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Patterns of offending behaviour: a new approach

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This study focuses on developing a typology of criminal activity. Using criminal conviction data from the Offenders Index, it identifies a fixed number of types of criminal behaviour separately for males and females. Age profiles for each type of criminal activity are also constructed. Finally, the study probes the notion of criminal 'pathways'. How many tend to migrate from one sphere of criminal activity to another as they become older? The distinguishing feature of the analysis is that it describes criminal activity over a five-year period rather than the conventional approach of summarising a 'life-time' of crime.

Key points

- Using criminal conviction data, criminal activity within five-year age bands (or 'strips') was examined so that types (or clusters) of offending behaviour can be identified.
- Patterns of offending behaviour for a set of offenders born in 1953 vary markedly between males and females. Male offending (with nine identified types) shows greater diversity than female offending (with three identified types). There is evidence of greater diversity for offenders born in 1958, for both males and females.
- For the males, each type of offending had a distinct age profile. For example, clusters of offending which were termed 'non-violent property' and 'shoplifting' were most popular with the 10-15 age group. The types of offending for females showed much less variation with age.
- Changes in criminal activity as offenders grow older can be assessed using this methodology and there is evidence of increasing specialisation in older age groups.
- One type of male offending, identified as 'aggressive property offending and wide-ranging car crime', has a particularly strong likelihood of recurrence in every age group.
- This research provides the basis for a tool with which practitioners can assess recent offending behaviour, the chances of reconviction and shifts in crime patterns.

The rigorous analysis of *patterns* of offending behaviour has been neglected by criminologists. For example, is a teenage offender who is convicted for stealing a radio offender who is convicted for stealing a radio from a car also likely to be convicted of other offences, such as criminal damage? How many

patterns of criminal activity are there? Is the car radio stealer likely to stop offending by the age of 20, or continue offending past the age of 30? If so, is this offender likely to switch into other forms of offending?

The views expressed in these findings are those of the authors, not necessarily those of the Home Office (nor do they reflect Government policy)

A summary of the intensity of offending for males, from the age of criminal responsibility to around the age of 30, has shown that there are similarities in the patterns of offending among young males in different cities (D'Unger et al., 1998). However, that study concentrated on the *amount* of offending and does not consider its *nature*. It provides a summary of offenders' most active years but does not provide guidance on the earlier chapters of an offender's life.

Instead of considering rates of offending over an active life-span, the present study has taken a different approach by finding 'types' (or clusters) of criminal activity within fixed five-year periods of the offender's criminal history. An offender, if criminally active in more than one five-year period, can change from one form of offending activity to another and this will influence which cluster of offending will be appropriate for each five-year period. The methodology aims to provide scope for understanding a more circumscribed period of an offender's life, such as the previous five years and guidance as to what is likely to happen in the next five years.

Methods

Sets of offenders born in 1953 and 1958 (the birth cohorts) drawn from the Offenders Index were analysed. The conviction histories of individuals were divided into five-year bands or 'strips', based on the age of the offender at the time of each conviction. Thus individual offenders had between one and six active strips in their conviction history (an active strip being one with at least one conviction). See below for numbers of offenders and their strips for each cohort.

Cohort	No. of offenders	No. of active strips
Males		
1953	9,232	15,353
1958	10,115	16,724
Females		
1953	2,168	2,596
1958	2,438	2,951

Within these five-year strips, by using latent class analysis (McCutcheon, 1987), clusters of offending behaviour were identified. Males and females were examined separately within each cohort.

The study

The present study estimated that, of the population born in 1953 and 1958, the following proportion will have a criminal conviction by the age of 35 years:

	Males	Females
Born in 1953	33%	8%
Born in 1958	35%	9%

Both violent and criminal damage convictions increased within the 1958 cohort (especially for young offenders). There was more criminal activity and more diversity of crime among those convicted in the 1958 cohort. For more detailed summaries of these cohorts see Prime et al., (2001).

