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*Marked by a Criminal Record?  
Socioeconomic Differences in the Relationship  
Between Early Criminal Justice  
Contacts and Adult Life Outcomes*

**Abstract**

This paper combines life course theory and empirical research on the collateral consequences of punishment as a backdrop to exploring the relationship between both the presence of and seriousness of a criminal record measured in early adulthood (age 25) and later life outcomes (ages 41-49), both in total and by socioeconomic status. The analysis relies on a combination of longitudinal survey data and administrative register data for 2,022 individuals who were between 12 and 20 years old when the data collection started. Results show that the criminal record is linked to both labor market and social exclusion later in life, but most systematically to (worse) labor market outcomes. Somewhat surprisingly, low SES seems to “buffer” against some of the unwanted outcomes linked to having a more serious criminal record, while high SES seems to “boost” others. Implications for future research on both deviance and stratification are discussed.

*Keywords:* Criminal record; Criminal justice involvement; Labor market attachment; Family; Voting; Illicit substance use; Socioeconomic status.

*Introduction*

MORE THAN THREE DECADES AGO, John Hagan [1991] argued that sociological research on deviance and stratification could—and perhaps should—become better integrated. This argument has gained renewed relevance considering the emerging literature on the

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unintended consequences of punishment, which links criminal justice contacts such as arrests, convictions, and imprisonment<sup>1</sup> to adverse outcomes in for instance health, labor market attachment, educational achievement, family situation, and civic engagement later in life [see Kirk and Wakefield, 2018, for a recent overview]. If the criminal justice system directly or indirectly impacts the broader socioeconomic outcomes of justice-involved persons, this undoubtedly has important implications for sociological research on both deviance and social inequality.

The life course perspective [Elder 1985; 1994] is perhaps one of the most influential ways in which the fields of deviance and inequality have been bridged in sociology. In the study of crime, the perspective has been most influential in that it asks how various life events and transitions, such as marriage, family formation and employment, impact individual offending trajectories. The inverse of this question—how crime and criminal justice involvement affect these transitions and events to begin with—has, however, received less attention. Are justice-involved individuals less likely to get married, get a job, and participate in conventional society? And if they are, is this limited to the “peak” of offending that typically takes place in adolescence and early adulthood [Gottfredson and Hirschi 1990], or does a criminal record leave a more permanent mark on the life course?

Combining the life course perspective [Elder 1985, 1994] with sociological theories on both deviance [Becker 1963; Merton 1938] and family formation [Becker 1981], as well as empirical research on the collateral consequences of punishment [see Kirk and Wakefield 2018], the impact of a criminal record in adolescence and early adulthood on later life outcomes can be driven by at least three main mechanisms. Firstly, having a criminal record might limit a person’s life chances through formal channels. For instance, criminal records might limit the access to certain jobs, education, or housing opportunities [cf. Leasure and Martin 2017; Pager 2003; Stewart and Uggen 2020], and the relevance of various obstacles might differ by national context [Kurtovic and Rovira 2017]. Secondly, and as highlighted by labeling theory [Becker 1963; Lemert 1967], criminal justice involvement might have far-reaching and unintended consequences as they lead to stigmatization in informal settings. To be seen as a deviant can trigger exclusionary reactions by significant others, thus impacting the extent to which a

<sup>1</sup> The majority of research on the unintended consequences of criminal justice contacts focuses on incarceration, although studies also address other forms of contact such as

arrest, misdemeanor conviction, and community supervision [KIRK and WAKEFIELD, 2018].

person is seen as an attractive or valued partner, friend, employee, or community member. Thirdly, and closely linked to the former two processes, having a criminal record can impact the way that a person sees themselves and their place in the world—which may in turn influence their inclination to withdraw from conventional society and/or seek out social belonging in more marginalized groups [Link *et al.* 1989].

While the literature on the negative consequences of criminal justice system involvement has grown substantially and become methodologically more sophisticated over the past couple of decades, several important limitations remain. Four of them have motivated this study. Firstly, few studies are able to follow individuals well into adulthood and thus tend to focus on short- to intermediate-term outcomes measured in adolescence and early adulthood [but see, e.g., Lopes *et al.* 2012; van Schellen, Poortman and Nieuwebeerta 2011]. This makes it challenging to assess whether any adverse consequences are temporary or leave a more permanent mark on a person's life course. For this reason, the current study follows individuals from their teens and into their forties, when most people who are involved in crime have desisted [Laub and Sampson 2003] and key transitions into adult roles are likely to have manifested [Buchmann and Kriesi 2011]. Secondly, most previous studies focus on the importance of imprisonment [but see Dennison and Demuth 2018], leaving less severe criminal justice contacts, such as arrests or court referrals, less explored. This is problematic as it makes it difficult to assess whether *all* or just *some* criminal justice contacts are detrimental. This study therefore focuses on a front-end measure of criminal justice involvement using a combination of self-report and administrative data. Thirdly, the literature tends to ignore between-group differences in assessing the relationship between criminal justice contact and later outcomes [Kirk and Wakefield 2018]. This study will therefore explore between-group differences comparing justice-involved people who come from low and high socioeconomic backgrounds (proxied using information on parental education), as previous findings on the moderating impact of SES remain inconclusive [see, e.g., Bernburg 2019]. Fourth and finally, most studies on the collateral consequences of punishment have been conducted in the US [Kirk and Wakefield 2018]. While the results of these studies are clearly relevant for scholars in other parts of the world, it remains unclear—given the role of the US as a penal outlier—whether the patterns observed in this context are generalizable. To contribute to the geographical diversity of this literature, this study focuses on Norway and thus provides an empirical example from a vastly different institutional and cultural setting that in many respects is more

representative of Europe [Norwegian Ministry of Labour and Social Inclusion 2022].

Before moving on to the theoretical and empirical framework of this article, it is important to recognize that one of the most pressing limitations of the literature on the collateral consequences of punishment, but also one of the main areas of recent scientific advancement, relates to selection issues and challenges with establishing causal mechanisms [Kirk and Wakefield 2018]. This analysis, which relies on longitudinal data and a relatively traditional, regression-based design, admittedly provides no remedy for such challenges. To establish causal relationships, it would be necessary to have a truly random variation in criminal justice system involvement between individuals, and such variation is simply not available in the data material. Methodologically more sophisticated analyses using various experimental and quasi-experimental designs have, however, become much more common in recent years [see, e.g., Andersen and Andersen 2014; Bhuller *et al.* 2020; Hjalmarsson and Lindquist 2022; Pager 2003], and their contributions to the field can hardly be overstated. At the same time, it is important to stress that the increased use of (quasi)experiments does not leave descriptive or correlational analyses, which Berk [2010] referred to as Level I and Level II regression, redundant or obsolete. Merton [1987] famously emphasized the need to establish phenomena before we move on to explaining them, or in other words, to walk before we run. Given the above-mentioned limitations to the literature, this remains the main objective of this paper. It is important, however, that the reader bears in mind that while the analysis in this paper is both inspired by causal research questions and informed by causal theory, the results can be given a correlational interpretation only.

### *The Norwegian context*

The data for the current analysis was collected in Norway, one of the Scandinavian countries located to the north of Europe, over a 27-year period (1992-2020; see more details below). Broadly speaking, Norway and the other Scandinavian countries are characterized by relatively high levels of trust both between people and in the government, high civic engagement and voter turnout, a relatively generous welfare state, low unemployment, low income inequality, high gender equality and—until very recently—high fertility levels [cf. Esping-Andersen 1993;

Lappi-Seppälä and Tonry 2011; Statistics Norway 2020]. In the period considered here, the population increased from nearly 4.3 to nearly 5.4 million [Statistics Norway 2022c] and became more ethnically diverse [Statistics Norway 2022a]. There have also been changes in several of the relevant outcome variables. In 2019, the year before the outcome data were collected, around 70% of both men and women between 15 and 74 years of age were a part of the labor force. Around 35% of women worked part-time, and the labor market continued to split into male- and female-dominated sectors. Unemployment rates were relatively low, at around 3.5% for both men and women.<sup>2</sup> The Total fertility rate was close to a record-low 1.5, and, given that women spend more time in education and paid work before transitioning to parenthood, the age at first birth was (and is) steadily increasing. Around 20% lived alone, and around 30% of all couples who lived together did so without being married. The number of healthy years continually increased among both men and women, and around 80%—similar levels as Sweden, but higher than the EU average—reported that they were in good health. Fewer people smoked than before, but more people used “snus” (a kind of chewing tobacco). Around 4% of all men and 8% of all women were on sick leave for at least parts of the year [see Statistics Norway 2020].

In terms of crime and criminal justice, Norway is considered a relatively safe country with low levels for both crime, reoffending, and fear of crime [Lappi-Seppälä and Tonry 2011]. The Norwegian police and other criminal justice actors enjoy a strong foundation of legitimacy and trust among the Norwegian public [OECD 2020], and the Norwegian criminal justice system has been described by international scholars as lenient [cf. Lappi-Seppälä and Tonry 2011; Pratt 2008; but see Ugelvik and Dullum 2012]. At the same time, it is relatively common to obtain a criminal record; Skardhamar [2005] for instance found that about 1 in 5 people in the 1977 birth cohort were charged by the police and prosecution authorities at least once by the time they turned 23 [cf. Brame *et al.* 2012]. In contrast to the US and other countries with higher imprisonment rates, it is, however, relatively rarer to be imprisoned. This makes it even more relevant to study the relationship between more front-end criminal justice contacts and later life outcomes.

