

# The life course of young male and female offenders – stability or change between different birth cohorts? \*

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## Abstract

Individuals' life chances are shaped by the times and events that they experience. This emphasises the need for studies that focus on staggered birth cohorts. The article presents a new longitudinal data set that includes three complete Swedish birth cohorts, born in 1965, 1975 and 1985. Comparisons between the different birth cohorts show how offending distributions among young offenders, as well as their socio-demographic backgrounds and life chances, have developed over time. The analyses of stability and change presented in the study, may serve as a point of departure for more informed discussions of the significance of societal changes for the criminality and life chances of male and female offenders.

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## *Introduction*

One paradigmatic principle in life-course theory is that individuals' life chances are embedded in and shaped by the historical times and events that they experience (Elder et al. 2004:10). That is, in addition to resources at the individual level, structural factors also matter, since they affect both the supply of resources and the individual's ability to make use of available resources. One criticism that may therefore be directed at longitudinal studies that examine the significance of childhood conditions for individuals' involvement in crime and future life chances is that the findings are not generalizable to the prevailing conditions experienced by subsequent generations of young people (see e.g. Giordano et al. 2002; Johnson, Morris and Menard 2012 and the discussion in Laub and Sampson 2003: 283). Societies change, and with them the childhood conditions and opportunities that people experience. This had led researchers to emphasise the need for studies that focus on analyses of staggered birth cohorts (Mayer 2009).

The overarching questions in the present study concern stability and change between different birth cohorts regarding a) registered crime, b) childhood risk factors, and c) long-term consequences of criminal involvement. We employ a new longitudinal data set that includes three complete Swedish birth cohorts, born in 1965, 1975 and 1985. The data include information on childhood conditions, education, work, health and criminality, and thus provide the opportunity to follow individuals with different backgrounds and levels of offending from their childhood years to the age of 45, for the oldest birth cohort, and to age 25 for the youngest. The design of this cohort study provides a unique opportunity to answer questions that are difficult to examine in studies based on a single cohort. Comparisons between different birth cohorts provide an

opportunity to describe how offending distributions among young offenders, as well as their socio-demographic backgrounds and life chances, have developed over time.

In the next section we briefly discuss the significance of societal changes for youth crime. We then move on to present the data and methods employed in the study. The presentation of results begins with a description of levels of registered offending within the three birth cohorts. We then examine the relationship between social background factors and the risk of being registered for crime as a teenager, looking at whether the significance of different risk factors has changed over time. Finally, we analyse the degree of attachment to the labour market and the risk for social exclusion in adulthood for the different generations of young offenders.

### *The significance of societal changes for youth crime*

In previous studies of young offenders' life chances, we have focused on a cohort born in Stockholm in 1953 (see e.g. Nilsson and Estrada 2011; Nilsson, Bäckman and Estrada 2013). However, the conditions experienced by those growing up in Sweden, and elsewhere, have changed significantly since the mid-1950s. The development of the welfare state, not least in the Scandinavian countries, involved following policies with the clear objective of redressing differences in life chances between different social groups. Inequalities in childhood conditions were not to be perpetuated across generations, but should rather lose their significance over time. Research on social mobility and educational attainment suggests, however, that following a period during which life chances became more equal and social mobility improved, this trend slowed for children born in Sweden subsequent to the 1950s (Breen and Jonsson 2007). By studying the intergenerational transmission of social disadvantage in 30 Norwegian birth cohorts born between 1955 and 1985, Wiborg and Hansen (2009) show that the significance of social origin has not declined for younger cohorts. On the contrary, their

results indicate a stable, and even slightly increasing impact of the parents' economic resources.

Over the last three decades, extensive structural changes have taken place in relation to both the labour market and the education system. Generally speaking, the proportion of youths continuing into further education has increased. At the same time, the proportion of youths who are neither in employment, education or training has become greater. This latter group, sometimes labelled NEETs (Not in Employment, Education or Training), has therefore become the focus of increased levels of attention in the public debate in Europe (Eurofond 2012). In Sweden, the major increase in the number of NEETs came during the economic crisis of the 1990s, when the proportion in employment declined very sharply over the course of just a few years, particularly among the young. Increased competition for jobs, rather than changes in the nature of the available work, has meant that employers have become able to choose to employ youths who are over-qualified for the work at hand (Korpi and Tåhlin 2009).

In parallel with the decline in employment levels, income inequalities have increased. In an international perspective, the level of income inequality has historically been relatively low in Sweden (OECD 2008), but these inequalities have increased substantially over recent decades, as can be seen from the trend in the Gini index (Fritzell et al. 2011). Young people are among the groups whose incomes have fallen behind most notably (ibid.). These developments have had a significant impact on the ability of young people to establish themselves as adults with a job and a home, which has become more difficult and has come to be deferred longer.

The studies described above do not examine the issue of offending. It is therefore unclear how the intergenerational transmission of disadvantage is linked to the offending of different birth cohorts, or whether the correlations between youth offending and life chances have changed over time.

