"Looked-after" children in Wales:

An analysis of the backgrounds of children entering public care

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This thesis is dedicated to the memory of

Phil and Betty Elliott

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ABSTRACT

This study seeks to address a number of important questions with regard to children in public care, commonly referred to in the UK as 'looked-after' children. Firstly, the study aims to identify whether there are child or placement characteristics that explain the observable variations in rates of children 'looked-after' between local authority areas. Secondly, it seeks to investigate the impact of poverty and social inequality on the likelihood of children becoming 'looked-after'. Using a social inequalities lens the study seeks to identify whether there is a 'social gradient' in the rates at which children enter public care. Finally, the research aims to identify factors that predict a child who has experienced a period of being 'looked-after' re-entering care.

Using six years of administrative data on children 'looked after' in Wales the study was undertaken using quantitative analyses of secondary data relating to approximately 15,000 'looked-after' children. The research was undertaken using descriptive statistics, linear regression and binary logistic regression.

The study identifies a relationship between neighbourhood level deprivation and the likelihood of children becoming 'looked-after'. There is clear evidence of a 'social gradient' in the numbers of children entering care, with a corresponding increase in rates of children 'looked-after' for each step increase in neighbourhood level deprivation.

Whilst both age and predominant category of need of children entering care are statistically correlated to a local authority's overall rate of children 'looked-after', there are a number of differences not related to overall rates, which suggest differences in local social work practice.

Logistic regression analysis results show that the length of a child's initial period in care (stays of <90 days) and their age group (11-15 years) were associated with an increased likelihood of returning to care.

The implications for child welfare policy and practice are considered.

WORD COUNT – 79,967

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CHAPTER 1

INTRODUCTION

1.1 'LOOKED-AFTER' CHILDREN

The focus of this study is the 'looked-after' children population in Wales. 'Looked-after' children is the term, based in the legal definitions of the Children Act 1989, which is used to describe children or young people placed in the care of the local authority, or being placed in out-of-home care from an international perspective. These children are predominantly placed in foster care placements, but the term 'looked-after' children also includes those children and young people placed in a range of other settings including residential children's homes, youth offender institutions, secure units and some are placed at home or with wider family. These are children and young people that may be placed in care for a period of weeks or months, or may be 'looked-after' for the whole of their childhood. As such they are not a homogenous group, although they are often referred to as if they were.

Whilst there have been some recent studies (Bullock and Hare, 2006; Forrester et al, 2009; Sebba et al. 2015) that to an extent challenge the link between children being 'looked-after' and poor outcomes, the majority of research links children and young people in care with adverse outcomes when compared to the child population as a whole. Those studies that have argued for a more positive outlook of the outcomes for 'looked-after' children have done so on the basis of comparisons between children who become 'looked-after' and children who have experienced similar adversity but who remained at home, therefore taking into account the impact of childhood adversity, rather than comparison with the overall child population. Forrester et al. (2009) using longitudinal data also showed improvements over time for children who remained 'looked-after'. However, in the main, research studies identify 'looked-after' children as being more likely to have poor educational outcomes (Jackson & Sachdev

2001; Harker et al. 2004; Barnardo's 2006, Simkiss 2012) and health outcomes (Meltzer et al. 2003; Roberts 2000). Being a 'looked-after' child is also associated with a range of adverse outcomes through teenage years and into adulthood, including unemployment (Viner & Taylor 2005), homelessness (Viner & Taylor 2005) and become part of the prison population (Viner & Taylor 2005, Sergeant, 2006, Vinnerljung et al. 2008).

1.2 DIFFERENCES IN RATES BETWEEN LOCAL AUTHORITIES

There is evidence to suggest that the rates at which children become 'looked-after' at a local authority level varies, often substantially, between local authorities (Oliver et al. 2001; Cordis Bright, 2013). As with the increase in overall rates that has been observed in recent years this is not an issue specific to Wales, as similar marked differences in the rates and trajectories of care populations between local authorities have been shown to exist in England. However, the context and reasons for variation may be different given the political, social and demographic differences between Wales and England. Dickens et al. (2007) highlighted that possible explanations for such variations are potentially rooted in a wide range of factors. These they suggest include

> "the impact of underlying need and deprivation in an area; departmental policies and operational processes such as the availability of preventative services and decision-making procedures; resources and staffing levels; and the wider culture of the department, the beliefs about care and attitudes of individual members of staff (p.599)".

The intention of this thesis is to explore some of the factors which may explain the variations in local authority rates of children 'looked-after'.

1.3 DEPRIVATION AND SOCIAL INEQUALITIES

The quote below is now over 40 years old, but it speaks to two issues that continue to have resonance with emerging debates in social work and that are central themes in the framing of this thesis.

> *"It has been argued that social deprivations create problems which endanger the stability of some families. In response, governments have made little progress in reducing inequalities or removing poverty….By contrast, the local authorities have been allowed to develop agencies well-equipped to deal with the results of the problems – to take children away from their parents" (Holman, 1974, p.17)*

Firstly it highlights the potential impact of poverty and social inequality on child welfare. Secondly, it argues that the national and local government systems for child welfare are configured not to address the underlining cause of such inequalities, but the resulting problems. In the case of child maltreatment concerns and family troubles, a system geared predominantly towards rescuing children from poorer families and placing them in care, rather than addressing family poverty and social inequality.

During the 1970s and 80s, through the work of Bob Holman and others and research such as the study by Bebbington and Miles (1989) into the socio-economic backgrounds of the families of children 'looked-after, the relationship between poverty, inequality and child welfare was highlighted. In the intervening years between these studies and the present day such research has declined in the UK and ideas of social inequality become less foregrounded in the context of social work research. This however was not the case in the United States where a considerable body of research findings have been produced evidencing the link between poverty and child maltreatment (Conger et al. 1994; Pelton, 1994; Jonson-Reid et al. 2009;

Pelton, 2015; Conrad-Heibner and Scanlon, 2015), research which has also more recently started to consider the role of social inequality in child maltreatment (Eckenrode et al. 2014). What has been developed in the intervening years however, both in the UK and internationally, is an evidence base around the social determinants of health and health inequalities, driven by the work of Sir Michael Marmot (Marmot, 2010) and others. Alongside this has also been the development of research on inequalities in educational attainment. In the context of such work, researchers such as Wilkinson and Pickett, authors of the *Spirit Level* (Wilkinson and Pickett, 2009), have begun to consider the implications of the extent of inequalities in relation to a much wide range of social issues. What has not been developed is a similar discourse around inequalities and child welfare.

Ideas of researching child welfare in the UK using a social inequality lens have however begun to gain traction in recent years. Forty years after Bob Holman's Child Poverty Action Group pamphlet, ideas of social inequality in the context of social work research are again being explored. The study by Paul Bywaters (Bywaters et al. 2016) and colleagues, undertaken in 2012 using data from local authorities in the West Midlands (and the follow up Child Welfare Inequalities Project undertaken whilst this PhD was completed) have started afresh to question the impact of poverty and social inequality on child welfare and maltreatment and the responses of the state to its impact. One of the main aims of undertaking this study is to make a contribution to that debate not just in Wales, but also within the UK and internationally. This thesis will therefore build on the findings of the Bywaters study and reference the wider research conducted in the US and elsewhere in order to assess the impact of deprivation and social inequality on the rates of children becoming 'looked-after'. It

will further develop the ideas within the Bywaters and Child Welfare Inequalities Project research, for the first time by using longitudinal data, rather than the data collected on a single census day used in the original studies.

1.4 RESCUE OR REPAIR?

In exploring notions of social inequality and the role of poverty in families' difficulties parenting, current debates about whether social work should be framed in terms of a 'child protection' approach, where the favoured response to inadequate parenting is to 'rescue' children and place them in a new permanent home, form the context to this thesis. The counter-argument is that through what Fox Harding (1997) describes as the 'modern defence of the birth family and family rights', social work should turn again to a perspective that seeks to 'repair' families and support them to stay together, where that is an appropriate and safe option. Such an approach is based in social work practice which recognises that the families social workers work with are overwhelmingly drawn from the most economically disadvantaged neighbourhoods and which emphasises the role of poverty, class and deprivation in families need for support. During a period of austerity, such as that experienced during the period covered by this study, such a focus would seem more important than ever. In terms of children 'looked after' these differing perspectives have consequences not just for the population drawn into care but also for the perceived role that out-of-home care plays. Does it provide 'rescued' children with the route between inadequate parents and new families? Or, as it is in many European countries, is it predominantly a form of family support used as a means of preventing abuse, providing temporary support for families who are struggling and enabling families to stay together in the longer term? (Thoburn, 2007).

1.5 SECONDARY ANALYSIS OF ADMINISTRATIVE DATA

The research will be conducted using a quantitative analysis of six years' (2008 – 2014) of routinely collected administrative data, drawn from a statutory return relating to children who have spent time in the care of a Welsh local authority. The rise of new managerialism in social work, characterised in particular by the performance management culture, has seen an increase in the collection of such administrative data. The collection of these data is largely seen as an administrative burden, rather than an opportunity to explore over time trends and patterns in service provision. Research using such data requires knowledge of quantitative research skills. As I have highlighted (Elliott, 2015) such skills have historically been under-developed in the social sciences generally and in social work research specifically. This study therefore provides an opportunity to develop my own quantitative skills as a future social work academic and contribute to the relatively small, but growing body of UK social work research being undertaken in the field using quantitative research methods. The research is also in line with the aims of both the Westminster and Welsh governments for social scientists to make better use of readily available secondary data to undertake research that will inform social policy. From a Welsh perspective there is also the added contribution to be made by such research given the paucity of studies of 'looked-after' children conducted in Wales using administrative data. In contrast, there has been a number of research studies undertaken in England over a number of years that have used routinely collected administrative data to explore the population of children 'looked-after' (Oliver et al. 2001; Statham et al. 2002; Rowlands and Statham, 2009; London Councils, 2013). The lack of such studies in Wales has also undermined the opportunities for comparison between England and Wales, two countries that until recently largely shared the same legislative framework.

1.6 'LOOKED-AFTER' CHILDREN IN WALES

The research will be undertaken using data relating to the 22 local authorities in Wales. In order to place the research in the context of policy and practice in Wales the following are the opening paragraphs of a speech made by Mark Drakeford AM, the then Minister of Health and Social Services for Wales, at the Welsh 'looked-after' children's summit held in March 2015. The speech picks up a number of the issues already highlighted. In it the Minister paints a picture of a system out of balance that removes too many children and places them in a system where their outcomes are likely to be poor; a system in which a growing proportion of finite resources are spent on out of home care rather than on supporting families to keep children at home.

"In Wales, we take too many children into the care of public authorities. We do so at an accelerating rate, and at a rate which increasingly diverges from that to be found just across our border. We do so for the best of motives – a sense of welfare optimism, that this is the way in which we secure a better future for the children so removed. Yet we also know that the evidence for that proposition is weak and that evidence to the contrary – health outcomes, weak educational enhancement, reduced ability to build secure and lasting relationships – is very well established.   And as an unintended – but highly predictable – consequence of this way of doing things, we have progressively robbed our chances of doing things differently; our local authority budgets are soaked up in responding to such volumes of children brought into the looked after system, then the cupboard is increasingly bare in trying to put in services which help families to survive through very difficult and challenging times in their lives. Now, let me be clear that I am not, of course, suggesting that

children should always be left with families, come – what may. There will always be circumstances where rescue is preferable to repair. My argument is that the pendulum has swung too far in favour of removal, and that the system has to be rebalanced, so that we focus our energies, and the resources needed to support that effort, on maximising the ability of families to go on caring for their own children" (Drakeford, 2015)

At the time of this speech a child in Wales was on average one and a half times more likely to become 'looked-after' than their peers in England. Whilst having rates generally much higher than those of English local authorities there was also significant variation in rates between local authorities in Wales. But, who are the children and young people becoming 'looked-after' in Wales? What do we know about the reasons for them being in care; their backgrounds; and their routes into and out of the care system? As highlighted earlier, in the context of Wales the answer to these questions largely remains unknown. The differences in rates between England and Wales, the variation in rates between Welsh local authorities, along with the paucity of research of the 'looked-after' children's population in Wales clearly identify this as a policy area which requires urgent investigation and therefore a fine grained understanding of the 'looked-after' children population in Wales provides another focus for this study. Given the lack of research evidence on Wales and ministerial interest in 'looked-after' children, the study has already attracted interest from practitioners and politicians and has the potential to contribute to policy debates within Wales.

1.7 WALES AND WELSH LOCAL AUTHORITIES

The analyses in this thesis as already highlighted will focus on children 'looked-after' in Wales, whilst exploring themes that are of importance more broadly. In order to provide some context to the thesis, this section of the introduction will briefly provide an overview of Wales and also Welsh local authorities and their structure.

Wales is a country with a total population 3,082,412 of which 630,211 are children and young people aged 0-17 years (mid-year population estimate 2013)(ONS, 2014). Local government in Wales is organised around 22 local authorities. The geographic areas covered by Welsh local authorities are shown in Figure 1. As shown by the map, the local authorities vary significantly in size from geographically small authorities like Merthyr Tydfil and Blaenau Gwent to the large rural authorities of Powys and those of West Wales. Local authorities have a wide range of remits within the communities they serve, including provision of social services to children, young people and their families. In 2013/2014 (the final year covered by this study) the total spend on children and families services by local authorities in Wales was £531,026,425 of which 245,303,059 (or 46% of total spend) was spent on the costs associated with children 'looked-after'. The costs associated with children in care therefore represent a significant proportion of the total funding allocated to support children and their families in Wales.

Following a referendum in 1997, Wales became a devolved nation with the power to make legislation in certain policy areas through the National Assembly for Wales. This law making power was further enhanced through the Government of Wales Act 2006, which enabled the Welsh Government to pass primary legislation in relation to policy areas including social welfare. These new powers culminated in the bringing into law

of Wales specific social care legislation in the shape of the Social Services and Well-being Act 2014, which in relation to services for children and their families repealed a number of sections of the Children Act 1989 in Wales. However, during the period covered by the data in this study the legislative landscape in Wales was broadly the same as that in England, including the courts. The political, policy and service landscapes within Wales were however arguably very different. For example, the Children's Trust model developed in part as a response to the death of Victoria Climbie in England was not developed within Wales. Similarly, whilst there has been a significant push in England to promote adoption as the preferred route to permanence for 'looked-after' children, the same emphasis has not been apparent in Wales, although a national adoption service was established to reduce delays for children to be adopted (McGhee et al., forthcoming). The fact that the same legislative framework existed in both countries over the period covered by the study would perhaps suggest that comparison between what is happening in terms of 'looked-after' children in Wales and in England would be relatively straightforward, but in framing this study the argument would be that both socio-economically and in terms of services and priorities they are different and therefore findings from studies conducted in England are not straightforwardly transferable to the situation in Wales.

Almost a quarter (23%) of the population of Wales lives in poverty, defined as living on or below 60% of median household income. That figure has remained unchanged for the 10 years between 2005 and 2015. However, there have been changes in trends over that period, not least in the recent increase in the risk of working families being in poverty and the substantial proportion of families being in poverty despite being in work (JRF, 2015). Overall levels of social inequality are lower in Wales than in other

parts of the UK. In terms of income for example, the size of the gap between the most affluent and least affluent is smaller than elsewhere.   However, this is in part explained by the fact that "Wales has relatively few people who earn the highest salaries or who are 'very rich'. This highlights the relative nature of both poverty and social inequality. What is defined as the least deprived in Wales is not necessarily the same as in other parts of the UK. For example, those who are among the wealthiest 10% of people in Wales have around £100,000 less total wealth compared to the wealthiest 10% across the UK as a whole" (Davies, et al. 2011, page xvi). The concepts of poverty and social inequality will be discussed in more detail in Chapter 3.

Figure 1: Local authority boundary map of Wales
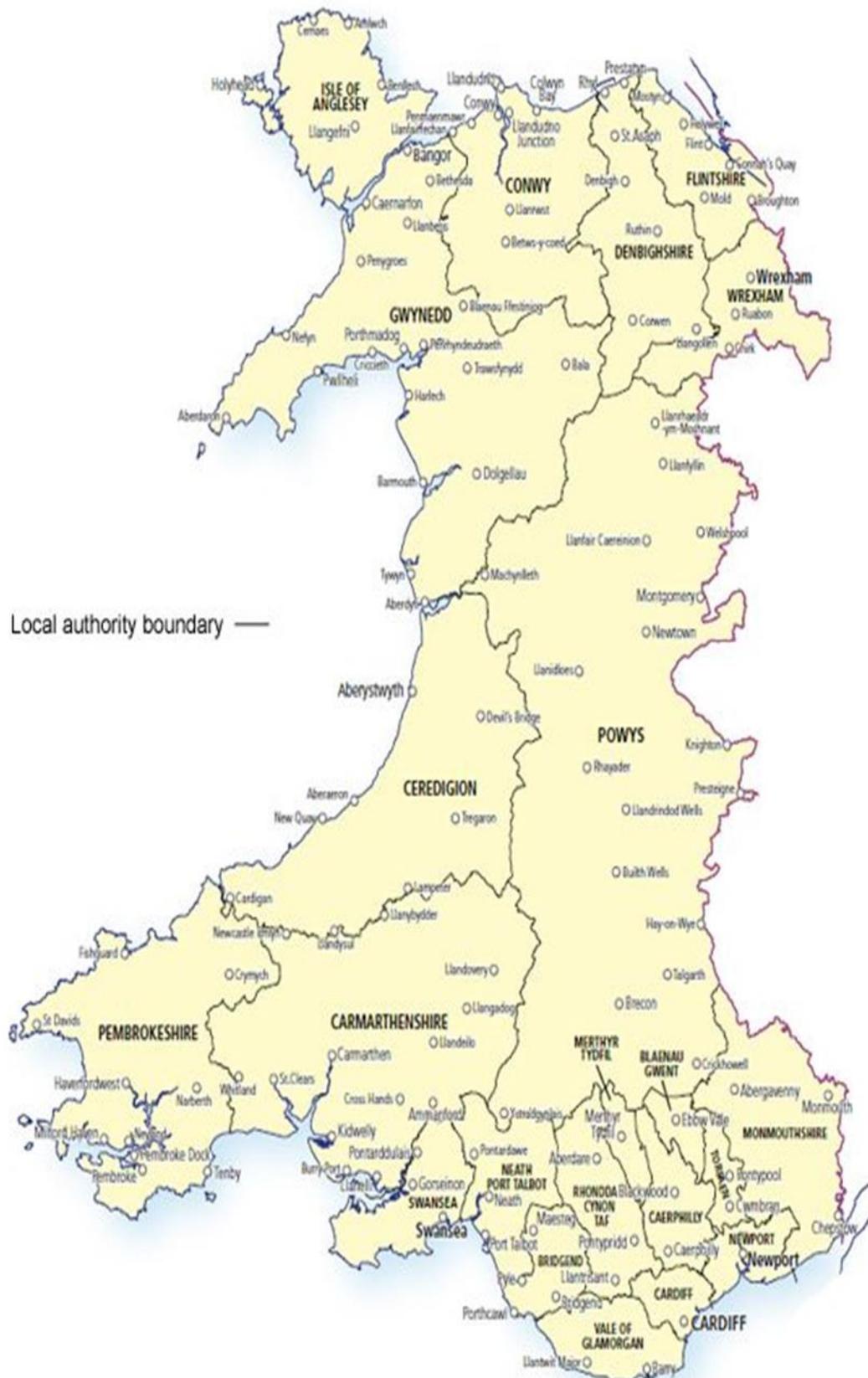
1.8 RESEARCH QUESTIONS AND STUDY AIMS

The analyses to be undertaken in the study will fit into four defined analysis strands. Each strand will form the basis of a findings chapter in the thesis (Chapters 5 to 8). The following is a summary of each of the strands indicating which research questions they are intended to address:

Aggregate level - Based on an analysis of publicly available administrative data what are the characteristics of the 'looked-after' children population in Wales at a local authority level? (Specifically with regard to numbers; age; sex; legal status; type of placement)

a) How have these characteristics changed over time?

b) What is the relationship between 'looked-after' children's numbers at a local authority level and the total population of children known to local authorities?

c) How do these characteristics vary between Welsh local authorities?

d) How do the characteristics of Welsh authorities compare to those of English authorities?

Differences within and between local authorities over time – Based on an analysis of child level administrative data relating to the point of entry or exit to care:

a) Are there differences between Welsh local authorities in the nature of the 'flow' of children and young people in and out of the care system over time?

b) Are there differences in the main reason for children becoming 'looked-after'? And differences in their legal status?

c) Are there differences between authorities in the age profiles of the children entering, leaving and remaining in longer term care?

d) Are there differences between local authorities, in terms of the destinations of children leaving the 'looked-after' system?

Social inequalities – using a sample of 'looked-after' children for which it was possible to identify the deprivation characteristics of the neighbourhoods from which they entered:

Is there a correlation between indices of deprivation and 'looked-after' children rates at a neighbourhood (Lower Super Output Area) level? Is there evidence of a 'social gradient' in rates of children 'looked-after'?

Re-entry to care – using logistic regression is it possible to identify factors that predict children who have experienced one period of being 'looked-after' returning to care?

The aims of the research are therefore, firstly, to provide a fine grained descriptive analysis of the children 'looked-after' population in Wales using longitudinal data. Secondly, through the application of a social inequalities lens, to look at the socio-economic characteristics of the families of children 'looked-after' using neighbourhood level deprivation data and finally, to identify factors associated with children experiencing multiple periods in care.

1.9 ORGANISATION OF THE THESIS

The organisation of the thesis will follow a broadly traditional format, although it will diverge from this in respect of describing some of the methodological choices made. The relative complexity of the data management and diverse analyses undertaken for each strand of the study mean that rather than a single methods chapter dealing with all methodological aspects, the thesis will have both an overarching methods chapter and a more detailed description and discussion of the specific methodological issues within each of the four analysis chapters. This is intended to enable the reader to

more easily follow the rationale for the approach within each chapter, without needing to refer back to an overly lengthy methods chapter.

This chapter has provided a brief overview of the study as a whole and an introduction to the subject area, the rest of the thesis will be organised as follows. Chapter 2 provides a more detailed background to the study and sets the scene for the study through a review and discussion of the relevant literature. In order to develop what underpins the thesis further, Chapter 3 provides a more detailed description of the theoretical perspectives used to situate the study. Specifically, this chapter will focus on both Bronfenbrenner's ecological model and how it will be applied to the study and a discussion of sociological perspectives of poverty and social inequality. The methods adopted within the study, as highlighted earlier, will broadly be described and discussed in Chapter 4. It will describe the data used for the study and the overall strategies used for its analysis. This chapter will also include an appraisal of the strengths and limitations of the study. Chapter 5 to Chapter 8 will present the analysis and findings relating to each of the four analysis strands. Each of these chapters will conclude with a short discussion of some of the key analysis findings. An overall discussion of the study's findings will be provided in Chapter 9, which will also outline how the study could inform future work and provide a final overall summary of the project.

CHAPTER 2

SETTING THE SCENE

2.1 'LOOKED-AFTER' CHILDREN: A VERY BRITISH TERM

Throughout the thesis the term 'looked after' will be used. It is acknowledged that this term is very specific to the UK and therefore requires description and clarification. The term 'looked-after' has a specific legal meaning based in the Children Act 1989. A child or young person is broadly deemed 'looked-after' if they are in the care of, or provided with accommodation by, a local authority.   A child may become 'looked-after' as the result of a court order, or as a result of a voluntary agreement with the child's parents. Children are usually placed with foster carers, in residential provision, or with other family members. A local authority may care for a child for a short period or provide a long term home.

Studies from outside the UK and increasingly from within the UK refer to "out of home care" (Franzen et al, 2008; Delfabbro et al, 2009; Hiilamo, 2009), "institutional care" (Bohlin and Larsson, 1986), "public care" (Simkiss et al, 2012; Forrester et al, 2009), or can refer to a particular type of placement setting, such as for example "foster care" (Barth et al, 2006; Catalano et al, 2003; Kalland et al, 2006). Whilst adoption of one of these terms would seem to have made sense in terms of placing the research within its international context, there are specific nuances that are peculiar to the UK that are best reflected in the term 'looked-after'. An example of such a point of difference would relate to the potential use of the term "out of home care".   Whilst for the vast majority of children being 'looked-after' in the UK means being placed outside of the family home that is not the case for all children. Under the Placement of Children with Parents etc. Regulations (1991), a child who is the subject of a care order, but where there is a plan to rehabilitate the child back to the family home, may be placed at home with her/his parents but would legally remain 'looked-after' during this period

and be subject to the procedural requirements of that status. More importantly they would be counted as 'looked-after' within local authority figures. Similarly a child who receives a planned programme of short breaks, such as for example a disabled child and their family, whilst living at home for the majority of the time could be classed as 'looked-after' by some local authorities as a result of receiving such a service.

Given the use of aggregate level administrative data within the thesis, the use of the term 'looked-after' is also consistent with its use within documents such as the Welsh Government performance management framework documents and the subsequent data derived from such performance reporting mechanisms, available from sources such as Stats Wales.

2.2 WHO COMES INTO 'CARE'?

Whilst the 'looked-after' children population is often referred to within the literature as a single entity, particularly in relation to poor outcomes, it is necessary to clearly outline that far from being a homogenous group, looked-after children are a diverse population with varying needs (Narey, 2007). This diversity stems from a range of factors including the legal basis on which they came into the 'looked-after' system; the child or young person's age; the purpose of providing care; and the future plans for the child, including their route out of care.

In the broadest terms there are two main routes within the Children Act 1989 by which a child or young person becomes 'looked-after'. These are:

- **Voluntary 'accommodation'** – where under Section 20 of the Act, a child is provided with accommodation with the agreement of their parent(s). Under such arrangements parental responsibility remains with the parent(s)

- **Entry into the care system mandated by the courts** – Primarily as a result of child protection procedures, under Section 31 of the Act, children are placed in the care of the local authority as a result of the granting by the courts of a Care Order. Under such arrangements parental responsibility for the child is shared between the parent(s) and the local authority (Narey, 2007).

In order to further distinguish between the different groups within the 'looked-after' population, consideration needs to be given to their routes in and out of care and likely care pathways. One framework developed to understand these characteristics is that produced by Sinclair et al. (2007). Within their framework Sinclair et al. (2007) identify six defined groupings, within the care population.

- Children who enter the care system under the age of 11 years and return home

- Children who enter the care system under the age of 11 years, return home but are subsequently returned to care

- Children who enter the care system under the age of 11 years and are adopted.

- Children who enter the care system under the age of 11 years and remain in care long term

- Children and young people who enter the care system for the first time between the ages of 11 – 15 years

- Young people who enter the care system aged 16 years and over.

2.3 HISTORICAL CONTEXT

The Children Act 1948 saw the responsibility for children who, for a range of reasons, could not remain with their families become a statutory responsibility of the newly established local authority Children's Departments, replacing the previous century's reliance on philanthropic bodies to 'rescue' destitute children (Narey, 2008).

The Children and Young Persons Act 1969 saw the introduction of an approach that saw youth offending and even in some cases school non-attendance treated by the courts as child welfare concerns that resulted in children and young people being placed, via a care order, in the care of local authorities. Over the next decade this approach would swell the numbers of children entering care (Narey, 2007). The introduction of intermediate treatment programmes to divert young people from being placed in care for offending; and during the 1990s the introduction of youth justice systems, which saw increased use of custody for young offenders; have seen this group of young people cease to be represented significantly in current LAC populations.

One of the earliest national surveys of the family circumstances of children cared for by the state as we currently understand it is Child Care: Needs and Numbers by Packman (1968). The study was the first to consider variations between local authorities across England and Wales in the numbers of children 'in care' and seek to explain such variations. Broadly, the study sought to explore whether variations could be explained by three main factors – levels of 'need' within each local authority; levels of non-statutory services working with children and their families in each area; and

finally the ways in which children's departments were structured and their policies and procedures (Packman, 1968).

Thirty years later, the Packman study provided the basis for a follow-up study by Bebbington and Miles (1989). Whilst seeking to identify any changes over time in the 'looked-after' population as described by Packman (1968), one significant difference between the two studies was that Bebbington and Miles (1989) only looked at data relating to English local authorities. The study went on to become a seminal work on 'looked-after' children and their backgrounds, but of significance for this study, it did not provide a description of the Welsh 'looked-after' children population or whether it had different characteristics from those of England in the period immediately leading up to the introduction of the Children Act 1989. The study looked at the backgrounds of children entering public care during 1987. The research was undertaken with three main aims:

- To compare the backgrounds of children who became 'looked-after' with those of other children. This was done with the intention of testing the "predictive power of indicators" (p.349)

- To make a comparison between their findings and those of the Packman (1968) study, a similar study undertaken almost 20 years before.

- To seek to explain differences between geographic areas in the family backgrounds of children coming into public care.

The study collected and analysed data on the family circumstances of 2528 of the 32,000 children and young people that entered the public care system during the study period. In order to compare the backgrounds of these children with others, data relating to 5407 children and young people who were not 'looked-after',

gathered as part of the General Household Study 1985, were used. One aspect of the findings of the study was that, whilst acknowledging that children can enter public care at any age, there were certain age groups when children were more vulnerable to being placed in public care. Bebbington and Miles found that children under one made up eleven per cent of all children becoming 'looked-after', whilst young people aged between fourteen and fifteen accounted for twenty-three per cent. In contrast children aged between five and twelve years had the lowest rate of entry to care. A further characteristic of the looked after children's population studied was that thirty eight percent of children entering public care did so as part of a family group, with at least one sibling.

In seeking to make comparisons between their findings and Packman's 1968 study, Bebbington and Miles (1989) suggested that entry into public care was closely associated with 'deprived' families, to a greater extent than it was in the earlier study. Furthermore, the study suggests that "variations between areas in the circumstances of children entering care reflect local social conditions (P.365)".

The implementation of the Children Act 1989 was intended, Beckett (2001) argues, to usher in a new way of working that would be less driven by compulsion, confrontation with families, and the use of the courts, but would instead be more about partnerships between professionals and families and the use of preventative approaches. However, in the six year period between 1992 and 1998, following the implementation of the Act, Beckett outlines "what can only be described as an explosion in the number of care order applications made" (Beckett, 2001, p497). This increase in the numbers of children being placed through the use of care orders,

rather than as previously through the use of voluntary agreements with parents, was however, only one of a combination of factors that influenced the volume of care provided by local authorities during this period. Another factor was that whilst there were fewer children entering care overall, those children were staying longer and were younger when they became "looked-after" (Statham et al. 2002).

In 2002 Statham et al. published a study commissioned by the Department of Health for the Children's Budget Pressures Group with the remit of exploring the reasons for the increase in children 'looked-after' by English local authorities (Statham et al, 2002). The study focused not on the 'stock' of children, i.e. the number of children looked-after by each local authority during a year or at a particular point in time in that year, but instead on the 'volume of care' provided, that is the total number of days children are looked-after in a year.

