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‘County Lines’: An exploratory analysis of migrating drug gang offenders in North Essex.

Submitted in part fulfilment of the requirements for the Masters Degree in Applied Criminology and Police Management

17,999 words

2016

Abstract

'County Lines' has become popular law enforcement vernacular in England and Wales, used to describe a rapidly expanding, modus operandi for the supply of controlled drugs by gangs. 'County Lines' have not previously undergone any detailed study. Consequently, definition and targeting of the phenomenon remains flawed.

This study examined County Line (CL) gang members encountered by Essex Constabulary, a police force in the East of England, between April 2015 and April 2016. The objectives were to identify the demographic and criminal careers of these gang members and examine how they differed from non-County Line offenders (NCL). Using the Cambridge Crime Harm Index (CCHI) as an instrument of harm and severity measurement, the study then sought to illuminate who should be targeted for maximum crime harm reduction.

The study found CL offenders to be more demographically consistent, more violent and more dangerous than NCL counterparts. They originated from a diverse gang landscape, travelling great distances for the most lucrative criminal markets. CL offenders are first arrested and convicted at a younger age. They commit less total, yet significantly more harmful, offences on average than NCL offenders. The study suggests CL offenders have larger criminal networks, and pay a higher price for their criminal enterprise, being more likely to die than NCL offenders, despite being less likely to abuse substances, have an ailment or suffer mental ill health. A further notable conclusion is that CL offenders age-harm relationship shows a marked secondary spike between the ages of 25-28 years of age. This is indicative of an escalation in seriousness, correlative to the de-escalation in volume of offences committed.

The findings reveal many important policy implications. Most significantly, they inform an evidence-based, proactive targeting of scarce resources against the most directly harmful suppliers of drugs, providing a foundation from which operational commanders can apply a triage methodology to target selection.

Acknowledgements

Several Essex Police colleagues made this work possible, particularly Sgt. Garry Hills and Ch/Insp Alan Cook. I am also indebted to Chief Constable Stephen Kavanagh for affording me the opportunity to expand my knowledge and apply a more effortful analysis to policing problems through the University of Cambridge Police Executive Programme.

The work of Peter Neyroud, Eleanor Neyroud and Professor Lawrence Sherman on the Cambridge Crime Harm Index is, I believe, among the most significant academic contributions to policing in England and Wales during my career. Without that work, this analysis would not have been possible.

I owe friends and family a great debt of gratitude for their advice and support, most significantly my wife and critical friend, Hayley Hallworth. Also, two exceptional police officers and parents, who formed the way I view the world and policing, Steven and Angela Hallworth.

Finally, my sons, Alexander and Joseph, whether you choose a life of service as the sixth generation of Hallworth police officers or not; this work is for you.

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Chapter 1: Introduction

Media headlines suggest that gangs have migrated from their home territories, crossing county borders in search of more lucrative drug markets.

"*London gangs expanding across UK, Met Police warns*" (BBC News, 31st January 2014).

Bringing with them unprecedented levels of violence and exploiting the vulnerable indigenous populations.

"*Violence soars as drug gangs flock to Clacton*" (Clacton Gazette, 18th December 2014)

Accompanying the media portrayals of London based gangs as the new villains of English County towns, is an increased focus on the issue of gang migration by the Home Office and National Crime Agency (NCA 2015, NCA 2016).

Traditionally in non-metropolitan police forces, drug user/dealers committing crime have been the focus of local policing resources. Violence in these drug markets was rare (Reuter 2009). Whilst victimisation through acquisitive offences by users seeking to fund their habits was common, the police and criminals of the drug markets existed in relative symbiosis. Recently, this symbiosis has been disrupted by the arrival in smaller forces of violent, exploitative gangs.

Who these gang members are, how harmful they are and how they compare to the 'home-grown' non-gang drug dealers are yet to be addressed by any published research. Yet many public authorities have made tackling them a high priority and dedicated resources to that cause (HM government 2016).

The result of prioritisation without understanding is often a reversion to subjectively skewed methodology. Ask a room full of officers who the most prolific, harmful or influential offender on their area is, and you would get a plethora of answers in each category. Most nominations would be selected by conventional wisdom and personal experience, resulting in a

list of 'the usual suspects'. Targeting offenders through "minimally analytical" (Sherman, 1992, pg.179) methods has become the default position in policing.

The most crucial stage in any offender focused programme is selecting the right offenders to target. Operational leads must avoid subjective scattergun methods and use precision targeting for maximum overall effect with minimum expenditure.

As an example of the first stages in precision, proactive targeting, the objective of this study is to define the issue being addressed, before sampling into two cohorts: 'County Line' gang offenders (CL) and other, 'Non-County Line' drug supply offenders (NCL). Then, through an exploratory analysis, answer three research questions designed to further understanding of offenders and lay foundations for future research.

Research Questions

The research questions are targeted at gaps in academic and operational knowledge on 'County Lines'.

Question 1: What are the demographic characteristics and criminal careers of 'County Line' offenders in North Essex?

Question 2: How do the demographic characteristics and criminal careers of 'County Line' offenders differ to those of non-'County Line' offenders committing similar offences in North Essex?

Question 3: What do those criminal careers look like when viewed through the lens of the Cambridge Crime Harm Index?

Definition of Terms

County Lines

'County Lines' is a term used by government departments, law enforcement, local authorities and partner agencies to describe the use of mobile phone 'lines' by gangs looking to extend their drug dealing activities into locations outside of their metropolitan home areas. The areas targeted for expansion are commonly more rural 'county' towns (NCA 2015). As a relatively new criminal phenomenon, little published research exists on 'County Lines' or 'County Line' offenders.

Gang members go to a new location outside of their home area, where a profitable drug market is identified. Here they set up a form of franchise; market their product by a single named telephone number or 'line', and establish new bases for rest, refuge, storage and distribution of drugs, weapons and money. These bases are secured through coercion, violence and exploitation of vulnerable people. Local children and vulnerable adults are often used as 'runners', or forced labour. Conflict occurs with local dealers, or where other 'County Line' enterprises are also attempting to exploit the same market, and serious violence is commonplace (NCA 2015, NCA 2016).

In 2015 Essex Police made tackling this gang activity a high priority strategic theme in their crime control strategy. In August 2015, the National Crime Agency produced a national intelligence assessment of 'County Lines', revealing 181 known gangs using the 'modus operandi' (NCA 2015). In January 2016, tackling 'County Lines' became the number one priority of HM Government's Ending Gang Violence and Exploitation programme (HM Government 2016). An updated version of the NCA assessment shows a continued expansion of the problem during 2016 (NCA 2016). This expansion, and the subsequent organisational reactions, illustrate the need to begin applying academic research and evidence based practice to the issue of 'County Lines'. To do so, 'County Lines' require specific definition; none currently exists.

The following definition of 'County Line' (CL) offenders is created for the purposes of this study from the statutory definition of gang-related drug dealing, and gang related violence, provided by section 34 (5) of the Policing and Crime Act 2009 (updated by the Serious Crime Act 2015); the Home Office definition of gangs (HM Government 2016) and the NCA intelligence assessments of 'County Line' activity (NCA 2015, 2016).

'County Line' offenders are:

Individuals affiliated to a gang, originating in a large metropolitan area, that see themselves (and are seen by others) as a discernible group that: engage in the unlawful production, supply or importation of a controlled drug; expand their illegal market into new geographical areas that cross one or more county borders; and use telecommunications with the exertion or threat of violence and exploitation of the vulnerable indigenous population to conduct their illegal activities.

'County Line' offenders are gang members yet understanding 'the gang member', remains a matter of contention.

Gangs

The modern gang member is no longer a sub-cultural, rebellious social group like the mods and rockers of the 1970's and 1980's (Cohen 2002). Nor are they the marauding football hooligans of the same period who saw violence as a recreational activity (Piquero et al. 2015). Yet to achieve a modern, consistent, definition of 'the gang' is troublesome. The 'Eurogang' network of academics' have a definition with a requirement for 'street-orientation' that fails to cater for the reality of modern British gangs (Harding 2014). This brings the utility of the 'Eurogang' definition into question generally (Aldridge et al. 2012), and for this study specifically. The inability to reach a unified definition illustrates that a permanent definition of such constantly evolving criminal organisations is neither necessary, nor advantageous. Any definition of 'the

gang' cannot persist over time and space, due to gang evolution and dependence on the prevailing political, social and economic conditions (Goldstein 1991).

Definition remains important however, as gang membership is a qualifier for 'County Line' offending. For this study, a definition specific to the selected research period and setting is relied upon. It is a definition extracted from existing literature and police gang identification methodology, that recognises 'the gang' as:

"a self-formed association of peers, united by mutual interests…who act collectively or as individuals to achieve specific purposes, including the conduct of illegal activity and control of a particular territory, facility, or enterprise" (Miller 1992, page 21). *The members must also identify themselves through loyalty to (expressed as verbal or visible representation) the name of that gang.*

With this definition being selected for specific relevance to the research period and setting, it is useful to understand what that setting is.

Research Setting

Essex is situated adjacent to the North-Eastern boroughs of Greater London and the estuary of the River Thames. It is one of the largest geographical counties in England at 1,404 square miles and has the highest population of any non-metropolitan county. The research period studied is the financial year 2015/16, (01/04/2015-01/04/2016). Essex Police is structured into three Local Policing Areas (LPA's), North, South and West. The research area was the North LPA, which is the largest of the three, including the city of Chelmsford and the major towns of Braintree, Maldon, Colchester and Clacton-on-Sea.

Fig.1 The county of Essex and the North Local Policing Area (NLPA)

The remainder of this thesis is set out in five further chapters. The following chapter contains a review of the relevant literature and theory, and orientates the thesis in the existing lexicon of gang studies. In chapter 3, the methodology of the study is described, exploring the data sources, sampling process, limitations of the dataset and statistical analysis employed. Chapter 4 sets out the results of the study in three sections: demographic analysis and comparison of the two cohorts, criminal career analysis and then how the cohorts criminal careers compare when seen through the lens of the CCHI. Chapter 5 follows with a discussion of issues and results, as well as suggestions for operational change and future research. Lastly, chapter 6 provides some overall conclusions based on the evidence presented.

Chapter 2: Literature Review

Offender Focused Research

"Focusing on offenders has deep roots in policing" (Groff et al. 2015, pg. 26). Pre-modern era, privately commissioned 'thief-takers' were superseded when the Fielding brothers created the Bow Street Runners in 1749 because of a need to prioritise the pursuit of outstanding dangerous offenders (Beattie 2012). Risk offender registers, dangerous offender management teams and integrated offender management units are now commonplace in police forces around England and Wales, indicating how offender-based policing has shifted focus to the proactive prevention of harm, rather than merely reacting to that harm when it is caused. Yet still, the identification of offenders to target is commonly achieved through questionable, intuitive methodology.

Precision targeting is achievable through the employment of evidence based practice; which has shown that serious harm by offenders can be predicted (Berk et al. 2009), and that frequency and escalation are detectable (Bland and Ariel 2015).

Before precision targeting models can be brought to bear, one must first attempt to understand what type of offenders are being targeted. Offending trajectories vary in type, volume and harm (Farrington 2003, Reiss 1988, Sherman 2007, Wolfgang et al. 1987). Understanding whether your targets are recidivist; chronic; high volume/low harm offenders; dangerous; or crime recruiters; informs what interventions are worthy of testing against them.

This paper does not explore offender interventions. What it does explore is who the offenders are, and what their criminal careers look like through a metric of harm. Aiming to begin to indicate where among the drug dealing offenders of North Essex, the "power few" (those few

individuals from the population who are responsible for a disproportionate amount of harm) lie; in order that interventions can then be tested against them (Sherman 2007, p.299).

This study is informed by existing theory, research and knowledge in four topic areas: gangs, drug markets, criminal careers, and a harm index approach.

Gangs

The definition of what a gang is (Miller 1992), whether they exist at all in the UK (Hallsworth 2011), and whether they should be labelled or studied (Klein et al. 2001, Aldridge et al. 2008), forms the prevailing discourse in existing gang literature. It is important to establish a baseline of perspective and assumption on these gang issues, as well as other theories on gang migration to develop an understanding of the 'County Line' offender.

Gangs- importance

Findings from America indicate that gang membership increases the likelihood and frequency that members will commit serious and violent crimes (Huff 1988, Adams and Pizarro 2014). Also, that juvenile gang membership facilitates offending behaviour (Thornberry et al. 1993). In the United States, gangs are recognised as criminologically important.

Hallsworth and Young make significant contributions to gang research in the UK. Despite significant evidence to the contrary (Bullock and Tilley 2002, Bennett and Holloway 2004, Grund and Densley 2012), they critically assess the very existence of gangs, and the criminal impact they have (Hallsworth 2011, Hallsworth and Young 2008). Their idealist perspective calls for scepticism of gang mythology disguised as research (Hallsworth and Young 2008), describing gangs in the UK as a "collectively induced fantasy" (Hallsworth 2013, p.8).

A more credible argument, based on the scale of evidence available in support of gang existence and impact (Harding 2014, MPS 2016, NCA 2015, Stelfox 1998,), is the longitudinal and life course approaches that reveal the strength of correlation between gang membership and offending (Pyrooz 2014, Pyrooz et al. 2016). Similar studies have also shown that gang membership is nuanced in the life course of offenders (Krohn and Thornberry 2008).

The prominent criticisms made by Hallsworth, Young and other 'gang deniers', highlight the need for this study to robustly differentiate between gang and non-gang members. A distinction specifically criticised by other researchers when examining police offender data (Hughes 2005).

Gangs- theory

The idea that young people learn how to offend from their elders, speaks directly to the issues and structures of gang formation and co-offending (Conwell and Sutherland 1956). The importance of age in the criminal career of offenders is extracted from this premise (Blumstein, Cohen and Farrington 1988, Thornberry and Krohn 2001). As is the concept of crime recruiters, social networks and gang roles (Adams and Pizarro 2014, Reiss 1988). In this context, age becomes an important variable for analysis in the 'County Line' offender.

Thrasher's 1927 theory of social disorganisation (Wood and Alleyne 2010), is intrinsically linked to immigration in working class areas. Here, gang formation is depicted as a means of seeking structure due to a breakdown in the organisation of social institutions such as the school, church and family. In this context, nationality and place of birth also become important to understanding a gang offender.

Strain theory (Merton 1938) relates to the goals that society sets for its citizens, only offering the means to achieve those goals to a select few. This causes conflict between cultural

norms and the individual's ability to conform; that leads to a reaction against these norms (Agnew 1992). Viewing offending as reaction to societal strain, the result of which for some being gang membership, can inform variations in the onset and acceleration of offending across the life course (Melde and Esbensen 2013).

Gangs- migration

Some argue that the very premise of gang migration is one of the key myths in gang research (Howell 2007). 'County Lines' can be understood as the migration of gangs from their home area into a new geographical setting, with the objective of establishing a new physical and organisational base, from which to transplant the values and business models of their gang.

Gang migration in the United States is well studied (Maxson 1998, Zevitz et al. 1992) and can be offenders seeking to join new gangs, gang franchising or black market expansion. There is, however, little US evidence of gang migration for the specific purpose of drug dealing (Howell and Decker 1999). The largest proportion of US gang migration is explained as being natural human migration. For example, gang members visiting family and friends, or state encouraged relocation through the criminal justice or social service processes (Maxson et al. 1996). In the US, most regional areas already had gangs prior to the prevalence of migration. In the UK, and in North Essex specifically, gangs are not commonly formed outside of major cities.

The relevance of territory in UK gangs is well documented, mostly by ethnographic studies (Aldridge et al. 2011). Gangs commonly originate in name from a shared identity linked to a geographical location or 'set space' (Tita et al. 2005, Tita and Radil 2011). This territorial identification is clearly more fluid in the case of 'County Line' offenders. Drug markets have moved from public to private spaces with the assistance of cheap and freely available telecommunications. Making houses, flats and other physical structures, rather than geographic localities, the new 'turf' (Aldridge et al. 2011, Goldson 2011). This in turn feeds into the 'cuckooing' (NCA 2016) processes of 'County Line' offenders; (so named after the cuckoo bird that

takes over the nests of other birds rather than build its own). In 'County Line' operations this modus operandi is explicit (NCA 2015), with offenders exerting control over the premises of vulnerable adults to create the outposts they require in the new geographical area. As such, street presence in this model is not necessarily a pre-requisite (NCA 2015). On this issue one must be cautious of the representations of mass media, US popular culture and governmental 'agents of control' (Hallsworth and Young 2008). For example, when MP Chris Grayling gave a speech as shadow home secretary in 2009 (Watt and Oliver 2009); he declared as evidence of a 'Broken Britain' that parts of England were resembling Baltimore; referencing a popular television series *The Wire* (Simon 2002) where street dealing takes place in open designated set public places. If manifest street presence holds less importance to the modern UK gang, then branching out of major conurbations to new towns appears logical in a search for greater market share (Windle and Briggs 2015). As street presence and territorial control over set spaces has become less prevalent, so too have the offences associated with it, such as gang boundary incursion or conflict and 'tagging' by graffiti (Tita et al. 2005).

In Australia, the theme of mobility in co-offending groups with a post-colonial and ethnic ancestry reveals an interesting concept of 'the countryside' as a respite area from violent gang convergences in major cities (Goldsmith and Halsey 2013). Social segregation and economic discrimination concentrates immigrant communities into the most deprived areas. In the UK, gang life resonated in the 1990-2000 period in these poorest areas. In the South East, and specifically in London, these areas contained a variety of black and minority ethnic (BaME) concentrations (Pitts 2007). Whilst it will not be possible from the dataset used to extract whether 'respite' in North Essex was a factor for travel, this highlights the importance of known home addresses of 'County Line' offenders.

In exploring the relationships between gangs, immigration and ethnicity, Van Gemert et al. (2008) discuss the strain experienced by the first three generations of immigrants, when

they fail to meet their newly assumed societal goals. Whilst it has become a generally accepted finding that second generation immigrants are more criminally active than their first or third generation, "in Europe there is little or no evidence for the existence of this" (Van Gemert et al. 2008, page 6). In his exploration of alternative perspectives on gang research Hagedorn (2007) also concludes that racial legacy is a good starting point from which to consider gangs. Therefore; place of birth, ethnicity and nationality are important variables for analysis in the discussion of 'County Line' offenders.

Gangs- ethnicity

An argument persists against 'strengthening' gangs through research publication that misattributes the term (Aldridge et al. 2008). Others caution against the racialization of gang research (Hallsworth and Young 2008). With this study being conducted in the primarily 'white' setting of North Essex; this is a danger if the gang members found originate in the East London boroughs where ethnic diversity is far above the national average (ONS 2012). In this context, the significance of ethnicity as a variable and as an ethical consideration is intensified.

Operation Trident in the Metropolitan Police Service (MPS) area targeted firearm offences committed by black citizens against black citizens in the late 1990's (MPS 2016). Over time, and since the Macpherson report (1999) which labelled the MPS as institutionally racist, Trident has evolved into a stand-alone command targeting gangs and firearm use among all citizens. The MPS position is a special case, where empirical research on gangs remains contentious and scarce, largely due to the conceptual racial connotations (Grund and Densley 2012). Whilst only 10% of Greater London's population is black (ONS 2012), 50% of all 225 recognised gangs in the MPS area are classified by the police as 'predominantly black' gangs (MPS 2016). Esbensen and Lynskey (2001) argue that police enforcement tends to focus on the stereotypical representations of gangs. Consequently, police data on gangs from prevention and arrest strategies becomes racially skewed. Others argue that whilst gang scholars play down the

seriousness of ethnic and racial categories in relation to British gangs, this is a result of the media overemphasising it and causing a left wing reaction among intelligentsia to right wing reporting (Joseph and Gunter 2011). Whilst there is a clear need to be conscious of selective gang labelling, and the damage it can cause in the marginalisation of ethnic minorities (Smithson et al. 2013), it has been shown that even in London the composition of gangs is not 'black and white'. Within an identified 'black' gang Grund and Densley (2012) concluded that, whilst heterogeneity is crucial for gang success, diversity is persistent and impacts upon role and co-offending. Ethnicity is an important factor to the study of 'County Line' offenders, yet due consideration will need to be given to all the above issues.

Gang typology and roles

Since 2000, a renewed interest in gang research has coincided with the expansion of gangs from traditional areas and traditional offending patterns (Decker et al. 2013, Densley 2014). The geographical context of gangs differs greatly across England and Wales (Stelfox 1998); so too, do the levels of gang organisation and typology. Firstly, gangs tend to be age graded in their nature and offending (Grund and Densley 2012, Thornberry and Porter 2001). Beyond that: size, weapon use, resources, leadership forms, codes of conduct, income sources and membership commitment all vary significantly, with the 'drugs gang' being one of the more prevalent typologies (Klein 2001, Knox 1993).

Social field analysis is an emerging area of gang research in the UK (Harding 2014, Moule et al. 2013). Here, cultural capital is used to describe "the game, the stakes and the players" (Harding 2014, pg. 43) of the UK gang scene. Evoking the imagery of a 'street casino' Harding shows that the gang scene can be high or low stakes business, and whilst some play for fun or hover around the peripheries of the action, others are 'all-in'. It seems improbable that CL offenders are gang 'hangers-on', but analysis of their offending histories should indicate whether they are 'high rollers' in the street casino metaphor.

Whether CL offenders fulfil a particular role in the age graded traditions of UK gangs may be hypothesised based on the results of this study. Clearly, (by stated definition), all CL offenders do belong to one of the gang typologies in that they are concerned in the supply of drugs. Therefore, further exploration of the illegal drug markets they operate in is required.

Drug Markets

There are three levels of the UK drugs market, an international trafficking level, the middle market at a regional/national level and a local retail level (McSweeney et al. 2008). The very existence of 'County Line' offenders shows that some dealers are now operating with varying degrees of adaptability and flexibility between these three markets.

There are a variety of participant roles in the UK markets identified as wholesaler, buyer, seller, transporter, storage, retailer and runner (McSweeney et al. 2008). 'County Line' offenders may fulfil some, or all, of these roles. The National Crime Agency (2015) also see the 'County Line' offenders as recruiters; seeking vulnerable individuals to assume the riskier roles in the market structure on their behalf. Regardless of the function they fulfil, a key priority for policy and targeting in the future "should be to improve the knowledge base and understanding of how different drug markets, distribution and trafficking networks develop and operate" (McSweeney et al. 2008 pg.15).

North Essex Drug Markets

A detailed review of eight UK drug markets was completed by Lupton et al. in 2002. The study contains useful insight into the recent historical context of drug markets in North Essex. The eight (re-named) drug markets examined, bear strong resemblance to the major urban centres of the North LPA.

For example, Lupton et al.'s (2002) analysis of 'Beachville' describes a seaside town, comprising mixed housing stock where former hotels now operate as hostels or houses of multiple occupancy. 'Beachville' in 2002 is found to be the most profitable of all markets, as due to its isolation, dealers can charge more for their product. This leads to increased competition for market space and consequential violence. It is also found to have the highest availability, due to an historic withdrawal of policing resources and a higher than average demand, due in part to increasing levels of social deprivation, poor educational standards and high unemployment. Beachville's supplies come from one or two nearby cities and it operates as a closed market where most deals are completed by mobile phones, using young runners from the neighbourhood to deliver product to users in pre-arranged meeting places. The depiction of 'Beachville' could easily be read as a description of Clacton-on-Sea.

What the Lupton et al. (2002) study shows are the 'neighbourhood' effects on drug market profitability and persistence. Also, how the socio-economic landscape supports the emergence, growth, fluidity and emergence of drug markets (Lupton et al. 2002). 'County Lines' grew into these markets, making place a significant variable for analysis.

Drug markets-gangs

Maxson et al. (1996) found that US 'speciality drug gangs' represented only 9% of all gangs, supporting other US conclusions of the 1990's that drugs and gangs were not two halves of the same phenomenon (Moore 1990). Despite persistent evidence linking gangs to drug offending and gang dominance of the lower levels of the UK market (Edmunds et al. 1996, Windle and Briggs 2015), a seminal policy report on the UK drug market has no gang context and the word gang does not feature anywhere in the 90-page report (McSweeney et al. 2008). Indeed, some of the UK 'gang denial' literature even calls this correlation into question (Coomber 2006). Drug dealing is central to the definition of 'County Line' offenders, by requiring it to be so, the correlation between gangs and drug markets can be explored further.