In addition to the socio-economic trends noted above, the post-war period has also been characterised by a demographic shift. Increased mobility has led to a situation where a larger proportion of the European population has an immigrant background. It is notable that shifts in migration flows have also produced changes in the ethnic composition of the immigrant population, with an increasing proportion coming from a non-European background (e.g. OECD 2013: 299).

### *Impacts on youth crime*

It is unclear how different societal changes have impacted upon youth crime. Discussions of the causes and consequences of youths' exclusion from work and continued studies sometimes raise the issue of links to involvement in crime without actually investigating the issue in more detail (Eurofound 2012; see also the discussion in Farrall et al. 2010 regarding social structure and desistance from crime). At the societal level, the correlations between general trends in risk factors and the behaviour of individuals are far from self-evident (Tham and von Hofer 2009). What has been shown, however, is that the first decades subsequent to the end of World War II were characterised in the west by both increasing levels of wealth and a substantial increase in the level of youth (property) crime (Estrada 1999). The upward trend in crime has been broken, however, and since the beginning of the 1990s, we have witnessed an international "crime drop". Just as with the preceding increases in crime levels, this decline can be linked to opportunity-related mechanisms (Farrell et al 2011). In Sweden, for example,

levels of both registered and self-reported youth crime have declined (Estrada et al. 2012). This decline is primarily associated with a reduction in the number of young males convicted of theft offences, whereas the low levels of crime among females appear not to have changed very much. These trends, showing a narrowing of the gender gap in crime, are also in line with those reported in other countries (see e.g. Lauritsen et al. 2009; Fergusson 2013).

The decline in youth crime has occurred at the same time as young people's life conditions have in many ways become more difficult and characterised by greater inequalities. We know relatively little, however, about whether this means that the risk of being registered for crime has declined quite generally, or more for some groups than for others. To the extent that fewer youths are being convicted, this need not necessarily mean that there has been a change in the composition of the group of youths who are at risk of conviction for offending. It is reasonable to assume that the most important risk factors remain the same. Nor need the fact that it has become less common to be convicted during one's youth mean that there has been any change in the consequences of such convictions for young people's future life chances. This interpretation is supported, for example, by research showing that the risk factors associated with involvement in youth crime tend to be the same in different countries (Wikström and Sampson 2008) and also for both young males and young females (see e.g. Wong et al. 2010) despite differences in levels of offending.

Inasmuch as the significance of risk factors may be expected to be similar over time, it is not necessarily the case that this is also true of the long-term consequences of youth crime. There are theoretical reasons for assuming that these may have become more negative over time. One the basis of a labelling perspective, for example, one explanation for a deterioration in future life-chances would be that societal trends have involved a shift towards a more condemnatory

view of (youths') crime (Garland 2002; Estrada 2004; Farrall et al. 2010). Having been convicted of a crime has never been something to brag about at a job interview, but with increasing competition for work and higher educational requirements, the informal consequences of criminal convictions may be assumed to have become more severe. The fact that employers increasingly often demand prospective employees to produce the results of criminal record checks prior to employment may be viewed as confirmation of this (Backman 2012; see also the discussion of the rise of the risk agenda in Farrall et al. 2010).

Another explanation, this time focusing more on the significance of processes of cumulative disadvantage as outlined in life-course theories (Laub and Sampson 2003; Nilsson, Bäckman and Estrada 2013), might highlight the fact that as youth offending becomes less common, the group with convictions for crime may be assumed to become increasingly skewed in its social composition. Rather than increasing labelling effects, then, we might instead be looking at changes in the composition of the population of young offenders. The self-report surveys conducted in the Scandinavian countries show clear evidence of a polarisation, with increasing numbers of teenagers reporting no involvement in crime and a greater focus on the future. The group of youths who offend and who fail to meet the demands placed on them in school thus become more distinct from the rest of their generation (Balvig 2006, Kivivouri and Bernburg 2011). A trend towards a narrower selection of the group of individuals who are registered for crime, such that they are even more likely to have had a problematic childhood, inevitably means that this group will be more vulnerable in relation to possible negative outcomes later on in life, such as ill-health and unemployment.

As regards demographic changes, one interesting question is that of whether the increase in the size, and the shifting ethnic composition, of the immigrant population has produced

changes in the nature of immigrants' over-representation in crime. Criminological research has for a long time noted an over-representation of immigrants among those registered for crime, which has primarily been explained by reference to socio-economic resources and neighbourhood segregation (Hällsten, Szulkin and Sarnecki 2013). With the inclusion of controls for social background factors, we would therefore expect the excess risk for registered crime among immigrants to be similar across the different cohorts, in spite of the shifts that have taken place in the ethnic composition of the immigrant population.

