# Participation in crime among children and young adults: Changes over time 

Keith Soothill, Elizabeth Ackerley and Brian Francis

## Lancaster University, UK

ESRC National Centre for Research Methods

> NCRM Working Paper Series

10/06

# PARTICIPATION IN CRIME AMONG CHILDREN AND YOUNG ADULTS: CHANGES OVER TIME 

## Keith Soothill, Elizabeth Ackerley and Brian Francis

KEITH SOOTHILL is Emeritus Professor of Social Research in the Department of Applied Social Science, Lancaster University, UK.

ELIZABETH ACKERLEY is a research associate in the Centre for Applied Statistics, Lancaster University, UK.

BRIAN FRANCIS is Professor of Social Statistics and Director, Centre for Applied Statistics, Lancaster University, UK.

SUBMITTED TO CRIMINOLOGY AND CRIMINAL JUSTICE

Corresponding Author: Brian Francis
Address for correspondence:
Brian Francis,
Centre for Applied Statistics
Fylde College
Lancaster University, Lancaster LA1 4YF
UK
E-mail: B.Francis@Lancaster.ac.uk
Tel: 01524 593061 Fax: 01524593429

Word Count: 4572 (text only); 5360 (text, references and tables)


#### Abstract

This study focuses on crime participation - that is, the numbers and proportion of the population in England and Wales who are convicted of a crime between the ages of 10-25. Data on over 47,000 male and 10,000 female offenders for six specific birth cohorts (those born in 1953, 1958, 1963, 1968, 1973 and 1978) was extracted from the Offenders Index. We related convictions in three age groups (10-15, 16-20, 21-25) to population estimates for these age groups.

Striking differences in the participation rates over time were observed for both males and females. There is a remarkable decline among the 10-15 age group for more recent cohorts which echoes the increasing use of court diversionary procedures in this age group. There is no corresponding increase in participation for the later age groups. These figures suggest that efforts in the 1980s and early 1990s to divert offenders away from court convictions have been successful, and that such diversionary schemes need to be encouraged.


KEYWORDS: Prevalence, crime trends, England and Wales, young offenders, gender

## INTRODUCTION

Changing rates of participation in crime is a neglected issue in criminological discussion. In fact, participation rates tend to be regarded as rather static phenomena. Usually, derived from classic longitudinal studies, we are told of participation rates at particular age points. So, for example, the Cambridge Study of Delinquent Development notes that, of a cohort of males born in 1952-4 in the locality of south-east London, 33\% had obtained a criminal conviction by the age of 25 (Farrington and Wikström, 1994). In contrast, the national figures for England and Wales focusing on a similar period, which are derived from a 1 in 13 birth cohort of those born in 1953, indicate that $22 \%$ of males and $4 \%$ of females had obtained a criminal conviction by the age of 22 (Prime et al., 2001), a rather lower figure. Differences, of course, will emerge when different geographical areas are considered. These figures tend to be routinely quoted without much consideration as to whether such proportions are constant or, in fact, do change over time. Internationally, Carrington et al (2005), in a meta-analysis reports on only four additional studies (including their own) which follow up a birth cohort and report court conviction prevalence rates; none of these consider changes over time. An important exception is the already quoted study of Prime et al (2001) where broad changes over time are considered.

This paper is an attempt to probe the issue of temporal changes in prevalence with three specific objectives in mind:

1. Do the crime participation rates for those aged 10-15 years vary over time?
2. Do the crime participation rates for those aged 16-20 years vary over time?
3. Do the crime participation rates for those aged 21-25 years vary over time?

What binds these three objectives together is a further consideration of the interrelationship between these three age-bands in terms of participation. So, for example, if there is a lower participation rate in the 10-15 age group compared with an earlier period, is this matched by a higher participation rate in the 16-20 age group? This illustration highlights important theoretical questions. Is there a constant overall proportion who become 'trapped' in criminal activity but with a fluctuating entry age or are there genuine shifts in the overall crime participation rates over time? The questions, of course, are comparatively easy to pose, but much more complex in terms of finding answers. The methodology is, in fact, crucial for it provides the contours of the type of answer that can be provided.