When considering the potential impact of acquiring a criminal record relatively early in life on later outcomes, it is also relevant to consider

<sup>2</sup> While the Norwegian labor market was hit relatively hard by the non-pharmaceutical interventions (NPIs) implemented to combat the COVID-19 pandemic, government

programs to soften the impact of the pandemic on the economy and labor markets were introduced in both Norway and neighboring countries [JURANEK *et al.*, 2021].

institutional or cultural factors that can influence such a relationship. Importantly, criminal records are not publicly available in Norway, and it is therefore not possible for neighbors, friends, potential employers, etc. to obtain information on criminal justice contacts without a person disclosing this information him/herself.<sup>3</sup> This means that the pathways through which structural impediments (such as access to employment or housing) can impact the individual are more limited than in contexts where criminal records are either public or more easily accessible. Moreover, Norway and the other Scandinavian countries are characterized by more collectivist values such as universalism and equality than many other Western countries [see, e.g., Svallfors 2003]. This is conducive to a perception of crime as not only the responsibility of the individual but of society, and the offender as separate from his/her actions. While criminal justice involvement might therefore be seen as both abnormal and severe, these factors might limit the processes through which social repercussions to such contacts are transferred.

### *Theoretical and empirical background*

The question about where people venture in life and what brings them there, are central to several sociological theories on both delinquency and inequality. Here, these theories will be explored against a backdrop of the life course perspective [Elder 1985, 1994]. The life course perspective has been used to study numerous aspects of human lives, including family formation [e.g., van Schellen, Poortman and Nieuwbeerta 2011], health [e.g., Burton-Jeangros *et al.* 2015], and social mobility [e.g., Hillmert 2015]. Importantly, life course research has dealt with the order and timing of various life events and transitions and questioned whether there is such a thing as a “normative timetable” with which our individual life trajectories have a greater or lesser overlap. While the transition to adulthood is now typically framed within the concept of de-standardization [Rindfuss 1991], empirical evidence suggests that there is still a substantial cross-generational stability in the order of life events such as getting a job, moving out, entering a stable partnership, and having children in Europe [Nico 2014].

In the study of crime and deviance, Sampson and Laub [1993; see also Laub and Sampson 2003] famously integrated the life course perspective

<sup>3</sup> The exception are jobs that involve direct contact with and influence over vulnerable groups (e.g., children or people with a handicap) or the handling sensitive information (see

The Police Databases Act, Chapter 7: [https://lovdata.no/dokument/NLE/lov/2010-05-28-16#KAPITTEL\\_7](https://lovdata.no/dokument/NLE/lov/2010-05-28-16#KAPITTEL_7)).

[Elder 1985, 1994] with social control theory [Hirschi 1969] to create their age-graded theory of informal social control. In doing so, they theorized that adult transitions linked, for example, to work, marriage, and family life result in changes in the level of informal control that can act as turning points in the criminal trajectory of an individual [Sampson and Laub 1993; Laub and Sampson 2003]. While not their explicit focus, this theory indirectly deals with an initial question of how offending impacts whether these transitions happen at all. Are people with criminal records more or less likely to have kids, get married or secure a stable job? Are they more or less likely to have a weak connection to the labor market or to various friend groups?

In this paper, the focus is on the relationship between having a criminal record in relatively early adulthood, set to age 25, and various life outcomes linked to employment and social integration more than 15 years later. While delinquency is relatively normative during adolescence [Pedersen *et al.* 2020], coming in contact with the criminal justice system and getting a formal label as a deviant is less so—at least outside the American case of mass incarceration [Garland 2001]. Therefore, getting a criminal record can be an event, or a turning point, that may define the trajectory of adolescence and early adulthood in a way that leaves a permanent mark on the life course. Longitudinal studies have shown that most people eventually desist from crime no matter the depth of their criminal involvement [e.g., Laub and Sampson 2003], and from e.g. fertility research we have learned that *delays* in various transitions can result in tempo rather than quantum effects [Bongaarts and Feeny 1998]. By observing various life outcomes when people reach their 40s, which is later than most other studies on adult transitions [see Nico 2014 for an overview], this study seeks to explore the relationship between a criminal record and various life outcomes at an age where any tempo effects have presumably been netted out and where more permanent patterns of inclusion and disadvantage are likely to have settled.

Extensive research has linked a criminal record to worse human capital and labor market outcomes, including educational attainment, employment and socioeconomic advantage—at least in the short run [cf., e.g., Bernburg and Krohn 2003; Lanctot, Cernkovich and Giordano 2007; Lopes *et al.* 2012]. A smaller literature also connects a criminal record to lower civic engagement such as voting [Tripkovic 2016], and to worse marriage prospects [Schmidt *et al.* 2015; van Scheelen, Poortman and Nieuwebeerta 2011]. Theoretically, having a criminal record, as well as the seriousness of that criminal record, can be expected to impact later life outcomes through three main mechanisms: (a) formal exclusion in the

form of structural/legal impediments to conventional life opportunities, (b) social rejection, and (c) social withdrawal. These will be assessed in somewhat more detail below.

### *Formal exclusion*

In some contexts, having a criminal record can exclude people from the conventional opportunity structure through formal rules and regulations. This can start as early as in school. For instance, Kirk and Sampson [2013] argue that the relationship between juvenile arrest and school dropout cannot be explained by a decline in educational expectations, school attachment, or support of friends; rather, it seems that arrestees are involuntarily pushed out of school through formal zero tolerance policies or, as is explained in more detail below, through teacher behavior. Some jobs, such as those involving children or other vulnerable groups, might also be unavailable to people with a criminal record, and spatial restriction zones may prohibit those convicted of certain (typically sexual) crimes to live in certain areas [Leasure 2019]. Disenfranchisement or voter disqualification have been common across the US and to some degree also in European countries [see Tripkovic 2016].

Importantly, Sampson and Laub [1993, 1997] highlight that being blocked from conventional life opportunities can be one of the factors that offset a “snowball effect” whereby a person gets stuck in a self-reinforcing process of limited life opportunities, weak social bonds and deviant behavior. This means that while the structural/formal limitations can be severe enough in themselves, they might also reinforce the social exclusion that occurs in more informal settings. For this analysis, which takes place in a context where voter rights do not change if a person gets a criminal record and very few jobs require a criminal background check, these social processes are likely relevant.

### *Social exclusion*

The idea that a criminal record can lead to worse outcomes across several main life domains is central to labeling theory [Becker 1963; Lemert 1967]. This theory provides a uniquely sociological emphasis on the importance of the social labeling and stigmatization processes that are triggered by delinquent behavior and—importantly—the official labeling of such behavior. Keeping a focus on structural opportunities linked to, for instance, education, housing and employment, this perspective highlights that a criminal record and the stigma associated



with it will make it harder for a person to access such opportunities not because of a lack of rights, but because gatekeepers in the opportunity structure will limit their access. Experimental vignette studies do for instance indicate that having a criminal record reduces the chances of being called into a job interview [Pager 2003; Uggen *et al.* 2014], but also that building rapport with employers can alleviate the detrimental consequences associated with having a criminal record [Pager, Western and Bonikowski 2009].

Social exclusion can also occur in less formal contexts, and previous research supports the notion that labeling undermines mainstream social bonds. For instance, criminal justice contacts have been associated with worse parent-child relations [Stewart *et al.* 2002] and rejection by peers [Zhang and Messner 1994] in the short term. While most previous studies in this field focus on youth, Schmidt *et al.* [2015] find that police interventions in adolescence are linked to a lower likelihood of entering a stable marriage in adulthood, as well as to a lower relationship quality [see also Van Schellen, Poortman and Nieuwbeerta 2011]. Such patterns may, of course, reflect both preferences and opportunities. Gottfredson and Hirschi [1990] do for instance argue that people with a history of offending have lower preferences for marriage due to their underlying personal traits that support short-term gratification rather than long-term investment. However, it could also be the case that having a criminal record impacts the *opportunities* to marry. Having a criminal record might make you a less attractive partner, both because it reflects your prospects in the labor market and thus the ability to provide for a family [Becker 1981], and because it might signal an increased risk of future offending—including domestic violence—and undesirable personal traits [King and South 2008]. For people who go to prison for an extended period, incapacitation would also limit their ability to enter stable romantic unions or build close friendships.<sup>4</sup> As for the likelihood of having children, few studies have explored the relationship between criminal history and fertility later in life. Lanctot, Cernkovich and Giordano [2007] find that being institutionalized during adolescence is associated with premature transitions to parenthood, but their data do not follow people long enough to determine whether this pattern (which is considered a risk factor early in life) persists.

<sup>4</sup> While these theories are mainly focused on partner formation, it can be argued that they can be extended to other close, personal relationships as well.

*Social withdrawal*

A third mechanism that can drive a relationship between a criminal record and later life outcomes is social withdrawal from conventional society [Link 1982]. As highlighted by Goffman [1963], the social interaction between people who are (or feel) stigmatized and people who are not can often entail embarrassment, ambiguity, and intense efforts at impression management on behalf of the stigmatized person—meaning that they end up avoiding such situations altogether. Moreover, stigmatized individuals may internalize the perception they have of their devaluated status, resulting in low self-worth and a self-reinforcing process whereby people increasingly avoid encounters that are vital for maintaining social bonds to mainstream groups and institutions. Some previous studies show that formal labeling leads to an increased identification with deviant attitudes and self-concepts [Ageton and Elliott 1974; Kaplan and Johnson 1991; Wiley and Esbensen 2006]. Moreover, anomie and strain theories [Agnew 2001; Merton 1938] highlight how perceived disadvantage can invoke social withdrawal from and rejection of conventional society as a coping mechanism.

