



Universiteit  
Leiden  
The Netherlands

## **Barred from employment? A study of labor market prospects before and after imprisonment**

Ramakers, A.A.T.

### **Citation**

Ramakers, A. A. T. (2014, June 19). *Barred from employment? A study of labor market prospects before and after imprisonment*. Meijers-reeks. Retrieved from <https://hdl.handle.net/1887/26890>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/26890>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/26890> holds various files of this Leiden University dissertation.

**Author:** Ramakers, Anke Antonia Theodora

**Title:** Barred from employment? A study of labor market prospects before and after imprisonment

**Issue Date:** 2014-06-19

# 1 Introduction

## 1.1 BACKGROUND

Dutch prisons carry out approximately 40,000 prison spells each year.<sup>1</sup> These prisoners constitute a select group of high-risk offenders as imprisonment is the most severe sentence a judge can impose in the Netherlands. Practically all these prisoners return to free society after release and their recidivism rates are high: within two years, half of the ex-prisoners will have been rearrested and one-third will be back in prison (Linckens & De Loeff, 2013). While it is known that ex-prisoners face many barriers for a successful reintegration into society (Bushway, Stoll, & Weiman, 2007), it remains unclear to what extent imprisonment caused these individuals to lose their integration with community, especially since many of them were unlikely to be integrated before they entered prison (Bushway, 2006; Dirkzwager, Nieuwbeerta, & Fiselier, 2009; Petersilia, 2003).

### 1.1.1 *Intended and unintended consequences of imprisonment*

A prison sentence is *intended* to connect to several punishment goals: retribution, general deterrence, specific deterrence and rehabilitation (Von Hirsch, Ashworth, & Roberts, 2009). The chapters in this thesis connect to the two latter punishment goals, with a focus on rehabilitation; the idea that sentences can reform the criminal tendencies of offenders and create law-abiding habits (such as regular employment).

The majority of studies on specific deterrence do not find evidence to suggest that imprisonment indeed deters offenders from crime (Nagin, Cullen, & Johnson, 2009). Instead, imprisonment is argued to generate *unintended* or *collateral* consequences which make reoffending more instead of less likely. In recent decades, the increasing punitiveness in most Western societies brought broader issues of prisoner reentry under the attention of criminologists, sociologists, and labor economists (Kling, 2006; Nieuwbeerta, 2007; Petersilia, 2003; Raphael, 2011; Visher & Travis, 2003; Western, 2002). They pointed out the numerous challenges for exiting prisoners with, for instance, affective relationships, employment, personal wellbeing and housing. These challenges influence the quality of life and recidivism risk after release. Expectations concerning the rehabilitative effect of imprisonment

---

1 Some of these ex-prisoners were released multiple times. There were 39,617 releases in 2012, this involved 32,937 persons.

– the main intended punishment goal under investigation in this thesis – are therefore also not optimistic.

Despite the rapidly growing pool of ex-prisoners and growing interest in reentry research in recent decades, systematic empirical knowledge about the various *unintended* consequences of imprisonment is scarce. Most scholars still focus on the recidivism risks of those coming out of prison, and methodologically rigorous studies remain an exception. Much work is based on small samples and research designs lack a longitudinal framework that accounts for individual circumstances before, during and after incarceration (Visher & Travis, 2003, 2011; Nieuwbeerta, 2007).

Research on outcomes other than recidivism is warranted to capture the magnitude of the intended and unintended effects of imprisonment on post-prison lives. Note that this broader research perspective does not discount the intended purposes of the prison system, such as deterrence, incapacitation and retribution, but instead “warrants a fuller accounting of the costs and benefits and net returns” (Bushway et al., 2007a, p. 2). Hence, these insights can contribute to the societal and political debates on the punishment and treatment of offenders. The punitive changes in criminal justice policies are often motivated by their expected contribution to crime control. But thus far, there is little evidence to back up these expectations. A broad research perspective, including both intended and unintended consequences of imprisonment, can help policymakers and service providers to make more informed (evidence-based) decisions.

### 1.1.2 *Labor market consequences of imprisonment*

This thesis examines the unintended effect of imprisonment on employment. And, more generally, the current work aims to enhance the insight into the labor market experiences of this group of presumably disadvantaged workers by following them over time. To what extent do these individuals face barriers to employment even before entering prison? And, are they only “barred from employment” during their prison spell, or does this spell also limit their post-release employment prospects?

The salience of this research focus stems from the fact that scholars, professionals as well as prisoners themselves, note that the path to a successful reentry depends critically on a transition to employment. Finding and holding down a good job not only provides a steady income – which weakens the temptations of illegal income – but is associated with numerous factors that promote desistance, such as personal wellbeing, affective relationships, and housing (e.g., Bushway & Reuter, 2002; Graffam, Shinkfield, Lavelle, & McPherson, 2005; Visher & Travis, 2011). Addressing labor market reentry is thus key to increasing ex-prisoners’ chances for a successful return to the community.

Longitudinal research efforts have greatly contributed to our knowledge about prisoners’ labor market experiences before and after imprisonment. Three summary observations can be made. First, prisoners are weakly

attached to the labor market in the run-up to their imprisonment (Bushway, 2006). Second, imprisonment has a negative impact on employment likelihood and earnings (Apel & Sweeten, 2010; Huebner, 2005; Waldfoegel, 1994; Western, 2002). Third, employment is related to a significant reduction in crime (Farrington, Gallagher, Morley, St. Ledger, & West, 1986; Lageson & Uggen, 2013; Uggen & Wakefield, 2008).

Despite these insights, there are several unexplored research areas in the field of imprisonment and employment. For instance, while prisons have been frequently described as institutions that house the most disadvantaged socioeconomic segments of society (Wakefield & Uggen, 2010; Western, 2006), limited empirical evidence exists to confirm that unemployment is a *longstanding feature* of prisoners' lives. Also, previous work focused primarily on employment likelihood and earnings, leaving open which *kind of jobs* ex-prisoners find, and *how* imprisonment (length) might affect employment likelihood, as well as job quality and stability. Moreover, studies on the work-crime relationship are based on community or general (young) offender samples and pay little attention to the theoretical mechanisms in which the protective effect of employment is linked to *job quality and stability*. These research gaps can partly be explained by a general lack of detailed longitudinal data on prisoners. In addition, existing work often does not allow for a causal inference of effects, and conclusions are almost solely based on American data.

This thesis intends to advance on the current body of knowledge by addressing new research questions, by revisiting research questions using detailed longitudinal survey data from the Netherlands, and by performing advanced statistical methods.