A number of specific characteristics were examined to seek to explain increases in the volume of care provided. These were: Flow in and out of the system; Volume; Legal status; Age – on entering and leaving care; Type of placement; Duration of placement; Reason for entering care; Staffing levels within each local authority. Analysis of these factors highlighted a number of characteristics of local authorities with increasing or decreasing volumes of looked-after children:

- Authorities with a small percentage of looked-after children aged between 5-9 years of age tended to have experienced either a small increase or decrease in looked-after children between 1996 and 2000, whilst conversely local authorities with a large percentage of looked-after children in this age range were more likely to have seen an increase over the same period.

- Local authorities with greater than 40% of children looked-after, who have spent more than 2 years in care before the episode ceased, were not the local authorities showing an increase in volumes of looked-after children days.

- A large percentage of young people aged 16 and over within a local authority's looked-after population was associated with either a smaller level of increase in volume or a decrease in looked after days

The publication of the Baby Peter Serious Case Review executive summary (Department for Education, 2008) in November 2008 proved a significant event in terms of the 'looked-after' children populations within England and Wales. In the first three weeks that followed the publication, the Children and Family Court Advisory and Support Service (CAFCASS) identified a sharp increase in the numbers of care order applications across England, relative to the same period in 2007. Such increases are not unusual. Osman (1988) highlighted an increase of 36% in the numbers of children placed on the child protection register in Lambeth in the three years following the death of Tyra Banks. What is unusual however is that the unprecedented levels of care applications to the courts that followed the death of Peter Connelly (Baby P) were on a national scale and have persisted for years after his death.

The death of Peter Connolly and later the deaths of Hamzah Khan, Keanu Williams and Daniel Pelka amongst others have seen a political focus on the perceived failings of social workers and other professionals to protect children. A significant characteristic of this focus has been calls for local authorities to intervene sooner in the removal children and placing them in care. This change in focus was most clearly illustrated when Michael Gove, then Education Minister, in a speech at the Institute of Public Policy Research stated that:

"I firmly believe more children should be taken into care more quickly and that too many children are allowed to stay too long with parents whose behaviour is unacceptable. I want social workers to be more assertive with dysfunctional parents, courts to be less indulgent of poor parents, and the care system to expand to deal with the consequences" (Gove, 2012).

The majority of the literature, particularly that looking at the 'looked-after' children's population since 2008, has focused on describing and explaining the increase in numbers (predominantly within the context of English authorities). One exception to this is the study commissioned by the London Councils – *Looked after Children in London: An analysis of changes in the numbers of looked-after Children in London* (London Councils, 2013). Against a backdrop of increasing 'looked-after' children's numbers in England, the report considered the 'looked-after' population within inner London councils and why, since 2007, that population had decreased.   The report suggests that shorter duration 'looked-after' episodes are likely to have contributed to an overall reduction in numbers, rather than a focus by these authorities on gatekeeping i.e. "controlling the numbers of starters (p.12)".

The study also highlights changes in the characteristics of London's 'looked-after' children's population over time. For example, during the period studied, researchers identified a reduction in the proportion of children and young people aged 10-15 years, who were accommodated voluntarily under S.20 of the Children Act 1989. During the same period they also identified increases in the numbers of younger children entering care, often as part of the care proceedings process. A further example of the changing population and its possible impact on rates is that of the 'Southwark Judgement' (Shelter, 2009). This legal judgement reiterated that local authorities have a responsibility under the Children Act 1989 to assess the eligibility of young people aged 16/17 who present as homeless to be accommodated under S.17

of the Children Act. The report argues that numbers of 16/17 year olds 'looked-after' increased in the wake of this judgement.

The report recommends that local authorities should employ a "focused and nuanced approach to [understanding] the flow of looked-after children in and out of the system (London councils, 2013, p.16) in order to both understand and manage their looked-after children's populations. Such a focus would seem to have practical application within this study in order to understand the nature of the looked-after population in Wales and potentially how it has changed in recent years.

A further group of research studies have focused on care pathways, the routes by which children enter and exit the 'looked-after' children system. Such studies often have a focus on the legal basis on which those entries and exits are made. Two such studies are the Care Profile Study by Masson et al. (2008) and the study by Harwin et al. (2015) of the use of Supervision and Special Guardianship Orders over time. The Masson et al. study looked the characteristics of children and their families who were subject to care proceedings (s.31 Children Act 1989) and was based on an analysis of completed care order applications made in 2004. One of the things the study highlighted was the high proportion (62.2%) of such cases that involved young children (children aged 0-4 years). A wide variation between local authorities in the use of Emergency Protection Orders as a result of crises was also highlighted. The Harwin et al. study was concerned not with the ways that children entered care but in how permanence and exit from the care system were achieved through the courts. The study looked at the use of Supervision and Special Guardianship Orders (SGOs) in England between 2007 and 2016. The study looked both at varying patterns of usage

and usage in ways that varied from the original intention – for example the use of SGOs for young children when their original intention was to provide permanence for older children who were less likely to be adopted. The study, conducted using data from CAFCASS databases, looked at the range of routes used to provide legal permanency for a child. The six legal orders used to achieve this included in the study were placement, care, supervision, order of no order, special guardianship and residence/child arrangements. The study's findings included an increasing use of Special Guardianship as a means of securing legal permanence; marked regional variations in the use of SGOs; and a trend in younger children being subject to SGOs, contrary to the original intention of their introduction.

The brief history outlined in this section, demonstrates that the 'looked-after' children's population is one whose definition has changed over time, with different groups of children and young people being included and excluded from its remit, often as a result of legislative change. It also highlights changing routes into and out of the 'care' system; changes in the nature of the service that is provided to children and its intended outcomes; the influence of legislative and policy decisions; and the impacts that these factors have on the size and make-up of the population over time.

2.4 THE WELSH PERSPECTIVE

The historical perspective outlined above, and the wider literature review undertaken to underpin this study, have highlighted the paucity, both pre and post devolution, of research specifically relating to the 'looked-after' children population in Wales. The vast majority of research, and wider commentary, focuses on 'looked-after' children in England. Whilst Packman's study in 1968 analysed data relating to children in both

English and Welsh authorities, the work of Bebbington and Miles (1989), Statham et al. (2002) and others that followed concentrated on England only. This has clearly left a significant gap in our understanding of the nature and characteristics of the 'looked –after' children population in Wales and how it has changed over time.

One of the few publicly available research papers on 'looked-after' children in Wales is 'In Figures: Looked after children research paper', produced by the Members' Research Service of the National Assembly for Wales and published in November 2009 (National Assembly for Wales, 2009). The paper analysed the 'looked-after' children data collected in March 2009, only 4-months after the publication of the Peter Connelly Serious Case Review executive summary (Department for Education, 2008) in November 2008, and provides a statistical overview of children in local authority care at that time. The report analysed a range of data including both the total number of looked-after children in each local authority and the rate in each per 10,000 children.

Whilst written as an international comparative study of 'children in out-of-home care', the research by Thoburn (2007) also contains a detailed comparison of the populations of children in public care in the four home nations. Comparisons between Wales and England identify differences in 'looked-after' children populations. For example, the percentage of children on care orders placed with parents is higher in Wales than in England.

In the Chief Inspector's annual reports for both 2011/12 and 2012/13 (CSSIW, 2012; CSSIW, 2013), the Care and Social Services Inspectorate Wales (CSSIW) highlighted concerns regarding the rate of increase and size of the 'looked-after' population in

Wales. The reports identified a number of key issues. Firstly, there is a "significant upward trend in recent years in the number of looked after children in Wales" (CSSIW, 2013, p.38) and the divergence in those numbers between in England and Wales, with the Welsh rate rising faster. Secondly, in their 2011/12 report (CSSIW, 2012) the CSSIW specifically highlighted that four local authorities in Wales had over 400 children 'looked-after' (Cardiff, Neath Port Talbot, Rhondda Cynon Taff, Swansea), and that three areas had looked-after rates in excess of fifteen children per thousand (Neath Port Talbot, Merthyr Tydfil, Torfaen), clearly indicating that these levels were seen by the Inspectorate as significantly high. The report identifies the need to understand both why rates have risen faster in Wales than in England and also, the reasons for variation across Wales between local authorities. It highlights the impact of both of these trends on practice, resources and the ability of local authorities to meet ever increasing demand within the current financial climate (CSSIW, 2012). Whilst identifying a number of local authorities as having significantly high levels of 'looked-after' children, the report goes on to pose a question, which has importance for the wider debate regarding the numbers of children in public care, that question being "what should the rate of looked-after children be?(CSSIW, 2012, p.17)" for a given population.

In November 2012, Mark Drakeford, AM for Cardiff West (later Minister for Health), wrote an article entitled "Numbers of children in care increasing at a greater rate in Wales than England" for the Institute of Welsh Affairs on-line magazine, Click on Wales (Drakeford, 2012). In the article Drakeford focuses significant attention to the statistic already highlighted that Welsh children are almost one and a half times more likely to become 'looked-after' than their peers in England, based on comparison of

country level rates per 10,000 children for 2011. The rate of children 'looked-after' per 10,000 for England at that time was 59, whereas the rate for the same period in Wales was 86.

The article also makes use of Fox Harding's typologies of social policy introduced earlier in this chapter. In particular it focuses on two social policy approaches to child welfare concerns, that of 'rescuers' and 'repairers'. The approach of the 'rescuers', which Drakeford argues is currently in the ascendancy and has contributed to the increase in 'looked-after' children numbers, is to remove children from "flawed families" and place them somewhere new as soon as possible(Drakeford, 2012). This framing of a model of response to child welfare concerns is clearly illustrated in Michael Gove's speech quoted previously. In contrast the 'repairer' approach, which Drakeford advocates in a follow up article (Drakeford, 2012a), works from the standpoint of children being best brought up by their own, and that the state should support families to stay together.

The differing approaches to social policy demonstrated within examples provided earlier in this chapter draw on the four-fold characterisation of the state's role in children's social care described by Fox Harding (1997). The four social policy perspectives proposed by Fox Harding are described as: Laissez faire and patriarchy; State paternalism and child protection; The modern defence of the birth family and parent's rights; and Children's rights and child liberation (Fox Harding, 1997, p.9).

In developing this framework to explore social policies relating to children, young people and their families, Fox Harding acknowledges that other typologies exist and

that there is some blurring between the four perspectives presented, but suggests the four broadly describe the most significant. The approach advocated by Drakeford is clearly aligned with the perspective described by Fox Harding as the 'modern defence of the birth family'. This is an approach to child care policy in which interventions should be broadly supportive in nature and aimed at preserving and defending birth families and enabling families to stay together. Within this perspective there is a strong recognition of the role of social deprivation in the lives of families and the pressures it places on families with poor or inadequate parenting. The approach advocates social policy measures to reduce these pressures such as increased financial support and services such as increased day care. As well as promoting an approach based on birth family support, Drakeford (2012) also clearly argues that there is a link between 'looked-after' children's numbers and levels of relative social deprivation in line with this perspective. In contrast to this standpoint, I would argue that current UK government child care policy, which applies in England, has its roots within a state paternalism and child protection perspective. This perspective is illustrated by Michael Gove's comments, which identifies that in situations where there is poor parental care the favoured response of the state is that children should be 'rescued' and placing with new parental figures (Fox Harding 1997; Lonne et al. 2016).

In describing changes in the Welsh 'looked-after' children's population over time, Drakeford described a population that has increased year on year since 1997. Whilst the rate of that increase slowed during the middle years of the first decade of the 21st century, it increased dramatically following the Peter Connelly case; an acceleration that has persisted to the present and at a far greater rate than in England. In a more detailed exploration of the changes that have occurred, Drakeford uses three

elements, in addition to the 'Baby P effect'; to seek to explain the increases in looked-after children numbers in Wales. These are:

- Additional flow of children into the 'looked-after' children's system

- A slowing in the rate at which children and young people leave local authority care

- Or, a combination of the two

This focus on the key role of a detailed understanding of the ebb and flow of children in and out of the system and the effect this has on overall numbers is one that is picked up in other discussions of the mechanisms acting on looked-after children's numbers (Statham et al. 2002) and one that will be returned to within this research. In the period up to 2008 and the Peter Connelly case, Drakeford describes a slowing of the rate of children leaving the care system; overall numbers of children in and out of the system falling, but fewer leaving and so children staying longer, as previously identified by Rowlands and Statham (2009); and in part as a result of the two previous factors, a higher proportion of older (16-17 year old) looked-after children. In the post 2008 period, the most significant change was in the rate of flow into the system, reflected in the increase of care order applications in the wake of Baby P (CAFCASS, 2009; CAFCASS, 2012).

However, whilst acknowledging the impact of Baby P on the rates of children entering care, Drakeford, in seeking to explain why the rates of such increases are not uniform across Wales (or in England as will be discussed elsewhere) drew on an at the time unpublished research paper by Bywaters (2016). Bywaters (2016) undertook a study looking at variations in 'looked-after' children rates between English authorities and whether there was a relationship between these rates and levels of deprivation. In this study Bywaters identified a strong association between relative deprivation at a

local authority level and particular social welfare outcomes, in this case becoming 'looked-after'. Based on these findings Bywaters et al. (Bywaters et al. 2016) suggest that differences in rates are not just a "postcode lottery for children nor just the product of differences in local priorities, policies and practice (p.377)", but instead represent the impact of structural social inequalities on the life chances of children.

The ideas of child welfare inequalities explored in Bywaters (2016) work, borrow heavily from the concepts of health and educational inequalities that have been around for many years in health research and which are most clearly articulated in a UK context within the report Fair Society Healthy Lives: Marmot Review (2010).

When applied to Welsh local authorities using data collected in 2011, Drakeford argues that a similar correlation can be observed between the relative deprivation of a local authority area and that authority's ranking in terms of rates of 'looked-after' children. The analysis undertaken in Wales, whilst using broadly the same method as Bywaters, varies slightly in that the measures used to construct the Index of Multiple Deprivation (IMD) for England and the Welsh Index of Multiple Deprivation (WIMD) are different and therefore not directly comparable. Whilst acknowledging this methodological point, Drakeford raises a number of interesting points relating to the comparison of the data for Wales and England. On initial reading of the data, Wales would appear to have lower levels of overall inequality based on a ratio between the highest and lowest 'looked-after' children rates of 3:1, in comparison to a ratio within England of 7:1. However, as Drakeford comments, this may in part be explained by the fact that nowhere in Wales sees rates as low as some local authorities in England.

For example, Monmouthshire, with historically one of the lowest looked-after children's rates in Wales, has a rate twice that of the lowest authorities in England.

In October 2012 the All Wales Heads of Children's Services group in conjunction with the WLGA commissioned a piece of research looking at looked-after children's rates in Wales. The main research question focused on why, within Wales, "local authorities with similar levels of need have different looked-after children populations?"(Cordis Bright, 2013, p.4). The final report, which at the time of writing represents the most recent research on the Welsh looked-after children's population, was published in May 2013. The research employed a mixed methods approach broadly consisting of:

- A literature review

- Quantitative analysis of data relating to the 22 Welsh local authorities

- Review of policies, procedures and CSSIW inspection reports, relating to five case study areas identified for in-depth analysis

- Interviews and focus groups with staff, managers, senior leaders and representatives of partner agencies from the five case study areas

The quantitative analysis within the study focuses predominantly on a number of socio-economic and demographic factors, specifically; "population size and density, deprivation and socio-economic profile, family composition and household size" (Cordis Bright, 2013, p.6) using analysis of aggregate local authority level data.   The data used related to all 22 Welsh authorities, and derived from a 'snapshot' of numbers of 'looked-after' children in each local authority on 31st March 2012, or on that date in preceding years for comparison over time. For comparison purposes, the 'looked-after' children's numbers were adjusted to take account of differing child populations within each authority by conversion to rates per 10,000 children. Whilst

this analysis of end of year 'snapshot' data, provides an important insight into trends within local authorities Janzon and Sinclair (2002) argue that such analysis only provides a "limited picture of pressures on the care system (p.4)". Janzon and Sinclair argue that in order to fully understand the 'looked-after' system, and for that understanding to inform planning for 'looked-after' children, research also needs to explore factors such as the numbers of entrants and leavers over time and their age profile.

Based on the situation in March 2012 the rates per 10,000 of child population in Wales quoted in the Cordis Bright report varied between 53 (Flintshire) and 166 (Neath Port Talbot). In terms of actual numbers of children in public care these ranged from 80 (Ceredigion) to 595 (Rhondda Cynon Taff).

Whilst highlighting the significant increase in 'looked-after' children's numbers in Wales over recent years, as discussed earlier in the chapter, the report indicates that not only has that increase not been uniform, but in fact during that period some authorities have seen a reduction. In their analysis of rates of 'looked-after' children in Wales, between 2005 and 2011, the researchers identified the average rate of increase at a local authority level as +17.3 per 10,000 children. However, across all Welsh authorities they suggest that the "trend varied from a reduction in the looked-after children rate of -34.8 (Blaenau Gwent) to an increase of +61.6 (Torfaen) (Cordis Bright, 2013, p.5). Based on their quantitative analysis, the conclusions drawn by the researchers are that the socio-economic and demographic factors tested, specifically population levels, deprivation and percentage of households that are lone parent households, only partially explain the differences in rates and numbers between local

authorities in Wales. The findings and recommendations of the research predominantly focus on factors highlighted by the qualitative research aspects of the study. Having stated that socio-economic factors only offer a partial explanation for differences between local authorities, the research findings focus on the impact of differences in policy, practice, strategy and leadership between authorities on rates and numbers of looked-after children at a local authority level. The main conclusions of the study centre on the identification of 23 characteristics, which were identified as "factors that can help reduce the number of looked-after children in a local area" (Cordis Bright, 2013, p.8-9). The findings of the research also highlighted an area for future work. In describing the findings from the focus groups and interviews conducted in the five case study authorities, the researchers state that there was significant interest expressed in exploring "in more detail how rates in Wales compared to other nations, in particular England, Scotland and Northern Ireland" (Cordis Bright, 2013, p.7).

2.5 INTERNATIONAL CONTEXT

Thoburn (2007) undertook an international comparative study of 'children in out-of-home care' using administrative data, which on the whole were routinely collected within the countries studied. The study included comparative analysis of a range of measures across countries and also included a more detailed exploration of the looked-after populations in the four home nations using data collected in 2004-5.

One of the main differences between countries highlighted in the study was the ethos and purpose of placing children in public care. In a significant number of the countries studied, the provision of care is predominantly voluntary and often at the request of

the child's parents. Within countries such as Denmark, France, Germany, Ireland, Italy, Norway, Spain and Sweden, whilst there is still clearly a focus on protecting children, the provision of 'out of home care' is seen more broadly within the context of family support measures. In contrast, in the UK, USA and Canada, the placing of children in public care is more strongly linked to intervening in cases of maltreatment.

Using 'snapshot' data of children in care on a particular date, the following table provides a comparison of rates per 10,000 across a range of European countries, American states and Australia and New Zealand. The table, as presented here, is an adapted version of the one that appeared in Thoburn (2007), which was produced for the *Beyond Care Matters: Future of Care Population Working group report* (Narey, 2007).

TABLE 1: Comparison of 'looked-after' rates per 10,000 from a cross-national study

Country or State (year of data)	0-17 population (estimated)	0-17 in care population (USA 0-18)	Rate per 10,000 <18
Japan (2005)	23,046,000	38,203	17
Italy (2003)	10,090,805	38,300	38
USA / N.Carolina (2005)	2,153,444	10,354	48
Australia (2005)	4,835,714	23,695	49
New Zealand (2005)	1,005,648	4,962	49
Ireland (2003)	1,015,300	5,060	50
Spain (2004)	7,550,000	38,418	51
UK / England (2005)	**11,109,000**	**60,900**	**55**
USA / Illinois (2005)	3,249,654	17,985	55
UK / N. Ireland (2005)	**451,514**	**2,531**	**56**
Australia / NSW (2005)	1,591,379	9,230	58
Australia / Queensland (2004)	975,345	5,657	58
USA / Washington (2004)	1,509,000	8,821	58
Sweden (2004)	1,910,967	12,161	63
Canada / Ontario (2005)	2,701,825	17,324	64
UK / Scotland (2005)	**1,066,646**	**7,006**	**66**
USA (2005)	74,000,000	489,003	66
Norway (2004)	1,174,489	8,037	68
UK / Wales (2005)	**615,800**	**4,380**	**71**
Germany (2004)	14,828,835	110,206	74
France (2003)	13,426,557	137,085	102
Denmark (2004)	1,198,872	12,571	104
Canada / Alberta (2004)	771,316	8,536	111

The table clearly demonstrates both the disparity in rates between the four home nations, with Wales having by far the highest rate per 10,000 in the UK, and also the high rate of children in public care in Wales relative to a range of other countries.

The Bebbington and Miles (1989) study has been used as the starting point for a number of national and international studies since its publication. The largest international study on socio-economic factors relating to entry into public care is arguably that undertaken by Franzen et al. (2008). The study used national cohort data from Sweden gained from a number of national registers of children and young

people (n=> 1.5 million). The study used the same methodological approach as Bebbington and Miles (1989), but applied this to a much larger cohort of children to analyse the impact of parental socio-economic factors on children's entry into public care. The collection of data relating to parental factors within this study focussed primarily on data relating to the mother. The study grouped children by age bands, based on their age at the point when they were first placed in public care. The age groupings used were 0-6 years, 7-12 years and 13-17 years. Logistic regression found a number of socio-economic factors that were strongly correlated to placement in care and that these correlations were similar across the three age groups used. For example, the study identified that the odds of children and young people living in households headed by single mothers being placed in public care increased by between three and four times, dependent on the age range of the child. The study also explored the notion of the aggregation of socio-economic factors and their effect. The researchers found that at a family level; being a single parent household; having an unemployed mother with low educational attainment; coupled with long term receipt of benefits resulted in 1 in 7 pre-school children being placed in care by the time they were 7 years old.

In a research study undertaken in 2009, Hiilamo (2009) explored factors contributing to the rapid increase in numbers of 'children placed outside the home' in Finland during the 1990s and early 2000s. The levels of increase were seen as surprising, perhaps more so than the increases in numbers that have occurred in Wales, given the country's "exceptionally favourable economic conditions and school children's outstanding educational attainment" (Hiilamo, 2009, p.177) and low rates of child poverty. Hiilamo found correlations between children placed in public care and their

parents being in receipt of long-term social assistance. A further relationship highlighted was between out of home care and single parent households. Both these findings mirrored those of Franzen et al. (2008). The Hiilamo study also acknowledges the link between these two factors, given the significant proportion of single parent households in receipt of social assistance. However, the strongest statistical relationship was between alcohol misuse and rates of children placed outside the home. Within the study it was also identified that the care population in Finland consisted predominantly of two groups of children and young people. These were pre-school aged children and adolescents. With regard to pre-school children, Hiilamo identified a strong link to family factors, specifically alcohol misuse, whilst for older children admission to out of home placements was more strongly linked to the young person's behaviour, for example offending.

Two research reports on the dynamics of foster care placements in United States undertaken by the Chapin Hall centre for children at the University of Chicago (Wulczyn et al. 2007. Wulzyn et al. 2000), have strong parallels with this research. The research used data from the multistate foster care data archive covering the period from 1983 – 2005. The data is multi-level, consisting of child-level data, nested within county level data, which is itself nested within states. The variables derived from the data and used in the analysis are divided into 'child record' and 'event record' characteristics. Both the way in which they are characterised and the variables used again have significant parallels with those provided by the administrative data return used for this study.

In terms of the characteristics of those children entering foster care, the study broadly considers the impact of: age; ethnicity; geography; and sex. Unlike the analysis of the impact of geographical location undertaken on Welsh local authority data by my study, which considers the impact of socio-economic factors and social inequality at a neighbourhood level on admissions to state care, the studies by Wulczyn et al. consider only the impact of levels of urbanicity. Their analysis explores the impact of living in a non-urban, secondary urban or primary urban area on children's public care experiences.

The analysis presented within the reports is predominantly descriptive, using percentage distributions, medians and rates to explore the data. The one area where this approach is broken from is with regard to duration of stays in foster care. Here the researchers use a proportional hazards analysis (a statistical test which is based in survival analysis models). The model uses the probability of exiting foster care as the dependent variable and the year of entry to care, ethnicity, age at entry, region and type of placement as the independent variables.   The analysis highlighted no significant difference in duration of stay in care across the years studied. However, the results did identify that: children of infant age at entry to care were likely to remain in care longer than older children; African American children were likely to have longer stays in care than white or Hispanic children;   Children placed in residential care on initial entry to care were likely to have the shortest stays; children from rural counties had the shortest stays; and those from primary urban areas had the longest.

The first of the two studies placed an emphasis on analysis of the data received from each state and differences and similarities between them. In that respect it has similarities with my study. However, in the subsequent study this approach was dropped. Instead the researchers treated those in public care during the years 2000-2005 as a single population made up of a series of cohorts of children entering foster care. In seeking to explain this change in methodology the researchers argue that:

> "The shift reflects our desire to understand foster children in a context not necessarily defined by state boundaries. State variation is clearly important, but the importance of state variation is more easily understood as a series of departures from patterns that represent what is true on average for a very large segment of the population in question (Wulczyn et al. 2007. p.4)

Wulczyn et al. suggest that there is a strong correlation between a child's age and the likelihood of them entering the public care system and once in care, how long they will stay and their destination when they leave. Despite differences between states in terms of socio-economic, administrative and policy contexts "age to a large extent trumps all such factors as a determinant of what happens in the foster care system (p.57).

When looking at both admission to and discharge from public care the study identified seasonal variations in the data, which persist year on year. Admission is clearly the result of a range of factors, many of which are external welfare agencies such as court processes and as such are more irregular in nature than discharges. That said, patterns were still present with numbers of admissions being noted to decline in the latter months of each calendar year. Discharges are more clearly influenced by the internal processes of the welfare agency and as such demonstrate more pronounced seasonal patterns. The data show that annually the number of discharges increases during the summer period and then in the autumn returns to pre-summer levels. An

explanation put forward for this seasonal variation is that decisions are being made by practitioners and agencies to enable children to finish their school year before returning home.

With regard to those re-entering public care, both as a subgroup of the total number of children entering the care system during a given period and as an insight to the potential success or failure of the initial discharge from care, Wulczyn et al. (2007) make a number of observations:

- A significant proportion of those children and young people re-entering public care do so within one year of their discharge.

- The study highlighted an association between how long a child was in care during their initial admission and the likelihood of them re-entering at a later date. Findings included that: 25% of children who were discharged from their initial stay in care returned within a year; and that there is a negative correlation between length of stay with children who were in care longer during their initial episode less likely to return. However, in discussing these findings the authors are keen to point out that increasing the length of time a child is initially in care as a strategy for reducing re-entry is not a strategy they would support.

A further study conducted by Wulczyn and colleagues in 2011 (Wulczyn et al. 2011) looked specifically at infants entering out of home care. The study used data covering an 8 year period and looked at the first entry to care in the period – an approach that will form part of the analysis undertaken in this study. The study's findings highlighted that infants were disproportionately represented in numbers of children entering care with children under one year old representing 22% of all entries. In addition, infants

entering care had different characteristics to older children entering care and their families had different characteristics too.

2.6 SOCIO-ECONOMIC FACTORS AND THE 'LOOKED-AFTER' POPULATION

Within a UK context, the findings of Bebbington and Miles (1989), with regard to the socio-economic backgrounds of children entering the looked-after system is arguably the most well-known. Using logistic regression, the study identified a number of striking findings about the family backgrounds of children entering care. In summarising these characteristics, Bebbington and Miles stated that the most statistically significant socio-economic factor associated with children becoming 'looked-after' was children living in single parent households. Children in these households were found to be eight times more likely to enter the care system when compared to children living in two-parent families

Overcrowded accommodation, which was defined and operationalised within the study as households with one or more persons for every room in the home, was the socio-economic factor with the next highest odds ratio. Children and young people living in overcrowded accommodation were identified as three and a half times more likely, to be 'looked after', than children who were not.

In households where the head of the household was in receipt of benefits, children and young people were found to be three times more likely to be in public care than other children.

Children whose mothers were under twenty one years of age were twice as likely to be placed in public care. The study did not collect age data from mothers whose children were placed in public care at birth. If the assumption is made that all children removed at birth had mothers who were less than twenty one years of age, this odds ratio would increase to four times more likely.

Almost 20-years later, the study by Franzen et al (2008) both confirmed and expanded, on these findings. In summarising the findings of their study Franzen et al. (2008) state that "as in the Bebbington and Miles (1989) study, having a single, a low educated and an unemployed mother were all separately related to children having higher odds of entering care" (p.1055).

In a systematic review of the literature regarding risk factors associated with children entering public care, Simkiss et al. (2012) identified that low socio-economic status was the factor most commonly linked to entry into the care system. However, they also identified that how this concept was defined and operationalised within studies varied.

2.7 THE REASONS FOR CONCERN ABOUT NUMBERS OF 'LOOKED-AFTER' CHILDREN

The reasons for concern at the numbers of children in public care that lead to the commissioning of research such as that undertaken by Cordis Bright (2013) and Statham et al. (2002) are, I would argue two-fold. Firstly, the impact of the resource and financial implications of the 'looked-after' population on local authorities and secondly, is the association of being placed in the 'looked-after 'system, with poor outcomes for children and young people. In terms of the first of these, with regard to

statutory children's services, 'looked after' children represent the most significant factor with regard to demand on the resources available within local authorities (Janzon and Sinclair, 2002).

With regard to outcomes for children and young people who are 'looked-after', there is a significant body of literature and research which indicates that children in public care have poorer outcomes in comparison to their peers in the general population across a range of domains. These include poorer outcomes in terms of education and health and, as adults, over-representation in the prison and unemployed populations (Roberts 2000; Jackson & Sachdev 2001; Meltzer et al. 2003; Harker et al. 2004; Viner & Taylor 2005; Barnardo's 2006; Simkiss 2012). The research evidence available, regarding outcomes for 'looked-after' children, has led to both policy and practice developments aimed at improving outcomes for this group of children and young people and has also become a driver for trying to reduce the numbers of children coming into, or remaining, in care. However, whilst the levels of evidence available are significant, there are challenges to the conclusions drawn from such research. Not least, the widely held, and arguably simplistic, belief based on such research that the 'looked-after' system is failing all of the 60,000 children in England and Wales in care (Stein, 2006), which Forrester et al (2009), Hare and Bullock (2006) and other dispute. Indeed in regard to Wales, the CSSIW chief inspector in their 2012/13 report argues that in the Children in Need census data collected it has been highlighted that "children in need [those children known to local authorities but not 'looked-after'] have poorer outcomes in education and health than both the general population and also looked-after children" (CSSIW, 2013, p.22) an assertion that has recently been supported by the study conducted by Sebba et al. (2015).