Drug markets-violence

It has been argued that gangs evolve into controllers of drug markets (Densley 2014). Market space is claimed, then controlled, as part of the gang evolutionary cycle. Violence that was expressive in early stages becomes a means of pursuing this aim (Densley 2014). Whether drug markets are inherently places of violence is a matter of debate in the existing literature. Goldstein (1985) argued in his tripartite conceptual framework, that systematic examples of drug market violence were for the same reasons wherever the drug market was found. Others take a different view, finding that the nature and practice of dealing is not inherently violent and is often overstated in the media and by academics (Coomber 2006, Coomber and Moyle 2014, Moyle and Coomber 2015). Reuter (2009) supports this alternative view stating that "even without the protection of the state and the courts, illegal drug markets are generally peaceable" (pg.275).

A recent UK specific study of interest in this area includes a comparison of two coastal drug markets, Southend-on-Sea in Essex and Plymouth in Devon (Coomber 2015). Coomber's study aims to explore the differences in the nature and levels of violence from one market to another. Evoking Goldstein's tripartite framework (1985), Coomber (2015) concludes that, dependent on market players, violence either results from financial motivation, or is systemic in nature, contingent on a mix of supply culture, competition and, crucially, levels of gang involvement.

Coomber's (2015) assessment was a qualitative study, as tends to be the case in most gang and drug market research (Decker et al. 2013). In one of his interviews with a user in Southend-on-Sea, Coomber (2015) extracted that the drug market suppliers were predominantly from outside of the area, rather than Southend resident, to a ratio of 70:30, (but using local runners in the model of a 'County Line' enterprise). The interviewee notes a clear divide in willingness to use violence, differentiating between 'the Somalians' from London who are "just in

it for the money", and local dealers who are "users trying to support their own habit" (Coomber 2015, pg.18). The difference

in violence is seen to be gang related. Coomber (2015) found in Plymouth that gangs were absent and a user-dealer model resulted in less systemic violence.

Answering the degree of correlation between drugs, gangs and violence in the UK, may lie in the longitudinal study of criminal careers and developmental life course criminology.

Criminal Careers

Empirical longitudinal studies have presented many key findings that have shaped theoretical and policy constructions (Farrington and West 1990). Whilst many of the significant studies are based on US cohorts, evidence indicates their findings can be transferred across the Atlantic (Farrington and Loeber 1999). The key issues in criminal career research are onset, persistence, escalation, specialisation and desistance (Piquero et al. 2003). Important factors identified that influence these vary from familial, societal, environmental, to genetic (DeLisi and Piquero 2011). Indeed, some research indicates that half of the variance in antisocial behaviour is genetic in origin (Moffit 2005). With further developments indicating that the MAOA gene has a strong correlative relationship to impulsive violence, gang membership and weapons use (Beaver et al. 2010, Meyer-Lindberg et al. 2006). These developments highlight the need for a more interdisciplinary approach to developing the understanding of offending behaviour (DeLisi et al. 2009).

The criminal career paradigm (Piquero et al. 2003) has brought many findings of policy significance through the retrospective study of offending patterns. Not least the discovery of the age crime curve (Hirschi and Gottfredson 1983), that indicates aggregate offending frequency peaks at around eighteen years old and then gradually declines thereafter. The age crime curve is described as “the most important empirical regularity in criminology” (Nagin and Land 1993, pg.331). The extent to which the age crime curve relates to individual or types of offenders

remains a matter of debate (Farrington 1986, Wilson and Hernstein 1998). However, significant findings tend to indicate that the aggregated age crime curve masks the offending trajectories of distinct groups of offenders (Piquero et al. 2003). The age crime curve of CL and NCL offenders will be analysed in this study to explore any distinction.

Developmental and life course criminology (DLC) is primarily concerned with three main areas, the development of offending and antisocial behaviour, risk factors at different ages and the effects of certain events on the course of development (Farrington 2003). Perhaps the most significant aspect of DLC to this study, is that it rests on key theoretical frameworks that inform the widely consistent empirical DLC findings.

Criminal career theory

A variety of theoretical constructions exist from which to understand offending and inform criminal career research. Situational Action Theory (SAT) explains crime as moral actions, and the actual causal mechanism as the interaction of personal morality and situational factors causing the offender to see crime as a viable action alternative (Wikstrom 2012).

Farrington's (2014) Integrated Cognitive Antisocial Potential theory (ICAP), explains offending by lower class males where antisocial potential is either encouraged or inhibited by long and short term influences. Sampson and Laub (2005) focus on the age graded nature of informal social control. Through exploring the strength of bonds to family, peers, schools, employment and social institutions such as church and marriage; they explain offending as a cost-benefit analysis, influenced by individual accumulated social capital.

Moffit's (1993) developmental classification system does not attempt to explain what supports antisocial behaviour in the same way as SAT or ICAP do, but provides a theorised definition of type. Moffit (1993) categorises offenders as Life Course Persistent (LCP), Adolescent Limited (AL) or non-offenders. Nagin and Land extended this in their 1993 study of 403 offenders,

to four distinct trajectories separating the LCP category into high level and low level chronic offenders. Whilst this study will not analyse any non-offenders, and will have no information central to Moffit's (1993) correlative categorisation (such as familial and biosocial data), the delineation of career histories into developmental classifications provides a useful framework for discussion of CL offenders.

Another theoretical framework from which to consider 'County Line' offenders is the integrated social development model of Catalano and Hawkins (2005). Whilst control theory alone in many ways directly conflicts with DLC (Farrington 2003), Catalano and Hawkins combine social control theory (Gottfredson and Hirschi 1990), social learning theory (Akers 2011) and differential association theory (Sutherland and Cressy 2015) in their integrated model. Describing the main motivation for offending as a hedonistic desire to seek self-interest, only opposed by the internalised bonds to society, Catalano and Hawkins (2005) explore the push of antisocial bonds and the pull of prosocial bonds. As migrating offenders, it is logical to assume that the social bonds of CL offenders to the new geographical areas in which they operate, are significantly less strong than the social bonds within their 'home' set spaces. This perspective provides an interesting framework for discussion on how migration and difference in geographical location may affect the criminal career.

Comparing a cohort of generic gang members to a cohort of non-gang members from a criminal career perspective has been done in the UK (Bennett and Holloway 2004). Twelve years ago, their paper estimated the UK gang population over the age of 17 to be 19,076. Gang members were found to be more criminal (committing five times as many offences on average) and more diverse in their offending, whilst being much more likely to be involved in drug dealing (Bennett and Holloway 2004). This provides a good baseline from which to analyse the geographically specific CL offender in North Essex.

The theoretical constructions that underpin criminal career research provide guidance on key variables required to draw conclusions from this study, and are relied upon in the discussion of results. However, one key issue remains unresolved in criminal career research. That is, "whether the seriousness of offending escalates up to a certain age then deescalates, or whether it does not change with age" (Farrington 2003, pg.225). To explore this issue, one first needs to establish a metric of seriousness.

Crime Harm Indices and the Cambridge Crime Harm Index

That the study and concept of gangs are attractive to the media and to law enforcement can result in 'the gang' as a concept hiding the nuance of harm and exploitation caused by offenders (Sullivan 2006). This nuance of harm rather than volume, is central to the definition and concept of 'County Line' operations.

Wood and Alleyne (2010, pg. 101) state: "it is a universal given that street gang membership facilitates violent behaviour over and above association with offender peers, even prolifically offending peers". This sentiment is echoed elsewhere in the wider gang and drug market literature: "one point of consensus in the voluminous gang literature is the high rate of criminal activity among gang members…the consensus is that gang members commit all kinds of crimes at a greater rate than do non-gang members" (Esbensen and Huizinga 1993). What is not a point of universal consensus, and to date is not significantly explored, is how the criminal activity of gang versus non-gang members is quantified in terms of harm. Not all crimes are created equal (Sherman, Neyroud and Neyroud 2016) and exploring offending by crime count alone is to use a false metric when considering escalation and seriousness.

Breaking down 'harmful' offence categories is a common way of representing how harmful gangs are. For example, in the Metropolitan Police Service (MPS) area just 3,600

identified gang members out of 8.6 million total population (0.04%) have been declared responsible for a disproportionate amount of crime: “17% of serious violence offences, 7% of robberies, 40% of shootings and 12% of aggravated burglaries” (MPS 2016).

This study aims to examine if the gang members physically conducting ‘County Line’ operations in North Essex are high harm offenders, and how the recorded harm they are responsible for compares to that of ‘Non-County Line’ offenders. To achieve this aim requires a means of translating the arrests and convictions of offenders into how harmful they are.

Klein and Maxson (2010) concluded that gang violence compared to non-gang violence is more likely to occur in a public place, to involve more weapons, more assailants, more motor vehicles, and more victims who do not know their assailants. ‘More’ indicates volume, so if a gang member commits 13 assaults in a year, but a non-gang member commits one assault that results in death, who has been ‘more’ violent?

The issue of harm, or crime severity, has had a variety of incarnations as academics have tried to provide a solution to this issue. In 1985, Wolfgang and others used survey ratings to construct a weighted severity index. In the UK, Pease (1998) and then Brand and Price (2000) examined the seriousness of offending from a cost perspective. Other attempts and conceptualisations have followed, relying on sentences passed to calculate a gravity score (Babyak et al. 2009, Ratcliffe 2015).

By far the most utilitarian index created for England and Wales is the Cambridge Crime Harm Index (CCHI) (Sherman, Neyroud and Neyroud 2016). The CCHI uses the number of days imprisonment for each offence from the starting point of the scale provided by the sentencing guidelines for England and Wales, to create a harm score. Assessed against a tripartite classification of democracy, reliability and cost, the CCHI is designed to provide an “easily adoptable barometer of the total impact of harm from crimes committed” (Sherman, Neyroud and Neyroud 2016, pg. 2). The CCHI employed is included at appendix A.

Literature review conclusions

It can be concluded that every study of offending, harm and criminal career should be conducted with one eye on gang membership, such is the strength of correlation. This study aims to test that assumption for gang members operating a specific modus operandi in North Essex. It will not explore many key DLC issues, such as the correlation between parental socialisation and offending onset, or that of marriage and desistance. It will use harm as a metric for analysis and aims to create a base knowledge of the characteristics and careers of 'County Line' offenders.

Chapter 3: Methods

This chapter discusses the methods used to address the research questions set out in chapter 1. Firstly, the chapter describes the data sources and sampling method, eligibility criteria, variables included for analysis and limitations of the dataset. The chapter then outlines the descriptive statistical analysis applied to the dataset.

Research design

To inform a better understanding of 'County Line' offenders one approach would be to compare them to other gang members who do not migrate. There are two reasons for not choosing that methodology. Firstly, 'County Line' offenders are explicitly drug dealers and gang members. As already shown in the literature, gang members and drug dealers in the UK are not two halves of the same phenomenon (Moore 1990). Secondly, North Essex imports, rather than exports, CL offenders from major metropolitan centres elsewhere and has no identified 'home grown' gangs. To maximise the policy impact of the study then, a more useful comparison is that of 'County Line' offenders and 'indigenous' drug dealers, where gang membership is the significant separating variable.

Data Sources and sampling method

All data gathering, handling, research and analysis in this study was conducted solely by the author utilising access afforded to Essex Police systems.

Before analysis could begin, a sample of CL offenders and NCL offenders from the research setting needed to be derived. This sample selection and sample cleaning occurred prior to analysis and with cognisance to the necessary characteristics of each type of offender contained within the definitions outlined in chapter 1.

ATHENA

Essex Police operate an integrated software platform called ATHENA. ATHENA contains individually entered, quality assured and linked pieces of 'P.O.L.E' data (Person, Object, Location, Event). These individual pieces of data are utilised across various modules of the software platform such as custody, case management, investigations and intelligence. P.O.L.E. data is quality assured and linked across modules by staff in the force crime bureau. Certain pieces of P.O.L.E. data are tagged during initial entry by the user, or during the quality assurance and linking process. Searches of ATHENA on any search term or tag, therefore, return results from across all modules.

For example, 'John Smith' is subject to a stop and search and a subsequent intelligence entry on ATHENA by a police officer. During entry on the system, the police officer will search the ATHENA database to establish if John Smith already exists as a piece of linked and quality assured P.O.L.E data from some earlier interaction. If so, the officer will request that the new entry is linked to the existing person record, if not, the person details will be added as a new piece of P.O.L.E. data. The officer has the option of applying any tags relevant to the entry, for example, 'gangs' or 'drugs supply'. Depending on the route of entry to ATHENA, tags are sometimes automatically applied by the system, for example, if an arrestee is brought into custody for an offence concerning the supply of controlled substances, the 'drugs' tag is automatically added to the person record.

ATHENA was the starting point of building both the CL and NCL cohorts for this study. Searches were made for the North Local Policing Area (NLPA) of Essex, within the search range of 01/04/2015 and 01/04/2016. For the CL cohort, people (rather than objects, locations or events), were searched for with the search term of 'gang' applied. For the NCL cohort, people were searched for with the term 'drugs' applied. To provide extra confidence in the search reliability and application of the gang or drug tag, investigations, case and custody records that involved a

drugs offence were also examined and person details extracted. Finally, intelligence reports where the source was graded 'mostly reliable' or 'corroborated' were examined under search terms of 'gang' and 'drugs' and person details extracted where they involved offender interaction within the research setting.

The search results underwent an initial rudimentary and intuitive cleaning exercise prior to extraction. This involved examination of each result and the exclusion of any that, for example, contained only the 'street name' of the person, as any reliable identification of that person would be problematic. Confirmed duplicate offender records were then also removed from each cohort independently.

Holdcroft, Raptor and Tasking

The researcher held meetings and unstructured interviews with gang outreach workers, intelligence analysts and operational police officers working with gangs from both Essex and the Metropolitan Police Service (MPS) areas. This was done to better understand the issues at hand and current methodologies in place to tackle them.

The Holdcroft matrix is an MPS designed excel spreadsheet that scores gang members on a variety of variables to establish a rank order. Whilst the matrix has some considerable flaws in design and methodology as a risk assessment and prioritisation tool; it does provide a useful centralised reference point for attributing offender records to identified gangs. Holdcroft is the chosen means of offender selection for Essex Police and is supposed to inform tasking and tactical activity in the same way it does for the MPS.

Raptor is the operational name given to the Essex team of officers charged with tackling gangs and 'County Line' activity. Each one of the Essex LPA's has its own dedicated Raptor team. Raptor use violence and drug dealing as the qualifiers for their targeting methodology. The researcher spent time with the NLPA Raptor supervisor, who explained that they placed little value in the Holdcroft matrix as a means of target identification. The impression of the supervisor

was that Holdcroft nominals score highly 'after the fact', or once a serious violence conviction had been achieved. Raptor wish to be more proactive in the targeting of offenders to prevent that harm in the first place. Therefore, NLPA Raptor was using intelligence received and officer intuition as the foundation of their targeting methodology. The records held by Raptor were a useful means of cross referencing the CL cohort and attributing individual offender records to gangs.

As part of the police National Intelligence Model (NCIS 2000) the NLPA holds fortnightly tasking and co-ordination meetings, which produce an assessment document (including a section on County Line activity). These documents were retrieved for the reference period and were examined as a means of quality assurance to ensure no offender records had been missed by the initial search.

Exclusion Criteria

Exclusion criteria were applied to both cohorts. Two of these criteria were dependant on the definitions provided in chapter 1. A CL offender must be a gang member, so, those in the CL cohort who could not be attributed to a gang were removed. County Line drug dealing was found to almost exclusively concern the supply of class A drugs such as heroin and crack cocaine. To make the cohorts comparable, any offenders in the NCL cohort who entered the sample purely due to the supply of cannabis were excluded. Also, an offender who met the criteria for the CL cohort could not be part of the NCL cohort. Further, two geographical premises within the research setting drew offenders into the cohorts artificially. One is an annual music festival that attracts around 250,000 visitors to the NLPA over a single weekend, and the second is Her Majesty's Prison and Young Offenders Institute, (HMPYOI) Chelmsford. Analysis relating to gang presence and drug supply at these two 'artificial' drug markets was outside the scope of this

study. Therefore, any individual offenders in the sample that entered the cohorts by interactions at these sites alone were excluded.

Table 1. Exclusion criteria

Exclusion criteria	Applied to CL	Applied to NCL
Must be a member of an identifiable gang	✓	✗
Must not be in the CL cohort	✗	✓
Offending must not relate solely to cannabis	✓	✓
Interaction causing entry into sample must not relate solely to music festival offending	✓	✓
Interaction causing entry into sample must not relate solely to HMPYOI Chelmsford offending	✓	✓

Variables for analysis

Once exclusion criteria were applied, the following variables were recorded for each offender:

- Source causing entry to the sample, (for example, custody reference number, crime report or intelligence reference).
- Surname
- First name
- Date of birth
- Age at entering the sample
- Gang
- Ethnic appearance
- Nationality
- Place of birth
- Police National Computer identification number
- Postcode of interaction causing entry to the sample. (Where this was not available the Google maps returned postcode for the centre of the nearest town was used).

Where any of these variables were not available from the source record, the offender was researched individually using secondary Essex Police systems to fill in any blank values.

Police National Computer (PNC) extraction

ATHENA also interfaces with the Police National Computer (PNC). PNC holds a national database of information, available to law enforcement agencies throughout England and Wales. Huge amounts of data on offenders, including personal details, custodial history, warning markers, convictions and pending prosecutions are digitally available through the ATHENA/PNC interface.

Each individual offender in the sample was researched via PNC and variables extracted manually. The process was time consuming and labour intensive, taking an average of 35 minutes

per offender. Previous criminal career studies that have utilised PNC have used automated data extraction. That extraction technique brings inherent weaknesses. Automatic extraction will draw out the number of convictions against a subject, but there will in fact be a higher number of convicted offences against the same subject. This is because offenders often face multiple charges on indictment for the same offence type, or face trial for more than one offence simultaneously, yet PNC works from a single reference (known as an Arrest/Summons number) for each occasion of prosecution.

The following variables were manually extracted from each offender's PNC record:

- Warning marker 'violent', yes/no.
- Warning marker 'violent to police', yes/no
- Warning marker 'ailment', yes/no.
- Warning marker 'drugs', yes/no.
- Warning marker 'mental health', yes/no.
- Warning marker 'weapons', yes/no.
- Warning marker 'escaper', yes/no.
- Warning marker 'self-harm', yes/no.
- Warning marker 'firearms', yes/no.
- Last known address postcode, (at point of interaction causing entry to sample)
- Year by year, each individual offence type arrested.
- Year by year, each individual offence type convicted.
- Total number of arrests, (excluding 'minor' traffic related arrests)
- Date of first arrest.
- Total number of convictions, (excluding 'minor' traffic related offences)
- Date of first conviction.
- Impending prosecutions.

- Career total known associates, including those arrested/charged with.

Table 2 shows the progression of the two cohort samples through the selection and cleaning process.

Table 2: Sample sizes at stages of selection

Stage of sample selection	County Line Cohort (CL) Number of offenders	Non-County Line Cohort (NCL) Number of offenders
Initial cleaned ATHENA search results	536	744
After removal of duplicates	220	512
After exclusion criteria applied	145	166
After positive PNC identification	123	105
After reference to Holdcroft and Raptor	99	N/A
Final number subject to analysis	99	105

Once the two cohorts had been finalised the Cambridge Crime Harm Index (CCHI), was introduced as a reference document. Every offence in the CCHI was allocated an offence code, with each offence code linking to the CCHI harm score for that offence. For example, sexual assault of a boy under 13 years of age by touching became offence code 532 and was linked to the returning harm score of 182. The CCHI used is included at appendix A for reference.

For every offender in each sample, each year of their criminal career as recorded on PNC was then examined and the following detail calculated and recorded using Microsoft Excel:

- Age at first arrest.
- Age at first conviction.
- Number of arrests in each year of age.
- Individual offence codes and CCHI harm scores for each arrest.
- Yearly total arrest CCHI harm score for each year of age.
- Number of convictions in each year of age.
- Individual offence codes and CCHI harm scores for each conviction.
- Yearly total conviction CCHI harm score for each year of age.
- Total career CCHI harm score for arrests.
- Total career CCHI harm score for convictions.

Finally, utilising Google maps, the distance between the postcode for last known home address at time of entering sample and postcode of place entering sample were used to calculate the distance travelled from home address to place of interaction. The data extraction and calculation took the researcher a total of 293 hours.

Following extraction and calculation of all variables, the following recorded variables were anonymised in the interests of data protection and to allow the researcher to work on the dataset outside of Essex Police secure systems:

- Source causing entry to the sample, (for example, custody reference number, crime report or intelligence reference).
- Surname.
- First name.
- PNC identification number.
- Last known address postcode.

Limitations and Mitigations

As previously indicated, relying on criminal justice data alone presents the issue of the reported discrepancies between official recorded data and self-reported data that is found in mixed method longitudinal studies (Nagin et al. 1995). Discussion of this matter will be essential following analysis of results.

Arrest data was extracted for analysis as well as conviction data. This approach was taken for two primary reasons. Firstly, to allow a comparison of arrest to conviction ratios between the two cohorts and secondly to provide an insight into the suspected criminal activity of both the CL and NCL cohorts. There are a variety of operational and legal mechanisms that prevent an arrest being converted to a charge and that charge being converted to a conviction, not least of which the burden of evidential proof required. All arrest data and analysis should therefore be viewed as an indication of the police suspicion of criminality rather than an indication of guilt proven by democratic societal mechanism. Out of court disposals, such as penalty charge notices and conditional cautions require a full admission of guilt without any statutory defence being raised by the perpetrator. Therefore, all out of court disposals found were counted as convictions for the purposes of this study.

As with any dataset, the sample extracted is only as good as the data that was entered by the users. There are known data quality issues in both ATHENA and PNC information. When considering the main part of the dataset: personal details, offences arrested and convicted and demographic characteristics, it is the experience of the researcher that data quality issues are minimal and tend to centre around how promptly records are updated, rather than how accurate the data is. An area of larger data quality issue, and one borne out in the results found is that of warning signals. Warning signals generally require a police officer (usually a custody officer) to remember to add a relevant warning signal to an individual's PNC record at the point of arrest.

Custody officers are primarily concerned with the welfare of a detainee, so warning markers associated with detainee vulnerability, such as 'mental health' tend to be more accurate than those associated with officer safety, such as 'firearms'.

The CCHI (see appendix A), has harm scores missing for some offences. None of those offences where harm scores were unavailable were found in the criminal careers of offenders in either sample. Certain offences are excluded from the version of the CCHI used, for example, minor road traffic offences. Whilst these type of motoring offences are negligible in terms of harm scoring, they are pertinent to the identification of offenders into the sample. Motoring offences will often be the first point of interaction between police and criminals. Denying criminals the use of the roads is a key strategy in offender targeting in the research setting. Therefore, these offences and interactions were used for the sampling of offenders but were not considered when establishing arrest, conviction or harm data.

Conversely, offences committed in prison, that were not used as the source for sampling, are included in the analysis of offenders' criminal careers. A common discussion in criminal career studies that involve comparison of offending patterns, is the issue of incarceration (Farrington and West 1990, Farrington 2003). It could be argued that including past prison based offences allows the researcher to equalize the time at risk of offending for compared criminal careers. Many offences committed inside prison are dealt with through internal management mechanisms, rather than through reporting and recording mechanisms of the police, and would therefore fail to be captured by PNC. Whilst the true extent of under recording in prisons remains unknown, one alternative solution would be to subtract the periods of incarceration from each offender's criminal career to equalize for time at risk of offending among those sampled. This involves a more detailed and time consuming analysis of individual offending records than was practicable for this study. Therefore, the results of this analysis need to be

viewed with the knowledge that prolonged periods of incarceration for high harm offences will significantly skew some individual offending opportunities, and therefore offending records.

The research questions posed are descriptive by nature, making a quantitative methodology the most appropriate to answer them (Bachmann and Schutt 2003). A mixed methods design, including qualitative interviews with offenders from each cohort would provide a richer context to the criminal careers of each cohort (King and Wincup 2008). However, the offenders selected and offending data represent a convenience sample, based on the available access awarded to the researcher. Established problems with qualitative offender interviews when examining criminal career, such as overstating or understating personal involvement, would be exacerbated by those interviews being conducted by a researcher who is also a serving police officer. As a convenience sample, specific to one part of the county of Essex, the results can only ever be indicative of North Essex offenders. Despite the operational utility of the results, which are based on an entire population sample over a twelve-month period, extrapolating the findings to wider populations outside of the research setting has significant weaknesses in reliability and validity.

As an exploratory rather than explanatory study, no causal mechanism is revealed. The research questions ask 'What?' rather than 'Why?'. This is a descriptive study of a group of offenders previously undefined and unstudied and therefore this thesis has the inherent limited explanatory power.

Analysis employed

The dataset has been analysed using descriptive statistics, including measures of central tendency, percentages, rates and ratios and interquartile ranges. Cross tabulation of variable results between the two cohorts has been completed and, where appropriate, results are visually represented by graphs to aid understanding (Bachmann and Schutt 2003).

