (2015). Suit Alleges “Scheme” in Criminal Costs Borne by New Orleans’s Poor. *The New York Times*, p. A14.

Roman, C. G., & Link, N. W. (2015a). *Child Support, Debt, and Prisoner Reentry: Examining the Influences of Prisoners’ Legal and Financial Obligations on Reentry. Final Report to the National Institute of Justice*. Philadelphia, PA: Temple University. NIJ Grant #2012-IJ-CX-0044.

Roman, C. G., & Link, N. W. (2015b). Community reintegration among prisoners with



child support obligations: An examination of debt, needs, and service receipt.

*Criminal Justice Policy Review*, 10.1177/0887403415611460. [http://doi.org/doi:](http://doi.org/doi:10.1177/0887403415611460)

10.1177/0887403415611460

Roman, C. G., & Travis, J. (2006). Where will I sleep tomorrow? Housing, homelessness, and the returning prisoner. *Housing Policy Debate*, 17(2), 389–418.

<http://doi.org/10.1080/10511482.2006.9521574>

Roman, C., & Link, N. (2011). *Addressing legal barriers to reentry in Philadelphia: An inquiry into innovations in prisoner reentry. Final report submitted to the Philadelphia Bar Association.*

Rosenthal, A., & Weissman, M. (2007). *Sentencing for dollars: The financial consequences of a criminal conviction. Center for Community Alternatives, Justice Strategies.* Syracuse, NY: Center for Community Alternatives, Justice Strategies.

Ruback, R., & Bergstrom, M. (2006). Economic sanctions in criminal justice purposes, effects, and implications. *Criminal Justice and Behavior*, 33(2), 242–273.

<http://doi.org/10.1177/0093854805284414>

Rudes, D. S. (2012). Getting technical: Parole officers' continued use of technical violations under California's parole reform agenda. *Journal of Crime and Justice*, 35(2), 249–268. <http://doi.org/10.1080/0735648X.2012.677572>

Sampson, R. J., & Laub, J. H. (1995). *Crime in the Making: Pathways and Turning Points Through Life.* Harvard University Press. Cambridge, MA: Harvard University Press.

Santo, A. (2015). How to fight modern-day debtors' prisons? Sue the courts. *The*

*Marshall Project.*

Shapiro, J. (2014). As court fees rise, the poor are paying the price. *National Public Radio.*

Shapiro, J. (2017). National Panel Advises Judges on People Who Can't afford Court Fees. *NPR.*

Shiraldi, V., & Jacobson, M. (2014). Could less be more when it comes to probation supervision? *American City & County.*

Silver, E. (2006). Understanding the Relationship Between Mental Disorder and Violence: The Need for a Criminological Perspective. *Law and Human Behavior, 30*(6), 685–706. <http://doi.org/10.1007/s10979-006-9018-z>

Solomon, A. L. (2004). From prison to work: The employment dimensions of prisoner reentry. *Urban Institute.*

Sorensen, E. (2004). Understanding how child-support arrears reached \$18 billion in California. *The American Economic Review, 94*(2), 312–316.

*State of Massachussets, Budget Summary, Outside statement 177.* (2011).

Taylor, C. J. (2015). Gendered gathways to recidivism: Differential effects of family support by gender. *Women & Criminal Justice, 25*(3), 169–183. <http://doi.org/10.1080/08974454.2014.989305>

Taylor, R. B. (1993). *Research methods in criminal justice.* New York: McGraw Hill.

Taylor, S. E., & Stanton, A. L. (2007). Coping resources, coping processes, and mental health. *Clinical Psychology, 3*(1), 377–401.