Forrester et al. (2009), for example, argue that poor outcomes in comparison to their peers in the general population, does not necessarily mean that the care system of itself is the source of young people's problems. Similarly, Hare and Bullock (2006) suggest that a significant number of children outside the 'looked-after' system have poor outcomes and that what the highly visible 'looked-after' population is highlighting are the "wider problems faced by all deprived children" (p.29). In their discussion of poor outcomes and 'looked-after' children, Ward et al (2008) identify a number of factors that need to be taken account of when considering the impact of being looked-after on children's outcomes. These include; the impact of deprivation prior to entry into the care system; the likely outcomes had the child stayed at home or within the community of origin; and the impact of poor educational experiences prior to become looked-after. These themes are further discussed by Stein (2006) in relation to older children entering care, suggesting that most come from:

> "Very poor economic circumstances and difficult family backgrounds: neglect, poor parenting, or physical, emotional or sexual abuse has often been part of their lives. These circumstances cast a long shadow on their emotional and intellectual development and most have very disrupted educational careers before coming into care" (Stein, 2006)

2.8 POVERTY, INEQUALITIES AND CHILD WELFARE

The idea of a link between social inequalities and poor outcomes is one that has been around within health research for many years. Within recent years the concept of 'health inequalities' has been most strongly articulated within the report, Fair Society Healthy Lives: Marmot Review (2010). One of the key concepts used within the Marmot Review, to explain the sources of such inequality, is that of the 'social gradient' of ill health, which is based on the notion that the lower a person's social position the worse their health is likely to be. The idea that health inequalities stem

from social inequalities led the Marmot review to recommend an approach that looked to address inequality across all the 'social determinants' of health.

Bywaters et al.'s (2016) exploration of a possible relationship between levels of deprivation within a local authority area, and the chances of a child becoming 'looked after' or the subject of a child protection plan, borrows heavily from the established concept of 'health inequalities' reframing it as 'inequalities in child welfare' . In framing becoming 'looked-after' as a poor outcome, Bywaters sought to show that a similar correlation to that evidenced within health, between social position and poor outcomes, exists within the context of child welfare and that this could also in part explain variations in 'looked-after' children rates between geographic areas. Bywaters et al. also proposed the concept of the 'Inverse Intervention Law' (IIL) in terms of child welfare interventions in England. Along with the perhaps more expected finding that a child's chances of being subject to child protection procedures or being 'looked-after' increased with deprivation they also observed what they described as the Inverse Intervention Law. What this describes is that when the rates of intervention in neighbourhoods within the same deprivation decile the rates in local authorities that were more affluent overall were higher than in more disadvantaged local authorities. This concept has parallel's with the Inverse Care Law proposed by Julian Tudor Hart in the 1970's (Tudor Hart, 1971). One of the aims of this study is to test whether the Inverse Intervention Law identified in data relating to English local authorities is present in Wales.

Whilst there is a well-established relationship between child abuse (and by extension being 'looked-after') and poverty, drawn mainly from US literature, there are few

studies that describe the nature of the causal relationship between the two (Slack et al. 2017). What is it about poverty that leads to higher levels of child maltreatment in households in poverty than in less deprived neighbourhoods and households? The most cited explanations are those drawn from theories around parental stress, which suggests that the experience of living in poverty is innately stressful and that stress manifests itself as either anger which can lead to child abuse, or depression, which can become a factor in parents not adequately meeting the needs of their children (Pelton, 1994; Pelton 2015; Conrad-Heibner and Scanlon. 2015).

A counter-argument is that poverty does not cause child maltreatment, but instead the child protection system is biased towards poor families. This idea that the overrepresentation of poor children and families in the child welfare system is one based not in higher levels of need, but instead in class bias within the system, is one tested by Jonson-Reid et al. (2009). Citing Brown et al. (1998) the hypothesis that they tested was that "official reports may be characterised by biased reporting, investigation and substantiation of maltreatment in low income families (p.422)", raising the issue of the extent to which bias influences the way that cases for assessment and investigation are 'screened in' by child welfare services. The findings of their study suggested that the presence of poor families in the child welfare system was not in fact the product of such bias, but of the impact of "poverty and conditions associated with poverty [placing] families at greater risk of abusive and neglecting behaviours (p.426)". Having explored this possible explanation for the high rates of children from poorer backgrounds present in child welfare systems the discussion naturally returns to focus on what the mechanisms are that link living in poverty and abusive and neglecting behaviours? In terms of explaining the differences in

parenting style and practices between those parents that are materially deprived and those that are more affluent, Katz et al. (2007) focused a review of the literature on the relationship between parenting and poverty on three hypotheses. These theories are: parental stress; the culture of poverty; and environment or neighbourhood, although the last of these is complimentary to the first two rather than an alternative view. These will be described and discussed further in terms of both theories related to parenting more generally and specifically in terms of abuse and neglect in the discussion of the findings at the end of Chapter 7 and in the overall discussion of findings in Chapter 9.

2.9 RE-ENTRY TO CARE

Children who have experienced a period of being 'looked-after' and then subsequently return to care are a focus of this research for a number of reasons. These relate to both the impact on outcomes for children who experience multiple periods in care and organisationally in terms of the resource implications for Children's Services departments. In particular, in relation to the sensitive policy and practice area of returning children to their birth families after a period in care, children's services are required to balance a number of competing factors. As Dickens et al. (2007) noted, they are required to "ensure the safety and well-being of children, to support families (parents and other relatives), and to make maximum use of limited resources" (p.615). All of this needing to be achieved within the context of pressures to reduce the numbers of children becoming 'looked-after' and finite resources in terms of staff, foster carers and available finances.

In a report commissioned by the NSPCC, Holmes (2014) estimated that the cost of children in England returning home (reunification) and then subsequently having to return to care when those reunifications with birth family broke down was £300 million a year. To put this figure into context, the cost of providing support and services to **all** children returning home from care was estimated to be £56 million per annum. There is therefore a significant impact on available resources of these failed reunifications and a need to develop evidence to support and improve practice which meet the needs of children returning home from care and their families more effectively. One driver could be budget cuts and increasing numbers of children becoming 'looked-after' resulting in increased pressure on social workers to return children home even though "effective and appropriate support is often not available" (Community Care, 2012).

The report, by Sebba et al. (2015) on the educational attainment of 'looked-after' children in England suggested that contrary to popular belief, the educational attainment of 'looked-after' children is better than for children in need who remained at home. However, whilst suggesting that "the earlier the young person enters foster or kinship care the better their [educational] progress" (p.5) they highlight that this is providing that they do not experience many short care periods interspersed with reunifications with their birth families or many placement and/or school changes. Ceasing to be 'looked-after' and then subsequently returning to care (sometimes multiple times) can therefore be associated with poor outcomes for young people in terms of educational attainment. A further potential outcome for children who are returned home is in relation to the risk of re-abuse where children are returned

inappropriately or with insufficient support (Sinclair et al. 2005; Farmer and Parker, 1991).

Age provides a factor associated with return to care, which again has varying findings. Some studies found that primary school age children were more likely to return to care (Bullock, Gooch and Little, 1998; Festinger, 1996; Wulczyn, 1991; Rowe, Hunderby and Garnett, 1989) whilst others have highlighted that adolescents are more likely to 'oscillate in and out' of care (Packham and Hall, 1998; Bullock, Little and Millham, 1993).

Research which has considered re-entry to care has had a variety of foci and has used a wide variety of sampling methodologies, which have included different ways of identifying samples of cases and different follow up periods. This makes comparison of findings difficult (Biehal, 2006). For example, studies in the UK that have considered the proportion of children that return to care have had very different findings. Rowe, Hunderby and Garnett (1989), using a two-year follow up of sample of children returned home found that 18% returned to care, whilst the 'Going Home Study' found that 28% of those children that returned home within 6 months of entering care returned within a year (Bullock, Little and Milham, 1993). Similarly, studies in the US using large administrative data sets that of those that returned home from care 22% returned within 4/5 years (Wulczyn, 1991) whilst 19% returned over a three year period (Courtney, 1995). This also highlights the differences between UK studies and those conducted in the US. UK studies have tended to use relatively small samples of 200-300 cases using data drawn from children's files whilst US studies have

used much larger samples, utilising administrative data. The intention within this study is to use administrative data

A number of studies have highlighted that a child's probability of returning home from care declines with the longer they stay in care, but have also paradoxically shown that rapid return home is associated with increased risk of return (Courtney, Piliavin and Wright, 1997; Wulczyn, 1991). For example, Courtney identified that children who stayed in care for 90 days or less returned at higher rates than those that had stayed longer (Courtney, 1995). As well as length of stay in care studies have also identified levels of poverty within the home as being associated with likelihood of return to care with children from poor households more likely to return (Courtney, 1994; Courtney, 1995; Fein and Staff, 1993).

CHAPTER 3

CONCEPTS AND THEORIES

The aim of this chapter is to briefly articulate the main conceptual and theoretical ideas that underpin this thesis. In particular, there will be a focus on firstly, a framework which places children who become 'looked-after' within the context of their family, community and wider society. The second concept to be described is that of poverty and social inequality, a particular focus within chapter 7 of the thesis, but also one that spans across other aspects of study as a whole.

3.1 THE ECOLOGICAL MODEL: A CONCEPTUAL FRAMEWORK

Urie Bronfenbrenner, in his work 'The Ecology of Human Development' (1979), proposed a theoretical framework within which to conduct research on human development, primarily in relation to children. The framework proposed is one in which individuals are located within a series of settings, each of which is nested within another broader level, like "Russian dolls (p.3)" as Bronfenbrenner described them. These levels consist of the child and their immediate environment, the *microsystem;* those systems within which the child participates, such as for example, community or neighbourhood, the *mesosystem*; ecological levels within which the child and their family are not present, but which have an effect on what happens within the child's immediate environment, which Bronfenbrenner (1979) refers to as *exosystems*. This could for example refer to government policy or in the context of this study a factor such as local authority thresholds for placing children in care*;* and finally, the *macrosystem,* which relates to a given culture or sub-culture and its attendant values. Within the ecological framework, the child is seen as an active participant who influences the family and community environments within which they are located, whilst their development is also being affected by them (Bronfenbrenner, 1979). An

example of this interaction is the way that certain individual characteristics of a child, such as their health, influence and interact with family factors, such as family structure. Family structure is then also subject to external influence from the social and economic context within which the family are placed. At the societal or cultural level the values, beliefs and rules of society influence the ways in which families are defined and the way that communities and families interact. In a later revision of the ecological framework, Bronfenbrenner added a further level, that of the *chronosystem,* which reflects changes over time (Bronfenbrenner and Morris, 1998).

Bronfenbrenner's ecological framework has, since its development, been adopted by researchers exploring child abuse and maltreatment, as a means of framing their work (Belsky, 1980; Garbarino, 1981; Belsky and Stratton, 2002). Within an ecological framework, child maltreatment is seen, not as the result of a single casual factor, but instead as determined by a wide variety of factors operating via transactional processes at various ecological levels (Belsky and Stratton, 2002). At its heart, such an approach to understanding child welfare is based on an analysis of the complex interaction between wide ranging factors, which are located within various ecological levels. Researchers such as Belsky (1980) have used the ecological levels of the child, the family, community and society as the lens through which to study, and seek to explain, child maltreatment. An example of the application of ecological approach within the context of child abuse and neglect is the analysis of factors across ecological levels that enable the researcher to identify where those factors act together to compound the vulnerabilities and deficiencies of parents (Garbarino, 1981).

One aspect of child abuse and neglect research using an ecological perspective, which has particular resonance with this research, is the idea of the importance of the contribution of 'place' within such a model, as highlighted by Garbarino (1981). Given that the focus of some of the research questions this research seeks to answer are related to exploring and explaining differences in 'looked-after' numbers between locations, an approach such as the one provided by an ecological model, which has in part a geographic orientation is clearly interesting. Garbarino argues that the predominant ecological level or niche within which families operate is that of the neighbourhood and that, in the same way that those engaged in public health research would map characteristics of areas, the social work researcher should do the same. This clearly has parallels with the proposed approach of this research to map the home locations of children entering public care at a Lower Super Output Area (LSOA) and analyse whether there is a relationship between 'looked-after' children numbers and relative deprivation at this level.

In linking the use of an ecological approach within child abuse and maltreatment research to its use within this study, it is necessary to describe the overlaps between populations of children who are defined or described in particular ways within the children's social care arena in England and Wales. Many children, but clearly not all, entering the 'looked-after' system are doing so as the result of abuse or maltreatment, particularly in the current era where a significant proportion of the 'looked-after' population is made up of children compulsorily placed in care. Clearly therefore, the factors from across the ecological levels that result in such abuse and maltreatment are the same that lead to children becoming 'looked-after'.

However, as already highlighted, not all children and young people are 'looked-after' as the result of abuse. Children that are legally defined in England and Wales as 'looked-after' are a subset of a larger group of children and young people defined as 'children in need' under S.17 of the Children Act 1989. The Act defines 'children in need' as children who are:

- Unlikely to achieve or maintain, or have the opportunity of achieving or maintaining, a reasonable standard of health or development without the provision for him/her of services by a local authority; or whose

- Health or development is likely to be significantly impaired, or further impaired, without the provision for him/her of such services; or who are

- Disabled

  (Children Act 1989)

The provision of services to children and young people defined as being 'in need', to promote their health and development as defined above, may also result in children spending periods of time in the 'looked-after' system. The developmental focus of such provision of services still however, ties into the use of Bronfenbrenner's ecological approach in order to understand the factors that impacted on their entry into the care system. Similarly, whilst children 'at risk' of significant harm represent a small sub group of a larger group of children deemed to be 'children in need', these children represent only a small proportion of children and young people who could be defined as 'vulnerable' in a wider sense within a child welfare continuum.

A further link between the ecological framework perspective and exploring factors influencing the numbers of 'looked-after' children in Wales can be found in the assessment processes that are applied to children and their families, and which form a

significant part of the decision-making process for children to become looked-after. The domains and dimensions that form the structure of the Framework for the Assessment of Children in Need and their Families (National Assembly for Wales / Home Office, 2001) are rooted in the concepts that underpin the ecological framework. This is no more clearly illustrated than in the statement that "an understanding of a child must be located within the context of the child's family (parents or caregivers and the wider family) and of the community and culture in which he or she is growing up" (National Assembly for Wales / Home Office, 2001, p.12).

It is for the reasons outlined that in order to understand the factors that may impact on child welfare and by extension on children becoming 'looked-after', or defined as 'in need' or 'vulnerable', within this thesis the ecological perspective will be used to group, describe and explore the role of such factors.

It is beyond the scope of this research to explore all factors that have an influence on children and young people becoming 'looked-after' from across all of the ecological levels. As a result the study will predominantly focus on the impact of factors at the *mesosystem*, *exosystem* and *chronosystem* ecological levels, as well as the small number of factors located within the *microsystem* that are available within the data e.g. the child's age and sex.

3.2 POVERTY: CONCEPTS, DEFINITIONS AND MEASURES

Poverty and how it is conceptualised within the context of attempts to understand the circumstances and lives of the families with which statutory children's services work is central to this thesis and in particular to the analysis discussed within Chapter 7 of this study.

Poverty is broadly understood in two ways, as 'absolute' or 'relative' poverty. Absolute poverty refers to the definable minimum requirements needed for physical survival. This is a definition primarily used in the context of developing countries. It is a set monetary baseline that persists over time and is transferable between countries.

Relative deprivation in contrast has both a situational and temporal context. As Paxton and Dixon (2004) observe, 'most now accept that poverty is a relative concept …What counts as poverty in Britain in 2004 is very different to poverty in Britain in 1904, or to Rwanda in 2004.'(p.8). Absolute and relative poverty have both been ascribed monetary measures, a baseline for identifying those that are deemed to be or not to be in poverty. In terms of absolute poverty the often quoted baseline is individuals living on less than $1 a day, although the World Bank define it as living on less than the slightly higher figure of $1.90 a day (World Bank, 2013). In the UK, where arguable few if any live in absolute poverty the relative poverty line is defined as those households living on or below 60 per cent of median income (PSE, 2015). Whilst relatively easy to measure and providing a useful comparative measure over time, it has been argued that this is essentially an arbitrary definition. Such measures are reductionist in nature, taking something as complex and multi-faceted as poverty and reducing it to a single financial measure.

However, poverty is more than just a lack of money, as Townsend, who developed the concept of relative poverty argued in the seminal work *Poverty in the United Kingdom* (1979). Townsend stated that:

> 'Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, in the societies to which they belong' (p.31).

In order to try to capture the range of factors associated with being in poverty and describe them at the neighbourhood level, a number of indexes of deprivation have been developed. In the context of Wales the Welsh Index of Multiple Deprivation is made up of eight separate domains of deprivation: income; employment; health; education; housing; access to services; environment; and community safety. Each domain has a rank (1 is the most deprived, 1909 is the least), calculated using a range of indicators. An overall deprivation rank is calculated for each small scale geographic area using a combination of the individual domain scores. These are weighted, with income and employment given the biggest weighting.

3.3 DEFINITIONS: POVERTY, DEPRIVATION AND SOCIAL INEQUALITY

Within this thesis reference will be made to both *poverty* and *deprivation*. Whilst sometimes used interchangeably the terms refer to subtly different things. As Townsend suggested "deprivation may be defined as a state of observable and demonstrable disadvantage relative to the local community or wider society or nation to which an individual, family or group belongs" (Townsend, 1993 in Flaherty et al.,

2004, p.19). Poverty in contrast is the individual lack, or denial of the resources to achieve full participation in society. Deprivation therefore "describes the condition and poverty describes the cause of that condition, the lack of sufficient resources (p.19)". Based on these definitions, within the thesis neighbourhoods will be described as more or less 'deprived', whilst children and their families will be referred to as living in poverty.

The study of *poverty* is focused entirely on those with the least in society, either financial or more broadly in terms of access to resources. In contrast, research with a *social inequality* focus is interested in the "disparities between individuals, groups and nations (across society) in access to resources, opportunities, assets and income" (Ridge and Wright, 2008, p.4). Chapter 8 of the thesis will consider the distribution of social work interventions in terms of placing children from across the whole of society within Wales in care. It will therefore be concerned with exploring social inequality and potential explanations of disparity between populations.

Alongside Ideas of poverty, deprivation and social inequality, social exclusion has also become an important factor in how poverty is framed. Gaining a foothold in social policy in the New Labour era, ideas of social exclusion broadened the debate around poverty away from being purely about income and instead to wider notions of the alienation and disenfranchisement of certain groups within society. The term social exclusion is used to emphasise the processes by which people are marginalised and pushed to the edges of society (Shildrick and Rucell, 2015). It relates to exclusion from participation in social and political life; limited access to employment, material resources and opportunities; and limited opportunities for integration into common

cultural purposes (Mandipour et al. 1998), the interaction of all of these factors leaving people and communities feeling marginalised, powerless and discriminated against.

The relationship between the material hardships of poverty and relational/symbolic aspects of poverty represented by ideas of social exclusion are perhaps best summarised by Lister (2004) in the idea of a 'poverty wheel'. In the wheel analogy the hub represents the material hardship at the core of poverty, whilst the rim represents the more symbolic aspects experienced by those living in 'unacceptable hardship', e.g. feelings of stigma and shame.

3.4 AGENCY AND STRUCTURE

At the core of the ways in which poverty is defined, framed and responded to are the sociological notions of 'agency' and 'structure'. Sociological debates of poverty have sought to explore the extent to which poverty is either a consequence of how society is organised (structure) or the product of the independent choices and actions of individuals (agency) (Shildrick and Rucell, 2015).

Structural explanations of poverty focus on the impact of the unequal distribution of resources and opportunities within society. In contrast the conceptualising of poverty in terms of individual agency tends to focus on poverty as being a consequence of individual action or omission. The framing of poverty in terms of individual choices and agency often seeks, at an individual level, to use these as a mechanism by which distinctions can be made between the 'deserving' and undeserving' poor. Based on such notions, poverty can be seen not only as something that can be objectively

measured, but also as a moral concept, based in judgements about those that should be pitied and helped and those that are responsible for their predicament.

What will be argued within this thesis is that both structure and agency are important in conceptualising and responding to poverty. People who experience poverty do so as active agents able to make choices, but social, economic and political structures can limit both what choices are available and individuals ability to make them (Lister, 2004). In their exploration of young people's transition to the labour market Roberts et al. (1994) described such limitations in terms of 'structured individualisation', arguing that whilst more opportunities are becoming available to individuals access to such opportunities remains unequal, based on a range of factors including "sex, place of residence, family origins and achievement in secondary education(p.50)". Similarly Evans' (2007) ideas of 'boundaried agency' are concerned with "socially situated agency, influenced but not determined by environments and emphasizing internalized frames of reference as well as external actions (p.93)". This idea proposes that whilst choices are available to individuals there may be perceived subject internalised boundaries and limits to what the individual believes is open to them.   Whilst acknowledging the role of structure and agency, the strength and scale of the relationship between poverty and child welfare interventions identified in the findings of the Bywaters et al. study would suggest that it has its basis not in the realm of the individual, but in the structural.

3.5 POVERTY AS POLITICAL

Definitions of poverty can be both contested and political – In 2015 the Conservative Government attempted to change the way in which poverty was measured in the UK,

including removing the definition of a child living in poverty when it lives in a household with an income below 60% of the UK's median, but including a measure of children living in workless households. There is within this arguably assumptions about the households of the poor being those of the feckless and work shy. It also speaks to notions of cultures of poverty and ideas of the intergenerational nature of poverty with worklessness at its core. However, the counter argument is that in the context of Wales almost 60% of those living in poverty are in work and it has been argued that "working families and young people in Wales are at greater risk of poverty now than they were a decade ago" (Joseph Rowntree Foundation, 2015).

The theoretical standpoint adopted in defining and operationalising poverty, its impact on prevailing social policy and the implications for what 'social work' is and how it should respond to the families and communities that are deprived is an important one. In terms of social work practice and education this is perhaps no more clearly demonstrated than in a 2013 speech given by Michael Gove as the then, Secretary of State for Education. In it he stated that:

> "In too many cases, social work training involves idealistic students being told that the individuals with whom they will work have been disempowered by society. They will be encouraged to see these individuals as victims of social injustice whose fate is overwhelmingly decreed by the economic forces and inherent inequalities which scar our society.
>
> This analysis is, sadly, as widespread as it is pernicious. It robs individuals of the power of agency and breaks the link between an individual's actions and the consequences. It risks explaining away substance abuse, domestic violence and personal irresponsibility, rather than doing away with them" (Michael Gove, 2013)

His comments clearly speak to the tension between structural and individualised explanations of poverty and the fact that for a significant period, including the years covered by this study, an individualised explanation of poverty has held sway

politically. The individualisation of poverty, the locating of the reasons for being in poverty within individuals and as a consequence of individual choices provides the contextual backdrop to the period of time covered by the data analysed within this study. Such explanations feed into the 'rescue' narrative developed around the state intervening in family life, removing children, and placing them in care.

The individualisation of poverty within social policy and of the blaming and shaming of the poorest in society for their circumstances is arguably at the heart of *Breakdown Britain* a report produced by the Centre for Social Justice (2006) that informed government policy. In it the five pathways to poverty are identified. These are defined as family breakdown; educational failure; worklessness and dependency; addiction; and serious personal debt. These themes are framed in terms of individual rather than structural issues. They identify an individual's welfare dependency, addition debt and family breakdown as the cause of their poverty. Such individualised explanations do not for example acknowledge that many of those in poverty are employed, albeit in temporary, poorly paid and insecure jobs, factors that are structural in nature. The period being considered in this study has for example seen the rise of zero hour contracts and their attendant insecurities for people's income. These are arguably structural changes to the labour market, which have affected individuals and families, but which are predominantly framed within current social policy as being individual failings rather than structural consequences. Similarly, ideas of welfare dependence, which have their roots in the ideas of Charles Murray's 'underclass', have resulted in a policy agenda based on the restructuring of the welfare state during the austerity years with the stated aim of reducing perceived dependency.

3.6 SHAME, STIGMA AND SOCIAL SUFFERING

Wilkinson and Pickett (2009) used Thomas Scheff's (1998) ideas of how inequality "gets under the skin" of individuals resulting in feelings of inferiority and of being undervalued. "Shame and it's opposite, pride, are rooted in the processes through which we imagine others see us" (Wilkinson and Pickett, 2009, p.41). The shame associated with living in poverty therefore has an impact on personal identity and feelings of being de-valued (Featherstone, White and Morris, 2014).

Social work in the modern era, which is predominantly focused on working with people in poverty, is also caught up in the individualised discourse around who is 'deserving' or 'undeserving' and as such generally operates within the context of wider societal condemnation of the poorest in society rather than compassion for their plight (Warner, 2015).

Equally important is the demonising of the poor, particularly in the context of child maltreatment. Indeed in the case of Peter Connelly, whose death casts a long shadow over the period of this research, the reporting of his death was linked to a discourse around social class and poverty. It involved the conflating of being poor with other social issues (Warner, 2015).

More broadly Bourdieu's concept of social suffering has relevance to the idea of the symbolic rather than material aspects of the experience of poverty. Social suffering as described in *The Weight of the World* is concerned with the feelings of humiliation, anger, despair and resentment associated with living in an unequal society (Bourdieu, 1999).

Goffman (1963) in *Stigma: notes on the management of a spoiled identity* describes unemployment as one of the 'blemishes of individual character' which act as a marker of stigma. Individuals who carry such a mark are unable to gain social acceptance. In describing the stigma associated with living in poverty and claiming welfare benefits, Bell (2013) describes three typologies of stigma. These are 'personal stigma' (the individuals feelings of shame), 'social stigma' (the feelings of being judged by others as a consequence of carrying a marker of stigma) and finally, 'institutional stigma' (which comes from the experience of interacting with public bodies, such as social services). Such stigma may be compounded through contact with institutions such as children's services departments through the negative stereotyping of those experiencing poverty by such agencies. This includes the way in which individuals and families living in poverty may be constructed as 'other' by such organisations through the day to day stereotyping and labelling of those they work with as, for example, undeserving or objects of pity (Lister, 2004).

The impact of shame in the context of the families with which this study is concerned, families that are predominantly living in poverty and struggling to parent, is that shame is debilitating. The shame experienced by those living in poverty is important as it has the effect of undermining people's ability to help themselves (Gubrium et al. 2014).

The intention of this chapter has been to broadly outline how poverty and social inequality are measured and conceptualised. It has also touched upon the lived experience of poverty and its impact of individuals and families. It has highlighted how individualised explanations of poverty have held sway both culturally and in

terms of government policy in recent decades. This focus on individual choices and

agency as explaining poverty has parallels with social work policy and practice during

the same period.   The struggles of parents with parenting, including child

maltreatment have been the focus of social work interventions focused increasingly

on identifying and managing individual risk.   This is in contrast to child welfare

approaches that are more broadly focused and which acknowledge the impact of

poverty and inequalities on families. The potential impacts of both how we respond

to poverty and how we respond to families 'personal troubles' and the impact of that

on the numbers of children 'looked-after' will form the basis of the discussion within

Chapter 7.

CHAPTER 4

METHODS

This chapter will serve a number of functions. Firstly, it will provide an overview of the analysis to be undertaken as a whole. Secondly, it will discuss the study data, its cleaning and the strategies adopted for its analysis. Finally, it outlines the strengths and limitations of the study

4.1 STUDY AIMS

The overall aims of this study are to investigate whether there is a relationship between the characteristics of a local authority's 'looked-after' children population, such as age profile, and their overall rate of children 'looked-after'; whether poverty and social inequality explain variations between local authorities in the rates of children entering public care; and whether there are factors that predict the likelihood of a child who had previously been 'looked-after' returning to the public care system.

4.2 STUDY DESIGN: OVERVIEW

The study involved a quantitative analysis of longitudinal routinely collected administrative data derived from Welsh Government SSDA903 statutory returns on children 'looked-after' in Wales. Analysis was undertaken using version 23 of the statistical analysis package SPSS (Palant, 2001; Field, 2013) and Windows Excel. The data were analysed using descriptive statistics, linear regression and binary logistic regression.

The use of a large scale dataset and conducting of quantitative statistical analysis as the method of study aligns this research with a nomothetic approach. A nomothetic approach seeks to produce explanations that account for large scale patterns within

the social world, which provide the context of specific events, individual behaviours, and experience (Hayes, 2000).

The research design is informed by my alignment with the paradigm of pragmatism. Pragmatism proposes a move away from researchers being forced to choose between, for example, positivism or interpretivism and their attendant research methods. Instead, the focus is on "the consequences of the research, on the primary importance of the question asked rather than the methods" (Cresswell and Clark, 2011, p.41). Based on this perspective my decision to utilise a quantitative approach is grounded in the compatibility between this particular range of methods and the research question posed and the aims of applying those methods as a lens on the social world (Flick, 2009). This is research based on the idea of having a 'toolkit', which is deployed in the best way to enable the research questions identified to be answered. As a social worker I am drawn towards the real world practice orientation of the pragmatic perspective, of research based in practicality and orientated towards 'what works'. In locating this research within this perspective I have not sought to undertake research which is free from ontological or epistemological grounding. On the contrary, as Gorard and Taylor (2004) suggested, research undertaken using a pragmatic perspective is not research without a theoretical basis but is rather research where theories are of "the kind that can be tested to destruction rather than artificially preserved" (p.144).

4.3 DATA

The data used in this research are drawn from a number of sources. The predominant source is routinely collected administrative data on 'looked-after' children, both aggregate and child-level.

Aggregate level – these records are cross-sectional 'snapshot' data for both Wales and England, published by the Welsh Government and Department for Education, which relate to children and young people in care on the 31st March each year. The data are collected and published to provide an annual benchmark to enable trends over time to be observed and a level of comparison between local authorities and countries. As well as the data on children 'looked-after', the analyses undertaken also use data from the Children in Need census (StatsWales, 2014c), which is also collected on the 31st March each year; and financial information on local authority spend drawn from the annual Revenue Outturn Return (StatsWales, 2014d).   All the data are publicly available and were accessed through the Stats Wales and Department for Education websites. The aggregate data analysed in the study covers a maximum period of 12 years from March 2003 to March 2014.

Child level - the child-level data are based on the information about children 'looked-after' held by each Welsh local authority. The data are submitted annually to the Welsh Government in the form of the SSDA903 return (Welsh Government, 2014a), a term which will be used to describe the dataset throughout the thesis.

The SSDA903 data are broadly divided into two sets of variables, Child Identity and Episodes of Care (Welsh Government, 2014a). The **Child Identity data** in the SSDA903

return consist of a relatively small number of key variables: the responsible local authority; Child identifier; Sex of the child; Date of Birth; Ethnic origin; Disability code; and the child's home postcode i.e. the address from which they entered the care system. The **Episodes of Care** data consist of the following variables: Date episode commenced; Reason for episode; Legal status; Child in Need code (category of need); Type of placement (foster care, residential care, placement with parents, etc.); Date episode ceased; Reason episode ceased. The data requested from Welsh Government covers the period from 1st April 2008 to 31st March 2014 and represents information on every 'episode' of care in Wales during that period (N=111,862).