In studies where it is possible to compare different ages and birth cohorts, an attempt is sometimes made to distinguish age, period and cohort effects. Age effects relate to processes linked to aging. A classic criminological example can be found in the decline in levels of involvement in crime that is associated with increasing age (Farrington 1986). Period effects relate to influences specific to a particular time period, whereas cohort effects are produced by a distinctive formative experience that birth cohort members share and that lasts over a longer period of time. It is very difficult to differentiate between age, period and cohort effects however, not only methodologically (Glenn 2004), but also conceptually (the effects of economic crises, for example, may be viewed as examples of both period and cohort effects, depending on which mechanisms are emphasised as having produced them). Thus the line between what is regarded as a period effect, and what is regarded as a cohort effect is rather thin, and according to Glenn (2004: 475), since it is not possible to definitively separate these effects statistically, it is more reasonable to instead present arguments to support the choice of the type of effect at which a given study directs its focus. On the basis of this view, we would argue that the factors of interest in the present study should first and foremost be regarded as period effects.

In summary, the processes of societal change that we have briefly touched upon here generate a range of questions that are difficult to answer on the basis of studies that proceed from homogeneous, older cohorts. There is therefore a need to supplement existing studies, e.g. those based on analyses of individuals born in the 1920s and the 1950s (Laub and Sampson 2003; Farrington et al 2009; Nilsson et al. 2013), with results relating to cohorts born during the 1960s, 1970s and 1980s. In this article we present a number of basic analyses of stability and change, which may serve as a point of departure for producing a better foundation for discussions of the significance of the societal changes witnessed over recent decades for the criminality and life chances of different groups.

### *Data and method*

The study population comprises all individuals born in 1965, 1975 and 1985 who were resident in Sweden at age 16 – a total of 337,000 individuals. Since every individual in Sweden has a unique personal identification number, we have been able to link different registers to obtain information on registered crime, childhood conditions, income and health (for a description of how register data may be used in Scandinavian criminology, see Lyngstad and Skardhamar 2011). The majority of these register data relate to the period up to and including 2010. The analyses include controls for individuals who have emigrated or died. Since some of the register data are only available for more recent years, the oldest cohort has been excluded from a number of the analyses.

We only have information on the offences that have been registered by the criminal justice system, and the age of criminal responsibility in Sweden is fifteen years. We know that registered crime only accounts for a small proportion of the offences that are actually committed. At the same time, and as has been noted by Steffensmeier and Allan (1996) for example, self-report data often tend to

describe less serious forms of involvement in crime by comparison with the criminality that becomes the object of justice system interventions. It is also worth remembering the substantial problems linked to the large numbers of missing cases in survey data and the selection processes associated with non-participation, which we are able to avoid by using data that relate to the population as a whole. This is perhaps particularly important when the objective is to study the criminality and life-chances of marginalised groups over time, and how the life conditions of these groups differ from those of others.

### *Measures*

The data we have on *crime* have been collected from the convictions register. The register covers the period since 1973. The variables we have examined relate to annual data on the number of convictions and the types of crime included in these convictions (divided into eight categories: theft, shoplifting, threats and violence, vandalism, fraud, drug offences, road traffic offences including drink driving, and other offences). In the analysis of young offenders' childhood conditions we will be focusing on those with two or more convictions during their teenage years. When focusing on adult outcomes we also take offending during adulthood into consideration.

In addition to *demographic background variables* such as sex and immigrant background (individuals born outside Sweden, or with two parents born outside Sweden) we can also examine how involvement in crime varies on the basis of *resources during childhood*. In this respect, the focus is directed at family conditions and schooling. The available data relate to the family's financial resources measured as the family's total post tax and transfer annual income. This is a three level categorical indicator which refers to the year the cohort member turned 15 and it identifies those 20 percent with lowest income, the 20 percent with the highest income, and the

60 percent in between. We also use an indicator of the parents' social welfare receipts when the cohort members were aged 8–17. This indicator is also divided into three categories: 'No welfare payments', 'Welfare payments 1–2 years' and 'Welfare payments 3+ years'.<sup>1</sup> The indicator of family type separates between the categories 'Both parents living together', 'Single parent' and 'Others', and refers to the situation when the cohort members were aged 16. We also use a variable indicating whether either parent served a custodial sentence during the cohort member's childhood (0–17 years). We have also included the cohort members' final grades from compulsory education (age 15–16), divided into the highest 20 percent, the lowest 20 percent and those in between. These data are only available for the youngest two cohorts (those born in 1975 and 1985).

The cohort members' situation as adults is studied on the basis of their degree of attachment to the labour market. To this end we employ a model that proceeds from the individuals' principal incomes, as recorded in official registers (see Bäckman and Nilsson 2011). The model was developed in two steps. As a first step, the cohort members were divided into groups on the basis of annual earnings, recalculated into what are referred to as Price Base Amounts (PBA).<sup>2</sup> In the second step, this annual categorisation is used to produce a series of three-year-based categorisations, where the individuals' position in a given year is determined by the category to which they belonged in the current year and in the two previous years. This three-year categorisation constitutes a more reliable measure than an annual measure, since it takes account of flow and stability. We employ the following categories: 'Core labour force' comprises those earning at least 3.5 PBA in at least two of the three consecutive years. This limit was set to correspond to

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<sup>1</sup> Social welfare benefits are a means tested final tier benefit granted to households when all other sources of maintenance have been exhausted.