## METHODLOGY

'Participation in crime' is a seductive title but impossible to probe by simply using official records. Official records - as the name suggests - record the criminal activity known to officials. To go beyond this, one can interview potential offenders to ask questions of their criminal behaviour. However, this approach provides no scope for capturing historical information. Hence, in declaring from the outset that this study is based on official records which record court convictions over time, one also needs to recognize from the outset that apparent changes in crime participation rates, using court conviction data, may be measuring changes in administrative procedures (what we term as 'system changes') as much as actual changes in offending behaviour (what we terms as
'behaviour changes’). The distinction is an important one and thus, using conviction data, the story is probably as much about the management of crime as about the perpetration of crime.

Focusing on conviction data has the obvious drawback that a conviction is quite far removed from the act of committing a crime for, after all, a crime may be committed but the perpetrator may not be traced, may not be charged even if traced, and not convicted even if charged.

However, focusing on conviction data in England and Wales has at least two crucial advantages - one of theoretical importance and one of practical interest. Having a conviction has been regarded, particularly since the interest in labelling theory in the late 1960s/early 1970s, as a potential entry point to a criminal career. 'Labelling theory' has tended to encourage the view that a court conviction should be avoided, if possible. Court diversionary schemes, cautions and warnings, increasingly introduced from the late 1970s onwards, are part of the panoply to avoid a court appearance, particularly for youngsters and especially for less serious offences. The evidence as to whether such procedures are successful is mixed, but the point remains that a conviction (or not) is pivotal in such discussions.

The practical advantage of using conviction data is, in contrast, much more straightforward. The Offenders Index (OI) provides a comprehensive data source for convictions, being a court-based database of all 'standard list’ criminal convictions in

England and Wales from 1963 to the present day. Standard list convictions include all offences triable at crown court and the more serious offences which are triable at magistrates courts only or in either court system. Criminal convictions are recorded for all offenders aged 10 or over, which is the age of criminal responsibility in England and Wales. A linking scheme carried out by the Home Office links court convictions together to construct criminal histories for individual offenders. There is no information on arrests or on cautions or warnings issued by the police - it is purely a database of court convictions. Moreover, we have no dates of offending; only sentencing dates are present.

In this study, we are concerned with the Offenders Index cohort data. This is a subset of the Index consisting of six 'birth cohorts’ - a sample of all offenders born in four specified weeks (one in each of March, June, September and December) in 1953, 1958, 1963, 1968, 1973 and 1978, with conviction histories recorded until the end of $1999^{i}$. In total, there are over 47,000 male offenders and 10,000 female offenders in the six cohorts.

The Offenders Index can include non-standard list offences when a conviction for one or more of these occurs at the same time as a conviction for a standard list offence. As these offences are not consistently recorded for offenders, they were discarded from our analysis.

So far as the standard list itself is concerned, the Offenders Index is remarkably consistent over time, with very few significant crimes being added to or deleted from the
definition of standard list offences. However, a study by Soothill, Ackerley and Francis (2004) identified two offences - 'drink driving’ and ‘driving whilst disqualified’ - that were classed as standard list offences only from 1996. Due to these offences coming onto the Offenders Index, there appears to be a sudden rise in the number of people being first convicted, particularly at later ages. To ensure consistency, these offences have been removed from this analysis. Around 3,200 males and 500 females were therefore discarded from the data.

The Offenders Index is limited in so far as it is not a true longitudinal study, but simply a collection of criminal convictions linked together into a set of criminal histories. However, some individuals will not be present in England and Wales for the entire study period - some will be immigrants into England and Wales, some will have emigrated from England and Wales, and others will have died. Yet other offenders will be transitory visitors to England and Wales, perhaps staying only one or two months or years in the jurisdiction. It is worth pointing out that such immigration and emigration might still be within the UK, with offenders moving between England and Wales, Scotland and Northern Ireland. The exposure time for individuals will thus vary, and we have no information on the individual immigration, emigration history and death status of the offenders.

As already noted, the Offenders Index birth cohorts are an approximate onethirteenth sample of the offending population in England and Wales born in the selected years. However, by using the general population of 10-25 year olds in the appropriate
years as a baseline figure, fluctuations in population can be allowed for. This enables us to estimate the proportion of 10-25 year olds overall who participate in 'official' offending behaviour. The estimate of the number of offenders is obtained by multiplying the number from the OI cohort by 13 , to approximate the total which would be found if the cohorts were a complete birth year, rather than the four selected weeks.

