

Evaluating the Youth Criminal Justice Act With Perpetrator Self-report Data

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Abstract

This paper studies a major policy change in the Canadian youth criminal justice system - the coming into effect of the Youth Criminal Justice Act (YCJA) on April 1, 2003. The YCJA differs from its predecessor, the Young Offenders Act, in that it greatly reduces the use of courts and custodial sentences for minor crime and is intended to be tougher on serious violent young offenders. The deterrence and the incapacitation hypotheses both predict minor crime rates to increase due to the less punitive disposition of the YCJA towards minor crime, but predict opposite changes for serious violent crime. Using youth self-reported crime data, this research finds that, consistent with economic theory, the YCJA caused mischief (for example, damaging school furniture or writing graffiti), the most minor type of crime, to increase significantly among boys, whereas its effect on more serious youth crime is less conclusive.

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1 Introduction

On April 1, 2003, the Youth Criminal Justice Act (YCJA) replaced the Young Offenders Act (YOA) as the Federal law that governs the administration of Canadian 12-17 year old offenders. The YCJA differs from the YOA in three major ways. First, the YCJA greatly reduces the use of youth courts and custodial sentences while increases the use of extrajudicial measures¹ for relatively minor youth criminal behavior. Second, the YCJA omits deterrence from its statement of sentencing purpose, i.e. deterrence is not an objective of sentencing in youth court (Bala et al. (2009)). Third, the YCJA was intended to be tougher on most serious, violent young offenders. For example, the YCJA facilitates the imposition of adult sentences for the most serious offenders. The Federal government also sets aside special funding for “intensive rehabilitative custody and supervision” (IRCS), which is a sentence reserved for most serious offences (Bala (2007)). However, IRCS orders and adult sentences are rarely made (Bala et al. (2009)).

The rationale behind this policy change is stated in the Preamble of the YCJA: “Canadian society should have a youth criminal justice system that commands respect, takes into account the interests of victims, fosters responsibility and ensures accountability through meaningful consequences and effective rehabilitation and reintegration, and that reserves its most serious intervention for the most serious crimes and reduces the over-reliance on incarceration for non-violent young persons.”

Before the YCJA, large numbers of youth were imprisoned for minor offences (Doob and Cesaroni (2004); Doob and Sprott (2004)). According to Bala and Anand (2004), Canadian youth were “given custodial sentences at a rate four times higher than that of adults, and that Canada’s youth incarceration rate was twice that of the United States and ten to fifteen times that of many European countries, Australia, and New Zealand”. This was coupled with research findings showing that custody was expensive yet largely ineffective in reducing recidivism (Federal-Provincial-Territorial Task Force on Youth Justice (1996)). Doob (2001) found in a national survey that 54% of judges believed that at least half of the cases presented before them could have been dealt with as adequately or more adequately outside the youth court. It was under these circumstances that the YCJA came into force.

If extrajudicial measures are indeed less expensive than custody, and are more effective in dissociating offenders from recidivism, then the YCJA is a more successful policy than the YOA assuming that youth crime rates under the YCJA are no higher than before. If, however, youth

¹These measures include taking no further action, informal police warnings, police cautions, police referrals to a program or agency in the community, pre-charge screening programs, youth justice committees, conferences, and extrajudicial sanctions (Department of Justice Canada (2003)).

crime rates increased after the YCJA, the external costs imposed by these crime activities on victims and on society in general, as well as the potentials costs born by the offenders themselves, may offset or even exceed the benefits from substituting formal custody for extrajudicial measures.

It is not clear a priori whether the YCJA should be expected to have increased, decreased or had no effect on Canadian youth crime. On the one hand, the “deterrence” hypothesis (Levitt (1998); Waldo (1972); Silberman (1976); Anderson et al. (1977); Jensen et al. (1978); Becker (1968)) suggests that a less punitive criminal justice system may lead to higher crime rates. In particular, since the YCJA is less punitive on minor offenders and more punitive on most serious offenders (e.g., repeat violent offenders), one may expect that minor crime rates will increase and most serious violent crime rates will decrease under the YCJA. On the other hand, the “incapacitation” hypothesis (Levitt (1998); Tauchen et al. (1994); Grogger (1991); Cameron (1988); Witte (1980); Blumstein et al. (1978); Becker (1968)) suggests that letting more offenders remain in the communities rather than sending them in custody will increase both minor and serious crime, assuming that these offenders commit both minor and serious crime. Thus, economic theory predicts that minor crime should increase after the YCJA, whereas the effect of the YCJA on more serious crime is ambiguous. Existing studies (e.g. Bala et al. (2009); Carrington and Schulenberg (2005)) claim that recorded youth crime rates have not increased since the YCJA came into effect in 2003. However, these studies mostly use police reported aggregate statistics and are highly descriptive. Thus, it is important to use alternative data sources and employ more sophisticated quantitative methods to empirically investigate whether different types of youth crime rates have increased, decreased or remained constant under the YCJA compared to under the YOA?

This paper tries to address the above question using youth self-reported criminal activities from four Cycles of the National Longitudinal Survey of Children and Youth (NLSCY), including two Cycles before and two Cycles after the YCJA came into force. These self-reported criminal activities include property offence, violent crime, gang membership, drug-related crime and impaired driving. The main empirical methodology employed in this paper is the Donald-Lang (D-L) two-step procedure (Donald and Lang (2007)). Among others, Donald and Lang (2007) try to correct the downward bias in estimated standard errors introduced by the failure to account for group-specific errors when the dependent variable is at individual level whereas some regressors are at group level. That is, some regressors are constant for all members within the same group, e.g. observations from the same Cycle of the NLSCY. In particular, the D-L procedure is suitable for accounting for the group-specific errors when the number of groups

is small as in this paper, while methods proposed by previous researchers are mostly only appropriate when the number of groups is large.

In contrast to the conclusions in Bala et al. (2009) and Carrington and Schulenberg (2005) that youth crime did not change after the YCJA, this paper finds that mischief (damaging or destroying something that does not belong to the youth, e.g. damaging school furniture, or writing graffiti) increased significantly among boys after the YCJA. This is true both in terms of the percentage of offenders (youth that committed mischief in the past 12 months) and in terms of the percentage of repeat offenders (youth that committed mischief at least 3 times in the past year). This finding is consistent with the predictions of economic theory, i.e. both “deterrence” and “incapacitation” hypotheses suggest that minor crime will increase after the YCJA².

The evidence on other types of youth crime, such as violent crime, drug offences or impaired driving, is less conclusive. For example, the empirical analysis shows that violence decreased among 14/15 year olds, but increased among 16/17 year olds. This could be due to the relatively low violence rates among Canadian youth (i.e., a small sample problem) and/or that the self-reported violence crime measures used in the paper do not differentiate levels of severity of the violent crime - a first-time minor assault offender is likely treated differently from a multiple-time aggravated assault offender (Carrington and Schulenberg (2005)). Moreover, this is also consistent with the predictions of economic theory - “deterrence” and “incapacitation” work in opposite directions for more serious crime, such as violent crime.

The contribution of this research is two-fold. First, existing evidence on how YCJA affected youth crime is largely anecdotal or descriptive. It is necessary to have a more rigorous examination of this question. Second, the majority of existing studies rely on official crime data (e.g. the UCR), which capture only part of actual levels of youth crime. Thus, it is useful to also look at other data sources, such as self-reported youth crime as in this paper.

Section 2 provides a portrait of youth crime trends in the past thirty years and briefly explains the background for the YCJA. Section 3 reviews related literature. Section 4 discusses three alternative crime data sources - official, perpetrator self-report and victimization data. Data used in this analysis are described in Section 5. An outline of the identification strategies is in Section 6. Empirical results are presented in Section 7. Finally, Section 8 concludes.

²Author’s own calculation using the Uniform Crime Reporting Survey (UCR) data shows that more than 90% of mischief incidents are relatively minor, i.e. mischief under \$5,000.

2 Background

2.1 Youth Crime Trends in Canada

Figures 1-5 compare trends in police-reported youth and adult crime rates (number of youth/adults charged per 100,000 population) in the past thirty years. Figure 1 shows that the rate of youth charged with any crime is higher than the rate of adult charged. Throughout most of the past thirty years, the trend of youth crime rate was closely in line with that of the adult crime rate. Crime rates started to climb up in the mid-1980s, reached peak levels in the early 1990s, and then started to slowly decline throughout the 1990s. The continuous decline in crime rates in the 1990s was also observed in the United States (Levitt (2004)). The rate of youth charged experienced two discrete changes following the two legislative reforms. First, it increased substantially right after the YOA replaced the Juvenile Delinquents Act (JDA) in 1984. Whether this increase was due to changes in police recording or charging practices or due to actual increase in youth crime is debatable (Carrington (1999)). Second, there appeared to be a sudden dip in the rate of youth charged in 2003. The general perception is that actual youth crime has not decreased since the YCJA (Bala et al. (2009); Carrington and Schulenberg (2005)). Therefore, this dip in the rate of youth charged more likely reflects the change of practices, i.e. diversion to extrajudicial measures, in the youth criminal justice system.

Figure 2 shows the trends in violent crime rates. The youth violent crime rate was lower than the adult violent crime rate until in the mid-1980s when it took off and surpassed the adult rate. In the 1990s, the adult violent crime rate declined somewhat, whereas the youth violent crime rate remained at high levels. The rate of youth charged with violent crime increased sharply following the introduction of the YOA in 1984, but took a dip around 2003. The dip seen in 2003 may again be due to the YCJA's more lenient approach towards less serious violent crime.

Figure 3 depicts the trends in property crime rates. The rate of youth charged with property crime is at least twice as high as the rate of adults charged with property crime. In the 1990s, declines in property crime rates occurred both among youth and adults, though the decline was more remarkable among youth.

Trends in drug offence rates are illustrated in Figure 4. Before the mid-1990s, the youth drug offence rate was lower than the adult drug offence rate. The adult drug offence rate has been relatively stable over the past 20 years after declining sharply in the late 1970s and early 1980s. The youth drug offence rate, on the other hand, has increased several folds compared to the late 1970s.

Thus, the decline in the total crime rate since the 1990s observed in Figure 1 is largely due

to the decline in property crime rate. This is particularly so for youth.

Figure 5 tracks the trends of mischief offence. The patterns of changes in mischief rates are remarkably close to those seen in Figure 3, i.e. the patterns of changes in property crime rates. This is not surprisingly, probably, because mischief is one major type of property crime.

Figure 6 shows that Canadian youth incarceration rate has been on a downward trend since the mid-1990s. This is consistent with the observation that youth crime rates were declining in the 1990s. In 2003, right after the YCJA came in to effect, the youth incarceration rate seemed to have decreased much further than what it would have been should it have followed its previous trend. The trend flattened out again after 2004.

Figures 1-6 are not ideal for observing how youth crime rates have changed after the YCJA, because a large number of youth who would have been charged under the YOA but have been diverted to extrajudicial measures under the YCJA are not reflected in Figures 1-6.

Figure 7 (duplicated from Figure 1 in Bala et al. (2009)) decomposes the rate of youth accused (1986-2007) into two components: the rate of youth charged and the rate of youth cleared otherwise (diverted by police). As seen in Figure 7, after the YCJA, the rate of youth charged decreased while the rate of youth diverted by police increased, suggesting that the rate of youth chargeable may have increased or decreased or remained constant after the YCJA. Bala et al. (2009) claim that recorded youth crime has not increased since the YCJA. However, they only look at police reported aggregate statistics, which may have masked some effects of the YCJA that exist at a more disaggregated level.

2.2 The Youth Criminal Justice Act

The Youth Criminal Justice Act (YCJA) came into force on April 1, 2003 (enacted in February 2002), replacing the Young Offenders Act (YOA) which had been in place since April 2, 1984. An important goal of this reform was to reduce Canada's over-reliance on the use of courts and custody in dealing with young offenders, especially non-violent offenders. This goal reflects the perception by the Parliament that community-based measures are more effective for dealing with young offenders and that under the YOA Canada was making excessive use of expensive and often ineffective court-based and/or custodial measures.

More specifically, as stated in Section 39 (1) of the YCJA, a youth justice court shall not commit a person to custody ... unless

- (a) the young person has committed a violent offence; [or]
- (b) the young person has failed to comply with non-custodial sentences; [or]
- (c) the young person has committed an indictable offence for which an adult would be liable

to imprisonment for a term of more than two years and has a history that indicates a pattern of findings of guilt ... or

(d) in exceptional cases where the young person has committed an indictable offence, the aggravating circumstances of the offence are such that the imposition of a non-custodial sentence would be inconsistent with the purpose and principles set out in section 38³.

Thus, the YCJA intends to reduce the use of courts and custodial sentences for the majority of the young offenders, except for the relatively small number of violent offenders, repeat offenders, and those who fail to comply with non-custodial sentences. The applicable age range under the YCJA remains 12 to 17, which is the same as under the YOA.

Consistent with its objectives, the YCJA resulted in substantial reductions in the use of courts and in the number of youth in custody. As of 2006, 42% of apprehended youth suspects eventually faced police charging, down from 56% in 2002. During the first year under the YCJA, the number of custodial sentences declined by 44% compared to the last year under the YOA. By 2004/2005, the number of incarcerated youth population decreased by over 50% since the YCJA came into force (Bala (2007)).

3 Literature Review

To the author's knowledge, no other economic research that evaluates the outcomes of the YCJA has been made available. There are some published studies in other disciplines, e.g. criminology, law and sociology. However, most of these publications use official data, provide descriptive analysis and focus on assessing how practices in the Canadian youth criminal justice system have changed in response to the new policy regime.

Most recently, Bala et al. (2009) use data from a number of official sources⁴ to assess the impact of the YCJA five years after it came into force. They conclude that the YCJA has brought about significant reductions in the use of youth court, youth custody and the related expenditures in the youth justice system. However, they claim that recorded youth crime has not increased in the YCJA.

Sprott (2001) and Department of Justice Canada (2004) provide some general background for the enactment of the YCJA. Bala (2007) provides a survey of how the diversionary provisions of the YCJA are being applied, and reviews how the courts are interpreting the detention and sentencing principles in the YCJA. It includes a discussion of the way in which the Convention

³See Appendix A for the content in Section 38 of the YCJA.

⁴These data sources are Uniform Crime Reporting Survey, Youth Court Survey, Integrated Criminal Court Survey, Corrections Key Indicators Report and Youth Custody and Community Services Survey.

on the Rights of the Child has affected the treatment of juvenile offenders in Canada's courts.

Using the 1986-2003 UCR Survey, Carrington and Schulenberg (2005) examine the extent to which police charging practices with young persons are changing in response to the YCJA. They find that the YCJA has been remarkably successful in bringing about changes in police charging practices with young persons which are consistent with its objectives, principles and provisions. In 2003, there was a substantial reduction at the national level and in most provinces and territories in the number of young persons charged or recommended by police to be charged, and a corresponding increase in the use of extrajudicial measures with apprehended young persons. Levels of charging were reduced in 2003 by more than one-third for minor offences such as theft under \$5,000, while levels of charging for serious property and violent offences (other than common assault) decreased only slightly. They also conclude that there is no evidence of an increase at the national level in youth crime in 2003. However, as they recognize, changes in reported annual rates of chargeable young persons do not necessarily mirror changes in levels of actual youth crime, because only a small proportion of youth crimes are reflected in UCR statistics. In addition, UCR data understate the rates of youth involved in less serious offences because only the most serious offence is counted when a youth is chargeable with several incidents.

Using 1991/2 - 2003/4 data provided by the Canadian Centre for Justice Statistics, Doob and Sprott (2005) focus on the use of custody and attempts to answer the question: Was there a reduction in the use of custodial sentences in the first year of the implementation of the Youth Criminal Justice Act which can reasonably be attributed to the change in legislation itself? They conclude that there is strong evidence that equivalent cases under the YCJA are less likely to receive a custodial sentence than under the YOA and this change is more dramatic for minor cases than for serious cases, largely due to the fact that minor cases are much less likely to be referred to courts and found guilty.