Chapter 4: Results

Description of Data

The final dataset contained 99 CL offenders and 105 NCL offenders who had an interaction with Essex Police in the North LPA between 1st April 2015 and 1st April 2016. The 37 variables extracted on each offender resulted in 466,548 data fields for analysis. The full results of dataset analysis are too numerous to be presented here, so the most pertinent results that answer the research questions posed are prioritised. Results such as findings on the mortality of the cohorts, individual high harm offender profiles, and crime type analysis of CL versus NCL offenders, do not necessarily speak directly to the research questions so are excluded. Prior to presenting the results of that analysis it is useful to restate the research questions.

- Question 1: What are the demographic characteristics and criminal careers of 'County Line' offenders in North Essex?
- Question 2: How do the demographic characteristics and criminal careers of 'County Line' offenders differ to those of Non-'County Line' offenders committing similar offences in North Essex?
- Question 3: What do those criminal careers look like when viewed through the lens of the Cambridge Crime Harm Index?

The answers to these questions are detailed below, with each results section concluding with a summary. The results of the first and second questions are grouped for comparative presentation.

Demographic characteristics

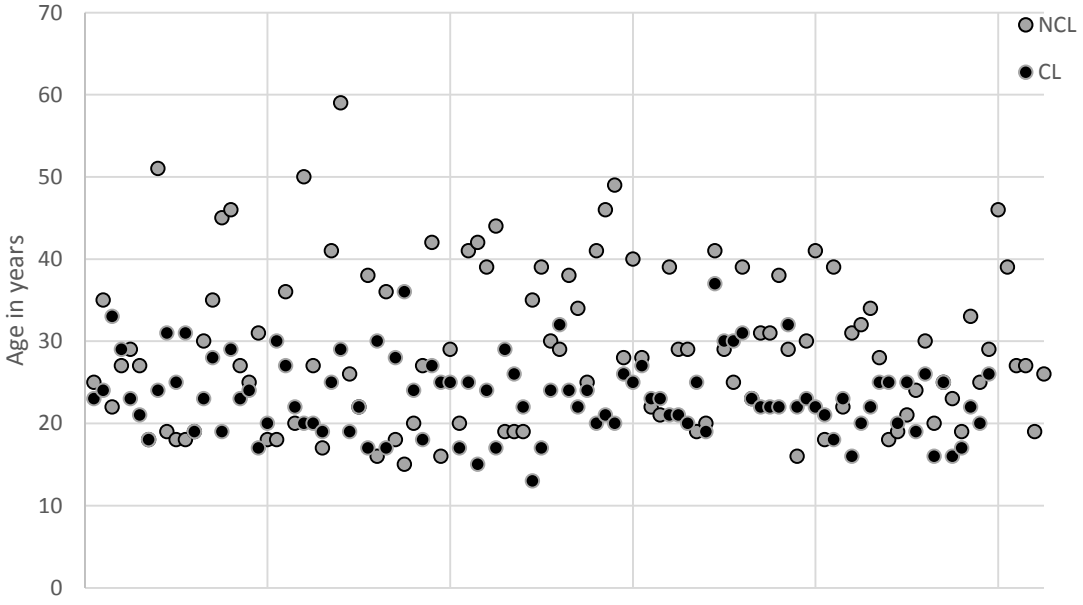
Age-CL

County Line offenders sampled in the reference period are, on average, 5-6 years younger than Non-County Line offenders. The youngest CL offender in the sample was just 13 years old and the oldest was 37 years old at the interaction bringing them into the sample. The mean age is 23.273 *(sd=4.72),* with a median of 23. Two offender ages of 36 and 37 are outliers at 1.5 times IQR above the third quartile of 26 (Tukey 1977). The CL age data is normally distributed.

Age-NCL

The NCL cohort has an age range of 15 to 59 years of age, with a mean of 29.229 *(sd=9.60)*. The NCL data is skewed, in an asymmetrical distribution but contains no suspected outliers by Tukey's test. The median of 28 years is the best measure of central tendency for NCL age at point of interaction with Essex Police. Figure 2 shows the age ranges of both cohorts with each offender represented by a dot.

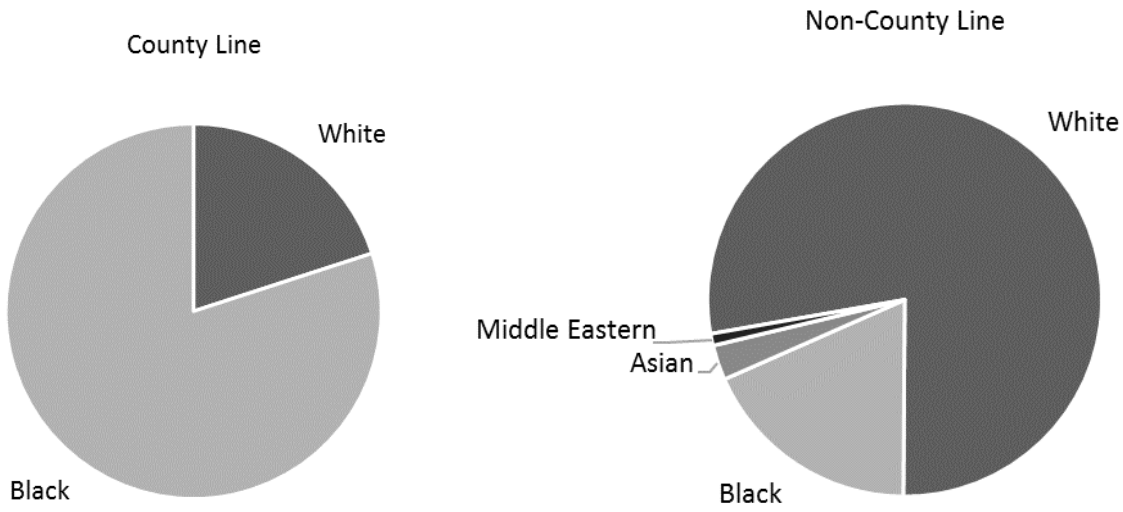
Fig.2 Cohort Comparison-Age at time of interaction



Ethnic appearance

The CL cohort contains two identified ethnic appearance categories, with 19.19% of the cohort being White and 80.81% being of Black ethnic appearance. The NCL cohort has four categories with 77.14% being White, 18.10% Black, 2.86% Asian and .95% Middle Eastern. Figure 3 illustrates these cohort percentages.

Fig.3 Cohort Comparison- Ethnic appearance



Gangs

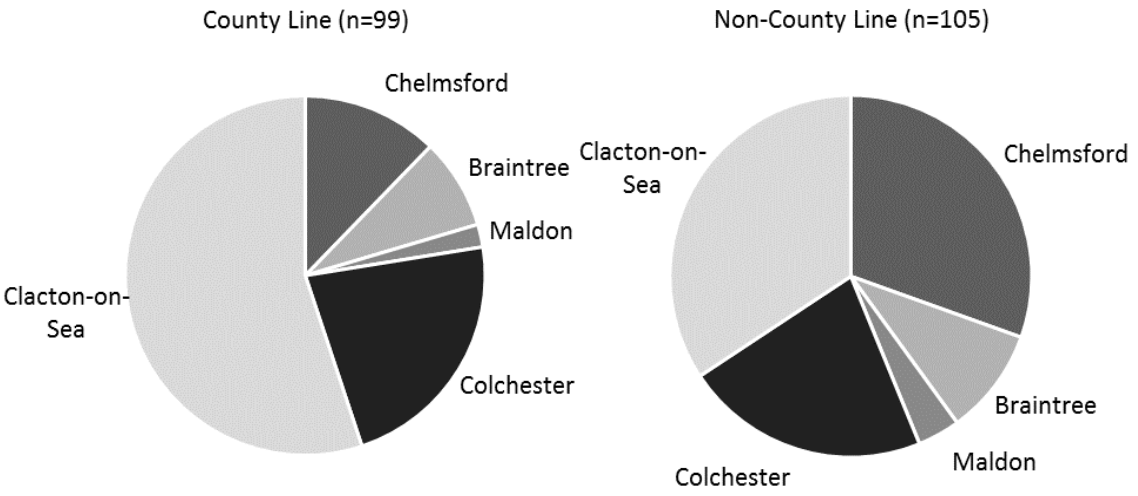
33 different gangs were represented by the 99 offenders of the CL cohort, 18 of the gangs are represented in the sample by just 1 gang member. 15 of the 33 gangs had a presence of more than one gang member with the upper end of the range being 13 gang members. All but one of these gangs originate in the London metropolitan area, with the exception being 7 members of a gang originating in the city of Liverpool. The 32 London based gangs represented just 14.5% of the 225 gangs based in London that are recognised by the Metropolitan Police Service (MPS

2016). No gangs were found in the NCL cohort, however, 6 members of a recognised organised crime group (OCG) were.

Places of offender interaction

The offenders found in the sample were located across four urban centres in the North LPA. Figure 4 illustrates the dispersion of the offenders, with Clacton-on-Sea housing the highest concentration of both types of offenders, 56% of the CL offenders and 34% of the NCL offenders, representing 45% of the overall offender sample.

Fig.4-Cohort Comparison-Places of police interaction



Ranking the places of interaction of each cohort in a table also provides a useful point of analysis, showing consistent ranking in each cohort, except that Chelmsford, ranked 3rd for CL offenders, is promoted to 2nd for NCL offenders and marginally 2nd overall.

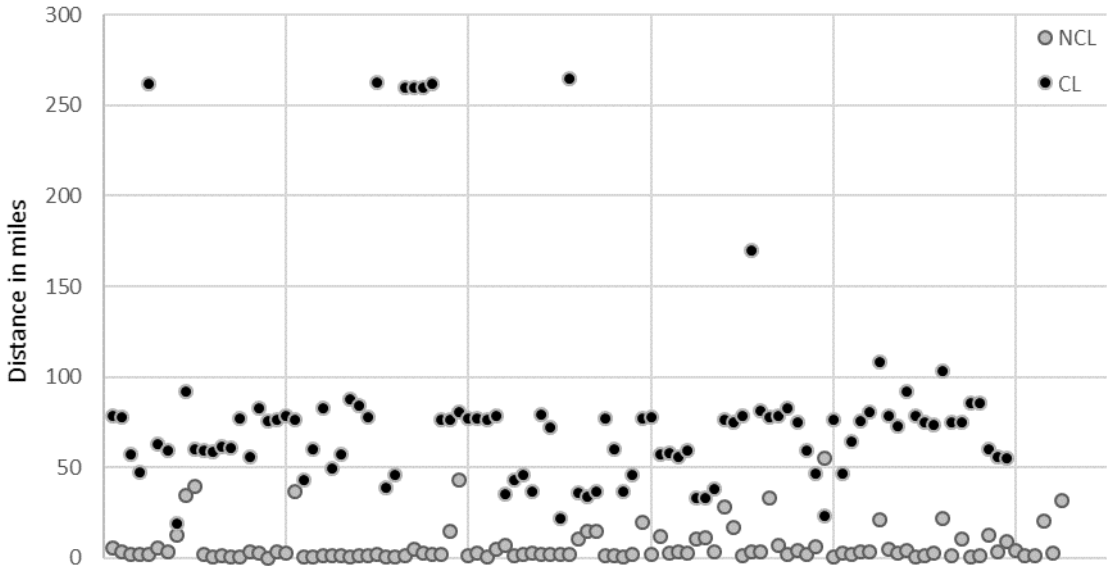
Table 3-Ranked places of interaction

Rank	CL offenders	(n=99)	NCL offenders	(n=105)	Combined	(n=204)
1st	Clacton	(56%)	Clacton	(34%)	Clacton	(45%)
2nd	Colchester	(22%)	Chelmsford	(30%)	Chelmsford	(22%)
3rd	Chelmsford	(12%)	Colchester	(22%)	Colchester	(22%)
4th	Braintree	(8%)	Braintree	(10%)	Braintree	(9%)
5th	Maldon	(2%)	Maldon	(2%)	Maldon	(3%)

Distance travelled from home address

CL offenders travelled an average of 71 miles further (from their home to the place of police interaction), than NCL offenders. The mean distance travelled by CL offenders was 79.84 *(sd=54.53)* miles; whilst the mean distance travelled by the NCL offenders was 6.85 miles *(sd=10.41)*. The members of the Liverpool based gang found in the CL cohort were far outliers in distance travelled, as illustrated by figure 5 where each dot represents an offender.

Fig.5 Cohort Comparison-Distance travelled from home address to place of police interaction.



Nationality/place of birth

All the NCL cohort were found to be British nationals (n=105). 91.9% of the CL cohort were also found to be British nationals (n=99), with other nations represented being 3 Somalians, 2 Portugese, 1 Saudi, 1 Nigerian and 1 American. Places of birth among the cohorts provided more diversity. The main results are shown below in table 4, with the full list being shown in Appendix B. Notably, none of the CL offenders were born in the county of Essex and only 35% of the NCL offenders were born in the research setting of the North Local Policing Area (NLPA).

Table 4-Offender place of birth

Place of birth	CL offenders (n=99)	NCL offenders (n=105)	Combined sample (n=204)
Non-UK	16 *(16.16%)*	8 *(7.62%)*	24 *(11.76%)*
Essex (not NLPA)	0	10 *(9.52%)*	10 *(4.90%)*
Essex NLPA	0	37 *(35.24%)*	37 *(18.14%)*
Greater London Boroughs	72 *(72.72%)*	28 *(26.67%)*	100 *(49.02%)*
Other UK locations	11 *(11.11%)*	19 *(18.10%)*	30 *(14.71%)*
Unknown	0	3 *(2.86%)*	3 *(1.47%)*

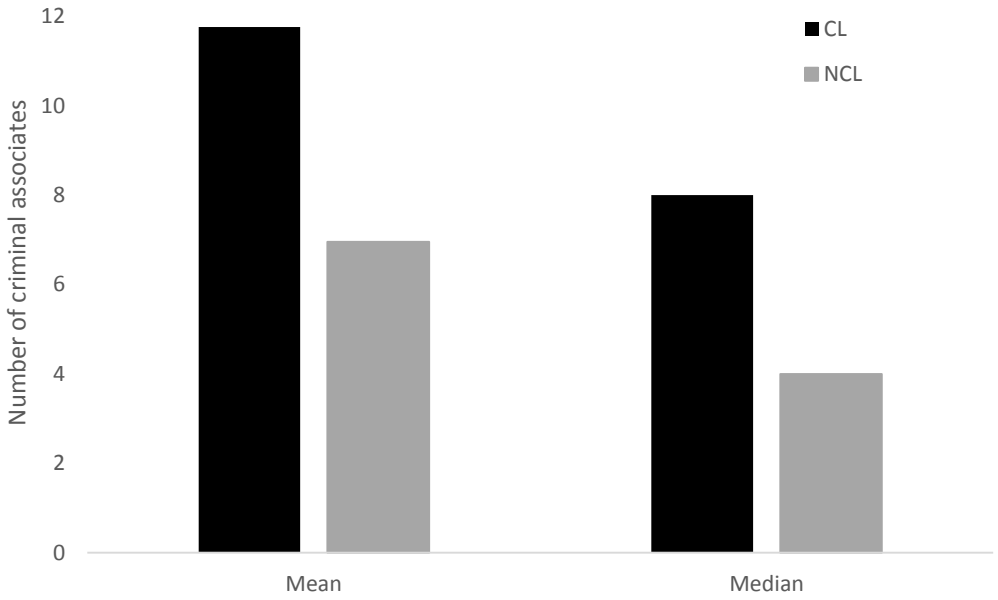
Gender

All 99 of the CL cohort were male. 13 out of the total 105 NCL offenders were female.

Known Associates

The PNC category of known associates was added to the number of persons each offender had been charged or convicted with, to provide a total number of known associates for each offender, and some insight into their co-offending behaviour. For the CL cohort the number of associates ranges from 0 to 64, has a mean of 11.76 *(sd=11.73)* and a median of 8. The data is skewed with far outliers making the median the more reliable measure of central tendency. In the NCL cohort the number of associates ranges from 0 to 29, has a mean of 6.95 *(sd=7.12)* and a median of 4. The data on number of associates is also skewed for the NCL cohort with outlier values evident, making the median a better measure of central tendency. By either measure, it can be seen that CL offenders have on average twice as many known criminal associates as Non-County Line offenders, as illustrated by figure 6.

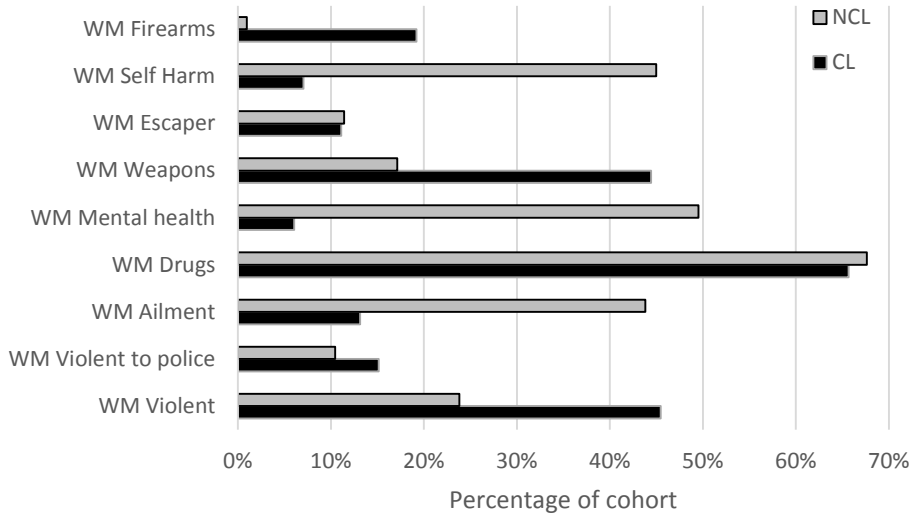
Fig.6-Cohort Comparison-Number of criminal associates



Warning signals

Warning markers indicate that the CL cohort are more violent, more dangerous and less vulnerable than the NCL cohort. For example, 19.19% of the CL cohort have a firearms warning marker, compared to less than one percent of the NCL cohort. A further 44.44% of the CL cohort have a weapons warning marker, compared to 17.14% of the NCL cohort. 49.52% of the NCL cohort have a mental health warning marker, and 45% have a self-harm warning marker, compared to just 6.06% and 7.07% of the CL cohort. Figure 7 shows these warning marker percentages in direct comparison between the two cohorts.

Fig.7-Cohort Comparison-Warning markers



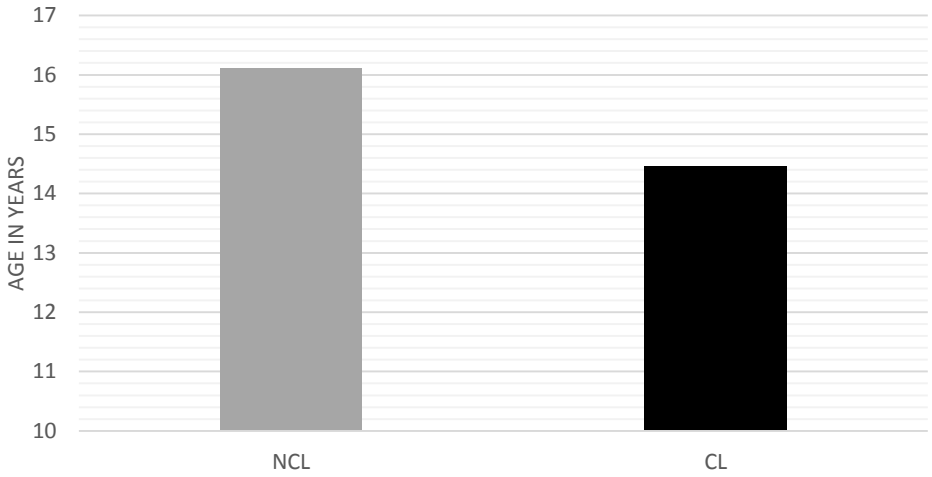
The PNC warning markers attached to offender records were explored for accuracy. 33 out of 99 CL offenders have prior arrests for firearms offences, yet less than 20% have a firearms warning marker. 100% of each cohort are believed to be involved in the supply of drugs, yet less than 70% of each have a drugs warning marker.

Criminal Careers

Onset-Age at first arrest

The variance of age at first arrest is 8.7 years in the CL cohort and 15.5 years in the NCL cohort. The data for age at first arrest is normally distributed for both the CL and NCL cohorts. Both cohorts have some surprising upper outliers, with the CL cohort having one offender who was 32 years old when first arrested, and the NCL cohort having one offender who was 33 years old when first arrested. The mean age at first arrest is 16.1 years old for the NCL cohort (*s.d. 3.94*) and 14.4 years old for the CL cohort (*s.d. 2.95*).

Fig.8-Cohort comparison- Mean Age at first arrest



Age at first conviction

The CL offenders mean age at first conviction is 15.2 years of age (*s.d.3.0*), whereas the NCL offender mean age at first conviction is 16.4 years of age (*s.d. 4.0*). Both cohorts have a median age of first conviction of 15 years.

Total career arrests

The 204 offenders examined had been arrested for a total of 6775 offences, (excluding minor road traffic offences). Table 4 shows a comparison of the total career arrests of each cohort. Each cohort contains upper and lower far outliers in numbers of arrests.

Table 5-Cohort Comparison-Total career arrests

Career arrests	County Line Cohort (n=99)	Non-County Line cohort (n=105)
Total	3041	3734
Median	30	23
Mean	30.7	35.5
Standard Deviation	17.49	34.09
Max	89	159
Min	4	2

Total career convictions

Table 6 shows that NCL offenders sampled have a mean of 7 more convictions than CL offenders sampled, yet both cohorts have the same median amount of convictions at 12. The cohorts have similar 1st, 2nd and 3rd quartile values, with the top 25% of NCL offenders having more than double the total convictions that the top 25% of CL offenders do.

Table 6-Cohort Comparison-Total career convictions

Career Convictions	County Line Cohort (n=99)	Non-County Line Cohort (n=105)
Total	1236	2069
Median	12	12
Mean	12.4	19.7
Standard Deviation	8.18	24.04
Max	42	131
Min	1	0
Total convictions of top 25%	601	1396

Ratios of age to arrest and conviction

The total number of years at risk of arrest and conviction (age 10 to present age) were calculated for each cohort, and are shown in table 7.

Table 7-Age at risk of arrest and conviction

Age at risk	County Line Cohort	Non-County Line Cohort
Total years at risk	1314	2019
Total arrests	3041	3734
Total convictions	1236	2069

As the NCL offender cohort is older, with a substantially higher number of years at risk, a ratio of arrests for each year at risk and convictions for each year at risk was calculated. As displayed in Figure 8, CL offenders experience arrest at a higher ratio than NCL offenders. Yet, as illustrated by Figure 9, CL offenders experience conviction at a lower ratio than NCL offenders.

This suggests that despite their mobility, CL offenders are not difficult for law enforcement agencies to arrest, yet appear to be more difficult to convict.