Defining the 'general population of 10-25 year olds in the appropriate years', however, is not straightforward. Taking, for example, the second of our three age groups, we see that all those born in 1953 have their $16^{\text {th }}$ birthday in 1969 , and their $17^{\text {th }}$ birthday in 1970. The respective mid-year population estimates of 16 year olds in 1969 and 17 year olds in 1970 are 666,700 and 667,500. 16 year olds in 1969 go on to be 17 year olds in 1970, but the estimates are not the same due to increases from immigration, and decreases from emigration and death. Therefore we cannot simply take, for example, the number of 16 year olds in 1969 and assume this will be the same number of 17 year olds in 1970, 18 year olds in 1971, etc., therefore giving the number of 16-20 year olds between 1969 and 1973. The solution chosen was to calculate the mean of the population aged 16 in 1969, aged 17 in 1970, aged 18 in 1971, aged 19 in 1972 and aged 20 in 1973, and use this as the best estimate of the population aged 16-20 in 1969-1973 (and therefore born in 1953). This was done for males and females separately, for the $10-15$, the 16-20 and 21-25 year olds, and for each cohort.

It also has to be recognised that the population figures are available as mid-year estimates for a particular age, while our conviction data is concerned with activity during
the period the offender was aged 10-25. This necessarily means that, while there is a large amount of overlap in the definitions, there is not an exact match. The birthdays of the OI cohort offenders fall in March, June, September and December, and so (again taking the 16-20 years olds as our example) they enter the 16-20 period on the day and month of their birthday in the first year in the range (e.g. 1969 for the 1953 cohort). They then remain in it until the eve of their $21^{\text {st }}$ birthday, which will fall in the year after the end of the range (e.g. 1974, instead of 1973 for the 1953 cohort).

## RESULTS

The results are presented separately for males and females and, first of all, for each age-band (i.e. 10-15, 16-20, 21-25) separately. Avoiding the conventions of a detective novel where the outcome is not revealed to the end, we contend that there have been enormous shifts over time. Of that, there seems little doubt. What is much more contentious - and will be left to the 'Discussion' section - is trying to interpret the findings. While we maintain we can bring to some closure the factual information of what has happened between 1963 and 1999 - a period of 36 years - what it all means will probably a matter of some further debate.

## Participation rates of 10-15 year olds

Table 1(a) (males) and 1(b) (females) identify massive shifts over time in the use of conviction for both males and females. For the 1953 male birth cohort (aged 10 to 15 in the years 1963-1968), nearly 30,000 were given at least one conviction. In contrast, for the 1978 male birth cohort (aged 10 to 15 in the years 1988-1993), less than 7,000
were given at least one conviction. In fact, as Table 1(a) shows, the highest proportion of 10-15 year olds given a conviction was the 1958 male birth cohort when nearly one in ten (or 9.4\%) of that birth cohort had the stigma of a criminal conviction. Interestingly, there were even more young boys $(37,895)$ given a criminal conviction in the next $(1963)$ birth cohort, but the proportion (9.1\%) so convicted had actually begun to fall, due to the rise in population. This difference illustrates the importance of monitoring both proportions and the actual numbers, for they may not always coincide.
(Tables 1a and 1b around here)

The females show a similar pattern to the males, but the shifts are perhaps less extreme. Certainly the fall in the numbers of females convicted - from 4,537 in the 1953 birth cohort to 1,261 in the 1978 birth cohort - remains dramatic; similarly, the percentage fall in the participation rate from $1.4 \%$ for the 1953 cohort to $0.5 \%$ for the1978 cohort also follows similar lines. In the case of the females, the highest number convicted $(6,864)$ and the highest proportion convicted $(1.7 \%)$ coincide in terms of both figures are generated within the 1963 birth cohort.

It is interesting to compare males and females in terms of the percentage drop in number of 10-15 year olds convicted from the earliest to the latest cohorts. The change in the associated populations is very similar - a $12.5 \%$ fall in the male population figures from the 1953 cohort to the 1978 cohort, and a corresponding $12.8 \%$ fall in the female population figures - indicating that such a comparison is valid. There are $76.8 \%$ fewer
males born in 1978 who were convicted aged 10-15 compared to the number so convicted who were born in 1953. The fall for the females is $72.2 \%$, a remarkably similar proportion.