4 Three Potential Data Sources: Official, Perpetrator Self-report and Victimization Data

Until the mid-1900s, research on crime relied almost entirely on official data, such as police, court and prison records. Official data necessarily paint only partial pictures of crime in a society, because a substantial amount of crime is not reported to or recorded by law enforcement entities. This is the so-called "dark figure of crime" (Biderman and Reiss, Jr. (1967)). Using victimization survey data, Frank and Carrington (2007) suggest that fewer than 25% of young offenders are

recorded in the UCR statistics. Also using victimization survey data, Mihorean et al. (2001) note that almost 60% of victimization incidents are not reported to police. Furthermore, official data often are only available in aggregate counts and lack specific details of individual crime incidents (Cantor and Lynch (2000)).

Recognizing the shortcomings of official data, some scholars (Porterfield (1943); Porterfield (1946); Wallerstein and Wyle (1947); Biderman and Reiss, Jr. (1967)) began to publish studies based on surveys of criminals and victims in the mid-1900s. The availability of detailed information in criminal or victim reported data greatly expanded the range of crime information that can be studied by researchers and enhanced our understanding of the causes and consequences of crime. For example, criminal reported information may help researchers focus on the social determinants of crime and therefore suggest possible preventative measures. Victimization data may help us identify the most vulnerable group and better estimate the costs born by victims, particularly non-monetary costs (Cantor and Lynch (2000)).

Though criminal or victim reported data can uncover much of the hidden crime that fails to be recorded by the police, there remain concerns of under-reporting. This is particularly so for criminal self-reported data. Golub et al. (2002) mention that offenders may “fail to recall events”, “be confused by the questions”, hide information out of “fear of legal consequences” in spite of “reassurances of confidentiality”, “distort their answers to impress the interviewers”, or purposefully “undermine efforts to improve the efficiency of policing”. For victimization data, under-reporting might also be considerable when it comes to sensitive incidents or memory decay.

Other criticisms of perpetrator self-report and victimization data include the representativeness in the selection of delinquency items (Gibbons (1979)) and the fact that the response categories are often truncated (Elliott and Ageton (1980)). Truncated responses may be problematic when a small percentage of the population commit a disproportionately large number of serious offences (Elliott and Ageton (1980)) or when a small number of victims account for a relatively large portion of victimization (Sparks (1981); Nelson (1980)).

Nevertheless, as Thornberry and Krohn (2000) state, the perpetrator self-reporting and the victim reporting “methodology has become much more sophisticated in design, making it more reliable and valid and extending its applicability to a myriad of issues” and it “continues to advance”.

5 Data

The main data used in the paper are Cycle 3, 4, 6 and 7 of the NLSCY⁵. The NLSCY started in 1994 and is an on-going longitudinal survey of factors that influence Canadian children's social, emotional and behavioural development over time. The survey is conducted biennially by Statistics Canada and sponsored by Human Resources and Social Development Canada. The target population is civilian, non-institutionalized residents living in Canada's ten provinces. Excluded are residents of the Yukon, Nunavut and the Northwest Territories, people living on Indian reserves, full-time members of the Canadian Armed Forces and inmates of institutions, i.e., incarcerated youth.

In each of these four cycles, 12-17 year old youth were given a short booklet comprising a battery of questions on their participation in delinquent or criminal activities in the past 12 months, along with other questions of private nature. To ensure confidentiality, the youth completed these questionnaires in private (away from parents and interviewers) and returned the booklet in a sealed envelope to the Statistics Canada interviewer. Based on a summary of field surveys, Harrison (1995) suggests that less-confrontational interview procedures, such as self-administered questionnaires, are more likely to yield honest self-report delinquency. Studies also show that juveniles are more likely to validly self-report their delinquent behaviour than adults (Junger-Tas and Marshall (1999)).

I group these self-reported delinquency questions into five broad categories: 1) property crime (including mischief and theft); 2) violent crime (including assault and weapon possession); 3) drug-related offence (including drug trafficking, marijuana use, and other drug use); 4) gang membership; and 5) impaired driving. Table 1 lists the actual survey questions. Based on the categorical responses⁶ to these questions, I define two classes of binary dependent variables. The first class indicates whether a youth is an offender. For example, a youth is a theft offender if he/she stole something from a store or school during the past 12 months. The second class indicates whether a youth is a repeat offender, i.e. whether he/she committed a type of crime

⁵Cycle 5 of the NLSCY was conducted between September 2002 and June 2003, which encompassed the period right before and after the YCJA came into force (April 1, 2003). To facilitate a more clear pre- and post- comparison of the Canadian youth crime rates, I leave out Cycle 5 in the analysis.

⁶For most questions, the categorical responses available for respondents to choose from are: 1. Never; 2. Once or twice; 3. Three or four times; 4. Five times or more. A few exceptions are weapon possession, gang membership, marijuana use, other drug use. The weapon possession question is different in Cycle 6 and 7 from Cycle 3 and 4. It is not possible to extract repeat offending information in a comparable manner before and after the YCJA. The available responses to the gang membership question are: 1. Yes; 2. No. The response categories for the marijuana use question are: 1. I have never done it; 2. I have done it, but not during the past 12 months; 3. A few times; 4. About once or twice a month; 5. About 1-2 days a week; 6. About 3-5 days a week; 7. About 6-7 days a week. The response categories for the four questions on other drug (hallucinogens, glue or solvents, downers etc., and ecstasy etc.) use are: 1. I have never done it; 2. I have not done it in the past 12 months; 3. 1 or 2 times; 4. 3 to 5 times; 5. 6 to 9 times; 6. 10 times or more.

multiple times or whether he/she committed multiple types of crime. For most questions, a youth is defined as a repeat offender if he/she committed a crime at least 3 times in the past year⁷. For example, a youth is a repeat mischief offender if he/she intentionally damaged others' things for at least 3 times in the past 12 months. A repeat user of other drugs is a youth who used any of the four kinds of drugs for at least 3 times in the past 12 months. The aggregate dependent variables (Property Crime Offender, Violent Crime Offender, Drug-related Crime Offender) are coded 1 if any variable that belongs to that category takes the value 1. For instance, a youth is a violent offender if he/she indicated at least once for any of the assault (fight, attack or sexual) questions or for the weapon possession question. Similarly, a youth is a violent repeat offender if he/she indicated at least 3 times in any of the assault or weapon possession questions.

Beginning in Cycle 5, cross-sectional weights are not available in the NLSCY anymore. Thus, I use longitudinal weights and the corresponding longitudinal bootstrap weights in the data analysis. Bootstrap weights are supplied by Statistics Canada for researchers to take into account the complex survey design.

To ensure that the respondent was at least 12 years old 12 months prior to the survey, I keep in the sample those youth who were at least 14 years old by December 31 of each survey year (e.g., December 31, 1998 for Cycle 3 and December 31, 2000 for Cycle 4). I also consider 14/15 year old and 16/17 year old youth separately, because some questions (e.g., theft and impaired driving) are only available for 16/17 year old youth and there are no 16/17 year old youth in Cycle 3. Therefore, I analyze the self-reported criminal activities of 14/15 year old youth using four Cycles (Cycle 3, 4, 6 and 7) of data, and use three Cycles (Cycle 4, 6 and 7) for 16/17 year old youth.

Quebec has long been known for its more pro-rehabilitation approach to juvenile crime compared to the rest of Canada (Trépanier (2004)). Switching to the YCJA may not impact Quebec as much as other provinces. The per capita rate of youth cases brought to court in Quebec is much lower than in other provinces, and unlike the rest of Canada this rate only declined somewhat after the YCJA (Bala et al. (2009)). Thus, I exclude Quebec in the baseline analysis, but use Quebec as a comparison group for the rest of Canada in the robustness checks. I also exclude from the sample those youth

⁷Marijuana use is an exception. A youth is defined as a repeat Marijuana user if he/she used Marijuana at least once a month in the past year. This is due to design of the survey question.

who did not answer any of the these delinquency questions under consideration. About 25% of the 14/15 year olds and 30% of the 16/17 year olds are discarded because of non-response.

Appendix Table B.1 presents a list of other data sources used in this paper.

6 Identification Strategy

The central task here is to evaluate how youth crime changed after the introduction of the YCJA compared to before. The available data at hand are several nationally representative cross-sections of Canadian youth who are at the same point in their lives during each of the NLSCY Cycles under consideration. For example, four 14/15 year old cross-sections (Cycle 3, 4, 6 and 7) and three 16/17 year old cross-sections (Cycle 4, 6 and 7) are available for analysis. Cycle 3 and 4 are pre-YCJA and Cycle 6 and 7 are post-YCJA.

To account for any observable differences between these cohorts that may have contributed to the differences in their crime rates, one way to evaluate the change in youth crime after the YCJA is to estimate the following model:

$$y_{it} = \alpha + X_{it}\beta + POST_t\gamma + \eta_{it}, \quad t = 1, 2, \dots, T \quad (1)$$

where y_{it} denotes individual i 's⁸ criminal behaviour in period t ; X_{it} is a vector of individual characteristics or explanatory variables; $POST_t$ is the policy variable, indicating whether the observation is before or after the policy change; and $\eta_{it} = \theta_t + \epsilon_{it}$, where θ_t is a common group error, and ϵ_{it} is an individual-specific error. T is the number of cross-sections or cycles used in the analysis. For example, T is 4 (Cycles 3, 4, 6 and 7) for 14/15 year old youth and is 3 (Cycles 4, 6 and 7) for 16/17 year old youth.

Standard OLS regressions of equation 1 that do not account for the group-specific error, i.e., θ_t , will result in estimated standard errors that are biased downward dramatically (Kloek (1981); Moulton (1990)). To correct for this bias, a few techniques have been applied widely in empirical research: i) feasible GLS; ii) standard error correction

⁸Note that i does not stand for the same individual when t changes.

using the error covariance matrix proposed in Moulton (1990); and iii) STATA cluster command based on a robust covariance estimator developed by Liang and Zeger (1986). Donald and Lang (2007) show that these techniques are only appropriate asymptotically, i.e., when the number of groups goes to infinity ($T \rightarrow \infty$). They propose, instead, a two-step procedure which is more appropriate when the number of groups is small.

This paper employs the Donald-Lang two-step procedure (D-L procedure thereafter). A D-L two-step procedure modified to suit the question at hand is described below⁹. The first step estimates equation 2 below without a constant, where $D = [D_1, \dots, D_T]$ is a set of year dummies. For example, for 14/15 year old youth, D represents four year dummies (year 1998, 2000, 2004 and 2006), or equivalently, four cycle dummies (Cycle 3, 4, 6 and 7).

$$y_{it} = X_{it}\beta + \sum_{t=1}^T D_t\mu_t + \epsilon_{it} \quad (2)$$

The second step estimates equation 3 below, where, μ_t is a coefficient obtained from the first step for the year dummy D_t .

$$\mu_t = \alpha + POST_t\gamma + \theta_t \quad (3)$$

Donald and Lang (2007) prove that under some general conditions, the t-statistics for the coefficient estimate $\hat{\gamma}$ follows a t-distribution with $(T - 2)$ degrees of freedom. Their Monte Carlo simulations also show that the two-step procedure outperforms conventional procedures used to correct for the group error.

7 Empirical Results

7.1 Descriptive Analysis

Panel A of Table 2 presents the percentages of young offenders by age group and gender. For both 14/15 and 16/17 year old youth, boys are more likely to be offenders than girls. This is particularly true for violent crime. For all violent crime measures, boys are 2-3 times as likely to be an offender as girls. One exception is drug-use. Boys and girls are

⁹See Baker and Milligan (forthcoming) for another application of the D-L two-step procedure.

almost equally likely to be drug users. However, girls seem to be less likely to sell drugs than boys. 16/17 year old youth are more likely to commit mischief and drug offences than their younger counterparts. However, the age effect is not apparent for violent crime or for gang membership.

Panel B of Table 2 reports the percentages of young repeat offenders. For the same crime, the percentage of repeat offenders is much lower than that of offenders. The general patterns in comparisons between boys and girls and between the two age groups are similar to in Panel A. The means of dependent variables by year are available in Appendix Tables B.2 (14/15 year olds) and B.3 (16/17 year olds).

Appendix Table B.4 provides the means of independent variables for both age groups. Because boys and girls are often different in their propensity to commit crime (Levitt and Lochner (2001)), gender is controlled for whenever the full sample is being considered. Region of residence might matter as there might be regional differences in policies and other social conditions (Levitt and Lochner (2001)). Crime rates may be different in urban areas from rural areas (Ouimet (1999)). Children in lone-parent families may be more likely to commit crime than children in two-parent families (Antecol and Bedard (2007)). Number of siblings is also included. More siblings may mean more limited resources for each child. The age of Person Most Knowledgeable (PMK) is also included. Family socio-economic status, such as household income and parental education are also important determinants (Dooley and Stewart (2004)). Finally, I also include province-level official unemployment rate to control for local economic conditions (Mocan and Rees (2005)).

7.2 Multivariate Analysis

Table 3 reports the baseline results from the second step of the D-L procedure, i.e. effects of the YCJA on the percentages of young offenders (Panel A) and young repeat offenders (Panel B) in Canadian provinces other than Quebec. These second step results

are weighted by the sum of longitudinal individual weights by cycle¹⁰.

The most striking evidence in Table 3 is a large increase in mischief after the YCJA. Panel A shows that the percent of 14/15 year old male mischief offenders increased by 10 percentage points after the YCJA. Given that the mean mischief rate for 14/15 year old boys was 17% in 1998 and 15% in 2000 (see Appendix Table B.2), this change is dramatic - a relative increase of about 60%. Similarly, the percent of 16/17 year old male mischief offenders increased by 11 percentage points, a relative increase of 46% compared to in 2000 when 24% of 16/17 year old boys were mischief offenders (see Appendix Table B.3). Panel B shows that the percentage of mischief repeat offenders, i.e. those who committed mischief at least 3 times in the past year, increased by 2.5 percentage points among 14/15 year old boys. This is an increase of around 90% relative to the two periods before the YCJA - the percentage of male repeat mischief offenders was 2.6 in 1998 and 2.9 in 2000.

The effect of the YCJA on the percentage of female mischief offenders and repeat offenders is positive, though not significant. In Canada, female youth are much less likely than their male counterparts to be sentenced to custody (Taylor-Butts and Bressan (2008)). If deterrence effect is small when the probability of receiving sanction is low, then further reducing the probability of sanction, i.e. reducing the use of custody, may not have a noticeable effect on the percentage of female youth offenders. In addition, even if there was truly an increase in the percentage female mischief offenders, it might not show up in these results if female offenders are more likely to underreport their criminal activities than male offenders due to, say, social stigma (Golub et al. (2002)).

Note that when pooling 14/15 year old boys and girls together and controlling for gender, the effect of YCJA on mischief is again positive and significant, both in terms of the percentage of offenders and the percentage of repeat offenders.

¹⁰Results from the first steps are presented in Appendix Tables B.5-B.8. Bootstrap weights are applied to account for the complex survey design. For example, Appendix Table B.5 shows that for 14/15 year old boys coming from a lone parent family is connected to a higher probability of sexual offence and a higher probability of drug-related offences. Higher household income is associated with a lower probability of committing assault. Higher socio-economic status, measured by higher household income or higher level of PMK's education, is associated with higher probabilities of drug offences. For 14/15 year old girls, coming from a lone parent family is also connected to higher probabilities of drug offences. However, higher PMK's education level is correlated with lower probabilities of drug offences and mischief, and higher household income is linked with a lower probability of violent crime for 14/15 year old girls. Appendix Table B.6 shows the first-step results for 16/17 year old offenders. Appendix Tables B.7 and lprep1617ycja report the first-step results for 14/15 and 16/17 year old repeat offenders, respectively.

The evidence on violent crime is mixed. After the YCJA, there appears to be a decrease in the percentage of 14/15 year old female violent offenders, but an increase in the percentage of 16/17 year olds male and female violent offenders. The effect of the YCJA on the percentage of violent repeat offenders is not significant for 14/15 year olds. But the percentage of 16/17 year old male assault repeat offenders increased by 2 percentage points after the YCJA¹¹. These mixed findings for violent crime might be because these survey questions cannot necessarily separate minor from serious violent offenders. Under the YCJA, minor violent offenders are treated more leniently, whereas serious violent offenders are intended to be treated more punitively, than under the YOA.

As one can see in Panel A of Table 3, the effect of the YCJA is not significant for the percentage of gang members, drug offenders or impaired drivers. In Panel B, there appears to be a 2.7 point decrease in the percentage of 14/15 year olds that committed at least two types of crime. For 16/17 year old boys, there is a 2.3 point decrease in the percentage of repeat users of drugs (mostly hard drugs) and a 2.2 point drop in the percentage of frequent impaired drivers.