Table 1 The nine clusters of offending for males (1953 birth cohort)

Cluster A (19%) Versatile offending (associated with a marginal lifestyle)

- Offenders involved in drugs, sexual offences, receiving stolen goods and less serious criminal damage.

Cluster B (17%) Non-violent property, especially burglary

- Mainly involved in burglary of all types, with some petty theft. Unlikely to be violent. Interestingly this group is the one most likely to commit arson.

Cluster C (12%) Fraud and general theft

- Involved in fraud and forgery, a variety of general theft including shoplifting, receiving and commercial burglary.

Cluster D (12%) General violence

- Involved in wounding, assault and criminal damage. Also those most likely to be in possession of an offensive weapon.

Cluster E (10%) Petty theft

- Almost exclusively petty theft.

Cluster F (9%) Aggressive property offending and wide-ranging car crime

- Involved in all sorts of theft from burglary to shoplifting. Likely to be violent, with raised involvement in robbery, aggravated burglary and kidnapping. Involved in a variety of car crime (theft from vehicles, theft of vehicles, driving licence offences). Also involved in criminal damage.

Cluster G (8%) Vehicle theft

- Non-violent offenders involved in vehicle theft (with some 'other' theft but little other activity).

Cluster H (8%) Wounding

- Predominantly involved in malicious wounding. This group has the highest probability of making threats/incitement to murder and kidnap.

Cluster I (6%) Shoplifting

- Almost exclusively shoplifting.

Patterns of offending behaviour

Male offending behaviour patterns

The offending patterns for the 1953 cohort of males are described in a nine cluster model as presented in Table 1 in order of the frequency of the number of strips assigned to each type.

The same procedure for the 1958 cohort of males produced the optimal solution of a 13-cluster model. The 13 clusters are termed, again in order of frequency – ‘non-violent deceptive’, ‘non-violent property, especially burglary’, ‘wounding’, ‘petty theft’, ‘vehicle theft’, ‘lifestyle offending’, ‘property and deception with some violence’, ‘damage and some wounding’, ‘wide-ranging property and vehicles’, ‘serious damage’, ‘shoplifting’, ‘violent offending’ and ‘drug offences’.

The differences between the 1953 and 1958 cohorts are partly explained by qualitative changes of the data in these two cohorts which influenced the optimal number of clusters. New offence clusters emerged such as ‘drugs offending’ and ‘serious damage’ which are indicative of social change. However the main core of offending remains the same for both cohorts.

Female offending behaviour patterns

There is less diversity in female criminal behaviour and a three-cluster model was identified as the optimal solution (Table 2).

There was an increase for the 1958 cohort of females to an optimal solution of a five-cluster model. The five clusters are termed, again in order of frequency – ‘shoplifting’, ‘violence with some property offending’, ‘deception’, ‘petty theft’ and ‘trust violation’.

The limitations of the analysis of female offending need to be recognised. The Offenders Index is less reliable for females, and some offences which are not recorded on the Index (e.g. offences relating to prostitution) are more relevant for females.

Table 2 The three clusters of offending for females (1953 birth cohort)

Cluster A (59%) Versatile offending

- This group is the most likely to include all offences apart from shoplifting, stealing by an employee and false accounting in their history.

Cluster B (37%) Shoplifting

- Almost exclusively shoplifting.

Cluster C (4%) Trust violation

- Involved predominantly in stealing from an employee and false accounting.

The impact of social change on offending

A clear distinction between male and female offending can be identified for those offenders in this study who were born in the early 1950s. However, patterns of offending may well be different in later birth cohorts; in particular, illegal drug activity will be influential in changing the nature of the clusters. Similarly, patterns of female offending may be shifting towards those of males – there is some evidence of this in the 1958 cohort. This type of approach provides scope for assessing such changes.