Figure 1.1 presents a schematic overview of the analytical model of this thesis. Following prisoners over time, this thesis first presents a baseline measurement of their employability, by studying the employment careers preceding imprisonment (RQ 1). Moving forward along prisoners' life courses, this thesis studies the effect of imprisonment on employment prospects (RQ 2-3). Also, insight is provided into determinants of post-release employment, with a specific focus on the role of pre-prison work experiences (RQ 4). Finally, the focus shifts to studying whether employment subsequently protects ex-prisoners from reoffending in the hectic aftermath of imprisonment (RQ 5). The dashed lines in Figure 1.1 represent relationships with (pre-existing) individual characteristics that are not the central focus of this thesis. As will be discussed later on, controlling for the role of these individual characteristics (e.g., pre-prison employment and criminal careers) is however theoretically and methodologically salient for understanding the effect of the two life course events – imprisonment and employment – under investigation in this thesis (see Table 1.1 for the research questions).

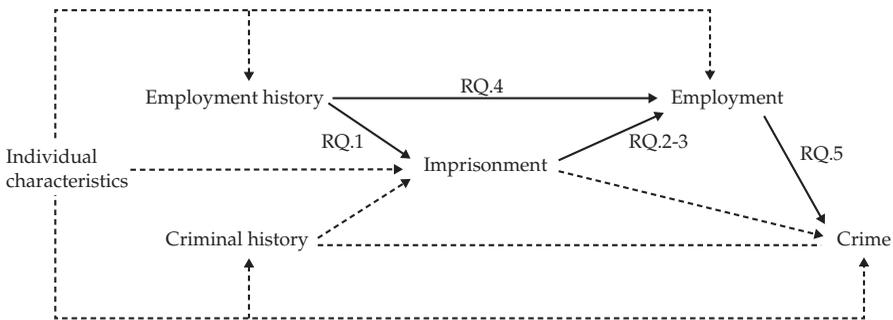


Figure 1.1. Schematic overview of research questions

## 1.2 IMPRISONMENT AND EMPLOYMENT IN THE NETHERLANDS

Relevant for a study on prisoners' labor market situation in the Netherlands is to provide insight into the unique context that these prisoners face after release, and to address how this context differs from the American context that dominates prisoner reentry research.

### 1.2.1 Imprisonment in the Netherlands

Prisons in many Western countries have undergone three full decades of uninterrupted growth (see Tonry & Farrington, 2005, and the chapters therein), and this pattern has only recently begun to slow and stabilize. The Netherlands in particular, long known for its liberal penal policies, has witnessed rapid prison expansion, growing almost fourfold (375 percent) during the last three decades (see Tonry & Bijleveld, 2007). Nonetheless, the Netherlands maintained a relatively mild penal climate in comparison to the United States (U.S.) and many other Western countries (see also Lappi-Seppälä, 2011). Over 80 percent of all Dutch prisoners released in 2012 were confined for a maximum of six months.<sup>2</sup> The median time served was one month and an average prison spell lasted 3.7 months [112 days]. As point of comparison, state prisoners in the United States serve an average sentence of two years (Guerino, Harrison, & Sabol, 2011).

While the penal climate remained relatively lenient in international comparison, the Netherlands did experience a shift towards stricter punishment policies; not only the frequency of imprisonment but also its duration increased (Junger-Tas, 1998; Moerings, 2010). At the same time prison regimes have become more sober (Downes & Van Swaaningen, 2007; Nelis-

2 Other characteristics of the Dutch prison system are that they mostly house male offenders (94.6%). Prisoners are relatively young (40% is younger than 30 years) and are often born outside the Netherlands (44.3%) (figures from 2012 in Linckens & De Looft, 2013). Moreover, individuals with a lower educational level, psychiatric disorder or substance addiction are overrepresented (Dirkzwager et al., 2009).

sen, 1998). Rehabilitation was a major punishment goal after World War II and resulted in the broad supply of educational courses and skills training, developed to better prepare individuals who are willing to make the life changes necessary to succeed after release. In the decades that followed this focus became increasingly subordinate to other tasks of the prison system, such as the humane execution of detention, the reduction of any harmful consequences of confinement and cost-effectiveness. A first reason for this shift is the declining belief in rehabilitation; disappointing outcomes of evaluation studies resulted in the “nothing-works” paradigm (Lipton, Martinson, & Wilks, 1975). A second and ongoing reason are the growing public safety concerns which accompanied the strong perception that crime rates continue(d) to increase rapidly.

In recent years, crime-reduction, by means of efficiency and effectiveness, seems to have become the main focus point in penal policies (Kamerstukken [Parliamentary documents] II 2002/03, 28 684, no. 1-2; Kamerstukken [Parliamentary documents] II 2013/14, 33 745, no. 3). And, the “nothing works” paradigm has been replaced by the less pessimistic “what works” paradigm, in which interventions are based on a more personal and evidence-based approach (Aarten, Poort, & Van der Laan, 2009). Currently only a small selection of longer-term prisoners – with a prison spell of at least four months after trial – are offered personalized educational or vocational training programs. As a result of these developments, pretrial- and short-term prisoners spend more time in their cells. Recent bills discuss a new system in which a smaller group would qualify for reintegration programs (and early release), namely only the well-behaved and motivated prisoners (Kamerstukken [Parliamentary documents] II 2013/14, 33 745, no. 3). The recent implementation of the Comprehensive Approach to Aftercare Program [Programma Sluitende Aanpak Nazorg] contrasts this downsizing trend to some degree. Social workers in prison cooperate with the municipalities (to which prisoners return) and other organizations, to ensure that prisoners have an accommodation, income, and valid identification after release. If necessary, a plan for debt assistance and health care is provided. This aftercare program is part of a broader policy plan in which organizations that come in contact with ex-prisoners (e.g., penitentiaries, police, health services, employee insurance agencies) are stimulated to improve collaboration in an attempt to increase ex-prisoners’ chances of a successful reintegration (Vereniging Nederlandse Gemeenten [Association of Netherlands Municipalities], 2009). Evaluations of the aftercare program showed that circumstances improved after release but also revealed that, despite of these efforts, ex-prisoners continue to face numerous challenges (Noordhuizen & Weijters, 2012).<sup>3</sup>

---

3 Figures on the aftercare program from eight municipalities showed that, six months after release, only 16 percent of the ex-prisoners experienced no problems with any of the life domains. Moreover, while almost 90 percent of the ex-prisoners had an income by that time, most of them relied on social benefits for this income (Noordhuizen & Weijters, 2012).

A recent review indicated that criminal interventions that are based on the idea of rehabilitation (versus deterrence) might be more effective for reducing crime in the Netherlands (Wartna, Alberda, & Verweij, 2013). Methodological rigorous studies are, however, scarce. As such, it remains largely unknown which policy changes are indeed more effective in rehabilitating offenders and reducing crime.