To summarize, the results reported in Table 3 show that after the YCJA mischief offenders and repeat offenders increased dramatically among boys. The changes in violent offenders and repeat offenders are not as clear. There appears to be some degree of decrease in the percentage of repeat offenders of other crime, such as hard drug using and impaired driving.

7.3 Robustness Checks

The results presented in Section 7.2 are simple before-after comparisons of Canadian (excluding Quebec) youth crime rates controlling for the observed socio-demographic characteristics of different cohorts. These comparisons can uncover the causal effects of the YCJA on Canadian youth self-reported crime rates only if there are no unobserved factors that are confounded with the effect of the youth criminal justice policy change.

¹¹Due to the relatively low incidences of violent crime repeat offence, a considerable number of cells in Panel B of Table 3 are suppressed by the Research Data Centre, making it harder to tell whether the percentage of violent repeat offenders increased or decreased after the YCJA.

This may not necessarily be true for a number of reasons. First, for different cohorts, i.e. youth from different NLSCY cycles, there may be unobserved differences in their tendency towards committing crime (e.g., differences in ability or preferences). Simple before/after comparisons will not be able to disentangle these unobserved cohort differences from the effect of the YCJA. Second, there may be other national-level policies that the author is not aware of and that may have taken place around the same time as the YCJA and that may also have an effect on youth crime. Simple before-after comparisons also cannot remove these potential confounding effects. Third, there may also be the possibility that different Canadian provinces had their own policy changes during the period 1998-2006, that also affected youth crime. Controlling for time-invariant region fixed effects as in Section 7.2 is not sufficient if provincial policies have changed during the period 1998-2006.

To address these concerns, the following robustness checks were implemented.

First, I check the robustness of the results for different types of crime by controlling for the corresponding adult crime rates in the first step of the D-L procedure. That is, I check whether the results are robust conditional on the general crime trends in the society. The main results as presented in Table 4 remain essentially the same as in Section 7.2.

Second, to address the concern that different provinces may have different policy changes during the period 1998-2006, I insert a full-set of region-year interaction terms ($3 \text{ regions} \times 4 \text{ years} = 12 \text{ interaction terms}$) in the first step of the D-L, instead of only time-invariant region fixed effect terms. Then I regress in the second step the coefficients of the 12 interaction terms against a constant and the *POST* variable to obtain the estimates of the YCJA effect. Here the regressions are weighted by the sum of weights by Region-Year, instead of by year as in Tables 3 and 4. Again, the results (Table 5) are similar to the baseline results in Section 7.2.

Third, I implement a specification that controls for both adult crime rates and region-year interactions. Again, the main results (Table 6) are virtually unchanged.

Fourth, I use the D-L two-step version of the difference-in-difference (DID) strategy to address the potential concerns of unobserved cohort differences and any other national

policy changes. To use the DID strategy, a comparison group is needed. The comparison group should have been exposed to the same policy and social environment changes during the period 1998-2006, with the exception of the regime change from the YOA to the YCJA. The identification assumption is that in the absence of the change from the YOA to the YCJA, the comparison and treatment groups should have had the same changes in their crime rates after April 1, 2003 when the YCJA came into force. Here, I consider two candidates for the comparison group. First, I use Quebec as a comparison group for the rest of Canada. Though the YCJA is a national policy which is also applicable in Quebec, the changes in Quebec are expected to be smaller than in the rest of Canada, due to the more rehabilitative approach already entrenched in Quebec before the YCJA (Bala et al. (2009); Trépanier (2004)). Table 7 presents the second step results. Though the effect of the YCJA on the percentage of male mischief offenders is not significant, it remains large and significant when pooling male and female mischief offenders. The insignificant coefficients for boys may be because the smaller number of observations available in Quebec - only about 200+ in each year. A large portion of the results on percentage repeat offenders have been suppressed by the RDC due to confidentiality reason. Second, I consider a younger Canadian cohort who are below the minimum enforcement age of the YOA and the YCJA, i.e. 12 years old. Of the crime measures considered in this paper, the gang membership question¹² is asked to 10-11 year old youth as well. Because there are no 10-11 year old youth in Cycle 7 of the NLSCY, I use Cycle 3, 4 and 6 and compare 14/15 year old (treatment group) with 10-11 year old (comparison group) Canadian youth. The second-step results from the D-L procedure are shown in Table 8. Consistent with the findings in Section 7.2, no effect of the YCJA is found on the percentage of youth gang members.

Fifth, as mentioned earlier in Section 5, 25% of the 14/15 year olds and 30% of the 16/17 year olds are discarded because of non-response to the crime questions of interest. If the discarded observations are systematically different from those remaining in the sample, i.e. the selection is not random, then failing to account for this non-random selection may result in biased results (Heckman (1979)). To address this concern, I

¹²However, the gang membership question wording is slightly different for 10-11 year old youth. The question for 10-11 year old youth is: During the past 12 months, were you part of a group that did bad things?

implement in the first step the Heckman’s selection model instead of the simple OLS and use in the second step the year dummy coefficients obtained from the Heckman’s selection model to estimate the effect of the YCJA. Table 9 summarizes the second step results. The strong effect of the YCJA on the percentage of male mischief offenders remains, though the effect on the percentage of male mischief repeat offender becomes insignificant.

Finally, the results presented so far focus on the prevalence (percentage of offenders or repeat offenders) and variety (percentage of offenders who commit multiple types of crime) of crime. The results on the percentage of offenders may not be generalized to the incidence of crime in the society, because a small number of offenders may account for a large share of the crime incidences in the society. Even if there is a large increase in the percentage of offenders, there may actually be a decrease in the total number of incidents if the average number of offences committed by the most serious offenders decreases by a lot. The results on the percentage of repeat offenders can only to a limited degree capture this bias.

To get a closer look at this issue, I present in Table 10 estimates of the percentage of mischief offenders in the truncated top response category (percentage of offenders who committed mischief at least 5 times in the past 12 months), the average number of mischief offences in the population, the average number of mischief offences in the top response category, and the percentage of incidents accounted for by the top response category. These estimates presented in Table 10 assume that the frequencies of mischief offences follow a Pareto distribution (Kleiber and Kotz (2003)), with a Cumulative Distribution Function (CDF) characterized by equation 4 and a Probability Density Function (PDF) characterized by equation 5:

$$F(x) = 1 - \left(\frac{x}{x_0}\right)^{-\alpha}, \quad x \geq x_0 > 0 \quad (4)$$

$$f(x) = \frac{\alpha x_0^\alpha}{x^{\alpha+1}}, \quad x \geq x_0 > 0 \quad (5)$$

where x denotes the number of offences committed by an individual, x_0 is a scale or

the minimum possible value of x , α is a shape parameter measuring the heaviness of the right tail. Rearranging equation 4 provides the following equation:

$$\ln[1 - F(x)] = \alpha \ln x_0 - \alpha \ln x \quad (6)$$

Let $y = \ln[1 - F(x)]$, $\gamma = \alpha \ln x_0$, and $\theta = -\alpha$. We arrive at the following equation:

$$\ln y = \gamma + \theta \ln x \quad (7)$$

where y is the probability that the number of offences is at least x . Equation 7 can be estimated using OLS. From $\hat{\gamma}$ and $\hat{\theta}$, we can recover \hat{x}_0 and $\hat{\alpha}$, therefore the CDF and PDF.

Table 10 reports the estimates for 14/15 year olds and for 16/17 year olds. Within each age group, three different sets of estimates are reported - a set of estimates using all observations, a set using only observations before the YCJA and a set using only observations after the YCJA.

The percentage of mischief offenders that committed at least 5 offences in the past year increased dramatically (0.8% to 1.8% for 14/15 year olds and 1% to 2.2% for 16/17 year olds) after the YCJA with the mean percentage of incidents in this category increasing only slightly. As a result, the percentage of mischief incidents committed by those offenders in this truncated response category also increased (13-15% before the YCJA and 25-28% after the YCJA). These patterns are consistent with the main results presented in previous sections, i.e. mischief increased after the YCJA both in terms of prevalence and incidence.

7.4 Discussions

The biggest change brought by the YCJA is the reduced use of custody or incarceration on youth who commit relatively minor crime, e.g. mischief. In theory, there are two effects associated with this change: deterrence and incapacitation (Levitt (1998); Tauchen et al. (1994); Grogger (1991); Cameron (1988); Witte (1980); Blumstein et al. (1978); Becker (1968)). Deterrence means that more severe punishment can lead

to fewer offences, and incapacitation means that taking criminals into custody can remove them from the streets and therefore lower the incidence of crime activities. Levitt (1998) shows that the deterrence effect dominates incapacitation effect for minor crime, whereas the reverse is true for more serious crime.

The deterrence hypothesis predicts that the YCJA will increase the occurrence of minor crime. If minor crime and severe crime are substitutable, the deterrence hypothesis also predicts fewer occurrences of more serious crime activities, such as serious violent crime. Assuming some minor crime offenders also commit some serious crime, the incapacitation hypothesis suggests that the YCJA will increase the occurrence of all types of crime, because some offenders now at large would have been incarcerated under the YOA. Hence, the YCJA should lead to unambiguous increases in minor crime rates, but its effect on more serious crime is not clear due to the competing effects of deterrence and incapacitation. Thus, the empirical evidence shown in this paper is largely consistent with these predictions. Mischief as a most minor crime¹³ (Mihorean et al. (2001); Brantingham and Easton (1998)) increased dramatically after the YCJA, whereas no obvious patterns of changes are detected for other types crime.

One question that one may ask might be: is the YCJA for better or for worse? The empirical results presented so far have not answered this question and a full assessment of the magnitudes of the costs and benefits of the YCJA is beyond the scope of the current paper. However, it is possible to pinpoint a few areas worth considering when one attempts to conduct a full cost-benefit analysis of the YCJA.

The results shown in Section 7.2 and 7.3 have established that, after the YCJA replaced the YOA, mischief increased significantly, particularly among boys. This increase in mischief offences may not be so worrisome if it is just part of the rebellious phase of a young teen growing up and will tame as the teenager matures. However, if it is a precursor of other more serious problems which have long-lasting implications, then it could potentially be costly for the youth who engage in mischief in their teenage years.

To get a closer look at this issue, I make use of the longitudinal feature of the NLSCY

¹³Brantingham and Easton (1998) estimate that the property loss caused by an average incident of mischief is only about 28% of the loss caused by a theft or by breaking and entering.

and investigate whether outcomes in early adulthood are connected with an individual's mischief behavior in teenage years. Table 11 reports the OLS regression results of a series of outcomes (post-secondary enrolment, numeracy score, teenage pregnancy, depression score and a few other scores measuring non-cognitive skills) at age 20/21 on the same set of explanatory variables (measured at age 14/15) as considered earlier, as well as an indicator of whether the individual was a mischief offender at age 14/15.

Panel A shows the results for boys. A 14/15 year old male mischief offender receives lower numeracy and is more likely to get others pregnant by age 20/21. However, the other outcomes at age 20/21, including post-secondary enrolment, depression score and other non-cognitive skills, are not significantly associated with whether the male youth was a mischief offender at age 14/15.

Results for girls are shown in Panel B. A 14/15 year old female mischief offender is about 30% less likely to be enrolled in a post-secondary institution by age 20/21. The other outcomes are not significantly correlated with mischief offender status at age 14/15.

In Table 12, I consider the criminal activities of a group of individuals who were 14/15 in 1998 and 22/23 in 2006. The results show that a male mischief offender at age 14/15 is 15% more likely to be an impaired driver at age 22/23. For girls, no significant correlations have been identified. However, when pooling boys and girls and controlling for gender, the coefficient in front of mischief offender status at age 14/15 becomes significant in all three regressions - theft, assault and impaired driving.

Tables 11 and 12 present highly preliminary correlational results, which suggest possible long-term implications of engaging in minor crime such as mischief as a young teenager. These long-term implications could potentially be deleterious for these youth, who represent a non-negligible proportion (about 1/4 to 1/3) of the Canadian youth population.

Furthermore, the cost of crime is not limited to the offenders themselves. Rather, a significant part of the cost of crime is its external cost to victims and society in general (Cohen (1998)), which in the case of property crime includes the value of the property lost during the incident and the pain and suffering endured by the victims. Brantingham

and Easton (1998) estimate that an average incident of mischief costs \$638 (in \$1996). Using victimization data from the General Social Survey, Leung (2004) provides an estimate of the cost of pain and suffering from mischief. An average incident of mischief causes pain and suffering valued at about \$2,500 (in \$1999).

The analysis is incomplete if we only consider the costs without considering the benefits associated with the YCJA. Due to the reduced use of incarceration, the YCJA is a much less expensive act compared to the YOA (Bala et al. (2009)). Sansfaçon and Welsh (1999) refer to a study by the RAND corporation which shows that it costs families 7 times the amount in additional taxes to achieve a 10% reduction in youth crime through incarceration than through social development programs. Moreover, research shows that incarceration can be more deleterious for juveniles than for adults because juveniles “may be more susceptible to the negative effects of inmate subculture” (Cesaroni and Peterson-Badali (2005)). Howell (1997) argues that incarceration may increase the likelihood of school failure, which further contributes to more juvenile delinquency. There is also evidence (McAra and McVie (2007); Laub and Sampson (2003)) that the further a youth penetrates into the youth criminal justice system the less likely he/she will abstain from recidivism.

A well-informed assessment of whether the YCJA is a good or bad act requires paying close attention to the costs and benefits pointed out above.

8 Conclusion

Using 4 Cycles of the NLSCY, 2 Cycles before and 2 Cycles after the initiation of the YCJA in 2003, this paper performs before/after comparisons of the effect of YCJA on Canadian youth self-reported crime rates. By using the two-step D-L procedure proposed by Donald and Lang (2007), the empirical results in this paper account for common group errors that may exist in each of the NLSCY Cycles. The baseline results and a series of robustness checks show that mischief among Canadian youth, particularly boys, increased dramatically after the YCJA. Using official data (UCR), Taylor-Butts and Bressan (2008) also find that mischief rate (total accused) increased considerably - from 1997 to 2006 it increased by 46%. Since mischief is a very minor type of crime, this

finding is consistent with both the “deterrence” and the “incapacitation” hypothesis.

The results on other types of crime, such as violent crime, gang membership, drug offences and impaired driving, are less conclusive. For example, violent crime appears to have decreased among 14/15 year olds, but increased slightly among 16/17 year olds. These mixed findings may be because the violent crime questions in the NLSCY are not designed to differentiate less serious from more serious violent offenders, or because “deterrence” and “incapacitation” effects work in opposite directions for more serious crime.

This paper also shows that engaging in mischief at age 14/15 is connected to a higher probability of participation in crime activities, as well as poorer non-criminal outcomes (post-secondary education, numeracy score, and teen pregnancy) at a later stage in these youth’s lives (in their early 20’s). Though these findings are preliminary and should not be interpreted as causal relationships, they suggest some potential areas that may be worth further investigation in conjunction with other possible benefits and costs of the YCJA as discussed in Section 7.4.

The results presented in this paper may be of value to policy makers who are interested in making a well-informed evaluation of the YCJA’s impact on the Canadian society six years after it came into force.

Table 1: NLSCY Self-complete Questions, 14-17 Year Old

1. Property Crime

1.1 Mischief

During the past 12 months, about how many times have you intentionally damaged or destroyed anything that didn't belong to you (for example, damaged a bicycle, car, school furniture, broken windows or written graffiti)?

1.2 Theft (Not Available for 14-15 Year Old Youth)

During the past 12 months, about how many times have you stolen something from a store or school?

2. Violent Crime

2.1 Assault - Fight

During the past 12 months, about how many times have you fought with someone to the point where they needed care for their injuries (for example, because they were bleeding, or had broken bones)?

2.2 Assault - Attack (Not Available for 14-15 Year Old Youth)

During the past 12 months, about how many times have you attacked someone with the idea of seriously hurting him/her?

2.3 Assault - Sexual

During the past 12 months, have you attempted to touch anyone in a sexual way while knowing that they would probably object to this?

2.4 Weapon Possession ¹⁴

During the past 12 months, about how many times have you carried a weapon for the purpose of defending yourself or using it in a fight?

3. Gang Membership

In the past 12 months, were you part of a gang that broke the law by stealing, hurting someone, damaging property, etc.?

4. Drugs

4.1 Drug Trafficking

During the past 12 months, about how many times have you sold any drugs?