A process that might coincide with social withdrawal from conventional parts of society is an increased social embeddedness in others. Deviant groups can represent a source of social support and refuge, while at the same time providing collective rationalizations for deviant behavior in itself [Bernburg, Krohn, and Rivera 2006]. Elaborating on the ideas of Howard S. Becker [1963], Jón G. Bernburg, Marvin D. Krohn and Craig J. Rivera [2006] suggest that formal and informal labeling may increase involvement in deviant peer groups due to three main processes: (a) rejection from conventional peers and other community members; (b) withdrawal from conventional peers in order to avoid shame and embarrassment; and (c) the tendency of people to befriend those who are similar to themselves (i.e., homophily). There is some evidence supporting the idea that perceived deviant labeling by significant others (subjective labeling) leads to subsequent association with deviant peers [see, e.g., Matsueda 1992]; Marieke Van Schellen, Anne-Rigt Poortman and Paul Nieuwebeerta [2011] find that having a more serious criminal record increases the likelihood that a person marries a person who also has a criminal record. Such findings suggest that while a criminal record might indeed be negatively associated with some conventional life transitions, it might not translate into higher levels of social isolation and loneliness.

*Between-individual differences*

Sociological theories and research on the detrimental impacts of criminal justice contacts on various life domains also suggest that we should observe stronger impacts of criminal justice interventions in certain subsamples of the population. For instance, in all studied populations, offending is less prevalent among women than among men, and one might therefore expect to see a stronger stigmatizing effect for women than for men who come in contact with the criminal justice system [see, e.g., Estrada and Nilsson 2012]. Some have argued that ethnic minorities may also face a challenge of “double stigma” if they have a criminal record [Massoglia, Firebaugh and Warner 2013; Pager 2003], and that, given that offending is more normative in adolescence, life course theory [Elder 1994] suggests that age might play a role.

Socioeconomic status (SES) as a source of moderation of the relationship between a criminal record and later life outcomes remains a source of mixed theoretical expectations as well as empirical findings. On one hand, low SES can make having a criminal record more harmful through two, parallel processes. Firstly, formal labeling may be more likely to trigger stigma for members of already stigmatized groups [Bernburg and Krohn 2003], and disadvantaged groups may also be more vulnerable to the negative effects of such labeling insofar as they have weaker social bonds and constrained life chances to begin with [Sampson and Laub 1997]. Secondly, high SES can give protection from the stigmatizing effect of formal labelling, leaving those with low SES relatively speaking worse off. For instance, Peggy C. Giordano, Stephen A. Cernkovich and Jennifer L. Rudolph [2002] find that individuals with better access to both social, cultural and economic capital are more able to make a “course correction” if they end up in a stigmatized position [cf. Hagan 1991]. In sum, these processes lead to an expectation that the (presumably detrimental) relationship between a criminal record and later outcomes is stronger for people with low SES.

On the other hand, it is also plausible that a criminal record is more harmful for people with *high* SES. This can again be linked to two parallel processes. Firstly, having a criminal record may have no bearing on later socioeconomic attainments for those with low SES as the exposure to potential turning points is already low [Sampson and Laub, 1997]. Secondly, as people with high SES are, on average, less likely to come into contact with the criminal justice system to begin with, the social consequences for those who are might be more severe. They do, in many ways, have more to lose, and may find the “rabble” treatment [Irwin 1985]

associated with criminal justice involvement especially daunting [see, e.g., Dennison and Demuth 2018; Massoglia, Firebaugh and Warner 2013]. Psychological research on vulnerability and resilience in adolescents also highlights that people from high SES backgrounds might be considered high risk [Luthar 2003]. As the expectations for the moderating impact of SES are ambiguous, the analyses in this paper will therefore explore heterogeneity in both directions by interacting a criminal record with high and low SES separately (see more details below).

### *The current study*

#### *Data material*

This study explores how a criminal record at age 25 is related to socio-demographic outcomes in adulthood in the Norwegian setting using two main data sources. Firstly, the first (1992, W1), second (1994, W2) and last (2020/2021, W5) waves of the longitudinal *Young in Norway* Study (YiN) [see, e.g., Strand and von Soest 2008, for details]<sup>5</sup> are used to (1) define the sample for the study (W1), (2) to measure self-reported police contacts until 1993 (W2), (3) to measure self-reported outcomes in adulthood (W5), and (4) to create moderator and control variables (W1 and W2) (see more details below). Secondly, administrative register data are used to measure police contacts *after* 1993 and to create additional outcome and control variables. The survey and administrative data are combined using a decrypted version of the Norwegian personal identification number. Variables are described in more detail in [Table 1](#) below.

It is important to recognize up front that the follow-up data were collected during the COVID-19 pandemic: survey responses for W5 were submitted between September 25, 2020, and November 20, 2021, and most register data are reported per December 31. The Norwegian labor market saw a downturn at that time, with increasing rates of unemployment and, especially for those living in the capital of Oslo, there were several lockdowns in 2020 and 2021 [see Juranek *et al.* 2021]. While it is reasonable to assume that the timing of the data collection might influence the results somewhat, it is also plausible that

<sup>5</sup> Note that this documentation report covers the data collection through W4. No report has been published following the W5 data collection, but all items used in this analysis are identical to those described for W4.

MARKED BY A CRIMINAL RECORD?

TABLE 1

*Descriptive statistics, by criminal record. Means, p-values of the between-group difference in the means, and the total number of missing observations. n=2,022*

	No criminal record	Criminal record	p-value, difference	No. of missing
<b>Criminal record</b>				
Any criminal record				0
Seriousness of criminal record				0
<b>Labor market attachment</b>				
Dropped out of high school	0.0438	0.1474	0.000	0
Not started higher education	0.2821	0.5263	0.000	0
Unemployed	0.0887	0.1474	0.008	0
Part-time worker	0.2263	0.2175	0.742	0
Sick leave	0.2769	0.2807	0.895	0
Wages	611553.3	565247.8	0.050	0
Total income	739645.4	691811.9	0.037	2
Means-tested welfare	0.0069	0.0316	0.020	0
Savings	269133.4	172250.4	0.000	0
<b>Social exclusion</b>				
Married	0.5233	0.4000	0.000	0
Have kids	0.8465	0.8491	0.909	4
Living with someone else	0.8935	0.8281	0.006	0
Loneliness	9.3135	9.1655	0.416	6
Alcohol consumption	4.0146	5.5771	0.000	31
Drug use	0.4248	3.9350	0.000	29
Voted last election	0.9326	0.8674	0.002	36
<b>Control variables</b>				
Female	0.6234	0.3299	0.000	0
Immigrant	0.1102	0.0959	0.448	0
Age, W1	14.97	14.81	0.170	0
SES: Low	0.0697	0.0822	0.468	0
SES: Middle	0.4750	0.5753	0.002	0
SES: High	0.4514	0.3356	0.000	0
Highest grade, W2	4.0658	3.8451	0.000	38
Parental monitoring, W1	4.9599	4.5411	0.000	48
Conduct problems, W1	0.5944	1.2538	0.000	68
Peers' conduct problems, W1	0.4443	0.9623	0.000	130
<b>N</b>	<b>1,737</b>	<b>285</b>	–	–

the respondents who chose to complete the survey at wave 5, which took place more than 15 years after wave 4, were not the ones whose life situation was in turmoil because of the pandemic. This makes the data more suitable for a general study (as is the case here) than a COVID-specific study (which would likely be rather biased).

### *Sample*

The sample includes YiN respondents who (1) participated in waves 1, 2 and 5 of the study ( $n=2,105$ ), (2) were between 12 and 20 years old when the data collection started ( $n=2,070$ ), and (3) were still residents of Norway when the W5 data collection took place ( $n=2,022$ ). Previous attrition analyses indicate that male gender, immigrant background, older age, high levels of delinquency and low grades were among the factors that significantly predicted dropout [Pedersen *et al.* 2020]. It is therefore reasonable to assume that both the prevalence and seriousness of the criminal record are downwardly biased in the study sample compared to both the initial YiN sample and the general population from which the sample was drawn.

### *Methodological approach*

The analysis rests on a set of linear regression models estimating the relationship between the criminal record in adolescence/early adulthood and various outcomes mid-life. The models are what Berk [2010] refers to as Level II regression analyses, which aim for statistical (but not causal) inference. These models take the form:<sup>6</sup>

$$outcome_{i,5} = \alpha + \beta record_{i,age25} + \mu controls_{i,1;2} + \varepsilon_i \quad (\text{Eq.1})$$

$\beta$  is the main parameter of interest, capturing the average difference in each outcome variable between (a) those who have and do not have a criminal record at age 25 or (b) those who have one additional offence on their record at age 25.  $\mu$  captures a set of control variables measured for individual  $i$  at W1 or W2, and  $\varepsilon_i$  is an error term with expected mean zero.

<sup>6</sup> Note that all standard errors are robust to account for any minor violations of the heteroskedasticity assumption.

Then, the following interaction model is estimated to explore whether these associations differ depending on the socioeconomic background of individual  $i$ :

$$outcome_{i,5} = \alpha + \beta record_{i,age25} + \gamma SES_{i,age16} + \delta record_{i,age25} * SES_{i,age16} + \mu controls_{i,1;2} + \varepsilon_i \quad (\text{Eq.2})$$

Here, the main parameter of interest is  $\delta$ , showing the average difference in each outcome between individuals who have both a criminal record and a given SES, as compared to those who have no criminal record and are in the SES control group.  $\beta$  now captures the relationship between a person's criminal record and the outcome variable for people in the SES reference category, and  $\gamma$  the relationship between SES and the outcome for people with no criminal record. As in Equation 1,  $\mu$  captures a set of control variables measured for individual  $i$  at W1 or W2, and  $\varepsilon_i$  is an error term with expected mean zero.