### 1.2.2 *Employment of ex-prisoners in the Netherlands*

Prisoners' chances to reintegrate successfully after release are likely related to the employment context to which they return. The Dutch labor market is characterized by a relatively high participation rate. During the last decade the unemployment rate circled around 5 percent, which is low compared to other European countries (Statistics Netherlands, 2012). The economic recession led to an increase in the unemployment rate in many EU-member states, and to a relatively high increase in the Netherlands. Still, the Dutch unemployment rate remained relatively low for European standards (7% versus an average of 12.1%), but became more similar to the American unemployment rate (7.4%) (Eurostat, 2013). Notably, even before the recession, over a million individuals were unemployed or disabled and did not participate in the Dutch labor market (Van Echtelt, 2010).

In order to increase the chances of a successful (re)integration into the labor market, Dutch prisoners can receive professional assistance after release. A selection of prisoners, namely those who are released on a suspended sentence with special conditions, are monitored and assisted by a probation officer – pending the special conditions defined by the judge. Another option is to seek assistance in the municipality to which ex-prisoners return. Following the aforementioned aftercare program, all ex-prisoners can receive assistance with problems in any of the primary life domains. Ex-prisoners who are willing to make the life changes necessary to succeed can also approach reintegration organizations (e.g., Exodus, DOOR, Moria, Ontmoeting). Van Wingerden, Alberda, Moerings, and Van Wilsem (2010) showed that recidivism rates of previous residents were low compared to other ex-prisoners. These organizations might thus be able to redirect ex-prisoners towards law-abiding behavior. Alternative explanations are, however, also plausible (e.g., previous residents are perhaps more motivated to change their lives). Although national figures are unknown, most prisoners seem to lack intensive guidance. However, if they choose to reach out for help, Dutch (ex-)prisoners are, arguably, more likely to receive any assistance than their American counterparts. An apparent reason for this is that individual responsibility is more strongly stressed in the United States (Becker, 2000). Moreover, the American pool of ex-prisoners is substantially larger.

The extent in which ex-prisoners are successful in finding employment can also depend on legal barriers. In the Netherlands every employer may ask applicants for a certificate of conduct. This certificate is mandatory in

certain sectors and is granted by the secretary of Security and Justice if a criminal history is not related to the future work activities (Staatscourant, 2012, no. 16054; Staatscourant, 2013, no. 5409). In recent years the certificate has become mandatory in more sectors and the rules for granting a certificate have become stricter (Boone 2011). In many cases, however, legal restrictions will not hinder employment as the Dutch law merely prohibits work activities that are related to the crime committed. And, in contrast to the United States, Dutch employers have few other possibilities to retrieve information about the criminal history of applicants.

Finally, whether or not ex-prisoners are employed might depend on whether they qualify for social benefits. Social security policies have changed in the Netherlands in recent decades. While income protection was the main goal in earlier decades, the more recent policies aim to stimulate re-employment (e.g., by tightening eligibility rules, benefit sanctions) (Abbring, Van den Berg, & Van Ours, 2005). Despite this retrenchment, the Dutch welfare system is still generous in international comparison (Becker, 2000; Esping-Andersen, 1990), especially compared to the United States, and this might affect labor market participation.

The duration and level of benefits is likely to affect the transition to employment. Following job search theory, and the more general notion of rational choice theory, an individual decides on the optimal search intensity by balancing the expected costs and benefits of this search (Mortensen, 1986; Van den Berg, 1990). Several studies found that an increase in the duration and level of benefits increase the duration of unemployment through its effect on job search strategies among the unemployed (see Lalive, Van Ours, & Zweimuller, 2006). Hence, the more generous benefits policies in the Netherlands might result in lower employment ratios among Dutch ex-prisoners compared to American ex-prisoners. Yet, it remains largely uncertain whether and how the supply of benefits indeed affects the level of labor market participation as it is difficult to isolate the effects of policy changes in (unemployment) benefits on employment rates. And, in order to draw conclusions, cross-national comparisons are needed to distinguish between the effect of such policies and other differences and policies between countries that could affect unemployment duration and employment ratios. Moreover, little is known about how marginal groups on the labor market, such as ex-prisoners, are influenced by the supply of benefits in their search for a job.

### 1.3 RESEARCH ON IMPRISONMENT AND EMPLOYMENT: A MULTI-DISCIPLINARY FIELD

In studying prisoners' labor market experiences and its relation with reoffending, this thesis connects not only to the field of prisoner reentry research, but intends to incorporate insights from multiple disciplines and research fields, specifically: life course criminology, labor market studies and penology.

### 1.3.1 Prisoner reentry research

The immense increase in prison rates in recent decades led to a renewed research focus on the reentry of prisoners. Even though increasing punitiveness appears to be a more general feature of modern Western society (see Tonry & Farrington, 2005), this research field is dominated by American scholars.

Reentry research concerns the challenge of *reintegrating* prisoners as almost all of them eventually leave prison and return home. Since imprisonment is expected to affect various life domains important for a successful reintegration, prisoner reentry research examines not only recidivism outcomes but pertains to a wider range of outcomes; family relationships, housing, social networks, employment, health or neighborhood participation. Often, these studies are based on small or unrepresentative samples or were conducted decades ago (see Visser & Travis, 2003). The effect of imprisonment on employment careers, however, has been studied rather thoroughly (e.g., Kling, 2006; Raphael, 2011; Western, 2002, 2006) (see section 1.5.2). The focus on employment can, perhaps, be explained by the high hopes for its potential to protect offenders from reoffending. In addition, scholarly access to unemployment insurance systems makes it possible to report prisoners' registered quarterly employment rates or earnings. Yet, these administrative studies miss out on an important part of prisoners' economic activities (e.g., off-the-books employment, self-employment) (Kornfeld & Bloom, 1999).

### 1.3.2 Life course criminology

The field of life course criminology combines insights from the criminal career paradigm with the more sociological life course approach (Blokland & Nieuwbeerta, 2010; Farrington, 2003). Life course theorists argue that life events, such as imprisonment or employment, can cause changes in individual development, over and above pre-existing differences between individuals. Hence, they focus on *within-individual* changes in criminal development among adult offenders. Another characteristic of this field is that a criminal career is perceived as one of many interdependent pathways, next to, for instance, employment- and marriage careers. Transitions in one pathway can function as "turning points" that redirect the development in other trajectories (Elder, 1985; Sampson & Laub, 1993).

It should be noted that challengers of this *dynamic* life course framework believe that life events do *not* have any consequences for future behavior. Instead they argue that all life events are a result of an underlying factor known as an individual's criminal propensity or self-control (Gottfredson & Hirschi, 1990). This *static* propensity is developed in the early childhood and determines the risk of offending and other life events during the entire life course. In recent years many empirical (inter)national studies have shown that individual outcomes seem to be driven by both stability (pre-existing differences between individuals) and change (transitions) (see Blokland &

Nieuwbeerta, 2010). Hence, the theoretical sections that follow in the remainder of this thesis mainly build on theories that fit within the dynamic paradigm (see section 1.4). Imprisonment and employment are thus expected to generate behavioral changes. This thesis connects to the more *static* paradigm by emphasizing throughout the chapters that controlling for pre-existing between-individual differences is theoretically (and methodologically) salient.