4.2 Tried Marijuana

Which of the following best describes your experience with using marijuana and cannabis products (also known as a joint, pot, grass or hash) in the past 12 months?

4.3 Tried Other Drugs

4.3.1 In the past 12 months, how often did you do hallucinogens like LSD/acid, magic mushrooms?

4.3.2 In the past 12 months, how often did you do glue or solvents?

4.3.3 In the past 12 months, how often did you do drugs without a prescription or advice from a doctor: Downers, uppers, tranquilizers, Ritalin, etc.?

4.3.4 In the past 12 months, how often did you do other drugs like ecstasy, crack, cocaine, heroin or speed, etc.?

5. Impaired Driving (Not Available for 14-15 Year Old Youth)

In the past 12 months, how many times have you operated a motorized vehicle (e.g., car, motorcycle, boat) after you have been drinking alcohol or doing drugs?

¹⁴Note: This question is asked in Cycle 6 and 7. In Cycle 3 and 4, three separate questions are asked to the youth about whether they carried a: i) knife; 2) gun; and 3) stick/club in the past 12 months. If a youth indicates he/she carried a knife, gun or stick/club in the past 12 months, then the weapon possession variable is coded 1, and 0 otherwise.

Table 2: Means of Dependent Variables, 1998-2006

	14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample
A. Percentage of Offenders						
Property Crime	21.4	11.9	16.7	39.9	25.0	32.4
Mischief	21.4	11.9	16.7	30.4	15.1	22.7
Theft	n.a.	n.a.	n.a.	25.3	15.8	20.5
Violent Crime	22.4	8.0	15.3	25.9	10.9	18.3
Assault - Fight	11.6	3.6	7.7	10.7	4.2	7.4
Assault - Attack	n.a.	n.a.	n.a.	11.7	5.2	8.4
Assault - Sexual	4.5	1.3	2.9	4.9	0.7	2.8
Weapon Possession	15.2	5.5	10.4	14.7	5.4	10.0
Gang Membership	4.0	2.9	3.4	3.1	1.4	2.2
Drugs	22.1	23.0	22.6	40.4	41.0	40.7
Drug Trafficking	8.1	5.0	6.6	14.4	7.2	10.8
Tried Marijuana	20.9	21.3	21.1	39.3	40.0	39.7
Tried Other Drugs	7.9	9.5	8.7	17.9	14.8	16.3
Impaired Driving	n.a.	n.a.	n.a.	13.9	8.6	11.2
B. Percentage of Repeat Offenders						
Property Crime	4.1	1.7	2.9	11.5	6.0	8.7
Mischief	4.1	1.7	2.9	7.6	2.6	5.1
Theft	n.a.	n.a.	n.a.	7.3	4.5	5.9
Violent Crime	2.8	0.7	1.7	4.1	1.0	2.6
Assault - Fight	1.9	0.4	1.2	2.8	0.7	1.7
Assault - Attack	n.a.	n.a.	n.a.	2.2	0.6	1.4
Assault - Sexual	1.4	0.4	0.9	1.0	–	0.6
Weapon Possession	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs	13.1	11.6	12.4	26.4	19.2	22.7
Drug Trafficking	2.8	2.0	2.4	6.3	2.3	4.3
Tried Marijuana	11.9	10.2	11.1	25.0	17.4	21.2
Tried Other Drugs	2.2	4.1	3.2	5.4	5.9	5.6
Impaired Driving	n.a.	n.a.	n.a.	5.1	2.6	3.9
Committed Any Crime Repeatedly	15.8	12.4	14.1	32.6	22.8	27.6
Committed At Least 2 Types of Crime	23.2	13.7	18.5	42.5	29.0	35.7
Committed At Least 3 Types of Crime	12.4	7.1	9.8	28.1	16.9	22.4
N	2,247	2,313	4,560	1,332	1,445	2,777

Data Source: NLSCY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. – means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality considerations.

Table 3: The Effect of YCJA on the Percentages of Canadian Young Offenders and Repeat Offenders, Second Step Results, Non-Quebec, 1998-2006

	A. Percentage Offenders						B. Percentage Repeat Offenders					
	14-15 year old			16-17 year old			14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample
Property Crime												
Mischief	10.0**	2.3	6.1**	10.0**	7.9	8.5	2.5***	0.0	1.3***	0.0	-0.3	-1.2
Theft	10.0**	2.3	6.1**	11.1***	10.0	10.2	2.5***	0.0	1.3***	1.6	2.4	1.8
	n.a.	n.a.	n.a.	2.2	1.9	1.8	n.a.	n.a.	n.a.	-0.7	-0.9	-0.7
Violent Crime												
Assault - Fight	-5.3	-4.4***	-4.9**	3.8	1.0	2.3	-0.8	-	-0.8	0.5	0.5	3.5
Assault - Attack	-0.7	-3.6	-2.2	4.3*	1.3**	2.7*	-0.8	-	-0.7	0.7	0.7	0.4
Assault - Sexual	n.a.	n.a.	n.a.	5.2	0.8	2.8	n.a.	n.a.	n.a.	2.1*	2.1*	1.2
Weapon Possession	-2.6	-	-1.6	-3.5	-	-1.6	-	-	-	-	-	-
	-4.2	-1.8	-3.0*	2.4	-0.6	0.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership	1.0	0.4	0.7	0.4	-	0.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs												
Drug Trafficking	-2.3	-2.5	-2.6	-6.3	-3.3	-4.8	-0.8	-1.6	-1.2	-6.0	-6.0	-2.6
Tried Marijuana	3.03e-04	-2.6	-1.3	-0.1	-0.4	-0.2	0.9	-0.1	0.4	-0.2	-0.2	0.8
Tried Other Drugs	-2.0	-2.6	-2.4	-7.3	-2.8	-5.1	-0.4	-1.8	-1.1	-4.2	-4.2	-1.8
	-0.6	-1.7	-1.2	-7.0	-4.5	-5.8	-0.8	-0.7	-0.8	-2.3**	-2.3**	-0.6
Impaired Driving	n.a.	n.a.	n.a.	-1.3	-0.6	-0.8	n.a.	n.a.	n.a.	-2.2**	-2.2**	-1.3
Committed Any Crime Repeatedly	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.8	-1.1	-0.2	-5.0	-5.0	-3.4
Committed At Least 2 Types of Crime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-3.1	-2.2	-2.7**	2.4	2.4	0.8
Committed At Least 3 Types of Crime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.3	-2.1	-0.5	-0.6	-0.6	-0.2
N	2,247	2,313	4,560	1,332	1,445	2,777	2,247	2,313	4,560	1,332	1,332	2,777

Data Source: NLSY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 4: The Effect of YCJA on the Percentages of Canadian Young Offenders and Repeat Offenders, Second Step Results, Non-Quebec, 1998-2006, Controlling for Adult Crime Rates

	A. Percentage Offenders						B. Percentage Repeat Offenders					
	14-15 year old			16-17 year old			14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample
Property Crime												
Mischief	10.0**	2.3	6.1**	9.2*	7.2	7.9*	2.6***	0.2	1.5***	-0.6	0.6	-0.0
Theft	10.0**	2.3	6.1**	11.0***	10.1	10.2	2.6***	0.2	1.5***	2.4	1.6	1.8
	n.a.	n.a.	n.a.	2.6	1.8	1.8	n.a.	n.a.	n.a.	-1.0	-0.0	-0.3
Violent Crime												
Assault - Fight	-5.4*	-4.2***	-4.9**	4.2	1.3	2.7	-0.9	-	-0.8	0.3	-	0.4
Assault - Attack	-1.0	-3.4	-2.3	4.2*	1.6**	2.8*	-0.8	-	-0.8	0.7	-	0.4
Assault - Sexual	n.a.	n.a.	n.a.	5.4	0.8	3.0	n.a.	-	n.a.	2.0*	-	1.2
Weapon Possession	-2.7	-	-1.6	-2.9	-	-1.3	-	-	-	-	-	-
	-4.8	-1.7	-3.2*	0.5	-0.4	-0.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership												
	0.7	0.3	0.5	0.4	-	0.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs												
Drug Trafficking	-2.7	-3.2	-3.1	-5.2	-3.7	-4.6	-1.0	-2.0	-1.6	-5.3	0.4	-2.4
Tried Marijuana	-2.6	-3.1	-2.9	-0.3	-1.6	-1.0	0.2	-1.3	-0.6	0.2	-	0.7
Tried Other Drugs	-2.7	-3.4	-3.1	-6.7	-6.3	-6.5	-0.2	-3.5	-1.7	-5.1	1.7	-1.9
	-0.9	-1.5	-1.4	-7.6	-5.2	-6.4	0.1	-0.0	-0.1	-2.9***	1.7*	-0.1
Impaired Driving												
	n.a.	n.a.	n.a.	-0.1	0.7	0.5	n.a.	n.a.	n.a.	-2.0***	-0.4	-1.0*
Committed Any Crime Repeatedly Committed At Least 2 Types of Crime												
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.8	-1.3	-0.3	-5.1	-1.8	-3.4
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-3.3	-2.2	-2.8*	2.3	-0.2	0.8
Committed At Least 3 Types of Crime												
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.0	-2.2	-0.7	-0.7	0.8	-0.2
N	2,247	2,313	4,560	1,332	1,445	2,777	2,247	2,313	4,560	1,332	1,445	2,777

Data Source: NLSY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 5: The Effect of YCJA on the Percentages of Canadian Young Offenders and Repeat Offenders, Second Step Results, Non-Quebec, 1998-2006, Controlling for Region-Year Interactions

	A. Percentage Offenders						B. Percentage Repeat Offenders					
	14-15 year old			16-17 year old			14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample
Property Crime												
Mischief	9.9***	2.1	6.0***	10.0*	8.2	8.7***	-	-	1.2**	-0.2	-	-0.0
Theft	9.9***	2.1	6.0***	11.1**	10.0***	10.2***	-	-	1.2**	2.4*	-	1.8**
	n.a.	n.a.	n.a.	2.1	2.1	1.8	n.a.	n.a.	n.a.	-0.8	-	-0.7
Violent Crime												
Assault - Fight	-5.4	-4.7***	-5.0**	3.7	1.0	2.2	-	-	-	-	-	-
Assault - Attack	-0.6	-	-2.1	4.3**	-	2.7***	-	-	-	-	-	-
Assault - Sexual	n.a.	n.a.	n.a.	5.1*	0.6	2.7*	n.a.	n.a.	n.a.	-	-	-
Weapon Possession	-4.4*	-	-3.1**	2.4	-	0.7	-	-	-	-	-	-
	-	-	0.7	-	-	0.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership												
	-	-	0.7	-	-	0.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs												
Drug Trafficking	-2.1	-2.8	-2.5	-6.1	-3.2	-4.7	-0.7	-1.6	-1.2	-6.0	0.3	-2.7
Tried Marijuana	0.0	-	-1.2	-0.2	-	-0.2	-	-	-	-	-	0.7
Tried Other Drugs	-1.8	-2.9	-2.4	-7.2	-2.7	-5.0	-0.3	-1.7	-1.1	-4.2	0.1	-1.9
	-0.6	-1.9	-1.2	-6.9**	-4.6*	-5.7**	-	-	-0.9	-	0.7	-0.6
Impaired Driving												
	n.a.	n.a.	n.a.	-1.0	-0.4	-0.5	n.a.	n.a.	n.a.	-	-	-1.3
Committed Any Crime Repeatedly Committed At Least 2 Types of Crime												
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.8	-1.3	-0.3	-4.8	-2.1	-3.3
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-3.0	-2.4	-2.6*	2.4	-0.2	0.9
Committed At Least 3 Types of Crime												
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.0	-2.2	-0.6	-0.6	0.6	-0.2
N	2,247	2,313	4,560	1,332	1,445	2,777	2,247	2,313	4,560	1,332	1,445	2,777

Data Source: NLSY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 6: The Effect of YCJA on the Percentages of Canadian Young Offenders and Repeat Offenders, Second Step Results, Non-Quebec, 1998-2006, Controlling for Region-Year Interactions and Adult Crime Rates

	A. Percentage Offenders						B. Percentage Repeat Offenders					
	14-15 year old			16-17 year old			14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample
Property Crime												
Mischief	9.9***	2.0	5.9***	9.0	8.1	8.1**	-	-	1.4**	-0.3	-	0.1
Theft	9.9***	2.0	5.9***	11.1**	10.1***	10.2***	-	-	1.4**	2.4*	-	1.9**
	n.a.	n.a.	n.a.	2.0	2.2	1.8	n.a.	n.a.	n.a.	-0.9	-	-0.4
Violent Crime												
Assault - Fight	-5.5	-4.5***	-5.0**	4.0	1.2	2.5	-	-	-	-	-	-
Assault - Attack	-1.0	-	-2.2	4.2**	-	2.8***	-	-	-	-	-	-
Assault - Sexual	n.a.	n.a.	n.a.	5.3*	0.7	2.8*	n.a.	n.a.	n.a.	-	-	-
Weapon Possession	-	-	-	-	-	-1.3	-	-	-	-	-	-
	-3.8	-	-3.1**	0.6	-	-0.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership												
	-	-	0.4	-	-	0.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs												
Drug Trafficking	-2.5	-3.6	-3.1	-5.0	-3.6	-4.5	-0.9	-2.2	-1.6	-5.2	0.0	-2.5
Tried Marijuana	-3.0	-	-3.3**	-0.4	-	-1.1	-	-	-	-	-	0.8
Tried Other Drugs	-3.5	-3.9	-3.6**	-8.2	-6.9	-7.3*	-0.1	-4.4**	-2.2	-6.3	2.7	-1.8
	-0.2	-2.2	-1.3	-8.2**	-4.5*	-6.5**	-	-	-0.1	-	2.2	-0.2
Impaired Driving												
	n.a.	n.a.	n.a.	0.2	0.8	0.6	n.a.	n.a.	n.a.	-	-	-0.9
Committed Any Crime Repeatedly												
Committed At Least 2 Types of Crime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.6	-1.5	-0.5	-4.8	-2.1	-3.3
Committed At Least 3 Types of Crime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-3.3	-2.4	-2.8*	2.3	-0.1	0.8
N	2,247	2,313	4,560	1,332	1,445	2,777	2,247	2,313	4,560	1,332	1,445	2,777

Data Source: NLSY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 7: The Effect of YCJA on the Percentages of Canadian Young Offenders and Repeat Offenders, Difference-in-Difference Using Quebec as the Control Group, Second Step Results, 1998-2006

	A. Percentage Offenders						B. Percentage Repeat Offenders					
	14-15 year old			16-17 year old			14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample
Property Crime												
Mischief	0.104	0.061	0.083*	0.095	0.104	0.099***	-	-	-	-0.037	-	-0.010
Theft	0.104	0.061	0.083*	0.052	0.109	0.083*	-	-	-	-	-	-0.008
	n.a.	n.a.	n.a.	0.076*	0.043	0.054	n.a.	n.a.	n.a.	-	-	-
Violent Crime												
Assault - Fight	0.097	-	0.059	0.157**	0.033	0.092	-	-	-	-	-	-
Assault - Attack	0.008	-	0.004	0.039	-	0.020	-	-	-	-	-	-
Assault - Sexual	n.a.	n.a.	n.a.	0.071	-	0.014	n.a.	n.a.	n.a.	-	-	-
Weapon Possession	-	-	-	-	-	-	-	-	-	-	-	-
	0.088	-	0.051	-	-	0.086*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership												
	0.000	-	0.045	-	-	0.059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs												
Drug Trafficking	0.117	0.090**	0.103*	-0.085	0.100	0.018	0.079*	0.039	0.058*	-0.069	0.088	0.013
Tried Marijuana	0.008	0.009	0.008	0.066	-	0.050	-	-	-	0.064	-	0.052
Tried Other Drugs	0.104	0.071***	0.087	-0.084	0.132	0.032	0.090	0.040	0.065*	-0.057	0.111	0.029
	0.077**	-0.016	0.029	-0.014	-0.004	-0.007	-	-0.010	0.019	0.048	-0.026	0.010
Impaired Driving												
	n.a.	n.a.	n.a.	-0.051	-0.028	-0.034	n.a.	n.a.	n.a.	-0.042	-0.015	-0.026*
Committed Any Crime Repeatedly Committed At Least 2 Types of Crime												
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.120*	0.035	0.077*	-0.064	0.035	-0.012
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.087	0.028	0.058	0.041	0.114	0.083
Committed At Least 3 Types of Crime												
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.089	-0.001	0.044	0.078***	0.029	0.050
N	2,780	2,844	5,624	1,631	1,791	3,422	2,780	2,844	5,624	1,631	1,791	3,422