Fig.9-Ratio of arrests to years at risk of arrest

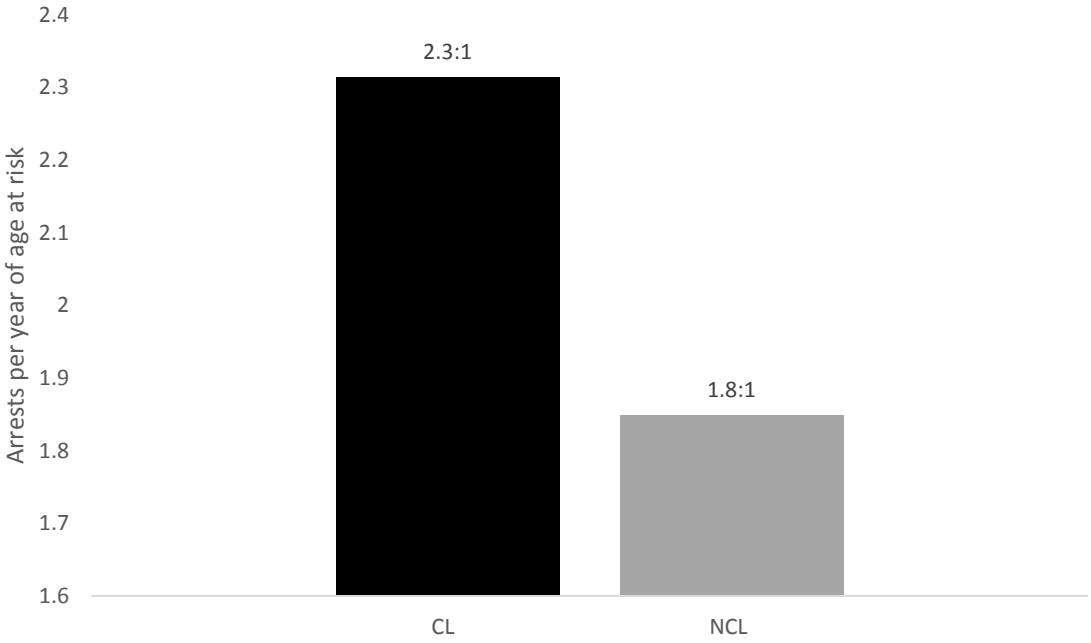
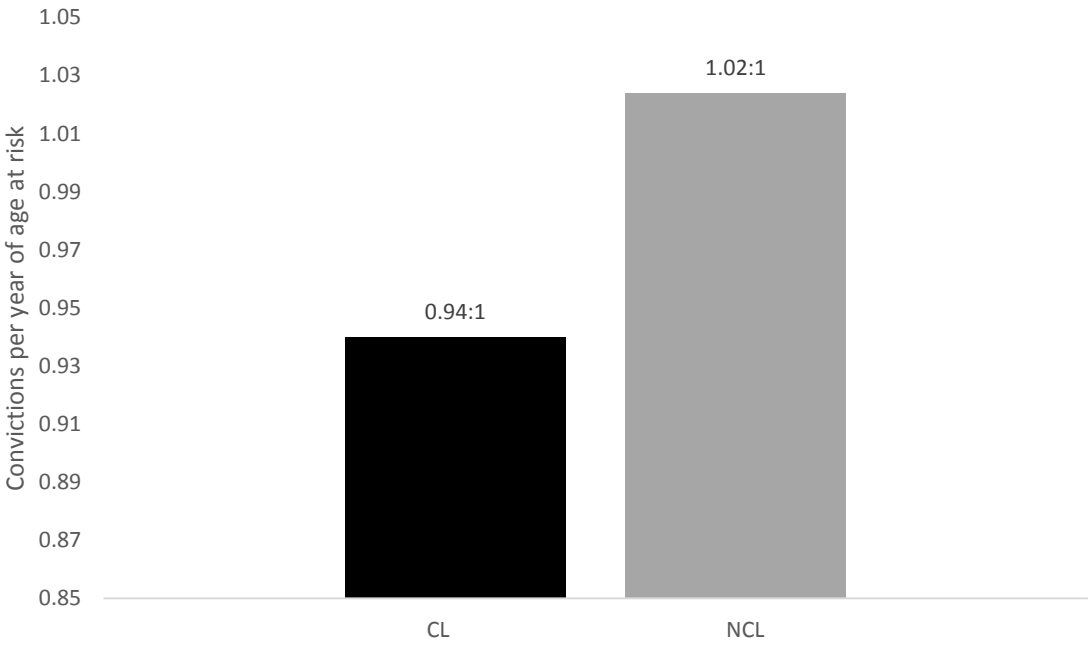


Fig.10-Ratio of conviction to year at risk of conviction



In summary, it is useful to answer the first two research questions directly.

Question 1: What are the demographic characteristics and criminal careers of 'County Line' offenders in North Essex?

CL offenders in North Essex are young males, typically in their early 20's. They are mostly black and predominantly originate from a variety of London based gangs. None of them are born in Essex and 16% of them are born outside of the United Kingdom. The modus operandi of County Line activity in North Essex is shown to be somewhat of a specialist gang activity, with only 14% of the recognised London gangs having a known County Line presence in this part of Essex. It also appears to be a criminal tactic with great potential for expansion with most gangs found, only being represented by one offender. They are prepared to travel great distances, (80 miles from their home addresses on average), for the most lucrative drug markets, bypassing other markets in the process. They have an average of 8 known criminal associates. Few of the CL offenders have warning markers indicating vulnerability, whilst nearly half have warning markers indicating a prevalence to violence and the use of weapons. CL offenders are, on average, first arrested around the age of 14 years old and first convicted at 15 years old. They are arrested on suspicion of committing offences 30 times on average, but convicted less than half that number of times.

Question 2: How do the demographic characteristics and criminal careers of 'County Line' offenders differ to those of non-'County Line' offenders committing similar offences in North Essex?

They are not entirely male and are typically older, with the central tendency being 28 years old. 77% of them are of white ethnic origin and they are more evenly spread around the NLPA, with their interaction location being more linked to their home addresses. Nearly half of them are born in Essex, with 35% of them being born in the research setting. They travel less than one tenth of the distance that the CL cohort do, with an average distance from home address to place of interaction being under 7 miles. NCL offenders have half the number of known criminal associates when compared to CL offenders. Warning markers indicate that the

NCL cohort are significantly more vulnerable than CL, with nearly half of NCL offenders having self-harm warning markers and mental health warning markers compared to less than 10% of CL offenders. NCL offenders are, on average, first arrested and convicted aged 16 years, this being two years later than CL offenders first arrest and one year later than NCL for first conviction. NCL offenders are arrested for committing offences less frequently when considering their age at risk of arrest, yet convicted at a higher ratio.

That CL offenders are arrested for committing offences at a higher rate but convicted at a lower rate, indicates the importance of exploring how harmful the offences each cohort is being arrested and convicted for are.

Criminal Careers viewed through the Cambridge Crime Harm Index

The question of harm versus volume of arrests and convictions in each cohort reveals that despite having 6 less offenders, the CL cohort was responsible for more than double the amount of career arrest harm than the NCL cohort. Despite being convicted at a lower ratio, the CL cohort was responsible for a third more conviction harm than the NCL cohort. The average arrest harm caused by the CL offender was 8096 harm points, compared to 3644.9 harm points average of the NCL offender. Further comparison of the cohort's harm values can be seen overleaf in table 8.

Table 8-Cohort Comparison-CCHI harm

	CL	NCL
Arrests		
Total score	801505.3	382724.3
Median	6218	2651.5
Mean	8096 (*s.d.6453.5*)	3644.9 (*s.d.3580.7*)
1st Quartile	3177.5	1099
3rd Quartile	13107.2	5295.5
Max	28141	25324
Min	28	22
Convictions		
Total score	186694	127693.8
Median	1152.5	552.5
Mean	1885.7 (*s.d.2871.5*)	1216.1 (*s.d.2015.4*)
1st Quartile	114.1	55
3rd Quartile	2141.7	1401.7
Maximum	16489.7	13698
Minimum	2	0

Harm concentration in the samples

The concentration of arrest and conviction harm among the cohorts was similar in it's distribution for both CL and NCL offenders. 40% of the total arrest harm in the CL cohort is attributable to just 17 offenders, with 10% of the total harm being attributable to just 3 high harm offenders. For convictions 40% of the total harm caused is attributable to just 8 offenders, with 10% of the total conviction harm being caused by just one offender.

Fig.11-CCHI arrest and conviction harm distribution among the CL cohort.

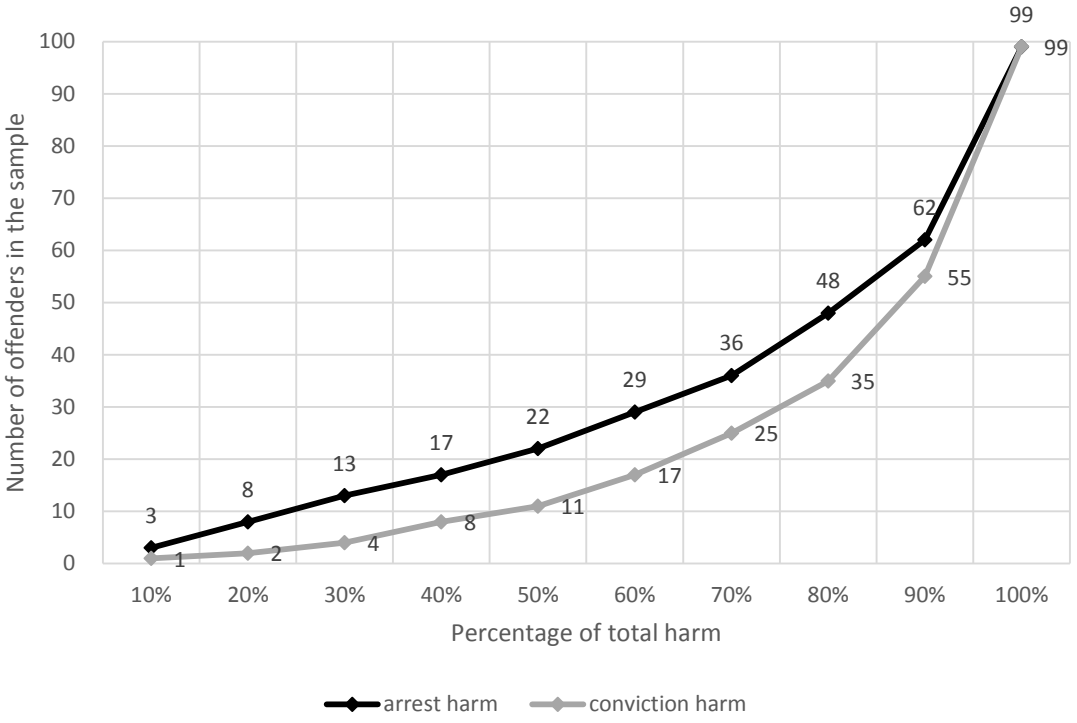
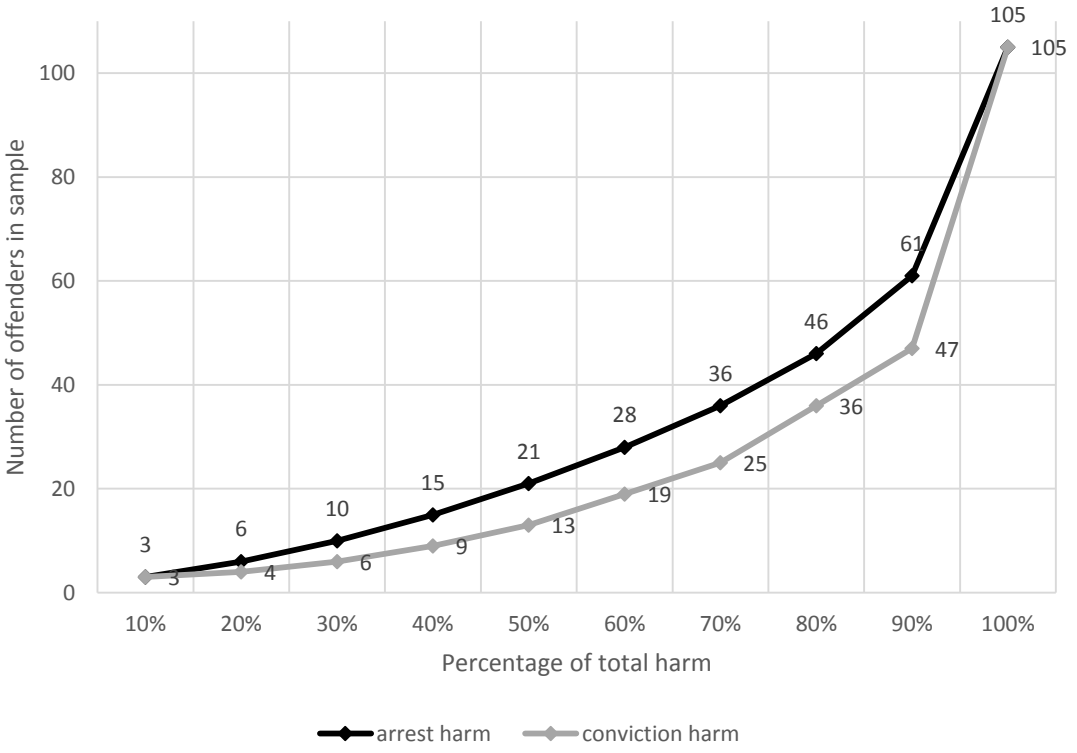


Fig.12-CCHI arrest and conviction harm distribution among the NCL cohort



In the Non-County Line cohort 40% of the total arrest harm is attributable to just 15 offenders. For convictions 40% of the harm caused is attributable to just 9 high harm offenders. For both arrests and convictions 10% of the total harm is caused by just 3 high harm offenders.

Age categories

The number of offenders in each age range affects the comparison of their criminal careers on any age graded basis. To inform further interpretation of the results table 9 shows the number of offenders remaining in the samples at certain age graded milestones.

Table 9- NCL age categories sample size

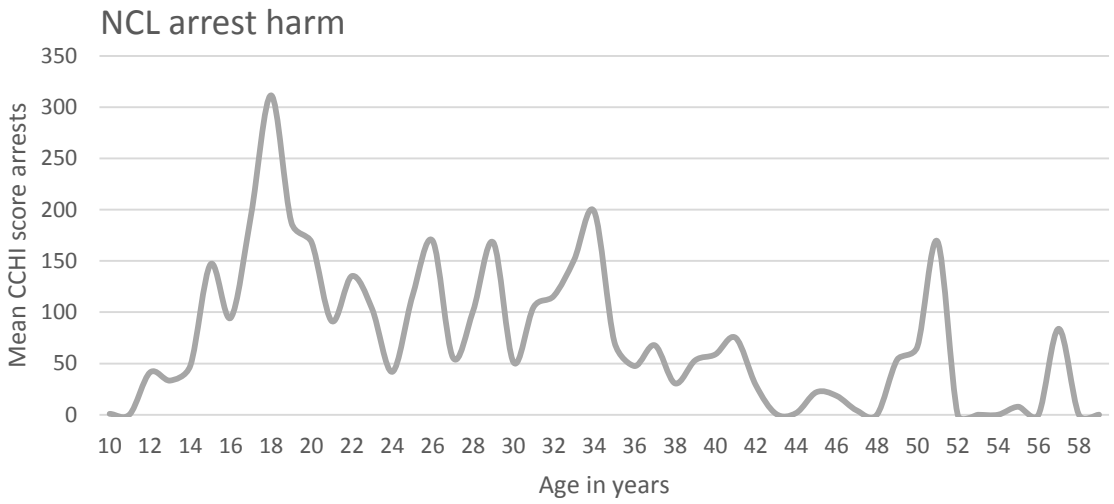
	Age category	NCL offenders remaining in sample	CL offenders remaining in sample
Arrests	10 years old	105	99
	20 years old	89	82
	30 years old	51	16
	40 years old	21	0
	50 years old	4	0
	59 years old	1	0
Convictions	10 years old	105	99
	20 years old	90	83
	30 years old	50	14
	40 years old	22	0
	50 years old	4	0
	59 years old	1	0

It is not necessarily the case that CL offenders have an earlier desistance point than NCL offenders, they simply do not exist in the sample past the age of 40 years old. County Line activity is it seems a younger man's modus operandi than the 'local' drug dealing of the NCL cohort.

Non-County Line cohort CCHI vs, volume career arrests by year of age.

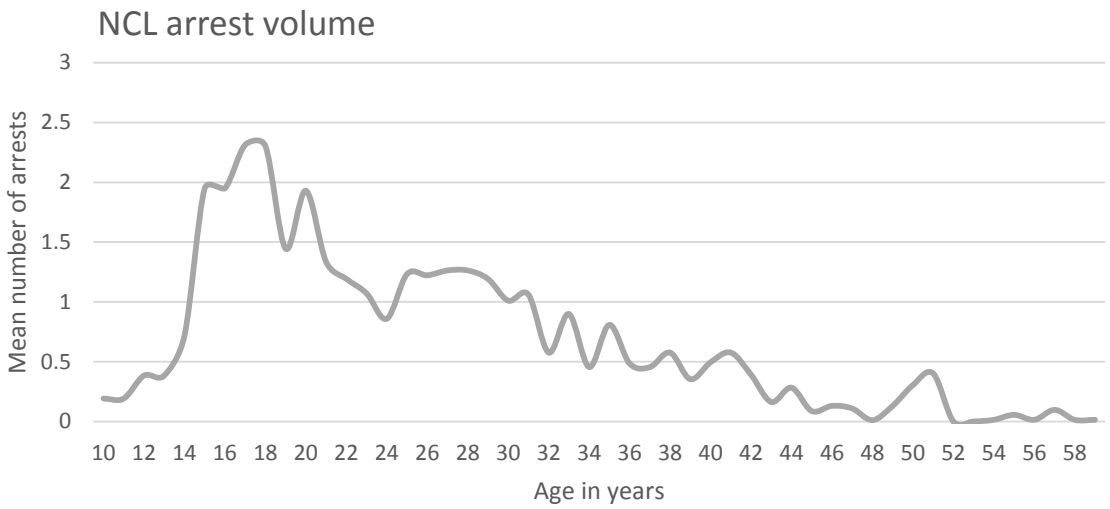
At the age of 18 the harm caused by the NCL offenders peaks at a mean harm score of 311.5. Figure 13 shows the trend and peaks of the mean harm scores by age. A downward trajectory of harm follows the peak, with significant fluctuation of harm shown through the 20's and early 30's where, at the age of 35 years old it reduces from 200 to 50 on a more permanent basis. The peak around aged 50 could be interpreted as somewhat of an anomaly. Considering this harm average is based on the harm of just 4 offenders of this age remaining in the sample, little weight should be given to this spike in harm.

Fig.13-NCL arrest history-Harm by age



The mean number of arrests also peaks at the age of 18 with nearly 2.5 arrests on average per year. As with harm, the volume of arrests then follows a gradual downward trajectory.

Fig.14-NCL arrest history-Volume by age

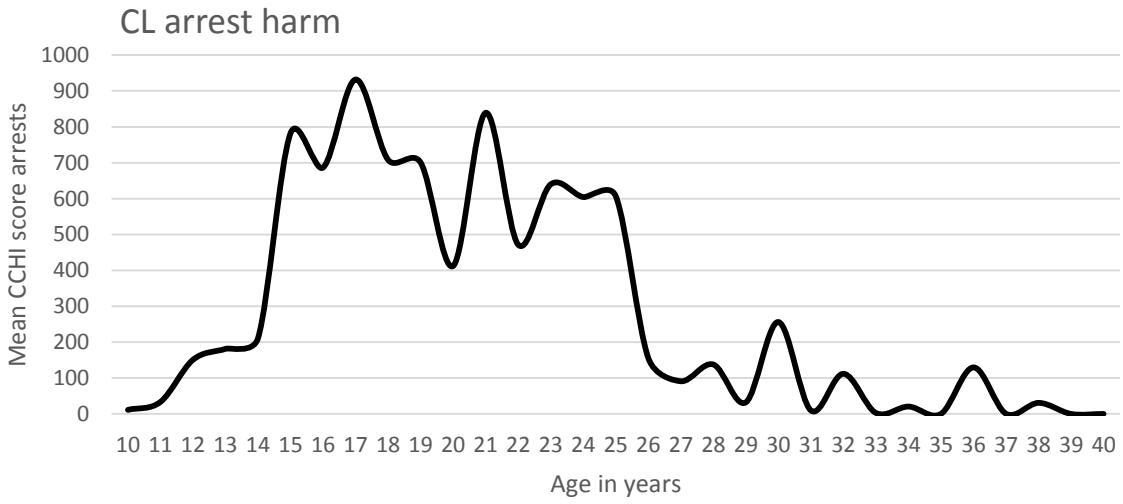


This pattern of volume among NCL offenders follows established expectations of the age crime curve.

County Line cohort CCHI vs. volume career arrests by year of age

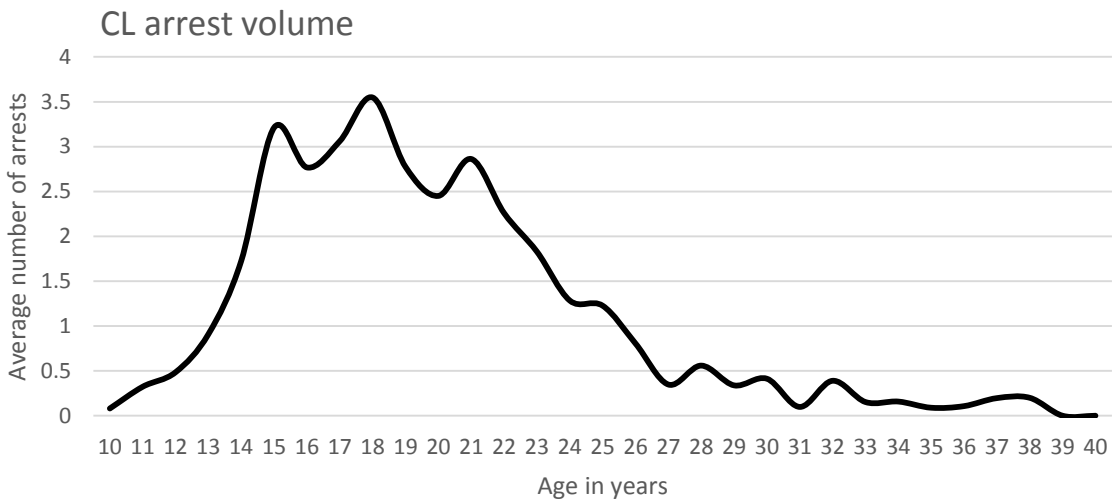
The average CCHI harm score attributable to the County Line cohort peaks at the age of 17 with a harm score of 932. A gradual reduction in harm follows up to the age of 26 where a significant drop in harm is evident.

Fig.15-CL arrest history-Harm by age



The arrest volume of CL offenders sees a much longer peak between the ages of 14-21 years old. This is followed by a sharp reduction where the cohort go from being arrested on average 3 times a year to less than .5 times a year, from the age of 21 to 27 years old as illustrated by figure 16 below.

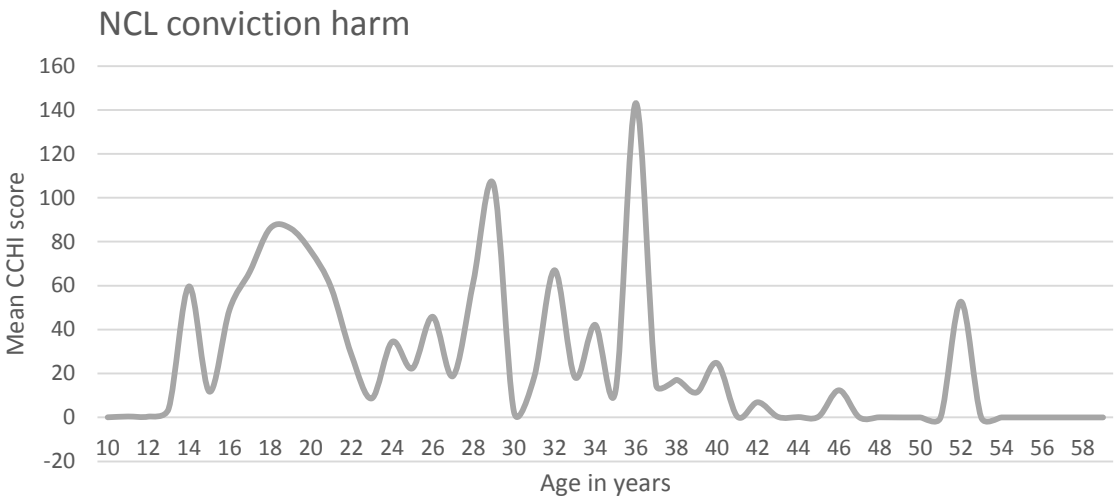
Fig.16-CL arrest history-Volume by age



Non-County Line cohort CCHI vs. volume career convictions by year of age

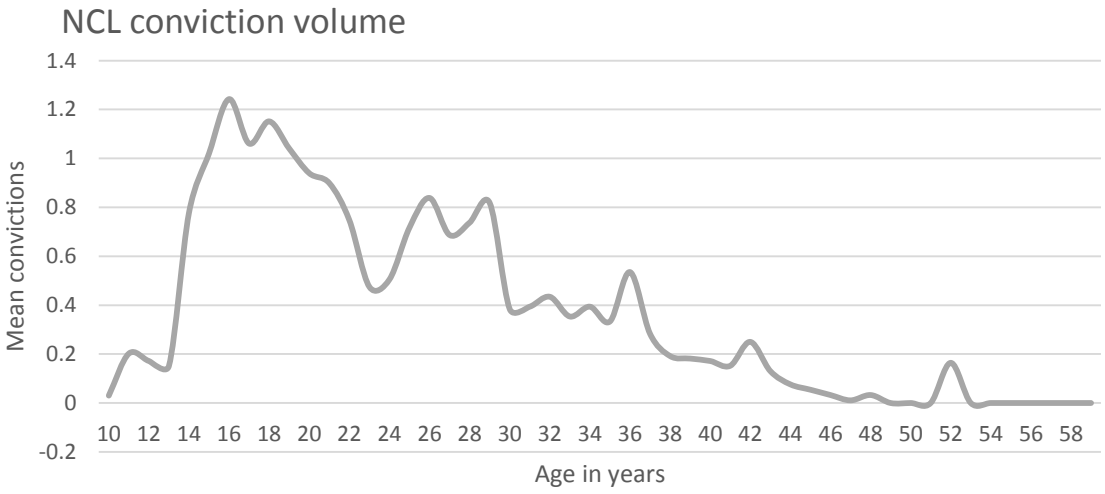
The conviction harm of the NCL cohort follows a much less uniformed pattern throughout the life course. Figure 17 illustrates a familiar rapid onset of harm but is then followed by unpredictable peaks and troughs until the age of 37 years old, where the harm caused drops sustainably below 20 CCHI points. Again, the late peak at the age of 52 could be the result of an outlier anomaly due to the fact there are only 4 offenders remaining in the sample at this stage of life.