- Teplin, L. A. (1984). Criminalizing mental disorder: The comparative arrest rate of the mentally ill. *American Psychologist*, *39*(7), 794–803.
- Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior*, *35*, 53–79.
- Thoits, P. A. (2010). Stress and health: Major findings and policy implications. *Journal of Health and Social Behavior*, *51*(1 suppl), S41–S53.  
<http://doi.org/10.1177/0022146510383499>
- Thornberry, Terence P., & Krohn, M. D. (2000). The self-report method for measuring delinquency and crime. In *Measurement and Analysis of Crime and Justice* (4(1), pp. 33–83). U.S. Department of Justice, Office of Justice Programs.
- Tinetti, M. E., Speechley, M., & Ginter, S. F. (1988). Risk factors for falls among elderly persons living in the community. *New England Journal of Medicine*, *319*(26).
- Tonry, M. H. (1996). *Sentencing Matters*. New York: Oxford University Press.
- Tonry, M. H. (1998). Intermediate Sanctions. *The Handbook of Crime and Punishment*. Oxford University Press.
- Travis, J. C. (2005). *But they all come back: facing the challenges of prisoner reentry*. Urban Institute Press (1st ed). Washington, D.C: Urban Institute Press.
- Travis, L. F., & Stacey, J. (2010). A half century of parole rules: Conditions of parole in the United States, 2008. *Journal of Criminal Justice*, *38*(4), 604–608.  
<http://doi.org/10.1016/j.jcrimjus.2010.04.032>
- Trump, D. J., & Schwartz, T. (2009). *The Art of the Deal*. Ballantine Books.

- Turner, S., & Petersilia, J. (1996). Day fines in four U.S. institutions. *Rand*.
- Tyler, T. R. (2003). Procedural Justice, Legitimacy, and the Effective Rule of Law. *Crime and Justice*, 26(5), 321–330. <http://doi.org/10.1016/j.ijlp.2010.06.009>
- U.S. Department of Justice. (2015a). *Investigation of the Ferguson Police Department*. United States Department of Justice, Civil Rights Division. Retrieved from [http://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson\\_police\\_department\\_report.pdf](http://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson_police_department_report.pdf)
- U.S. Department of Justice. (2015b). Retrieved from <http://www.justice.gov/opa/pr/fact-sheet-white-house-and-justice-department-convening-cycle-incarceration-prison-debt-and>
- Vallas, R., & Patel, R. (2012). Sentenced to a life of criminal debt: A barrier to reentry and climbing out of poverty. *Clearinghouse Review*, 46(3–4), 131–141.
- Vigorita, M. S. (2002). Fining practices in felony courts: An analysis of offender, offense and systemic factors. *Corrections Compendium*, 27(1).
- Visher, C. A., Baer, D., & Naser, R. (2006). *Ohio Prisoners' Reflections on Returning Home*. Washington D.C.
- Visher, C. A., La Vigne, N. L., & Farrell, J. (2003). *Illinois Prisoners' Reflections on Returning Home*. Washington D.C.
- Visher, C. A., & Travis, J. (2003). Transitions from prison to community: Understanding individual pathways. *Annual Review of Sociology*, 29(1), 89–113. <http://doi.org/10.1146/annurev.soc.29.010202.095931>

- Visher, C. A., & Travis, J. (2011). Life on the Outside: Returning Home after Incarceration. *The Prison Journal*, 91(3), 102S–119S.  
<http://doi.org/10.1177/0032885511415228>
- Visher, C., Debus-Sherrill, S., & Yahner, J. (2011). Employment After Prison: A Longitudinal Study of Former Prisoners. *Justice Quarterly*, 28(5), 698–718.  
<http://doi.org/10.1080/07418825.2010.535553>
- Walker, S. (1993). *Taming the system: The control of discretion in criminal justice, 1950-1990*. Oxford University Press.
- Wallace, D., Papachristos, A. V., Meares, T., & Fagan, J. (2015). Desistance and legitimacy: The impact of offender notification meetings on recidivism among high risk offenders. *Justice Quarterly*, 1–41. <http://doi.org/10.2139/ssrn.2240232>
- Wang, X., & Mears, D. P. (2010). A multilevel test of minority threat effects on sentencing. *Journal of Quantitative Criminology*, 26(2), 191–215.  
<http://doi.org/10.1007/s10940-009-9076-8>
- Ward, J. T., Nobles, M. R., Lanza-Kaduce, L., Levett, L. M., & Tillyer, R. (2011). Caught in Their Own Speed Trap: The Intersection of Speed Enforcement Policy, Police Legitimacy, and Decision Acceptance. *Police Quarterly*, 14(3), 251–276.  
<http://doi.org/10.1177/1098611111413992>
- Weisburd, D., Einat, T., & Kowalski, M. (2008). The miracle of the cells: An experimental study of interventions to increase payment of court-ordered financial obligations. *Criminology & Public Policy*, 7(1), 9–36. <http://doi.org/10.1111/j.1745-9133.2008.00487.x>