Data Source: NLSY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 8: Difference-in-Difference Estimates of the Effect of YCJA on the Percentages of Canadian Young Offenders Using 14/15 Year Olds as the Treatment Group and 10/11 Year Olds as the Control Group, Non-Quebec, 1998 - 2004

	Boys	Girls	Full Sample
Gang Membership	-0.8	1.4	0.3
N	4,108	4,232	8,340

Data Source: NLSCY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. – means that this output is suppressed by Statistics Canada’s Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 9: The Effect of YCJA on the Percentages of Canadian Young Offenders and Repeat Offenders, Second Step Results, Non-Quebec, 1998-2006, Using Heckman's Selection Model

	A. Percentage Offenders						B. Percentage Repeat Offenders					
	14-15 year old			16-17 year old			14-15 year old			16-17 year old		
	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample	Boys	Girls	Full Sample
Property Crime												
Mischief	0.098**	0.034	0.061**	0.109**	0.094	0.094	0.038	0.000	0.022	0.001	0.022	0.001
Theft	0.098**	0.034	0.061**	0.116***	0.107	0.107	0.038	0.000	0.022	0.025	0.022	0.019
	n.a.	n.a.	n.a.	0.028	0.023	0.023	n.a.	n.a.	n.a.	-0.008	n.a.	-0.006
Violent Crime												
Assault - Fight	-0.008	-0.029	-0.020	0.040	0.026	0.026	-0.008	-	0.001	-0.005	-	-0.010
Assault - Attack	0.021	-	-0.003	0.020*	-0.000	-0.000	-0.008	-	-0.007	-0.001	-	-0.007*
Assault - Sexual	n.a.	n.a.	n.a.	0.029	-0.001	-0.001	n.a.	n.a.	n.a.	0.021*	n.a.	0.012
Assault - Sexual	-0.026	-	-0.016	-0.042	-0.029***	-	-	-	-	-	-	-
Weapon Possession	-0.006	-0.007	-0.007	0.000	-0.024*	-0.024*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gang Membership	0.010	0.004	0.007	0.005	0.003	0.003	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drugs												
Drug Trafficking	0.018	-0.026	-0.026	-0.047	-0.031	-0.031	-0.009	-0.017	-0.013	-0.051	-0.013	-0.017
Tried Marijuana	-0.002	-0.026	-0.014	0.003	0.002	0.002	0.008	-0.001	0.004	-0.000	0.004	0.009
Tried Other Drugs	-0.023	-0.027	-0.026	-0.059	-0.034	-0.034	-0.005	-0.019	-0.012	-0.034	-0.012	-0.011
	0.017	-0.018	0.008	-0.064	-0.052	-0.052	0.004	-0.007	-0.008	-	-0.008	-0.005
										0.021**		
Impaired Driving	n.a.	n.a.	n.a.	-0.010	-0.005	-0.005	n.a.	n.a.	n.a.	-	n.a.	-0.012
										0.021**		
Committed Any Crime Repeatedly	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.039	-0.012	0.022	-0.044	0.022	-0.028
Committed At Least 2 Types of Crime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-0.029	-0.006	0.003	0.033	0.003	0.017
Committed At Least 3 Types of Crime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.039	-0.009	0.015	-0.002	0.015	0.001
N	3,113	3,038	6,151	2,023	4,064	4,064	3,113	3,038	6,151	2,023	6,151	4,064

Data Source: NLSY Cycles 3, 4, 6 and 7.

Note: 1. n.a. means that this variable is not asked to this age group in the survey.

2. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

3. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

4. Heckman's selection model does not converge for 16/17 year old girls.

Table 10: Estimated Pareto Distributions of Youth Mischief Offences in the Past 12 Months, 1998-2006

	14/15 Year Olds			16/17 Year Olds		
	Pooled	Pre-YCJA	Post-YCJA	Pooled	Pre-YCJA	Post-YCJA
Percent of Youth Who Committed Mischief 5 Times or More	1.4%	0.8%	1.8%	1.8%	1.0%	2.2%
Per Capita Mischief Offences in the Population	0.860	0.752	1.001	1.088	0.897	1.206
Per Capita Mischief Offences Among Youth Who Committed Mischief 5 Times or More	13.267	11.860	15.080	13.601	12.958	13.969
Percent Mischief Offences Committed by Offenders Who Committed Mischief 5 Times or More	21.1%	13.0%	27.7%	22.3%	15.0%	25.0%

Data Source: NLSCY Cycles 3, 4, 6 and 7.

Table 11: OLS Regressions of Outcomes at Age 20/21 Against Explanatory Variables at Age 14/15

	Postsecondary Education Participation	Numeracy Score	Pregnancy Score	Depression Score	Interpersonal Competency Score	Intrapersonal Competency Score	Stress Management Score	Adaptability Score	General Mood Score	5-factor Emotional Quotient
Panel A - Boys										
Lone Parent	-0.090	-0.404	0.007	-0.133	-0.078	-0.079	-0.368	0.435	-0.135	-0.225
Number of siblings	0.000	0.391	-0.037***	-0.595**	0.441**	0.114	0.444**	0.222	0.295	1.517*
Log of Household Equivalent Income	0.206***	1.392*	0.024	-0.981	-0.119	0.088	-0.261	-0.148	0.181	-0.259
PMK Age	0.011*	0.068	-0.002	0.012	0.026	-0.065	0.082**	0.026	0.031	0.100
PMK Has University Degree	0.095*	1.315*	-0.039	-0.085	-0.735**	-0.137	-0.148	-0.095	-0.292	-1.407
Atlantic Canada	-0.055	0.004	-0.000	-0.462	0.422	1.021	2.430***	0.906	1.169*	5.948**
Western Canada	-0.055	0.786	0.038	-0.468	-0.227	0.478	-0.046	0.178	-0.121	0.262
Live in Rural Area	-0.036	-0.311	0.068	0.938	-0.563*	-0.044	-0.096	-0.173	-0.288	-1.163
Unemployment Rate	0.023	0.074	0.001	-0.200	-0.007	-0.041	-0.286**	-0.063	-0.110	-0.508
Year 2000	0.022	0.509	0.030	-0.580	0.105	0.114	-0.153	-0.076	-0.114	-0.124
Mischief Offender	-0.019	-1.526*	0.116**	0.265	-0.273	0.100	-0.249	-0.346	-0.435	-1.204
Constant	-2.178***	4.697	-0.078	16.561**	12.639***	12.559***	12.403***	12.368***	9.693***	59.662***
N	589	589	759	589	589	589	589	589	589	589
R-sq	0.680	0.952	0.131	0.458	0.966	0.924	0.945	0.959	0.965	0.976
Panel B - Girls										
Lone Parent	-0.196**	-0.686	0.157**	1.120	-0.329	-0.145	0.157	-0.993**	0.230	-1.079
Number of siblings	0.025	0.800**	-0.005	-0.368	0.215**	-0.145	0.165	0.170	0.083	0.488
Log of Household Equivalent Income	0.090*	1.095**	-0.035	-1.145*	-0.420***	0.028	-0.135	-0.084	0.084	-0.527
PMK Age	-0.005	0.181***	-0.006	0.011	0.003	-0.027	0.015	-0.021	0.001	-0.030
PMK Has University Degree	0.118**	0.400	-0.007	0.899	0.235	-0.428	-0.113	0.073	-0.003	-0.235
Atlantic Canada	-0.035	-0.393	0.216**	0.216	-0.590*	-0.701	-0.981	0.661	-1.199**	-2.810
Western Canada	0.032	0.415	0.080**	-0.022	-0.215	0.405	-0.151	0.380	0.020	0.438
Live in Rural Area	-0.100*	-1.128	0.007	-0.981	-0.195	0.206	0.165	0.198	0.062	0.436
Unemployment Rate	0.015	0.048	-0.019*	-0.165	0.085**	0.090	0.218***	0.015	0.117*	0.525**
Year 2000	-0.006	-0.129	-0.061**	0.678	-0.340*	0.107	-0.018	-0.230	-0.137	-0.618
Mischief Offender	-0.312***	-1.034	0.022	0.879	0.102	-0.811	-0.470	-0.406	-0.230	-1.815
Constant	-0.162	2.667	0.819*	18.292**	17.340***	11.528***	10.795***	13.224***	10.476***	63.363***
N	759	759	759	759	759	759	759	759	759	759
R-sq	0.735	0.944	0.196	0.588	0.984	0.929	0.938	0.951	0.967	0.981
Panel C - Full Sample										
Gender - Male	-0.063	0.877*	-0.056***	-1.795***	-1.090***	-0.110	0.237	0.138	0.130	-0.695
Lone Parent	-0.150**	-0.525	0.075**	0.603	-0.244	-0.135	-0.154	-0.321	0.026	-0.829
Number of siblings	0.017	0.595**	-0.018*	-0.460**	0.324***	-0.025	0.307**	0.200	0.184	0.991**

Continued ...

Table 11: OLS Regressions of Outcomes at Age 20/21 Against Explanatory Variables at Age 14/15

	Postsecondary Education Participation	Numeracy Score	Pregnancy	Depression Score	Interpersonal Competency Score	Intrapersonal Competency Score	Stress Management Score	Adaptability Score	General Mood Score	5-factor Emotional Quotient
Log of Household Equivalent Income	0.146***	1.169***	-0.014	-1.059***	-0.298**	0.031	-0.173	-0.084	0.125	-0.398
PMK Age	0.004	0.126***	-0.004	0.007	0.017	-0.045	0.049**	0.003	0.018	0.041
PMK Has University Degree	0.115***	0.864*	-0.015	0.454	-0.266	-0.287	-0.152	-0.022	-0.169	-0.896
Atlantic Canada	-0.026	-0.317	0.120*	-0.085	-0.090	0.136	0.600	0.794*	-0.110	1.331
Western Canada	-0.005	0.603	0.060**	-0.243	-0.191	0.440	-0.113	0.310	-0.055	0.392
Live in Rural Area	-0.078*	-0.689	0.029	-0.131	-0.401**	0.102	0.016	0.039	-0.138	-0.381
Unemployment Rate year 2000	0.018*	0.067	-0.011	-0.187*	0.043	0.022	-0.016	-0.014	0.011	0.046
Mischief Offender	-0.159***	0.146	-0.017	0.090	-0.133	0.097	-0.048	-0.169	-0.117	-0.370
Constant	-1.153**	-1.298**	0.069**	0.538	-0.111	-0.284	-0.270	-0.399	-0.298	-1.363
N	1348	3.953	0.473*	18.427***	15.704***	12.353***	11.102***	12.317***	9.994***	61.470***
R-sq	0.700	1348	1348	1348	1348	1348	1348	1348	1348	1348
		0.947	0.145	0.532	0.975	0.926	0.940	0.954	0.965	0.978

Data Source: NLSCY Cycles 3, 4, 6 and 7.

Note: 1. Regression sample pools the following two longitudinal samples: 1) a group of youth who were 14/15 in 1998 and 20/21 in 2004; 2) a group of youth who were 14/15 in 2000 and 20/21 in 2006.

2 *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Table 12: OLS Regressions of Outcomes at Age 22/23 Against Explanatory Variables at Age 14/15

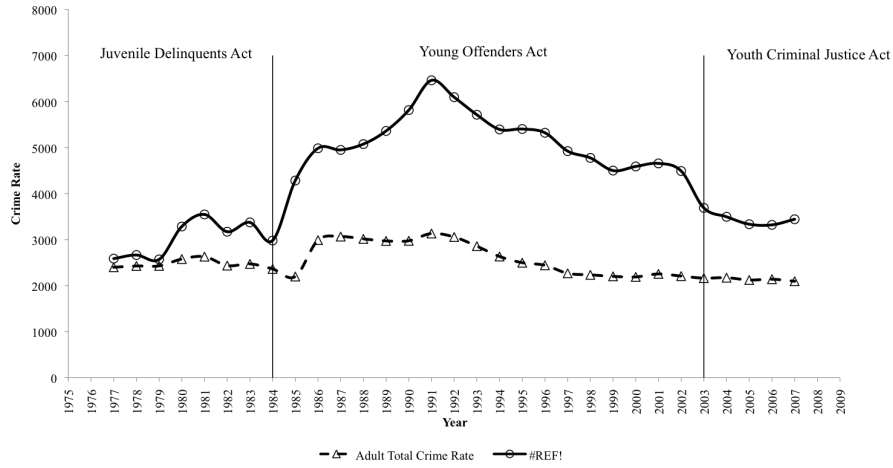
	Boys			Girls			Full Sample		
	Theft	Assault - Attack	Impaired Driving	Theft	Assault - Attack	Impaired Driving	Theft	Assault - Attack	Impaired Driving
Gender - Male							0.047**	0.037	0.102**
Number of siblings	-0.044**	0.007	0.015	-0.024*	-	0.023	-0.034***	-0.010	0.020
Log of Household Equivalent	0.009	0.007	0.031	-0.005	-	-0.031	0.005	0.014	0.001
Income									
PMK Age	0.000	-0.003	-0.007	0.001	-	-0.002	0.001	-0.001	-0.004
PMK Has University Degree	0.087*	0.040	-0.044	0.030	-	-0.001	0.057**	0.004	-0.018
Unemployment Rate	-0.000	0.005	0.001	-0.003	-	-0.000	-0.002	0.002	0.000
Mischief Offender	0.077	0.106	0.146*	0.055	-	0.082	0.070*	0.098*	0.121**
Constant	0.002	0.031	0.176	0.098	-	0.503	-0.015	-0.077	0.257
N	389	389	389	475	-	475	864	864	864
R-sq	0.061	0.036	0.028	0.035	-	0.016	0.058	0.042	0.039

Data Source: NLSY Cycles 3 and 7.

Note: 1. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

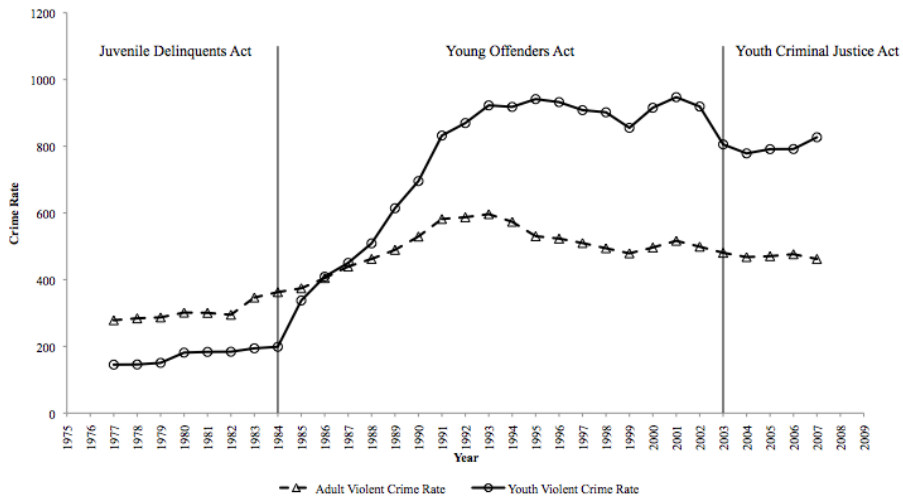
2. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

Figure 1: Youth vs Adults Charged (per 100,000), All Crime



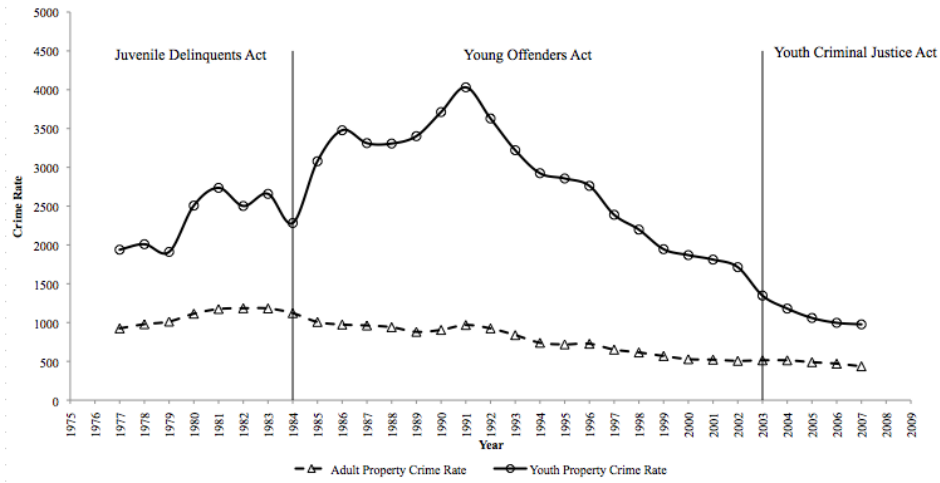
Data source: Uniform Crime Reporting Survey (CANSIM Table 252-0014)
 Note: The rate of total persons charged (per 100,000) is calculated by using the total of adult (18 years of age and over) and youth population (12 to 17 years of age) as the base.