If the penal policy aim has been simply to reduce the numbers and proportions of this age group (10-15 years) having a criminal conviction, then Table 1 demonstrates an incredible success story. In the late 1960s and early 1970s approaching one in ten males had a criminal conviction by the age of 15 years, while by the late 1980s and early 1990s, less than one in forty males had a criminal conviction by this age. While the proportion involved in crime was much lower for females, the decline in the proportions between these time periods was also marked for females - from around one in sixty females getting a criminal conviction to one in two hundred. What, of course, underlies these shifts is not clear. Is it a behavioural shift (that is, fewer young males and females involved in crime) or is it a system shift (that is, young persons committing crime are being dealt with in a different way)? While a combination of these two explanations is probable, it is tempting to see the shift as much more of a system change with the effect of the panoply of cautions, warnings and other diversionary tactics being introduced during this period.

Having discovered this pattern for 10-15 year olds, is there a similar shift among males and females aged between 16 and 20 years?

## Participation rates of 16-20 year olds

In some ways Table 2 tells a similar story to Table 1. The highest number of males and females awarded a criminal conviction was for the 1963 birth cohort - 79,768 males and 15,301 females - so suggesting a cohort effect. However, this cohort also involved the highest estimated populations, so considering the proportions convicted among each cohort becomes important. However, for both males and females, again the 1963 birth cohort produces the highest proportions $-19.0 \%$ of the males and $3.8 \%$ of the females - so supporting the notion of a cohort effect.
(Table 2a and 2b around here)

From these peaks there are declines in the numbers and proportions convicted among the later cohorts, but the pattern is certainly less marked than for the 10-15 year olds. Indeed, interestingly, among the females, the same proportion (2.4\%) was convicted in the 1953 cohort (the first cohort) and the 1978 cohort (the last cohort).

In short, although there are shifts, it is tempting to suggest that Table 2 provides evidence of a similar proportion of the criminal behaviour of this age-group being 'captured' over time by official agencies leading to a conviction. As a corollary, any potential system changes, such as the introduction of warnings, cautions, etc. are not making a similar impact on this age group. However, it is at this point that one can begin to examine the real impact of the system changes previously identified in dealing in the 10-15 year olds. The crucial question is whether the introduction of court diversionary
schemes means that youngsters now avoiding a criminal conviction while they are in the 10-15 age group continue to avoid an involvement in courts, or do early diversionary schemes simply delay the time of being awarded a criminal conviction? To some degree this issue can be resolved by considering the relationship between the convictions awarded in the two age groups.

Relationship between the conviction rates for the 10-15 and 16-20 age groups
Whether diversionary schemes result in an avoidance of or a delay in obtaining a conviction can be examined by interrogating the inter-relationship between the records of those convicted in the 10-15 and 16-20 age groups. Essentially they divide between those who have had a conviction while in the earlier age-group (10-15 years), regardless of whether or not they also have a conviction aged 16-20, and those who are new entries aged 16-20 (that is, they had no convictions in the earlier age group). Table 3 shows these figures together with the average cohort population aged 10-20 (estimated in the same way as previously), and a final column that indicates the cumulative percentage who have a criminal conviction prior to the age of 21 for each of the six cohorts.
(Table 3 around here)

Table 3 provides rather convincing evidence that, if the aim of court diversionary techniques was to avoid young persons gaining a conviction, then the policy has been remarkably successful. There is little to suggest that the rapid decline in convictions over the quarter of a century for the 10-15 age group has been 'compensated' by a massive
growth of new entries in the 16-20 age group - if this had happened, it would have provided evidence that court diversionary techniques simply delay the onset of a criminal conviction. In fact, for both males and females, the cumulative percentage of those obtaining a conviction has declined from a peak of $22.4 \%$ in the 1963 birth cohort for the males to $13.6 \%$ for the 1978 birth cohort. Similarly, for females, the peak is in the 1963 birth cohort, at 5.0\%, and drops to $2.6 \%$ for both the 1973 and 1978 birth cohorts. In other words, we maintain that there would be around 33,000 persons (that is, both males and females) in the 1978 cohort who now do not have a criminal conviction, but would probably have done so if they had been involved in the system operating for the 1963 cohort. So, to repeat, court diversionary techniques seem to have been remarkably successful in this respect.