- Western, B., Braga, A., Davis, J., & Sirois, C. (2015). Stress and hardship after prison. *American Journal of Sociology*, *120*(5), 1512–1547. <http://doi.org/10.1086/681301>
- Western, B., & Pettit, B. (2010). Incarceration & social inequality. *Daedalus*, *139*(3), 8–19. [http://doi.org/10.1162/DAED\\_a\\_00019](http://doi.org/10.1162/DAED_a_00019)
- Williams, T. (2015). The High Cost of Calling the Imprisoned. *The New York Times*, p. A12.
- Wooldridge, J. (2010). *Econometric Analysis of Cross Section and Panel Data*. MIT Press. Cambridge, MA: MIT Press.
- Wooldridge, J. M. (2007). Inverse probability weighted estimation for general missing data problems. *Journal of Econometrics*, *141*(2), 1281–1301. <http://doi.org/10.1016/j.jeconom.2007.02.002>

## Appendix A. Depressive Symptoms CES-D Scale Items

Depressive symptoms items:

- q339a bothered by things that usually don't bother me
- q339b didn't feel like eating/appetite was poor
- q339c could not shake off the blues even w/ help from family
- q339d felt just as good as other people
- q339e has trouble keeping mind on what I was doing
- q339f felt depressed
- q339g felt everything I did was an effort
- q339h felt hopeful about the future
- q339i thought life had been a failure
- q339j felt fearful
- q339k sleep was restless
- q339l I was happy
- q339m talked less than usual
- q339n felt lonely
- q339o people were unfriendly
- q339p I enjoyed life
- q339q had crying spells
- q339r felt sad
- q339s felt people disliked me
- q339t could not get going

## Appendix B. IRB Approval as Exempt Status



 **Ryan Bennett** <tuf69701@temple.edu>  
to Nathan, Caterina ▾

2/1/16 ☆  

Hi Nate,  
Thanks for getting back to me.

This is not human subjects research, and you will not be required to submit to the IRB. If there's any change in the design, conduct or type of information you collect, or if you go to collect additional information, check back in with us to make sure that it will not affect the determination.

Thanks,



Research Administration



**Ryan Bennett, M.S.**  
IRB Program Coordinator  
Direct [215-707-7145](tel:215-707-7145)  
Email [ryan.bennett@temple.edu](mailto:ryan.bennett@temple.edu)

**Office of the Vice President for Research  
Administration**

**Research Compliance**  
Student Faculty Conference Center  
3340 North Broad Street  
Philadelphia, PA 19140  
Main [215-707-3390](tel:215-707-3390) / Fax [215-707-9100](tel:215-707-9100)  
Website [research.temple.edu](http://research.temple.edu)

**From:** Nathan Link [mailto:[nathan.link@temple.edu](mailto:nathan.link@temple.edu)]

**Sent:** Monday, February 01, 2016 9:17 AM

**To:** Ryan Bennett



### Appendix C. Multicollinearity Diagnostics

**Table 16.** Multicollinearity Diagnostics—VIF and Tolerance Levels for all Covariates in Model

Variable	VIF	Tolerance
Any debt	1.83	0.547
Total amount	1.18	0.848
Income	2.05	0.488
Age	1.52	0.657
Black	1.83	0.547
Other race	1.65	0.607
Education	1.12	0.890
Employed	2.14	0.467
Married	1.04	0.958
Hard drug use	1.29	0.772
Age at 1 <sup>st</sup> arrest	1.32	0.756
Prior Convictions	1.18	0.845
Drug offense	1.40	0.715
Violent offense	1.60	0.626
Supervised PR2	2.05	0.487
Arrests	1.36	0.737
Self-reported crime	1.36	0.736
Illinois	3.14	0.318
Ohio	1.81	0.553
Mean VIF=1.62		