*Explanatory variable: Criminal record until age 25*

The main explanatory construct in this analysis is the criminal record of an individual measured at age 25. This is operationalized as two variables: A dummy that indicates whether the person has a criminal record (14.9%) or not (85.1%) (the latter being the reference category in the regressions), and a count variable that indicates the number of offences included in the criminal record (range: 0-113; mean: 0.5 for full sample and 3.3 for those with a criminal record), labelled "seriousness". The count variable is included with a second-degree polynomial in the regressions to account for non-linearity in the association.<sup>7</sup> In line with the life course perspective [Elder 1994] and previous research [e.g., van Schellen, Poortman and Nieuwebeerta 2011], it would also be relevant to measure the age of onset (of offending) and (if relevant) desistance, and the duration of the criminal career. This information is, however, not available in the data.

The variables on criminal record at age 25 are constructed using two data sources that cover different time periods and are combined to get a complete picture of criminal justice involvement up to that age. Firstly, questions about all former criminal justice involvements were included

<sup>7</sup> While some might argue that treating the criminal record as a continuous measure as opposed to a series of dichotomous indicators is problematic due to its assumption of interval

properties (i.e., equal unit impact for each successive increase in the measure), this is consistent with other studies [see, e.g., DENNISON and DEMUTH 2018].

in wave 2 of YiN (i.e., until 1993) only, and the YiN data from W2 are therefore used to measure self-reported criminal justice involvement (defined as arrests, criminal sanctions and/or imprisonment for own criminal acts) that happened *up to and including 1993*. Secondly, administrative register data include information on criminal justice involvement, here derived from the end of the police investigation when a person is assigned the status of prime suspect with respect to an offence, from 1992 onwards [Statistics Norway 2022b]. To avoid an overlap with the self-report data, these official crime data on solved police cases are used to measure criminal justice contacts *from 1994 through the year the person turns 25*.

The official data are a “back-end” source of information on involvement with the police and prosecution authorities that at face value correspond quite well to the contacts included in YiN. While measures from different data sources can never be directly comparable, previous analyses indicate that the inferences regarding the main correlates of police contacts are robust whether contacts were measured using administrative data or self-report survey data [see, e.g., Kirk 2006]. This approach should therefore provide a reasonably good proxy for the criminal record of a person at age 25.

#### *Outcome variables: Employment and social exclusion at ages 41-49*

The analysis relies on a total of 16 outcome variables that include key transitions to adulthood as well as more qualitative measures of social inclusion/exclusion. These are organized under the domains of labor market attachment and social exclusion below, but do notably also touch on issues regarding health.

##### *Labor market attachment*

Human capital and labor market integration is measured using a total of nine variables that are derived from administrative register data. To capture human capital, *High school dropout* is a dummy that is coded to 1 for respondents who had not yet completed high school *and* who were not enrolled as high school students in 2020 (5.8%), and 0 for everyone else. Given that admission criteria to Norwegian universities can be relaxed for people over the age of 25, *No higher education* is a dummy that is set to 1 for those who have yet to complete any higher education in 2020 (31.6%) and 0 for those who have completed higher education at any level.



Three variables capture a weak or unstable attachment to the labor market. *Unemployed* is a dummy that is set to 1 for those who were actively looking for a job and thus received unemployment benefits in 2020 (9.7%), and 0 for those who did not. *Part time* is a dummy set to 1 if the contracted hours of work per week in 2020 were less than the full-time equivalent of 37.5 hours (22.5%), and 0 if they were 37.5 or more. *Sick leave* is a dummy set to 1 for respondents who received any sick leave benefits in 2020 (27.7%), and 0 for those who did not.

Four variables capture various aspects of the financial situation of the individual. *Wages* is a continuous variable denoting the total wages (i.e., income from paid work, before taxes) in 2020 (range: 0-4.5 million; mean: 605,026.5). *Total income* is defined as a continuous variable denoting the total income (before taxes) a person had from all income sources (employment, self-employment, investments, welfare, etc.) in 2020 (range: -2.5million-7.5 million; mean: 732,944.0).<sup>8</sup> *Social Welfare* is a dummy set to 1 for those who received a specific kind of means-tested social welfare benefit reserved for those with no other means of supporting themselves in 2020 (1.0%) and 0 for those who did not. Finally, *Savings* is a continuous variable denoting the bank deposit of the person at the end of 2020 (range: 0-9.5 million; mean 255,477.8). All continuous variables are measured in Norwegian Kroner (NOK).<sup>9</sup>

### *Social exclusion*

Social exclusion is measured using seven variables derived from either administrative register data or self-report data.<sup>10</sup>

Social exclusion in informal settings is measured using four variables. *Married* is a dummy variable based on administrative registers, that is set to 1 for those who were married in 2020 (50.1%) and 0 for those who were not. *Kids* is a dummy set to 1 for respondents who indicated at W5 of YiN that they had at least one child (84.7%) and 0 for those who did not. This variable is based on self-report rather than administrative data (which is also available) to emphasize social rather than biological parenting. To get a broader measure of living situation and account for the fact that many people live with a partner they are not married to, *Living with someone* is a dummy set to 1 for respondents who indicated at W5 of YiN that they currently live together with parents, a partner, children or with

<sup>8</sup> Two extreme values are excluded from these analyses.

<sup>9</sup> As of February 14, 2023, 100 NOK equals 8.80 EUR or 9.41 USD.

<sup>10</sup> Registered offending was explored as a relevant outcome but dropped due to the low number of respondents who were in the police registers this year.

friends (88.4%) and 0 for those who did not. *Loneliness* is measured using a scale based on a 4-item version of the revised UCLA Loneliness Scale [Russel, Peplau and Cutrona 1980] and a fifth item added to the YiN (range: 2-20; mean: 9.3).

Three additional variables capture marginalization in different life areas. *Alcohol use* is measured as a sum variable based on items 3-10 on the Alcohol Use Disorders Identification Test (AUDIT) [Babor *et al.* 2001] (range: 5-25; mean: 4.2). *Substance use* is based on self-report data on the frequency of illicit substance use in the 12 months leading up to W5 of YiN, covering “softer” drugs like marijuana as well as “harder” drugs like methamphetamines and opioids (range 0-200; mean: 0.9). Finally, *Voting* is a dummy based on self-report data where the respondent indicates that they voted in the last national election (Fall of 2017) (coded 1, 92.3%) or not (coded 0).

#### *Control and moderator variables*

The control variables are included to account for some of the baseline differences between individuals that can confound the relationship between a criminal record and adult life outcomes. On the demographic side, *Age* is entered as a continuous variable that reflects the respondent’s age at the time of the first data collection (range: 12-20; mean: 14.9 years).<sup>11</sup> *Female* is a dummy variable based on self-reported data on gender, which is set to 1 for females (58.4%) and 0 for males. *Immigrant* is a dummy set to 1 for respondents who are born abroad (10.1%) according to the population registry and 0 for those who are born in Norway.

To account for differences in educational achievement, *Grades* is a numeric variable that corresponds to the highest final grade the respondent reported to have received in either Norwegian, Mathematics or English the last time they got their annual grade report at W2 (range: 2-6; mean: 4.0). *Parental monitoring* at W1 is measured using the mean score of six self-report questions relating to perceived parental norms and behavior [Olweus 1989] (range: 1-6; mean: 4.9). Self-reported conduct problems at W1 is measured using an average frequency score based on 18 items selected from Olweus’ scale of antisocial behavior [Olweus 1989], the National Youth Longitudinal Study in the USA [Windle 1990], and items developed by Young in Norway [see e.g. Pedersen and Wickstrøm 1995]

<sup>11</sup> A second-degree polynomial was tested but not included in the final models as this did not significantly improve model fit.

for more details) (range: 0–23.7; mean: 0.7). *Peer deviance* at W1 is a count variable based on a set of questions asking respondents to indicate whether their two closest friends had engaged in various delinquent behaviors in the past 12 months. All confirmatory answers to these questions were set to 1 and added to create a sum score (range: 0–4; mean: 0.5).

Finally, *Socioeconomic status* (SES) is proxied using register-based information on parents' highest completed education when the respondent was 16 years old [cf. Mastekaasa and Birkelund 2023]. This information is a categorical variable that is coded into a dummy set capturing whether the parent with the highest education had completed primary school only (labelled "Low SES"; 7.2%), had completed high school (labelled "Medium SES"; 48.9%) or had completed at least some higher education (labelled "High SES"; 43.5%). In the main regressions (Eq. 1), the variables are used in a three-part dummy set with Low SES included as the reference category. In the interaction models (Eq. 2), either Low SES or High SES is used in the interaction term with the other two categories forming the reference group. This approach makes it possible to produce results that speak directly to the experiences of the two groups that have received the most attention in empirical research to date, namely those with Low SES (as compared to others) and those with High SES (as compared to others). It should, however, be emphasized that this high number of combinations between outcome, explanatory and moderator variables introduces a risk of having results that are statistically significant only by chance, and thus of conducting a Type-I statistical error [Gelman, Hill and Yajima 2012]. Results that are close to conventional thresholds for statistical significance or stand out from the rest in terms of their substantive implications, should therefore be interpreted with extra caution.<sup>12</sup>

The sample is described in more detail in Table 1, which shows the means of all explanatory, outcome and control variables separately for respondents with and without a criminal record at age 25, as well as the total number of non-responses for each variable. For labor market and human capital outcomes, those with a criminal record at age 25 are significantly more likely to have dropped out of high school and less likely to have completed any higher education. They are also more likely to be unemployed and receive means-tested social welfare at ages 41–49,

<sup>12</sup> Note that multiple testing can also be accounted for using various statistical techniques, of which none provide a perfect solution to the problem [see, e.g., GELMAN, HILL and YAJIMA, 2012, for an overview]. To ensure that the results are as intuitive and transparent

as possible, I present them as they are and instead take the more "informal" approach suggested by Gelman *et al.* [2012] and others, and incorporate the increased risk of Type-I errors into my substantive interpretations.

and, on average, they earn less money both from paid work and in total. They also have less money in their bank account. On average, they have a slightly lower probability of being a part-time employee and slightly more likely to receive sick leave benefits, but these between-group differences are not statistically significant at the conventional 5% threshold and might therefore be driven by random variation rather than systematic differences between the groups.