Fig.17-NCL conviction history-Harm by age



NCL conviction volume follows a much more familiar pattern of early and rapid onset in the late teens followed by gradual reduction thereafter. This result in isolation could be interpreted as one illustrative of offender desistance through the life course. An alternative view of this result could be the interpretation that the NCL offender either changes the nature of their offending or becomes a more proficient offender with age and experience, therefore being convicted less often.

Fig.18-NCL conviction history-Volume by age



County Line cohort CCHI vs. Volume career convictions by year of age

The average CL offender career convictions were calculated on a yearly basis from aged 10 to aged 40. Figure 19 shows the results where the number of convictions is the unit of measurement. Here again, a trendline familiar in criminal career studies shows an escalation of average convictions in teenage years followed thereafter by consistent and gradual decline.

Figure 20 then shows conviction average by year of age where CCHI score is used as the metric of measurement. Here an increase in teenage years is once again seen, followed by gradual decline. However, between the ages of 25-27 where the volume of conviction trendline in figure 19 remained on a downwards trajectory, figure 20 reveals a significant spike in harm. The figures are presented together with the relevant age period highlighted.

Fig.19-CL conviction history-Volume by age

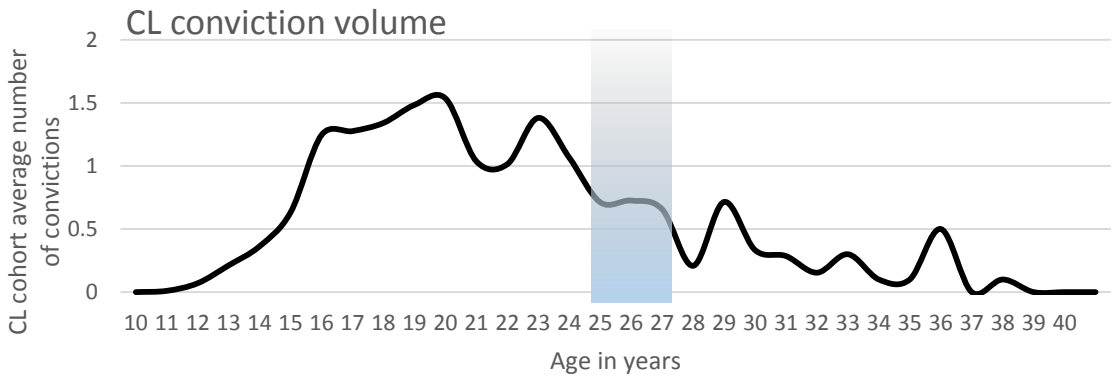
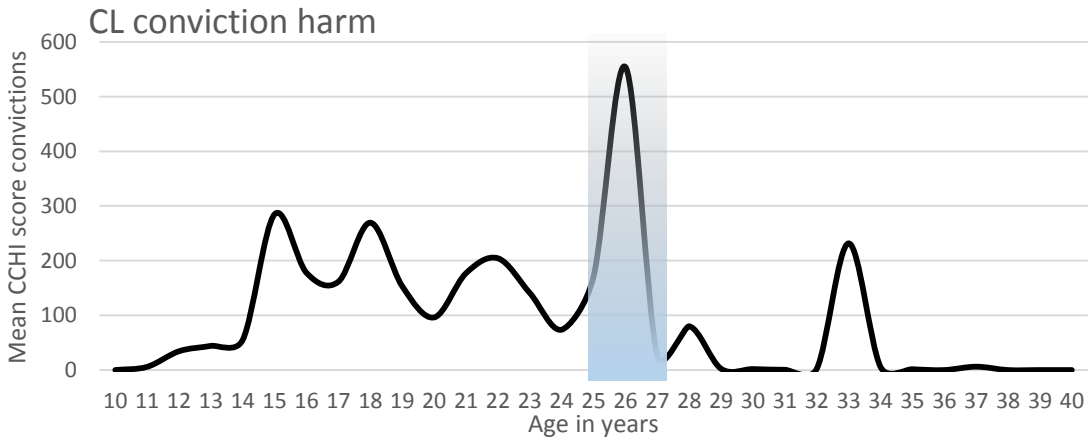


Fig.20-CL conviction history-Harm by age

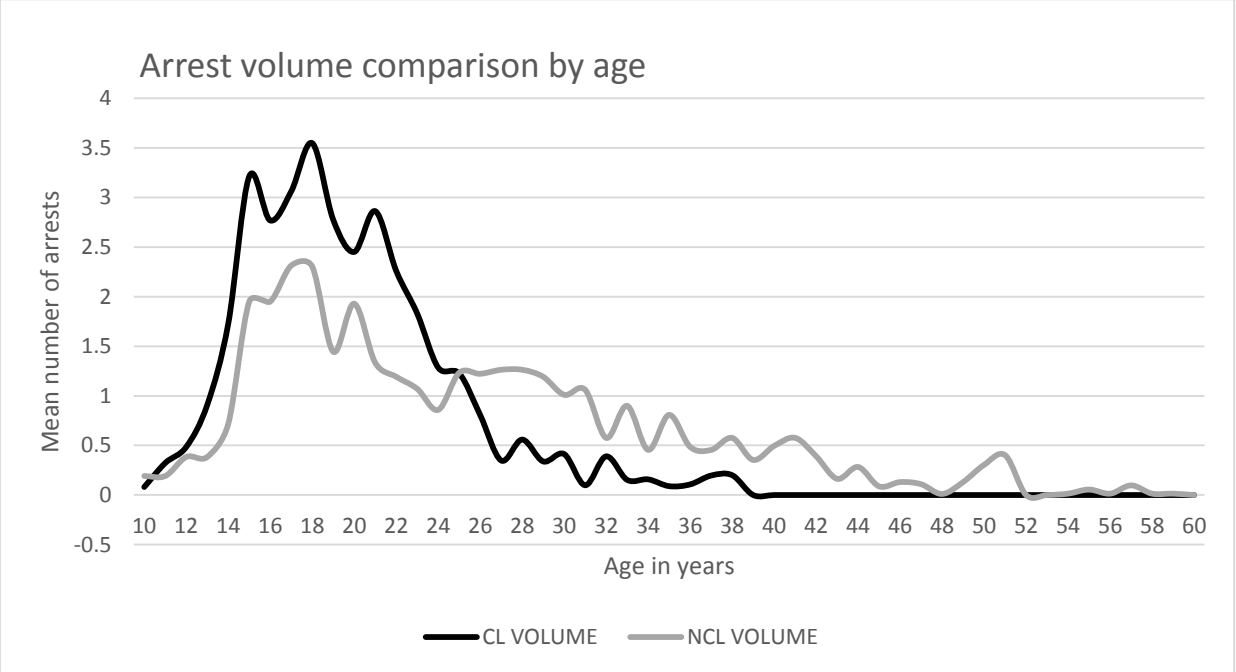


The highlighted age period appears less likely to be a result of outlier anomaly as seen in the NCL criminal careers, as the sample size here remains relatively strong. This result could be interpreted to illustrate that if you are a gang member still operating a County Line into your mid 20's, even though you are being convicted less often, the offences you are being convicted of are substantially more harmful than ever before in your criminal career.

Cohort comparison arrest volume by year of age

Comparing the cohort's arrest and conviction volume and harm directly provides answers to the third research question. Figure 21 below shows the life course of each cohort for arrest volume. The rapid onset is similar, with CL offenders being slightly younger and reaching a peak of arrests that is significantly higher than NCL offenders. The desitance is also much sharper for the CL cohort than the NCL, however, past the age of thirty it must again be stated that the CL offender simply does not exist in North Essex in any meaningful quantity.

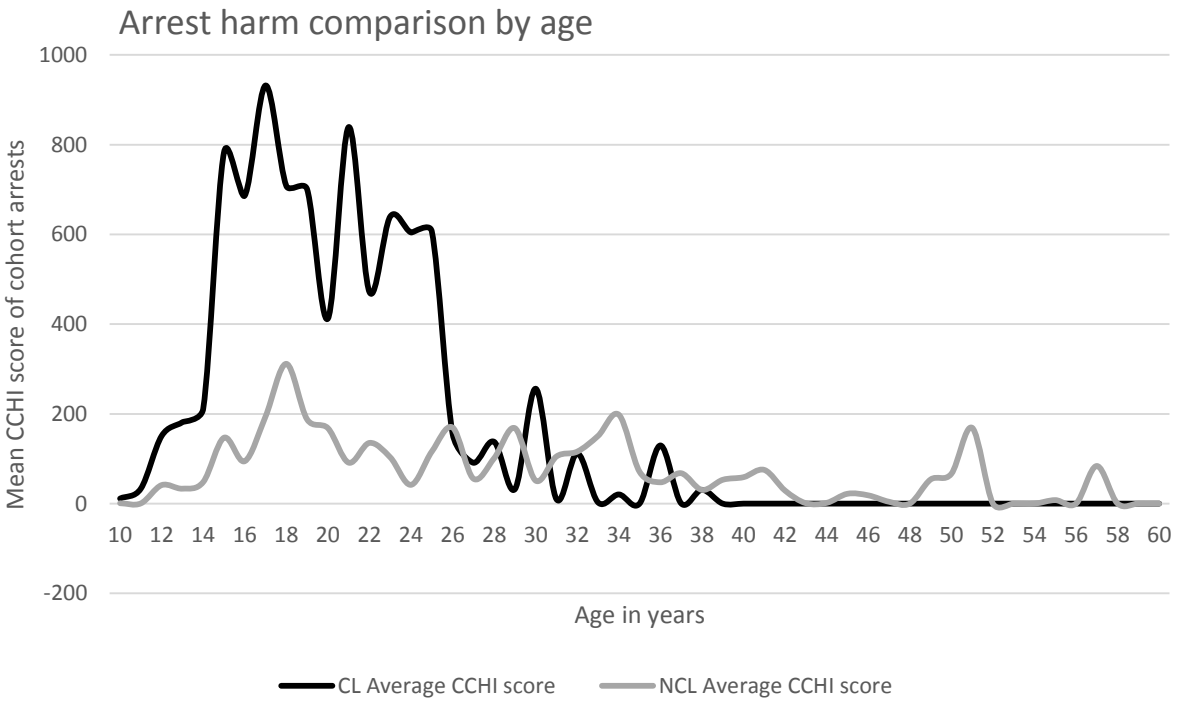
Fig.21-Cohort Comparison-Arrest volume by age



Cohort comparison arrest CCHI by year of age

The arrest harm of each cohort is compared below in figure 22. The NCL arrest harm is dwarfed in comparison to the CL arrest harm. The 17-18 year age peak is three times higher among the CL cohort than the NCL cohort at 932 CCHI points average compared to 311 CCHI points average. The NCL cohort arrest harm drops below 200 CCHI points at the age of 19 and never breaks that barrier again. The CL cohort remains well above that 200 point barrier until the age of 26. Those extra seven years of significantly high harm offending total 376,300 average CCHI points for the CL cohort, more than three times that of the NCL cohort total for the same seven years of 111,615 CCHI points. To contextualise this level of offending the offences during just that seven-year period by the CL offenders is almost equivalent to the harm caused by the NCL cohort throughout their entire, substantially longer, life course.

Fig.22-Cohort Comparison-Arrest harm by age



Consider that the offence of manslaughter returns an individual CCHI point score of 1095. The overall arrest harm of the CL cohort is equivalent to 732 manslaughter offences, 383 more

manslaughters than the NCL cohort; despite having 6 less offenders and 705 less available years in which to commit them. The 376,300 CCHI points from the offences for which the CL offenders were arrested during the seven year period of 19-26 years old, are equivalent to an extra 242 manslaughter offences than the NCL cohort during the same period. It must be restated here that both groups of offenders are essentially concerned in the same illegal activity-the supply of controlled drugs. This result emphatically shows that CL offenders are more harmful in conducting that illegal activity.

Cohort comparison conviction volume by year of age.

Figures 23 and 24 (overleaf) show that despite the disparity in harm, volume between the cohorts follows a similar trend, highlighting the point that it is only through a metric of harm that the offending of CL gang members can be truly contextualised. The conviction results, despite the harm and volume disparities, are less stark than the arrest results. This may be explained by the fact that law enforcement agencies are less successful in converting arrests into convictions for CL offenders.

Figures 23 and 24 do still show that despite the conviction volume of each cohort following a similar life course trend, the average harm of the CL cohort remains substantially higher to the age of 27. The unexpected peak aged 26 among the CL cohort is again shown to be substantial in the context of not only the CL but also the NCL life course where an average CCHI score of 554 for the CL offenders is twelve times higher than the average CCHI score of 45 by the NCL offenders at this age.

Fig.23-Cohort Comparison-Conviction volume by age

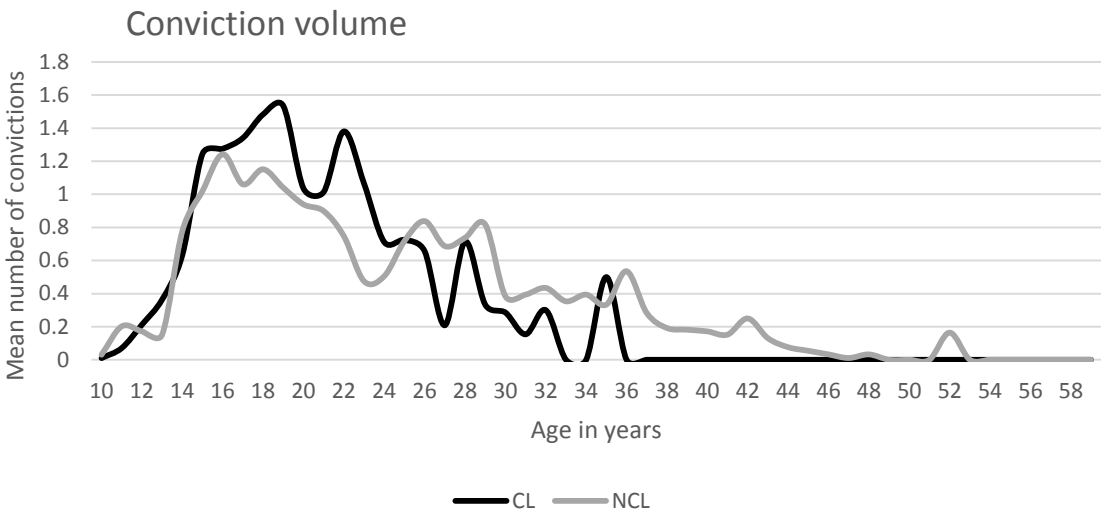
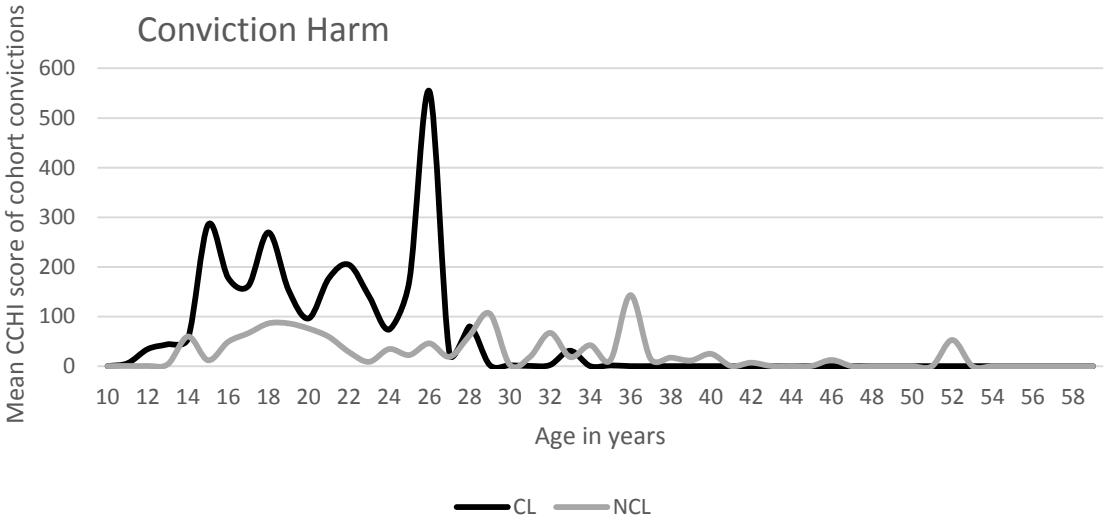


Fig.24-Cohort Comparison-Conviction harm by age



Again, in summarising the results, it is useful to answer the third research question directly.

Question 3- What do the criminal careers of CL and NCL cohorts look like when viewed through the lens of the Cambridge Crime Harm Index?

The CL cohort, despite having less offenders and being younger, (so therefore having substantially less time at risk of arrest and conviction), is more harmful than the NCL cohort. Further, where CL offenders are found who are in their early to mid-twenties, they are still convicted of committing high harm offences. The results indicate that where a CL offender is still operating a County Line at the age of 26, they are responsible (on average) for a disproportionate amount of crime harm compared to the rest of their cohort life course.

As an exploratory study, the reason, or casual mechanism for these results cannot be authoritatively stated. However, in the following chapter, some of these potential explanations are discussed as well as what the above results mean for operational policy makers.

Chapter 5: Discussion

The results presented in the previous chapter reveal some interesting issues for the policing of gang migration in North Essex. This chapter discusses the theoretical and practical implications of the findings, as well as opportunities for future research. Firstly, the strengths and limitations of the study and its findings are explored. The chapter then considers how these findings contribute to the existing literature on gangs and drug markets. Finally, it examines some of the practical implications for policing this emerging County Line experience.

Strengths and Weaknesses

Reliance on criminal justice data

As indicated in the literature review; relying on criminal justice data alone presents the issue of the discrepancies between official recorded data and self-reported data that are revealed by mixed method studies (Nagin et al. 1995). This study contains no interviews with offenders from either cohort examined, so it is unknown if those discrepancies would be evident.

It is reasonable to assume that not every offender eligible for sampling in either the CL or NCL cohorts had an interaction with Essex Police during the reference period. It is also reasonable to assume that not every offence committed by those who were sampled was detected by police and therefore detectable by examination of police records of arrest and conviction. Qualitative methods such as offender interviews may reveal some of the nuance around offending that would help to design interventions for testing in the future.

From a starting position of knowing nothing about the offenders, this study breaks new ground and (in the context of CL operators in the NLPA), settles the discussion on whether gang members are more, or less harmful.

What gets measured gets done

In policing, what gets measured gets done. A fact that may influence the location findings of this research. Clacton-on-Sea features highly on the concentration of detected offenders from both the CL and NCL cohorts. There is no doubt that Clacton has a bustling, profitable drug market with many pull factors for an entrepreneurial offender. However, following some high-profile acts of drug related violence in the town, tackling drugs in Clacton became a priority for Essex Police. The policing response to this operational priority, may mean the discovery of more offenders by the search terms of this study, skewing the geographical results. As gangs and drug dealers are targeted by police resources in an area, the amount of police interactions with them increases compared to other places. Therefore, the concentration of offender-police interactions cannot be a reliable measure of drug market activity. It may be more an indicator of the attraction of a market to offenders; as well as an indicator of the return on investment of policing resources, as offenders are 'discovered'. Any reliance of this self-fulfilling prophecy of the criminogenic nature of place, risks displacement of CL activity from one location to another. It also further highlights the need for future mixed methods research to better understand the drugs markets of every town and city.

The use and utility of a harm index

This study provides some evidence to support the argument of prioritisation of CL offenders over any other type of offender concerned in the supply of drugs in the NLPA. By utilising an index of harm such as the CCHI to provide evidence in support of this conclusion, issues of intuitive and subjective targeting are overcome by a democratically sound measurement framework. Despite the need for intelligent, evidence-based targeting; combining the CCHI and manually extracted police data is a labour-intensive and time consuming process. It is also one that simply will not meet operational need in an environment where resources are scarce and demand priorities shift on an hourly basis. An investment in software design that makes a harm

matrix such as the CCHI a more manageable and deployable means of analysis may be the only way in which it could be regularly used in an operational setting.

Causation versus correlation

This study does not (and cannot by design), provide any explanation of causality between the variables measured, or any relationship of causal effect. It does represent the beginning of an attempt to understand gang migration and the CL offender by looking for a correlation between harm and gang membership among drug dealers. As an exploratory study, the findings presented indicate that further research is warranted into the CL offender, their modus operandi, victims and the geographical settings they inhabit. To launch costly or experimental research programmes that can detect causality towards the County Line problem without first establishing this correlation, would be an irresponsible use of public funds. With this study, a foundation exists for theoretical discourse, practical operational improvement and dedicated research exploration.

Theoretical implications

Gangs are real

Despite the assertions of gang denying academics such as Hallsworth and Young (2008), gangs are real, they are dangerous, and they are spreading their reach (NCA 2016). The findings above reiterate that gangs in the UK are criminologically important demand further study. A recent publication by the National Crime Agency (2016), indicates that the North Essex experience is the norm rather than the exception, with 86% of police areas in England and Wales reporting either an established or emerging County Line problem in their area. Considering that 18 of the 33 gangs represented in the CL cohort were represented by just one gang member, and there are 225 recognised London based gangs, the opportunity for further expansion of gangs into Essex seems a realistic probability.

Causes of migration

None of the gang members of the CL cohort were born in the NLPA, making the theory of gang migration due to familial links (Maxson et al 1996), less likely. Unlike the American experience, where gang migration is largely a consequence of the natural migration of people (Maxson et al. 1996), the gang members in this study maintain home addresses out of North Essex and travel some distance for their offending. 'County Line' activity in North Essex appears to be gang migration for the specific purpose of drug dealing. Rather than a representation of localised 'Strain' theory (Merton 1938), CL offenders may be viewed as transplanting their 'cultural norms' into the new setting, rather than reacting against the societal norms of North Essex.

Territory and territoriality may hold significance in the establishing of some of the gangs found in their home areas (Tita and Radil 2011), the locations in which the gang members are found by this study appear to be more a representation of a saturated home setting, supply and demand economics and a search for greater market share (Windle and Briggs 2015). No evidence is found to support the idea of gang territoriality by CL offenders in North Essex.

Ethnicity

The findings on the ethnicity of the CL and NCL cohorts presents a dilemma, expressed in the literature review as the racialization of gang research. On the one hand, the fact that 80% of the CL cohort are black, compared to 18% of the NCL may be a result caused by police focus on stereotypical representation of gangs (Esbensen and Lynskey 2001). Meaning more black gang members are discovered than white gang members. If a bias towards police interaction with black males in North Essex exists, then the ethnicity data relied upon for this study will be intrinsically skewed, making the result unsurprising. However, as also highlighted in the literature review, the fact that only 50% of the 225 recognised gangs of London are predominantly black (MPS 2016) is significant. Considering that London gang ethnicity is not a binary matter, even

within identified 'black gangs' (Grund and Densley 2012), the ethnic make-up of North Essex CL offenders is surprising. One explanation may be found within social field analysis where different gang members from different backgrounds assume different roles within the gang, dependent on their own cultural capital (Harding 2014).

The CL offender in gang culture

Without comparing CL offenders to other members of the same gangs who do not operate County Lines, it is impossible to definitively tell where in the gang culture the role of CL offender sits. However, considering that it is a generally agreed finding amongst gang researchers that roles and offending is age graded within the gang (Thornberry and Porter 2001, Grund and Densley 2012), the findings on age and criminal career in this study offer some insight.