<sup>2</sup> Annual earnings consist of income from work and work-related social insurance programs such as sickness benefits and parental insurance, but not pensions and unemployment insurance. The size of the Price Base Amount is tied to the consumer price index. In 2013 the PBA was specified at approximately €5000.

the lowest amount on which individuals can support themselves for a year. The group 'Unstable labour force' includes those earning between 0.5 and 3.5 PBA. The NEET-category is composed of non-students with a very low income (below 0.5 PBA) or no income at all in at least two of the three years. We also created categories that distinguish those on Disability Pensions and Students.

### *Method*

The analysis begins by presenting descriptive statistics to illustrate the different cohorts' recorded criminality, childhood and living conditions. Those cohort members who had been registered for crime as teenagers are compared with the other cohort members, and males are compared with females. The focus is directed at the question of whether the situation of the cohorts relative to one another is characterised by stability or change.

As has been noted by Wiborg and Hansen (2009:384), it is not entirely clear whether it is the relative or the absolute changes between different groups in the cohorts that are of most interest. When, as is the case in the current study, we are looking at outcomes characterised by substantial differences in the levels of the relevant variables, a small absolute change may produce a large relative difference among groups with low initial values. The reverse is naturally the case for groups that start with high scores on the variables of interest, where a much greater change in the absolute score may nonetheless fail to produce a corresponding increase when the change is viewed in relative terms. When interpreting the results, it is therefore important to focus on both relative and absolute levels and changes.

The patterns that emerge in our descriptive analysis of the significance of different risk factors for levels of registered crime during the teenage years will be further examined by means of

logistic regression, which analyses the probability (odds) of a certain event occurring, or in this case, of membership of a certain category. Odds and likelihood or risk are not identical concepts, but a higher odds-ratio also always means a higher relative probability or risk. As long as no reference is made to exact figures, the terms may thus be used interchangeably.

## *Results*

### *Registered criminality in the three cohorts*

Table 1 presents the proportions of cohort members convicted during their teenage years. When the different cohorts are compared, it can be seen that among the men, the oldest cohort presents the highest levels of registered crime, and thus that among males, levels of registered crime have declined over time. Among the females, the proportions registered for crime are highest in the youngest cohort. Thus registered youth crime has increased among females but not among males. The majority of those convicted during their teenage years are only convicted once, and this pattern is found in all three cohorts. Among the males, the proportion convicted on a single occasion has declined from 13.7 percent (among those born in 1965) to 9.5 percent (born 1985), and the proportion convicted at least twice has declined from 7.7 percent to 4.6 percent. Among the females, we instead find an increase, particularly in the proportion with only a single conviction (from 3.6 to 5.3 percent). As can be seen, the proportion convicted more than once is small, particularly among the females.

-TABLE 1 ABOUT HERE-

Table 2 presents the proportions of 15–19-year-olds convicted of different types of crime. As would be expected, there are clear differences between males and females, but also between the

three cohorts. Over time, the proportion of cohort members convicted of violent and drug offences has increased among both males and females. Both in Sweden and other countries, the increase in registered violent offending has been found to be due to increased reporting propensities rather than changes in offending behaviour (see e.g. Estrada 2001; Schwartz et al. 2009). The increase in the proportions convicted of drug offences should, at least in Sweden, be viewed against the background of on the one hand legislation that has expanded the number of acts defined as drug offences, and on the other an increase in the level of police activity focused on this type of crime (Lenke and Olsson 2002). The two major offence categories of theft (excluding petty theft) and road traffic offences have declined substantially among the males. The females differ from the males in that the proportions convicted of petty and other theft offences instead increase over time. In the youngest two cohorts, the proportion of females convicted of petty theft is larger even than the proportion of males. The general picture of declining property crime (among males) and an increase in the registering of violent and drug offences, as well as of different trends among males and females respectively, is the same as that found in analyses from countries such as the USA (Schwartz et al. 2009, Lauritzen et al. 2009) and the UK (Fergusson 2013).

-TABLE 2 ABOUT HERE-

### *Young offenders' childhood conditions and school achievement*

It is widely established that youths who become involved in crime are more often than others drawn from homes characterised by a lack of resources. This lack of resources manifests itself in different ways, for example in family structure, finances, social problems and poor health (e.g. Farrington et al. 2009; Aaltonen et al 2011; Estrada and Nilsson 2012). Table 3 presents data on a number of background risk factors experienced by the young offenders from the different cohorts. Crime varies as would be expected, i.e. the presence of a risk factor is associated

with an increase in the proportion with two or more convictions. For example, almost one-fifth (18.3%) of the males who were born in 1975 and grew up in families that were long-term social-welfare recipients have been convicted of at least two offences during their teenage years, as against less than one in twenty of those from families who did not receive social welfare during their childhood.

Looking to differences between the two youngest cohorts birth cohorts, i.e. those for which we have access to social background information, we have already noted a decline in the rate of convictions among the males, while the convictions rate has increased among the females. It is notable that this general pattern is visible irrespective of the youths' background conditions and school grades. This means that the relative significance of the risk factors presented in the table has not changed substantially between the different cohorts.