**Appendix D. Weighted Model Results with Multiple Imputation on CJ Outcomes, N=740**

**Table 17.** Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on Criminal Justice Endogenous Variables with Multiple Imputation, N=740

	Reincarcerated		Supervised PR2		Arrest		SR Crime	
	Std. b	SE	Std. b	SE	Std. b	SE	Std. b	SE
Depression	-0.081	0.104	--	--	--	--	0.253***	0.071
Family Conflict	-0.048	0.124	--	--	0.006	0.082	0.256**	0.083
Financial Strain	0.108	0.118	--	--	--	--	--	--
Any Debt at PR1	-0.432	0.267	1.041***	0.090	-0.060	0.163	-0.167	0.173
Supervised PR2	0.484**	0.172	--	--	0.117	0.082	--	--
Arrest	0.157	0.320	--	--	--	--	--	--
Self-report crime	0.487	0.330	--	--	0.734***	0.081	--	--
Age at release	0.009	0.011	0.134*	0.057	0.003	0.008	-0.234*	0.093
White	0.330	0.226	-0.064	0.132	-0.007	0.161	-0.157	0.202
Married	-0.085	0.219	-0.101	0.117	-0.128	0.168	0.150	0.210
Education	0.040	0.067	-0.081*	0.034	-0.009	0.049	-0.041	0.053
Drug Abuse	0.057	0.179	-0.063	0.103	-0.091	0.131	0.317^	0.164
Drug Offense	0.198	0.214	-0.233	0.121	0.228^	0.136	-0.296^	0.162
Violent Offense	-0.522^	0.266	0.313*	0.132	0.036	0.183	-0.281	0.207
Age 1 <sup>st</sup> arrest	0.070	0.102	0.000	0.007	-0.005	0.010	-0.072	0.092
Prior Convictions	-0.022	0.152	-0.012	0.010	0.011	0.012	0.027	0.088
# Mos. incarcerated	-0.010	0.092	-0.031*	0.015	-0.023	0.018	0.124^	0.073
Illinois	-0.060	0.403	1.761***	0.104	-0.092	0.265	-0.286	0.256
Ohio	-0.017	0.264	0.367***	0.113	-0.258	0.165	0.203	0.198
Reinc. Pre-PR2	--	--	-0.137	0.197	0.907***	0.256	0.960***	0.221

Two-tailed tests: ^p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Multiple imputation produces logit coefficients. Key debt variable (any debt) is binary and represents whether the respondent reported having debt from any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense. RMSEA=.027; TLI=.97; CFI=.97.

**Appendix E. Weighted Model Results with Multiple Imputation on non-CJ Outcomes, N=740**

**Table 18.** Weighted Standardized Direct Effects of Exogenous and Endogenous Variables on non-Criminal Justice Endogenous Variables with Multiple Imputation, N=740

	Family Conflict		Depressive Symptoms		Financial Strain	
	Std b	SE	Std b	SE	Std b	SE
Depression	--	--	--	--	--	--
Family Conflict	--	--	0.314***	0.059	0.546***	0.050
Financial Strain	--	--	0.212***	0.062	--	--
Any Debt at PR1	0.003	0.111	0.009	0.095	0.182	0.189
Supervised PR2	--	--	--	--	--	--
Arrest	--	--	--	--	--	--
Self-report crime	--	--	--	--	--	--
Age at release	-0.006	0.005	-0.001	0.005	0.008	0.006
White	0.342*	0.134	0.131	0.145	0.021	0.146
Married	-0.001	0.116	0.033	0.108	-0.088	0.132
Education	-0.008	0.030	-0.008	0.029	-0.066 <sup>^</sup>	0.036
Drug Abuse	0.351***	0.096	-0.088	0.094	0.020	0.109
Drug Offense	0.231*	0.103	-0.138	0.107	-0.075	0.121
Violent Offense	-0.099	0.125	-0.158	0.109	-0.172	0.146
Age 1 <sup>st</sup> arrest	-0.003	0.006	0.000	0.006	0.004	0.007
Prior Convictions	0.000	0.007	0.003	0.009	0.000	0.007
# Mos. incarcerated	-0.011	0.012	-0.005	0.011	0.001	0.014
Illinois	-0.594***	0.124	-1.388***	0.286	0.577*	0.295
Ohio	0.185	0.115	-0.540**	0.175	0.081	0.138
Reinc. Pre-PR2	0.213	0.154	0.316	0.178	-0.368 <sup>^</sup>	0.190