The average age of a CL offender in North Essex is 23, five years after the aggregated offending peak of the cohort age crime curve. Whilst this is five years younger than an NCL offender, it is nearly ten years into the average criminal career of a CL offender. This may indicate that CL activity is not a means of reaching the status of competent actor within the gang, but a role reserved for the already experienced and competent members. This study also indicates that where offenders are operating County Lines into their mid and late 20's they are convicted of substantially more harmful offending than they ever have been before. Supporting the idea that CL offenders need to escalate their offending, (in terms of seriousness) to carry out the role. The role of competent actor that seems to be a requirement of CL operations speaks to the skill set of the individual offender that is required to make them successful. They manage complex relationships and identify and exploit opportunities in closed drug markets, travelling past more accessible opportunities to achieve the biggest return on their investment. They are crime recruiters, with experience of much higher co-operative offending in their earlier years than NCL offenders. The common modus operandi being the recruitment of local children to act as runners and assume the risk of the County Line operation whilst the actual gang member is present as a

manager ready to exact extreme violence where required. In literary terms the CL offender is a gang leader; more akin to Dickens' Fagin than to the Artful Dodger or Oliver Twist (Dickens 1838).

Developmental taxonomy

Accepting that the CL and NCL offenders will be affected by the different social environments they have developed in; their criminal careers could be separated into the developmental classes of Moffit (1993), or Nagin and Land (1993). This study contains evidence of Moffit's Adolescent Limited (AL) and Life Course Persistent (LCP) offenders, as well as the further distinction provided by Nagin and Land, who sub-divide LCP it into high and low level chronic offenders (1993). The CCHI results of this study call for further categorisation to guide operational interventions dependant on objective. Whether an offender is life course persistent versus adolescent limited; or high or low level chronic, is useful to know if you wish to target the right intervention tactics at the right offenders. The use of a harm metric such as the CCHI allows consideration of a further type of precision targeting. The results here show that harm inflicted can be used in developmental taxonomy and life course criminology to provide an even more detailed basis for resource allocation.

Take the following examples from this research:

- Case 1. CL offender number 55, at 24 years old had been arrested 89 times, the most of any CL offender in the study. His age crime curve peaked at the age of 18, and the aggregated volume of his offending has very slowly started to decline in his twenties. Using the classifications of Moffit (1993) and Nagin and Land (1993), CL offender number 55 is well on his way to being excellent representation of a life course persistent, high level, chronic offender.
- Case 2. NCL offender number 42, enters the sample at the age of 41 years, having been arrested 159 times during his criminal career. His offending peaked in 1993 aged 19 and then, (likely due largely to some periods of incarceration), fluctuates but remains

significantly high right up to the point of entering the sample. NCL offender 42 is the poster boy of life course persistent, high level, chronic offenders.

- Case 3. CL offender number 88, at 25 years old, has been arrested a total of 20 times, and only 5 times since his eighteenth birthday. His age crime curve again is unremarkable in aggregated volume, peaking at 18 and declining sharply thereafter. Using the same classifications, CL offender number 88 could be a representative example of an adolescent limited, low level, chronic offender.
- Case 4. NCL offender number 51, at 30 years old has been arrested 16 times, 6 of which have been since his 29th birthday. Whilst the age crime curve of this individual is exceptional he may be identified as a low level, chronic, life course persistent offender.

When deciding which offenders to target with which tactics, the offending patterns of cases 1 and 2 (as high level chronic), appear to represent the most appealing opportunities to law enforcement for crime reduction, over cases 3 and 4 as low level chronic. Applying a metric of harm to these offending histories reveals a very different picture. Cases 1 and 2 have an aggregated number of 248 arrests that return a combined CCHI score of 6789. Cases 3 and 4, with an aggregated number of 36 arrests, return a combine CCHI score more than four times higher at 29008.75. In this example, 2 high level chronic offenders have seven times the number of arrests but cause a quarter of the harm that 2 low level chronic offenders do, calling into question where scarce resources would be best targeted. Focus is required on the most harmful offenders, not just CL as a group above NCL, but that high harm, high level, chronic 'power few' within the CL cohort.

As shown in the results of this study, CL offenders are, on average, arrested on suspicion of offences that are twice as harmful as NCL offenders. It is this new level of harm that CL offenders bring to the North Essex drug markets that provides evidence of the need to target them over NCL offenders. Perhaps without the CL offenders the drug markets of North Essex

would be “generally peaceable” as suggested by Reuter (2009), Moyle and Coomber (2015). With them, however, the potential for harmful victimisation and serious violence are exponentially increased.

Implications on Practice and Policy

This is not a study that explains causality or causal effect, nor does it explore the reliability or validity of offender interventions. The study also has significant limitations as already set out above. Despite all of this, it does represent the only, and therefore the best, evidence available to inform practice and policy decisions on the targeting of drug dealers in the NLPA.

Demographic informed targeting

The demographic characteristics of CL offenders are useful identifiers of potential CL activity. It is crucial to remember however that gang membership is the necessary pre-requisite variable in this analysis. Whilst no gang members exist in the NCL cohort, it was not the case that the NCL offenders were solely operating in a user-dealer scenario (Coomber 2015). Several NCL offenders were recognised members of an organised crime group (OCG). Whilst only one NCL made it into the top 30 in terms of ranked arrest harm, some of the NCL offenders when their criminal careers are viewed on an individual basis were responsible for more harm than some individual CL offenders. (The rank order of harm scores is included at Appendix C). In this context, demographic characteristics cannot be a reliable basis for targeting. Further, the variable of gang membership should be given a significant weighting in the harm potential of an offender, but not at the exclusion of all others.

The role of females

The NCA (2016) report an increase of CL offenders using females in their enterprises due to there being less perceived risk of them being stopped and searched by police. The fact that no

females were found in the CL cohort and only 13 in the NCL cohort, does not necessarily provide evidence of this. It is not possible to say from this work whether that perceived lowered risk is a reality, or if the result here is indicative of less police willingness to interact with females. It could equally be the case that females are just disproportionately underrepresented in the drug dealing population of North Essex. Further research on the role of females within drug markets may increase an understanding of gender roles.

A national register of gangs

Affiliating offenders to gangs can be difficult, particularly if that gang member is operating in a different geographical setting to the gang home area. A national register of gangs and gang members may be the only means of the cross-border identification required to stem the tide of CL offending.

Risk assessment methodology

Operational leads in the NLPA should review existing risk assessment methodology when selecting offenders to focus on. Consideration should be given to the use of criminal career profiling against a harm matrix, (if a technical solution to data extraction and calculation can be devised). This work shows that more effortful targeting methodology can reveal more harmful offenders. In lieu of effective predictive analytics such as those seen in Berk et al's work on forecasting murder and domestic violence (2009, 2016), criminal career histories provide a good alternative. The average harm caused by each cohort suggests CL offenders are worthy of more focus compared to the less harmful OCG and NCL offenders identified.

Age graded attention

The results do demand that police pay particular attention to older gang members when interactions with them occur. Where gang members are found above the mean age of 23, the

results here would advocate the need for bespoke harm prevention and disruption plans, due to the impending average harm peak found during the cohort's mid-twenties.

PNC warning signals

The warning signals of offenders on PNC provide the primary means of spontaneous risk assessment and tactical response to an offender. It is clear from the results that CL offenders in North Essex present a significant risk of violence to both the public and police officers and concerning familiarity with firearms and weapons. It is therefore surprising that discrepancies are found within the warning signals of these offenders. These discrepancies should be addressed by review of criminal career history for warning marker accuracy.

Conviction ratios of CL offenders

From the number of total arrests and convictions it can be inferred that NCL offenders are more prolific than CL offenders. The discrepancy of convictions among the cohorts may be influenced by the skill of the offender. For example, a forensic awareness and wider criminal networks may not reduce your likelihood of arrest but could have a significant impact on your likelihood of conviction. The fact that CL offenders are arrested at a higher ratio, but convicted at a lower ratio requires consideration of the level and skill of investigative resources dedicated to CL offenders after arrest.

The modus operandi employed by CL offenders can be complex, fluid and require significant investigative aptitude and expertise. The updated NCA assessment of 'County Line' activity recommends the use of legislation such as The Modern Slavery Act to explore lawfully audacious methods of prosecution. Other opportunities may exist in criminal conspiracy legislation, targeting of the valuable mobile phone 'lines' themselves; offender-based 'Achilles heel' approaches and the use of child abduction warning notices. This study does not provide an

evidence base for these interventions but does provide an increased impetuous on the need to test them, with suitably skilled and qualified staff, against targeted CL offenders.

Multi-agency engagement

None of the CL offenders and only 35% of the NCL offenders are born in the NLPA, yet 100% of them have been criminally active there. This fact highlights the need for effective notification procedures between partners, social, and criminal services to allow early identification and management of offenders who are placed, or migrate to a new area.

Random forest

This study and its findings are retrospective in nature. Previous offending history, and life course criminology, whilst useful in establishing the criminogenic characteristics of a group of offenders, does not allow definitive individual target selection, harm prediction or prevention. It cannot be said from these results that just because a CL offender is found in North Essex who is black, aged in their early twenties and from a London gang that they should be, on an individual basis, a high priority target for law enforcement. Work on predictive analytics of high harm offenders is possible, using random forest forecasts to enable more precision targeting to prevent harm before it has occurred (Berk et al. 2009, Berk et al. 2016). If investment in such research were to be commissioned by Essex Police, this study would be grounds to target it at CL offenders for the maximum opportunity of serious harm reduction.

Victims-complicit or coerced

Further work is required at tackling the County Line problem from a victim perspective. The high harm attributed to CL offenders means a lot of severely harmed victims. Victimisation studies and strategies for the coerced and exploited victims of CL gang members may present significant opportunities in harm prevention. Police officers have become more adept at recognising the signs, symptoms and vulnerabilities that make an individual susceptible to Child

Sexual Exploitation and Domestic Abuse. More work is required to identify and intervene with those susceptible to gang exploitation.

For example, where executed search warrants reveal the use of a property by a known user for the purposes of dealing; there may be grounds to treat the occupant as an exploited victim and potential witness, in the same way police have learned to with sex workers and brothels. Consideration could be given to a confidential reporting mechanism via addict support services and youth criminal justice so that indebted runners and cuckooed victims can engage with by partners to prevent further victimisation. Where juvenile offenders are reported as missing and at risk of gang exploitation, there may be grounds to employ agencies other than the police to conduct vulnerability interviews and interventions. Or, where they are arrested, to conduct interventions and intelligence approaches with support agencies.

Along with the need for exploratory, place-based study of drug markets, victim-based studies of those exploited by gangs operating County Lines will provide a more holistic picture of the problem. It may also highlight promising areas, or people, on whom interventions can be tested and indicate potential further research in the same way this study does for offenders.

Chapter 6: Conclusions

Policing in Essex currently sees the bulk of resource allocation and innovation in the arenas of child protection, domestic abuse, missing people, digital offending and mental health. These areas have historically been underserviced in favour of local community policing and acquisitive crime. High profile, preventable tragedies and the subsequent strategic shift has created the policing models and structures of today. This shift, combined with austerity imposed budget cuts, results in an even less visible police service and far less front-line interaction between the uniformed constable and the community. This also results in a disconnect between the crime and disorder fear of the public and their confidence in the service provided by the police. The harm in these new areas of focus is often hidden from public view, making how it is policed a less significant driver of public confidence. If one were to ask the residents of Clacton-on-Sea what their local policing priorities should be, digital offending, child sexual exploitation and modern slavery are not likely to feature highly. Gang violence and drugs probably would.

The need to do more for less is an argument for effective evidence-based policing solutions; triaging resources to where the community will receive the most return on investment (Sherman 2016). As a policing leader, this means deciding which crimes, which offenders, which places and consequently which victims will receive differing levels of response and treatment. In the same way that "not all offences are created equal" (Sherman 2016), not all offenders are either, even when sharing a common index offence such as the supply of drugs.

Drug enforcement activity may not present a cost-effective means of meeting governmental objectives or reduce the use of drugs in the community (Crawford et al. 2015). Drugs are, however, a key driver of a variety of criminality and, in the case of CL offenders, a driver of high harm offending and the exploitation of vulnerable people. It is the police's responsibility to investigate and (with discretion) prosecute those that breach legislation designed

to restrict the importation, trafficking and possession of drugs. How that discretion is applied should be an exercise in targeted triage and this study informs that triage process.

Whilst this study did not set out offender intervention or targeting strategies, it does provide an insight on who to test those strategies against to achieve maximum harm reduction. This research offers three distinct perspectives on CL drug market offenders in a non-metropolitan setting.

Firstly, that the different types of offenders can be defined, in this case as County Line and Non-County Line. The comparison is distinct, and relies on the qualifier of gang membership as well as a newly created and specific definition of what a CL offender actually is. The results have shown that the demographic distinction is greater than just the variable of gang membership and includes ethnicity, age, gender, nationality, mobility, size of criminal network and indicators of vulnerability or violence.

Secondly, onset, peak and desistance of offending, is important for greater understanding of the age graded nature of offender threat and risk and shines a spotlight on areas of fertile potential for future research and intervention testing.

Thirdly, the direct offending of drug suppliers varies throughout the life course not only in volume, but more importantly in levels of harm. The age crime curve is replicated overall by the volume of offending history studied here. The results do not however, reinforce the age crime curve as "the most important empirical regularity in criminology" (Nagin and Land 1993, pg.331). An age-harm analysis, over larger datasets and types of offenders may reveal much more important findings.

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Appendices

Appendix A

Cambridge Crime Harm Index used for analysis

Offence number	Offence description	Cambridge Crime Harm Index Score
1	Abandon child under 2 whereby life / health endangered	1095
2	Abstract / use without authority electricity	1
3	Act as an unlicensed gangmaster	?
4	Act of outraging public decency - common law	?
5	Administer drug with intent to commit an indictable offence	1460
6	Administer poison with intent to endanger life / inflict grievous bodily harm	2190
7	Administering drugs or using instruments to procure abortion	0
8	Aggravated burglary - dwelling	365
9	Aggravated burglary - other than dwelling	730
10	Aggravated vehicle taking - (initial taker) and dangerous driving	126
11	Aggravated vehicle taking - and vehicle damage of £5000 or over	126
12	Aggravated vehicle taking - death caused by accident	548
13	Aggravated vehicle taking - no significant damage	18.75
14	Aggravated vehicle taking - vehicle and property damage under £5000	10
15	Aid / abet / counsel / procure the genital mutilation of a female	1460
16	Aid / abet the attempted suicide of another	?
17	Aid / abet the suicide of another	?
18	Aid abet counsel or procure a non UK citizen to mutilate the genitals of a UK female citizen overseas	1460
19	Alter driving licence / counterpart with intent to deceive	?
20	Alter insurance documents with intent to deceive	?
21	Alter test / goods / plating etc certificate with intent to deceive	?
22	Arrange / facilitate travel of a person within the United Kingdom for exploitation	182.5
23	Arson - not endangering life	18.75
24	Arson - recklessly endangering life	730
25	Arson with intent to endanger life	2190
26	Articles connected with computer misuse	2
27	Assault - S18 - GBH cause grievous bodily harm with intent to resist / prevent arrest	1460

28	Assault - S18 - GBH grievous bodily harm with intent	1460
29	Assault - S20 - GBH Grievous bodily harm without intent	18.75
30	Assault - S39 - Common assault	1
31	Assault - S47 - AOABH assault occasioning actual bodily harm	10
32	Assault / ill-treat / neglect etc child / young person	84
33	Assault a constable in the execution of his / her duty	2
34	Assault a traffic officer in the execution of his / her duty	2
35	Assault court security officer	2
36	Assault designated / accredited person - Police Reform Act 2002	2
37	Assault person assisting constable in execution of duty	2
38	Assault prisoner custody officer	2
39	Assault with Injury	1
40	Assault with intent to commit robbery - business	365
41	Assault with intent to commit robbery - personal	365
42	Assault with intent to resist arrest	2
43	Assaulted a designated person / assistant - SOCA 2005	2
44	Assist commission of TEW offence	?
45	Assist prisoner in escape / attempt escape from a prison - Prison Act 1952	?
46	Assisting an escaped prisoner	?
47	Assisting offender - either way offences only	?
48	Assisting offender - indictable offence (except murder)	?
49	Assisting offender to impede murder prosecution	548
50	Attempt murder - victim aged 1 year or over	3285
51	Attempt murder - victim aged under 1 year	3285
52	Attempt to choke / suffocate / strangle with intent	1460
53	Bigamy	14
54	Blackmail	365
55	Bomb hoax - communicate false information	?
56	Bomb hoax - place article with intent	?
57	Breach a female genital mutilation protection order	?
58	Breach a non-molestation order - Family Law Act 1996	5
59	Breach a sexual risk order / risk of sexual harm order etc	?
60	Breach of a Restraining Order issued on acquittal	3
61	Breach of an anti-social behaviour order	5
62	Breach of criminal behaviour order	5
63	Breach of Risk of Sexual Harm Order (RHSO) and Interim RHSO	3
64	Breach of sex offender order	42
65	Breach SHPO / SOPO / Foreign Travel Order	?
66	Bring / throw / convey a List ' A ' prohibited article into / out of a prison - Prison Act 1952	?
67	Bring / throw / convey a List ' B ' prohibited article into / out of a prison - Prison Act 1952	?
68	Bring / throw / convey a List ' C ' prohibited article into / out of a prison - Prison Act 1952	?

69	Burglary dwelling - Distraction and stealing	365
70	Burglary dwelling - Distraction with intent to steal	365
71	Burglary dwelling - Stealing	18.75
72	Burglary dwelling - With intent to cause damage	18.75
73	Burglary dwelling - With intent to inflict GBH	1095
74	Burglary dwelling - With intent to steal	18.75
75	Burglary in a building other than a dwelling	10
76	Burglary other than dwelling - Stealing	10
77	Burglary other than dwelling - With intent to commit damage	10
78	Burglary other than dwelling - With intent to inflict GBH	730
79	Burglary other than dwelling - With intent to steal	10
80	Care provider breach duty of care resulting in ill-treatment / neglect of individual	?
81	Care worker ill-treat / wilfully neglect an individual	?
82	Carer ill-treat / wilfully neglect a person without capacity - Mental Capacity Act 2005	?
83	Cause / allow the death of a child / vulnerable adult	1095
84	Cause administer poison with intent to injure / aggrieve / annoy	182.5
85	Cause bodily harm by wanton / furious driving	0
86	Cause bodily harm by wilful misconduct	0
87	Cause bodily harm by wilful neglect - vehicle	0
88	Cause death by careless / inconsiderate driving	3.25
89	Cause death by dangerous driving	1095
90	Cause death by driving a vehicle - driver unlicensed / disqualified / uninsured	3.25
91	Cause death by driving without due care / consideration while unfit through drugs	547.5
92	Cause death by driving without due care and attention / reasonable consideration while unfit through drink	547.5
93	Cause death by due care while over prescribed limit	547.5
94	Cause explosion with intent to burn / maim / grievous bodily harm etc	2190
95	Cause taking / receiving of dangerous / noxious thing	0
96	Causing danger to road users	1.5
97	Causing serious injury by dangerous driving	547.5
98	Child abduction - other person	548
99	Child abduction - parent	273
100	Child destruction	365
101	Concealment of the birth of a child	0
102	Conspire to murder	1460
103	Contaminate / Interfere with goods	?
104	Contravened Environmental Permit	?
105	Corporate Manslaughter	2894
106	Criminal damage	2
107	Criminal damage other - endangering life	730
108	Criminal damage other - value over £5000	84

109	Criminal damage other - value under £5000	2
110	Criminal damage to a building other than a dwelling	2
111	Criminal damage to a building other than a dwelling - endangering life	730
112	Criminal damage to a building other than a dwelling - value over £5000	84
113	Criminal damage to a building other than a dwelling - value under £5000	2
114	Criminal damage to a dwelling	2
115	Criminal damage to a dwelling - endangering life	730
116	Criminal damage to a dwelling - value over £5000	84
117	Criminal damage to a dwelling - value under £5000	2
118	Criminal damage to a vehicle	2
119	Criminal damage to a vehicle - endangering life	730
120	Criminal damage to a vehicle - value over £5000	84
121	Criminal damage to a vehicle - value under £5000	2
122	Custody / control a thing knowing it was a counterfeit currency note - Forgery and Counterfeiting Act 1981	?
123	Custody / control of a counterfeit of a protected coin - Forgery and Counterfeiting Act 1981	?
124	Custody / control of a false instrument - Forgery and Counterfeiting Act 1981	
125	Disclose private sexual images to cause distress (Inc Photos / Films)	10
126	Dishonestly obtain electronic communications service	?
127	Distribute an indecent photograph / pseudo-photograph of a child	91
128	Distribute article infringing copyright	1
129	Distribute written material to stir up racial hatred	?
130	Distributing, showing or playing a recording (acts intended to stir up religious hatred	3
131	Do an act which harmed a witness / juror	126
132	Do an act with intent to cause an explosion likely to endanger life / injure property	2190
133	Dog causing injury in a private place	2
134	Dog causing injury in a public place	2
135	Dog causing injury to a person or assistance dog	2
136	Drive a motor vehicle dangerously	10
137	Drugs - Class A - Cocaine - Concerned in offer to supply	547.5
138	Drugs - Class A - Cocaine - Concerned in Supply	547.5
139	Drugs - Class A - Cocaine - Offer to Supply	547.5
140	Drugs - Class A - Cocaine - Permit use of premises for supply	10
141	Drugs - Class A - Cocaine - Possess	3
142	Drugs - Class A - Cocaine - Possess with intent to supply	547.5
143	Drugs - Class A - Cocaine - Produce	547.5
144	Drugs - Class A - Cocaine - Supply	547.5

145	Drugs - Class A - Crack Cocaine - Concerned in offer to supply	547.5
146	Drugs - Class A - Crack Cocaine - Concerned in Supply	547.5
147	Drugs - Class A - Crack Cocaine - Offer to Supply	547.5
148	Drugs - Class A - Crack Cocaine - Permit use of premises for supply	10
149	Drugs - Class A - Crack Cocaine - Possess	3
150	Drugs - Class A - Crack Cocaine - Possess with intent to supply	547.5
151	Drugs - Class A - Crack Cocaine - Produce	547.5
152	Drugs - Class A - Crack Cocaine - Supply	547.5
153	Drugs - Class A - Crystal Meth - Concerned in production	547.5
154	Drugs - Class A - Crystal Meth - Offer to Supply	547.5
155	Drugs - Class A - Crystal Meth - Possess	3
156	Drugs - Class A - Crystal Meth - Possess with intent to supply	547.5
157	Drugs - Class A - Crystal Meth - Produce	547.5
158	Drugs - Class A - Crystal Meth - Supply	547.5
159	Drugs - Class A - Heroin - Concerned in offer to supply	547.5
160	Drugs - Class A - Heroin - Concerned in Supply	547.5
161	Drugs - Class A - Heroin - Offer to Supply	547.5
162	Drugs - Class A - Heroin - Permit use of premises for supply	10
163	Drugs - Class A - Heroin - Possess	3
164	Drugs - Class A - Heroin - Possess with intent to supply	547.5
165	Drugs - Class A - Heroin - Produce	547.5
166	Drugs - Class A - Heroin - Supply	547.5
167	Drugs - Class A - LSD - Concerned in offer to supply	547.5
168	Drugs - Class A - LSD - Concerned in Supply	547.5
169	Drugs - Class A - LSD - Offer to Supply	547.5
170	Drugs - Class A - LSD - Possess	3
171	Drugs - Class A - LSD - Possess with intent to supply	547.5
172	Drugs - Class A - LSD - Produce	547.5
173	Drugs - Class A - LSD - Supply	547.5
174	Drugs - Class A - MDMA Ecstacy - Concerned in offer to supply	547.5
175	Drugs - Class A - MDMA Ecstacy - Concerned in Supply	547.5
176	Drugs - Class A - MDMA Ecstacy - Offer to Supply	547.5
177	Drugs - Class A - MDMA Ecstacy - Possess	3
178	Drugs - Class A - MDMA Ecstacy - Possess with intent to supply	547.5
179	Drugs - Class A - MDMA Ecstacy - Produce	547.5
180	Drugs - Class A - MDMA Ecstacy - Supply	547.5
181	Drugs - Class A - Methadone - Concerned in offer to supply	547.5
182	Drugs - Class A - Methadone - Concerned in Supply	547.5
183	Drugs - Class A - Methadone - Offer to Supply	547.5
184	Drugs - Class A - Methadone - Possess	3
185	Drugs - Class A - Methadone - Possess with intent to supply	547.5
186	Drugs - Class A - Methadone - Produce	547.5