However, there are important provisos. The above conclusion assumes that the results are the outcome of system changes and that behaviour has remained more or less constant over time. In other words, it has been assumed that, in broad terms, some criminal behaviour sanctioned by the court in the earlier period has sanctions not involving the court in the later period - or that their deviant behaviour has been overlooked in the later period. However, behaviour does - or perhaps may - change: the behaviour of an age-group in one era may not necessarily be the same as the behaviour of the same age-group in another era. We return to this issue in the 'Discussion' section. Meanwhile, the present dataset provides scope for using five of the cohorts to examine whether participation rates change among the 21-25 age groups ${ }^{\mathrm{ii}}$.

## Participation rates of 21-25 year olds

Table 4 shows a new pattern. Again - and not unexpectedly - however, the 1963 birth cohort has the largest number of males $(56,316)$ and females $(10,309)$ with a criminal conviction amongst this age group. But, as the column showing the proportions convicted demonstrates, this is largely the effect of the 1963 birth cohorts having the largest estimated population.
(Table 4 around here)

The new pattern in Table 4, certainly among the males, is the similarity of the proportions convicted between 21 and 25 years in each of the five cohorts. Around one in eight of males in each cohort are so convicted while in this age group. For the females, there is a decline among the two later, 1968 and 1973, cohorts, which is surprising as we were expecting a rise in female participation. However, in broad terms, one can say that around one in fifty of females in each cohort are so convicted within this age band.

We suggest that this apparent consistency of crime participation - measured by conviction rates - reflects the fact that there are no major initiatives involving system changes during the quarter of a century of interest that directly affect this age group. Nevertheless, there are still questions to be raised. Is there, for example, also a consistent pattern of new entries in this age group or are there a larger number of recidivists from earlier age groups among some cohorts than others? Again, this type of question can be probed by interrogating more closely the record of those convicted in the whole 10-25
age range. The important divide remains between those who had a conviction in one or both of the earlier age groups (i.e. 10-15 years and/or 16-20 years), regardless of whether or not they went on to be convicted aged 21-25, and those who are new entries aged 2125 (that is, with no convictions when they were in the earlier age groups).
(Table 5 around here)

We have already dismissed the notion that the massive fall in convictions among the 10-15 age group for the later cohorts is 'compensated' by a significant rise in new entries among the16-20 age group for the later cohorts. In terms of fulfilling the aim of diverting youngsters from the court system, we contend that the court diversionary schemes have been successful in effecting this. Table 5 provides a check of whether the possible compensatory delay does not happen until they reach the 21-25 age group. In other words, are those who seem to be avoiding a criminal conviction in their early years entering the court system for the first time in their early 20s? Table 5 suggests there is little evidence of this. As was the situation with age 16-20, there is no sudden rise in new entries at age 21-25 for the later cohorts.

Following the evidence presented in Table 4, Table 5 endorses the notion that little seems to have changed over the years in relation to new entry and recidivism rates for this age group of 21-25 years. Indeed, it is noticeable just how constant the number of new entries is across all five cohorts for the males, given the population shifts approximately 1 in 20 of the male population aged 10-25 obtains a criminal conviction
for the first time when aged between 21 and 25 . However, a different picture for females is emerging from this table. From a much lower baseline, the proportion of new entrant females aged between 21-25 is declining from 2 in 100, to closer to 1 in 100 over the cohorts. Hence, recent concerns about rising female participation in crime are not supported by the evidence for the 21-25 age group for this period.

## DISCUSSION AND CONCLUSIONS

Changes in crime participation over time will reflect either system or behavioural changes. The former type of change may mask actual changes in criminal behaviour. If certain types of behaviour are less readily processed through the courts, there is no knowing - with just conviction data - whether the actual behaviour has decreased or remained the same or perhaps even increased. However, by focusing on court conviction data, we can reveal changes in court activity.