The use of administrative data, such as the SSDA903, for research presents a number of challenges. These challenges include gaining access to the data and complying with the legal requirements of their use for research purposes (Jones and Elias, 2006; Bell & Gowans, 2016) (see section 4.7); and more generally those associated with undertaking secondary analysis of administrative data, which is further discussed in section 4.11.

A further challenge relates to the quality of the data collected and recorded. A certain amount of inaccuracy is expected and to an extent acknowledged in administrative datasets (Teater et al., 2017; Raymer, Yildiz & Smith, 2013). For example, there can be processing errors caused by mistakes in entering data or the miscoding of information. For a study such as this, where the administrative data are to be linked to other datasets, this can have further consequences in terms of errors (Office for National Statistics, 2008). As an example, the data for this study were requested for the period 2008-2014, rather than back to 2003 (which is available), on the advice of the data

analyst in Welsh Government. This was because this was identified as being the most robust period in terms of data quality. In particular, with regards to the social inequality analysis the data prior to 2008 had significant amounts of missing or poorly recorded home postcode data, which would have consequences when linking to deprivation data. This obviously limited the scope of the analysis that could therefore be undertaken.

The data are collected primarily for performance management purposes not for the purposes of conducting research, particularly longitudinal analysis as undertaken within this study. The unit of collection is a care 'episode' rather than a child (as described later in this section). As a result the data as collected and structured do not lend themselves to being easily analysed. Whilst much of what is presented in this study falls broadly within the category of descriptive statistics, the work and time involved in deriving those statistics from the data as collected was significant. A substantial part of the time used to undertake the analyses presented within this thesis relates to the structuring, recoding and linkage (to population and deprivation information) of the data to allow those statistics to be extracted. This work is labour and time intensive and requires a methodical and organised approach to ensure it is undertaken robustly.

> **'EPISODES' AND 'PERIODS' IN CARE EXPLAINED**
>
> Central to the analysis of the data contained within the SSDA 903 are the definitions of both 'episodes' and 'periods of care'. Episodes provide the basic building blocks in terms of recording a child's care history. At the basic level an 'episode' is when a child is in the care of a local authority for more than 24 hours. They broadly provide information on children and their placements at the beginning of every period in care; the end of every period in care; and every change of circumstances during a period of being 'looked-after' (placement change, legal status change, or change of both). A 'period of care' may consist of only one 'episode', or may be constructed from several. For example, a child who becomes 'looked- after', remains in the same placement and then returns home, would have experienced both one 'episode' and one 'period in care'. In contrast, if a child, whilst remaining in the care of the local authority, experiences a number of changes of placement or legal status, or remains in care for a number of years these would be recorded as a number of 'episodes' within a single 'period of care'.

4.4 SHORT BREAKS: THE RATIONALE FOR EXCLUDING CERTAIN CASES FROM THE ANALYSIS

The full child-level dataset included information on placements in care that are described as 'short breaks' or 'respite care'. This is a type of support or preventative service, often but not exclusively provided to disabled children and young people, and their families. The child remains living with their parents/carers for the majority of the time, but child stays with either a foster carer or visits a residential provision as part of an agreed programme of stays. Regulation and guidance in Wales allow children to receive up to 120 days a year of this type of provision (Placement of

Children (Wales) Regulations 2007). For the purposes of the analysis within this study these children and the relevant 'episodes' were removed from the analysis. This has been done for the following reasons:

- **Variation in recording of data**. The recording of data regarding these placements varies significantly both between local authorities as well as over time.   The Placement of Children (Wales) Regulations 2007 allow local authorities to record an agreed programme of short break stays lasting up to a year as a single 'looked-after' 'episode'. This was done to remove the need for local authorities to begin and end an 'episode' of being 'looked-after' each time a child spent a few days in a short break placement. Based on this system a child who has received short breaks for the 6-years covered by the data should only have approx. 6 'episodes', unless for example there has been a change in carer. Initial exploration of the data identified that whilst this was the case for some children, in some cases children had several hundred 'episodes' during the same period. The data as recorded are therefore very inconsistent.

- **Short breaks and outcomes**. One of the key drivers behind any research on 'looked-after' children is the body of literature highlighting the poor outcomes for children in care, be that in relation to health, education or other areas of their lives. With regard to children receiving short breaks who: for most of their time remain at home; live in their own communities; and access the same local services, such as schools as their peers; I would argue that their outcomes are largely not attributable to these short stays with foster carers or in residential provision, but to a range of other factors not related to their nominal status as 'looked-after' children.

Based on the above, the decision was taken to remove all episodes coded 'V1' (accommodated under agreed series of short-term breaks) from the analysis. These cases account for 41,902 'episodes' of which circa 35,000 related to the care of disabled children and young people. The dataset with these cases removed (n=69,960) was used as the basis for the child-level analysis.

Alongside the administrative data on 'looked-after' children and their placements the following data sources were also used in the analysis, specifically relating to child population and area-level deprivation measures.

Population Data - In order to produce rates per 10,000 of the child population at country, local authority and Lower Super Output Area (LSOA) level, mid-year population estimates were used. These were accessed through the Office of National Statistics (ONS) website (Office of National Statistics. 2013; Office of National Statistics, 2014). The child population on which calculations and analysis were based was children and young people aged 0 – 17 years. However, these population estimates are based on different age groups (0-4, 5-9, 10-14 and 15-19 years) and do not fit with the population of interest for this study. It was therefore necessary to locate and download the 'unformatted' population files which contain the estimates by single year of age and sex to enable the child population of age 0-17 years to be calculated. Across the analyses undertaken in this study it was necessary to use these files to calculate the 0-17 child population at the country level; by sex; for each of the 22 local authorities; for all the 1909 LSOAs; and for each year between 2008 and 2014. Where the child population was used to calculate an overall rate for the six- year period this was done using the mean child population, calculated at the Wales and

local authority level. The collection year used for the SSDA903 data spans two calendar years as it runs from April in one year to March in the next. Throughout the thesis where rates are calculated per collection year, the mid-year population estimate used was the one within which the majority of the collection year fell (e.g. for the collection year April 2013 to March 2014 the 2013 mid-year population estimate would be used).

Deprivation Measures – In order to assess the relationship between deprivation and social inequalities and 'looked-after' children rates, this study used data derived from the Welsh Index of Multiple Deprivation (WIMD) (StatsWales, 2014), which was updated in November 2014. The Welsh Index of Multiple Deprivation Child Index, which consists of a range of seven domains or indicators of deprivation focused on the child population and factors which may affect them, was also considered but for a number of reasons it was not used. Amongst them it was not updated at the same time as the WIMD. A more detailed discussion of the decision for not using the Child Index is provided in Chapter 5. The WIMD provides a rank at a small area level of all 1909 Lower Super Output Areas (LSOA) ranking them between 1 (the most deprived) and 1909 (the least deprived). This ranking is produced for an overall ranking across all domains as well as individually for each of the eight domains from which the WIMD is constructed.

LOWER SUPER OUTPUT AREA (LSOA) EXPLAINED

Used for the reporting of small area statistics in England and Wales since 2004, particularly in the context of the population census, Lower Super Output Areas (LSOAs) are constructed from geographies containing a population of between 1000 and 3000 people living in between 400 and 1200 households.

In order to compare deprivation at geographies larger than LSOA or Middle Layer Super Output Areas (MSOA), such making comparisons at a local authority level, the method recommended in the documentation that supports the WIMD data (Welsh Government, 2014b), is to calculate the percentage of the total number of LSOA in a local authority that are ranked in the 10%, 20%, 30% or 50% most deprived. One of the advantages of this method is that it accounts for differences in the total number of LSOA that make up a given local authority. This was the method used in the aggregate level analysis (see Chapter 5). For the small area social inequalities analyses a different methodology using deprivation scores rather than ranks was used and this is described in more detail in Chapter 7.

4.5 ANALYSIS METHODS

The study is a wholly quantitative analysis of administrative data held by the Welsh and UK Governments. As highlighted in Chapter 1, where the research questions this study is intended to address are outlined, the analyses undertaken are grouped into four distinct strands. Each strand involved the data being organised and managed in different ways to enable the analyses to be conducted most effectively. Each strand also involved different statistical approaches and tests. This chapter provides an overview of the analysis methods used throughout the thesis. A more detailed explanation of the specific methods and issues will be provided in each analysis chapter. The logic of this approach is to provide the reader with the context of the analysis in each chapter rather than referring back to this chapter each time they have a question or want clarification, whilst still having a chapter that pulls together an overview of the methods and approaches used.

AGGREGATE DATA ANALYSIS

The first analysis chapter (Chapter 5) consists of predominantly univariate and bivariate descriptive statistics using the publicly available aggregate data covering a 12-year period from 2003 to 2014. Although the analysis presents some data as raw numbers, to make meaningful comparisons between countries and local authorities' most of the data will be calculated as rates per 10,000 of the overall child population. The use of rates is common in epidemiology, vital statistics and demography as a way of expressing the frequency that a particular phenomenon occurs within a given population. The "use of rates rather than raw numbers is essential for comparison of experience between populations at different times, different places, or among different classes of persons" (Porta, 2008, p.159).

Scatterplots were used to explore the proportion of variance in one variable that is explained by another (the coefficient of determination), for example, the proportion of the variance in overall rates of children 'looked-after' in a local authority explained by the percentage of children entering care under 4 years of age. Trend lines are used as they are useful ways of visually representing the direction of any relationship present between overall rates and child or placement characteristics and whether it is a positive or negative correlation. R^2 values have been produced to quantify the strength of the relationship between the two variables, specifically the extent to which one variable explains the variation in the other.

To establish whether there was a statistically significant relationship between variables, the Kendall's Tau test was used. Kendall's Tau is a non-parametric measure of the strength of the correlation between two variables (Kirkwood and Sterne, 2003). This is often used as an alternative to the Spearman's Rank test for small samples and where there are potentially a number of tied ranks. It can be argued that such tests are unnecessary within this context as the study is using population data rather than a sample, but they were used for completeness. This is in part is to address arguments that whilst the data present all children who become 'looked-after' at a country level, they still represent a 'super population' in that children continued to become 'looked-after' beyond the observation window and had done so before.

CHANGES BETWEEN AUTHORITIES OVER TIME

Similar to the previous analysis strand, univariate and bivariate descriptive statistics using rates per 10,000 of the child population will be conducted to estimate changes between local authorities over time. The analysis aims to address two interrelated

questions. Firstly, are there differences between local authorities and/or between years in the characteristics of children entering and leaving care? Secondly, is there a relationship between those differences and a local authority's overall rates of children 'looked-after'?

To compare the characteristics of children at the point of their entry or exit from care it is necessary to apply a sampling strategy. The aim was to only count each child once at entry or exit, either once within the six years covered by the data or within each of the collection years, depending on the analysis being undertaken. This sampling strategy made it possible to deal with the issues presented by children who experience multiple periods in care within a single year or within the 6 years. For example, in terms of analysis of the ages of children entering care relative to the general population, if all starts were included, children entering care several times during a collection period would be double counted. Such double counting would inflate the numbers of children of a particular age that appear to enter care during a given period. To manage the data and identify each start or end of a period of care, syntax was written which utilised the episode dates and variable codes related to the starts or ends of care episodes. In the case of the start of a new period in care this involved identifying episodes where the reason episode started code was 'S' indicating the start of a new period in care and sorting these instances by date. In terms of exits from care, the episodes identified were those which had an 'E' exit code rather than those coded 'X1' (indicating a change of circumstances) or where the field was left blank indicating a child who was still in care at the end of a data collection year. Again, these were sorted by date episode ceased to put them in chronological order.

In order to consider whether there are differences in characteristics between the care populations of different local authorities rates per 10,000 were again used as they were in the aggregate analysis chapter. However, to answer the second question regarding whether there is a link between the characteristics of a local authority's 'looked-after' children population and that authority's overall rate of children in care, a different approach was used. Instead of looking at the relationship between the rate of children with a particular characteristic (e.g. children of a particular age group) and a local authority's overall rate, the percentage of that characteristic in the care population was used. The rationale for this approach can be explained by the following example. Using a child characteristic, in this case sex, the following two figures show a comparison between this characteristic plotted against mean overall rates as a rate per 10,000 and as a percentage.

Figure 2: Rates per 10,000 of children entering care for the first time by sex
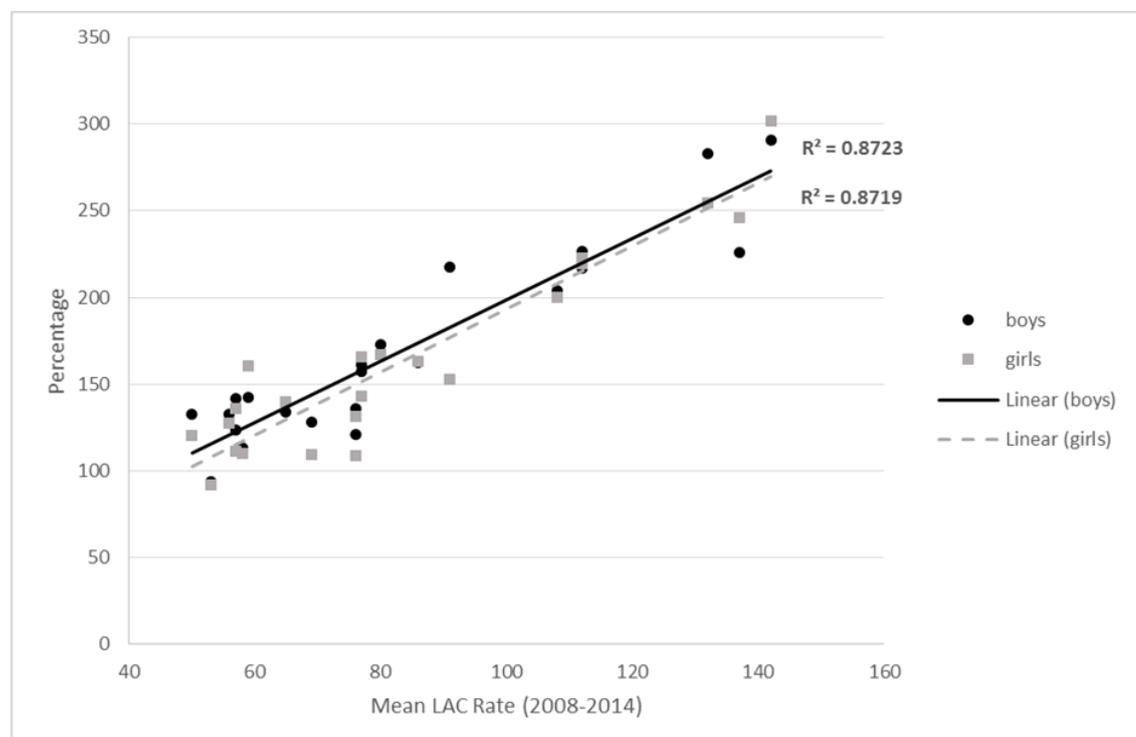
Figure 2 above shows the rates per 10,000 of boys and girls entering care for the first time during the period covered by the study plotted against the authority's mean looked after children rate. This would appear to show an impressive result, with increases in the rates of boys (and girls) entering care explaining 87% of the variation in overall rates.

Figure 3: Percentage of children entering care for the first time by sex
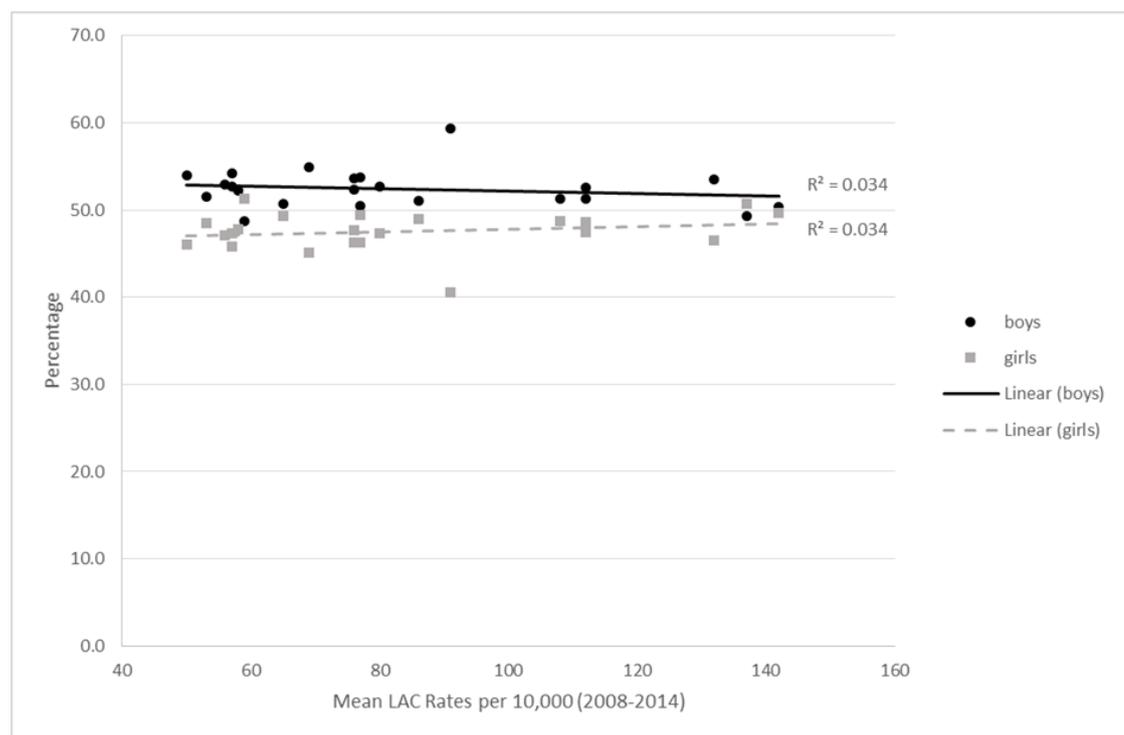
In contrast to the first figure, the second one using percentages shows a very different picture. The graph shows virtually no relationship between the percentage of boys (or girls) taken into care for the first time and variations in overall rates. Whilst there is some variation in the split of boys and girls between local authorities, these do not correspond to differences in overall rates. What the examples illustrate is that if an approach that plots characteristic rates to overall rates is used, there is an extent to which the level of relationship shown is a product of the natural relationship between the two rates. A local authority with a high overall rate of children in care will, broadly speaking, naturally take in a higher rate of boys (and girls) than an authority with a

low overall rate, although there will be some level of variation. In contrast, using percentages, if for example there is a 50:50 split between boys and girls entering care in an authority that will remain the same regardless of whether that authority has the highest overall rate in Wales or the lowest. For this reason, percentages were used in this section rather than rates.

SOCIAL INEQUALITY

The analysis for the chapter on deprivation and social inequality has its roots in the study by Bywaters et al. (2016) The study, quoted in an article by Welsh assembly member Mark Drakeford (2012), was undertaken using data from a number of local authorities in the English Midlands. This chapter aims to replicate as closely as possible the methods used in that study by applying them to a Welsh population of 'looked-after' children. However, this chapter goes beyond that by extending it using longitudinal data, as the original study (and the follow up four nations Child Welfare Inequalities Study) was based on cross-sectional data collected on a single day in a single year.

In the preceding analysis strand the data used represented the whole population of 'looked-after' children at a country level, so for example the first entries to care represents all the first entries in Wales within the 6-years covered. This means that there are no issues of representativeness of the cases included as they are whole population. For this strand of the analysis this is not the case. The analysis will be conducted on the children 'looked-after' *at the first time of entry* only as not all cases can be included. This is because not all these cases have a usable LSOA code, necessary for linkage to deprivation data. The reasons for this are either that they

have been suppressed in the case of children placed for adoption (Deleted); not recorded in the SSDA903 by the local authority; or it relates to a child whose postcode at time of becoming 'looked-after' was outside of Wales (Outside W). The levels of missing data also mean that only 18 of the 22 local authorities can be included in this analysis. Again, this is described in more detail in Chapter 7 (see section 7.1). As a consequence it was necessary to test the representativeness of the sample in a way not required in the previous analyses.

As with previous analysis strands the basic unit of analysis was rates per 10,000 of the child population. However, for this chapter these were calculated at the level of deprivation quantiles (either deciles or quintiles). The initial analysis will focus on the overall rates by deprivation decile and gender, age group, category of need and legal status. As well as this overview of the relationship between deprivation and being 'looked-after', the analysis will also consider whether there is a relationship between the rates of children becoming 'looked-after' at the neighbourhood level and overall levels of deprivation at the local authority level. In particular the analysis will seek to test whether the 'inverse intervention law' identified in the Bywaters et al. (2015) study is present in Wales. In order to test this, the data will be split into three comparison groups based on the overall levels of local authority deprivation. The data within each comparison group will be further divided into deprivation quintiles. The purpose of doing so is interpretational clarity. By having 15 quantiles across the 3 comparison groups ensures there are sufficient cases in each quantile.

RETURN TO CARE

This final analysis strand seeks to identify the factors that increase or decrease the likelihood of returning to care for children who have already experienced one period in care, using a binary logistic regression. A logistic regression model will enable the probability (the 'odds') of a binary outcome to be estimated based the inclusion in the model of a number of predictor (independent) variables.

In order to undertake the regression analysis it is necessary to reorganise the data and select suitable cases. This required a move from the 'episode' format used in the three preceding analysis strands to organising the data as complete 'periods'. All cases included in the analysis needed to have started and completed one complete 'period' in care during the 6-year period. It was then necessary to identify which of these cases started a further 'period' of being 'looked-after' before 31st March 2014. Organising the data in this way provided a binary outcome (dependent) variable 'returned to care' with two possible outcome categories (Yes/No). The methodology and rationale for case selection is discussed in greater detail in Chapter 8 (see section 8.5).

A number of predictor variables, all of which are categorical, will be identified for inclusion in the logistic regression model. Initial consideration of potential variables required frequency tests to be undertaken to identify the numbers of responses for each category within the variable and to identify the levels of missing data.

Chi-square tests, using either the Pearson's or Fishers Exact values, were undertaken on all the chosen predictor variables to test whether there was a statistically

significant association at the 5% level between each predictor variable and the outcome variable and to identify any cell counts that are below 5.

Categories within the predictor variables where cell counts fall below 5 in the cross tabulations were recoded. Re-coding was also undertaken in order to select the reference category for each variable in the logistic regression. Care was taken at this stage as the reference category chosen has an impact both on the model results and interpretability. A summary of the variables used and the categories recoded is provided in section 8.8 of chapter 8.

Having established a statistically significant relationship between the outcome variable and the chosen predictor variables, and where appropriate the recoding of categories, the variables were subjected to a test for multicollinearity using the Variance Inflation Factor (VIF). The rationale for undertaking this test and acceptable values are discussed in Appendix 8.

The outcome variable (Return to care Y/N) and the chosen independent variables (collection year, age group, length of stay, category of need and legal status) were fitted to the logistic regression model. Outputs from the logistic regression were interpreted with a particular focus on the following:

- The p-values of variables included in the model, both those that were statistically significant with values of <0.05 and those that were not

- The beta coefficient results and whether they are positive or negative, with a negative result indicating a decrease in the likelihood of the expected outcome

- The exponential of B, the odds ratio, for each variable in the model

- The predictive power of both the null and predictive models

- The 'goodness of fit' between the model and the data, indicated by a Hosmer-Lemeshow test score of >0.05

- Case wise list of standardized residuals – the model was asked to produce a list of all cases in the regression with a standard deviation of >2.00. The list enables identification of outliers, cases where the model has incorrectly predicted the wrong outcome and heteroscedasticity

The results of all stages of the data analysis are described, summarised and discussed in chapter 8.

4.6 ETHICS

In compliance with the university's ethics procedures, a formal ethical review for the study was conducted by the School Research Ethics Committee (SREC) in the School of Social Sciences. Ethical approval for the study was granted in June 2014 (see Appendix 1 for copy of the confirmation letter).

As a qualified social worker I undertook the research within the framework of the Joint Universities Council Social Work Education Committee's code of ethics for social work and social care research (SWEC, 2013). Butler (2002) argues that social work and social care research is about what knowledge social workers lay claim to and what they think and believe. The primary audiences for such research are social work practitioners, service users, policy makers and other social workers engaged in research. Given this, Butler argues that "the ethics of social work research must logically be at least compatible if not coterminous with the ethics of social work more generally" (Butler, 2002, p.241). With a clear intention to informing policy and more broadly social work practice around 'looked-after' children, it seems appropriate that the ethics of undertaking this research should be clearly linked to those of social work practice itself. Additionally, the research was also informed by the Care Council of Wales code of practice for social workers, which the researcher is required to comply with as part of professional registration, and the British Association of Social Workers code of ethics (BASW, 2012). The ethical issues regarding the study all relate to the data protection implications of gaining access to, storing and processing 'personal' data and the risk for individuals being identified.

4.7 DATA PROTECTION ACT 1998

In the context of gaining access to and analysing administrative data, compliance with the Data Protection Act 1998 is a significant requirement and the major legal and ethical issue for the study. The Act defines data, which may be used in the context of research as either 'personal' data or 'sensitive personal' data. 'Personal' data is information relating to a living individual, which could identify them either on its own or when combined with other information. For the purposes of the research, the interpretation of the Act suggested by Administrative Data Liaison Service (ADLS, 2015) was used. The opinion of the ADLS is that "where a dataset contains at least a person's name or other potentially identifiable data (such as address or date of birth) then this is to be classed as 'personal data' and therefore treated in accordance with the Data Protection Act" (ADLS, 2015). The data requested for this study did not include information such as the name or address of the child, but did include some potential identifiers. As a consequence a series of actions were put forward within the data access request, with the intention of ensuring that the data were 'adequately' anonymised to address this issue. Specifically; Date of Birth was converted to age as at 31st March for the relevant SSDA903 period; Postcodes for the child's home address were converted to Lower Super Output Area codes; and local authority child identifiers were converted to auto generated anonymised ID numbers, which enable multiple periods of care by the same child to be linked together. Analysts in the Knowledge and Analytics team generated these amended variables, prior to transfer of the data to the researcher.

Arguably, administrative data which are 'adequately' anonymised in this way fall outside of the requirements of the Data Protection Act. However, the application for

data access for this study was still framed within the context of meeting the requirements of the Data Protection Act 1998. This required me to demonstrate that the research would meet at least one of the conditions laid out in Schedule 2 of the Act and that the data would be fairly and lawfully processed under the Act. In the case of this research, the argument was made that the processing of the data complied with the conditions of the Act in that it "is necessary for the legitimate interests pursued by the data controller or by the third party or parties to whom the data are disclosed" (ADLS, 2015). In the context of this study, the justification is that the analysis is in the legitimate interests of the Welsh Government and the local authorities (both of whom are data controllers as defined in the Act) by providing insights into those children who are 'looked-after' for which both organisations have responsibility. This justification for requesting the data and processing them was accepted by the Welsh Government Data and Analytical Services.

Some of the information collected in the SSDA903 is classified as 'personal sensitive' data under the definition of the Act. Specifically, this is the information regarding ethnicity, and disability, with information on disability being encompassed within information the Act defines as relating to an individual's "physical or mental health or condition"(ADLS, 2015). The initial approach to the Welsh Government also included a request for these data. To comply with the Data Protection Act 1998, this required the researcher to demonstrate that the study complied not only with at least one of the conditions set out in Schedule 2 of the Act, but also met the more stringent requirements laid out in Schedule 3. It was argued that the purpose of accessing and processing these data was for monitoring equality of opportunity. This was carried out with safeguards to protect the data subjects to which the data relate, which is one

of the conditions contained under Schedule 3 of the Act. The argument put forward being that the analysis was intended to exploring whether Black and Minority Ethnic (BME) children are disproportionately represented in the 'looked-after' population relative to their prevalence in the wider child population. Even with an explanation of the study and the steps that would be taken to protect the identities of data subjects in relation to, for example, the subsequent publication of research findings, this initial request was rejected. This rejection was mainly based on the relatively small numbers of Black and Minority Ethnic (BME) children who are 'looked-after' in Wales and the very small numbers that live in all but three Welsh local authority areas. This prompted concerns regarding the risk of disclosure of the identity of some children and young people from the data even with the suggested safeguards in place. Compromises, such as the researcher being provided with data in a format which would only allow identification of whether a child was from a BME background or not, rather than more detailed information on specific ethnic groups, were put forward but rejected by the Knowledge and Analytics Service. Any further request for these data required resubmitting of an application with a more detailed justification, a process that could take several months and may still result in access being denied. It was therefore decided to drop this part of analysis and only request those data deemed to be 'personal' and therefore covered by the Schedule 2 justification for processing, which had been accepted. This pragmatic decision was mainly based on a desire to keep as closely to the study's planned timescales as possible, balanced with an understanding of the significant amount of analysis that could be conducted on the data to which access had been agreed.

4.8 DATA TRANSFER, STORAGE AND CONTINUED ACCESS

The data file was transferred from the Knowledge and Analytics Service to the server at Cardiff University using the AFON secure data transfer website for which the researcher was provided with an account. The Data Access Agreement required that the data were held only on this server and not transferred elsewhere. The Data Access Agreement (See appendix 2) also stipulated who could have access to the data, in this case only the researcher and his two academic supervisors. The duration of storage of the data was also specified in the Data Access Agreement. The initial period requested was 24 months and by which time the data must be destroyed. This period started from the date of data transfer in October 2014 to September 2016. It was agreed with knowledge that an extension to this timeframe could be negotiated at a later date should it be required. A further period of continued access to the data was requested in September 2016 as not all the analysis had been completed. During the intervening period the format and content of the Data Access Agreement required by Welsh Government had changed. In order to comply with these new arrangements a new data access agreement was submitted to the Data Unit and signed off by the Chief Statistician. A further period of one year was initially requested but this was not granted. The Data Unit argued that it was necessary to restrict data access to the shortest possible period to enable analysis to be undertaken and for the data then to be destroyed. On this basis an extension of 6 months was granted until March 2017 with the proviso that further periods could be requested should they be required. However, with data analysis and writing up still not completed, a further extension of six months was requested and granted. As with the previous request, during the intervening period there had been changes to the requirements of data access. On this occasion the process for approving applications for data access for non-Welsh

Government contractual work had been changed. Researchers are now required to provide Welsh Government with sufficient assurances about security arrangements for the storage of data to which they had been granted access. Specifically, these need to be in compliance with the requirements of the security aspects letter (see Appendix 3): the extension related to the implementation of the controls outlined by the UK Government's Cyber Essentials scheme (HM Government, 2014). The new scheme requires a computer to have appropriate firewalls and internet gateways; secure computer configuration; controlled access; malware protection; and management of the latest versions of applications and updates. Gaining a Cyber Essentials certificate for the university computer on which the analysis was undertaken, required negotiation with the School of Social Sciences (as there was a cost implication for the work undertaken) and the University's IT department. The necessary work was completed during the summer of 2017.