Two-tailed tests: <sup>^</sup>p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Multiple imputation via maximum likelihood produces logit coefficients. Blank cells either represent theoretical pathways constrained to zero in the model and not required as indicated by the model modification indices, or represent non-estimated relationships between non-criminal justice endogenous variables and themselves. All endogenous CJ variables are binary. Key debt variable (any debt) is binary and represents whether the respondent reported having debt from any of the following sources: court costs, supervision fees, AOD treatment fees, and fines. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense. RMSEA=.027; TLI=.97; CFI=.97.

**Appendix F. Weighted Model Results Examining Changes in CJ Supervision Status with Multiple Imputation, N=740**

**Table 19.** Weighted Model Results Examining Debt on Changes in Criminal Justice Supervision Status with Multiple Imputation, N=740 (non-CJ outcomes omitted from table)

	Reincarcerated		Supervised PR2		Arrest		SR Crime	
	Std. b	SE	Std. b	SE	Std. b	SE	Std. b	SE
Depression	-0.098	0.103	--	--	--	--	0.250***	0.071
Family Conflict	-0.030	0.120	--	--	0.006	0.083	0.259**	0.082
Financial Strain	0.095	0.110	--	--	--	--	--	--
Any Debt at PR1	-0.234	0.264	0.271 <sup>^</sup>	0.147	-0.033	0.166	-0.190	0.198
Supervised PR2	0.301*	0.154	--	--	0.029	0.104	-0.008	0.125
Supervised PR1	--	--	1.666***	0.108	--	--	--	--
Arrest	0.186	0.305	--	--	--	--	--	--
Self-report crime	0.463	0.321	--	--	0.729***	0.081	--	--
Age at release	0.012	0.011	0.001	0.006	0.003	0.008	-0.235*	0.094
White	0.338	0.233	-0.128	0.193	-0.013	0.160	-0.159	0.202
Married	-0.082	0.221	-0.114	0.136	-0.130	0.172	0.151	0.221
Education	0.021	0.067	-0.021	0.042	-0.013	0.049	-0.040	0.054
Drug Abuse	0.013	0.183	0.181	0.145	-0.089	0.136	0.319	0.167
Drug Offense	0.126	0.203	-0.111	0.138	0.214	0.134	-0.294	0.161
Violent Offense	-0.449 <sup>^</sup>	0.256	0.074	0.169	0.048	0.182	-0.284	0.207
Age 1 <sup>st</sup> arrest	0.009	0.014	0.013	0.010	-0.005	0.010	-0.070	0.094
Prior Convictions	-0.006	0.015	-0.002	0.021	0.011	0.013	0.030	0.090
# Mos. incarcerated	-0.008	0.025	-0.012	0.019	-0.024	0.019	0.125	0.078
Illinois	0.307	0.360	0.506***	0.145	-0.030	0.302	-0.317	0.338
Ohio	-0.011	0.283	0.388**	0.135	-0.245	0.199	0.196	0.239
Reinc. Pre-PR2	--	--	-0.185	0.220	0.888***	0.253	0.953***	0.221

Two-tailed tests: <sup>^</sup>p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Multiple imputation produces logit coefficients. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense. RMSEA=.022; TLI=.97; CFI=.97.