For social exclusion outcomes, respondents who had a criminal record at age 25 are significantly less likely to be married in their 40s, and they are also less likely to be living with someone else than those who did not have a criminal record at age 25. This does not, however, translate into systematic differences between the groups in the probability of having kids or how lonely they feel. There are systematic between-group differences in both alcohol use and substance use, which are largest for the latter. Here, those who had a criminal record at age 25 report having used illicit substances on average 4 times in the 12 months leading up to the W5 data collection, while the same number for those who did not have a criminal record is 0.4. Interestingly, those who had a criminal record at age 25 were also less likely to vote in the national election that took place more than 15 years later. There are systematic differences between the group on all control variables except for immigrant background and age, with the differences going in the expected direction.

## *Results*

The following two sections explore the relationship between the presence and seriousness of a criminal record at age 25 and outcomes spanning both life domains in the 40s in more detail. [Tables 2 and 3](#) present estimates from multiple linear regression models that control for age, gender, immigrant backgrounds, SES, grades in high school, parental monitoring in adolescence, self-reported conduct problems in adolescence and peers' conduct problem in adolescence. Then, moderation effects by SES are explored in [Table 4](#). Full results from both bivariate and multiple regression models are included in the [Appendix](#).

### *Labor market attachment*

The output from a total of 18 multiple, linear regression models are summarized in [Table 2](#) below. Panel A includes the estimates of the

average difference in the outcomes (listed in the columns) between those who *had* a criminal record by age 25 and those who did *not*. The statistical significance of each estimate is denoted using asterisks as specified in the table note. The panel also shows the total number of observations used in each model. Panel B is structured in an identical manner, but here the estimates show the average change in each outcome when the person has one additional offence on their record. The second-degree polynomial captures any non-linearity in this association.

As we see from the table, the differences in education outcomes between those with and without a criminal record is reduced, yet still statistically significant after the controls have been included. In this model, those with a criminal record are about 7 percentage points more likely to have dropped out of high school and 12 percentage points less likely to have no higher education than those without a criminal record. This translates to relative differences of around 170% for high school dropout and 40% for higher education. For unemployment, part-time employment, and sick leave, there are no estimates in Panel A that meet the conventional threshold of  $p < 0.5$ , suggesting that the between-group difference in unemployment we observed in [Table 1](#) is driven by the individual-level controls. Those with a more serious criminal record at age 25 are, however, more likely to be unemployed when they reach their 40s (but no more likely to be in part-time employment or on sick leave benefits) (see Panel B). Finally, for financial situation, there are significant differences in wages, total income, and savings, with both the presence and seriousness of a criminal record being linked to both lower earning and less savings. This does not, however, translate into differences in means-tested social welfare, suggesting that, while income differences between the groups are present, they may not necessarily be at a margin that triggers eligibility for means-tested social welfare (which is earmarked for people in highly marginalized positions). It is also worth noting that the non-linearity of the associations for both total income and savings mean that those with the most serious criminal records are at a particularly strong financial disadvantage.

### *Social exclusion*

The output from a total of 14 multiple, linear regression models of the relationship between criminal record and social exclusion are summarized in [Table 3](#) below. The table is structured in the same way as [Table 2](#).

As the table shows, there are two statistically significant adjusted differences in informal social exclusion between those with and without a criminal record (see Panel A): loneliness, and the probability of being

TABLE 2  
*The relationship between any vs. no criminal record (Panel A) and the seriousness of the criminal record (Panel B) at age 25, and labor market outcomes at age 41-49. Regression estimates from OLS models*

	HS dropout	No higher ed.	Unemployed	Part time	Sick leave	Wages	Total income	Welfare	Savings
<b>A) Any criminal record</b>									
Criminal record	0.0753***	0.1160***	0.0480+	0.0257	0.0440	-74735.8**	-70736.3**	0.0093	-77078.9**
<i>n</i>	1788	1788	1788	1788	1788	1788	1786	1788	1788
<b>B) Seriousness of criminal record</b>									
Number of offences	0.0206*	0.0349**	0.0256*	0.0034	0.0190	-21550.5*	-25541.2**	0.0015	-29091.4***
Number of offences <sup>2</sup>	-0.0005	-0.0011**	-0.0009**	-0.0003	-0.0007	255.3	593.4*	0.0003	792.9***
<i>n</i>	1788	1788	1788	1788	1788	1788	1786	1788	1788

Note: +:  $p < 0.1$  \*:  $p < 0.05$  \*\*:  $p < 0.01$  \*\*\*:  $p < 0.001$

All models include controls for age, gender, immigrant backgrounds, socioeconomic status, grades in high school, parental monitoring in adolescence, self-reported conduct problems in adolescence and peers' conduct problem in adolescence.

Estimates from bivariate models are included in Appendix tables A1.1.1 (any criminal record) and A1.2.1 (seriousness of criminal record).

Estimates for all covariates are included in Appendix Tables A1.1.2 (any criminal record) and A1.2.2 (seriousness of criminal record).

TABLE 3  
*The relationship between any vs. no criminal record (Panel A) and the seriousness of the criminal record (Panel B) at age 25, and social integration outcomes at age 41-49. Regression estimates from OLS models*

	Married	Kids	Living with someone	Loneliness	Alcohol consumption	Drug use	Voting
<b>A) Any criminal record</b>							
Criminal record	-0.1080**	0.0338	-0.0380	-0.3800*	0.7240**	1.9430**	-0.0513*
<i>n</i>	1788	1785	1788	1782	1758	1760	1753
<b>B) Seriousness of criminal record</b>							
Number of offences	-0.0371**	0.0050	-0.0219+	-0.1010	0.3440*	1.0250*	-0.0219*
Number of offences <sup>2</sup>	0.0009*	-0.0006	0.0003	0.0061*	-0.0139**	-0.0002	0.0004
<i>n</i>	1788	1785	1788	1782	1758	1760	1753

Note: +: p<0,1 \*: p<0.05 \*\*: p<0.01 \*\*\*: p<0.001

All models include controls for age, gender, immigrant backgrounds, socioeconomic status, grades in high school, parental monitoring in adolescence, self-reported conduct problems in adolescence and peers' conduct problem in adolescence.

Estimates from bivariate models are included in Appendix tables A2.1.1 (any criminal record) and A2.2.1 (seriousness of criminal record).

Estimates for all covariates are included in Appendix Tables A2.1.2 (any criminal record) and A2.2.2 (seriousness of criminal record).

TABLE 4  
*Summary of interaction analyses. Regression estimates from OLS models*

	Any criminal record		Seriousness of criminal record	
	Low SES	High SES	Low SES	High SES
<b>Labor market attachment</b>				
Dropped out of high school	-0.0475	-0.0354	0.0028	0.0127
Not started higher education	0.0785	-0.0884	-0.0190*	0.0045
Unemployed	-0.0317	0.1260*	-0.0029	0.0373*
Part-time worker	-0.0497	-0.0267	-0.0101	-0.0088
Sick leave	-0.0129	0.0808	-0.0259**	0.0381*
Wages	-1238.7	17836.3	15875.3+	-1070.2
Total income	-0.1238	39107.3	16180.1*	840.6
Means-tested welfare	-0.0218	-0.0058	0.0147*	0.0089+
Savings	45585.3	-27994.4	10599.9	-21009.3*
<b>Social exclusion</b>				
Married	-0.0161	0.0537	0.0085	0.0029
Have kids	0.0229	0.0923*	-0.0081	0.0124
Living with someone else	-0.0800	0.120**	-0.0078	0.0189
Loneliness	1.288+	-0.3770	0.265***	-0.1850
Alcohol consumption	-2.290**	0.2790	-0.377**	0.4130
Drug use	-2.577	-1.6310	-0.1940	0.0876
Voted last election	-0.123	0.0258	-0.0284*	0.0138

Note: +:  $p < 0.1$  \*:  $p < 0.05$  \*\*:  $p < 0.01$  \*\*\*:  $p < 0.001$

All models include controls for age, gender, immigrant background, socioeconomic status, grades in high school, parental monitoring in adolescence, self-reported conduct problems in adolescence and peers' conduct problem in adolescence.

Estimates for all covariates for labor market attachment are included in Appendix tables A1.1.3 (any\*low), A1.1.4 (any\*high), A1.2.3 (seriousness\*low) and A1.2.4 (seriousness\*high).

Estimates for all covariates for social exclusion are included in Appendix tables A2.1.3 (any\*low), A2.1.4 (any\*high), A2.2.3 (seriousness\*low) and A2.2.4 (seriousness\*high).

married. Those who had a criminal record at age 25 are about 10.8 percentage points, or about 20%, less likely to be married by the time they are in their 40s than those who did not have a criminal record at that age. Somewhat counterintuitively, those with a criminal record also report less loneliness than those without, suggesting that they might still be embedded in other personal relationships. Panel B shows that the negative association between record seriousness and marriage decreases somewhat in magnitude as the criminal record gets more serious, which might indicate that this group has better chances in a marriage market with partners that also have a criminal record [cf. van Scheelen *et al.* 2011].