4.9 DATA CLEANING

The data used for the child-level analysis were collected from the 22 Welsh local authorities by the Knowledge and Analytics Service of Welsh Government. Issues with cleaning and preparation of this type of data, such as missing values, were not present as these were dealt with at source. However, initial checks of the data as provided, by producing frequencies for each of the variables, highlighted a number of issues.

A frequency table of the placement type variable identified a number of placement codes that had been inputted using both upper and lower case letters (e.g. V1, v1). These were amended to ensure coding was consistent throughout the dataset. Similar

anomalies were found in the LSOA variable ('Unknown' and Unknown W') and these were addressed in the same way.

The ages of children are recorded as at 31st March of each data collection year. The ages of children and young people starting new periods of being 'looked-after' can be established during the six-years observation period. A frequency count of ages highlighted a number of anomalies. The data included five periods of care attributed to young people aged between 22 and 26 years of age. This is neither practically or legally possible. It is unclear whether the error came from the conversion of DOB to age as at 31st March, prior to data being received by the researcher, or whether there is a coding error. It is possible that the data relate to young people already in the 'looked-after' system and for example receiving leaving care support. These cases were excluded from the analysis using the 'select cases' function in SPSS.

4.10 CENSORING AND TRUNCATING OF DATA

One of the methodological issues to be addressed in the study, particularly but not exclusively in relation to the analysis of children returning to care (see Chapter 8) is the censoring and truncation of the data. The data represent all children in public care at a country level for a period of six years. The data are however limited in some respects by the effects of both left truncation and right censoring. That is to say the conclusions that can be drawn from the data are in some cases limited by those things that are unobserved before and after the data collection period. Examples of these limitations include:

- A six year observation window is insufficient to potentially capture a child or young person's complete care history. As a result there will always be things that are unobserved particularly for children who were less than 12 years of age.

- Unless the child entering care is a new-born, there is no way to know from the data available whether the first period of care recorded in the data is the child's first time in care, or whether there had been a previous period that was unobserved.

- The data include periods in care which started before data collection, but which either ended in the data collection period or continued past its end. The data include information such as start dates for these periods even though these were in fact before the observed period began. There are potentially statistical issues with including some aspects of the data regarding these cases in any analysis. A child may have started a period in care many years prior to the start of data collection. Inclusion of data on, for example, age at entry to care from before the data collection period may skew the results of any analysis if included with data on observed cases that started in the collection period. In reality only a proportion of the children entering in the preceding years will still remain in care, those that have left and those that have stayed will not be evenly distributed.

Methodological decisions therefore had to be made regarding how these cases were dealt with. An example is provided by the analysis of children starting periods in public care. Where a child was in care on the 1st April 2008 the details of period of being 'looked-after', such as the date they entered care were included in the data. It would therefore be possible to include them in an analysis of the ages at which children enter care, even though this may have been several years before the data observation window starts. Inclusion of these cases could therefore potentially skew

the results of any such analysis. It was therefore decided that when undertaking this

particular analysis to only include those children whose periods in care started after

1st April 2008.

4.11 STRENGTHS AND LIMITATIONS OF THE STUDY

The study has utilised multiple years of routinely collected child-level administrative data. The data used provide a large sample of longitudinal data covering a six-year period relating to circa 15,000 children and young people. The literature review established that whilst such studies have been undertaken in England this appears to be the first time that this type of analysis has been undertaken in Wales since the Packman study in the 1960s.

The use of secondary data has enabled access to a country level sample without the necessity for the resources or time necessary to collect such data as part of primary research (Elliott, 2015), which would be outside the scope of a doctoral study. However, the use of these data, also bring with them limitations and challenges and these are acknowledged and outlined in this section.

The longitudinal nature of the data allows consideration of changes over time. A key strength of this study is its ability to build on and provide further insights to the study on child welfare inequalities originally conducted by Bywaters et al (2016), which used data collected on a single census day.

The research design and the methods of data analysis are outlined in detail in this thesis. The guidance document for completion of the SSDA903 return also provides definitions of how, for example, a term such as 'Family Dysfunction' has been operationalised by the submitting local authorities and Welsh Government. Similarly detailed documentation is also available for the Wales Index of Multiple Deprivation and mid-year population estimates. The data continue to be available to other

researchers who can apply for access to it. This combination of factors would enable replication of the same analysis by other researchers. In addition the continued collection of administrative data on 'looked-after' children, mean that it can also be built upon.

However, the use of any form of secondary data, whilst providing the researcher with opportunities, also potentially brings with it limitations on the ability of a study to explore the research questions posed by such a study fully. Given the nature of secondary data there is an inherent tension in undertaking analysis using such data, which is that it was collected by someone else, for a different purpose. The data therefore was not collected with the questions that I as a researcher necessarily had in mind. Information that may be seen as central by me as a secondary researcher to exploring the research questions I am seeking to answer, may not have been collected or if collected may not have been categorised in the way I would have had it been collected as part of primary research. Research using secondary data therefore requires a level of pragmatism and flexibility of approach, perhaps not necessary to the same extent where the researcher is collecting their own primary data.

The notion of a Lower Super Output Area (LSOA) as geographically or conceptually representing a notion of 'neighbourhood' is arguably one that is potentially problematic and one which places limitations on this research. Firstly, there are issues around the variation in geographic size of an LSOA. As identified earlier in this chapter, LSOAs are geographies containing a population of between 1000 and 3000 people living in between 400 and 1200 households, but are of no fixed geographical size. In an urban area in Wales, such as in the cities of Cardiff, Newport or Swansea,

an LSOA may well consist of a housing estate or an area of a city. In contrast, when applied to the more rural areas of Wales, for example much of mid or west Wales, a geographical area containing 3000 people may extend over many miles. A further issue with LSOAs is that they are not homogenous in nature. Not all households in an LSOA identified with having high levels of deprivation will be deprived and conversely more affluent LSOAs may contain deprived households (Sampson et al. 2002).

Whilst this study, in common with many that have sought to explore the relationship between communities ('neighbourhoods') and particular outcomes ('neighbourhood effects'), has utilised census output areas, there is clearly a wider sociological literature around the nature of neighbourhoods and their existence at the level of often complex social networks of interactions between neighbours (Grannis, 1998). Whilst acknowledging the critique of using neighbourhood characteristics based on statistical output areas ("far too many studies treat neighbourhood processes as one more variable to tag onto individuals" Sampson et al 2002, p.466) and the more nuanced approaches used by other researchers to capture the nature of neighbourhoods, the use of LSOAs is one born out of a pragmatic approach situated in the use of secondary rather than primary analysis.

A further limitation is the lack of ability to reliably link small area-level characteristics to individual families or children and young people who have become 'looked-after' from those communities. It would be relatively easy to begin to conflate the socio-economic characteristics of an LSOA with those of individual families in that geography. It is clearly very important to avoid falling into the trap of 'ecological fallacy' with regard to the generalisability of the relationships identified by the

analysis and the tendency to draw spurious inferences about the characteristics of individuals from group level characteristics Sayer (1992).

The limited number of variables contained in the dataset, is unlikely to be able to fully explore the nature of the range of both protective and risk factors that have an influence on the lives of individual families that may affect whether children may become 'looked-after'.

4.12 THE SUBJECTIVE CATEGORISATION OF NEED: THE CASE FOR CAUTION

Of the variables available within the SSDA903 dataset the majority, it could be argued, are objective measures. As long as they are correctly recorded, variables such as age, sex, placement type, etc. require no interpretation by those providing the data. The exception to this is the variable recording the predominant care need a child had at the start of a period of being 'looked-after'. The variable consists of nine codes: abuse and neglect; disability; parental illness or disability; family in acute stress; family dysfunction; socially unacceptable behaviour; low income; absent parenting (including child given up for adoption); and, adoption disruption. The issues of interpretation are perhaps best illustrated by the definitions of two of these categories, abuse or neglect and family dysfunction. The definition of abuse and neglect is that a child has become 'looked-after' as a result of, or a risk of, abuse or neglect. Neglect is broadly defined in the *Working Together* guidance document as a "persistent failure by parents/carers to meet a child's basic physical and/or psychological, likely to result in the serious impairment of a child's health or development" (DCSF, 2010, p.39). In terms of family dysfunction, the definition within the guidance for completing the SSDA 903 is that a child enter care has done so as a result of needs which "arise mainly

out of their living with families where the parenting capacity is chronically inadequate" (Ref p.26). The issue therefore, I would argue, is that in coding the category of need, which precipitated an entry to public care, a differentiation is made by the placing authority between when chronically inadequate parenting constitutes family dysfunction and when it constitutes neglect. This issue was highlighted by Forrester et al (2007) in their analysis of the way needs are categorised within social services referrals. Their study found low levels of reliability and validity in the way that a single 'main' category of need was ascribed to cases but in reality children and their families may have multiple needs and deciding which one is the most important requires a level of evaluative judgement (p.57). As in the case of the category of need data in this study, the ascribing of such categories was often a consequence of needing to report this information in a very narrow way to satisfy the requirements to provide statistical returns to central government and simplify data presentation. Such simplification does not for example provide a measure of seriousness, just one of relative importance. Whilst acknowledging these potential issues with the use of categories of need, in the absence of more detailed information on the circumstances of families and the reasons for children becoming 'looked-after' the study will utilise this variable as a proxy measure of the much more multi-faceted and complex nature of child and family need.

Having summarised the background to the study and the analysis methods to be employed over the last few chapters, the following four chapters will describe the analysis undertaken for each of the strands of the study.

CHAPTER 5

**THE PICTURE OVERALL: COMPARISON OF COUNTRIES AND LOCAL
AUTHORITIES USING AGGREGRATE DATA**

Before proceeding to the finer grained analysis using the child-level data that will make up analysis chapters 6-8, this chapter will provide an analysis of the publicly available aggregate level data. This chapter will provide an important starting point by providing an assessment at the macro-level of the overall picture in terms of the 'looked-after' children population. The analysis will enable identification of trends over time at a national and local authority level before focusing down on more specific patterns in the data.

The analysis will provide an overview of the Welsh 'looked-after' children population from 2003 to 2014; demographic information on the child population, both at the Wales' and local authority levels; and some initial comparison between the 'looked after' populations in England and Wales. The 12 year period covered by this initial analysis represents the extent of publicly available data on 'looked-after' children in Wales at the time of writing. This data were accessed via the Stats Wales website. Comparative data on the English 'looked-after' population were accessed through the Department for Education (DfE) website. Population data for both England and Wales, which will be used to derive rates per 10,000 children, are calculated using mid-year population estimate data produced by the Office for National Statistics (ONS).

5.1 NUMBERS OF CHILDREN 'LOOKED AFTER' IN ENGLAND AND WALES 2003 - 2014

The table below represents the often quoted figures when numbers of children in public care are reported on. The figures are based on 'snapshot' data derived from an annual reporting mechanism, the SSDA 903 return (Welsh Government, 2014a) which is completed by every local authority in England and Wales annually. The figures

reported are the number of children 'looked-after' on a specific day, the 31st March, each year.

Table 2: Numbers of children 'looked after' in England and Wales 2003 - 2014

Year	Wales	England
2003	4195	60800
2004	4320	61200
2005	4390	61090
2006	4535	60300
2007	4645	60000
2008	4635	59400
2009	4700	60900
2010	5160	64470
2011	5410	65500
2012	5720	67070
2013	5770	68060
2014	5755	68840

Sources: (Stats Wales and Department for Education)

It could be argued that one of the factors illustrated by these figures is the so-called 'Baby P effect' (CAFCASS, 2009). From 2009 to the present, the figures show a significant year on year increase in the numbers of children 'looked-after' both in England and Wales (although there were small reductions in numbers reported in Wales for 2008 and 2014). This sustained increase, it has been argued, came in the wake of the death of Peter Connelly in 2007 and in particular following the publishing of the Serious Case Review report into his death, which was published by Haringey Local Safeguarding Children Board (Haringey Local Safeguarding Children Board. 2009) in November 2008. This was followed in March 2009 by the Lord Laming report, The Protection of Children in England: A Progress Report (The Lord Laming Report. 2009). However, if the period from 2003 to 2008 is considered, a different picture emerges when England and Wales are compared. During this period the underlying trend within 'looked-after' children's numbers in England was a downward one, with numbers dropping from 60,800 in 2003 to 59,400 in 2008, representing a drop of over

2%. In contrast, the number of children being 'looked-after' in Wales had been increasing for the five years prior to the Baby P Serious Case Review publication rising from 4195 to 4635 an increase of 10%. It could therefore be argued that other factors may have had an effect on numbers of children in care in Wales prior to the impact of the 'Baby P effect'. Across the whole period from 2003 to 2014 the Welsh 'looked after' population has increased by 37%, whilst the numbers in England have seen a much smaller percentage increase (but obviously much larger in terms of actual numbers of children) of 13%.

The picture provided by this straightforward comparison of numbers of 'looked-after' children for each country is only partial. Nonetheless it serves to begin to identify some of the differences and similarities in the trajectories of the 'looked-after' populations in England and Wales both before and after the 'Baby P' Serious Case Review.

5.2 CHILD POPULATION OF ENGLAND AND WALES 2003 - 2014

There is clearly a difference between both the actual numbers of children in care and the overall child population of England and Wales. It is therefore much more useful and meaningful to express these figures in other ways. Converting numbers of children and young people 'looked-after' into rates per 10,000 of the child population enables adjustment for these differences. In order to do this it is necessary to firstly establish the child populations for each country for the period being considered to calculate population adjusted rates. Within this study the intention is to calculate rates per 10,000 based on the mid-year population estimates of children and young people aged 0 – 17 years for the relevant country and year.

Table 3: Mid-year population estimates for 0 – 17 year olds (England and Wales)

Year	Wales	England
2003	654100	11125500
2004	651100	11113700
2005	646900	11108000
2006	643300	11111600
2007	641100	11109800
2008	640000	11152800
2009	636300	11202400
2010	633200	11231600
2011	632400	11279400
2012	631100	11340600
2013	630200	11506451
2014	629609	11591701

Sources: (Office for National Statistics)

Of note with regard to the child population data in table 3 above, is the decreasing number of children and young people under 18 years of age in Wales. During the period from 2003 to 2014 there was a reduction of 23,900, a decrease in the child population of more than 3.75%. In England, during the same period, the child population increased by 380951, an increase of 3.4%. This variation in child populations over the 12 year period is mostly clearly illustrated by the graph below. This would suggest that in the case of Wales, there have been an increasing number of children entering the care system from a child population which is reducing in size, whilst in England although numbers of children in public care have increased the overall child population has also increased.

Figure 4: Child population in England and Wales 2003 – 2014
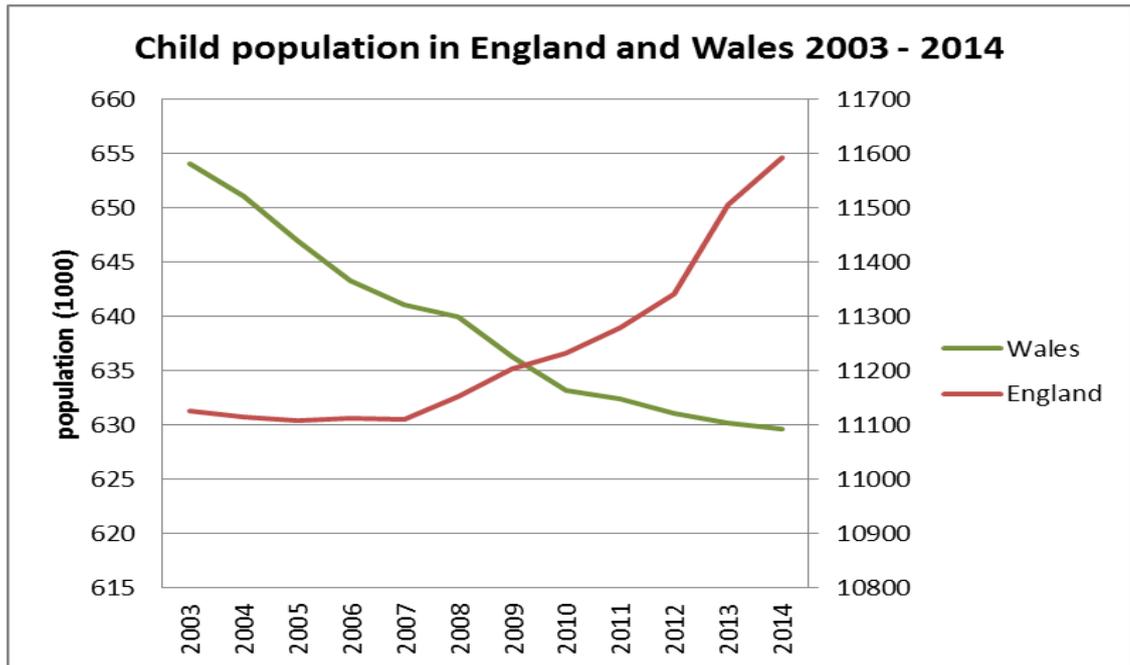
5.3 WELSH CHILD POPULATION (2008 – 2013) BY LOCAL AUTHORITY

As well as looking at patterns in the child population over time at a country level, the available aggregate level data also allow for consideration of changes at the level of individual local authorities within Wales. Table 3 provides a breakdown of the numbers of children in each local authority in Wales based on the mid-year population estimates for 2008 to 2013. What the table shows is that for most local authorities, in line with the trend at the country level, numbers of children and young people reduced over the period or remained relatively static. This isn't however the case for all, as the numbers in Cardiff, Swansea and Wrexham all saw a level of increase during this period. In the case of Cardiff this is in part due to the city's economy being relatively successful, resulting in population growth, relative to other parts of Wales. These local authorities represent three of the four asylum seeker dispersal areas for Wales (the fourth being Newport) (Save the Children, 2013) and it would seem reasonable to surmise that the increases seen may be in part as a result of families

seeking asylum being relocated to Wales. During the period covered by these data, Cardiff went from being an authority with a rate of children 'looked-after' that was above the Wales average in March 2008, 2009 and 2010 to one with a rate that was below the national average for the remaining years covered by this analysis. In part this could be explained by the majority of local authorities taking more children into care from shrinking child populations, whilst Cardiff (with the largest increase of the three authorities which went up) took in more children from an increasing child population. Child population increasing at the same time as numbers increased would have the effect of flattening any increase in rates relative to other local authorities.

Figure 5: Welsh Local authority mid-year child population (0-17 years) estimates

5.4 RATES 'LOOKED-AFTER' PER 10,000 CHILD POPULATION ENGLAND & WALES 2003-2014

Using the 'snapshot' data of numbers of children 'looked after' at 31st March for each year and the mid-year population estimate data, it is possible to calculate a rate per 10,000 child population figure, which enables more accurate comparison of country level data adjusted for differences in population size.

Table 4: Rates of children 'looked after' per 10,000 in England and Wales

Year	Wales	England
2003	64	55
2004	66	55
2005	68	55
2006	71	54
2007	73	54
2008	72	53
2009	74	54
2010	82	57
2011	86	58
2012	91	59
2013	92	59
2014	91	59

Table 4 highlights a number of significant points. Firstly, that over the 12 year period that the data covers, Wales has always had a higher rate of children 'looked-after' per 10,000 than England. The gap between rates per 10,000 has also increased during this period. In 2003 the rate in Wales was only 9 children per 10,000 higher than that in England. However, during the period from 2012 to 2014 that gap had increased to between 32 and 33 children per 10,000 of the under 18 population. This divergence in rates is most starkly illustrated in Figure 6.

Figure 6: Welsh 'looked-after' children rates as a percentage of rates in England
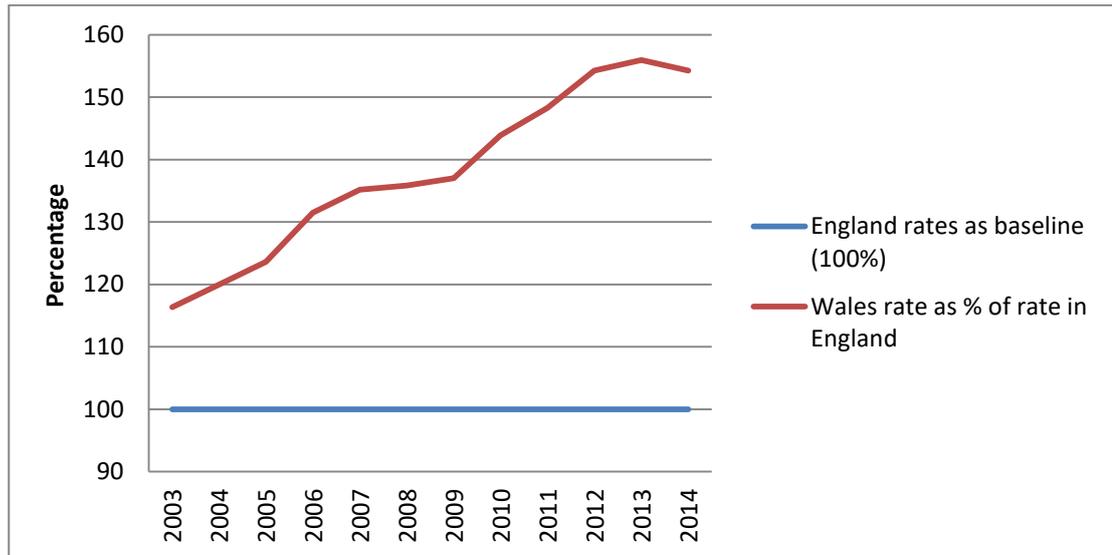
The graph shows that rates in Wales have risen from 116% of those in England in 2003 to a high of 156% of English levels in 2013. Even when differences in population size are adjusted for by conversion to rates per 10,000 the data still shows a small decrease in rates in England during the pre-Baby P period, albeit only of 2 children per 10,000 child population, whilst during the corresponding period the Welsh rates per 10,000 increased by 8 children per 10,000.

To identify the impact on 'looked-after' children rates per 10,000 of the changes in child population in both England and Wales identified in figure 4, an unadjusted rate was calculated. Whilst rates are commonly used as a way of comparing both countries and local authorities, the intention with this analysis is to highlight that this should not be done uncritically. The calculation uses the child populations for England and Wales in 2003 to calculate rates per 10,000 for the years 2003 – 2014. This is therefore based on the assumption of no variation in overall child population during the period being considered. Comparison of these rates with the population

adjusted rates in table 5 highlight the proportion of the change in rate per 10,000 accounted for by population change.

Table 5: Comparison of population adjusted and unadjusted rates of children 'looked after' per 10,000 in England and Wales 2003 – 2014

Year	Wales Adjusted	Wales Unadjusted	Diff.	England Adjusted	England Unadjusted	Diff.
2003	64	64	0	55	55	0
2004	66	66	0	55	55	0
2005	68	67	-1	55	55	0
2006	71	69	-2	54	54	0
2007	73	71	-2	54	54	0
2008	72	71	-1	53	53	0
2009	74	72	-2	54	55	1
2010	82	79	-3	57	58	1
2011	86	83	-3	58	59	1
2012	91	87	-4	59	60	1
2013	92	88	-4	59	61	2
2014	91	88	-3	59	62	3

In 2014 the difference in rates of children 'looked-after' between England and Wales was 32 children per 10,000. Had the overall children's population remained at 2003 levels and not decreased in Wales and increased in England as highlighted earlier, based on the above, the gap in rates would reduce to 26 children per 10,000. This is based on the fact that 3 children per 10,000 of the rate in Wales, being accounted for by more children coming into care from a reducing child population. In contrast, in England a further difference of 3 children per 10,000 is accounted for by more

children entering care from a child population that was increasing at the same time. What this illustrates is that approximately a fifth of the gap in rates between England and Wales in 2014 is not the result of policy and practice, but of demographics.

The rates for the period 2012 – 2014 confirm Drakeford's assertion (Drakeford, 2012) that children in Wales are now on average 1.5 times more likely to enter public care than their peers in England. This illustrates that for an extended period, children and young people in Wales on average have been more likely to become 'looked-after' than children in England.

Whilst analysis of country level data shows an increase in likelihood of children in Wales entering care than their peers in England, the next level of analysis of the 22 local authorities within Wales, will seek to establish whether that is the case for all children living in Wales; whether there is variation between authorities; and the extent of that variation. Table 6 and Figure 7 show the rates per 10,000 for each Welsh local authority for the 12 year period being investigated.   The table and accompanying graph also include the mean Wales figure to enable variation from this average figure to be considered. The most striking first impression from this data is the level of variability between the rates per 10,000 children of local authorities in Wales. Children in Monmouthshire, for example, are on average less likely to enter the 'looked-after' system than children in England, based on a comparison of the authority's rates for 2003 – 2014 and the overall English rates for that period. Conversely, based on their rate per 10,000, in 2013 for example, children in Neath Port Talbot were almost three times more likely to enter public care than children on average would in England during the same year. Whilst there are a group of local

authorities (Monmouthshire, Wrexham, Flintshire, Pembrokeshire, Ceredigion, Carmarthenshire) whose rates routinely fall below the all Wales average figure, equally there are authorities whose rates are consistently higher (Neath Port Talbot, Torfaen, Merthyr Tydfil, Bridgend, Rhondda Cynon Taf, Blaenau Gwent). Within this complex picture there are also authorities such as Caerphilly who appear to break with the prevailing trend in rates in England and Wales. Having had a rate which was six 'looked-after' children per 10,000 child population more than the Wales average in 2003, the same authority by 2014 had a rate which was 20 children per 10,000 lower than the average for Welsh local authorities.

Table 6: Rates per 10,000 for Welsh Local Authorities 2003 - 2014

Local Authority	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Wales	64	66	68	71	73	72	74	82	86	91	92	91
Isle of Anglesey	34	38	45	49	53	54	51	55	59	66	59	55
Gwynedd	59	57	58	57	67	70	70	74	74	82	87	78
Conwy	70	50	59	62	64	74	72	77	75	82	76	76
Denbighshire	68	83	71	69	70	65	71	84	90	83	83	85
Flintshire	43	41	40	42	47	47	44	48	49	52	61	67
Wrexham	42	43	41	41	42	44	45	51	53	60	66	73
Powys	38	41	43	51	51	51	52	55	65	68	59	59
Ceredigion	47	51	52	45	49	53	53	58	63	63	60	60
Pembrokeshire	57	57	61	55	62	56	53	59	62	60	58	50
Carmarthenshire	44	40	41	46	47	50	58	65	69	72	72	66
Swansea	59	69	77	88	86	85	94	120	124	119	126	115
Neath Port Talbot	86	81	86	89	94	98	101	137	145	167	176	169
Bridgend	67	81	76	89	98	93	87	100	112	119	133	141
The Vale of Glamorgan	66	72	67	71	66	62	61	67	77	81	67	68
Cardiff	76	75	77	78	79	75	75	76	73	80	77	84
Rhondda Cynon Taf	74	79	73	86	86	89	87	96	110	119	124	130
Merthyr Tydfil	105	111	130	119	135	136	126	131	131	153	144	140
Caerphilly	70	75	74	72	73	72	79	85	76	79	78	71
Blaenau Gwent	115	123	125	100	95	86	85	83	91	95	96	103
Torfaen	66	76	84	82	95	101	102	118	144	153	154	152
Monmouthshire	26	36	35	38	34	39	58	45	42	57	54	57
Newport	88	80	88	92	94	90	87	89	86	83	84	86

Key	Rate above Wales mean		Rate same as Wales mean		Rate below Wales mean	

Figure 7: 'looked-after' children rates per 10,000 child population for Welsh Local Authorities 2003 – 2014

LAC rates per 10,000 for Welsh LA 2003-2014
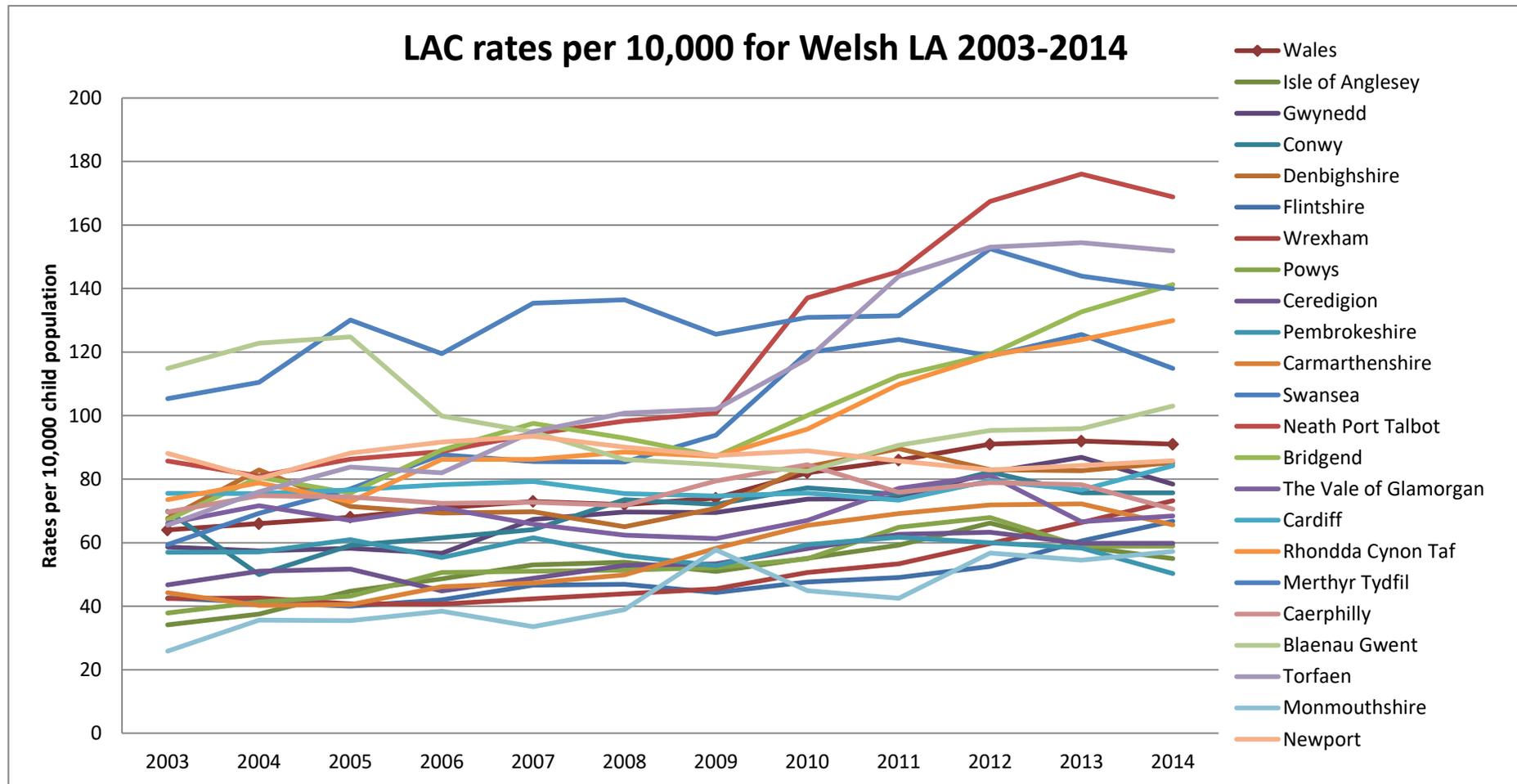
Table 7 shows the authorities in England and Wales with the highest rates per 10,000 of 'looked-after' children, in each of the years being considered. During the period from 2010 to 2014, Welsh authorities constituted between 4 and 6 of the authorities in the 'top 10'. In 2012 and 2013, when there were 6 Welsh authorities included this meant that over 25% of all Welsh authorities were present within those with the top ten highest rates per 10,000 in England and Wales.