### 1.3.3 Labor market studies

According to labor economists, labor markets function through the interaction of workers (supply-side) and employers (demand-side). They attempt to understand the resulting wage and unemployment patterns (at macro and micro level) by considering both workers and employers as rational actors who have economic goals (i.e., earnings and productivity). Labor sociologists use a broader framework to understand labor market outcomes. They emphasize that individual behavior is conditioned by the existence of social networks and driven by both economic and non-economic motives (Granovetter, 1988). Both the economic and sociological explanations for employment outcomes are considered in this thesis.

The current thesis also connects to the theoretical notions used in both of these fields because of its focus on the effect of *imprisonment* – a forced time out of the labor market – on subsequent employment prospects. The expectation that a period of labor market absence can deteriorate one's economic prospects is common to labor market economists and sociologists alike. A period of imprisonment is however likely to have a different impact than a regular time out from the labor market.

Finally, by focusing on the labor market experiences of prisoners, a marginal group on the labor market, the current work falls within the sociological line of research pertaining to labor market stratification (see for instance Wakefield & Uggen, 2010).

### 1.3.4 Penology & effect-studies

In studying the effect of imprisonment (length) on employment outcomes and the effect of post-release employment on crime, this thesis connects to the field of penology which is concerned with the effectiveness of punishment and treatment devised for the prevention of crime.

Quantifying the impact of a punishment (imprisonment) (or another life event such as employment) on subsequent behavioral outcomes is, however, challenging because of the non-random selection of individuals into events. To illustrate, if prisoners have a higher recidivism risk than a comparison group of offenders who are given an alternative sentence, this difference can be caused by the prison confinement but can also be the result of pre-existing differences. Judges base their sentencing decision on the type of crime and suspects' risk of reoffending. As a result, prisoners might have a severe

criminal history compared to non-prisoners, and this difference, rather than the time spent in prison, might be the cause of their higher likelihood of reoffending.

The ideal way of dealing with selection effects would be to conduct randomized experiments. For ethical reasons of course, the random selection of individuals into prison is complicated. With respect to employment, experimental designs are a possibility. Yet, several meta-analyses imply that random assignment to employment has few to no causal impact on post-prison employment or rearrest (Bushway & Reuter, 2002; Visser, Winterfield, & Coggeshall, 2005). And, large-scale and methodological rigorous study designs still remain an exception in this field of research. Most scholars therefore turn to quasi-experimental designs to study the effect of treatment. In order to isolate this effect from pre-existing differences between the treatment and comparison group, researchers employ advanced statistical methods and depend on the available list of confounding variables (see sections 1.6.3, 1.7.4).

#### 1.4 GENERAL THEORETICAL BACKGROUND ON IMPRISONMENT AND EMPLOYMENT

Throughout the empirical chapters of this thesis many different theories are used to derive expectations concerning the effect of the life course events of interest – imprisonment and employment. This introductory chapter precludes an extensive coverage of all theories, and therefore the mainstream theories are discussed in short. In order to connect to the empirical chapters, these theories are grouped by life event (even though some notions are valuable for both events). *Chapter 2* discusses theories useful for understanding why individuals with a lower socioeconomic background are overrepresented in prison populations. A more extensive overview of theories that explain the effect of imprisonment on employment is given in *chapters 3-5*. And, *chapter 6* offers a more elaborate theoretical discussion of how employment can affect the development of criminal behavior.

##### 1.4.1 *Imprisonment and employment*

Various life course theories pertain to how imprisonment (length) can affect the development of criminal and law-abiding careers. To start, deterrence theory states that both the threat of punishment, known as general deterrence, and the personal experience of punishment, known as specific deterrence, can discourage potential and actual offenders (Beccaria, [1764] 1995). Punishment is expected to deter criminals from future criminal behavior and drive them towards law-abiding behavior through an enhanced perception of the risk of getting caught and the severity of punishment. Typically, it is assumed that the higher the chances of getting caught and the more severe the punishment, the more the punished will be deterred and try to avoid future punishments. As such, the personal experience of imprison-

ment, can discourage offenders and lead them to prefer a conventional lifestyle, including employment, over a criminal lifestyle.

Alternatively, learning theories, such as the differential association theory of Sutherland, Cressey, and Luckenbill (1992), focus on how close relationships with delinquent peers or co-prisoners can lead individuals to (continue to) commit delinquency. In short, this theory proposes that individuals learn the values and attitudes for criminal behavior through interaction with criminal others. In the same vein, imprisonment is expected to increase criminal behavior and decrease employment chances because (long-term) prisoners are likely to become involved with social groups that devalue conventional norms.

Labeling theories also emphasize that social interaction can generate criminal behavior, but offer a different mechanism. Lemert (1951) developed the notion of primary and secondary deviance. Primary deviance could stem from many different sources, whereas secondary deviance was described as the result of dealing with society's disapproval of that primary deviance. Becker (1963) also believed in this self-fulfilling prophecy. When a person is labeled as "criminal", this label highlights the criminal behavior and diminishes other characteristics central to that person's identity. To illustrate, a prison record can deter employers because they associate this record with inferior personal characteristics and a generally low work competency. Hence, labeling can lead individuals to (continue to) commit crimes, because it generates mechanisms which close doors to norm-consistent behavior.

Finally, the theoretical notion of human capital theory, that education and work experience play an important role in the development of law-abiding behavior, is often used in criminological work. Note that, instead of the development of criminal behavior, labor market productivity is the central concern of this economic theory. According to human capital theory, employers will recruit the best person for the job and base this decision on applicants' general and specific forms of human capital (Becker, 1964). And, in a similar vein, workers choose training and jobs to maximize their own productivity. General human capital is useful to all employers, whereas specific human capital refers to work experience that is useful only to a single employer or industry. A period of labor market absence – such as the forced time out during imprisonment – restricts the accumulation of human capital, disrupts employment bonds and can even lead to the erosion of skills as they go unutilized. Offenders' criminal behavior is then explained through their failure to find (quality) employment. It should be noted, however, that especially a long prison spell can also offer prisoners opportunities to accumulate human capital.

#### 1.4.2 *Employment and criminal behavior*

Other theories connect employment, or specific characteristics of a job, to the development of criminal (versus law-abiding) behavior. Starting with social control theory, Hirschi (1969) stated that individuals are expected to engage in

delinquent behavior in the absence of close relationships with conventional others. Conventional relationships socialize individuals to obey the dominant law-abiding norms and values. While Hirschi focused on juvenile delinquency, Sampson and Laub (1993) judged this theory valuable for an understanding of continuity and change in offending across the entire life course. In their theory of age-graded informal social control, Sampson and Laub furthermore used a dynamic perspective in which offenders can reestablish social bonds to institutions of informal social control (e.g., family, neighborhood, work) during adulthood that can subsequently divert them from crime.