For the final three proxies of social exclusion, both the presence and seriousness of the criminal record is linked to more problematic alcohol use, more frequent substance use and a lower probability to vote. As in the bivariate analysis, the biggest difference is observed for illicit substance use: in this adjusted model, those who had a criminal record at age 25 reported using illicit substances more than five times as often in the past 12 months than those without a criminal record. In sum, these patterns underscore that people who had been in contact with the police by age 25 may end up in more marginalized positions later in life.

### *Summary and subsample analysis*

To summarize, having a criminal record at age 25 is associated with worse outcomes in several life domains, even after baseline demographic, socio-economic and (anti)social factors such as parental monitoring, peer deviance and own conduct problems in adolescence is accounted for. The pattern is particularly pronounced for labor market outcomes, and both *having* a criminal record and the *seriousness* of this record is linked to lower educational attainment and a worse financial situation. Having a more serious criminal record also increases the probability of unemployment; however, this is not the case if we compare those with and without a criminal record or look at part-time employment or sick leave as the outcome. This somewhat counterintuitive pattern could suggest either that the robust welfare system in Norway is successful in securing (lower paying) employment also to people with lower human capital and holes in their CVs, or that, to a larger extent, those with a criminal record drop out of the labor market altogether and therefore do not end up in the unemployment/part-time registers.

The presence of a criminal record at age 25 is also linked to a lower probability of being married, and the seriousness of the record to a lower probability of living with someone at all (including family, friends, etc.). Importantly, having a criminal record (at all or a more serious one) is also related to increased alcohol and substance use, and—at least for those with a more serious criminal record—voter turnout later in life. This illustrates that a criminal record can be linked to more extreme measures of marginalization, and that criminal justice system involvement can be directly and indirectly linked to civic engagement also in legal contexts where having such a record does not deprive a person of their right to vote. Other social integration outcomes, such as having kids or living with someone, is less systematically related to criminal record.

A key question is, of course, whether these overall associations mask any between-group differences. To explore this further, all combinations of explanatory and outcome variables are rerun using interaction terms between 1) criminal record and *low* SES (vs. middle or high) and 2) criminal record and *high* SES (vs. middle or low). The interaction terms are included in [Table 4](#) below, and the complete output from these regression models is included in [Appendix C](#). As noted above, the multiple comparisons mean that we can expect at least three of these tests to yield statistically significant results (given a significance level of 0.05) just by chance [Gelman, Hill and Yajima 2012].

While the overall pattern is one of no statistical interaction effects between SES and criminal record, some interesting patterns emerge. First, high SES seems to increase the “penalty” of a criminal record for some of the labor market outcomes (see [Appendix tables A1.1.4](#) and [A1.2.4](#)). High SES is linked to an additional decrease in savings; for people with low and medium SES, one additional offence on the criminal record is associated with having around 9,000 NOK (840 EUR/915 USD) less in savings at the end of 2020; for those with high SES, the average decrease per offence is around 30,000 NOK (2,810 EUR/3,050 USD). Moreover, the bivariate associations between criminal record and unemployment, which we observed in [Table 2](#), seem to be driven by people with high SES. If we look at the full interaction models (see [Appendix](#)), neither the estimates for criminal record nor those for high SES are statistically significant, but the interaction terms are. This could mean, as suggested for instance by Dennison and Demuth [2018], that people with high SES face more severe obstacles in trying to integrate into the labor market with a criminal record than to people with lower SES. It could also reflect different strategies for dealing with a criminal record in the two groups, where people with high SES to a larger extent keep a (weak) attachment to the labor market and thus qualify for unemployment benefits at a higher rate than people with low SES. This suspicion is strengthened by the fact that those with high SES (and a more serious criminal record) also find themselves at a higher risk of receiving sick leave benefits, which also depend on employment.

Secondly, and still focusing on labor market attachment, low SES seems to be a protective factor for those with more serious criminal records. For both the propensity to have no higher education and for total income (and wages ( $p < 0.1$ )), low SES more or less offsets the detrimental impact of a criminal record experienced by those with medium/high SES (see [Appendix Table A1.2.3](#)). The negative association between seriousness and the probability of sick leave is, as

highlighted above, carried by those with high SES. While this could in part be linked to labor market attachment, it might suggest that having a more serious criminal record early in life triggers the formal and/or informal support system of a person in ways that make it more likely that they get “back on track” if they belong to low SES—and presumably at risk—populations. However, as all estimates included in the interaction are statistically significant for these models, it should be noted that people with low SES and *no* criminal record still fare worse in terms of labor market attachment than people with more serious criminal records that belong to higher socioeconomic strata. It should also be stressed that people with low SES and a more serious criminal record are at a higher risk of receiving means-tested social welfare, indicating a polarization in the labor market attachment in this group.

Thirdly, for social integration outcomes, high SES is—contrary to what we saw for labor market outcomes—a weak protection mechanism (see Table Appendix [table A2.1.4](#)). High SES cancels out the negative relationship between having a criminal record and the likelihood of living with someone else that is observed for people with low and medium SES, leaving people with high SES *and* a criminal record about as likely to live with someone else as people with low/medium SES and *no* criminal record (see Appendix [Table 2.1.4](#)). Moreover, people with a criminal record and high SES are linked to an increased likelihood of having kids. While this has been interpreted as a risk factor in adolescence and early adulthood [Lancot, Cernkovich and Giordano 2008], this is a less reasonable explanation when observing people as they reach mid-life.

Fourth, in this life domain, low (as compared to medium or high) SES is a risk factor for two outcomes: loneliness and voting. Results indicate that there are no systematic differences in the relationship between having a criminal record and voting behavior if we compare people from various socioeconomic statuses. However, for the *seriousness* of the criminal record, there is a negative association between the number of offences and the propensity to vote for people with low SES but no association for people with medium/high SES (see Appendix [Table A2.2.3](#)). For loneliness, there is a positive association between the number of offences and self-reported loneliness for people with low SES but no association for people with medium/high SES. Taken together, the findings for loneliness and SES suggest that the social costs to (some) relationships may thus be weaker for those with higher SES and stronger for those with low.

Fifth and finally, low SES is also a protective factor for one social exclusion outcome, namely alcohol consumption. Here, low SES counteracts the positive association between criminal record and alcohol

consumption that is observed for those with medium/high SES (see Appendix tables A2.1.3 and A2.2.3). This can suggest, as for labor market attachment, that having a criminal record leads to more treatment or assistance opportunities for people with low SES than with higher SES.

In sum, most variability by SES can be seen for the seriousness (rather than the mere presence) of a criminal record. Somewhat surprisingly, low SES seems to mitigate some of the unwanted consequences of having a more serious criminal record for labor market attachment and alcohol use, while reinforcing the detrimental consequences in more informal social settings. Flipping this pattern on its head, high SES seems to reinforce some of the unwanted consequences of having a more serious criminal record for certain labor market outcomes while mitigating them in informal social relationships. Rather than being a “buffer” against any unwanted consequences of criminal justice interventions, the only benefits experienced by those with higher SES are that they are more likely to have children and live with someone else.

### *Discussion*

This analysis was motivated by Hagan’s [1991] call to better integrate sociological research on deviance and stratification. Combining life course theory [Elder 1985, 1994] with sociological theories on deviance [Becker 1963; Agnew 2001] and family formation [Becker 1981], as well as empirical research on the collateral consequences of punishment [Kirk and Wakefield 2018], the paper has explored the relationship between the criminal record at age 25 and various life outcomes linked to labor market attachment and social exclusion measured at least 15 years later. A key advantage of this analysis is that it has assessed this relationship using a combination of administrative and self-report data that follow individuals from their teens into their 40s. In sum, the results show that the criminal record is linked to some (but not all) outcomes in both these life domains, and that the seriousness (rather than just the presence) of a criminal record is an important predictor. As expected, the relationship between seriousness and life outcomes varies somewhat depending on SES, but not always in a consistent or expected manner.

It is important to recognize some of the key limitations of this research before moving on. Firstly, it is important to stress that the results of these analyses are correlational only, and they can therefore not be given a

causal interpretation. While the observed patterns can indeed reflect a causal effect of a criminal record, it can also be that the correlations are spurious and driven by other individual characteristics that have not been included in the models. Secondly, the analysis is based on a sample that is no longer representative of the population from which it was drawn. It is likely that respondents in the original YiN sample who became the most criminally active dropped out of the study at a higher rate than others before the W5 data collection. The fact that the outcome data were collected roughly one year into the COVID-19 pandemic could also mean that some of those who were the most hardy hit did not have the bandwidth to fill out the survey, and that some of the outcomes are biased. Thirdly, the data did not allow for the exploration of additional nuances in the criminal record linked to, for instance, time of onset, duration, and types of contact. Dennison and Demuth's [2018] data did for instance allow them to differentiate between arrests, convictions, and imprisonment, and demonstrate a non-linear relationship in which deeper involvement led to increasingly negative consequences on achieved SES. This would be relevant also in future analyses. Finally, given both the sample size and/or space considerations it was not possible to explore subsample variations depending on characteristics such as gender or minority background, even though these are both theoretically relevant.