**Appendix G. Weighted Model Results Examining Debt from Supervision Fees on CJ Outcomes with Multiple Imputation,  
N=740**

**Table 20.** Weighted Model Results Examining Debt from Supervision Fees on Criminal Justice Outcomes with Multiple Imputation, N=740 (non-CJ outcomes omitted from table)

	<b>Reincarcerated</b>		<b>Supervised PR2</b>		<b>Arrest</b>		<b>SR Crime</b>	
	Std. b	SE	Std. b	SE	Std. b	SE	Std. b	SE
Depression	-0.078	0.103	--	--	--	--	0.255***	0.070
Family Conflict	-0.019	0.122	--	--	0.004	0.082	0.256**	0.082
Financial Strain	0.072	0.115	--	--	--	--	--	--
Supervision Debt	-0.418	0.395	1.493***	0.105	0.074	0.273	-0.519	0.334
Supervised PR2	0.417*	0.215	--	--	0.054	0.155	--	--
Arrest	0.199	0.309	--	--	--	--	--	--
Self-report crime	0.428	0.320	--	--	0.727***	0.080	--	--
Age at release	0.010	0.011	0.098^	0.054	0.003	0.008	-0.243**	0.095
White	0.334	0.238	-0.142	0.138	-0.022	0.165	-0.112	0.207
Married	-0.079	0.217	-0.121	0.117	-0.131	0.169	0.169	0.213
Education	0.026	0.066	-0.061^	0.036	-0.014	0.048	-0.034	0.053
Drug Abuse	0.069	0.176	-0.054	0.103	-0.084	0.129	0.317^	0.165
Drug Offense	0.132	0.205	-0.148	0.128	0.213	0.134	-0.281^	0.164
Violent Offense	-0.525*	0.261	0.250*	0.126	0.035	0.188	-0.300	0.220
Age 1 <sup>st</sup> arrest	0.008	0.014	0.005	0.007	-0.005	0.010	-0.082	0.093
Prior Convictions	-0.006	0.016	-0.004	0.009	0.011	0.013	0.020	0.101
# Mos. incarcerated	-0.004	0.024	-0.021	0.014	-0.024	0.019	0.132^	0.077
Illinois	0.119	0.462	1.712***	0.114	0.041	0.352	-0.604	0.385
Ohio	-0.047	0.275	0.501***	0.117	-0.247	0.183	0.119	0.220
Reinc. Pre-PR2	--	--	-0.158	0.200	0.908***	0.257	0.990***	0.218

Two-tailed tests: ^p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Multiple imputation produces logit coefficients. Reference category for OH and IL is TX, and reference category for drug offense and violent offense is property offense. RMSEA=.023; TLI=.97; CFI=.97.

**Appendix H. Decomposing the Effects—Standardized Total, Total Indirect, Specific Indirect, and Direct Effects of Supervision Debt on Recidivism with Multiple Imputation, N=740**

**Table 21.** Decomposing the Effects—Standardized Total, Total Indirect, Specific Indirect, and Direct Effects of Supervision Debt on Recidivism with Multiple Imputation, N=740

Pathway	Estimate	SE	<i>p</i> value
Debt to reincarceration			
Total	0.076	0.219	0.729
Direct	-0.418	0.395	0.290
Total indirect*	0.494	0.331	0.135
Specific indirect (D→S→R)	0.623	0.323	<b>0.054</b>
Debt to self-reported crime			
Total	-0.265	0.175	0.130
Direct	-0.519	0.334	0.120
Total indirect	0.254	0.291	0.382
Specific indirect (D→DEP→C)	0.003	0.024	0.887
Specific indirect (D→FC→C)	0.002	0.029	0.947
Specific indirect (D→FC→DEP→C)	0.000	0.006	0.948
Specific indirect (D→FS→DEP→C)	-0.001	0.024	0.953
Specific indirect (D→FC→FS→DEP→C)	0.000	0.005	0.949
Debt to rearrest			
Total	-0.050	0.136	0.715
Direct	0.012	0.244	0.960
Total indirect	-0.062	0.234	0.791
Specific indirect (D→S→A)	0.113	0.206	0.584
Specific indirect (D→C→A)	-0.188	0.120	0.118
Specific indirect (D→FC→A)	0.006	0.012	0.611
Specific indirect (D→FC→C→A)	0.011	0.019	0.552
Specific indirect (D→DEP→C→A)	0.002	0.016	0.905
Specific indirect (D→FC→DEP→C→A)	0.002	0.004	0.562
Specific indirect (D→FS→DEP→C→A)	-0.010	0.007	0.163
Specific indirect (D→FC→FS→DEP→C→A)	0.002	0.244	0.960