Some of the declines noted might nonetheless be regarded as somewhat surprising, not least the decline in registered crime among youths who have grown up in families characterised by long-term welfare reciprocity. This decline must however be viewed against the background of the fact that the proportion of cohort members whose families were long-term welfare recipients is significantly larger in the cohort born in 1985 as a result of the economic crisis experienced in Sweden during the 1990s.<sup>3</sup>

-TABLE 3 ABOUT HERE-

Youths with an immigrant background are approximately twice as likely to be convicted of an offence as youths with a non-immigrant background. A comparison between the three cohorts

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<sup>3</sup> The proportion of cohort members from families who were long-term welfare recipients was 12.2 percent for the 1975 cohort, and 17.2 percent for the cohort born in 1985.

shows a slight increase in the relative differences for males with an immigrant background, but a decrease among the females. On the basis of explanations that point to the significance of social factors, an over-representation would be expected, since children and youths with an immigrant background more often grow up in relatively disadvantaged conditions. Families with an immigrant background are also affected to a greater extent by the negative structural effects of residential segregation (see e.g. Hällsten et al. 2013). Furthermore, research also shows that some of the over-representation can probably be ascribed to discriminatory practices within the police service and the justice system (see e.g. Bowling and Phillips 2002).

#### *Multivariate analysis 1: the risk of being registered for crime*

We are unable to study the significance of neighbourhood conditions and discrimination in the context of this study. We can, however, examine how the excess risk of being registered for crime is affected by controlling for differences in the childhood conditions experienced by the cohort members and their level of school achievement (Table 4).

As expected, when we control for differences in background factors, other childhood conditions, and school grades, the excess risk associated with an immigrant background is reduced. What is perhaps most interesting, however, is that the size of this excess risk is the same in both birth cohorts (OR=1.6). Following the inclusion of controls for social background factors, then, we can note that the size of the excess risk is similar across the different cohorts, despite the compositional changes that have occurred within the immigrant population.<sup>4</sup>

Table 4 shows further that the excess risk for males of being convicted repeatedly has diminished over time, which is in line with the description presented earlier, i.e. of a declining level

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<sup>4</sup> Immigrants from western countries comprised approximately 23 percent of the immigrants in the cohort born in 1975, for example, whereas the corresponding proportion among those born in 1985 was only 9 percent.

of registered criminal activity among males and a certain increase among females. There is a clear excess risk for registered crime among long-term welfare recipients, and among those with single parents or with a parent who has served a prison sentence. In these respects, the relative risks do not differ over time. The single most prominent factor, besides sex, appears to be the cohort members' school performance (grades in their final year). Here the differences in the level of risk are much larger than in relation to the other factors, and have furthermore increased across the different cohorts.

-TABLE 4 ABOUT HERE-

### *Adult outcomes for young offenders*

In this section, we compare the level of labour market attachment in early adulthood (age 25) between those convicted of offences during their youth and those with no registered convictions. The presentation begins however by describing the cohort members' levels of continued involvement in crime, which may themselves be regarded as an indicator of social exclusion, across the different cohorts.

As can be seen from Table 5, there is a strong correlation for both males and females between criminality as a teenager and subsequent registered crime. There are a number of obvious differences between the sexes, however. Young male offenders exhibit a much higher level of recidivism than their female counterparts. In the youngest cohort, approximately two-thirds of the males with two or more convictions are reconvicted at age 20–25, compared with only one in three of the corresponding group of females. What is most interesting, however, is that the level of recidivism has increased somewhat for the males in the youngest cohort, while at the same time having decreased for the females.

-TABLE 5 ABOUT HERE-

The economic problems experienced by many European countries as a consequence of the 2008 financial crisis have led to increased concerns about young adults who are neither in employment nor in education or training (Eurofond 2012). The results presented in Table 6 also show a trend whereby an increasing proportion of young adults are neither in work nor education/training. This is the case for both sexes and irrespective of the level of registered crime during the cohort members' teenage years. A comparison between those with convictions as teenagers and those without, however, shows that the risk of finding oneself neither in work, education or training is significantly greater among those with convictions as teenagers. The proportion able to support themselves by means of employment (the core labour force) is also significantly smaller in the group with two or more convictions as teenagers. By contrast, there are no substantive differences in this particular respect between those with no convictions and those with only a single conviction (with the exception of the females from the oldest cohort).

When levels of labour market attachment are compared across the cohorts, it is important to note that, expressed in terms of percentage differences, the difference in the proportions experiencing labour market exclusion between those with and without convictions has increased by age 25 among the males. Among the females, however, it can be noted that the proportion experiencing labour market exclusion among those with at least two convictions has instead declined. These sex differences reinforce the description presented earlier regarding the sex differences in registered crime trends (increasing levels of registered crime among females, declining levels among males), since the finding may be interpreted as indicating that the group of registered female young offenders has come to include more individuals with a better prognosis regarding both recidivism and labour market exclusion. For males, the trend is the reverse and

we find the group of registered young offenders becoming smaller but at the same time coming to include a greater proportion of socially excluded males.