So—with these caveats in mind—what are the implications of these results for future research and theory development on inequality and deviance? For research and theory development on social inequality, the most important takeaway from this study is, perhaps, that it demonstrates that a criminal record is linked to later life outcomes also after systematic differences in delinquent behavior, sociodemographic characteristics, parents, and peers are accounted for. In terms of size, the estimates for criminal record (vs. no criminal record) are often comparable to those of SES, and—except for the probability of having kids and working part-time—larger than the differences between men and women. However, it is also important to note that a criminal record is not linked to *all* outcomes. It is premature to conclude which outcomes are most relevant based on this one study, and more analyses that explore the relationship between criminal record and various life domains *in the same context* are necessary to move this field forward. For this to happen, it would be beneficial if researchers included multiple, related measures to measure social disadvantage in their studies. While arguably less elegant than combining them into an index, etc., the results presented

here also illustrate that measuring matters, and it is not inconsequential how inequality is operationalized.

Of particular relevance to research and theory development on deviance, this study shows that even front-end criminal justice involvement is linked to detrimental outcomes in several life domains—even in a context where few structural impediments are imposed on people with a criminal record. This underscores how the stigma associated with formal labeling can influence processes of social exclusion in formal as well as informal settings, and that formal labeling can be a “turning point” [Sampson and Laub 1993] in the life course. More research is needed to better understand these processes in the Norwegian context. To date, existing research on the labor market discrimination in Norway has focused on minority background [Birkelund *et al.* 2014], but this study invites similar approaches that focus on criminal background as well. It also remains an open question how exactly some of the people with different criminal records make a “course correction” and catch up with the more standardized life course. This is a question that should be answered using longitudinal data with closer and more regular time intervals between the waves than the data used in this paper.

It is clear from this analysis that the topics of inequality and deviance form parts of a Venn diagram with a substantial overlap. Sampson and Laub’s [1997] concept of a “snowball effect” illustrates this nicely: “The theory specifically suggests a ‘snowball’ effect—that adolescent delinquency and its negative consequences (e.g., arrest, official labeling, incarceration) increasingly ‘mortgage’ one’s future, especially later life chances molded by schooling and employment” [Sampson and Laub 1997: 147]. The “snowball effect” means that labeling can last much longer than the actual experience of labeling and stigmatization, and that it can increase delinquency—which in turn leads to increased stigmatization, and so on [Bernburg 2019]. These interrelated processes of delinquency, criminal justice system involvement, marginalization and inequality are what ultimately produces what Irwin [1985] called “the rabble class”; a group of people that are detached from society as a consequence of their involvement in the criminal justice system. While these results are clearly not indicative of such an underclass in Norway, they nonetheless demonstrate that inequality researchers should continue to take seriously the idea that criminal justice interventions can be catalysts of social inequality. Likewise, deviance researchers should not be wary that social inequality likely is an important moderator for the impact of criminal justice involvement on the life course.

Supplementary material

To view supplementary material for this article, please visit <http://doi.org/10.1017/S0003975623000619>.

BIBLIOGRAPHY

- AGETON Suzanne S. and Delbert S. ELLIOTT, 1974. "The Effect of Legal Processing on Delinquent Orientations," *Social Problems*, 22: 87–100.
- AGNEW Robert, 2001. "Building on the Foundation of General Strain Theory: Specifying the types of strain most likely to lead to crime and delinquency," *Journal of Research in Crime and Delinquency*, 38: 319–361.
- ANDERSEN Lars H. and Signe H. ANDERSEN, 2014. "Effect of Electronic Monitoring on Social Welfare Dependence," *Criminology & Public Policy*, 13: 349–379.
- BABOR Thomas F., John C. HIGGINS-BIDDLE, John B. SAUNDERS and Maristela G. MONTEIRO, 2001. *The Alcohol Use Disorders Identification Test. Guidelines for Use in Primary Care* (2nd ed.), World Health Organization.
- BECKER Gary S., 1981. *A Treatise on the Family* (Cambridge, Harvard University Press).
- BECKER Howard S., 1963. *Outsiders: Studies in the sociology of deviance* (New York, Free Press Glencoe).
- BERK Richard, 2010. "What you Can and Can't properly do with Regression," *Journal of Quantitative Criminology*, 26: 481–487.
- BERNBURG Jón G., 2019. *Labeling Theory*, in M. D. KROHN, N. HENDRIX, G. P. HALL and A. J. LIZOTTE, eds, *The Handbook on Crime and Deviance* (London, Springer Nature: 179–196).
- BERNBURG Jón G. and Marvin D. KROHN, 2003. "Labeling, Life Chances, and Adult Crime: The direct and indirect effects of official intervention in adolescence on crime in early adulthood," *Criminology*, 41: 1287–1318.
- BERNBURG Jón G., Marvin D. KROHN and Craig J. RIVERA, 2006. "Official Labeling, Criminal Embeddedness, and Subsequent Delinquency: A longitudinal test of labeling theory," *Journal of Research in Crime and Delinquency*, 43: 67–88.
- BHULLER Manudeep, Gordon B. DAHL, Katrine V. LØKEN and Magne MOGSTAD, 2020. "Incarceration, Recidivism, and Employment," *Journal of Political Economy*, 128: 1269–1324.
- BIRKELUND Gunn E., Jon ROGSTAD, Kristian HEGGEBØ, Tove M. ASPØY and Heidi F. BJELLAND, 2014. "Diskriminering i arbeidslivet. Resultater fra randomiserte felteksperimenter i Oslo, Stavanger, Bergen og Trondheim," *Sosiologisk tidsskrift*, 22 (4): 352–382.
- BONGAARTS John and Griffith FEENEY, 1998. "On the Quantum and Tempo of Fertility," *Population and Development Review*, 24 (2): 271–291.
- BRAME Robert, Michael G. TURNER, Raymond PATERNOSTER and Shawn D. BUSHWAY, 2012. "Cumulative Prevalence of Arrest from ages 8 to 23 in a National Sample," *Pediatrics*, 129 (1): 21–27.
- BUCHMANN Marlis C. and Irene KRIESI, 2011. "Transition to Adulthood in Europe," *Annual Review of Sociology*, 37: 481–503.
- BURTON-JEANGROS Claudine, Stéphane CULLATI, Amanda SACKER and David BLANE, 2015. *A Life Course Perspective on Health Trajectories and Transitions* (New York, Springer Open).
- DENNISON Christopher R. and Stephen DEMUTH, 2018. "The More you Have, the More you Lose: Criminal justice involvement, ascribed socioeconomic status, and achieved SES," *Social Problems*, 65 (2): 191–210.
- ELDER Glen H., 1985. *Life Course Dynamics* (Ithaca, Cornell University Press).
- , 1994. *Time, Human Agency, and Social Change: Perspectives on the life course, social psychology quarterly*, 57 (1): 4–15.
- ESPING-ANDERSEN Gösta, 1993. *The Three Worlds of Welfare Capitalism* (Princeton, Princeton University Press).
- ESTRADA Felipe and Anders NILSSON, 2012. "Does it Cost More to be a Female

- Offender? A life-course study of childhood circumstances, crime, drug abuse, and living conditions," *Feminist Criminology*, 7 (3): 196–219.
- GARLAND David, 2001. *The Culture of Control* (Chicago, University of Chicago Press).
- GELMAN Andrew, Jennifer HILL and Masanao YAJIMA, 2012. "Why we (usually) don't have to Worry about Multiple Comparisons," *Journal of research on educational effectiveness*, 5: 189–211.
- GIORDANO Peggy C., Stephen A. CERNKOVICH and Jennifer L. RUDOLPH, 2002. "Gender, Crime, and Desistance: Toward a theory of cognitive transformation," *American Journal of Sociology*, 107 (4): 990–1064.
- GOFFMAN Erving, 1963. *Stigma: Notes on the management of a spoiled identity* (Englewood Cliffs, NJ, Prentice Hall).
- GOTTFREDSON Michael R. and Travis HIRSCHI, 1990. *A general theory of crime* (Stanford, CA, Stanford University Press).
- HAGAN John, 1991. "Destiny and Drift: Sub-cultural Preferences, Status Attainments, and the Risks and Rewards of Youth," *American Sociological Review*, 56 (5): 567–582.
- HILLMERT Steffen, 2015. "Changing Structures of Opportunity: A life-course perspective on social mobility and reproduction," *European Sociological Review*, 31 (2): 184–196.
- HIRSCHI Travis, 1969. *Causes of Delinquency* (Oakland, University of California Press).
- HJALMARSSON Randi and Matthew J. LINDQUIST, 2022. "The Health Effects of Prison," *American Economic Journal: Applied Economics*, 14 (4): 234–270.
- IRWIN John, 1985. *The Jail: Managing the Underclass in American Society* (Berkeley/Los Angeles, CA, University of California Press).
- JURANEK Steffen, Jörg PAETZOLD, Hannes WINTER and Floris ZOUTMAN, 2021. "Labor Market Effects of COVID-19 in Sweden and its Neighbors: Evidence from administrative data," *Kyklos*, 74 (4): 512–526.
- KAPLAN Howard B. and Robert J. JOHNSON, 1991. "Negative Social Sanctions and Juvenile Delinquency: Effects of labeling in a model of deviant behavior," *Social Science Quarterly*, 72: 98–122.
- KING Ryan D. and Scott J. SOUTH, 2008. "Crime, Race, and the Transition to Marriage," Paper presented at the *Crime and Population Dynamics, Summer Workshop*, June 2–3, Baltimore, Maryland.
- KIRK David S., 2006. "Examining the Divergence Across Self-report and Official Data Sources on Inferences About the Adolescent Life-course of Crime," *Journal of Quantitative Criminology*, 22 (2): 107–129.
- KIRK David S. and Robert J. SAMPSON, 2013. "Juvenile Arrest and Collateral Educational Damage in the Transition to Adulthood," *Sociology of Education*, 86: 36–62.
- KIRK David S. and Sara WAKEFIELD, 2018. "Collateral Consequences of Punishment: A Critical Review and Path Forward," *Annual Review of Criminology*, 1: 171–194.
- KURTOVIC Elina and Marti ROVIRA, 2017. "Contrast between Spain and the Netherlands in the hidden obstacles to re-entry into the labour market due to a criminal record," *European Journal of Sociology*, 14 (5): 505–521.
- LANCOTOT Nadine, Stephen A. CERNKOVICH and Peggy C. GIORDANO, 2007. "Delinquent behavior, official delinquency, and gender: Consequences for adulthood functioning and well-being," *Criminology*, 45: 131–157.
- LAPPI-SEPPÄLÄ Tappio and Michael TONRY, 2011. "Crime, criminal justice and criminology in the Nordic countries," *Crime and Justice*, 40 (1): 1–32.
- LAUB John H. and Robert J. SAMPSON, 2003. *Shared beginnings, divergent lives: Delinquent boys to age 70* (Cambridge, MA, Harvard University Press).
- LEASURE Peter, 2019. "Securing private housing with a criminal record," *Journal of Offender Rehabilitation*, 58 (1): 30–49.
- LEASURE Peter and Tara MARTIN, 2017. "Criminal records and housing: an experimental study," *Journal of Experimental Criminology*, 13: 527–535.
- LEMERT Edwin M., 1967. *Human deviance, social problems and social control* (Englewood Cliffs, Prentice-Hall).
- LINK Bruce G., 1982. "Mental patient status, work, and income: An examination of the effects of a psychiatric label," *American Sociological Review*, 47: 202–215.
- LINK Bruce G., Francis CULLEN, Elmer STRUENING, Patrick SHROUT and Bruce DOHRENWEND, 1989. "A modified labeling approach to mental disorders: An empirical assessment," *American Sociological Review*, 54: 400–423.
- LOPES Giza, Marvin D. KROHN, Alan J. LIZOTTE, Nicole M. SCHMIDT, Bob E. VÁSQUEZ and Jón G. BERNBURG, 2012. "Labeling and Cumulative Disadvantage:



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- The Impact of Formal Police Intervention on Life Chances and Crime During Emerging Adulthood," *Crime & Delinquency*, 58 (3): 456–488.
- LUTHAR Suniya S., 2003. "The Culture of Affluence: Psychological Costs of Material Wealth," *Child Development*, 74 (6): 1581–1593.
- MASSOGLIA Michael, Glenn FIREBAUGH and Cody WARNER, 2013. "Racial Variation in the Effect of Incarceration on Neighborhood Attainment," *American Sociological Review*, 78: 142–165.
- MASTEKAASA Arne and Gunn E. BIRKELUND, 2023. "The intergenerational transmission of social advantage and disadvantage: comprehensive evidence on the association of parents' and children's educational attainments, class, earnings, and status," *European Societies*, 25: 66–86.
- MATSUEDA Ross L., 1992. "Reflected Appraisal, Parental Labeling, and Delinquency: Specifying a symbolic interactionist theory," *American Journal of Sociology*, 97: 1577–1611.
- MERTON Robert K., 1938. "Social Structure and Anomie," *American Sociological Review*, 3 (5): 672–682.
- , 1987. "Three fragments from a sociologist's notebooks: Establishing the phenomenon, specified ignorance, and strategic research materials," *Annual review of sociology*, 13: 1–29.
- NICO Magda, 2014. "Variability in the Transitions to Adulthood in Europe: A critical approach to de-standardization of the life course," *Journal of Youth Studies*, 17 (2): 166–182.
- NORWEGIAN MINISTRY OF LABOUR AND SOCIAL INCLUSION, 2022. *Mellom mobilitet og migrasjon — Arbeidsinnvandreteres integrering i norsk arbeids- og samfunnsliv*, NOU, Oslo, Norwegian Ministry of Labour and Social Inclusion: 18.
- OECD, 2020. "How's Life? 2020. Measuring Well-being," Retrieved November 25, 2022 [[https://www.oecd-ilibrary.org/economics/how-s-life/volume-issue\\_9870c393-en](https://www.oecd-ilibrary.org/economics/how-s-life/volume-issue_9870c393-en)].
- OLWEUS Dan, 1989. "Prevalence and incidence in the study of antisocial behavior: Definitions and measurements," in M. W. KLEIN, ed., *Crossnational research in self-reported crime and delinquency* (Dordrecht, Kluwer: 187–201).
- PAGER Devah, 2003. "The mark of a criminal record," *American Journal of Sociology*, 108: 937–975.
- PAGER Devah, Bruce WESTERN and Bart BONIKOWSKI, 2009. "Discrimination in a Low-Wage Labor Market: A Field Experiment," *American Sociological Review*, 74: 777–799.
- PEDERSEN Willy and Lars WICHSTRØM, 1995. "Patterns of Delinquency in Norwegian Adolescents," *British Journal of Criminology*, 35: 543–562.
- PEDERSEN Willy, Rannveig K. HART, Terrie E. MOFFITT and Tilmann von SOEST, 2020. "Delinquency Abstainers in Adolescence and Educational and Labor Market Outcomes in Midlife: A Population-Based 25-year Longitudinal Study," *Developmental Psychology*, 56 (11): 2167–2176.
- PRATT John, 2008. "Scandinavian exceptionalism in an era of penal excess. Part I: The nature and roots of Scandinavian exceptionalism," *British Journal of Criminology*, 48, 2: 119–137.
- RINDFUSS Ronald R., 1991. "The Young Adult Years: Diversity, Structural Change and Fertility," *Demography*, 28, 4: 493–512.
- RUSSEL Dan, Letitia A. PEPLAU and Carolyn E. CUTRONA, 1980. "The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence," *Journal of Personality and Social Psychology*, 39 (3): 472–480.
- SAMPSON Robert J. and John H. LAUB, 1993. *Crime in the making: Pathways and turning points through life* (Cambridge, MA, Harvard University Press).
- SAMPSON Robert J. and John H. LAUB, 1997. A Life-Course Theory of Cumulative Disadvantage and the Stability of Delinquency, in T. P. THORNBERRY, ed., *Developmental Theories of Crime and Delinquency*, (London, Routledge, Advances in Criminological Theory: 133–161).
- SCHMIDT Nicole M., Giza LOPES, Marvin D. KROHN and Alan L. LIZOTTE, 2015. "Getting Caught and Getting Hitched: An Assessment of the Relationship Between Police Intervention, Life Chances, and Romantic Unions," *Justice Quarterly*, 32 (6): 976–1005.
- SKARDHAMAR Torbjørn, 2005. *Lovbruddskarrierer og levekår. En analyse av fødselskullet 1977. Reports, 2005/9* (Oslo, Statistics Norway).
- STATISTICS NORWAY, 2020. *Dette er Norge 2020*, Oslo, Statistics Norway.
- , 2022a. *Immigrants and Norwegian-born to immigrant parents. Statbank table 05183*

- [<https://www.ssb.no/en/statbank/table/05183/>]
- , 2022b. *Offences Investigated* [<https://www.ssb.no/en/sosiale-forhold-og-kriminalitet/kriminalitet-og-rettsvesen/statistikk/etterforskede-lovbrudd/>].
- , 2022c. Population. Statbank table 06913 [<https://www.ssb.no/en/statbank/table/06913/>].
- STEWART Eric A., Ronald L. SIMONS, Rand D. CONGER and Laura V. SCARAMELLA, 2002. "Beyond the interactional relationship between delinquency and parenting practices: The contribution of legal sanctions," *Journal of Research in Crime and Delinquency*, 39: 36–59.
- STEWART Robert and Christopher UGGEN, 2020. "Criminal records and college admissions: A modified experimental audit," *Criminology*, 58 (1): 156–188.
- STRAND Nils P. and Tilmann von SOEST, 2008. *Young in Norway—Longitudinal. Documentation of Design, Variables and Scales*. Revised version 2008 (Oslo, NOVA).
- SVALLFORS Stefan, 2003. "Welfare regimes and welfare opinions: A comparison of eight Western countries," *Social Indicators Research*, 64, 3: 495–520.
- TRIPKOVIC Milena, 2016. "The Modern Cives Sine Suffragio: Dimensions of Criminal Disenfranchisement in Europe," *The Howard Journal of Crime and Justice*, 55 (1-2): 4–24.
- UGELVIK Thomas and Jane DULLUM, 2012. *Penal exceptionalism? Nordic prison policy and practice*, (London, Routledge).
- UGGEN Christopher, Mike VUOLO, Sarah LAGESON, Ebony RUHLAND and Hilary K. WHITHAM, 2014. "The Edge of Stigma: An Experimental Audit of the Effects of Low-Level Criminal Records on Employment," *Criminology*, 52: 627–654.
- VAN SCHELLEN Marieke, Anne-Rigt POORTMAN and Paul NIEUWBEERTA, 2011. "Partners in Crime? Criminal Offending, Marriage Formation, and Partner Selection," *Journal of Research in Crime and Delinquency*, 49 (4): 545–571.
- WILEY Stephanie A. and Finn-Aage ESBENSEN, 2006. "The Effect of Police Contact: Does Official Intervention Result in Deviance Amplification?," *Crime & Delinquency*, 62 (3): 283–307.
- WINDLE Michael, 1990. "A longitudinal study of antisocial behaviors in early adolescence as predictors of late adolescent substance use. Gender and ethnic group differences," *Journal of Abnormal Psychology*, 99 (1): 86–91.
- ZHANG Lening and Steven F. MESSNER, 1994. "The severity of official punishment for delinquency and change in interpersonal relations in Chinese society," *Journal of Research in Crime and Delinquency*, 31: 416–433.