We maintain that there have been some quite remarkable shifts over the quarter of the century from 1963 to 1999. However, the patterns are rather different for each age group. Of the 10-15 age group, the most striking feature is the decline both in numbers of offenders and in participation rates for the more recent cohorts. There is an argument that offenders not brought before the court aged 10-15 will simply delay their participation by becoming convicted in later age groups, but there is no evidence to support this. We looked at new entrants into participation for both the 16-20 and the 21-25 age groups; in recent cohorts, numbers have declined and not increased.

More generally, for the crucial age groups of 16-20 and 21-25, and looking both at new entrants and those already in the system, we observed a substantial decline in participation; this decline was present for both males and females.

So what are the implications? There is certainly a prima facie case for suggesting that the system changes of court diversionary procedures by the increased use of cautions, warnings etc. have been beneficial. We estimate, for example, that around 26,300 males and 6,700 females in the mid 1990s who would have been 'captured' by a court conviction in an earlier regime avoided the acquisition of a criminal conviction. Does it matter? We strongly suggest that it does. With the increased use of searches of past criminal records by employers and others and with little control of how such information is used, it is important that young people do not have the stigma of a criminal conviction for quite trivial behaviour. The danger is that such a conviction could endanger their job opportunities in their more mature years.

A potential drawback of a court diversionary system is if it simply delays the onset of an official criminal career characterised by court convictions. While 'delay’ may be actually cost-effective, the hope was always that the avoidance of the stigma of a criminal conviction would not be just a temporary phenomenon. The evidence in this paper suggests that the danger of 'delay' is a largely unsubstantiated fear when the impact on different age groups is considered. In other words, while it seems likely there would be some who collected their first criminal conviction later rather than earlier, there was
still a substantial number who fully avoided the stigma of a criminal conviction as a result of system changes towards court diversionary tactics for younger miscreants.

Of course, system changes are only one part of the possible repertoire of change. Behaviour changes are the other source. The present analysis tells nothing of the nature of the criminal behaviour that comes to the notice of the court. While, for instance, just over one in ten males and one in fifty females come in rather consistently for each cohort as new entries aged 16-20, there is no indication in this analysis whether similar types of behaviour for each cohort leads to a conviction within this age group. For that type of question, different kinds of data and analysis are required. In contrast, this paper had a more modest ambition; it explored participation rates, defined in terms of a court conviction and has usefully demonstrated that there are considerable differences over time. We suggest that these changes - and their successes - have not been fully recognised. We maintain that court diversionary schemes should be maintained and developed, and we oppose any retrenchment of such schemes. We wish to encourage the notion that some change at least during the latter third of the $20^{\text {th }}$ Century, 1963-1999, was beneficial in terms of avoiding the stigma of a criminal conviction for a substantial number of young people.

## Notes

This work was undertaken as part of the research of the Lancaster/Warwick Node of the ESRC National Centre for Research Methods (grant number RES-576-25-5020). We thank the Office for National Statistics for the provision of population figures for England and Wales.
${ }^{i}$ A public version of the dataset with a shorter follow-up time is available from the ESRC Data Archive (http://www.data-archive.ac.uk/)
${ }^{\text {ii }}$ As the criminal histories from the OI are available only until the end of 1999, those born in 1978 will have their $21^{\text {st }}$ birthday within the follow-up period, but cannot be observed for the full 21-25 age group.

## References

Carrington, P.J., A. Matarazzo, and P. deSouza (2005) ‘Court careers of a Canadian birth cohort', Crime and Justice Research Series 85-561-MWE2005006. Statistics Canada.

Farrington, D.P. and P.-O. H. Wikström. (1994) ‘Criminal careers in London and Stockholm: A cross-national comparative study', in E.G.M. Weitekamp and H.-J. Kerner (eds.) Cross-national longitudinal research on human development and criminal behaviour. Dordrecht, The Netherlands: Kluwer Academic Publishers

Prime, J., S. White, S. Liriano and K. Patel. (2001) Criminal careers of those born between 1953 and 1978. UK Home Office Statistical Bulletin 4/01