Economic theories embrace the idea that individuals are free to choose crime as one of a range of behavioral outcomes. These theories use a rational choice approach in which individuals weigh the advantages and disadvantages of criminal behavior, and are expected to commit fewer crimes when the potential costs of criminal behavior (i.e., job loss) are higher than the potential benefits (Becker, 1968). Strain theory also sees individuals as rational actors. Yet, instead of depending on cost-benefit analyses, criminal behavior is expected to result from feelings of “strain” (Merton, 1938) (or “anomie”). According to Merton, individuals feel strained when the legal means are insufficient to reach the desired material and immaterial goals. Criminal behavior is interpreted as an adaptive solution to these frustrations (see also Agnew, 1992). Following this theory, employed individuals will commit fewer crimes because they are less strained than the unemployed.

Routine activity theory adds to these rational processes that if and to what extent individuals commit crimes relies on the opportunities to commit crimes. More specifically, the presence of motivated offenders is not enough, criminal behavior is dependent of the availability of suitable targets as well as the absence of guardians (Cohen & Felson, 1979). Employment is then expected to reduce criminal behavior because it limits the opportunity structure for such behavior.

### 1.4.3 *Expectations*

The abovementioned theories can be used to derive ambiguous expectations about the effect of imprisonment on employment. In other words, imprisonment (length) can either improve or diminish prisoners’ labor market position after release. The dominant expectation seems to be that a (long) prison spell decreases employment prospects. This is especially the case in this thesis, as the deterrent effect of imprisonment is more likely to be true for prison spells that are longer than the ones considered (maximum confinement length is one year). The general expectation with respect to employment is that it can protect offenders from committing crimes.<sup>4</sup> The discussed theories ascribe this protective effect to different job characteristics.

---

4 To be sure, employment can also increase specific types of criminal behavior, such as fraud and embezzlement, because of the access and liberties that come with certain jobs (Van Erp, Van der Geest, Huisman, & Verbruggen, 2011). While this is plausible, this hypothesis seems more valuable to research that distinguishes between different types of crime.

## 1.5 PRIOR EMPIRICAL STUDIES

Below, prior (inter)national work is discussed in order to provide a background and show how the current study progresses on previous work. More extensive overviews of the literature will be provided in the empirical chapters of this study (*chapter 2-6*). Following the life course of prisoners, the literature pertaining to the selection of marginal workers into prison is first discussed. Then, the focus shifts to the effect of the two life events; the effect of imprisonment on employment and the effect of (post-release) employment on crime.

### 1.5.1 *Studies on selection of marginal workers into prison*

#### *Dutch studies*

Few Dutch studies pertain to the (socioeconomic) characteristics of individuals entering prison. Yet, there is some evidence to suggest that prisoners have a low educational level and weak labor market position in the run-up to imprisonment. Only one-third of the prisoners are employed at the time of arrest (Linckens & De Looft, 2013) and a similar percentage of prisoners has no diploma or only completed primary education (Mol & Henneken-Hordijk, 2008). Results from small-scale surveys furthermore showed that individuals face problems with work, housing, finance and health even before entering prison (Janssen, 1999; Jongman & Steenhuis, 1975; Kuppens & Ferwerda, 2008; Moerings, 1978; Sprenger, 1995; Van den Braak et al., 2003; Van Galen, Niemeijer, & Beijers, 1998) (for an overview see Dirkzwager, et al., 2009). These data sources lack retrospective measures pertaining to the long-term labor market attachment of prisoners as well as a general population sample for the purpose of comparison.

#### *International studies*

International studies confirm the low socioeconomic status in the immediate period before prison admission.<sup>5</sup> Data from state correctional agencies and unemployment insurance systems furthermore showed that prisoners who worked in the year prior to imprisonment earned relatively low wages (Pettit & Lyons, 2007; 2009; Kling, 2006; Sabol, 2007). Yet, these employment measures are sparse in the sense that they ignore job stability and quality, and refer to a short period of time, which is likely to be affected by the illegal activities that led to imprisonment. Survey-based research offered some evidence for the expectation that a low socioeconomic status is a more long-standing feature of prisoners' working lives (Visher & Kachnowski, 2007),

---

5 Large shares of prison populations did not complete secondary education (e.g. Australia: 53%; Denmark: 48.5%; Finland: 34.9%; Germany: 57%; Norway: 42.5%; Sweden: 56%; United Kingdom: 46%; United States: 41%) and pre-prison employment rates are generally low (e.g. Australia: 55%; United Kingdom: 32%; United States: 75%) (Butler & Milner, 2003; Eikeland, Manger, & Asbjørnsen, 2009; Entorf, 2009; Hopkins, 2012; Petersilia, 2003).

and that prisoners occupy a marginal position compared to the general labor force (Western, 2006).

### 1.5.2 *Studies on effects of imprisonment on employment*

#### *Dutch studies*

A general observation from pre-and post-prison comparisons is that the level of labor market participation among Dutch prisoners seems to decline (even) further after release (Janssen, 1999; Jongman & Steenhuis, 1975; Moerings, 1978; Sprenger, 1995). These studies are, however, not suitable for the causal inference of the effect of imprisonment on employment outcomes, as they lack the comparison group or background variables a quasi-experimental design demands.

Two Dutch studies are better suited to isolate the imprisonment-effect and found indeed evidence for a reduction in employment likelihood after release. Recall that employment outcomes result from the behavior and decisions of both prisoners (supply-side of the labor market) and employers (the demand-side of the labor market). Choosing the employers' perspective, Buikhuisen and Dijksterhuis (1971) conducted an experimental audit study and compared the employment prospects of job applicants with and without felony (prison) convictions by surveying employers. They found that employers were less likely to hire the applicant with a record than, the otherwise identical, applicant without a record. Using data on prisoners, the supply-side of the labor market, Van der Geest (2011) found that imprisonment had a negative impact on the employment likelihood of those who were regularly employed before imprisonment.

#### *International studies*

International (American) studies also found that imprisonment has a negative impact on post-release employment likelihood. Starting with the demand-side perspective, Pager (2003) found convincing evidence for the expectation that a history of imprisonment can lead to rejection in the hiring process. In addition, Holzer, Raphael, and Stoll (2004) showed that, when given the choice, employers prefer to hire other marginalized groups, such as welfare recipients or applicants with little work experience, over ex-prisoners.