Figure 2: Youth vs Adults Charged (per 100,000), Violent Crime



Data source: Uniform Crime Reporting Survey (CANSIM Table 252-0014)
 Note: The rate of total persons charged (per 100,000) is calculated by using the total of adult (18 years of age and over) and youth population (12 to 17 years of age) as the base.

Figure 3: Youth vs Adults Charged (per 100,000), Property Crime

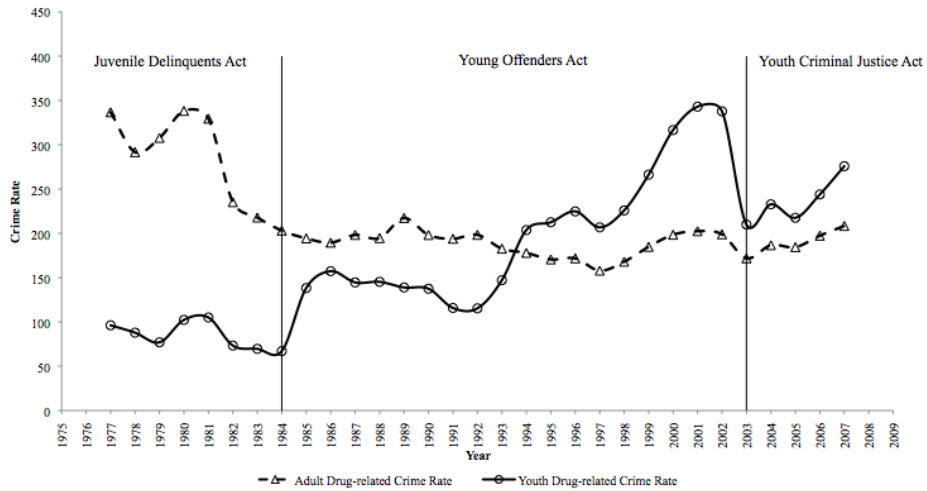


Data source: Uniform Crime Reporting Survey (CANSIM Table 252-0014)

Note: 1. The rate of total persons charged (per 100,000) is calculated by using the total of adult (18 years of age and over) and youth population (12 to 17 years of age) as the base.

2. Property crime here does not include mischief.

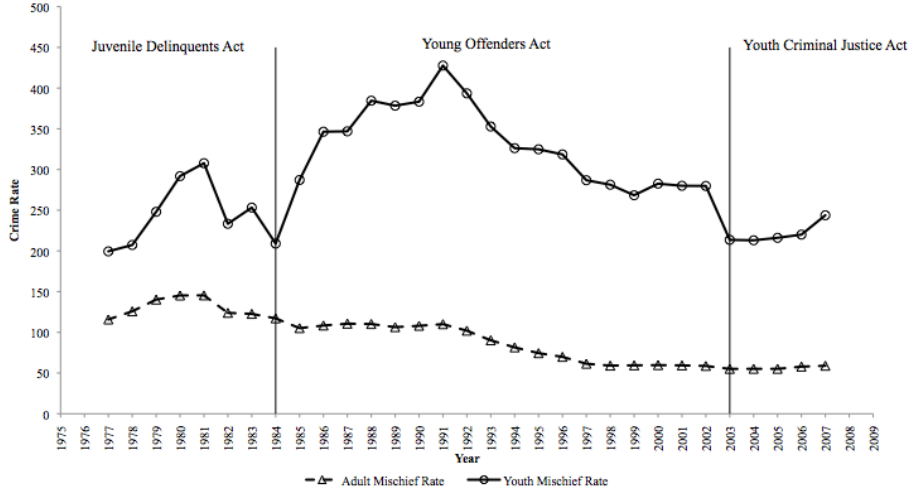
Figure 4: Youth vs Adults Charged (per 100,000), Drug Offence



Data source: Uniform Crime Reporting Survey (CANSIM Table 252-0014)

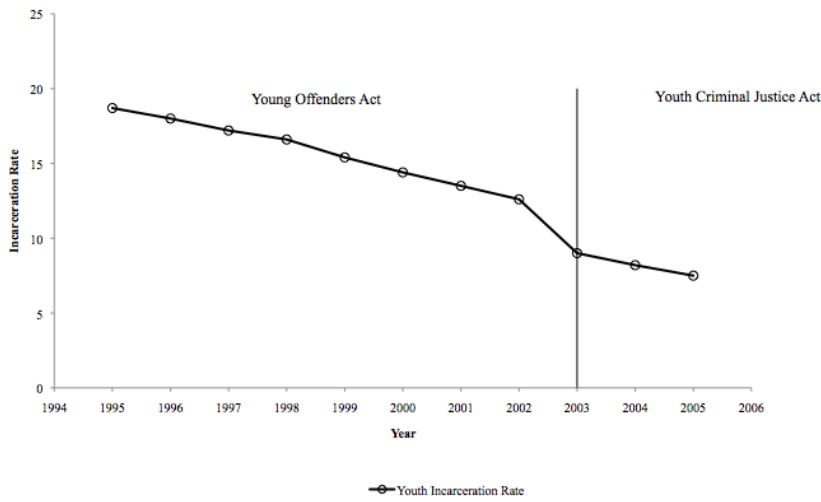
Note: The rate of total persons charged (per 100,000) is calculated by using the total of adult (18 years of age and over) and youth population (12 to 17 years of age) as the base.

Figure 5: Youth vs Adults Charged (per 100,000), Mischief



Data source: Uniform Crime Reporting Survey (CANSIM Table 252-0014)
 Note: The rate of total persons charged (per 100,000) is calculated by using the total of adult (18 years of age and over) and youth population (12 to 17 years of age) as the base.

Figure 6: Youth Incarceration Rate



Data Source: Reproduced from Table 9 in Milligan (2008) and Table 5 in Calverley (2007).
 Note: 1) Incarceration rate is the average daily counts of remand, secure and open custody per 10,000 youth aged 12 to 17 in the population. 2) Figures exclude Ontario and Nunavut for all reference years due to incomplete data.

Figure 7: Rates of police-reported youth crime, youth charged, and youth cleared otherwise; Canada, 1986-2007

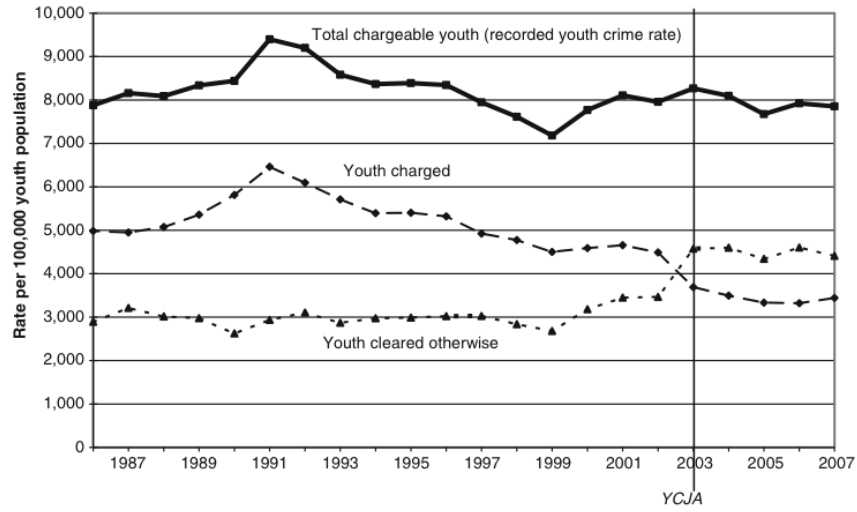


Figure is a duplicated from Bala et al. (2009).
Data Source: Statistics Canada, Canadian Centre for Justice Statistics, Uniform Crime Reporting Survey

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Appendix A Section 38, PART 4 of the Youth Criminal Justice Act

SENTENCING

Purpose and Principles

Purpose

38. (1) The purpose of sentencing under section 42 (youth sentences) is to hold a young person accountable for an offence through the imposition of just sanctions that have meaningful consequences for the young person and that promote his or her rehabilitation and reintegration into society, thereby contributing to the long-term protection of the public.

Sentencing principles

(2) A youth justice court that imposes a youth sentence on a young person shall determine the sentence in accordance with the principles set out in section 3 and the following principles:

(a) the sentence must not result in a punishment that is greater than the punishment that would be appropriate for an adult who has been convicted of the same offence committed in similar circumstances;

(b) the sentence must be similar to the sentences imposed in the region on similar young persons found guilty of the same offence committed in similar circumstances;

(c) the sentence must be proportionate to the seriousness of the offence and the degree of responsibility of the young person for that offence;

(d) all available sanctions other than custody that are reasonable in the circumstances should be considered for all young persons, with particular attention to the circumstances of aboriginal young persons; and

(e) subject to paragraph (c), the sentence must

(i) be the least restrictive sentence that is capable of achieving the purpose set out in subsection (1),

(ii) be the one that is most likely to rehabilitate the young person and reintegrate him or her into society, and

(iii) promote a sense of responsibility in the young person, and an acknowledgement of the harm done to victims and the community.

Factors to be considered

(3) In determining a youth sentence, the youth justice court shall take into account

(a) the degree of participation by the young person in the commission of the offence;

(b) the harm done to victims and whether it was intentional or reasonably foreseeable;

(c) any reparation made by the young person to the victim or the community;

(d) the time spent in detention by the young person as a result of the offence;

(e) the previous findings of guilt of the young person; and

(f) any other aggravating and mitigating circumstances related to the young person or the offence that are relevant to the purpose and principles set out in this section.

Appendix B Appendix Tables

Table B.1: List of Supplementary Data Sources

Data Title	Source	Note
Canadian Adult Crime Rates by Province	CANSIM Table 2520014	
Canadian Youth Incarceration Rate by Province	CANSIM Table 2510008	
Canadian Unemployment Rate by Province	CANSIM Table 2820086	Official unemployment rates
Canadian Consumer Price Index	CANSIM Table 3870007	

Table B.2: Means of Dependent Variables by Year, 14/15 Year Olds

	Boys						Girls						Full Sample					
	1998	2000	2004	2006	1998	2000	2004	2006	1998	2000	2004	2006	1998	2000	2004	2006		
	Percentage Offenders																	
Property Crime	17.2	15.4	27.1	24.7	11.3	10.3	11.8	14.1	14.2	12.9	19.6	19.4	14.2	12.9	19.6	19.4		
Mischief	17.2	15.4	27.1	24.7	11.3	10.3	11.8	14.1	14.2	12.9	19.6	19.4	14.2	12.9	19.6	19.4		
Violent Crime	24.4	26.5	21.4	18.0	10.6	10.4	5.8	6.0	17.2	18.6	13.7	12.0	17.2	18.6	13.7	12.0		
Assault - Fight	13.1	12.0	12.5	9.2	7.1	4.3	1.6	2.0	10.0	8.3	7.2	5.6	10.0	8.3	7.2	5.6		
Assault - Sexual	3.8	7.0	3.8	3.1	-	2.8	1.1	0.7	2.1	5.0	2.5	1.9	2.1	5.0	2.5	1.9		
Weapon Possession	15.7	18.8	14.5	12.0	6.3	6.8	4.1	5.2	10.9	13.0	9.4	8.6	10.9	13.0	9.4	8.6		
Gang Membership	3.8	3.8	3.5	4.8	3.6	2.0	4.9	1.1	3.7	2.9	4.2	2.9	3.7	2.9	4.2	2.9		
Drugs	26.0	20.9	25.2	17.0	27.2	22.7	21.8	21.0	26.6	21.8	23.6	19.0	26.6	21.8	23.6	19.0		
Drug Trafficking	8.1	8.2	11.5	4.5	8.4	4.9	2.6	4.5	8.3	6.6	7.1	4.5	8.3	6.6	7.1	4.5		
Tried Marijuana	24.4	19.6	23.8	16.3	25.7	20.5	20.7	18.7	25.1	20.1	22.3	17.5	25.1	20.1	22.3	17.5		
Tried Other Drugs	8.2	8.2	9.5	5.6	13.4	9.0	6.0	10.2	10.9	8.6	7.8	7.9	10.9	8.6	7.8	7.9		
Percentage Repeat Offenders																		
Property Crime	2.6	2.9	5.3	5.2	1.8	1.4	1.7	1.8	2.2	2.2	3.5	3.5	2.2	2.2	3.5	3.5		
Mischief	2.6	2.9	5.3	5.2	1.8	1.4	1.7	1.8	2.2	2.2	3.5	3.5	2.2	2.2	3.5	3.5		
Violent Crime	2.7	3.8	3.3	1.4	0.8	1.3	-	-	1.7	2.6	1.9	0.8	1.7	2.6	1.9	0.8		
Assault - Fight	1.8	2.9	2.1	0.9	0.8	0.7	-	-	1.3	1.9	1.1	0.5	1.3	1.9	1.1	0.5		
Assault - Sexual	1.6	1.5	1.8	0.5	-	0.9	-	-	0.8	1.2	1.1	-	0.8	1.2	1.1	-		
Drugs	12.2	13.4	16.9	9.6	15.8	10.4	8.9	11.9	14.0	11.9	13.0	10.8	14.0	11.9	13.0	10.8		
Drug Trafficking	2.6	2.5	5.1	1.0	2.6	1.9	1.1	2.3	2.6	2.3	3.1	1.6	2.6	2.3	3.1	1.6		
Tried Marijuana	10.1	12.3	15.5	9.2	13.9	9.6	8.4	9.5	12.1	11.0	12.0	9.4	12.1	11.0	12.0	9.4		
Tried Other Drugs	3.8	2.2	2.4	0.9	5.6	3.6	2.2	5.3	4.7	2.9	2.3	3.1	4.7	2.9	2.3	3.1		
Committed Any Crime Repeatedly	13.5	15.7	19.7	13.6	15.9	11.2	9.8	13.0	14.8	13.5	14.8	13.3	14.8	13.5	14.8	13.3		
Committed At Least 2 Types of Crime	23.5	25.8	23.7	20.1	17.9	13.0	11.4	13.1	20.6	19.5	17.7	16.6	20.6	19.5	17.7	16.6		
Committed At Least 3 Types of Crime	12.3	11.2	16.1	9.8	10.4	7.0	4.0	7.5	11.4	9.1	10.2	8.6	11.4	9.1	10.2	8.6		
N	544	547	565	591	594	548	591	580	1,138	1,095	1,156	1,171	1,138	1,095	1,156	1,171		

Data Source: NLSCY Cycles 3, 4, 6 and 7.

Note: - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality considerations.