Table 1a: MALES - Participation rates of 10-15 year olds

| Birth cohort | Estimated male population (10-15) | Estimated number of males with conviction aged 10-15 | \% of males <br> with <br> conviction <br> Aged 10-15 |
| :---: | :---: | :---: | :---: |
| 1953 (10-15 in 1963-1968) | 338,033 | 29,666 | 8.8 |
| 1958 (10-15 in 1968-1973) | 366,483 | 34,554 | 9.4 |
| 1963 (10-15 in 1973-1978) | 414,883 | 37,895 | 9.1 |
| 1968 (10-15 in 1978-1983) | 401,955 | 31,096 | 7.7 |
| 1973 (10-15 in 1983-1988) | 347,917 | 12,831 | 3.7 |
| 1978 (10-15 in 1988-1993) | 295,757 | 6,877 | 2.3 |

Table 1b: FEMALES - Participation rates of 10-15 year olds

|  | Estimated <br> female <br> population <br> $(10-15)$ | Estimated <br> number of <br> females with <br> conviction <br> aged 10-15 | \% of females <br> with <br> conviction <br> Aged 10-15 |
| :--- | :--- | :--- | :---: |
| Birth cohort | 319,333 | 4,537 | 1.4 |
| 1953 (10-15 in 1963-1968) | 344,567 | 5,330 | 1.5 |
| $1958(10-15$ in 1968-1973) | 392,917 | 6,864 | 1.7 |
| $1963(10-15$ in 1973-1978) | 3917 | 1.2 |  |
| $1968(10-15$ in 1978-1983) | 381,387 | 4,524 | 0.5 |
| $1973(10-15$ in 1983-1988) | 327,473 | 1,638 | 0.5 |
| $1978(10-15$ in $1988-1993)$ | 278,478 | 1,261 |  |

Table 2a: MALES - Participation rates of 16-20 year olds

|  | Estimated <br> male <br> population <br> $(16-20)$ | Estimated <br> number of <br> males with <br> conviction <br> aged 16-20 | \% of males <br> with <br> conviction <br> Aged 16-20 |
| :--- | :--- | :--- | :---: |
| Birth cohort | 342,800 | 49,348 | 14.4 |
| $1953(16-20$ in 1969-1973) | 366,720 | 61,191 | 16.7 |
| $1958(16-20$ in 1974-1978) | 419,913 | 79,768 | 19.0 |
| $1963(16-20$ in 1979-1983) | 413,907 | 70,122 | 17.3 |
| $1968(16-20$ in 1984-1988) | 405,907 |  |  |
| $1973(16-20$ in 1989-1993) | 353,446 | 49,374 | 14.0 |
| $1978(16-20$ in 1994-1998) | 299,297 | 38,558 | 12.9 |

Table 2b: FEMALES - Participation rates of 16-20 year olds

|  | Estimated <br> female <br> population <br> $(16-20)$ | Estimated <br> number of <br> females with <br> conviction <br> aged 16-20 | \% of females <br> with <br> conviction <br> Aged 16-20 |
| :--- | :--- | :--- | :---: |
| Birth cohort | 327,700 | 7,865 | 2.4 |
| $1953(16-20$ in 1969-1973) | 351,240 | 11,726 | 3.3 |
| $1958(16-20$ in 1974-1978) | 15,301 | 3.8 |  |
| $1963(16-20$ in 1979-1983) | 402,540 | $15,3,219$ | 2.9 |
| $1968(16-20$ in 1984-1988) | 386,278 | $11,2.3$ |  |
| $1973(16-20$ in 1989-1993) | 332,819 | 7,722 | 2.3 |
| $1978(16-20$ in $1994-1998)$ | 282,541 | 6,734 | 2.4 |

Table 3a: MALES - Participation rates of 10-20 year olds indicating new entrants aged 16-20

|  | Estimated number of <br> males with conviction: |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Birth <br> cohort | Age 10-15 | Age 16-20, <br> but not <br> $10-15$ | Estimated male <br> population age <br> $10-20$ | \% of male population <br> with conviction age <br> $10-20$ |
| 1953 | 29,666 | 34,320 | 340,200 | 18.8 |
| 1958 | 34,554 | 41,665 | 366,591 | 20.8 |
| 1963 | 37,895 | 55,757 | 417,170 | 22.4 |
| 1968 | 31,096 | 50,466 | 403,751 | 20.2 |
| 1973 | 12,831 | 40,183 | 350,430 | 15.1 |
| 1978 | 6,877 | 33,455 | 297,366 | 13.6 |