Studies in which employment outcomes of an imprisoned sample are compared with a non-imprisoned comparison group represent a popular strand of research within the supply-side perspective. These studies showed that *imprisonment* has a corrosive impact on an offender's employment prospects by reducing the probability of employment (Apel & Sweeten, 2010; Huebner, 2005; Waldfogel, 1994) and eroding earnings (Apel & Sweeten, 2010; Waldfogel, 1994; Western, 2002). However, not all studies found strong evidence for the negative effect of imprisonment when differences between groups have been taken into account (for an overview see Apel & Sweeten, 2010; Loeffler, 2013). Moreover, comparability between groups can remain in

doubt as ex-prisoners as a group arguably possess, more than other disadvantaged groups, characteristics that limit employment chances. A smaller and recent line of research in which the comparability of groups was better warranted, comparisons of groups with different confinement lengths did not find a negative effect but instead found that *imprisonment length* can increase employment chances in the short-term (Jung, 2011; Kling, 2004, 2006; Pettit & Lyons, 2007, 2009).

Exploring the determinants of successful labor market (re)entry after release, Visher et al. (2011) showed that especially prisoners with more work experience, connections to employers, and a stable family network were likely to find employment after release. This work was based on unique data of the Returning Home project; a longitudinal data collection among a multistate sample of approximately 1,200 American prisoners. Outside this project, few research efforts are suitable for providing a general insight into which characteristics affect post-release employment success and failure.

### 1.5.3 *Studies on effects of (post-release) employment on recidivism*

#### *Dutch studies*

Only in recent years, Dutch scholars studied the effect of employment on crime using longitudinal study designs. In these studies support was found for the protective effect of employment (Van der Geest, 2011; Verbruggen, Blokland, & Van der Geest, 2012; Wensveen, Palmén, Blokland, & Meeuws, 2012). In addition, there was evidence to suggest that especially stable employment diverts offenders from crime.

These findings were based on data from high-risk youth samples. No such studies were conducted using prisoner data – the offender group with the highest risk of future offending. Notably, the recidivism patterns of ex-prisoners are monitored rather precisely in the Netherlands (Wartna et al., 2011), however, to date, little attention is given to explanatory factors, such as employment.

#### *International studies*

In Anglo-Saxon countries, the work-crime relationship has gained strong interest, both in older and recent decades (Farrington et al., 1986). Reviews of longitudinal research suggest that employment has an independent effect on crime among offenders -and community samples (Lageson & Uggen, 2013; Uggen & Wakefield, 2008).

Yet, also outside the Netherlands, surprisingly little is known about whether employment can also deter *high-risk* adult offenders from crimes. And, the handful of studies that is based on prisoner data showed ambiguous findings. Research based on administrative data seems to confirm the crime-reducing effect of employment (Berg & Huebner, 2005; Piquero, Brame, Mazerolle, & Haapanen, 2002; Skardhamer & Telle), while survey-based research was less conclusive (Horney et al., 1995; Visher et al., 2011).

One plausible explanation for this ambiguity could be that the protective effect of employment is conditional on the qualities of that employment (Sampson & Laub, 1993). None of the aforementioned studies looked into the role of job characteristics. To illustrate, Horney and colleagues ascribe their finding that employment does not decrease offending to the fact that they could not control for the *ties to employment* as formulated by Sampson and Laub (1993). The study of Uggen (1999) forms an exception as he did not focus on the absence or presence of a job but instead examined the influence of job quality on the criminal behavior of ex-prisoners. He found that a shift to a higher-quality job indeed reduced recidivism risk among ex-prisoners.

#### 1.5.4 Shortcomings of prior empirical studies

Earlier studies in all three research fields are characterized by some limitations. First, previous work presents a limited insight into the magnitude of disadvantage that prisoners face even prior to their prison experience. The reason for this is the lack of retrospective measures pertaining to the long-term labor market attachment of prisoners as well as a general population sample for the purpose of comparison. Second, the contribution of imprisonment to post-release employment hardships remains an unsettled area of research as the non-random selection of individuals into prison and employment could have potentially confounded effect-estimates (see also Loeffler, 2013; Raphael, 2008). Researchers have to pose heavy assumptions about the comparability of prisoners and non-prisoners, and the list of potential confounders is relatively short in the majority of studies that are based on administrative data. Third, the line of existing work cannot show if employment can lead to a crime-reduction among ex-prisoners. Research on the (protective) effect of employment is merely based on young offender data and lacks an investigation of serious offender groups, specifically ex-prisoners. An overall limitation is that conclusions are almost solely based on data pertaining to American prisoners. Findings from other countries and times are needed to help validate conclusions.

Besides these limitations, there are several unexplored research areas within the field of imprisonment, employment and crime. To start, effect-studies on both life events focused primarily on the existence of effects. In order to increase our understanding of reentry success and failure, research that tries to disentangle the *mechanisms* underlying these effects seems warranted. In addition, little is known about the *kind of jobs that ex-prisoners find*. Scholars often limit their description to employment likelihood and earnings, but prisoners and practitioners could benefit from a deepened insight into the timing, quality and stability of post-release employment. Related to this is the question if imprisonment limits the kind of jobs for which ex-prisoners may successfully apply. Moreover, very little is known about the *determinants of – and pathways to – successful labor market reintegration*. And, finally, while evidence for the protective relationship between employ-

ment and crime is piling up, to date, relatively few empirical studies paid attention to *the role of job quality and job stability in the protective effect of employment*. A plausible explanation for these research lacunas is the general scarceness of detailed longitudinal data on prisoners. Moreover, methodological rigorous and large-scale studies remain an exception within the small research field that does explore the abovementioned topics.

## 1.6 THIS STUDY

### 1.6.1 Research questions

Building on previous work and following prisoners over time, the five empirical research papers of this thesis revisit popular research questions and address several largely unexplored areas in the field of imprisonment, employment and crime. Table 1.1 offers an overview of these research questions.

The first empirical chapter (*chapter 2*) presents a baseline measurement of prisoners' employability by comparing the *pre-prison labor market attachment* of this group of presumably marginal workers to the labor market attachment of the general labor force (RQ 1). In doing so, it also offers an insight into the magnitude of labor market disadvantage and human capital deficit these individuals face even prior to their imprisonment.

Moving one step further along the life course, two different research designs are used to study the effect of imprisonment (length) on *the time to employment* and the *kind of jobs* ex-prisoners find. *Chapter 3* tests the effect of two kinds of labor market absence, imprisonment and unemployment, on finding employment. It aims to provide insight into the additional negative effect, if any, of imprisonment over and above regular labor market absence, by using a control group of comparable individuals (future prisoners) who experience a period of unemployment (RQ 2). *Chapter 4* focuses on the effect of imprisonment length on labor market prospects. Its main aim is to investigate the effect of longer imprisonment on employment likelihood, job stability and job quality, over and above the effect of pre-existing between-individual differences (RQ 3). The second aim of this chapter is to address the role of two theoretical mechanisms, human capital erosion and criminal embeddedness, in this relationship.

Thereafter, insight is provided into which and how ex-prisoners succeed in finding employment, with a focus on the role of *pre-existing employment ties*. *Chapter 5* studies a potentially successful strategy to re-employment by focusing on the possibility that ex-prisoners return to their pre-prison employer. This chapter shows if individuals who were employed at the time of their arrest return to their pre-prison employer, find new employment or become non-employed after release (RQ 4). In addition, determinants of job return are examined.