Table B.3: Means of Dependent Variables by Year, 16/17 Year Olds

	Boys			Girls			Full Sample		
	2000	2004	2006	2000	2004	2006	2000	2004	2006
Property Crime	Percentage Offenders								
Mischief	34.1	41.9	43.5	19.0	25.2	30.9	26.4	33.4	37.3
Theft	24.1	33.3	33.9	8.3	16.1	21.2	16.1	24.5	27.6
Violent Crime	24.4	23.3	28.0	14.0	17.8	15.8	19.1	20.5	22.0
Assault - Fight	23.8	24.9	28.7	10.3	11.1	11.2	16.9	17.9	20.1
Assault - Attack	8.6	11.5	12.1	3.4	4.8	4.4	6.0	8.1	8.3
Assault - Sexual	9.0	10.4	15.7	4.8	7.6	3.3	6.8	8.9	9.5
Weapon Possession	7.1	3.6	4.0	-	0.9	-	3.8	2.2	2.3
Gang Membership	14.0	15.3	14.9	5.9	4.4	5.8	9.8	9.8	10.4
Drugs	3.1	3.4	2.8	1.4	1.7	1.2	2.2	2.5	2.0
Drug Trafficking	45.0	41.2	35.2	43.5	43.3	36.1	44.2	42.2	35.7
Tried Marijuana	14.8	15.3	13.2	7.7	9.0	4.9	11.2	12.1	9.1
Tried Other Drugs	44.5	39.2	34.3	42.2	42.8	35.0	43.3	41.0	34.6
Impaired Driving	22.9	16.6	14.1	18.1	16.4	9.8	20.5	16.5	11.9
	14.5	14.1	13.0	9.0	9.3	7.3	11.7	11.7	10.2
Property Crime	Percentage Repeat Offenders								
Mischief	12.4	12.3	9.8	6.0	7.5	4.4	9.1	9.8	7.1
Theft	6.8	9.4	6.9	1.5	4.1	2.1	4.1	6.7	4.5
Violent Crime	8.1	6.0	7.6	5.1	4.2	4.0	6.6	5.1	5.9
Assault - Fight	4.3	4.8	3.3	0.8	1.2	-	2.5	3.0	2.2
Assault - Attack	2.8	2.8	2.8	-	-	-	1.7	1.6	1.9
Assault - Sexual	1.1	2.8	2.6	-	-	-	0.7	1.9	1.6
Drugs	1.5	1.2	-	-	-	-	0.7	0.7	-
Drug Trafficking	30.6	26.4	22.3	19.5	22.1	15.9	24.9	24.2	19.1
Tried Marijuana	6.3	6.6	6.1	1.4	5.0	-	3.8	5.8	3.5
Tried Other Drugs	28.0	26.2	21.1	17.9	19.8	14.5	22.9	22.9	17.8
Impaired Driving	7.0	4.9	4.2	5.4	6.9	5.4	6.2	5.9	4.8
Committed Any Crime Repeatedly	6.2	4.2	5.0	3.2	2.9	1.7	4.7	3.5	3.4
Committed At Least 2 Types of Crime	36.0	31.6	30.0	24.7	26.2	17.4	30.3	28.9	23.8
Committed At Least 3 Types of Crime	41.3	41.9	44.1	29.0	32.0	26.1	35.0	36.8	35.2
N	29.7	29.9	25.2	16.6	20.8	13.2	23.0	25.1	19.3
	466	436	430	538	442	465	1,004	878	895

Data Source: NLSY Cycles 4, 6 and 7.

Note: - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality considerations.

Table B.4: Means of Independent Variables, 1998-2006

	14-15 year old	16-17 year old
Male youth (%)	50.2	49.6
Lone-parent family (%)	19.5	22.4
Number of siblings	1.4	1.3
Household income (\$2003)	84189	86393
Household Equivalent Income (\$2003)	40730	42789
PMK's age	43.4	45.3
PMK has post-secondary degree (%)	46.7	48.3
Region		
Atlantic provinces (%)	10.4	10.5
Ontario (%)	49.8	50.7
West (%)	39.9	38.8
Live in rural area (%)	14.4	15.1
Provincial unemployment rate (%)	6.7	6.4

Data Source: NLSCY Cycle 3, 4, 6 and 7.

Table B.5: Linear Probability Regressions of the Probability of Being a Young Offender, 14-15 Years Old, Non-Quebec, 1998-2006

	Gender - Male	Lone Parent	Number of siblings	Log of Household Equivalent Income	PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live in Rural Area	Unemployment Rate	year 1998	year 2000	year 2004	year 2006	R ²
Boys (N=2,247)															
Property Crime			0.006	-0.018	-0.002	-0.018	0.053	0.077**	-0.001	-0.005	0.424	0.407	0.524*	0.505	0.236
Mischief	0.016		0.006	-0.018	-0.002	-0.018	0.053	0.077**	-0.001	-0.005	0.424	0.407	0.524*	0.505	0.236
Violent Crime			0.006	-0.035	-0.006**	-0.021	0.050	0.071**	-0.018	-0.005	0.893***	0.918***	0.867***	0.840***	0.249
Assault - Fight	0.041		0.006	-0.039*	-0.006**	-0.024	0.017	0.008	0.008	-0.003	0.783***	0.789***	0.764***	0.764***	0.139
Assault - Sexual	0.027		0.001	-0.001	-0.009	0.064**	-0.009	0.010	0.158	0.009**	0.184	0.184	0.152	0.141	0.062
Weapon Possession	0.029		-0.005	-0.033	-0.002	-0.020	0.053*	-0.027	0.011	0.001	0.666***	0.691***	0.649***	0.626***	0.172
Gang Membership			-0.008	-0.020	-0.004***	0.000	-0.004	0.012	-0.026*	-0.001	0.426**	0.433**	0.430**	0.449**	0.060
Drugs	0.061		-0.009	0.076***	-0.002	0.048*	-0.043	0.009	-0.001	0.012	-0.554*	-0.583*	-0.555*	-	0.243
Drug Trafficking	0.046*		0.004	0.047**	0.001	0.003	-0.063*	0.005	-0.000	0.015**	-	-0.561**	-0.539**	-	0.104
Tried Marijuana	0.058		-0.008	0.077***	-0.002	0.049*	-0.056	0.013	0.001	0.013	-0.602*	-0.628**	-0.602*	-	0.231
Tried Other Drugs	0.050*		-0.008	0.033**	-0.002	0.005	0.002	0.020	-0.009	0.005	-0.229	-0.217	-0.211	-0.245	0.092
Girls (N=2,313)															
Property Crime			0.010	-0.024	-0.001	-0.016	0.015	0.004	-0.008	-0.002	0.331**	0.336**	0.307**	0.324**	0.063
Mischief	0.042		0.010	-0.024	-0.001	-0.016	0.015	0.004	-0.008	-0.002	0.331**	0.336**	0.307**	0.324**	0.063
Violent Crime			0.010	-0.024	-0.001	-0.061**	0.025	0.012	0.049	0.000	0.281	0.243	0.241	0.231	0.256
Assault - Fight	0.003		-0.016**	-0.025*	-0.002	-0.027*	-0.017	0.009	0.029	0.000	0.223	0.192	0.171	0.192	0.074
Assault - Sexual	0.013		-0.004	-0.012	-	-	0.043	0.012	0.040	-0.001	0.194	0.146	0.155	0.130	0.236
Weapon Possession	-0.017		-0.008	-0.020	-0.001	-0.044**	-0.019	0.019	0.014	0.007	0.261	0.231	0.204	0.253	0.132
Drug Trafficking	-0.002		-0.007	-0.011	-0.003***	0.007	0.010	0.007	-0.015	-0.002	0.290**	0.275**	0.305**	0.268**	0.049
Gang Membership			0.010	0.015	-0.004	-0.027*	-0.017	0.009	0.029	0.000	0.223	0.192	0.171	0.192	0.074
Drugs	0.141***		-0.014	0.020	-0.003	-0.044**	-0.019	0.019	0.014	0.007	0.261	0.231	0.204	0.253	0.132
Tried Marijuana	0.135***		-0.010	0.020	-0.003	-0.044**	-0.019	0.019	0.014	0.007	0.261	0.231	0.204	0.253	0.132
Tried Other Drugs	0.085***		-0.006	0.004	-0.005***	-	-	-	-	-	-	-	-	-	-
Full Sample (N=4,560)															
Property Crime			0.008	-0.019	-0.001	-0.032*	0.028	0.045**	-0.000	-0.005	0.368**	0.351*	0.419**	0.420**	0.196
Mischief	0.096***		0.034	-0.019	-0.001	-0.032*	0.028	0.045**	-0.000	-0.005	0.368**	0.351*	0.419**	0.420**	0.196
Violent Crime			0.008	-0.030**	-0.004***	-0.020	0.046	0.036**	0.008	-0.008*	0.651***	0.661***	0.614***	0.600***	0.205
Assault - Fight	0.145***		-0.011	-0.030**	-0.004***	-0.020	0.046	0.036**	0.008	-0.008*	0.651***	0.661***	0.614***	0.600***	0.205
Assault - Sexual	0.082***		0.020	-0.025**	-0.004***	-0.008	-0.008	0.011	0.005	-0.002	0.506***	0.492***	0.482***	0.471***	0.116
Weapon Possession	0.032***		0.019	-0.002	-0.001*	-0.009	0.036**	0.001	0.005	-0.005**	0.095	0.118*	0.095	0.087	0.049
Gang Membership			0.005	-0.026**	-0.002	-0.018	0.032	0.031*	-0.015	-0.006	0.449***	0.464***	0.429***	0.424***	0.138
Drugs	0.012		-0.007	-0.017**	-0.003***	0.004	0.002	0.009	-0.021**	-0.001	0.369***	0.365***	0.378***	0.371***	0.052
Drug Trafficking	-0.009		0.110***	0.049***	-0.003*	-0.010	-0.003	0.007	0.026	0.005	-0.158	-0.197	-0.182	-0.227	0.239
Tried Marijuana	0.030***		-0.011	0.025***	-0.000	-0.013	-0.040	0.006	0.017	0.007	-0.228	-0.238*	-0.235*	-0.257*	0.079
Tried Other Drugs	-0.004		0.104***	0.051***	-0.003	-0.002	-0.001	0.009	0.022	0.005	-0.222	-0.264	-0.245	-0.293	0.224
Tried Other Drugs	-0.016		0.073***	0.021**	-0.003***	-0.021*	-0.006	0.018	0.004	0.005	0.001	-0.010	-0.020	-0.013	0.104

Data Source: NLSGY Cycles 3, 4, 6 and 7.

Note: 1. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

2. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

3. Inferences are made with standard errors generated using bootstrap weights to account for the complex survey design.

Table B.6: Linear Probability Regressions of the Probability of Being a Young Offender, 16-17 Year Old, Non-Quebec, 2000-2006

Gender - Male	Lone Parent	Number of siblings	Log Household Equivalent Income	PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live Rural Area	Unemployment Rate	year 2000	year 2004	year 2006	R ²
Property Crime													
	0.029	0.004	0.090**	-0.004	-0.034	-0.048	0.016	-0.024	-0.001	-0.428	-0.332	-0.324	0.412
Mischief	-0.020	0.017	0.031	-0.004	-0.072	0.024	0.001	-0.050	-0.013	0.199	0.310	0.310	0.321
Theft	-0.002	-0.006	0.069	-0.002	-0.002	-0.099	0.000	-0.002	0.008	-0.432	-0.433	-0.388	0.265
Violent Crime													
Assault - Fight	0.065	-0.007	-0.006	-0.005	-0.025	-0.019	-0.017	0.010	-0.008	0.569	0.587	0.624	0.267
Assault - Attack	0.035	0.008	-0.010	-0.006**	-0.049**	-0.025	-0.010	0.025	-0.011	0.522*	0.562*	0.567*	0.132
Assault - Sexual	0.095**	-0.024*	0.009	-0.007***	-0.002	-0.005	-0.018	-0.001	0.368	0.393	0.393	0.445	0.155
Weapon Possession	-0.006	0.000	-0.007	0.001	0.009	-0.061*	0.015	0.023	0.061	0.014	-0.029	-0.015	0.061
	0.008	0.006	0.026	-0.005*	-0.022	0.047	-0.010	-0.070**	-0.012	0.174	0.204	0.193	0.160
Gang Membership	0.010	-0.007	0.015	-0.002**	-0.002	0.015	0.008	0.005	-0.002	-0.013	-0.005	-0.012	0.041
Drugs	0.039	-0.008	0.144***	-0.000	-0.016	-0.063	0.045	0.013	0.019	-1.187**	-1.217**	-1.279***	0.427
Drug Trafficking	0.028	-0.020	0.038	-0.002	0.008	-0.068	-0.016	0.012	0.006	-0.191	-0.181	-0.202	0.155
Tried Marijuana	0.042	-0.010	0.149***	0.001	-0.023	-0.050	0.041	0.006	0.016	-1.251***	-1.295***	-1.352***	0.417
Tried Other	0.064	-0.014	0.074**	-0.003	-0.014	-0.056	0.031	0.025	0.010	-0.494	-0.552	-0.576	0.201
Drugs													
Impaired Driving	0.071*	-0.004	0.096***	0.001	-0.047*	0.036	0.072**	0.098***	0.002	-0.951**	-0.952**	-0.975**	0.175
Property Crime													
Mischief	0.045	-0.004	-0.027	0.006*	0.043	-0.002	0.043	-0.015	-0.005	0.180	0.230	0.288	0.271
Theft	0.038	0.001	-0.009	0.001	0.024	0.026	0.001	-0.025	-0.011	0.197	0.275	0.319	0.176
	0.015	0.000	-0.015	0.006*	0.014	-0.013	0.041	0.000	0.002	0.007	0.034	0.019	0.169
Violent Crime	0.011	-0.014	-0.072***	-0.001	-0.012	-0.009	0.003	-0.018	-0.004	0.958***	0.961***	0.976***	0.129
Assault - Fight	-0.007	-0.013*	-0.025***	-0.001	-0.025	-0.014	0.006	-0.004	-0.003	0.390**	0.403**	0.403**	0.059
Assault - Attack	0.019	-0.001	-0.045***	0.000	-0.015	0.016	-0.015	0.001	-0.005	0.548***	0.574***	0.538***	0.079
Assault - Sexual													
Weapon Possession	0.010	-0.007	-0.040**	-0.001	-0.001	-0.040	0.013	-0.027	0.005	0.510***	0.489**	0.518***	0.071
Gang Membership	-	-	-	-	-	-	-	-	-	-	-	-	-
Drugs	0.090	-0.032*	0.075*	0.001	-0.021	-0.066	-0.013	-0.024	0.007	-0.373	-0.372	-0.440	0.425
Drug Trafficking	-0.008	0.000	0.029	-0.001	-0.048*	-0.020	-0.009	-0.000	-0.000	-0.139	-0.122	-0.164	0.087
Tried Marijuana	0.090	-0.028	0.087**	0.000	-0.019	-0.086	-0.012	-0.016	0.009	-0.513	-0.504	-0.579	0.416
Tried Other	0.021	-0.029**	0.000	0.000	-0.066**	0.015	-0.008	0.007	-0.007	0.261	0.248	0.185	0.172
Drugs													
Impaired Driving	0.006	-0.024***	0.017	-0.000	-0.022	0.014	0.037	0.057**	-0.005	-0.023	-0.017	-0.041	0.106
Full Sample (N=2,777)													
Property Crime	0.145***	0.001	0.039	0.001	-0.000	-0.018	0.029	-0.018	-0.004	-0.258	-0.187	-0.158	0.350
Mischief	0.154***	0.009	0.016	-0.002	-0.026	0.032	0.000	-0.037	-0.012*	0.083	0.175	0.195	0.267
Theft	0.091***	0.003	0.032	0.002	0.002	-0.052	0.019	0.001	0.004	-0.303	-0.292	-0.280	0.220
Violent Crime	0.152***	0.037	-0.036	-0.003	-0.022	-0.014	-0.007	-0.002	-0.006	0.646**	0.656**	0.682**	0.223
Assault - Fight	0.070***	0.012	-0.016	-0.003*	-0.038***	0.009	-0.001	0.011	-0.008	0.396**	0.422**	0.425**	0.105
Assault - Attack	0.066***	0.056**	-0.011	-0.003*	-0.011	0.006	-0.017	0.004	-0.007	0.401*	0.425**	0.432*	0.115
Assault - Sexual	0.042***	-0.004	-0.005	0.001	0.005	-0.021	0.009	0.009	0.005	0.003	-0.016	-0.010	0.048
Weapon Possession	0.096***	0.006	-0.004	-0.003**	-0.014	0.004	0.002	-0.048***	-0.003	0.267	0.270	0.278	0.129
Gang Membership	0.017**	0.005	0.007	-0.001**	-0.006	0.011	0.002	0.002	-0.002	0.011	0.017	0.011	0.030
Drugs	-0.010	0.064*	0.114***	-0.000	-0.023	-0.066	0.015	-0.008	0.013	-0.806**	-0.820**	-0.888**	0.423
Drug Trafficking	0.073***	0.011	0.032	-0.001	-0.020	-0.047	-0.012	0.006	0.003	-0.188	-0.174	-0.206	0.128

Continued ...