Table 7: The ten highest rates per 10,000 by local authority in England and Wales 2010-2014

2010	2011	2012	2013	2014
City Of London	**Neath Port Talbot**	**Neath Port Talbot**	**Neath Port Talbot**	**Neath Port Talbot**
Manchester	**Torfaen**	**Torfaen**	Blackpool	Blackpool
Neath Port Talbot	Blackpool	**Merthyr Tydfil**	**Torfaen**	**Torfaen**
Merthyr Tydfil	City Of London	Blackpool	**Merthyr Tydfil**	**Bridgend**
Blackpool	Manchester	Manchester	**Bridgend**	**Merthyr Tydfil**
Swansea	**Merthyr Tydfil**	**Swansea**	**Swansea**	Wolverhampton
Torfaen	**Swansea**	**Bridgend**	**Rhondda Cynon Taf**	**Rhondda Cynon Taf**
Croydon	Salford	**Rhondda Cynon Taf**	Torbay	Torbay
Haringey	Kingston Upon Hull	Kingston Upon Hull	St Helens	Manchester
Kingston Upon Hull	**Bridgend**	Middlesbrough	Kingston Upon Hull	St Helens

During the period 2010 – 2014 there were 174 local authorities across England and Wales and of those 22 were in Wales. One English authority, the Isles of Scilly, had no children 'looked-after' during this period. Given this fact, and to enable the authorities to be divided as equally as possible into quartiles, the Isles of Scilly were removed from this part of the analysis. This left 173 authorities that were divided into quartiles, three consisting of 43 local authorities each and one, the quartile with the lowest rates per 10,000 in each year, with 44 authorities. Table 8 shows the

distribution of Welsh local authorities within these quartiles. What is illustrated by this table is that rates for Welsh authorities are not equally distributed across quartiles. With the exception of 2013, over three quarters of Welsh local authorities have rates per 10,000 which place them within the 1st and 2nd quartiles, representing those with the highest rates per 10,000 across England and Wales. Even when 2013 is considered, with 72.5% of authorities placed within the first two quartiles the distribution of authorities is still unequal.   Conversely, in relation to the 4th quartile, representing those authorities with the lowest rates per 10,000, only one Welsh authority is present within this quartile in 2010 and 2011 and thereafter there are no Welsh authorities within this quartile with all authorities being within the 3rd quartile or above.

Table 8: The number of Welsh local authorities in each quartile by rates per 10,000 (England and Wales)

Quartile	2010	2011	2012	2013	2014
1st Quartile	10 (45%)	9 (41%)	11 (50%)	10 (45%)	9 (41%)
2nd Quartile	5 (23%)	9 (41%)	7 (32%)	6 (27.5%)	8 (36%)
3rd Quartile	6 (27%)	3 (14%)	4 (18%)	6 (27.5%)	5 (23%)
4th Quartile	1 (5%)	1 (5%)	0	0	0

With regard to those authorities with the lowest rates per 10,000 in Wales, Table 9 provides a comparison between the rates for these authorities and the lowest rate per 10,000 in England and Wales in the corresponding year for each year between 2010 and 2014. What this comparison illustrates is that during this period the authority with the lowest rate per 10,000 in Wales had a rate which was between 2 and 2.8 times higher than the equivalent authority in England. For example in 2013, whilst

Richmond upon Thames had the lowest rate in England at 19 'looked-after' children per 10,000 child population under 18 years old, Monmouthshire as the lowest in Wales had a rate 2.8 times higher (54 per 10,000 child population).

Table 9: Comparison of lowest rates per 10,000 in England and Wales 2010 - 2014

	2010	**2011**	**2012**	**2013**	**2014**
England	Wokingham (22)	Wokingham (21)	Richmond upon Thames (19)	Richmond upon Thames (19)	Richmond upon Thames (19)
Wales	Monmouthshire (45)	Monmouthshire (42)	Flintshire (52)	Monmouthshire (54)	Pembrokeshire (50)

5.5 'LOOKED-AFTER' CHILDREN IN THE CONTEXT OF THE WIDER VULNERABLE CHILD POPULATION

As discussed in Chapter 1 the 'looked-after' children population is a subset of a much larger population of children and their families in Wales who are known to local authority social services departments. It is therefore important to consider the numbers of children who are 'looked-after' within this wider context of vulnerable children within a local authority area. Each year on 31st March, alongside the SSDA903 data, each Welsh local authority also collects and submits data for the Children in Need Census (Welsh Government, 2014). The data collected "covers all children receiving support which is financed from children's social services budgets, including those supported in their families or independently and children on the child protection register" (Welsh Government, 2014, p.5). It is therefore important to explore what relationship exists between the numbers of 'looked-after' children and the wider population of children in need in each Welsh local authority. Figure 9 is a scatterplot, produced using the mean average rate per 10,000 for both 'looked-after' children and children in need for each Welsh local authority. The mean averages

were calculated using the rates per 10,000 for both groups of children for a 5 year period (2010 – 2014). The graph shows that broadly there is a relationship between rates for 'looked-after' children and children in need. Specifically, those authorities with higher rates of children in need are usually those with higher rates of 'looked-after' children and vice versa. The graph does however, also identify some authorities where this is not the case. Take for example, Ceredigion (Cere) and Swansea (S). Both authorities have very similar rates of children in need, 344 and 341 per 10,000 respectively. However, there is a significant difference in their mean average 'looked-after' children rates. Swansea with a mean average for 'looked-after' children of 121 per 10,000 has a rate which is almost double that of Ceredigion, with a rate of 61 per 10,000. Similarly there are noticeable differences between Ceredigion and authorities such as Flintshire (F) and Pembrokeshire (Pe) and their rates of children in need. Whilst these authorities have mean average 'looked-after' rates, which are within 6 children per 10,000 of each other there are significantly larger gaps between their children in need rates. With a rate of only 148 per 10,000, Flintshire has a children in need rate which is less than half of Ceredigion's at 344 per 10,000. Similarly, Pembrokeshire has a mean average rate per 10,000 of 214, which is 130 children per 10,000 lower than that Ceredigion. These differences between certain local authorities may provide a useful focus within the child-level analysis.

A further comparison of the relationship between children in need and 'looked-after' children, at a local authority level is provided by figure 10. The graph shows the number of children 'looked-after' as a percentage of the total number of children in need reported in each local authority annually for the period 2010 – 2014. With each year shown separately it also enables comparison over time. Whilst this shows some

authorities where the proportion of their children in need population who are in care has remained stable, such as Ceredigion, this is not the case for all authorities. Swansea has seen their percentage of children 'looked-after' reduce from 43% in 2010 to 31% in 2014. In contrast, during the same period, Monmouthshire have seen the percentage increase from 17% in 2010 to 32% in 2014, resulting in almost a third of all children known to the authority being in out of home care. Figure 8 shows the rate per 10,000 of children in need for each local authority, for the 5 years 2010 to 2014. In the case of Monmouthshire what this graph illustrates is a falling rate per 10,000 of children in need. This coupled with an increase in rates of children 'looked-after' would result in the increase proportion shown in figure 10.

Figure 8: Rates per 10,000 children in need by local authority 2010-2014
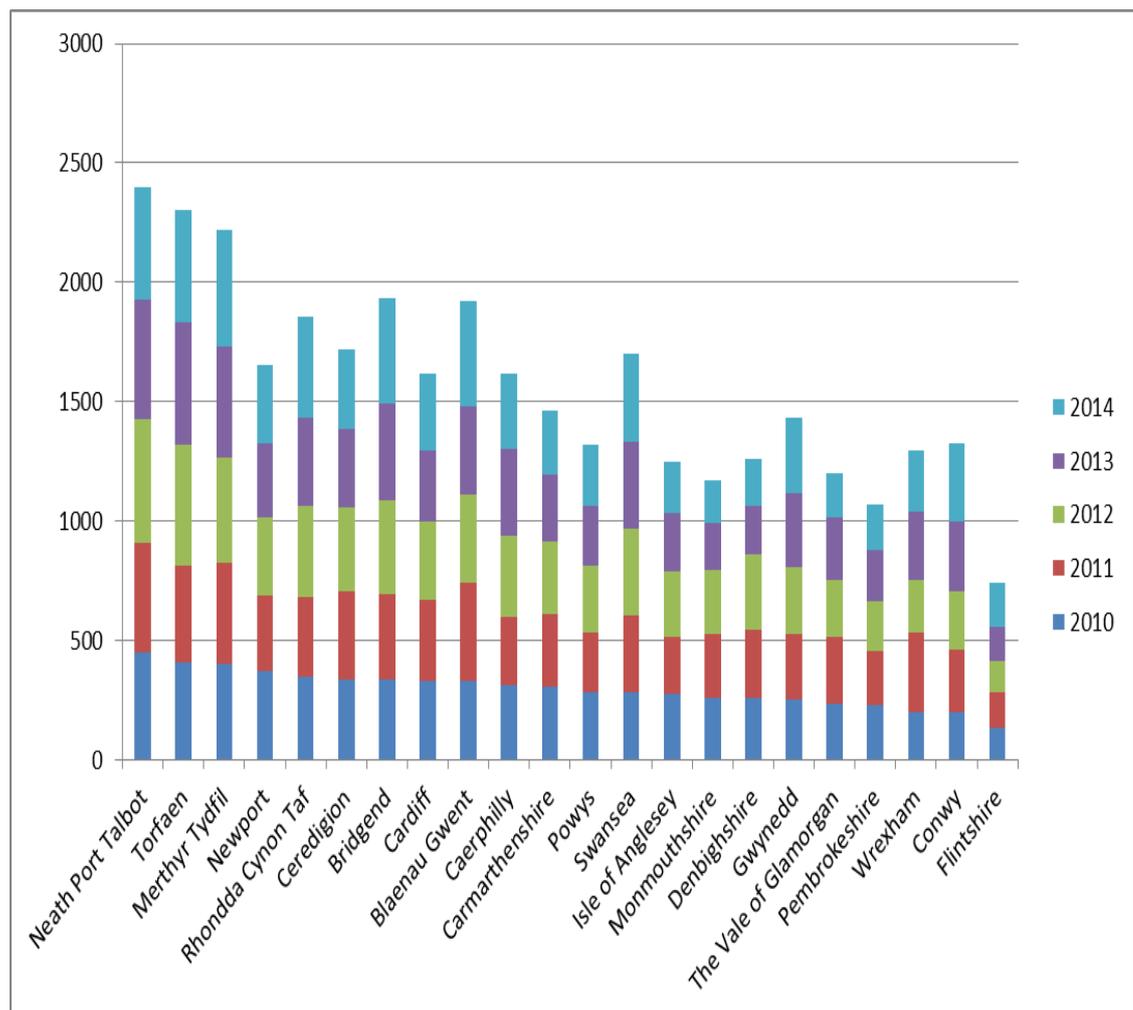
Figure 9: Scatterplot of mean 'looked-after' children rates against mean children in need rates (2010 – 2014)
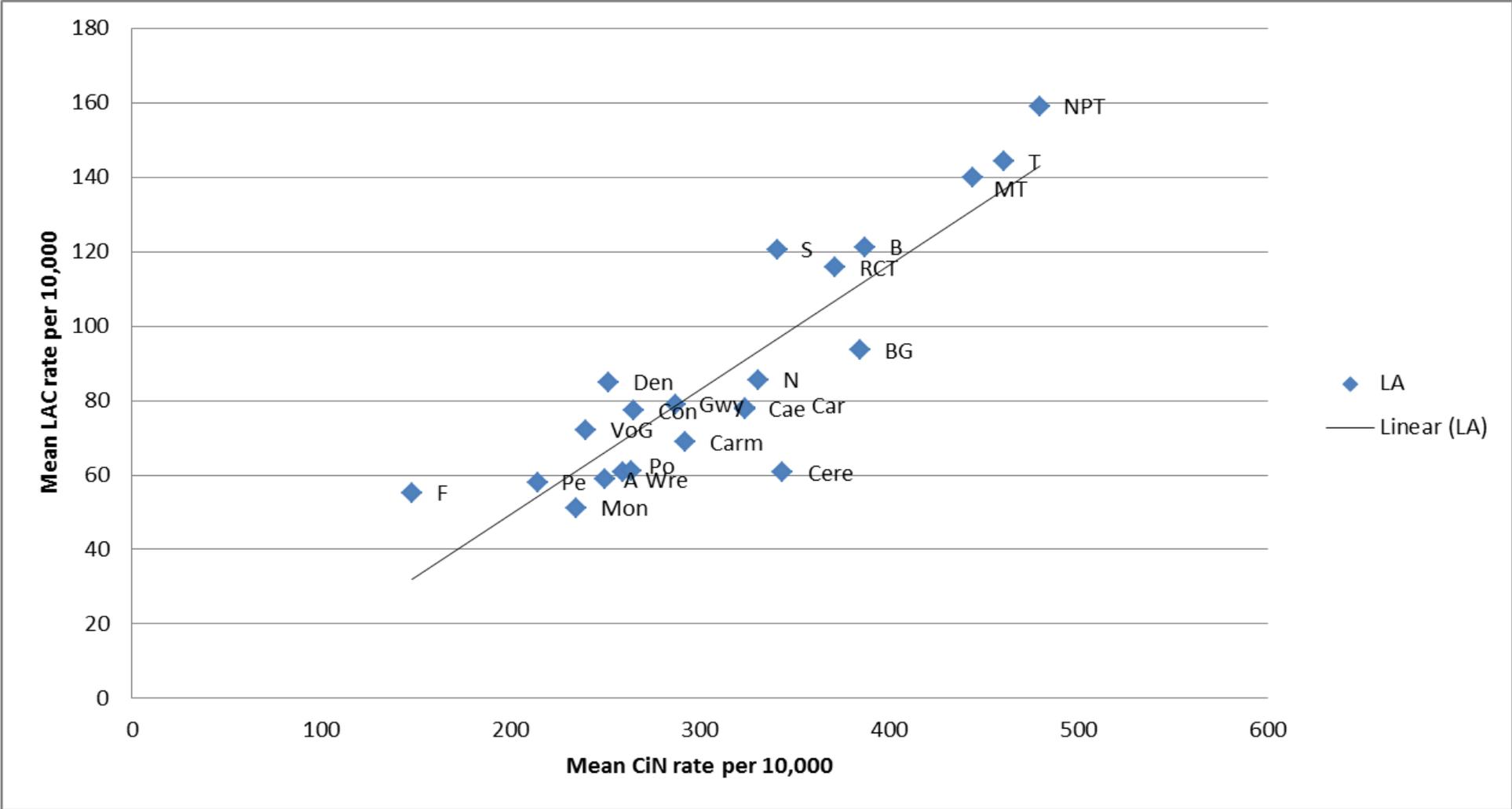
Figure 10: 'Looked-after' children numbers as a percentage of all Children in Need known to Welsh local authorities 2010 – 2014
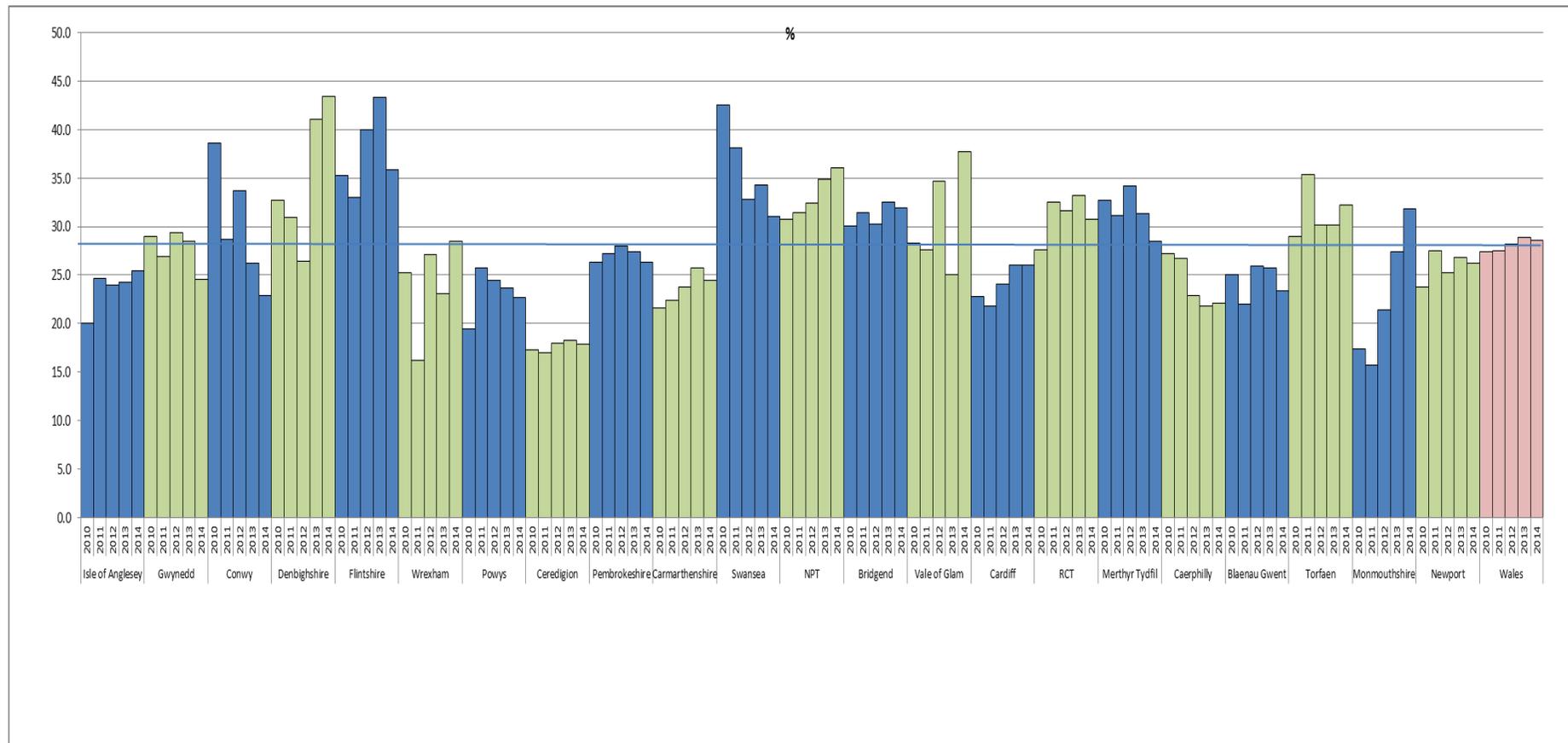
5.6 PERCENTAGE OF CHILDREN 'LOOKED-AFTER' BY SEX

A further comparison of the Welsh 'looked-after' population at this aggregate data level is provided by the composition of the care populations of each of the 22 local authorities by sex and whether there are differences between authorities; and in the extent to which the proportion of boys and girls within those populations diverges from those of the general 0-17 year old population in Wales. Table 10 shows the gender proportions within the 0 – 17 population in Wales. This is taken at 3 points within the 12 year period covered by the aggregate data.

Table 10: Percentage of boys and girls in the Wales child population 0-17 years (2003/2008/2013)

Year	Boys	Girls	Total	Boys%	Girls%
2003	335,709	318,327	654,036	51.3	48.7
2008	327,636	312,259	639,895	51.2	48.8
2013	323,462	306,749	630,211	51.3	48.7

The table clearly shows that over the period being considered the composition of the under 18 population in Wales has remained almost constant with 51% of children and young people being boys and 49% being girls. The intention is therefore to test whether this remains true in terms of the 'looked-after' population or whether one sex is disproportionally represented, either in the LAC population as a whole or within the populations of certain local authorities.

Table 11: Percentage of boys and girls in the Wales 'looked-after' population

Year	Boys	Girls	Total	Boys%	Girls%
2003	2270	1925	4195	54.1	45.9
2004	2330	1990	4320	53.9	46.1
2005	2360	2030	4390	53.8	46.2
2006	2480	2055	4535	54.7	45.3
2007	2520	2125	4645	54.3	45.7
2008	2515	2120	4635	54.3	45.7
2009	2585	2110	4695	55.1	44.9
2010	2800	2360	5160	54.3	45.7
2011	2890	2520	5410	53.4	46.6
2012	3110	2610	5720	54.4	45.6
2013	3135	2630	5765	54.4	45.6
2014	3110	2645	5755	54.0	46.0

Based on the higher figure of 51.3% in Table 11, the proportion of boys in the 'looked-after' children population at the all Wales level is between 2.1% and 3.8% higher than the percentage of boys in the Welsh child population 0-17 years. Correspondingly, the proportion of girls who are 'looked-after' is lower than in the child population as a whole.

5.7 CHILDREN 'LOOKED AFTER' BY ETHNICITY

Table 12: Number of children in the Wales 'looked-after' population by ethnicity

	White	Mixed	Asian or Asian British	Black or Black British	Other ethnic group	Unknown	Total LAC
2003	3,505	120	10	25	30	505	4,195
2004	3,750	120	20	30	35	365	4,320
2005	3,810	115	20	30	50	360	4,390
2006	3,910	115	20	30	45	405	4,535
2007	4,030	115	25	40	40	395	4,645
2008	4,090	120	30	35	40	315	4,635
2009	4,330	150	45	35	70	60	4,695
2010	4,825	145	55	45	65	25	5,160
2011	5,060	155	50	40	50	55	5,410
2012	5,300	175	55	45	55	90	5,720
2013	5,325	160	50	50	50	135	5,765
2014	5,250	175	65	45	50	170	5,755

The table above provides a break down at the all Wales level of the ethnicity of children and young people in the 'looked-after' system during the period 2003-2014. The table clearly illustrates that White children and young people make up the largest group within the Wales 'looked-after' population. Of the children that have been identified as having a known ethnicity other than White (i.e. not coded as unknown), the next largest category are those children of mixed racial backgrounds. The numbers of children who have been categorised as Unknown in the SSDA903 has varied dramatically in the period being considered, from a low of 25 cases in 2010 to a high of 505 cases in 2003. The changes in number between years, is likely to be explained by variability in the collection of this data by local authorities at the point where a child becomes 'looked-after'.

Table 13: Percentage of children 'looked-after' in Wales by ethnicity 2003-2014 (inc. Unknown cases)

	White	Mixed	Asian or Asian British	Black or Black British	Other ethnic group	Unknown	Total LAC
2003	83.55	2.86	0.24	0.60	0.72	12.04	100
2004	86.81	2.78	0.46	0.69	0.81	8.45	100
2005	86.79	2.62	0.46	0.68	1.14	8.20	100
2006	86.22	2.54	0.44	0.66	0.99	8.93	100
2007	86.76	2.48	0.54	0.86	0.86	8.50	100
2008	88.24	2.59	0.65	0.76	0.86	6.80	100
2009	92.23	3.19	0.96	0.75	1.49	1.28	100
2010	93.51	2.81	1.07	0.87	1.26	0.48	100
2011	93.53	2.87	0.92	0.74	0.92	1.02	100
2012	92.66	3.06	0.96	0.79	0.96	1.57	100
2013	92.37	2.78	0.87	0.87	0.87	2.34	100
2014	91.23	3.04	1.13	0.78	0.87	2.95	100

Table 14: Percentage of children 'looked-after' in Wales by ethnicity (valid percentage, excluding Unknown cases)

	White	Mixed	Asian or Asian British	Black or Black British	Other ethnic group	Total LAC
2003	94.99	3.25	0.27	0.68	0.81	100.00
2004	94.82	3.03	0.51	0.76	0.88	100.00
2005	94.54	2.85	0.50	0.74	1.24	99.88
2006	94.67	2.78	0.48	0.73	1.09	99.76
2007	94.82	2.71	0.59	0.94	0.94	100.00
2008	94.68	2.78	0.69	0.81	0.93	99.88
2009	93.42	3.24	0.97	0.76	1.51	99.89
2010	93.96	2.82	1.07	0.88	1.27	100.00
2011	94.49	2.89	0.93	0.75	0.93	100.00
2012	94.14	3.11	0.98	0.80	0.98	100.00
2013	94.58	2.84	0.89	0.89	0.89	100.09
2014	94.00	3.13	1.16	0.81	0.90	100.00

In order to make a comparison between the composition of the 'looked-after' population outlined above and the child population, data from the 2011 population census were used. These data represent the most robust available for the time period

under consideration. In order to make a comparison therefore the ethnicity of children 'looked-after' on 31st March 2011 were compared to the child population.

Table 15: comparison of ethnic composition of 'look-after' and child populations

	White	Mixed	Asian	Black	Other
'looked-after children 31st March 2011	94.5	2.9	0.9	0.8	1.3
2011 population census	93.4	2.1	3.0	0.7	0.7

The data show an overrepresentation of 'looked-after' mixed heritage and White children relative to what would be expected based on their prevalence in the child population. Asian children are under-represented, whilst the percentage of Black children is close to that in the child population. However, as Franzen et al. (2008) suggested, in considering these basic figures it is necessary to be wary of what conclusions are drawn regarding the presence of ethnic minorities in child welfare populations if the figures are presented without adjustments for socio-economic background. The intersection between deprivation and ethnicity is an important one and one that would have been explored further if the child-level ethnicity data had been available for this study.

5.8 LEGAL STATUS

The 'snapshot' 'looked-after' children census data that is publicly available includes some information on the legal basis on which children are in care on the 31st March of each year. The graph below shows the legal status of children in care on that date at the end of each collection year covered by the data. In order to ensure the data is non-disclosive, but also includes sufficient numbers to make the data meaningful, the Welsh Government has grouped the data into four categories. These categories are;

those children 'looked-after' under a Care Order; those children placed under voluntary accommodation (Section 20, Children Act 1989); Remand, detained or other compulsory order; and Other legal status. The majority of children and young people 'looked-after' are placed under only two of these categories, Care Orders and voluntary accommodation, so it is these that will be focused upon. Figure 11 shows the percentage of children placed under each of the four groups at the end of each collection year.

Figure 11: Percentage of children 'looked-after' on 31st March (2009 – 2014) by legal status
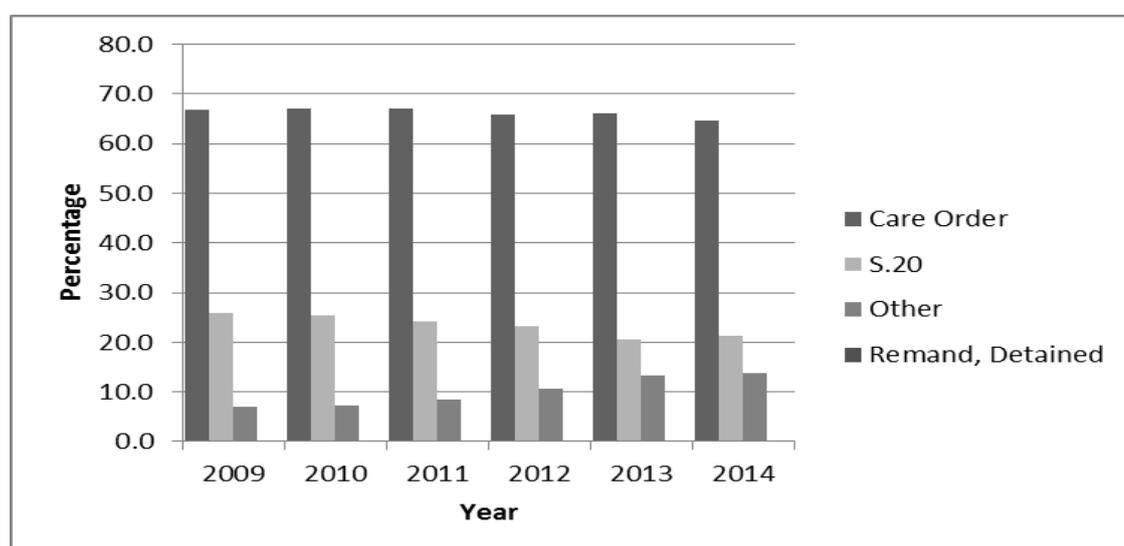
Those children who are remanded to the care of the local authority account for less than 0.5% in all of the six collection years and are as a result not visible in the figure. The largest group are those children placed under a care order granted through the courts. This group of children account of approximately two thirds (64.7% - 67.2%) of all children 'looked-after' on each of the census days. The period covered by the data has seen a decline in the percentage of children placed under a voluntary agreement (Section 20). In March 2009 over a quarter of children in care on the 31st March were

there on the basis of a Section 20 placement, by the same day in 2014 this had reduced to 21.4%. This reduction has not been linear however, as the final collection year saw a slight increase from the previous year from 20.5% to 21.4%. The final group, those children whose legal status is categorised as 'Other' is the group that has seen the biggest variation with the percentage doubling over the period, from 6.9% in 2009 to 13.8% in 2014.

5.9 DEPRIVATION AND SOCIAL INEQUALITY

One of the aims of the child-level analysis will be to explore the role of deprivation and social inequalities on rates of children becoming 'looked-after' at geographies smaller than local authority areas. This analysis will build upon that undertaken by Bywaters (2016a) who explored the relationship between deprivation measures at the Lower Super Output Area (LSOA) level and rates of children entering public care or being subject to child protection procedures in English local authorities in the West Midlands. This analysis was undertaken using the Index of Multiple Deprivation (IMD) for England as the measure of social inequality.

In Wales there are both, the Welsh Index of Multiple Deprivation (WIMD) and the Child Index WIMD, the Child Index consisting of seven domains or indicators of deprivation focused on the child population and factors which may affect them, derived from the WIMD. Either of these measures could be used to undertake this strand of the child-level analysis. The Index of Multiple Deprivation produced in England and the WIMD are not constructed from the same measures and domains and they are therefore not directly comparable. Therefore, from that perspective there is not an imperative to use WIMD over the Child Index to allow England/Wales

comparison. At the time of this analysis the WIMD data had recently been updated, whilst the Child Index WIMD had yet to be updated, making the 2014 WIMD the source of the most up to date data for Wales.

The intention in undertaking this initial analysis of aggregate level data is not only to provide a context for the child-level analysis that makes up the majority of the study, but also to inform decisions about how that child-level analysis is undertaken. One of those decisions is whether to; use the WIMD; use the Child Index WIMD; undertake the analysis using both; or choose a complete different measure of social inequality for this aspect of the analysis.