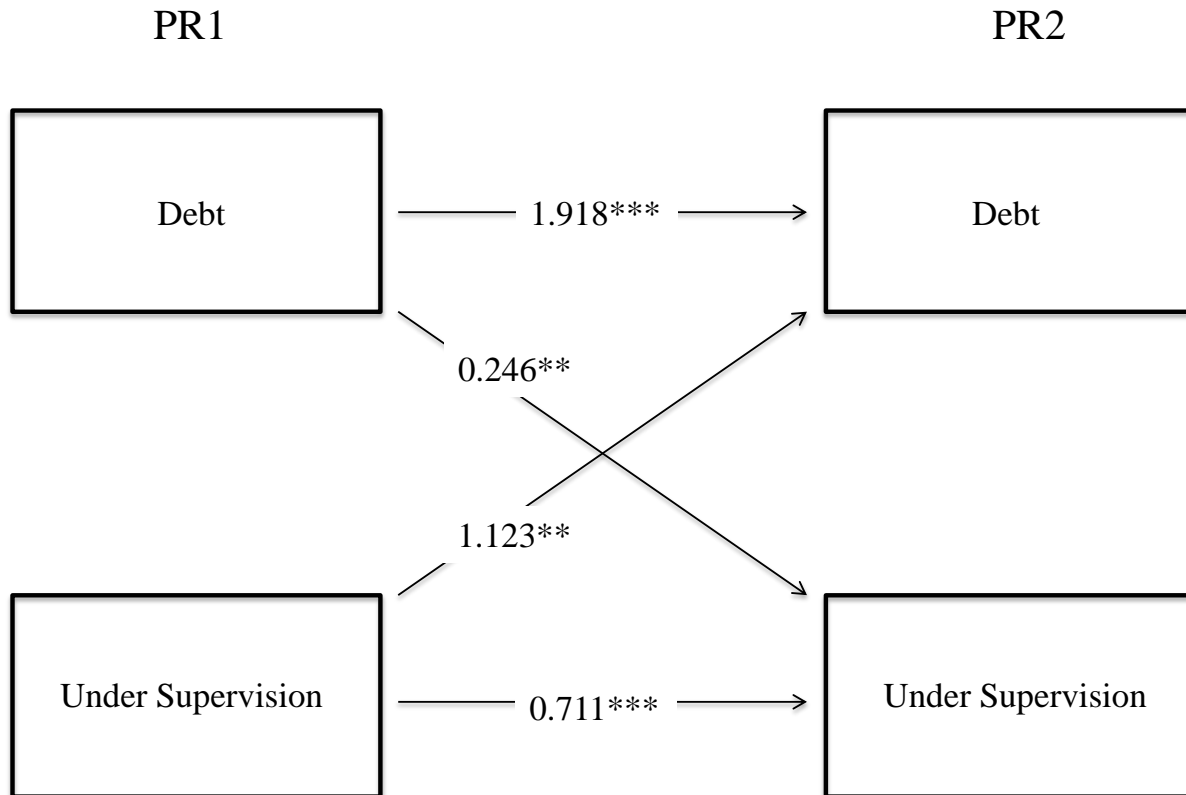
Abbreviations: D=Supervision Debt, R=Reincarceration, C=Self-reported Crime, A=Arrest, S=Supervised PR2, DEP=Depression, FC= Family Conflict, FS= Family Strain.

Standardized logit coefficients shown. Exogenous debt variable is binary and represents whether the respondent reported having debt specifically from supervision fees.

\*For presentation purposes, 19 non-significant specific indirect pathways from debt to reincarceration are omitted from the table.

## Appendix I. Debt and Supervision Status in a Cross-lagged Panel Design

Figure 5. Debt and Supervision Status in a Cross-lagged Panel Design



\*\*p<.01; \*\*\*p<.001

Model controls for the effects of age, race, marital status, drug use, education, type of offender, age at first arrest, prior convictions, months incarcerated, and in which state the person was released. Probit coefficients shown.