187	Drugs - Class A - Methadone - Supply	547.5
188	Drugs - Class A - Other Class A - Concerned in offer to supply	547.5
189	Drugs - Class A - Other Class A - Concerned in Supply	547.5
190	Drugs - Class A - Other Class A - Offer to Supply	547.5
191	Drugs - Class A - Other Class A - Permit use of premises for supply	10
192	Drugs - Class A - Other Class A - Possess	3
193	Drugs - Class A - Other Class A - Possess with intent to supply	547.5
194	Drugs - Class A - Other Class A - Produce	547.5
195	Drugs - Class A - Other Class A - Supply	547.5
196	Drugs - Class A - Unlawful Import	1642.5
197	Drugs - Class B - Amphetamine - Concerned in offer to supply	5
198	Drugs - Class B - Amphetamine - Concerned in Supply	547.5
199	Drugs - Class B - Amphetamine - Offer to Supply	5
200	Drugs - Class B - Amphetamine - Permit use of premises for supply	3
201	Drugs - Class B - Amphetamine - Possess	2
202	Drugs - Class B - Amphetamine - Possess with intent to supply	5
203	Drugs - Class B - Amphetamine - Produce	3
204	Drugs - Class B - Amphetamine - Supply	5
205	Drugs - Class B - Cannabis - Concerned in offer to supply	5
206	Drugs - Class B - Cannabis - Concerned in Supply	5
207	Drugs - Class B - Cannabis - Offer to Supply	5
208	Drugs - Class B - Cannabis - Permit use of premises for production	3
209	Drugs - Class B - Cannabis - Permit use of premises for smoking	3
210	Drugs - Class B - Cannabis - Permit use of premises for supply	3
211	Drugs - Class B - Cannabis - Possess	2
212	Drugs - Class B - Cannabis - Possess with intent to supply	5
213	Drugs - Class B - Cannabis - Produce	3
214	Drugs - Class B - Cannabis - Supply	5
215	Drugs - Class B - Cannabis Plant - Cultivate	3
216	Drugs - Class B - Cannabis Resin - Concerned in offer to supply	5
217	Drugs - Class B - Cannabis Resin - Concerned in Supply	5
218	Drugs - Class B - Cannabis Resin - Offer to Supply	5
219	Drugs - Class B - Cannabis Resin - Permit use of premises for supply	3
220	Drugs - Class B - Cannabis Resin - Possess	2
221	Drugs - Class B - Cannabis Resin - Possess with intent to supply	5
222	Drugs - Class B - Cannabis Resin - Produce	3
223	Drugs - Class B - Cannabis Resin - Supply	5

224	Drugs - Class B - Cathinone/derivative - Possess	2
225	Drugs - Class B - Cathinone/derivative - possess with intent to supply	5
226	Drugs - Class B - Ketamine - Offer to Supply	3
227	Drugs - Class B - Ketamine - Possess	2
228	Drugs - Class B - Ketamine - Possess with intent to supply	3
229	Drugs - Class B - Ketamine - Produce	3
230	Drugs - Class B - Ketamine - Supply	3
231	Drugs - Class B - Mephedrone - Possess	2
232	Drugs - Class B - Other Class B - Concerned in offer to supply	5
233	Drugs - Class B - Other Class B - Concerned in Supply	5
234	Drugs - Class B - Other Class B - Offer to Supply	5
235	Drugs - Class B - Other Class B - Permit use of premises for supply	3
236	Drugs - Class B - Other Class B - Possess	2
237	Drugs - Class B - Other Class B - Possess with intent to supply	5
238	Drugs - Class B - Other Class B - Produce	3
239	Drugs - Class B - Other Class B - Supply	5
240	Drugs - Class B - Unlawful Import	365
241	Drugs - Class C - GHB - Concerned in offer to supply	3
242	Drugs - Class C - GHB - Concerned in Supply	3
243	Drugs - Class C - GHB - Offer to Supply	3
244	Drugs - Class C - GHB - Possess	1
245	Drugs - Class C - GHB - Possess with intent to supply	2
246	Drugs - Class C - GHB - Produce	3
247	Drugs - Class C - GHB - Supply	3
248	Drugs - Class C - Khat - Possess	1
249	Drugs - Class C - Other Class C - Concerned in offer to supply	5
250	Drugs - Class C - Other Class C - Concerned in Supply	5
251	Drugs - Class C - Other Class C - Offer to Supply	5
252	Drugs - Class C - Other Class C - Permit use of premises for supply	1
253	Drugs - Class C - Other Class C - Possess	1
254	Drugs - Class C - Other Class C - Possess with intent to supply	5
255	Drugs - Class C - Other Class C - Produce	3
256	Drugs - Class C - Other Class C - Supply	5
257	Drugs - Class C - Steroids - Concerned in offer to supply	5
258	Drugs - Class C - Steroids - Concerned in Supply	5
259	Drugs - Class C - Steroids - Offer to Supply	5
260	Drugs - Class C - Steroids - Possess	1
261	Drugs - Class C - Steroids - Produce	3
262	Drugs - Class C - Steroids - Supply	5
263	Drugs - Class C - Unlawful Import	18.75
264	Drugs - Intoxicating substance - Offer to Supply to under 18	?

265	Drugs - Intoxicating substance - Supply to under 18	?
266	Drugs - Obstruct a constable / authorised person	1
267	Drugs - Supply article to administer	?
268	Employ adult subject to control - not granted leave to enter / remain in UK - Immigration, Asylum and Nationality Act 2006	?
269	Encourage / Assist in commission of indictable offence	?
270	Endanger safety of aircraft	
271	Endanger safety on railway	3.25
272	Engage in controlling / coercive behaviour in an intimate / family relationship	182.5
273	Engage in sexual communication with a child	?
274	Enter United Kingdom without a passport	?
275	Escape from lawful custody - no force used	6.25
276	Export a psychoactive substance	18.75
277	Expose a child under 12 years of age to the risk of burning	84
278	Expose child under 2 whereby life / health endangered	1095
279	Facilitate breach of UK immigration Law	?
280	Fail to comply with a prohibition / premises order re psychoactive substances	?
281	Fail to comply with a prohibition contained in a violent offender order	?
282	Fail to comply with sec 109(1), 6(b) of the immigration act	?
283	Fail to disclosure of details of interception warrant	?
284	Fail to protect girl from risk of genital mutilation	?
285	Failure to comply re notice of drugs	2
286	False accounting	1
287	False imprisonment - common law	548
288	False oral / written unsworn statement	91
289	False representations that a Lottery is part of the National Lottery	3
290	Firearms - Acquire / purchase firearm without a certificate	?
291	Firearms - Acquire ammunition for a firearm without a certificate	?
292	Firearms - Air weapon - possession with intent to cause fear of violence	913
293	Firearms - Convert thing / imitation firearm into a firearm	?
294	Firearms - Fail to give proper notice of the transfer of a firearm	?
295	Firearms - Fail to notify the deactivation / destruction / loss of a firearm	?
296	Firearms - Fail to notify the transfer of a firearm	?
297	Firearms - Fail to produce firearm certificate / permit to transferor	?
298	Firearms - Firearm - possession with intent to cause fear of violence	1825
299	Firearms - Have a firearm with intent to commit an indictable offence	1825
300	Firearms - Have a firearm with intent to resist arrest	1825

301	Firearms - Have an imitation firearm with intent to commit an indictable offence	1825
302	Firearms - Have an imitation firearm with intent to resist arrest	1825
303	Firearms - Importation of weapons or ammunition contrary to acts	?
304	Firearms - Possess a firearm of length less than 30cm / 60cm - prohibited weapon	?
305	Firearms - Possess a firearm when prohibited for five years	?
306	Firearms - Possess a firearm when prohibited for life	?
307	Firearms - Possess a handgun - prohibited weapon	?
308	Firearms - Possess a loaded shotgun in a public place	?
309	Firearms - Possess a shortened shotgun	?
310	Firearms - Possess a shotgun when prohibited for five years	?
311	Firearms - Possess a shotgun when prohibited for life	?
312	Firearms - Possess a thing converted into a firearm	?
313	Firearms - Possess air weapon while committing Schedule 1 offence	913
314	Firearms - Possess ammunition for a firearm when prohibited for five years	?
315	Firearms - Possess ammunition for a firearm when prohibited for life - Firearms Act 1968	?
316	Firearms - Possess ammunition for a firearm without a certificate	?
317	Firearms - Possess ammunition for a shotgun when prohibited for five years	?
318	Firearms - Possess ammunition for an air weapon when prohibited for life	?
319	Firearms - Possess ammunition for shotgun when prohibited for life	?
320	Firearms - Possess an air weapon when prohibited for five years	?
321	Firearms - Possess an air weapon when prohibited for life	?
322	Firearms - Possess an imitation firearm in a public place	?
323	Firearms - Possess firearm and suitable ammunition in public place	?
324	Firearms - Possess firearm on arrest for Schedule 1 offence	1825
325	Firearms - Possess firearm while committing Schedule 1 offence	1825
326	Firearms - Possess firearm without a certificate	?
327	Firearms - Possess imitation firearm - committing Schedule 1 offence	1095
328	Firearms - Possess imitation firearm on arrest for Schedule 1 offence	1825
329	Firearms - Possess prohibited ammunition	?
330	Firearms - Possess prohibited ammunition	?
331	Firearms - Possess prohibited weapon - self contained gas cartridge air weapon	?

332	Firearms - Possess prohibited weapon (automatic)	?
333	Firearms - Possess prohibited weapon (disguised firearm)	?
334	Firearms - Possess prohibited weapon (disguised firearm)	?
335	Firearms - Possess pump action / self load rifle	?
336	Firearms - Possess shotgun without a certificate	?
337	Firearms - Possess weapon for discharge of noxious liquid / gas / electrical incapacitation device / thing	?
338	Firearms - Possession of imitation firearm with intent to cause fear of violence	1825
339	Firearms - Purchase / acquire a shotgun without a certificate	?
340	Firearms - Purchase / acquire shortened shotgun - Firearms Act 1968	?
341	Firearms - Purchase a handgun - prohibited weapon	?
342	Firearms - Purchase weapon for discharge of noxious liquid / gas	?
343	Firearms - Sell / transfer firearm to person - not firearm certificate holder	?
344	Firearms - Sell / transfer shotgun to unauthorised person	?
345	Firearms - Set a man trap with intent to inflict grievous bodily harm - Offences against the Person Act 1861	1460
346	Firearms - Shorten shotgun barrel - less than 60.96 cm / 24 ins	?
347	Firearms - Shotgun - possession with intent to cause fear of violence	1825
348	Firearms - Trespass in a building with a firearm	?
349	Forced Marriage Offences	548
350	Forge a driving licence / counterpart with intent to deceive	?
351	Forge test / goods / plating etc certificate with intent to deceive	?
352	Forgery - vehicle licence / registration mark / document	?
353	Fraud by abuse of position - Fraud Act 2006	252
354	Fraud by false representation - Cheque, card and online banking	10
355	Fraud by false representation - Other methods	10
356	Fraudulently evade any duty / prohibition / restriction / provision	3.25
357	Genital mutilation of a female	1460
358	Going equipped for burglary	3
359	Going equipped for theft (general) - not motor vehicle	3
360	Going equipped for theft of motor vehicle	3
361	Going equipped for TWOC	3
362	Going equipped to cheat	3
363	Handling stolen goods - arranging to receive	2
364	Harassment of a person in their home	5
365	Have article with intent to destroy / damage property	?
366	Have article with intent to destroy / damage property - endanger life	?
367	Hoaxes involving noxious substances or things	?

368	Hold person in slavery or servitude	365
369	Import a psychoactive substance	18.75
370	Infanticide	365
371	Intercept communication by public postal / telecommunication system - RIPA	?
372	Interfere with a motor vehicle / trailer / cycle - endanger road user	6.25
373	Interfere with traffic equipment - cause danger to road users	1.5
374	Intimidate a witness / juror	42
375	Intimidate witness in civil proceedings	42
376	Kidnap - common law	548
377	Knowingly hold another person in slavery / servitude	182.5
378	Landlord / agent harass occupier to give up premises	?
379	Make / cause / permit display of indecent matter	91
380	Make / supply article for use in fraud - Fraud Act 2006	2
381	Make a counterfeit of a currency note - Forgery and Counterfeiting Act 1981	?
382	Make a false instrument with intent it be accepted as genuine - Forgery and Counterfeiting Act 1981	?
383	Make a false prescription for a scheduled drug - Forgery and Counterfeiting Act 1981	?
384	Make a false statement to obtain a driving licence	?
385	Make a false statement to obtain insurance	?
386	Make explosive substance for unlawful purpose	?
387	Make false written statement which was tendered in evidence	91
388	Make for sale or hire an article infringing copyright	10
389	Make indecent photograph / pseudo-photograph of a child	547.5
390	Make use / attempt to make use of a firearm with intent to resist arrest	1825
391	Making off without payment - Bilking	1
392	Manslaughter	1095
393	Misconduct in Public Office	?
394	Money laundering - use proceeds	5
395	Murder - victim one year of age or older	5475
396	Murder - victim under one year of age	5475
397	Neglect / Ill treat a patient	?
398	Obstruct the course of public justice - Common Law	42
399	Obtain / disclose personal infromation / data contained therein	?
400	Obtain services dishonestly - Fraud Act 2006	10
401	Offer to supply psychoactive substnace	5
402	Other criminal damage	2
403	Other offences relating to prison security	6.25
404	Owner or person in charge of a dog dangerously out of control in a public place	1
405	Perjury	91

406	Posses a psychoactive substance in a custodial institution	10
407	Posses a psychoactive substnace with intent to supply	5
408	Possess / control article for use in fraud - Fraud Act 2006	2
409	Possess / control false document re acting as a gangmaster	?
410	Possess a prohibited image of a child	91
411	Possess air weapon with intent to endanger life	1278
412	Possess an extreme pornographic image portraying an act which threatened life	?
413	Possess an extreme pornographic image portraying assault by penetration	?
414	Possess an extreme pornographic image portraying rape	?
415	Possess an offensive weapon	18.75
416	Possess article with blade / point on school premises	42
417	Possess driving licence / counterpart with intent to deceive	?
418	Possess explosive substance for unlawful purpose	?
419	Possess extreme pornographic image portraying act which likely to result in serious injury to a person's private parts	?
420	Possess extreme pornographic image portraying an act of intercourse / oral sex with a dead / alive animal	?
421	Possess false / improperly obtained / anothers identity document	?
422	Possess firearm with intent to endanger life	2555
423	Possess goods - duty not paid etc with intent to evade	4.27
424	Possess goods with a false trade mark for sale / hire	1
425	Possess identity documents with intent	?
426	Possess indecent photograph / pseudo-photograph of a child	18.75
427	Possess knife blade or sharply pointed article	18.75
428	Possess offensive weapon on school premises	42
429	Possess shotgun with intent to endanger life	2555
430	Possess to show / distribute - indecent photograph / pseudo-photograph of a child	91
431	Possessing or distributing prohibited weapons	?
432	Possession of a prohibited dog	1
433	Possession or supply of Telecomms Apperatus	?
434	Proceeds of Crime - arrangement re criminal property - money launder	5
435	Proceeds of Crime - conceal / disguised / converted / transferred / removed criminal property	5
436	Proceeds of Crime - fail to disclose in regulated sector - money launder	5
437	Proceeds of Crime - nominated officer consents to prohibited act	5
438	Proceeds of Crime - nominated person fail to disclose in regulated sector - money launder	5
439	Proceeds of Crime Act - tipping off - money launder	5
440	Procure drugs to cause abortion	0
441	Produce a psychoactive substance	3
442	Programme words / behaviour to stir racial hatred	?

443	Prohibition of practitioners titles by unqualified persons - Veterinary	?
444	Prohibition on sending by post of certain articles	3
445	Public nuisance - common law	?
446	Public Order - S1 Riot	?
447	Public Order - S2 Harassment without violence	10
448	Public Order - S2 Violent disorder	10
449	Public Order - S3 Affray	5
450	Public Order - S3 Harassment - breach of civil injunction	5
451	Public Order - S4 display sign etc intend unlawful violence	5
452	Public Order - S4 Harassment - put in fear of violence	42
453	Public Order - S4 words / behaviour - fear unlawful violence	5
454	Public Order - S4A sign etc to harass alarm distress	5
455	Public Order - S4A words / behaviour to cause harassment / alarm / distress	5
456	Public Order - S5 Display writing / sign - harassment alarm distress	1
457	Public Order - S5 Harassment - breach of restraining order	5
458	Public Order - S5 Use threatening words / behaviour to cause harassment alarm or distress	1
459	Publish advert re - indecent photograph / pseudo-photograph of a child	91
460	Publish an obscene article	?
461	Publish written material to stir up racial hatred	?
462	Racial hatred - show / play recording / sound / image	?
463	Racially / religiously aggravated assault occasioning ABH	182
464	Racially / religiously aggravated common assault	10
465	Racially / Religiously aggravated criminal damage	5
466	Racially / Religiously aggravated criminal damage other	5
467	Racially / Religiously aggravated criminal damage to a building other than a dwelling	5
468	Racially / Religiously aggravated criminal damage to a dwelling	5
469	Racially / Religiously aggravated criminal damage to a vehicle	5
470	Racially / religiously aggravated harassment / alarm / distress	42
471	Racially / religiously aggravated harassment with fear of violence	126
472	Racially / religiously aggravated harassment without violence	42
473	Racially / religiously aggravated intentional harassment / alarm / distress	42
474	Racially / religiously aggravated wounding / GBH without intent	547.5
475	Racially or religiously aggravated fear of violence	42
476	Receive stolen goods - Theft Act 1968	2
477	Remain unlawfully at large after recall to prison	?

478	Remain unlawfully at large after recall to prison - life prisoners	?
479	Remove article from public building / grounds	2
480	Reported incident of Rape - committed in and transferred to another police force area	0
481	Reported incident of Rape - Credible evidence to to contrary exists	0
482	Reported incident of Rape - Victim has not confirmed or cannot be traced	0
483	Require a person to perform forced or compulsory labour	365
484	Resist / obstruct custody officer	1
485	Resist / obstruct designated / accredited person - Police Reform Act 2002	1
486	Retain a wrongful credit	1
487	Robbery	365
488	Robbery - Business	365
489	Robbery - Dwelling	547.5
490	Robbery - Personal	365
491	Robbery professionally planned commercial	730
492	Section 58 TACT 2000 - collection of info	?
493	Seek / obtain leave to enter / remain in UK by deceptive means - immigration	?
494	Sell goods bearing a false trade mark	10
495	Send / deliver noxious thing with intent	0
496	Sending letters etc with intent to cause distress or anxiety (Malicious Comms Act)	10
497	Sex - Administer a substance with intent - SOA 2003	730
498	Sex - Adult abuse of position of trust - cause / incite sexual activity with boy 13 - 17 - SOA 2003	10
499	Sex - Adult abuse of position of trust - cause / incite sexual activity with boy U.13 - SOA 2003	?
500	Sex - Adult abuse of position of trust - cause / incite sexual activity with girl 13 - 17 - SOA 2003	10
501	Sex - Adult abuse of position of trust - cause / incite sexual activity with girl U.13 - SOA 2003	?
502	Sex - Adult abuse of position of trust - cause child under 13 to watch a sexual act - SOA 2003	?
503	Sex - Adult abuse of position of trust - sexual activity in presence of child 13-17 - SOA 2003	10
504	Sex - Adult abuse of position of trust - sexual activity in presence of child U.13 - SOA 2003	?
505	Sex - Adult abuse of position of trust - sexual activity with a boy 13-17 - SOA 2003	10
506	Sex - Adult abuse of position of trust - sexual activity with a girl 13-17 - SOA 2003	10
507	Sex - Adult abuse position of trust - cause child 13 - 17 watch a sexual act - SOA 2003	10
508	Sex - Adult abuse position of trust - sexual activity with a boy U.13 - SOA 2003	?

509	Sex - Adult abuse position of trust - sexual activity with a girl U.13 - SOA 2003	?
510	Sex - Adult incite sexual activity with a boy under 13 family member - no penetration - SOA 2003	10
511	Sex - Adult incite sexual activity with a boy under 13 family member - penetration - SOA 2003	2190
512	Sex - Adult incite sexual activity with a family member - victim boy 13 to 17 - no penetration - SOA 2003	10
513	Sex - Adult incite sexual activity with a family member - victim boy 13 to 17 - penetration - SOA 2003	1277.5
514	Sex - Adult incite sexual activity with a family member - victim girl 13 to 17 - no penetration - SOA 2003	10
515	Sex - Adult incite sexual activity with a family member - victim girl 13 to 17 - penetration - SOA 2003	1277.5
516	Sex - Adult incite sexual activity with a girl under 13 family member - no penetration - SOA 2003	10
517	Sex - Adult incite sexual activity with a girl under 13 family member - penetration - SOA 2003	2190
518	Sex - Adult meet boy under 16 following sexual grooming - SOA 2003	547.5
519	Sex - Adult meet girl under 16 following sexual grooming - SOA 2003	547.5
520	Sex - Adult sexual activity with a boy 13 - 17 family member - no penetration - SOA 2003	10
521	Sex - Adult sexual activity with a boy 13 - 17 family member - penetration - SOA 2003	1277.5
522	Sex - Adult sexual activity with a boy under 13 family member - no penetration - SOA 2003	10
523	Sex - Adult sexual activity with a boy under 13 family member - penetration - SOA 2003	2190
524	Sex - Adult sexual activity with a girl 13 - 17 family member - no penetration - SOA 2003	10
525	Sex - Adult sexual activity with a girl 13 - 17 family member - penetration - SOA 2003	1277.5
526	Sex - Adult sexual activity with a girl under 13 family member - no penetration - SOA 2003	10
527	Sex - Adult sexual activity with a girl under 13 family member - penetration - SOA 2003	2190
528	Sex - Arrange / facilitate the commission of a child sex offence - SOA 2003	10
529	Sex - Arrange / facilitate the prostitution / involvement in pornography of a child 13 - 17 - SOA 2003	365
530	Sex - Arrange / facilitate the prostitution / involvement in pornography of a child under 13 - SOA 2003	365
531	Sex - Assault a boy under 13 by penetration with a part of your body / a thing - SOA 2003	1460
532	Sex - Assault a boy under 13 by touching - SOA 2003	182
533	Sex - Assault a female 13 and over by penetration with part of body / a thing - SOA 2003	730

534	Sex - Assault a girl under 13 by penetration with a part of your body / a thing - SOA 2003	1460
535	Sex - Assault a girl under 13 by touching - SOA 2003	182
536	Sex - Assault a male 13 or over by penetration with part of body / a thing - SOA 2003	730
537	Sex - Attempt rape of a boy under the age of 13 - SOA 2003	2920
538	Sex - Attempt rape of a girl under 13 - SOA 2003	2920
539	Sex - Attempt to rape a man aged 16 or over - SOA 2003	1825
540	Sex - Attempt to rape a woman 16 or over - SOA 2003	1825
541	Sex - Attempted rape of a female under 16	1825
542	Sex - Attempted rape of a male under 16 years of age	1825
543	Sex - Care worker cause / incite sexual activity with mental disordered person - penetration - SOA 2003	1825
544	Sex - Care worker cause / incite sexual activity with mentally disordered person - no penetration - SOA 2003	182
545	Sex - Care worker cause mentally disordered person to watch a sexual act - SOA 2003	10
546	Sex - Care worker engage in sexual activity in the presence of mentally disordered person - SOA 2003	10
547	Sex - Care worker engage in sexual activity with mentally disordered female - no penetration - SOA 2003	182
548	Sex - Care worker engage in sexual activity with mentally disordered female - penetration - SOA 2003	1825
549	Sex - Care worker engage in sexual activity with mentally disordered male - no penetration - SOA 2003	182
550	Sex - Care worker engage in sexual activity with mentally disordered male - penetration - SOA 2003	1825
551	Sex - Cause / allow sexual penetration per vagina / anus of a female person by a living animal - SOA 2003	182.5
552	Sex - Cause / incite a child 13 - 17 to prostitution / pornography - SOA 2003	182
553	Sex - Cause / incite a child under 13 to prostitution / pornography - SOA 2003	730
554	Sex - Cause / incite prostitution for gain - SOA 2003	10
555	Sex - Cause / incite sexual activity with a mentally disordered female - no penetration - SOA 2003	182
556	Sex - Cause / incite sexual activity with a mentally disordered female - penetration - SOA 2003	2920
557	Sex - Cause / incite sexual activity with a mentally disordered male - no penetration - SOA 2003	182
558	Sex - Cause / incite sexual activity with a mentally disordered male - penetration - SOA 2003	2920
559	Sex - Cause a female 13 or over to engage in a non penetrative sexual activity - SOA 2003	18.75
560	Sex - Cause a female 13 or over to engage in a penetrative sexual activity - SOA 2003	730
561	Sex - Cause a male 13 or over to engage in a non penetrative sexual activity - SOA 2003	18.75