Age profiles

For male offence clusters

For the males each cluster had a distinct age profile (Figure 1). Some clusters of offending activities, such as B and I (non-violent property and shoplifting), were most popular with the 10–15 age group and declined thereafter. Others occurred relatively infrequently amongst the under 16s but peaked in later adolescence with a subsequent steep tail off (D: general violence, F: aggressive property offending and wide-ranging car crime and G: vehicle theft). Yet others peak later (A: versatile offending and C: fraud and general theft) or tailed off slowly (H: wounding).

For female offence clusters

Figure 2 shows that the female clusters demonstrate much less variation with age. All three offence clusters peak in the age group 16–20. Shoplifting, however, is relatively more important in the under 16 age group.

Length of criminal careers

Criminal conviction histories were comparatively short for the majority of the samples. Over 60% of males and over 80% of females were convicted only in a single five-year period. However, 17% of males and 4% of females had convictions in three or more age groups.

Reconviction rates for young offenders

Reconviction rates (indicating whether a reconviction occurred in any subsequent age strips up to the age of 40) varied between clusters. For example, of males under 16 convicted of offences within clusters A and I (versatile offending and shoplifting) less than half were reconvicted between the ages of 16 and 40. For males convicted between 16 and 20 years, all clusters had a more favourable outcome with marked declines in reconviction for clusters E and H (petty theft and wounding).

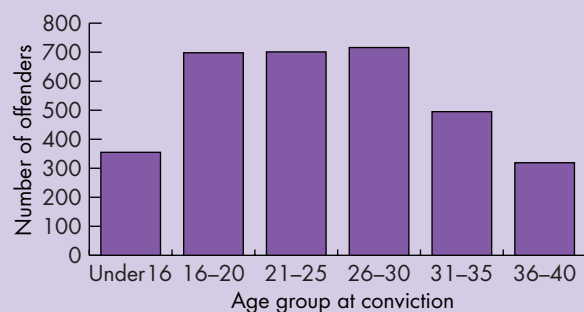
Cluster F (aggressive property offending and wide-ranging car crime) had a particularly poor outcome in terms of reconviction for both age groups.

Females show much lower reconviction rates generally with few differences between the clusters.

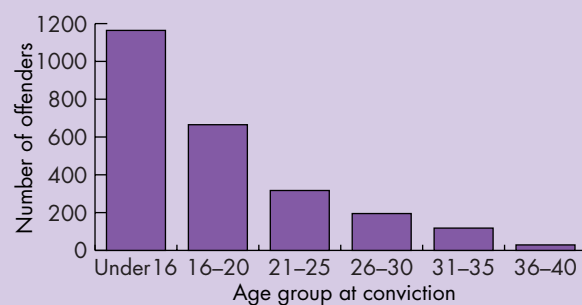
Table 3 shows reconviction rates for the two youngest age groups.

Figure 1 Age profiles for the nine male offence clusters

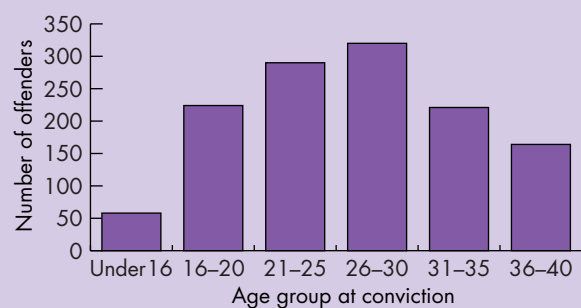
Cluster A: Versatile offending



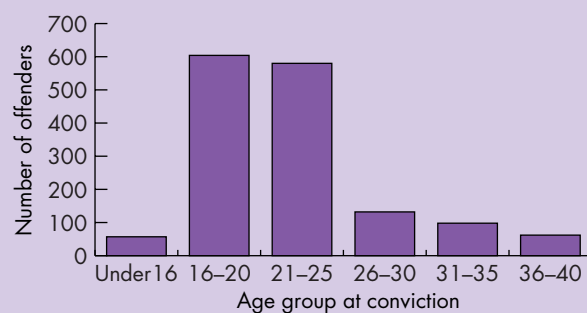
Cluster B: Non-violent property, especially burglary