-TABLE 6 ABOUT HERE-

*Multivariate analysis 2: the risk for labour market exclusion*

Labour market attachment is of course also linked to factors other than registered crime as a youth. Given that young offenders have grown up in poorly resourced households more often than others and have more often been unsuccessful in school, we would expect this group to manifest a higher risk for social exclusion in adulthood. This should be even more manifest among those individuals who continue to offend subsequent to their teenage years. In order to study changes between the cohorts in more detail, we have examined how the risk for labour market exclusion in young adulthood is linked to registered offending using logistic regression analysis (Table 7). The first model (M1) only includes indicators of registered offending at different ages, and focuses on those who continue to offend in young adulthood. The second model (M2) includes controls for differences in the demographic and social composition of the different offending groups. To save space, we have chosen not to present the effects of the control variables.<sup>5</sup> The analyses have been conducted separately for males and females.

In the first model, where no controls are included for any other factors that differentiate between the groups, those registered for crime as both teenagers and adults are at significantly higher risk of labour market exclusion in adulthood. When controls are then included for the presence of various risk factors (see the footnote in Table 7) there is a substantial decrease in the risk differential between the registered offenders and the non-offenders. Although the lev-

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<sup>5</sup> These can be obtained from the authors upon request.

el of the females' involvement in crime is significantly lower, the higher risks experienced by those with convictions, with certain exceptions, are similar for males and females. It can thus be noted that there is a significantly increased risk for labour market exclusion among those with convictions as teenagers, but once other factors are controlled for, this increased risk remains only for those who continue to offend as young adults.

As regards possible differences between the cohorts, no clear patterns emerge, other than that the size of the increased risk for labour market exclusion is smallest in the youngest cohort. The explanation for this decline in the relative risk for labour market exclusion among convicted offenders probably has little, if anything, to do with changes in the consequences of registered offending, but is instead likely to be linked to the increasing difficulties experienced by young people in general in establishing themselves on the labour market, as reflected by the general increase in the proportions of socially excluded young people (see Table 6). This means that the group of socially excluded young adults has become increasingly "normalised" over time, which in turn means that variables measuring various types of social problems, including involvement in crime, will lose some of their explanatory power.

-TABLE 7 ABOUT HERE-

### *Discussion and conclusions*

To return to our initial question of stability or change, we can begin by noting that there have been clear shifts in criminal activity across the three cohorts, both in terms of the types of crimes for they are convicted and the level of registered criminal activity. As has been noted in previous studies (e.g. Farrell et al. 2011), we find a declining proportion being convicted of theft and road traffic offences, and an increasing proportion being convicted of violent and drug offences. The shifts that have occurred in the proportion of the cohorts with registered convic-

tions have involved a considerable reduction in the size of the gender gap. How this trend should be understood is at present unclear and has therefore been a matter of some debate (see e.g. Lauritzen et al. 2009; Schwartz and Steffensmeier 2012). The debate centres on whether the decline in the gender gap should be viewed as primarily being due to an increased propensity for crime among young females or to an increase in the level of formal control focused on less serious crime, with females comprising a larger proportion of the perpetrators of minor offences. Our study indicates that the decline in the gender gap is primarily being driven by a decline in the number of males convicted of theft and road-traffic offences, at the same time as an increasing number of females are being convicted of petty theft offences. It is also clear that the increase in registered crime among females is first and foremost associated with a larger number being convicted on a single occasion during their teenage years. Finally, among the females who have been convicted more than once during their teenage years, a declining proportion have been reconvicted at age 20–25. Among the corresponding group of males, however, the level of recidivism in early adulthood has increased slightly. Although the question of the reduction in the size of the gender gap requires a more detailed analysis than that presented here, we would argue that our study provides no support for the view that the declining gender gap is due to an increasing number of females committing serious offences. Our interpretation, so far, is instead that the decline is due to more females, and females with a low risk for recidivism, being drawn into the justice system on the basis of having committed a small number of minor offences. This trend would be in line with the findings of studies that point to the significance of political and public discourses and of media reporting for trends in police responses to youth crime (e.g. Estrada 2001; Schwartz et al. 2012).

Looking to risk factors for crime, our central finding is one of stability over time, despite the shifts that have occurred in registered crime and despite the societal changes that have been

mentioned. For both males and females, the various background factors and resource deficiencies that we have examined (immigrant background, single parent, low income, long-term welfare reciprocity and having a parent who served a prison term) are associated with an increased risk for youth crime. Although the level of involvement in registered crime varied across the cohorts, the relative excess risks for young people from disadvantaged homes are in principle quite stable. Thus far, then, we can state that societal changes have not meant that recognized risk factors associated with the childhood household have become more, or for that matter less, important.

The significance of an immigrant background is also stable across the different cohorts. Around Europe, parties of the populist right highlight the fact that people of immigrant background are over-represented among those registered for crime and that this has become accentuated as a result of an increased immigration from non-European countries (Rydgren 2007). Our analyses show that the increase in immigration from non-European countries in the most recent cohort has not affected the size of the excess risk for registered criminality once controls are included for socio-economic background conditions.