Table 3b: FEMALES - Participation rates of 10-20 year olds indicating new entrants aged 16-20

|  | Estimated number of <br> females with <br> conviction: |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Birth <br> cohort | Age 10-15 | Age 16-20, <br> but not <br> $10-15$ | Estimated <br> female <br> population age <br> $10-20$ | \% of female <br> population with <br> conviction age 10-20 |
| 1953 | 4,537 | 7,085 | 323,136 | 3.6 |
| 1958 | 5,330 | 10,504 | 347,600 | 4.6 |
| 1963 | 6,864 | 13,026 | 397,291 | 5.0 |
| 1968 | 4,524 | 9,815 | 383,610 | 3.7 |
| 1973 | 1,638 | 7,007 | 329,903 | 2.6 |
| 1978 | 1,261 | 6,084 | 280,325 | 2.6 |

Table 4a: MALES - Participation rates of 21-25 year olds

|  | Estimated <br> male <br> population <br> $(21-25)$ | Estimated <br> number of <br> males with <br> conviction <br> aged 21-25 | \% of males <br> with <br> conviction <br> Aged 21-25 |
| :--- | :--- | :--- | :---: |
| Birth cohort | 345,460 | 40,248 | 11.7 |
| 1953 (21-25 in 1974-1978) | 366,877 | 46,995 | 12.8 |
| $1958(21-25$ in 1979-1983) | 427,226 | 56,316 | 13.2 |
| $1963(21-25$ in 1984-1988) | 4276 | 12.4 |  |
| $1968(21-25$ in 1989-1993) | 409,849 | 50,726 | 11.3 |
| $1973(21-25$ in 1994-1998) | 359,979 | 40,677 |  |

Table 4b: FEMALES - Participation rates of 21-25 year olds

|  | Estimated <br> female <br> population <br> $(21-25)$ | Estimated <br> number of <br> females with <br> conviction <br> aged 21-25 | \% of females <br> with <br> conviction <br> Aged 21-25 |
| :--- | :--- | :--- | :---: |
| Birth cohort | 334,960 | 7,514 | 2.2 |
| 1953 (21-25 in 1974-1978) | 358,065 | 9,165 | 2.6 |
| $1958(21-25$ in 1979-1983) | 414,114 | 10,309 | 2.5 |
| $1963(21-25$ in 1984-1988) | 41494,0 | 1.2 |  |
| $1968(21-25$ in 1989-1993) | 394,055 | 7,410 | 1.8 |
| 1973 (21-25 in 1994-1998) | 341,748 | 6,318 |  |

Table 5a: MALES - Participation rates of 10-25 year olds indicating new entrants aged 21-25

|  | Estimated number of <br> males with conviction: |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Birth <br> cohort | Age 10-20 | Age 21-25, <br> but not <br> $10-20$ | Estimated male <br> population age <br> $10-25$ | \% of male population <br> with conviction age <br> $10-25$ |
| 1953 | 63,986 | 18,993 | 341,844 | 24.3 |
| 1958 | 76,219 | 20,228 | 366,680 | 26.3 |
| 1963 | 93,652 | 20,904 | 420,312 | 27.3 |
| 1968 | 81,562 | 20,475 | 405,657 | 25.2 |
| 1973 | 53,014 | 19,201 | 353,414 | 20.4 |

Table 5b: FEMALES - Participation rates of 10-25 year olds indicating new entrants aged 21-25

|  | Estimated number of <br> females with <br> conviction: |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Birth <br> cohort | Age 10-20 | Age 21-25, <br> but not <br> $10-20$ | Estimated <br> female <br> population age <br> $10-25$ | \% of female <br> population with <br> conviction age 10-25 |
| 1953 | 11,622 | 6,123 | 326,831 | 5.4 |
| 1958 | 15,834 | 6,890 | 350,870 | 6.5 |
| 1963 | 19,890 | 6,643 | 402,548 | 6.6 |
| 1968 | 14,339 | 4,979 | 386,874 | 5.0 |
| 1973 | 8,645 | 4,173 | 333,605 | 3.8 |

## ESRC National Centre for $\mathrm{R}^{\text {cesarch }}$ ethods

Email: info@ncrm.ac.uk
Homepage: www.ncrm.ac.uk