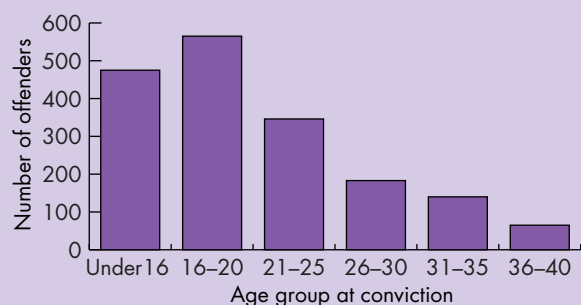
Cluster C: Fraud and general theft



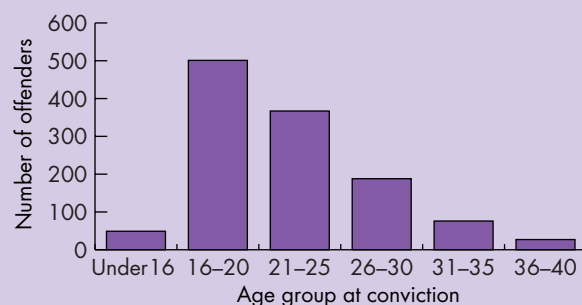
Cluster D: General violence



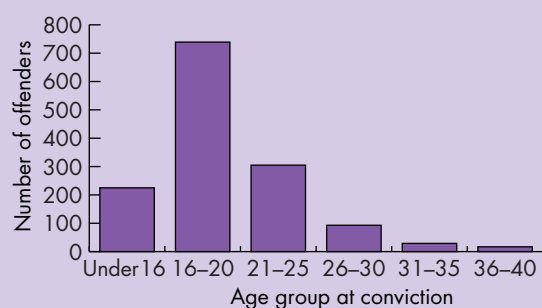
Cluster E: Petty theft



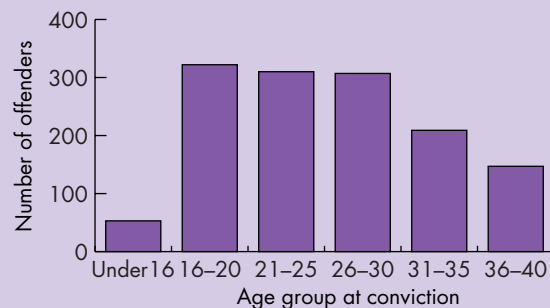
Cluster F: Aggressive property offending and wide-ranging car crime