Finally, *chapter 6* moves an additional step further along the life course

and studies the effect of post-release employment on future offending, over and above the effect of pre-existing and post-release between-individual differences (RQ 5). This chapter intends to increase the knowledge concerning the theoretical mechanisms underlying the (protective) effect of employment; it examines the effect of various job characteristics, such as job quality and stability, on recidivism.

### 1.6.2 Data

To answer the research questions, this study uses detailed data on the offending and employment careers of two Dutch prisoner samples (see Table 1.1).

#### *Prison Project*

Most empirical chapters are based on data from the Prison Project. This data collection is a longitudinal research project among 1,909 prisoners in the Netherlands, and can be seen as the Dutch equivalent of the abovementioned Returning Home project in the United States. The general aim of this project is to study the intended and unintended effects of imprisonment on several life domains of prisoners and their families. Data were collected in the beginning of pretrial detention, during confinement as well as after release from prison.<sup>6</sup> The project targeted male prisoners who entered a Dutch detention facility between October 2010 and March 2011, were born in the Netherlands, between 18 and 65 years old and did not suffer from severe psychological problems.

The in-prison computer assisted personal interview (CAPI) was held approximately two weeks after the beginning of pretrial detention and consisted of many retrospective questions (P1). Additionally, participants were asked to fill in written questionnaires following the interview and several times during their confinement (after 3, 6 and 9 months) (P2, P3, P4). The first reentry wave (R1) took place six months after release and consisted of a second capi-interview.

Combined, these self-report data offer a unique and detailed insight into prisoners' lives prior to pretrial detention, during their prison spell as well as in the first crucial half year after release. A more extensive discussion of the sample set-up and the data collected in these waves can be found in the

---

6 Pretrial detainees represent a group of relatively serious offenders within the prison population. On September 30, 2012, 49 percent of the prison population consisted of pretrial detainees (Linckens & De Looff, 2013). In the Netherlands there are four conditions for pretrial detention:

- Serious suspicion that offender committed the offense
- Offense type can result in prison sentence of 4 or more years /specific offense types/ offender has no home address
- Danger for flight/ societal security/ high risk of recidivism/ collusion (interference of outside world could intervene with finding the truth)
- Expected prison spell is longer or of same duration as pretrial detention

Table 1.1 Overview of empirical chapters in this thesis

Chapter	Research question	Data	Dependent variable	Independent variable	Analytical strategy
2	RQ 1. What does the employment history of prisoners look like? And, to what extent is the employment history of prisoners comparable to the employment history of the general labor force in the Netherlands?	Prison Project Wave P1, $n = 1,909$ Labor market Panel Wave 2010, $n = 2,059$	Employment history since leaving fulltime education	First-time prisoners Prison-recidivists General male labor force	Logistic regression Linear regression
3	RQ 2. To what extent do two types of labor market absence – imprisonment and unemployment – affect the time to employment?	Statistics Netherlands/ TULP 2004–2006, $n = 1,430$	Time to registered employment in two year follow-up	Imprisonment Unemployment	Kaplan-Meier analysis Logistic regression <i>Sensitivity analysis</i> : Cox regression
4	RQ 3. To what extent does imprisonment length affect employment prospects?	Prison Project Wave P1 & R1, $n = 702$	Employment likelihood, job stability and job quality in first six months after release	Length of imprisonment	Propensity score modeling for ordered treatment <i>Sensitivity analysis</i> : Propensity score modeling for continuous treatment
5	RQ 4. To what extent are previously employed ex-prisoners able to return to their pre-prison job, find new employment or become non-employed?	Prison Project Wave P1 & R1, $n = 225$	Returned to pre-prison employer, new employment or not employed in sixth month after release	Prisoner characteristics Pre-prison job characteristics	Multinomial logistic regression
6	RQ 5. To what extent do post-release employment (characteristics) affect the risk of recidivism?	Prison Project Wave P1 & R1, $n = 842$	Self-reported and registered recidivism rate in first six months after release	Employment likelihood Job quality Job stability	Logistic regression <i>Sensitivity analysis</i> : Propensity score weighing

*Note:* The sample sizes differ between chapters. Reasons for this are the difference in datasets (Prison Project or Statistics Netherlands), research focus, or time of writing. Chapter 2 includes all prisoners who participated in the first wave of the Prison Project (P1) and includes data on a representative sample of the male labor force in the Netherlands. Chapter 3 is based on data of Statistics Netherlands. Chapter 4 includes Prison Project participants who were released for a minimum period of six months up to June 2012 and agreed to participate in the reentry interview (R1). Chapter 5 includes the selection of Prison Project participants who were released for a minimum period of six months up to January 2013 and worked as salary worker prior to detention. Chapter 6 is based on the R1-data of all Prison Project participants who were released for a minimum period of six month up to January 2013.

separate empirical chapters of this dissertation (*chapter 2, 4-6*, see also Dirkzwager & Nieuwbeerta, 2014).

#### *Administrative data on participants of the Prison Project*

The survey data of the Prison Project are linked to several administrative sources to acquire additional information on the participants or to check the self-reported data with registered data. First, the Public Prosecutor's Office was consulted for information on the *index offense*; the offense that led to the pretrial detention during which detainees were approached to participate in the Prison Project (October 2010-March 2011). This resulted in information on the type of crime, the number of registered offenses in a criminal case, the maximum penalty (maximum days a judge can sentence an offender to prison based on the index offense) and whether or not the individual was released before trial. Second, detailed information on the offender's *criminal history* was collected from "rap sheets" available in the Criminal Record Office. These data were made available by the Research and Documentation Centre (WODC) of the Dutch Ministry of Security and Justice, and contain information on all registered convictions beginning at age 12, the age of criminal responsibility. Third, in order to supplement the dataset and confirm the reliability of several *sociodemographic characteristics*, such as date of birth, country of birth, parenthood and official marital status, municipal population data were used ([Gemeentelijke Basisadministratie] GBA). Finally, the exact timing of *prison spells* is based on data from the Judicial Institutions Department ([Tenuitvoerlegging vrijheidsbenemende straffen en maatregelen in penitentiaire inrichtingen] TULP).

#### *Administrative data of Statistics Netherlands*

In *chapter 3* we combine data on registered prison spells from the Judicial Institutions Department (TULP) with data from the Social Statistics Files from Statistics Netherlands, to study the effect of imprisonment on registered (instead of self-reported) employment among a sample of 1,500 prisoners who entered a Dutch penitentiary between 2005-2006. For the years 2004-2006, information on various sociodemographic characteristics as well as monthly information on the offenders' socioeconomic circumstances (e.g., whether employment was main source of income) were obtained from the Social Statistics Files.