562	Sex - Cause a male 13 or over to engage in a penetrative sexual activity - SOA 2003	730
563	Sex - Cause a mentally disordered person to watch a sex act - SOA 2003	10
564	Sex - Cause mentally disordered person to watch a sexual act by inducement etc - SOA 2003	10
565	Sex - Cause sexual activity with mentally disordered person by inducement / threat / deception - no penetration - SOA 2003	1460
566	Sex - Cause sexual activity with mentally disordered person by inducement / threat / deception - penetration - SOA 2003	4745
567	Sex - Commit an offence with the intention of committing a relevant sexual offence - SOA 2003	730
568	Sex - Control a child 13 - 17 involved in prostitution / pornography - SOA 2003	365
569	Sex - Control a child under 13 involved in prostitution / pornography - SOA 2003	2190
570	Sex - Control prostitution for gain - SOA 2003	912.5
571	Sex - Engage in sexual activity in presence of a mentally disordered person - SOA 2003	10
572	Sex - Exposure - SOA 2003	10
573	Sex - Indecent assault on a man aged 16 or over	18.75
574	Sex - Keep / manage a brothel used for prostitution	10
575	Sex - Knowingly / recklessly trespassed on premises with intent to commit a relevant sexual offence - SOA 2003	730
576	Sex - Offender 16 or over consenting to sexual activity by an adult relative over 18 - penetration - SOA 2003	10
577	Sex - Offender 16 or over sexual activity with an adult relative over 18 - penetration - SOA 2003	10
578	Sex - Offender 18 or over cause / incite a boy 13 to 15 to engage in sexual activity - no penetration - SOA 2003	18.75
579	Sex - Offender 18 or over cause / incite a boy 13 to 15 to engage in sexual activity - penetration - SOA 2003	730
580	Sex - Offender 18 or over cause / incite a boy under 13 to engage in sexual activity - no penetration - SOA 2003	182
581	Sex - Offender 18 or over cause / incite a boy under 13 to engage in sexual activity - penetration - SOA 2003	1825
582	Sex - Offender 18 or over cause / incite a girl 13 to 15 to engage in sexual activity - no penetration - SOA 2003	18.75
583	Sex - Offender 18 or over cause / incite a girl 13 to 15 to engage in sexual activity - penetration - SOA 2003	730
584	Sex - Offender 18 or over cause / incite a girl under 13 to engage in sexual activity - no penetration - SOA 2003	182
585	Sex - Offender 18 or over cause / incite a girl under 13 to engage in sexual activity - penetration - SOA 2003	1825
586	Sex - Offender 18 or over cause a child aged 13 to 15 to watch / look at an image of sexual activity - SOA 2003	10

587	Sex - Offender 18 or over cause a child under 13 to watch / look at an image of sexual activity - SOA 2003	10
588	Sex - Offender 18 or over engage in non penetrative sexual activity with boy 13 to 15 - SOA 2003	18.75
589	Sex - Offender 18 or over engage in non penetrative sexual activity with boy under 13 - SOA 2003	182
590	Sex - Offender 18 or over engage in non penetrative sexual activity with girl 13 to 15 - SOA 2003	18.75
591	Sex - Offender 18 or over engage in non penetrative sexual activity with girl under 13 - SOA 2003	182
592	Sex - Offender 18 or over engage in penetrative sexual activity with a boy 13 to 15 - SOA 2003	730
593	Sex - Offender 18 or over engage in penetrative sexual activity with a girl 13 to 15 - SOA 2003	730
594	Sex - Offender 18 or over engage in penetrative sexual activity with boy under 13 - SOA 2003	1825
595	Sex - Offender 18 or over engage in penetrative sexual activity with girl under 13 - SOA 2003	1825
596	Sex - Offender 18 or over engage in sexual activity in presence of a child 13 to 15 - SOA 2003	182
597	Sex - Offender 18 or over engage in sexual activity in presence of a child under 13 - SOA 2003	182
598	Sex - Offender of any age cause / incite a boy under 13 to engage in sexual activity - no penetration - SOA 2003	730
599	Sex - Offender of any age cause / incite a boy under 13 to engage in sexual activity - penetration - SOA 2003	1825
600	Sex - Offender of any age cause / incite a girl under 13 to engage in sexual activity - no penetration - SOA 2003	730
601	Sex - Offender of any age cause / incite a girl under 13 to engage in sexual activity - penetration - SOA 2003	2920
602	Sex - Offender under 18 cause / incite a boy 13 to 15 to engage in sexual activity - no penetration - SOA 2003	18.75
603	Sex - Offender under 18 cause / incite a boy 13 to 15 to engage in sexual activity- penetration - SOA 2003	730
604	Sex - Offender under 18 cause / incite a boy under 13 to engage in sexual activity - no penetration - SOA 2003	182
605	Sex - Offender under 18 cause / incite a boy under 13 to engage in sexual activity - penetration - SOA 2003	1825
606	Sex - Offender under 18 cause / incite a girl 13 to 15 to engage in sexual activity - no penetration - SOA 2003	18.75
607	Sex - Offender under 18 cause / incite a girl 13 to 15 to engage in sexual activity - penetration - SOA 2003	730
608	Sex - Offender under 18 cause / incite a girl under 13 to engage in sexual activity - no penetration - SOA 2003	182
609	Sex - Offender under 18 cause / incite a girl under 13 to engage in sexual activity - penetration - SOA 2003	2920
610	Sex - Offender under 18 cause a child 13 to 15 to watch a sexual act - SOA 2003	10
611	Sex - Offender under 18 cause a child under 13 to watch a sexual act - SOA 2003	10

612	Sex - Offender under 18 engage in non penetrative sexual activity with a boy 13 to 15 - SOA 2003	18.75
613	Sex - Offender under 18 engage in non penetrative sexual activity with a boy under 13 - SOA 2003	182
614	Sex - Offender under 18 engage in non penetrative sexual activity with a girl 13 to 15 - SOA 2003	18.75
615	Sex - Offender under 18 engage in non penetrative sexual activity with a girl under 13 - SOA 2003	182
616	Sex - Offender under 18 engage in penetrative sexual activity with a girl 13 to 15 - SOA 2003	730
617	Sex - Offender under 18 engage in penetrative sexual activity with boy 13 - 15 SOA 2003	730
618	Sex - Offender under 18 engage in penetrative sexual activity with boy under 13 - SOA 2003	2920
619	Sex - Offender under 18 engage in penetrative sexual activity with girl under 13 - SOA 2003	2920
620	Sex - Offender under 18 engage in sexual activity in presence of a child 13 to 15 - SOA 2003	182
621	Sex - Offender under 18 engage in sexual activity in presence of a child under 13 - SOA 2003	182
622	Sex - Offender under 18 incite sexual activity with a boy 13 -17 family member - penetration - SOA 2003	1277.5
623	Sex - Offender under 18 incite sexual activity with a boy under 13 family member - no penetration - SOA 2003	10
624	Sex - Offender under 18 incite sexual activity with a boy under 13 family member - penetration - SOA 2003	2190
625	Sex - Offender under 18 incite sexual activity with a family member - victim boy 13 to 17 - no penetration - SOA 2003	10
626	Sex - Offender under 18 incite sexual activity with a family member - victim girl 13 to 17 - no penetration - SOA 2003	10
627	Sex - Offender under 18 incite sexual activity with a girl 13 - 17 family member - penetration - SOA 2003	1277.5
628	Sex - Offender under 18 incite sexual activity with a girl under 13 family member - no penetration - SOA 2003	10
629	Sex - Offender under 18 incite sexual activity with a girl under 13 family member - penetration - SOA 2003	2190
630	Sex - Offender under 18 sexual activity with a boy 13 - 17 family member - no penetration - SOA 2003	10
631	Sex - Offender under 18 sexual activity with a boy 13 - 17 family member - penetration - SOA 2003	1277.5
632	Sex - Offender under 18 sexual activity with a boy under 13 family member - penetration - SOA 2003	2190
633	Sex - Offender under 18 sexual activity with a boy under 13 family member - SOA 2003	10
634	Sex - Offender under 18 sexual activity with a girl 13 - 17 family member - no penetration - SOA 2003	10
635	Sex - Offender under 18 sexual activity with a girl 13 - 17 family member - penetration - SOA 2003	1277.5
636	Sex - Offender under 18 sexual activity with a girl under 13 family member - no penetration - SOA 2003	10

637	Sex - Offender under 18 sexual activity with a girl under 13 family member - penetration - SOA 2003	2190
638	Sex - Paying a person or persons to provide sexual services where they are being exploited	1
639	Sex - Paying for the sexual services of a boy 13 to 15 - no penetration - SOA 2003	182
640	Sex - Paying for the sexual services of a boy 13 to 15 - penetration - SOA 2003	1825
641	Sex - Paying for the sexual services of a boy aged 16 / 17 - SOA 2003	182
642	Sex - Paying for the sexual services of a boy under 13 - no penetration - SOA 2003	182
643	Sex - Paying for the sexual services of a boy under 13 - penetration - SOA 2003	2920
644	Sex - Paying for the sexual services of a girl 13 to 15 - no penetration - SOA 2003	182
645	Sex - Paying for the sexual services of a girl 13 to 15 - penetration - SOA 2003	1825
646	Sex - Paying for the sexual services of a girl aged 16 / 17 - SOA 2003	182
647	Sex - Paying for the sexual services of a girl under 13 - no penetration - SOA 2003	182
648	Sex - Paying for the sexual services of a girl under 13 - penetration - SOA 2003	2920
649	Sex - Rape a girl aged 13 / 14 / 15 - SOA 2003	1825
650	Sex - Rape a girl under 13 - SOA 2003	1825
651	Sex - Rape a male under 16	1825
652	Sex - Rape a man 16 or over - SOA 2003	1825
653	Sex - Rape a woman 16 years of age or over - SOA 2003	1825
654	Sex - Rape of a boy under 13 - SOA 2003	2920
655	Sex - Sex offences - abuse position of trust - engage in sexual activity	?
656	Sex - Sex offences - abuse position of trust - have sexual intercourse	?
657	Sex - Sex offender - false information to police subsequent to registration	42
658	Sex - Sex offender fail to comply with a prohibition imposed by a restraining order	10
659	Sex - Sex offender fail to notify name / address to police on initial registration	10
660	Sex - Sex offender fail to notify name etc to police subsequent to registration	10
661	Sex - Sexual activity in presence of mentally disordered person agreed / procured by inducement etc - SOA 2003	10
662	Sex - Sexual activity with a mentally disordered female - no penetration - SOA 2003	182
663	Sex - Sexual activity with a mentally disordered female - penetration - SOA 2003	2920

664	Sex - Sexual activity with a mentally disordered male - no penetration - SOA 2003	182
665	Sex - Sexual activity with a mentally disordered male - penetration - SOA 2003	2920
666	Sex - Sexual activity with mentally disordered person by inducement / threat / deception - no penetration - SOA 2003	1460
667	Sex - Sexual activity with mentally disordered person by inducement / threat / deception - penetration - SOA 2003	4745
668	Sex - Sexual assault on a female - SOA 2003	18.75
669	Sex - Sexual assault on a male - SOA 2003	18.75
670	Sex - Sexual intercourse with woman / girl mental defective	2920
671	Sex - Sexual penetration of a corpse - SOA 2003	182.5
672	Sex - Sexual penetration per vagina / anus by a person with a living animal - SOA 2003	182.5
673	Sex - Solicit a person or persons for the purposes of prostitution in a public place	0.1
674	Sex - Trafficking persons into the United Kingdom for sexual exploitation - SOA 2003	182
675	Sex - Trafficking persons within the United Kingdom for sexual exploitation - SOA 2003	182
676	Sex - Voyeurism - install equipment / construct / adapt a structure - SOA 2003	10
677	Sex - Voyeurism - observing - SOA 2003	10
678	Sex - Voyeurism - operating equipment to observe - SOA 2003	10
679	Sex - Voyeurism - recording a private act - SOA 2003	10
680	Sex offenders register - fail to comply with notification of a change - SOA 2003	10
681	Show an indecent photograph / pseudo-photograph of a child	91
682	Solicit to commit murder - Offences Against the Person Act 1861	1460
683	Stalking - Involving fear of violence	182.5
684	Stalking - Involving serious alarm / distress	182.5
685	Stalking - Pursue a course of conduct	42
686	Stir up racial hatred by displaying written material	?
687	Stir up racial hatred by words / behaviour	?
688	Supply a psychoactive substance	5
689	Tachograph - make false entry on record sheet	?
690	Tachograph - use with intent to deceive	?
691	Take a conveyance (not motor vehicle / pedal cycle) without consent	5
692	Take a motor vehicle without the owners consent	5
693	Take an indecent photograph / pseudo-photograph of a child	547.5
694	Taking a pedal cycle without consent	2
695	Tampering with a motor vehicle	?

696	Tender as genuine a thing knowing it was a counterfeit of a currency note - Forgery and Counterfeiting Act 1981	?
697	Tender as genuine a thing knowing it was a counterfeit of a protected coin - Forgery and Counterfeiting Act 1981	?
698	TEW offences under Human Medicines Regulations	?
699	TEW offences under the representation of the people act	?
700	Theft - other - including theft by finding	2
701	Theft by employee	5
702	Theft from a vehicle - other than a motor vehicle	2
703	Theft from meter or automatic machine	2
704	Theft from motor vehicle	2
705	Theft from shop - shoplifting	2
706	Theft from the person of another	2
707	Theft in dwelling other than auto machine or meter	2
708	Theft of conveyance other than motor vehicle or pedal cycle	2
709	Theft of mail bag / postal packet	2
710	Theft of motor vehicle	5
711	Theft of pedal cycle	2
712	Threat to damage / destroy property	2
713	Threaten a witness / juror	126
714	Threaten person with blade or pointed article in public place	182.5
715	Threaten person with blade or pointed article on school premises	182.5
716	Threaten to destroy / damage own property - endanger life	?
717	Threaten with an offensive weapon in a public place	182.5
718	Threats to kill	10
719	Throw an article / substance into a prison	?
720	Trading in firearms without being registered (Group I)	182.5
721	Traffic a person into the United Kingdom for exploitation	1095
722	Trafficking in controlled drugs	18.75
723	UK national arrange or faciliate the travel of another person with a view to exploitation.	
724	Unauthorised access to computer to facilitate the commission of an offence	?
725	Unauthorised modification of computer material	?
726	Unauthorised possession in prison of knife or offensive weapon	182.5
727	Undischarged bankrupt act as company director without leave of court	?
728	Use a false instrument with intent it be accepted as genuine - Forgery and Counterfeiting Act 1981	?
729	Use a false prescription for a scheduled drug with intent - Forgery and Counterfeiting Act 1981	?
730	Use an unlicensed security operative - Private Security Industry Act 2001	?
731	Use driving licence / counterpart with intent to deceive	?

732	Use of noxious substances or things to cause harm and intimidate	182.5
733	Use of words or behaviour or display of written material (acts intended to stir up religious hatred)	3
734	Vehicle interference - motor vehicle	3
735	Vehicle interference - trailer	3
736	Wildlife Offences	?
737	Wilfully made a false statement in judicial proceedings - witness / interpreter	91
738	Without authority possess inside a prison an item specified in Sec 40D	182.5

Appendix B

Cohort comparison-places of birth

Place of birth	CL offenders	NCL offenders
Angola	1	0
Bedfordshire	0	1
Berkshire	1	0
Cambridgeshire	0	2
Canada	0	1
Cyprus	0	1
Essex (not NLPA)	0	10
Essex NLPA	0	37
Germany	0	1
Greater London	72	28
Italy	0	1
Jamaica	4	1
Kent	1	3
Leicestershire	0	1
Lincolnshire	0	1
Liverpool	5	0
Manchester	1	0
Middlesex	3	0
Monserrat	1	0
Nigeria	1	0
Norfolk	0	2
Northern Ireland	0	1
Oxfordshire	0	1
Pembrokeshire	0	1
Portugal	3	0
Saudi Arabia	1	0
Sheffield	0	1
Singapore	0	1
Somalia	2	0
South Africa	0	1
Suffolk	0	1
Uganda	1	0
Ukraine	1	0
Unknown	0	3
United States of America	1	0
West Midlands	0	2
West Yorkshire	0	1
Wiltshire	0	1
Zambia	0	1

Appendix C

Rank order of CCHI scores of whole sample

Rank	ARRESTS CCHI score	Cohort	CONVICTIONS CCHI score	Cohort
1	28141	CL	16489.75	CL
2	28095.5	CL	16066	CL
3	25324	NCL	13698	NCL
4	23941.5	CL	13036.75	CL
5	20965.5	CL	10522.75	NCL
6	20662.25	CL	7622.25	NCL
7	19950	CL	6679	CL
8	19589.25	CL	6667.5	CL
9	17567.75	CL	6487	CL
10	17511.75	CL	6426.5	CL
11	17165.75	CL	5662.5	CL
12	17086.75	CL	5179.25	CL
13	16624.25	CL	5139	NCL
14	15150.25	CL	4523	CL
15	14916.25	CL	4400.75	CL
16	14481.75	CL	4381.25	NCL
17	14452	CL	4216.5	NCL
18	14428.75	CL	4216.25	NCL
19	14319.25	CL	4019.75	CL
20	14016	CL	3927.25	CL
21	13629	CL	3351.5	CL
22	13496.25	CL	3332	NCL
23	13492.5	CL	3198	CL
24	13410	CL	3158	NCL
25	13348.25	CL	2953	NCL
26	13313	CL	2923	NCL
27	12901.5	CL	2879.25	NCL
28	12629	CL	2759.5	NCL
29	12528.75	CL	2759.25	NCL
30	12273.5	CL	2737.5	CL
31	11884.25	CL	2606.5	CL
32	11875.25	CL	2502.25	CL
33	11570	CL	2464.25	NCL
34	11441	NCL	2446.75	CL
35	11273.25	NCL	2446.75	CL
36	11130.5	NCL	2431.75	CL
37	10953.5	CL	2350	CL
38	10008.25	CL	2324.5	NCL
39	9678.75	NCL	2253	CL
40	9582.75	NCL	2239.75	NCL

41	8841.75	CL	2214.75	CL
42	8629.5	NCL	2192	CL
43	8626.25	CL	2091.5	CL
44	8573	CL	2088.5	NCL
45	8253.25	CL	2002	CL
46	8236.25	NCL	1979.75	NCL
47	7988.25	NCL	1961.5	NCL
48	7987	NCL	1919.5	CL
49	7877	NCL	1918	CL
50	7825.25	NCL	1914.5	CL
51	7714.25	CL	1879	NCL
52	7700.5	NCL	1865	NCL
53	7625.75	NCL	1859.75	CL
54	7575.25	CL	1858.25	NCL
55	7410.75	CL	1842	NCL
56	7371.25	NCL	1791.5	CL
57	7213.25	CL	1756.5	CL
58	7137.25	CL	1718.25	CL
59	7090.75	CL	1675.25	CL
60	7050.75	NCL	1666.5	NCL
61	6741.25	CL	1649.5	NCL
62	6695.75	NCL	1570	CL
63	6675	CL	1536.25	CL
64	6570.75	CL	1535.75	CL
65	6525.25	NCL	1498.5	CL
66	6490.25	NCL	1491	CL
67	6403.25	NCL	1490.25	CL
68	6299	CL	1480	CL
69	6288.75	CL	1474	CL
70	6280.25	NCL	1460	CL
71	6218	CL	1401.75	NCL
72	6207.75	CL	1364.75	NCL
73	6096	NCL	1342.25	CL
74	6055.75	NCL	1340.75	NCL
75	6029.75	CL	1289	CL
76	6011.25	CL	1217.75	NCL
77	5790.25	NCL	1213.75	CL
78	5699	NCL	1193.75	CL
79	5661.25	CL	1188.5	NCL
80	5617	NCL	1180.75	NCL
81	5317.5	CL	1157.75	CL
82	5295.5	NCL	1152.5	CL
83	5248.25	CL	1145.75	NCL
84	5209	CL	1145.5	NCL

85	5190.75	CL	1143.75	CL
86	5152.75	NCL	1133	CL
87	5123	NCL	1127.75	NCL
88	4961.75	CL	1125.5	CL
89	4894.25	CL	1120	NCL
90	4799	NCL	1119	NCL
91	4701.25	CL	1115	NCL
92	4688	NCL	1114.75	CL
93	4662.5	NCL	1109	NCL
94	4572.5	NCL	1107	CL
95	4483.25	CL	1106	NCL
96	4342.75	NCL	1102	NCL
97	4256.25	NCL	1097	NCL
98	4227.5	NCL	1078.5	NCL
99	4185.5	NCL	952.5	CL
100	4153.25	NCL	921	NCL
101	4134.25	NCL	793.75	CL
102	4104.75	NCL	757.75	CL
103	4092.75	CL	756.75	CL
104	3895.5	NCL	746	CL
105	3767	CL	725.25	NCL
106	3700	CL	724.75	CL
107	3637.25	CL	651.75	NCL
108	3591.25	NCL	638.75	NCL
109	3571.25	CL	589.25	CL
110	3533.5	NCL	585.25	CL
111	3516	CL	580.25	NCL
112	3511.75	CL	574.5	NCL
113	3511.75	CL	573.5	NCL
114	3486.25	CL	570.25	NCL
115	3410.75	NCL	566	NCL
116	3329	NCL	560.5	CL
117	3324	CL	554.75	CL
118	3300	CL	553.5	CL
119	3296	NCL	552.5	NCL
120	3241.25	NCL	550.5	NCL
121	3217.75	NCL	549.5	NCL
122	3198.75	CL	549.5	NCL
123	3156.25	CL	507.75	NCL
124	3086.25	NCL	484.25	NCL
125	3058.75	NCL	456.75	NCL
126	2925.75	CL	455	CL
127	2854.25	CL	454	CL
128	2709	NCL	445.25	NCL

129	2685.5	NCL	443.5	CL
130	2651.5	NCL	431.25	CL
131	2592	NCL	427	NCL
132	2587	NCL	402.25	CL
133	2578	CL	383.75	NCL
134	2563	NCL	372	CL
135	2525	CL	370	NCL
136	2448.75	CL	277	NCL
137	2444	NCL	192.25	NCL
138	2436	CL	185	CL
139	2383	CL	157.5	NCL
140	2317	CL	141	NCL
141	2279.5	NCL	134	NCL
142	2258.5	CL	127.75	CL
143	2257.75	NCL	121.25	NCL
144	2218.25	NCL	112	NCL
145	2180.5	NCL	107.75	NCL
146	2103	NCL	100.5	CL
147	2045	NCL	85.25	NCL
148	1871	NCL	81	NCL
149	1853.75	CL	76.25	NCL
150	1801	CL	76	CL
151	1779	NCL	73.75	CL
152	1671.5	NCL	72	NCL
153	1665.5	NCL	69	NCL
154	1665.25	NCL	68.75	NCL
155	1618.75	CL	67.75	CL
156	1577	NCL	65	NCL
157	1479	NCL	62.75	CL
158	1396.25	CL	55	NCL
159	1305.25	NCL	51	CL
160	1290.25	CL	46.5	NCL
161	1247	NCL	46	NCL
162	1195.5	CL	45	NCL
163	1192.75	NCL	36	NCL
164	1160.75	NCL	34.75	NCL
165	1156	NCL	34	NCL
166	1140	NCL	34	CL
167	1123.75	CL	31	NCL
168	1121	NCL	28	CL
169	1104	NCL	27.75	CL
170	1101	CL	27.75	CL
171	1100.5	CL	26.75	CL
172	1099	NCL	25	NCL

173	1099	NCL	25	CL
174	1075	NCL	24.75	CL
175	993.5	NCL	22.75	CL
176	978.25	CL	22	CL
177	955	CL	19	NCL
178	944.25	NCL	18.75	CL
179	899.25	NCL	18.75	CL
180	830.5	NCL	18.75	CL
181	705	NCL	18.25	CL
182	592.5	NCL	18	NCL
183	590	CL	16	NCL
184	583.5	NCL	16	NCL
185	580.25	NCL	14	NCL
186	570.75	NCL	14	CL
187	569.25	NCL	12.25	CL
188	568.25	NCL	12	NCL
189	564	NCL	12	CL
190	552.5	NCL	11	NCL
191	548.5	NCL	10	NCL
192	425.75	NCL	10	NCL
193	413.75	NCL	8.25	NCL
194	401	CL	8	NCL
195	352.75	NCL	7	NCL
196	195	NCL	7	CL
197	189	NCL	6	NCL
198	54	NCL	6	NCL
199	50	CL	5	CL
200	48	NCL	2	NCL
201	39	NCL	2	CL
202	28	CL	1	NCL
203	27	NCL	0	NCL
204	22	NCL	0	NCL