Table B.6: Linear Probability Regressions of the Probability of Being a Young Offender, 16-17 Year Old, Non-Quebec, 2000-2006

	Gender - Male	Lone Parent	Number of siblings	Log of Household Equivalent Income	PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live in Rural Area	Unemployment Rate	year 2000	year 2004	year 2006	R ²
Tried Marijuana	-0.012	0.066*	-0.018	0.122***	0.000	-0.025	0.014	-0.007	0.013	-0.903***	-0.919***	-0.987***	0.414	
Tried Drugs	0.032	0.042	-0.021**	0.040*	-0.001	-0.044*	0.012	0.015	0.001	-0.165	-0.200	-0.246	0.182	
Impaired Driving	0.053***	0.041*	-0.013	0.060***	0.000	-0.038**	0.021	0.055***	0.078***	-0.001	-0.561**	-0.558**	-0.580**	0.144

Data Source: NLSY Cycles 4, 6 and 7.

Note: 1. _ means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

2. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

3. Inferences are made with standard errors generated using bootstrap weights to account for the complex survey design.

Table B.7: Linear Probability Regressions of the Probability of Being a Young Repeat Offender, 14-15 Years Old, Non-Quebec, 1998-2006

	Gender - Male	Lone Parent	Number of siblings	Log of Household Equivalent Income	PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live in Rural Area	Unemployment Rate	year 1998	year 2000	year 2004	year 2006	R ²
Boys (N=2,247)															
Property Crime	0.022	-0.005	0.006	-0.001	-0.014	0.003	-0.008	-0.023**	-0.001	0.026	0.029	0.053	0.054	0.051	
Mischief	0.022	-0.005	0.006	-0.001	-0.014	0.003	-0.008	-0.023**	-0.001	0.026	0.029	0.053	0.054	0.051	
Violent Crime	0.021*	-0.000	-0.005	-0.002**	-0.007	-0.002	0.005	0.007	-0.002	0.176*	0.188*	0.183*	0.166*	0.041	
Assault	0.009	-0.001	0.005	-0.002***	-0.007	0.007	-0.003	-0.004	-0.003*	0.078	0.088	0.082	0.070	0.031	
Fight	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Assault - Sexual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drugs	0.063**	0.008	0.056***	0.001	0.035	0.015	-0.032	-0.013	-0.000	-0.519**	-0.509**	-0.481**	-0.562**	0.153	
Drug Trafficking	0.007	-0.003	0.009	-0.000	0.002	-0.028	0.012	-0.013	0.008**	-0.126	-0.117	-0.095	-0.130	0.043	
Tried Marijuana	0.071**	0.004	0.056***	0.001	0.038*	0.011	-0.035	0.001	-0.002	-0.530**	-0.511**	-0.488**	-0.561**	0.144	
Tried Other	-0.002	-0.001	0.007	-0.001	-0.006	0.009	0.011	-0.009	0.003	-0.013	-0.023	-0.021	-0.032	0.032	
Drugs Committed	0.080**	0.007	0.047**	0.000	0.021	-0.004	-0.032	-0.016	-0.000	-0.386	-0.365	-0.333	-0.400	0.173	
Any Crime Repeatedly	0.076*	0.006	0.028	-0.003	0.022	0.001	0.040	-0.005	-0.000	0.036	0.069	0.040	0.007	0.241	
At Least 2 Types of Crime Committed	0.062*	-0.002	0.030	-0.002	-0.011	0.009	0.033	-0.002	0.002	-0.147	-0.151	-0.108	-0.165	0.136	
At Least 3 Types of Crime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Girls (N=2,313)															
Property Crime	0.005	-0.001	-0.014**	0.000	0.004	-0.000	-0.005	0.002	-0.002	0.167**	0.163**	0.164**	0.166**	0.023	
Mischief	0.005	-0.001	-0.014**	0.000	0.004	-0.000	-0.005	0.002	-0.002	0.167**	0.163**	0.164**	0.166**	0.023	
Violent Crime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Assault	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fight	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Assault - Sexual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drugs	0.052*	-0.023***	-0.014	-0.004**	-0.023	-0.027	0.014	0.034	0.004	0.445**	0.406**	0.390**	0.429**	0.140	
Drug Trafficking	0.004	-0.006	0.001	-0.002*	-0.025***	-0.018	0.007	0.012	0.002	0.081	0.080	0.072	0.088	0.037	
Tried Marijuana	0.040	-0.018**	-0.012	-0.003*	-0.015	-0.026	0.022	0.039	0.005	0.370**	0.341*	0.327*	0.346**	0.121	
Tried Other	0.047**	-0.002	-0.003	-0.002*	-0.014	0.000	-0.010	0.015	-0.002	0.187*	0.168*	0.156	0.185*	0.062	
Drugs Committed	0.061*	-0.022**	-0.015	-0.004**	-0.023	-0.026	0.009	0.048*	0.003	0.473**	0.440**	0.425**	0.464**	0.148	
Any Crime Repeatedly	0.057*	-0.011	-0.019	-0.005***	-0.046**	0.033	0.037	0.002	-0.003	0.639***	0.596***	0.583***	0.605***	0.165	
At Least 2 Types of Crime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Continued ...

Table B.7: Linear Probability Regressions of the Probability of Being a Young Repeat Offender, 14-15 Years Old, Non-Quebec, 1998-2006

	Gender - Male	Lone Parent	Number of siblings	Log of Household Equivalent Income	PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live in Rural Area	Unemployment Rate	year 1998	year 2000	year 2004	year 2006	R ²	
Committed At Least 3 Types of Crime		0.040	-0.009	-0.015	-0.002*	-0.027*	-0.040	-0.006	0.014	0.004	0.351**	0.327**	0.295*	0.339**	0.094	
							Full Sample (N=4,560)									
Property Crime	0.024***	0.014	-0.003	-0.004	-0.000	-0.005	0.002	-0.007	-0.011	-0.001	0.080	0.078	0.092	0.092	0.039	
Mischief	0.024***	0.014	-0.003	-0.004	-0.000	-0.005	0.002	-0.007	-0.011	-0.001	0.080	0.078	0.092	0.092	0.039	
Violent Crime	0.022***	0.010	-0.000	-0.004	-0.001***	-0.004	-0.002	0.003	0.008	-0.002	0.108*	0.117**	0.110*	0.099*	0.033	
Assault	0.015***	0.003	-0.001	0.003	-0.001***	-0.005	0.005	-0.001	-0.001	-0.002**	0.058	0.062	0.056	0.050	0.025	
Fight	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Assault - Sexual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drugs	0.014	0.063***	-0.009	0.026*	-0.001	0.003	-0.006	-0.011	0.014	0.001	-0.089	-0.107	-0.098	-0.122	0.132	
Drug Trafficking	0.009	0.009	-0.004	0.007	-0.001	-0.012	-0.023	0.009	0.001	0.005*	-0.045	-0.042	-0.035	-0.044	0.031	
Tried Marijuana	0.015	0.061***	-0.008	0.025*	-0.001	0.010	-0.008	-0.008	0.022	0.001	-0.128	-0.137	-0.129	-0.159	0.119	
Tried Other Drugs	-0.018***	0.025**	-0.001	0.003	-0.002**	-0.012	0.006	-0.001	0.004	-0.000	0.091	0.075	0.070	0.079	0.043	
Committed Any Crime	0.033**	0.076***	-0.009	0.020	-0.001	-0.003	-0.015	-0.014	0.019	0.001	-0.016	-0.026	-0.015	-0.031	0.150	
Repeatedly Committed At Least 2 Types of Crime	0.097***	0.071***	-0.003	0.006	-0.004***	-0.013	0.017	0.037*	0.001	-0.002	0.271	0.263	0.244	0.236	0.208	
Committed At Least 3 Types of Crime	0.053***	0.056***	-0.005	0.011	-0.002*	-0.020	-0.014	0.013	0.009	0.002	0.048	0.031	0.040	0.029	0.114	

Data Source: NLSCY Cycles 3, 4, 6 and 7.

Note: 1. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

2. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

3. Inferences are made with standard errors generated using bootstrap weights to account for the complex survey design.

Table B.8: Linear Probability Regressions of the Probability of Being a Young Repeat Offender, 16-17 Year Old, Non-Quebec, 2000-2006

	Gender - Male	Lone Parent	Number of siblings	Log Household Equivalent Income	of PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live Rural Area	in Unemployment Rate	year 2000	year 2004	year 2006	R ²
Boys (N=1,332)														
Property Crime														
Mischief	0.030		-0.009	0.031	-0.005**	-0.028	-0.009	0.026	0.000	-0.001	0.027	0.035	0.013	0.128
Theft	0.020		-0.008	0.010	-0.004***	-0.028	-0.016	-0.002	-0.013	-0.003	0.205	0.240	0.218	0.091
Violent Crime														
Assault - Fight	-0.007		-0.003	0.012	-0.002	-0.004	0.019	-0.023	0.007	-0.002	0.046	0.029	0.044	0.078
Assault - Attack	0.004		-0.004	0.021	-0.003**	-0.024*	0.011	-0.007	0.018	-0.007	-0.001	0.014	-0.007	0.058
Assault - Sexual	0.006		-0.003	0.013	-0.003**	-0.029**	0.010	-0.004	0.007	-0.006	0.055	0.064	0.060	0.047
Drugs	-0.002		-0.004	0.009	-0.002**	-0.025**	0.001	-	-0.003	-	0.024	0.047	0.044	0.038
Drugs														
Drug Trafficking	0.062		0.006	0.109***	0.001	0.009	-0.111*	0.006	-0.011	0.018	-0.997**	-1.035**	-1.078**	0.287
Tried Marijuana	0.025		-0.006	0.022	0.002	-0.011	0.003	-0.015	0.002	-0.004	-0.203	-0.198	-0.212	0.070
Other	0.046		0.003	0.112***	0.001	0.005	-0.104	0.020	-0.022	0.018	-1.080**	-1.095**	-1.148**	0.274
Drugs	0.040		-0.009	0.011	-0.002	-0.013	-0.000	0.012	0.036	0.005	-0.004	-0.026	-0.027	0.070
Impaired Driving														
Committed Any	0.043*		-0.002	0.034*	0.001	-0.014	0.051	0.042**	0.038**	-0.005	-0.353	-0.374	-0.375	0.075
Committed At Least 2 Types of Crime	0.075		0.003	0.127***	-0.000	0.003	-0.089	0.052	0.008	0.014	-1.091**	-1.130**	-1.152**	0.346
Least 2 Types of Crime														
Committed At Least 3 Types of Crime	0.074		0.000	0.083*	-0.000	-0.041	-0.137*	0.006	-0.020	0.016	-0.520	-0.509	-0.483	0.433
Committed At Least 3 Types of Crime														
Committed At Least 3 Types of Crime	0.075		-0.020	0.093**	-0.008**	-0.017	-0.064	0.006	0.044	0.003	-0.330	-0.312	-0.359	0.302
Girls (N=1,445)														
Property Crime														
Mischief	-0.015		0.002	-0.029*	-0.002	-0.013	0.003	0.011	-0.027	-0.003	0.483**	0.496**	0.470**	0.074
Theft	0.005		0.001	-0.023**	-0.000	0.001	0.009	0.006	0.004	-0.004	0.297**	0.322**	0.303*	0.043
Violent Crime														
Assault - Fight	-0.017		-0.007	-0.021	-0.003**	-0.006	-0.008	0.006	-0.027*	-0.000	0.417**	0.409**	0.411**	0.057
Assault - Attack	-		-	-	-	-	-	-	-	-	-	-	-	-
Assault - Sexual	-		-	-	-	-	-	-	-	-	-	-	-	-
Drugs														
Drug Trafficking	0.071*		-0.015	0.016	-0.005*	-0.045	0.038	-0.068*	-0.035	-0.012	0.373	0.412	0.348	0.213
Tried Marijuana	0.078**		-0.009	0.022	-0.005**	-0.037	0.016	-0.065*	-0.021	-0.010	0.286	0.318	0.263	0.195
Other	0.014		-0.017*	-0.039**	-0.000	-0.016	0.056	0.009	-0.014	-0.009	0.552**	0.566**	0.555**	0.081
Impaired Driving														
Committed Any	-0.001		-0.010**	-0.008	-0.000	-0.011	0.007	0.013	0.014	0.001	0.126	0.123	0.114	0.037
Committed At Least 2 Types of Crime	0.055		-0.016	0.017	-0.003	-0.070**	0.002	-0.043	-0.024	-0.004	0.302	0.324	0.244	0.246
Committed At Least 2 Types of Crime														
Committed At Least 3 Types of Crime	0.042		-0.024	0.014	0.005	-0.021	-0.027	-0.006	0.008	-0.003	-0.030	-0.003	-0.062	0.300
Committed At Least 3 Types of Crime														
Committed At Least 3 Types of Crime	0.036		-0.005	0.016	0.002	-0.063*	-0.006	-0.039	0.017	-0.006	-0.036	0.008	-0.067	0.184
Full Sample (N=2,777)														
Property Crime														
Mischief	0.058**		-0.003	0.003	-0.003**	-0.023	-0.005	0.018	-0.012	-0.002	0.204	0.215	0.191	0.105
Theft	0.053**		-0.003	-0.005	-0.002**	-0.014	-0.001	0.002	-0.002	-0.004	0.209	0.239	0.217	0.073
Violent Crime														
Assault - Fight	0.030**		-0.004	-0.003	-0.002**	-0.007	0.014	-0.003	-0.010	-0.001	0.203	0.191	0.200	0.067
Assault - Attack	0.032**		-0.005	0.007	-0.001	-0.017**	0.007	-0.003	0.006	-0.004	0.032	0.032	0.022	0.043
Assault - Sexual	0.023**		-0.003	0.004	-0.002**	-0.018**	0.004	0.000	0.001	-0.003	0.078	0.080	0.083	0.037

Continued ...

Table B.8: Linear Probability Regressions of the Probability of Being a Young Repeat Offender, 16-17 Year Old, Non-Quebec, 2000-2006

	Gender - Male	Lone Parent	Number of siblings	Log of household equivalent income	of	PMK Age	PMK Has University Degree	Atlantic Canada	Western Canada	Live in Rural Area	Unemployment Rate	year 2000	year 2004	year 2006	R ²
Assault - Attack	0.016**	0.008	-0.004*	0.003	-	-0.001	-0.016**	0.004	0.000	-0.002	-0.002	0.021	0.034	0.031	0.028
Assault - Sexual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drugs	0.071***	0.071**	-0.002	0.067**	-0.002	-0.002	-0.021	-0.044	-0.031	-0.026	0.004	-0.392	-0.390	-0.444	0.246
Drug Trafficking	0.040***	0.010	-0.001	0.016	0.001	0.001	-0.008	-0.005	-0.015	0.005	-0.001	-0.173	-0.152	-0.179	0.059
Tried Marijuana	0.075***	0.067**	-0.000	0.071***	-0.002	-0.002	-0.019	-0.052	-0.024	-0.023	0.005	-0.470	-0.461	-0.515	0.232
Tried Other	-0.004	0.026	-0.012**	-0.011	-0.001	-0.001	-0.017	0.027	0.010	0.010	-0.002	0.251*	0.248*	0.241*	0.069
Drugs															
Impaired Driving	0.025***	0.023	-0.005	0.015	0.001	0.001	-0.014	0.024	0.028**	0.026**	-0.001	-0.146	-0.157	-0.161	0.055
Committed Any	0.098***	0.071**	-0.004	0.076***	-0.002	-0.002	-0.038	-0.052	0.004	-0.009	0.006	-0.493	-0.500	-0.552*	0.296
Crime Repeatedly															
Committed At Least 2 Types of Crime	0.132***	0.058	-0.011	0.054*	0.003	0.003	-0.035	-0.077	0.001	-0.005	0.006	-0.410	-0.393	-0.411	0.376
Committed At Least 3 Types of Crime	0.114***	0.049	-0.012	0.056**	-0.003	-0.003	-0.043	-0.034	-0.017	0.031	-0.003	-0.253	-0.221	-0.287	0.250

Data Source: NLSCY Cycles 4, 6 and 7.

Note: 1. - means that this output is suppressed by Statistics Canada's Research Data Centre due to confidentiality reasons.

2. *, ** and *** mean 10%, 5% and 1% level significance, respectively.

3. Inferences are made with standard errors generated using bootstrap weights to account for the complex survey design.