#### *Data on Dutch labor force*

In *chapter 3* the employment history of prisoners is compared to the employment history of a representative sample of the Dutch labor force. These data resulted from a Dutch longitudinal labor panel [Organisatie voor Strategisch Arbeidsmarktonderzoek (OSA)]. The dataset is suitable as a comparison group because it contains information about educational attainment, work experience and recent labor market position. Similar to the inclusion criteria of the Prison Project, only males, born in the Netherlands and between 18 and 65 years old were included in this study.

### 1.6.3 Methods

Both "regular" and more advanced regression techniques are used to answer the research questions (see Table 1.1). Recall that effect-studies are complicated by the non-random selection of individuals in prison (or employment). Regression analysis is the most straightforward and popular method to address selection bias. Especially in recent years, scholars have had several more advanced analytical strategies at their disposal to control for selection (for an overview see: Blokland & Nieuwebeerta, 2010). A small number of scholars started applying propensity score techniques to control for selection in (longer) imprisonment (e.g., Loughran et al., 2009; Wermink, Blokland, Nieuwebeerta, Nagin, & Tollenaar, 2010). A propensity score represents the probability of receiving treatment, conditional on a set of observed pre-treatment covariates. Individuals with a similar propensity score, but a different observed treatment (i.e., different lengths of imprisonment), are compared in outcome, net of time stable and time-varying observables. A general advantage of the propensity score methodology over standard regression analyses is that it is more robust with respect to model misspecification (Drake, 1993). Another advantage is the internal validity that results from this approach, as it assures the exclusion of "treated" individuals for whom no comparable "controls" are available.

## 1.7 SCIENTIFIC RELEVANCE

### 1.7.1 New research questions

This thesis sets out to advance on previous work by revisiting questions concerning pre-prison labor market attachment (*chapter 2*) and examining the effects of imprisonment and employment by using advanced statistical methods and rich longitudinal data from the Netherlands (*chapters 3-6*). As such, this thesis targets the "Americentric" tendencies in correctional and reentry research (Frost & Clear, 2012, p. 620). In addition, several largely unexplored areas in the field of imprisonment, employment and crime are addressed. To start, instead of examining employment likelihood and earnings, a broader range of employment outcomes related to timing, quality and stability is explored (*chapters 3-6*). Furthermore, this thesis can examine whether imprisonment limits the kind of jobs for which ex-prisoners may successfully apply (*chapter 4*). In addition, this thesis is among the first to examine (the determinants of) a potentially successful pathway to labor market reintegration among a large prisoner sample (*chapter 5*). Moving one step further along the life course, attention is paid to the role of job quality and job stability in the protective effect of employment (*chapter 6*).

### 1.7.2 Theory

An observation from the general theoretical background in this introductory chapter is that most theories are not fundamentally incompatible but differ in focus. While there is often agreement on the direction of effects – imprisonment diminishes employment prospects and employment reduce criminal behavior – theories are less consistent concerning the processes and conditions required to generate this effect. Often because of data restrictions, previous studies used these theories to derive a general hypothesis about the effect of imprisonment or employment, but failed to advance on the validity of the different theoretical mechanisms underlying this effect.

This thesis aims to test hypotheses on how imprisonment (length) (*chapter 3-4*) and employment characteristics (*chapter 6*) influence later trajectories. The data are suited for these aims as they enable the measurement of several key theoretical concepts.

### 1.7.3 Data

Many earlier studies, especially on the imprisonment-employment relationship, are based on administrative data and have little access to detailed data on employment and background characteristics. And, with some exceptions, studies on survey data are based on small unrepresentative samples of prisoners. This limits our understanding of reentry processes. A specific downside of administrative data is that they fail to capture the full range of labor market activities among high-risk samples. Although especially these groups are expected to receive income from uncovered jobs (e.g., self-employment, out-of-state income, off-the-books employment) (Kornfeld & Bloom, 1999), earnings from administrative data are solely based on the official reports of employers as registered in state tax records. Related to this is the limitation that most studies draw conclusions about recidivism risks on a single data source (either self-reported or registered).

The current thesis progresses on previous work by using detailed longitudinal survey data of the Prison Project, and supplementing and validating this information with several administrative datasets (*chapter 2, 4-6*). Together, these data entail information on criminal and employment careers and a wide range of other life domains concerning the period prior, during and after imprisonment. Moreover, *chapter 3* is solely based on administrative data from Statistics Netherlands and provides insight into registered (i.e., legal) post-release employment outcomes.

### 1.7.4 Methods

Most scholars turn to quasi-experimental research designs for the study of both imprisonment- and employment-effects. As such they face the problem of isolating effects from selection bias. The success of “regular” regressions analyses and propensity score modeling relies heavily on the set of con-

founding variables (Shadish, 2013). While many prior studies are based on administrative data and lack detailed measures, the unique quasi-experimental designs used in *chapter 3* and *4*, and the rich longitudinal data and advanced statistical methods used in *chapter 4* and *5* ensure the elimination of a long list of confounding variables.

## 1.8 SOCIETAL RELEVANCE

Practically all prisoners return to free society after release. Half of these ex-prisoners recidivate within two years (Linckens & De Looft, 2013). As such, this study connects to issues of concern to society at large. Criminal behavior is the cause of public feelings of unsafety and brings substantial immaterial and material costs.

A transition to employment can work as a “hook for change” towards becoming a law-abiding citizen (e.g., Giordano, Cernkovich, & Rudolph 2002). It offers an income, daily structure, social contacts and a sense of responsibility (e.g., Jahoda, 1982). Labor market participation could thus work as an effective crime reduction strategy. In addition, the importance of labor market (re)integration stems from the fact that Dutch society, specifically its welfare state, relies on a high labor market participation. This is also reflected in recent policy initiatives and legislation that aim to stimulate the participation of disadvantaged workers (Kamerstukken [Parliamentary documents] II 2011/12, 33 161, no. 8).

Yet, ex-prisoners have low levels of human capital and other personal characteristics that make them hard to employ (e.g., Petersilia, 2003; Western, 2006). After release, they are likely to face additional challenges in searching for a job and reintegrate into mainstream society.

Importantly, the supply of education and employment assistance, both in and outside prison walls, is one of the few policy instruments a government can employ in an attempt to reduce recidivism. Knowledge about prisoners’ work experiences before and after release can help target these efforts more effectively, and thereby increase the chances of a successful (re)integration into the labor market.

By addressing the employment- and recidivism risk of released prisoners, this study also contributes to the line of research that examines whether punishment is based on justifiable assumptions; to what extent are prisoners able to rehabilitate after release, and does a prison spell deter them from crime and push them towards a conventional lifestyle? Accordingly, this thesis could inform and help stimulate debates about (effective) punishment policies, and make policy makers better equipped to weigh the advantages and disadvantages of changes in punishment and reentry programs.