Of all the risk variables examined, the cohort members' final school grades were found to be particularly strongly correlated with registered crime. Those with the lowest grades when leaving compulsory education are at particularly high risk of being registered for crime as teenagers. At the same time, it is very unusual for those with high grades to be registered as young offenders. This is the case in all cohorts. It has repeatedly been noted that schooling plays a key role in relation to young people's life chances. The findings presented in this article point to the importance of the school system being able to provide disadvantaged children with the support they need, not least since, unlike background factors, it is possible to influence school

achievement. In light of this, it is troubling to note that over time, school results appear to have become an increasingly important risk factor for youth crime. We would, however, like to note that the correlations between childhood and school conditions and crime are rarely a question of simple cause-effect relationships, but are instead often quite complex and require more detailed analyses than those presented in this article.

The relative differences between young offenders and other youths also remain largely similar across the cohorts when the focus is directed at longer term outcomes. At the same time, the youngest cohort includes a significantly larger proportion of individuals who were neither in employment nor in education or training as young adults (so-called NEETS). In spite of this, the vast majority of the youths registered for crime as teenagers were in work and able to support themselves financially at age 25, including those in the youngest cohort. Given this important finding – that the longer term prognosis appears good for the majority – we feel we must nonetheless note that our findings should in part also be viewed as somewhat disheartening. The study illustrates stability concerning the long-term consequences of inequalities in childhood conditions and involvement in crime, and also concerning the inability of society to satisfactorily deal with these problems over time. Teenagers who have been convicted on more than a single occasion, for example, have a significantly worse labour-market situation at age 25. The risk of being neither in work nor education or training is several times higher for young offenders. A large part of this increased risk is linked, however, to the fact that young offenders are disproportionately drawn from among individuals who lack resources. In this sense, involvement in crime represents an additional obstacle to becoming established in employment.

An earlier study has noted that poverty and social problems in the childhood family have long-term consequences for the risk of exclusion much later in life (Bäckman and Nilsson 2011).

These effects were found to be largely mediated by intermediate factors during the teenage years and early adulthood. The study found deviant behaviour – criminality and substance abuse – and poor school achievement to be particularly important factors. Different risk factors build on one another producing cumulative inequalities in life chances across the life course. The results presented in this article emphasise the fact that resource deficiencies during childhood are linked to crime, and that crime in turn has negative consequences for life chances, which manifest themselves in worse living conditions in adulthood. In addition, it should be noted that over time it has generally become more difficult for young people to become established on the labour market. The proportion of NEETs increases over time irrespective of background and registered criminality. In terms of absolute percentages, however, the increase is greatest among males with a criminal history.

This finding indicates that the group of males convicted of offences, who despite the declining gender gap still comprise a substantial majority of the young people who are registered for crime, have over time come to experience increasing marginalisation and vulnerability. Given that competition for a good education, for employment and for economic resources is increasing rather than decreasing in Europe, this means that we are today facing a challenge which is as difficult as it is important, that of creating integrative and supportive measures to reverse the processes of exclusion faced by young people who become involved in crime.

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## TABELS

Table 1. Proportions of three birth cohorts with different numbers of convictions at age 15–19, by sex.

	Men			Women		
	1965	1975	1985	1965	1975	1985
Not convicted	78.6	81.0	85.8	95.7	94.9	93.8
1 conv.	13.7	12.6	9.5	3.6	4.5	5.3
2-3 conv.	5.6	4.8	3.5	0.6	0.6	0.8
4+ conv.	2.1	1.6	1.1	0.1	0.1	0.1
N	62,719	53,758	53,817	59,589	51,457	50,558

Table 2. Proportions (%) of three different birth cohorts convicted of different types of crime during their teenage years (aged 15–19), by sex.

	Men			Women		
	1965	1975	1985	1965	1975	1985
Threats or violence	2.5	3.4	4.0	0.3	0.4	0.8
Drug offences	0.6	0.3	1.2	0.1	0.1	0.4
Theft	7.5	6.1	3.4	0.6	0.9	1.1
Petty theft	2.0	2.9	1.7	1.4	2.6	3.0
Criminal damage	2.0	2.2	1.8	0.2	0.2	0.2
Road traffic offences	10.4	7.1	3.5	0.8	0.4	0.3
Fraud	2.4	2.4	1.6	1.0	0.7	0.7
N	62,719	53,758	53,817	60,252	51,457	50,558

Table 3. Proportion (%) of members of three birth cohorts with at least two convictions at age 15–19, by social background factors and sex.