In order to undertake this initial exploration of what relationship exists between deprivation and rates of children 'looked-after' at the local authority level in Wales, an analysis was undertaken using two variables, mean 'looked-after' children rates per 10,000 (2008-2014) and deprivation at the LSOA level.   In order to clearly identify any relationship between social inequality and 'looked-after' children rates this analysis was done using the proportion (%) of LSOA within an authority which are in the 10% most deprived in Wales based on both WIMD (2014) and Child Index WIMD (2011) as the deprivation measure. The percentage of LSOA at a given level of deprivation used in this analysis is the recognised method of undertaking such comparison at a local authority level in Wales.   Whilst some trial analysis was undertaken using the proportion of the 10%, 20% and 30% most deprived LSOA in Wales in each local authority the use of the 10% most deprived was settled upon.   In terms of this aggregate analysis this was used because of the intention to try and broadly identify

the impact of the presence or absence of those poorest families in Wales on the 'looked-after' children's population of each authority.

The scatterplots below (Figure 12 and Figure 13) show the mean rates per 10,000 children 'looked-after' for each Welsh local authority plotted against the proportion of LSOA in the 10% most deprived based on both the WIMD (2014) and Child Index WIMD (2011). The scatterplots have been produced with a trend line, which illustrates the mean average rate for a given proportion of deprived LSOA based on the 'observed' mean rates in Wales.

Figure 12: Mean rates per 10,000 children 'looked-after' (2008-2014) relative to the proportion of LSOA in 10% most deprived (WIMD 2014)
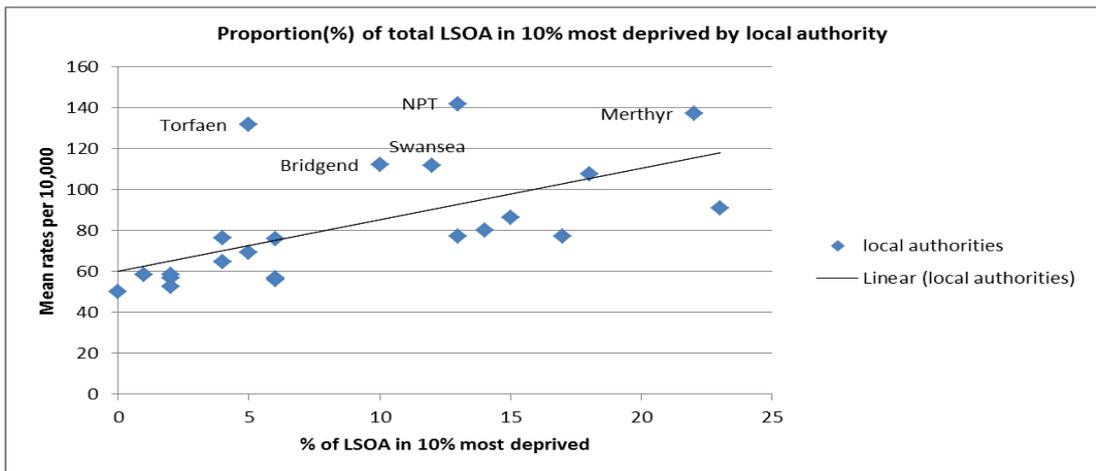
Figure 13: Mean rates per 10,000 children 'looked-after' (2008-2014) relative to the proportion of LSOA in 10% most deprived (Child Index WIMD 2011)
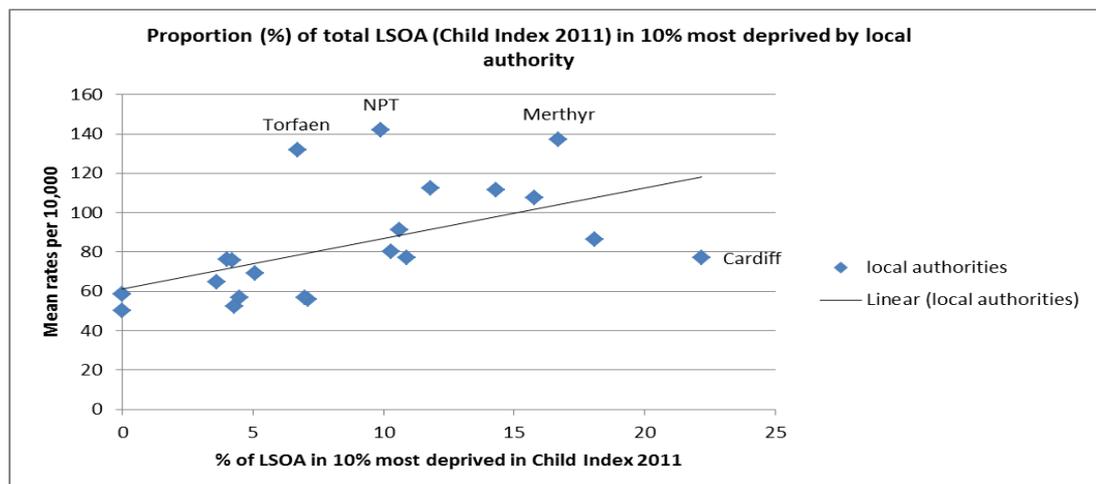
Both scatterplots appear to show a relationship between levels of deprivation within a local authority and their 'looked-after' children rates. As the proportion of LSOA within the 10% most deprived within local authorities' increases it appears that broadly the rates of children in public care in those authorities' also increases. The scatterplot does however highlight some authorities, for example Torfaen and Neath Port Talbot, which have 'observed' rates per 10,000 that appear to be substantially higher than what would be 'expected' based on the proportion of LSOA in those authorities in the 10% most deprived. Equally, in the case of the scatterplot for Child Index WIMD (Figure 13), given that it has the highest proportion of LSOA in the 10% most deprived using this measure the mean rate for Cardiff would appear to be lower than would be expected. The mean 'looked-after' children rate for this authority would appear to be similar to the observed rates for authorities with a proportion of deprived LSOA approximately half that of Cardiff.

In order to test whether the relationship between rates and levels of deprivation is statistically significant and the extent to which the proportion of LSOA within local authorities explains variations in rates between those authorities, linear regressions were undertaken using both WIMD and Child Index WIMD. In both cases the relationship between rates and proportion of LSOA in the 10% most deprived was found to be statistically significant with both having p-values <.01. The regression did however identify a difference between WIMD and Child Index WIMD in the extent to which they explained the variation in rates of children 'looked-after' between local authorities. Using the adjusted R Square produced by the regression (adjusted to take account of the small number of observations included in the model), Child Index WIMD explains 26.9% of the variation in rates between authorities, whereas WIMD

explains 34.2%. There are clearly a number of aspects of the results of this simple regression that are worthy of note. Firstly, at a local authority level, using aggregate data, it would appear that the regression using the Welsh Index of Multiple Deprivation is able to explain a larger proportion of the variation in 'looked-after' children rates between authorities than the Child Index WIMD. This would arguably appear to be an unexpected result. However, it could be argued that what this is demonstrating is that the material circumstances of a family as a whole, and in particular those of a child's parents, are perhaps better predictors of a child entering care than those indicators contained within the Child Index, which perhaps more closely reflect outcomes for children such as health and well-being and educational attainment. The second factor to note is that dependent on which deprivation measure is used, this single variable appears to explain between just over a quarter (Child Index WIMD) and a third (WIMD) of the variation in rates between authorities. That would appear to be a not insubstantial amount of explanatory power for a single variable. However, the flipside of this is that it also suggests that whilst 34% of the variation can be explained by the proportion of LSOA in the 10% most deprived, in the case of WIMD 66% of the variation is explained by other as yet unidentified variables. Within the context of the child-level analysis to be undertaken in later chapters this would suggest that social inequality is potentially a significant factor in rate variation, but in conjunction with other factors.

5.10 LOCAL AUTHORITY SPENDING

One area which is deserving of some consideration in looking at overall patterns at the country and local authority level is that of Children's Services spend. It is worth acknowledging that to do such analysis in any depth requires a level of knowledge of local authority finances and accountancy not possessed by the researcher. However, the issue of resources is such an important one that it was felt that some level of tentative analysis was necessary to contextualise the research. The analysis outlined in this section uses total actual revenue spend as reported in the Revenue Outturn (RO) suite of forms that are completed by Welsh local authorities, Police, Fire and National Park Authorities. The figures used are those summarised from this return in the publicly available data on Social Services spend (StatsWales, 2014d).

Figure 14 shows the percentage of overall Social Services spend in Wales that is accounted for by spend on Children's Services. What the graph shows is a year on year increase in the percentage of the total spend which is accounted for by local authority revenue spend on services for children, young people and their families. Across the years represented in the graph this increase was over 4%. Whilst this perhaps doesn't sound substantial it is an increase in spend on Children's Services of £151,032,124 in six years.

Figure 14: Children's Services spend as a percentage of overall Social Services spend
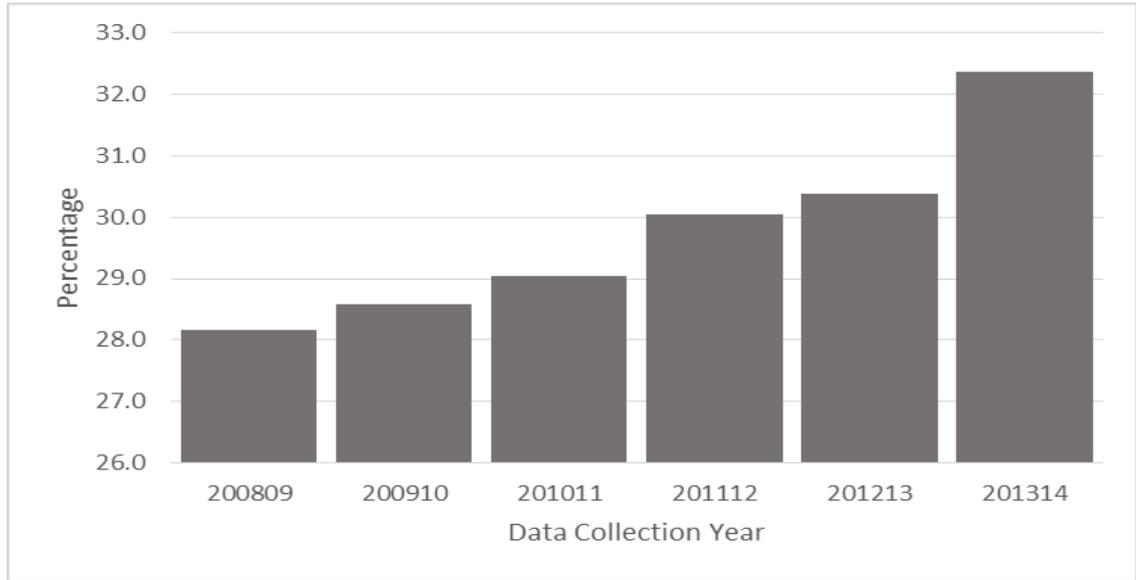
To take this further, another area of comparison across years is provided by consideration of Children's Services spend at the Wales level per head of the child population (0-17 years). The results of the calculation of these figures for the period covered by the child level data analysis are presented in figure 15 below.

Figure 15: Children's Services spend per head of the child population (2008-2014)

	200809	200910	201011	201112	201213	201314
Spend (£) per child	594	637	670	706	740	843
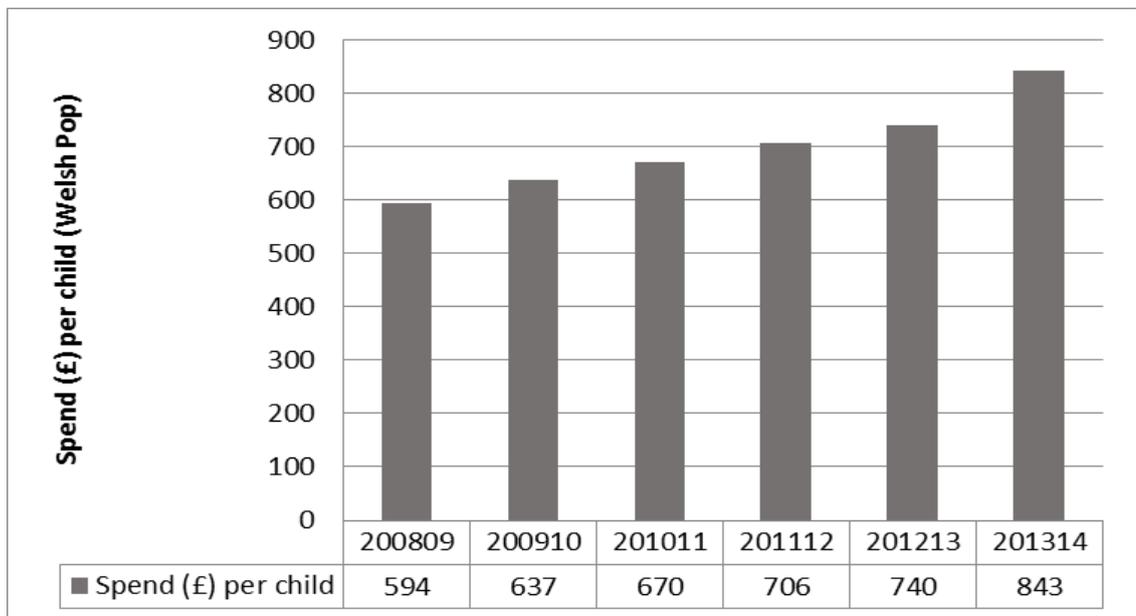
What the graph shows is a year on year increase across the six collection years of spend data. This would perhaps appear to be counter-intuitive to the narrative that predominated at a UK level around austerity and its effects on public service spending.

There may be a number of explanations for this picture. Firstly, is an issue that will be returned to throughout the thesis, the fact that the child population in Wales had been reducing over the period (in contrast to in England). Therefore, even if Children's Services spend had remained static during the period spend per head would have increased i.e. the same amount of money overall spent on fewer children. There is also an argument that devolution has some bearing on this picture, especially when a comparison is made to England. I would argue that Welsh policy and spending decisions have been different to those made by the UK Government for England and that spending on Health and Social Care in Wales has been protected in a way that it wasn't on the other side of the border (Bywaters and Webb, 2018; Welsh Governance Centre, 2017). As the Welsh Governance Centre report highlights

> "The Welsh Government responded to cuts in the Welsh resource block grant by, broadly, 'protecting' funds for schools, social services (by way of local government) and, after October 2013, spending on the NHS. Consequently, these protected service areas now account for a noticeably larger proportion of the total budget" (Welsh Governance Centre, 2017, p.19).

But, there may also be another factor which needs to be included.

Figure 16: Comparison of spend per head (England / Wales) 2010/11 and 2014/15 grouped by overall local authority deprivation

	Wales 2010/11	Wales 2014/15	England 2010/11	England 2014/15
■ high	743	1053	1279	1017
■ medium	687	871	996	885
■ low	574	708	708	655
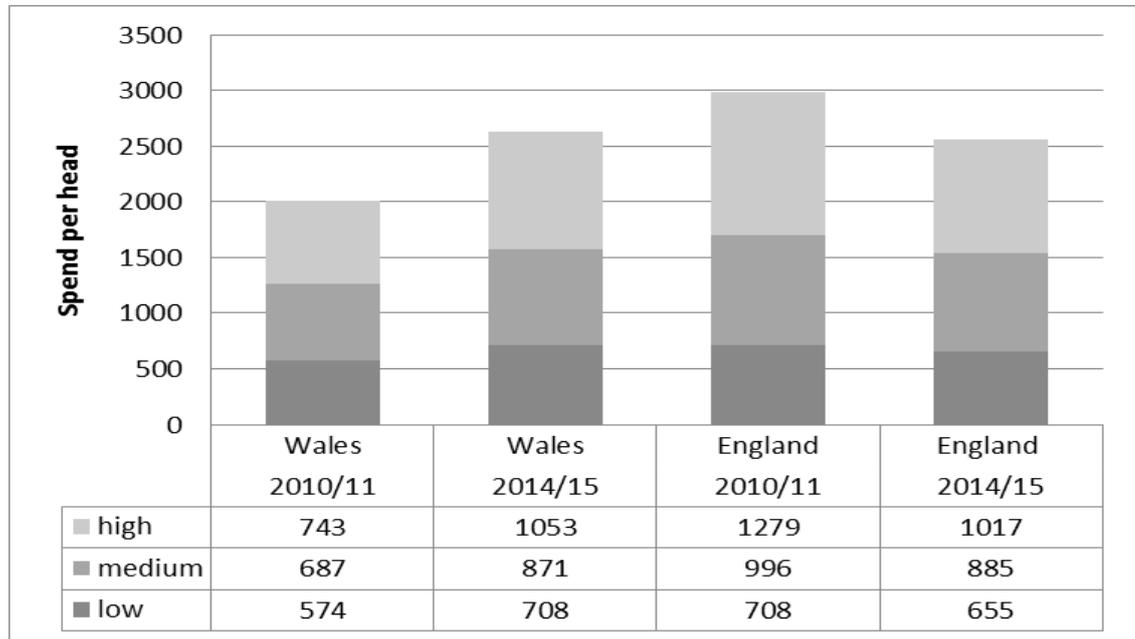
Figure 16 shows figures drawn from analysis undertaken for the Child Welfare Inequalities Project on Children's Services spend (Elliott and Scourfield, 2017; Bywaters et al., 2017). What it shows is local authority spending for two comparison financial years. It shows the local authorities split into three groups based on all authorities in each country grouped by their overall levels of deprivation. What is important to note for this section of the analysis is the differences between England and Wales. Whilst Welsh authority spend increased at all local authority deprivation levels, in England it reduced at all levels, but perhaps more importantly what the figures show is that when the Welsh spend in 2010/11 (the middle year of those used for the child level analysis for this study) is compared to that of England it is substantially lower at all levels. The base line of spending per head of the child population in Wales was therefore much lower to start with. Whilst austerity cuts have seen reductions in England and a level of protection of spending and other

factors in Wales have seen Children's Services spend increase, the net result of this is

that by 2014/15 each country was spending broadly the same on services.

5.11 DISCUSSION

CHILD DEATHS, THE MEDIA AND BLAME

Of the findings within this aggregate analysis chapter, perhaps one of the most clearly illustrated is the evidence of the so called 'Baby P effect' (CAFCASS, 2009; CAFCASS, 2012) on the numbers of children entering care over time at the country level. Whilst acknowledging that the rate of children becoming 'looked-after' in Wales was increasing prior to the death of Peter Connelly (unlike in England), a clear acceleration in rates of children entering care at the Wales level is visible in the data in the period from late 2008/early 2009 onwards, which mirrors that in England. This visible increase (see Figure 6) appears related to the period following the trial of those who killed Peter and the subsequent political and media fall out, including the publication of the Laming review and the sacking of the Director of Children's Services in Haringey, Sharon Shoesmith. What the data show is how sensitive the decision making of individual practitioners and institutions are to wider social and political factors (Hood et al. 2016).

It has been argued that child deaths that exercise both politicians and the media are becoming rarer (Pritchard and Williams, 2010) and the intense media report of such cases is as a result of their rarity (Elsley, 2010). However, during the period 2012/13 there were 69 child homicides (including Murder, Manslaughter and Infanticide) recorded by the Police in the UK. Whilst this number fluctuates year on year, this figure would suggest that during the period covered by this study, several hundred children died at the hands of another person (Jutte et al. 2014). In fact it has been suggested that as many as 3 children a week die as a consequence of abuse and neglect (NSPCC, 2014). Whilst such deaths are becoming more infrequent, they still

represent a sobering number of child deaths per year related to abuse and neglect. However, most receive little or no media coverage whilst a relatively small number of notorious child death cases have been extensively covered by the media. There has been a history of such high profile cases resulting from abuse and neglect in the last 40 years, including Maria Colwell, Jasmine Beckford, Tyra Henry, Victoria Climbie and perhaps most significantly for this study Peter Connelly, often referred to as 'Baby P'. Some of these cases have prompted changes to policy and legislation, such as the bringing into law of the Children Act 2004 in the wake of the Victoria Climbie case.

The way that child deaths are reported in the media has changed (Ayre, 2001). Once reported purely as crime stories focused on the trial and conviction of the perpetrators, cases where children have died at the hands of their parents or carers are now "inextricably linked with the failure of professionals" (Featherstone et al. 2014). The attribution of blame has become a source of public interest and of media focus. The death of Peter Connelly saw a media response which was extremely critical of the role of professionals, in particular social workers and Haringey council. The clearest illustration of this was the campaign run by The Sun newspaper which was aimed at getting those professionals involved in his case sacked. Increasingly over the last three decades, the media has contributed to a climate in which social workers are mistrusted, characterised as either, over-zealous child stealers or overly optimistic, too liberal and to reluctant to intervene. As Ayre (2001) observes, social workers are seen as "sometimes too weak, sometimes too strong, but never to be trusted" (p.890). This public perception of social work provides the backdrop for day to day social work practice in the field of child protection.

The initial increase in care proceedings identified by CAFCASS was driven by media and public pressure in the immediate aftermath of the Baby P case. From an ecological model perspective this is an example of something happening within what Bronfenbrenner described as the *macrosystem* that has an effect on children and their families. Unprecedented increases in S31 care order applications to courts were identified as early as the period between November 2008 and June 2009. That those increases were sustained is arguably the product of a range of other factors. As Ayre (2001) identifies, along with the public pillorying of those agencies and individual professionals involved in a case where there is a child death by the media, such cases in recent years have also been accompanied by public enquiry recommendations and central government guidance and legislation. Detailed and ever more prescriptive these are produced with the intention of making the system safer by limiting the scope of permitted action. The drive to attribute blame in such cases has also produced a climate of fear (Ayre, 2001) within social work. As Parton (1981) identifies when reflecting on the period following the Maria Colwell case, there was an ever present fear amongst social workers and local authorities at the time of having 'another Maria Colwell'(p.410) on their hands. Similarly, in the wake of the Connelly case practitioners and local authorities were equally focused on not having the next Peter Connelly. Such fear, combined with ever more risk averse policy and practice coming out of government and enquiries resulted in increasing numbers of children becoming 'looked-after'. In a questionnaire administered by the Local Government Association in 2009 in the wake of the Baby P case they identified a decline in respect for social workers; an increase in the numbers of workers leaving the profession; and difficulty in attracting new workers (Local Government Association, 2009). All of these coming at a time of mounting strain for children's services departments. These

findings are issues that persisted throughout the period covered by this study and continue to occupy the profession up to the present.

LOCAL AUTHORITIES WITH DIFFERENT TRAJECTORIES

Whilst the overall trend of increasing numbers of children becoming 'looked-after' in Wales can clearly be seen in the data at the country level, what has happened at a local authority level during the same period is very different. Figure 7, whilst perhaps a poor example of presenting data is included because it provides a visual representation of the messiness of what is a complex picture and changing picture. It shows that the trajectories of the 'looked-after' children populations of individual local authorities in Wales over time are not uniform. What is more clearly shown by Table 6 is that whilst some have shown a pattern of often substantial increase since 2009 others have not. Indeed some local authorities have bucked the overall trend and seen reduction during the period. This thesis aims to explore differences in rates between local authorities in Wales, but what is illustrated is that those differences change over time. This would suggest that whilst overarching factors such as media coverage of child deaths or levels of deprivation have an effect, there are potentially a number of factors at work at a local level that also contribute towards explaining differences in rates. The next two analysis chapters consider whether those differences in overall rates are attributable to other factors. In particular they will look at whether there are differences at a local authority level in the characteristics of children who are 'looked-after' and their placements and the impact of social inequality and poverty on rates of children becoming 'looked-after'.

CHAPTER 6

ROUTES IN AND OUT OF CARE

This analysis chapter will focus on children and young people at the point at which they started or ended 'periods' in care during the six years covered by the data. In a complex large scale dataset such as the SSDA903 the points at which children enter or leave the care system provides useful points at which to undertake analysis from a methodological point of view. More importantly, in addition to assisting in the task of managing and analysing a large dataset these two time points provide a valuable insight into both the care journeys of children and young people and also potential differences in those journeys between local authorities and over time.

As outlined in the Methods Chapter, this chapter will explore two questions, which are interrelated. Firstly, are there differences between local authorities and/or between years in the characteristics of children entering and leaving care? Secondly, is there a relationship between those differences and a local authority's overall rates of children 'looked-after'? It will therefore not look at those 4635 children and young people already in care on 1st April 2008. Children and young people whose placements ended after 1st April 2008 and who later then returned to care before March 2014 would be included in the analysis at the point of return.

Children included in the analysis were selected on the basis of the sampling strategy outlined in section 4.5 of the Methods chapter. To be able to accurately calculate rates per 10,000, the children selected were counted once at first entry or exit from care or within each of the six collection years, dependent on the analysis being undertaken. For some of the analyses the same sampling strategy was used for children who had experienced a second entry or exit from care in order to explore

whether there were differences in characteristics between first and second 'periods' in care.

In terms of entries to care left truncation of the data (section 4.10, Chapter 4) means that for most children it is not possible to say whether the first period in care counted in the data is the first time ever that a child has been 'looked-after'. A possible exception to this would be children who are under one year old within the collection year, who are unlikely to have experienced more than one period in care in less than 12 months of life. Based on this, the use of the term 'first period in care' will be used to mean the first period 'looked-after' within the data set (i.e. 2008-2014), rather than first time in care definitively unless otherwise stated.

During the six years covered by the data there were 16385 instances of children and young people (0 – 17 years) starting new periods in care in Wales. These new periods in care were experienced by a total of 10542 children and young people.

Table 16: The number of entries to the 'looked-after' system in Wales 2008 – 2014

Number of episodes per child	1	2	3	4	5	6+	Total
Number of children	6563	2776	802	247	97	75	10542
Percentage	62.3	26.3	7.6	2.3	0.9	0.5	100

Of the children who started a new period in care during the data collection period, just over 60% experienced just one entry to care. This would suggest that these children either had one period in care remaining 'looked-after' past March 2014, or that they entered care and subsequently left, not returning before the end of the data collection period. Of the 10542 children who had one period in care, 3979 went on to have one or more subsequent periods in care. Of those children who experienced the

most periods in care, 57 of the 10542 had 6 or more separate periods in care during the six years. These children experienced between 6 and 14 periods in care. Only one child experienced more than 13 individual stays in care. It is unclear whether this child has been inaccurately coded by the local authority and had for example received a package of regular short breaks, which should have been coded differently, or whether they had re-entered care that many times.

6.1 AGE AT ENTRY

Analysing the ages of children on their first entry to care, it is possible to compare the proportion of children of a particular age becoming 'looked-after' relative to the wider child population in Wales.

Figure 17: Comparison of the percentage of children becoming 'looked-after' for the first time to the Wales child population (0-17 years) by age
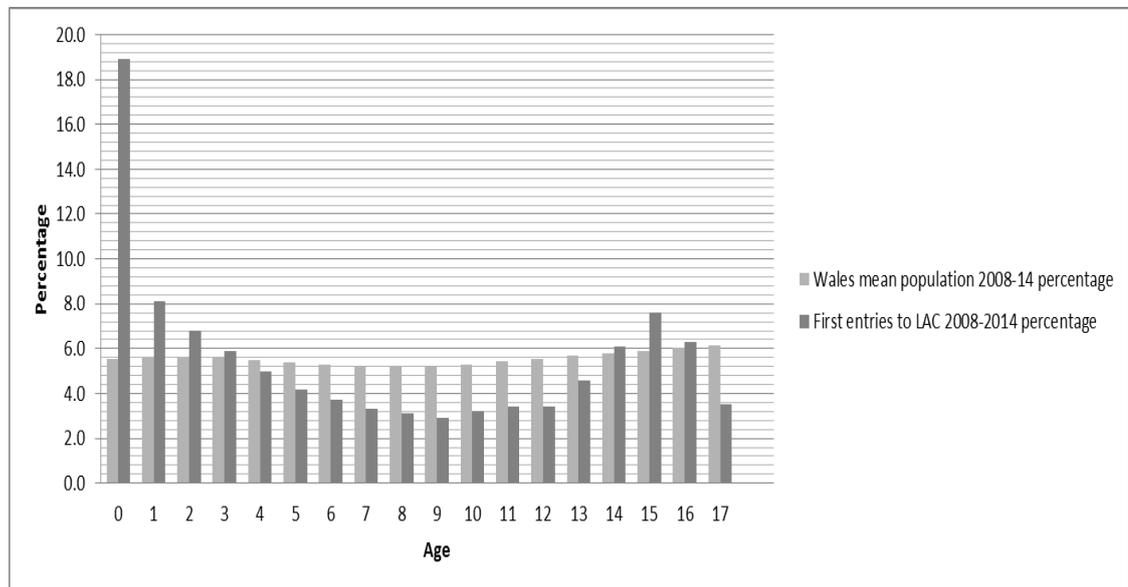
The graph above shows a comparison between the mean percentages of children of each age that make up the Welsh child population and the percentages of children of those ages entering the 'looked-after' system for the first time. The percentage of the Welsh population was calculated using the mean number of children of each age

(2008 – 2014) with that mean then used to derive a percentage of the 0 – 17 year old child population as a whole. The most striking finding illustrated by the graph is the percentage of children under 1 year old entering care, relative to what would be expected based on the proportion of children under 1 year old in the general child population. With 18.9% of children entering care for the first time in Wales being under one year old, the representation of children of this age in care is over three times what would be expected given that they make up only 5.5% of the child population as a whole.

The graph illustrates that children up to the age of 4 years old are also over-represented in terms of their entry to care, relative to what would be expected based on child population. The percentage declines as children get older until at 4 years of age the proportion of children of a particular age entering care is less than that of the child population as a whole. Children of every age thereafter remain under-represented in the 'looked-after' population relative to the child population, until the later teenage years when the proportion of young people aged between 14 – 16 years old is again higher than would be expected.

In order to undertake an analysis of changes between years in the age profile of children becoming 'looked-after' for the first time at the Wales level, rates per 10,000 were calculated using the number of children at each age (0-17 years) that had a first period in care during each of the six collection years (2008/9 to 2013/4) and the corresponding mid-year population estimates, of the number of children and young people (0-17 years) of each age for each year covered by the data collection (2008 – 2013).

Figure 18 shows the results of this analysis. The picture presented by the graph is a complex one. The graph clearly shows the increase over time in rates per 10,000 of children under one year old entering care. This group have experienced the biggest increase in rates, increasing from 72 children per 10,000 becoming 'looked-after' in 2008/9 to 106 per 10,000 in 2013/14. The increase in rates is not quite linear as rates for this age peaked in 2012/13 at 107 per 10,000. Children who had their first birthday in the year they first entered care also show an overall increase in rates over the six years, rising from 35 per 10,000 at the beginning of the period to 41 per 10,000 in 2013/14. Again this increase is not linear with rates for this age peaking at 43 per 10,000 in 2010/11. For two and three year olds, however the overall trend has been a downward one with both ages having lower rates of first entry at the end of the observation window than at the beginning. This overall trend in reducing rates of first entry to care over the period is repeated for 5 year olds, 9 year olds and young people aged 13-15 years. Young people aged 15 years old in the collection year in which they became 'looked-after' for the first time were the age that saw the biggest overall reduction in rates of entry to care with the rate per 10,000 reducing from 46 per 10,000 population to 26 per 10,000 by 2013/14. Young people aged 16 years in the year they became 'looked-after' saw a very small increase in rates over the period, whilst young people aged 17 years saw an overall increase in rates over the six years from 12 per 10,000 to 20 in 2013/14. Again, this increase was not linear as rates for this age peaked at 21 per 10,000 child population in 2012/13.