Cluster G: Vehicle theft

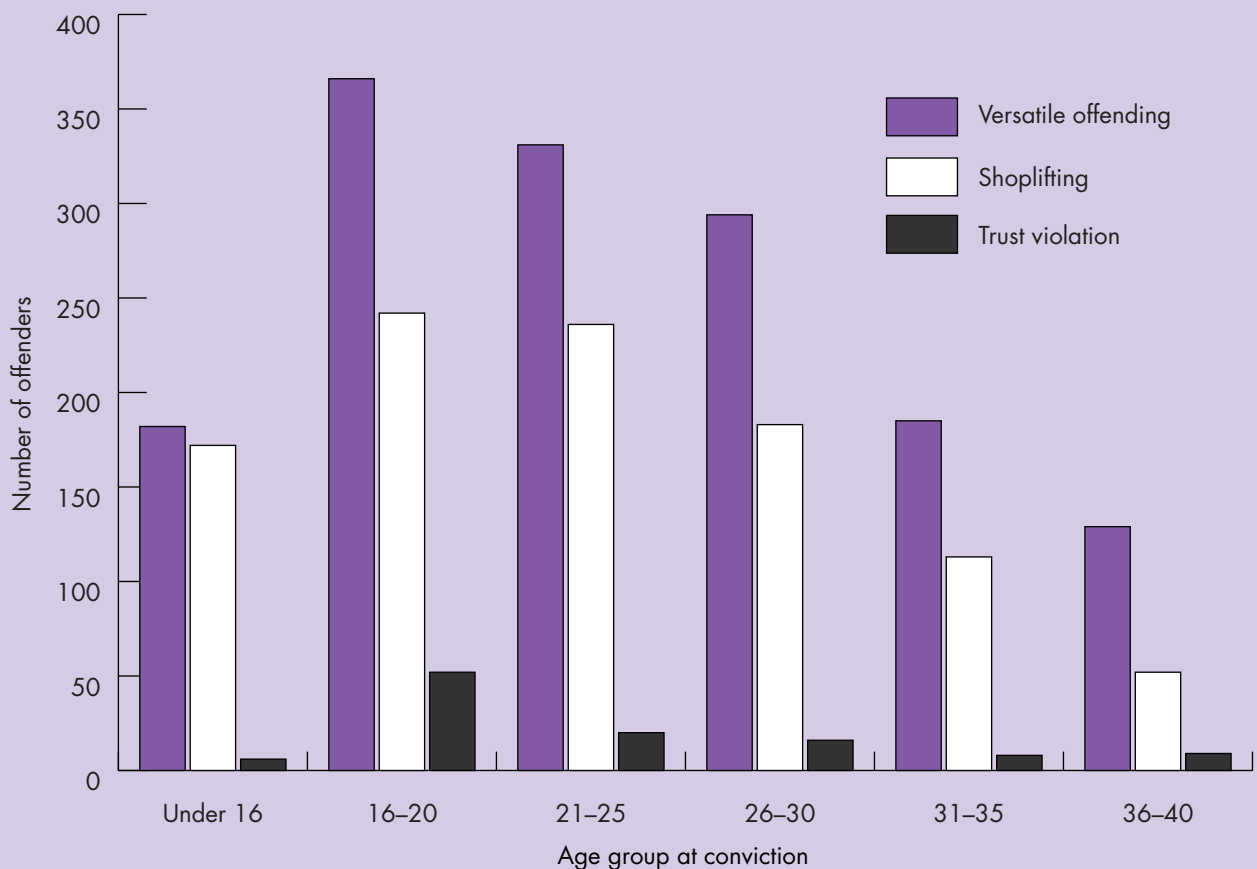


Cluster H: Wounding



Cluster I: Shoplifting



Figure 2 Age profiles for the three female offence clusters**Table 3 Reconviction rates for offenders in each cluster**

Cluster	Under 16s	16-20
Males	%	%
A Versatile offending	45	33
B Non-violent property, especially burglary	68	52
C Fraud and general theft	69	50
D General violence	56	43
E Petty theft	56	32
F Aggressive property offending and car crime	88	83
G Vehicle theft	62	43
H Wounding	60	40
I Shoplifting	45	34
Females	%	%
A Versatile offending	21	22
B Shoplifting	19	13
C Trust violation	17	14

Specialisation of offending

In broad terms, there is increasing specialisation as male offenders get older. This is measured by considering the next age group in which a reconviction occurs. Those remaining in the same cluster are termed specialists.