	Men			Women		
	1965	1975	1985	1965	1975	1985
<i>Immigrant background:</i>						
Born in Sweden, at least one parent born in Sweden	7.4	5.8	3.8	0.6	0.5	0.8
Born outside Sweden or both parents born outside Sweden	13.0	11.7	9.3	1.7	1.6	1.2
<i>Parental income:</i>						
High income		7.7	4.9		0.4	0.7
Medium income		6.1	4.4		0.6	0.8
Low income		9.5	7.4		1.0	1.2
<i>Parents' welfare receipts:</i>						
No welfare payments		4.1	2.7		0.3	0.5
Welfare payments 1-2 years		10.4	6.0		0.8	1.4
Welfare payments 3+ years		18.3	12.3		2.4	1.9
<i>Family structure, age 16:</i>						
Parents living together		4.7	3.3		0.4	0.6
Single parent		11.4	8.0		1.3	1.4
Other		22.5	15.5		1.6	4.8
<i>Parent served prison term during childhood (age 0-17):</i>						
No		5.8	4.2		0.5	0.7
Yes		21.3	15.2		3.5	3.1
<i>Final grades from compulsory education:</i>						
High grades		0.4	0.3		0.1	0.1
Intermediate grades		3.4	1.8		0.4	0.5
Low grades		15.9	11.8		2.3	3.0

Table 4. Results (Odds-ratios) from a logistic regression analysis of the risk of being convicted at least twice at age 15–19 in two different birth cohorts.

	1975	1985
<i>Sex:</i>		
Female	1	1
Male	9.4	4.7
<i>Immigrant background:</i>		
Born in Sweden, with at least one parent born in Sweden	1	1
Born outside Sweden, or both parents born outside Sweden	1.6	1.6
<i>Parents' disposable income:</i>		
High income	1	1
Medium income	(1.0)	0.8
Low income	1.3	(1.1)
<i>Parents' welfare receipts:</i>		
No welfare payments	1	1
Welfare payments 1-2 years	1.6	1.4
Welfare payments 3+ years	2.2	1.9
<i>Family structure age 16:</i>		
Parents living together	1	1
Single parent	1.5	1.5
Other	2.2	2.5
<i>Parent served prison term during childhood (age 0–17):</i>		
No	1	1
Yes	1.8	1.6
<i>Final grades compulsory education:</i>		
High	0.2	0.2
Intermediate	1	1
Low	4.2	5.5
Constant	0.002	0.003

Non-significant estimates in parentheses ( $p < 0.05$ ).

Table 5. Proportion (%) with convictions at age 20–25 by number of convictions at age 15–19. Males and females from three birth cohorts.

Convictions at age 15–19	1965	1975	1985
<i>Males</i>			
0	14.6	10.4	10.0
1	31.3	25.5	33.6
2+	63.4	58.7	65
<i>Females</i>			
0	3.9	2.6	2.6
1	14.8	9.1	13.1
2+	42.7	35.6	34.0

Table 6. Labour market attachment at age 25 by number of convictions at age 15–19 in two birth cohorts. Males and females born 1975 and 1985.

	1975			1985		
	0	1	2+	0	1	2+
<i>Males</i>						
Core labour force	47.5	50.6	36.9	41.2	42.0	30.2
Unstable labour force	31.8	31.8	37.6	35.0	33.8	34.7
Students	16.7	11.8	8.4	16.5	10.3	7.1
NEET	2.7	5.0	15.7	4.7	10.7	22.2
Disability pension	1.3	0.8	1.5	2.6	3.2	5.8
N	42,412	6,529	3,277	44,667	4,927	2,328
<i>Females</i>						
Core labour force	31.2	24.1	16.2	22.2	20.4	18.8
Unstable labour force	43.3	46.3	35.9	49.8	48.8	45.9
Students	20.2	20.2	17.2	20.1	16.6	13.8
NEET	4.0	8.1	26.2	5.1	10.6	16.3
Disability pension	1.4	1.3	4.5	2.9	3.6	5.3
N	46,881	2,204	309	45,391	2,568	399

Table 7. Risk for labour market exclusion\* at age 25 in two birth cohorts. Males and females born 1975 and 1985. Results from logistic regression analyses. Model 1 (M1) no controls included, Model 2 (M2) including control variables. Odds ratios.

Age at conviction	1975		1985	
	M1 <sup>a</sup>	M2 <sup>b</sup>	M1 <sup>a</sup>	M2 <sup>b</sup>
<i>Males</i>				
No convictions (ref.group)	1	1	1	1
Conv. aged 15–19	1.7	(1.0)	1.8	(1.0)
Conv. aged 20–25	2.1	1.3	2.4	1.4
Conv. aged 15–19 & 20–25	6.8	2.4	6.4	2.0
<i>Females</i>				
No convictions (ref.group)	1	1	1	1
Conv. aged 15–19	2.1	1.2	1.9	(1.0)
Conv. aged 20–25	3.5	2.0	3.7	1.8
Conv. aged 15–19 & 20–25	9.4	2.8	5.9	1.8

\*Exclusion = Disability pension or NEET

<sup>a</sup> No controls

<sup>b</sup> Controls included for immigrant background, parents' disposable income (at age 15), family structure (at age 16), parent having served prison term (at age 0–17), cohort member hospitalised (age 15–20), final grades from compulsory education, completion of further education.

Values in parentheses non-significant at the 1%-level.

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