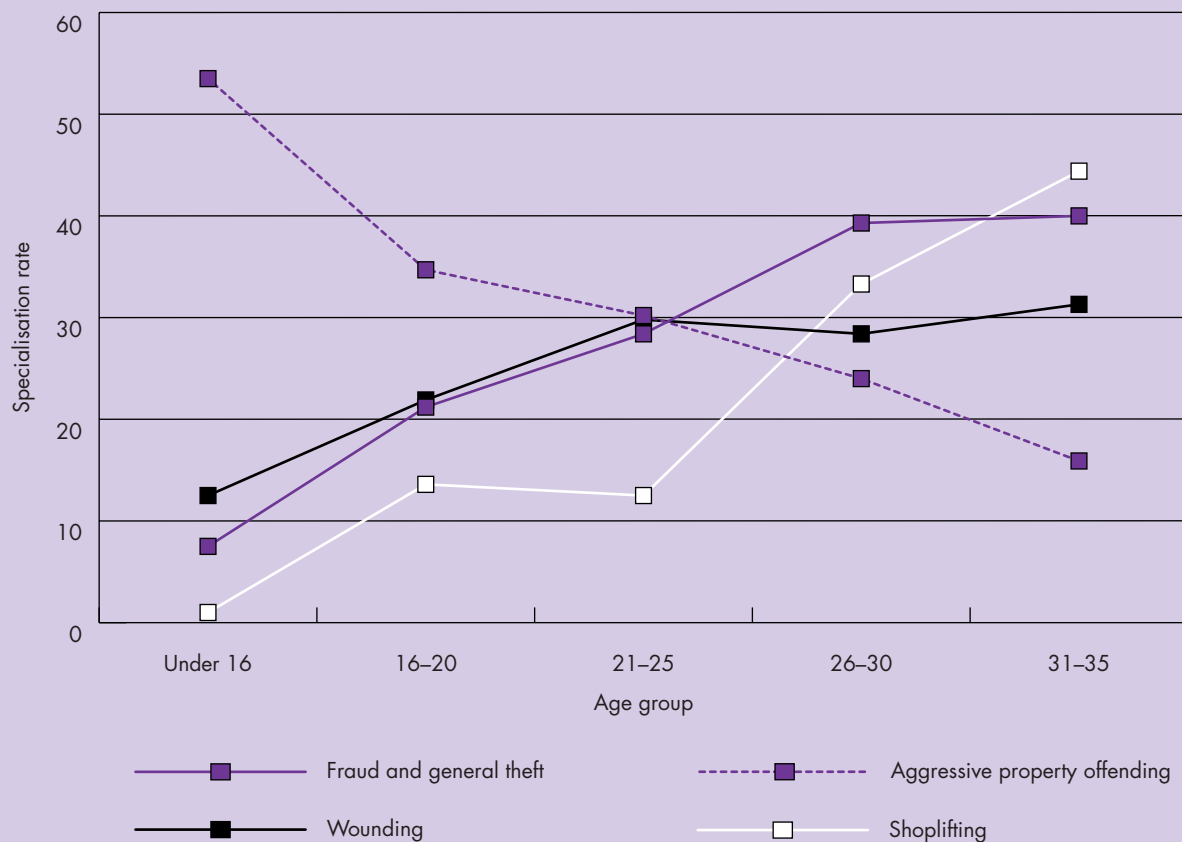
There are different patterns to be observed among the clusters. Figure 3 shows how the majority of male clusters become more specialised with age. However, there is a difference between the pattern observed for shoplifting (cluster I) where specialisation continues to increase into adulthood, and wounding (cluster H) where specialisation levels off at age 21. Cluster F (aggressive property offending and wide-ranging car crime) illustrates an exception, with specialisation declining with age.

There is no evidence of changes in specialisation for females. A very high proportion (around 80%) in cluster A (versatile offending) who were reconvicted continued with their pattern of versatile offending. In contrast, only about half of the shoplifting cluster who were reconvicted continued as shoplifters.

Potential use of the research

For practitioners

The techniques can provide practical tools for practitioners such as probation officers. The recent criminal history of an offender can be summarised and greater understanding can be gained of high risk and low risk groups in terms of future criminal activity.

Figure 3 Specialisation rates for four selected male clusters

For information purposes

The clusters, as descriptive summaries of offending, could supplement the standard categorisation in the official criminal statistics, and provide an alternative view of offending that is closer to the real patterns of criminal behaviour.

Changes in the size and nature of clusters can identify shifts in core and peripheral offending. Identifying the dynamic changes in crime can inform policy makers of the scale of trends in criminal activity.

For policy makers

The technique developed in this study provides scope for examining changes in patterns of offending over time.

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For a more detailed report see *Patterns of offending behaviour: a new approach* by Keith Soothill, Brian Francis and Rachel Fligelstone (2002) on the Home Office website: www.homeoffice.gov.uk/rds/rfpubs1.html

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