Figure 18: rates per 10,000 children at the Wales level becoming 'looked-after' for the first time, by age and collection year
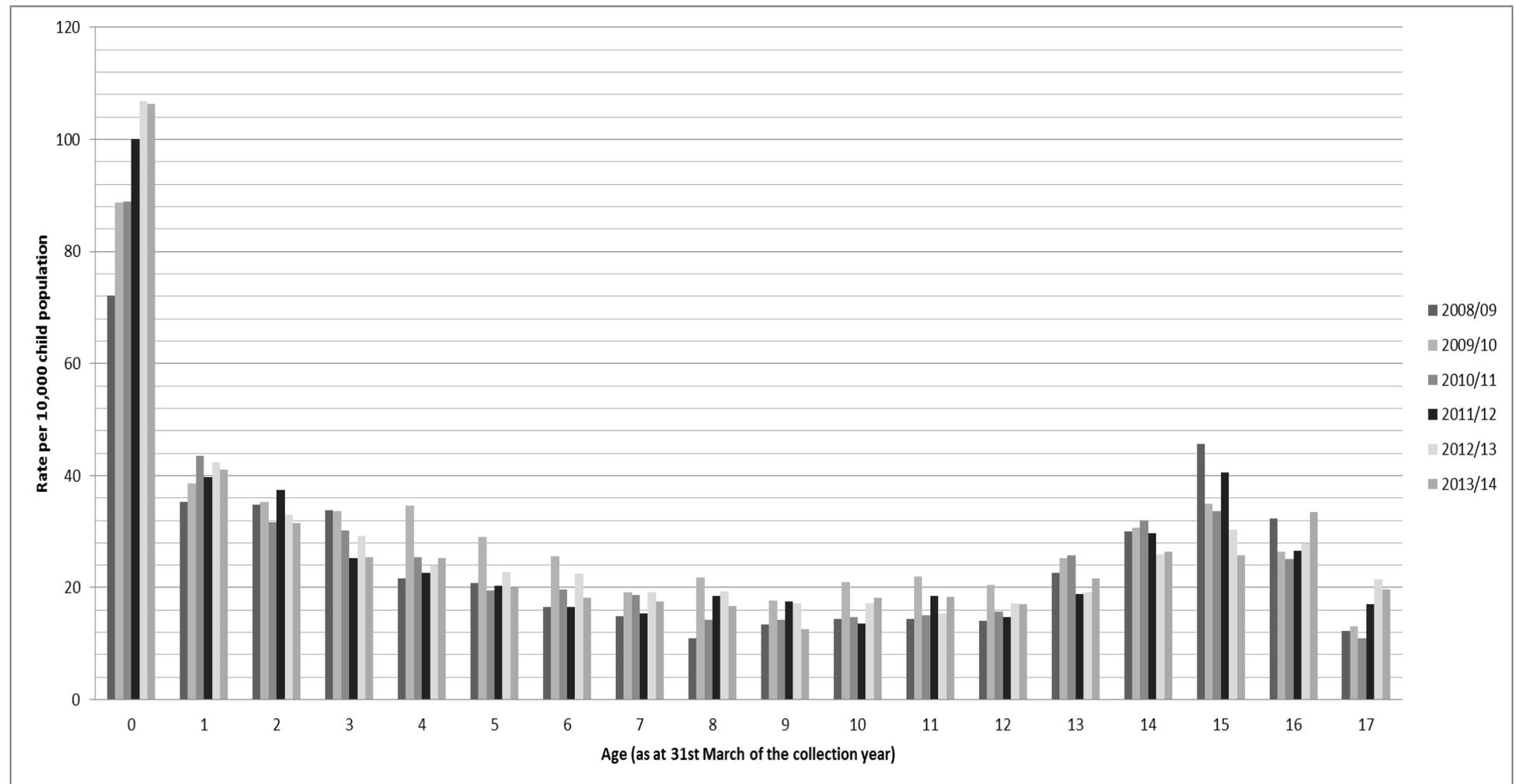
In order to further explore the relationships between age at entry to care and 'looked-after' children rates, the next section of the analysis has used age groups rather than individual ages for clarity. The four groupings used were defined based on some of the characteristics highlighted in the earlier analysis. Children aged from 0-4 years were identified as being over-represented relative to the child population in the numbers of children entering care for the first time. Young people aged 16-17 are highlighted within the analysis based on the graph above as a group of children whose first entries to care have consistently grown over the period covered by the data. Both of these age groupings were used as potentially being ones that may have interesting characteristics. The two other groupings used were split pragmatically at the age at which children transition between primary and secondary education.

In Figure 19, the numbers of children in each age group becoming 'looked-after' for the first time were converted into rates per 10,000. This was done using mid-year population estimates to derive mean numbers of children in each age group at the local authority level. The rates for each of the four age bands chosen have been presented in the format of a stacked bar chart with a column for each local authority, showing both variations between local authorities in the rates of children of each age group entering care and also variations in the overall rates of children entering a period of care for the first time during the six years.

The figure overleaf illustrates the often substantial differences between local authorities in both the overall rates of entry to public care and between children within the four age groups used.

Figure 19: rates per 10,000 children at the Local Authority level becoming 'looked-after' for the first time, by age band
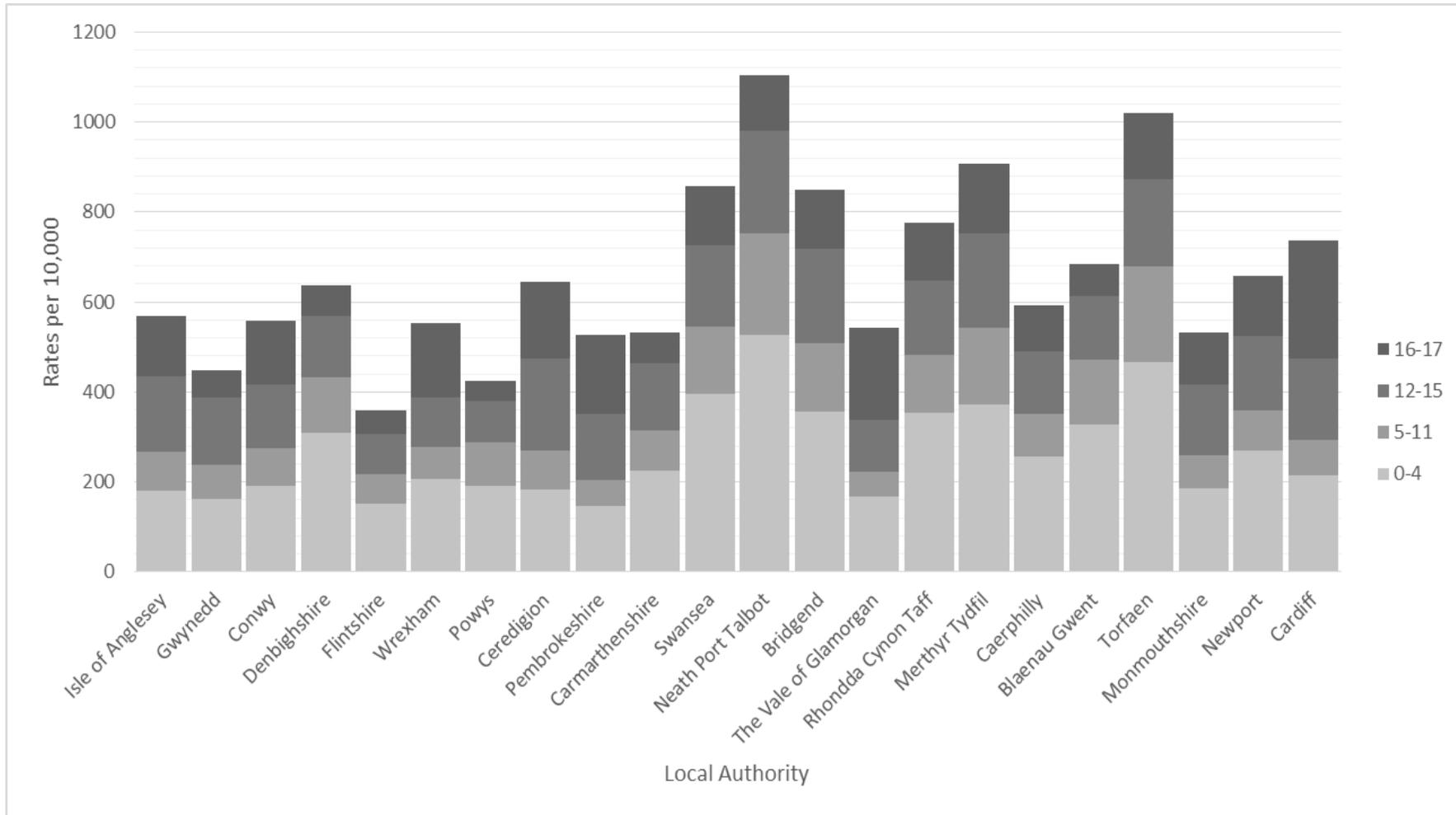
With regard to children aged from birth to 4 years of age, the rates per 10,000 of children becoming 'looked-after' for the first time varies from a rate of 146 per 10,000 (Pembrokeshire) to 527 (Neath Port Talbot). This would suggest that a child in Neath Port Talbot under 4 years of age was over 3.5 times more likely to become 'looked-after' than a child in Pembrokeshire.

At ages 5 to 11 years, Neath Port Talbot have the highest rate of enters to care for the first time with a rate of 224 per 10,000. The Vale of Glamorgan has the lowest rate within this age group with a rate of 54 per 10,000. Based on these rates a child in Neath Port Talbot is just over 4 times more likely to become 'looked-after' than a child in the same age group living in the Vale of Glamorgan.

Neath Port Talbot has a rate per 10,000 of children 'looked after' aged between 12 and 15 years of 229. For the same age group Flintshire has the lowest rate in Wales at 90 per 10,000. This equates to a more than doubling of the likelihood of becoming 'looked after' between these local authorities.

In the final age category, young people aged 16 and 17 years of age the local authority with the lowest rate per 10,000 is the Powys with a rate of 44. The highest is Cardiff with a rate of 263. A young person in Cardiff is therefore almost 6 times more likely to become 'looked-after' than a young person of the same age group living in Powys. As highlighted earlier, Cardiff is a dispersal area for asylum seeking children (Save the Children, 2005) and some of difference may be accounted for by children and young people placed in care as a consequence.

Figure 20: Percentage of children 'looked-after' for the first time by age group against mean 'looked-after' rates by local authority
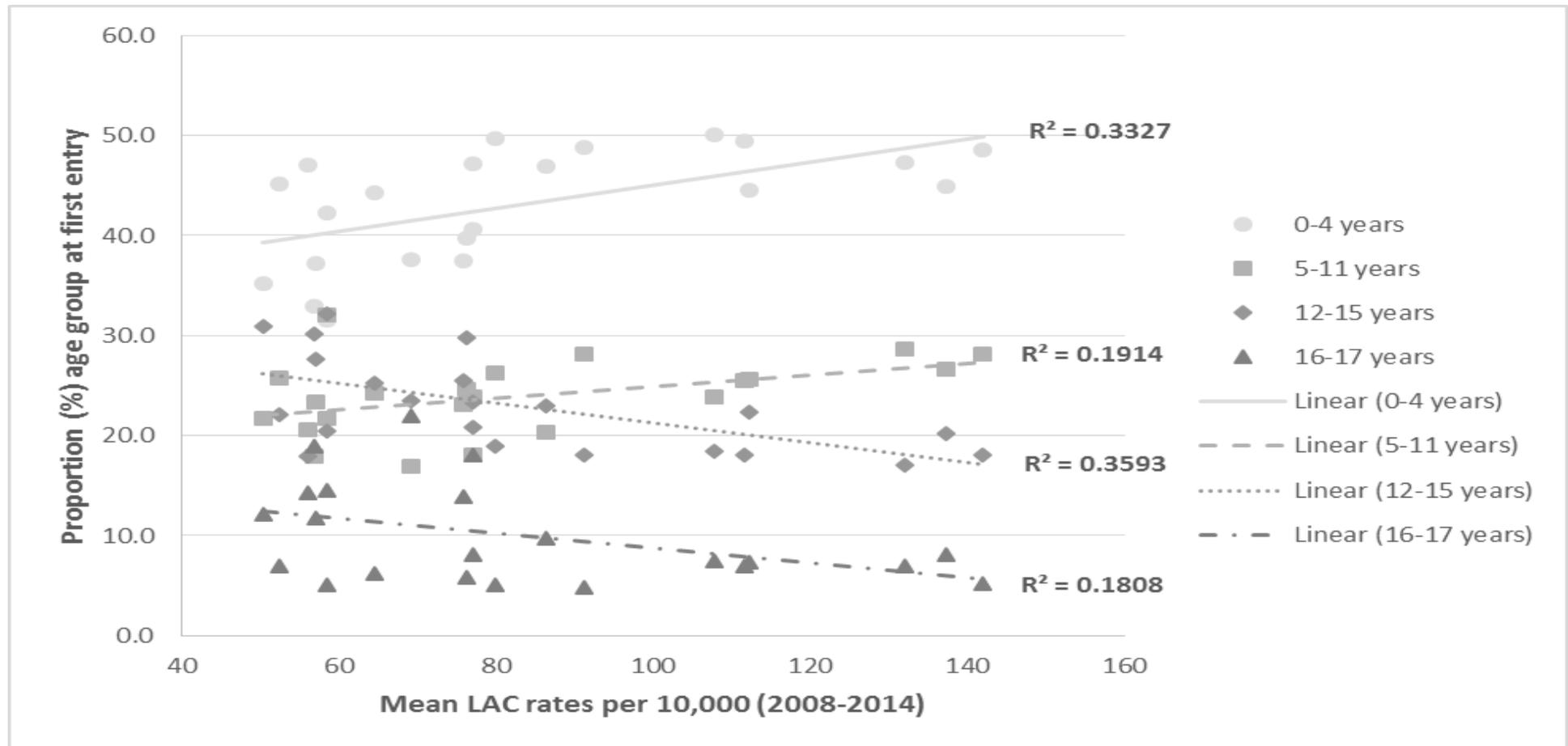
The rates per 10,000 for each age group, described earlier, clearly show that with population adjusted for there are often substantial differences in the likelihood of a child becoming 'looked after' at certain ages between local authorities. The intention of figure 20 is to establish whether there is a link between those differences and variations in overall rates. The graph plots the mean 'looked-after' children rate per 10,000 (for the period 2008-2014) against the percentage of the total number of children entering care for the first time in each local authority from each age group of children.

With regard to children aged from birth to 4 years of age, there appears to be a relationship between the proportion of children of this age group entering care for the first time within a local authority and that authority's overall rate of children 'looked-after'. An R^2 value of 0.332 suggests that variations in the percentage of children under 4 years of age within the total number of children entering care for the first time explains a third of the variation between local authorities in overall rates of children 'looked-after'.

A local authority's overall mean 'looked-after' children rate does not appear to be strongly correlated to the percentage of children aged between 5 and 11 years of age entering care for first time during the observation period. An R^2 value of 0.191 indicates that 19% of the variation in overall 'looked-after' children rates can be explained by variations in the percentage of children entering care from this age group.

In the case of children aged 12 to 15 years there appears to be a relatively strong negative correlation between the proportion of children in this age group becoming 'looked-after' and a local authorities overall rates of children in care with an R^2 value of .359 explaining almost 36% of the variation in rates between authorities. For young people aged 16 and 17 years there is a weaker negative correlation (R^2 .1808) between the proportion of the 'looked-after' population accounted for by this age group at first entry to care and overall 'looked-after' children rates.

The results of the scatterplot would seem to suggest that authorities with a higher percentage of children entering care for the first time as older children are, to an extent, likely to be those with a lower 'looked-after' children rate overall. Conversely, those authorities with a higher percentage of younger children becoming 'looked-after' for the first time, are likely to be those with higher rates of children in care overall. The argument for this hypothesis is strengthened if the age groups plotted against overall 'looked-after' children rates are further collapsed to two age groups; children aged 0-11 years and children and young people aged 12-17 years. The results of these analyses are provided in figure 21 The graph shows a positive correlation between the proportions of pre-school/ primary school aged children becoming 'looked-after' and local authorities' overall rates of children 'looked-after'. Mirroring this (as would be expected given that what is being plotted is percentages of the total number of children entering for the first time), the scatterplot also shows an equally strong (both trend-lines show an R^2 .3552) negative relationship between the proportion of young people of secondary school /older teenagers and overall rates. The statistical significance of the relationship between these two larger age groupings

was tested and was found to be significant at the 1% level (0 − 11 years p =.003,

Kendall's Tau =.003; 12 − 17 years p = .003, Kendall's Tau = .003)

Figure 21: Percentage of children 'looked-after' for the first time by age group against mean 'looked-after' rates by local authority
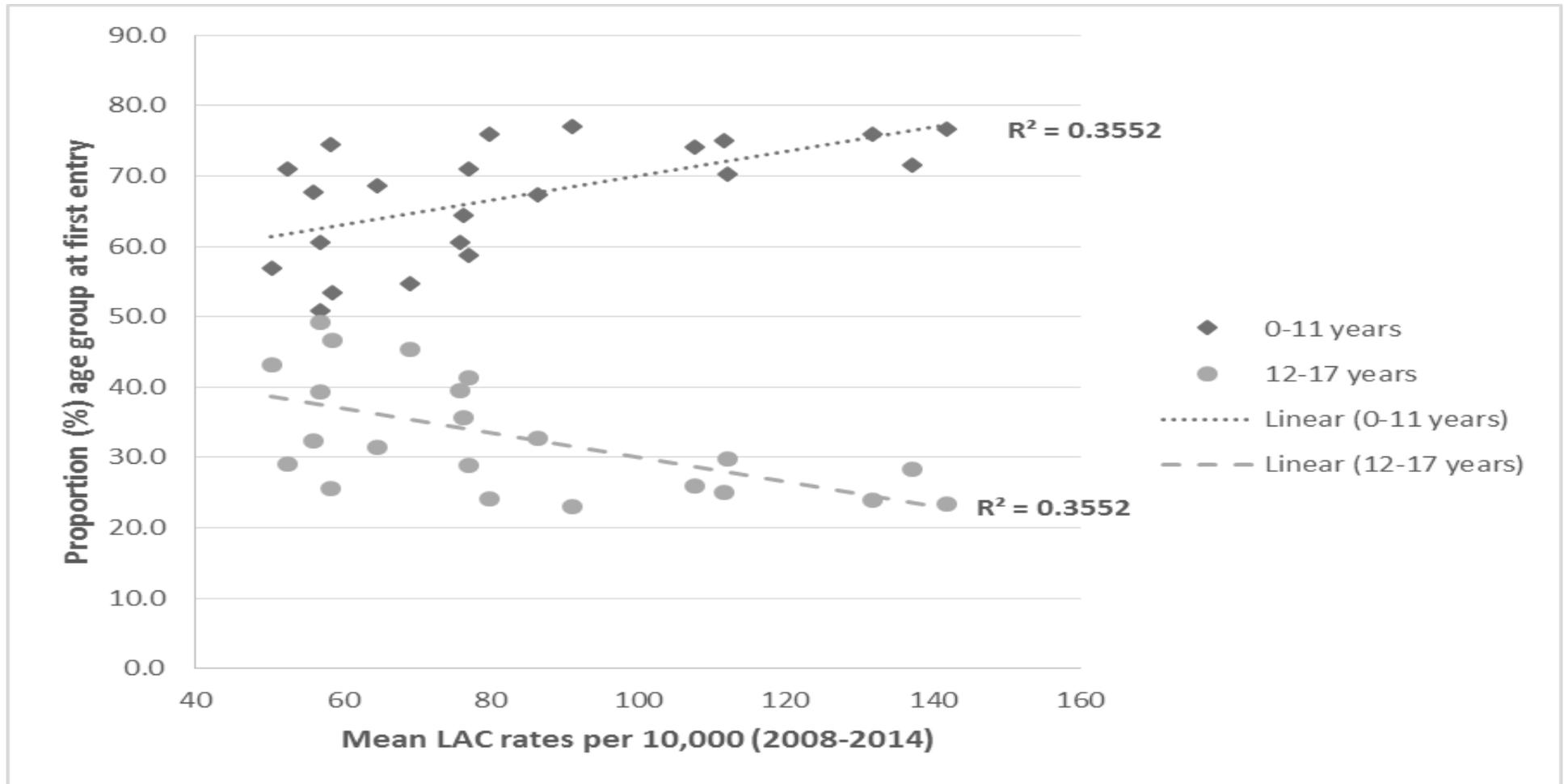
6.2 LEGAL STATUS AT ENTRY

The analysis of the legal basis on which children entered care during the period covered by the data was undertaken using information relating to both the first and second (where relevant) instances of a child entering care. This was done to explore whether there were marked differences in the legal basis on which children became 'looked-after' when they had already been in care once before during the observation window.

The data collected for the SSDA903 uses a total of 13 categories of legal status. One of these is planned regular short breaks (V1), which was removed, from the dataset before analysis was started (see section 4.4, Chapter 4). The remaining 12 categories were collapsed down to 6 using the following broader headings drawn from the Welsh Government guidance document (Welsh Government, 2014a) for the SSDA903 return:

- Care Orders (interim and full)

- Adoption (including both Freeing Orders and Placement Orders)

- Voluntary Accommodation

- Detained on child protection grounds

- Youth Justice

- Wardship

A more detailed description of each of these legal statuses is provided within Appendix 4.

PARENTAL RESPONSIBILITY

Central to an understanding of the legal basis on which children become 'looked-after' is an appreciation of the concept of Parental Responsibility often referred to as PR. Parental Responsibility as a concept has its basis in the Children Act 1989. The Act defines Parental Responsibility as 'all the rights, duties, powers, responsibilities and authority which by law a parent of a child has in relation to the child and his property' (section 3(1) Children Act 1989). The mother of a child automatically has Parental Responsibility, as will a child's father if he is married to the mother or he is named on the birth certificate. Outside of these situations, a father may apply to a court to be granted PR. The legal basis on which a child becomes 'looked-after' often involves either a parent(s) exercising that parental responsibility to request or agree to their child entering care in the case of voluntary accommodation; or local authorities or the courts undertaking proceedings that result in that parental responsibility being shared or removed from a parent(s) to enable a child to be placed in the care of the local authority.

Of the 10542 children who experienced first periods of care during the 6 years, the numbers that became 'looked-after' based on the six categories of legal status outlined above were as follows:

Table 17: Number of children at first entry to care by legal status

	Care Orders	Adoption	Voluntary	Detained CP	Youth Justice	Ward
Number	2115	15	7246	1054	104	*
Percentage	20.1%	0.1%	68.7%	10%	1%	0.1%

*suppressed as less than 10

Three of the categories – Adoption, Youth Justice and Wardship – account for less than 1.5% of the total number of children and young people entering care for the first time during the observation period. The small number of adoption cases is arguably explained by the fact that this is legal status at first entry to care. For most children a plan for adoption would develop during their time in care, rather than being the plan at first admission. The possible exception to this would arguably be babies given up for adoption at birth. Given the low numbers in three of the categories, it was decided to focus on the three categories, which account for the majority of cases – Care Orders, Voluntary Accommodation and children detained on Child Protection grounds in local authority accommodation.

Of the local authorities in Wales, Merthyr Tydfil had the highest rate per 10,000 of children and young people entering care as a result of a care order with a rate of 70 per 10,000. Powys and Pembrokeshire had the lowest rate with 18 per 10,000. Based on these figures, a child living in Merthyr Tydfil is on average almost 4 times (3.88) more likely to enter care for the first time on this legal basis than their peers in Powys or Pembrokeshire.

In terms of children becoming 'looked-after' through a voluntary agreement under Section 20 of the Children Act 1989 (Children Act 1989), the authority with the highest rate is Neath Port Talbot with a rate of 218 per 10,000 child population. Flintshire has the lowest rate of children entering care through this legal route with a rate of 49 per 10,000. This represents a variation between authorities of over 4 times in the likelihood of becoming 'looked-after' under a voluntary arrangement.

With regard to children and young people who enter care as a result of being detained on child protection grounds, primarily through the use of Emergency Protection Orders (EPO) or Police protection, the authority with the lowest rate at first entry to care is the Vale of Glamorgan with a rate of 2 children per 10,000 child population. Newport has the highest rate with 26 children per 10,000 child population. This means that a child in Newport is on average 13 times more likely to enter public care as a result of an emergency order than a child living in the Vale of Glamorgan. This would seem to represent a significant difference in local practice, mirroring variations between local authorities in their use found by Masson et al. 2008.

Figure 22: Rate per 10,000 of children becoming 'looked-after' for the first time through voluntary accommodation or a care order
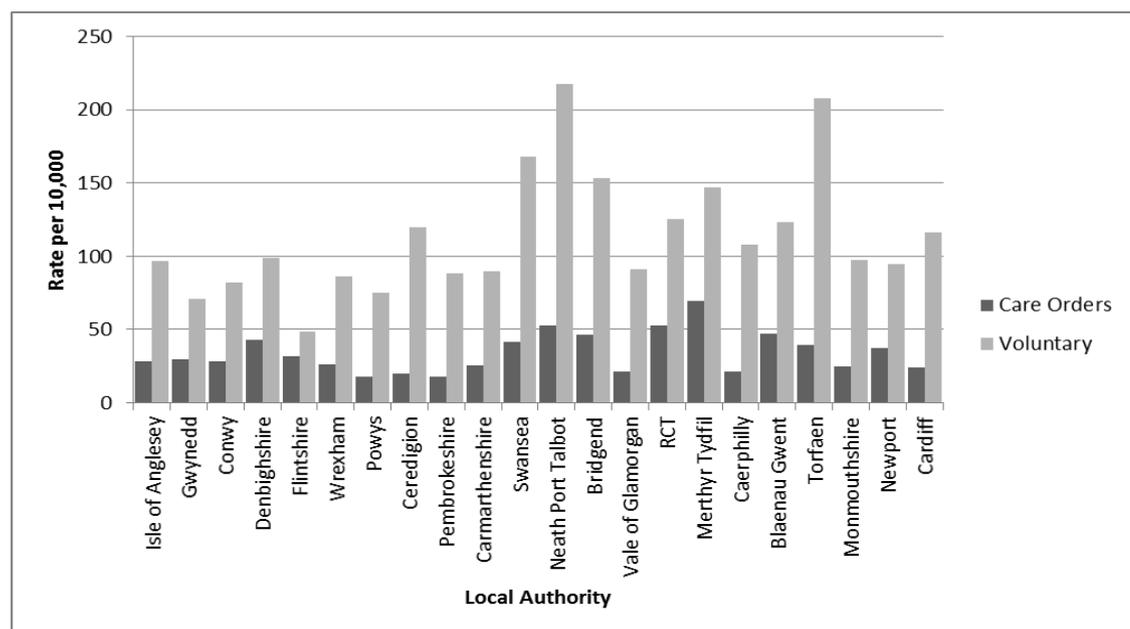
In order to identify whether there is a relationship between the differences in the proportion of children becoming 'looked-after' via different legal routes at first entry to care and variations in overall rates, the percentage of children entering care under the three main legal statuses identified (voluntary accommodation, care orders, detained on child protection grounds) were plotted against each authority's mean

overall 'looked-after' children rate. There appears to be no meaningful level of relationship between either the percentage of children becoming 'looked-after' for the first time as a result of a care order (R^2=0.0109), or through voluntary accommodation (R^2=0.0041), and an authority's overall 'looked-after' children rates, with the differences in the percentage of children becoming 'looked-after' as a result of a care order only explaining 1% of the variation in overall rates. Although not statistically of significance, there does however appear to be a very small inverse correlation between the proportion of children entering care as a result of being detained on child protection grounds and an authority's overall rates per 10,000 of children 'looked-after'. This correlation whilst very small, explaining only 5% of variance between authorities, is nonetheless interesting. This would seem to suggest that to a limited extent those authorities with lower overall rates of 'looked-after' children have a higher percentage of children entering care as the result of an emergency admission resulting from the exercising of a legal order such as an Emergency Protection Order (EPO) or Police Protection and that this proportion declines as overall rates increase.

6.3 CHANGES TO LEGAL BASIS FOR BECOMING 'LOOKED-AFTER' ON SECOND ENTRY TO CARE

Of the 10542 children who began periods in care during the observation window, 3979 experienced a further one or more periods of being 'looked-after'. As this is a substantial number it would seem worthwhile to explore whether the nature of the legal basis for children becoming 'looked-after' for a second time changes from that of their initial period in care. For example, is there proportionally an increase in the numbers of children whose entry to care is mandated by the courts rather than as a

result of a voluntary agreement with parents when they come back into care for a second time?

A child in Merthyr Tydfil (45 children per 10,000) on entering care for a second time is over 6 times more likely to become 'looked-after' on the basis of a care order than a child in Ceredigion (7 children per 10,000). The variation in rates between these authorities shows an increase in likelihood of entering care by this legal route from 4 times at first entry to over 6 times for those children becoming 'looked-after' for a second time.

In terms of children entering care for a second time on the basis of a voluntary agreement with parents, variation in rates between first and second entry are much smaller. On first entry the variation in rates per 10,000 between authorities was 4 times. On second entry to care that variation in rates has increased to only 5.2 times, with Neath Port Talbot having a rate of 99 children per 10,000 and Flintshire having a rate of 19.

The most substantial change between first and second entry is seen in relation to children entering care as a consequence of being detained on child protection grounds. In terms of children entering care for a second time on this legal basis, a number of authorities (Ceredigion, Bridgend, Vale of Glamorgan, and Monmouthshire) had rates of less than 1 in 10,000 of the child population. Those authorities with the highest rates (Isle of Anglesey, Conwy, Denbighshire and Torfaen) had rates of only 3 children per 10,000. Even if some of the lowest authorities brought in no children via this legal route and therefore had an actual rate of 0 this represents a maximum

difference in rates of three times between the highest and the lowest. This would appear to be in stark contrast to the rates at first entry where the authority with the highest rate had a rate which was 13 times that of the lowest.

As with the previous section on legal status on first entry to care, in order to identify whether there is a relationship between the differences in the numbers of children becoming 'looked-after' for a second time via different legal routes and variations in overall rates, the percentage of children entering care under the three main legal statuses identified has been plotted against each authority's mean overall 'looked-after' children rate. However, as with first entries there appears to be no statistically significant relationship between these two factors. The relationships present between the three legal routes considered and overall 'looked-after' children's rates only explained between 3-5% of variation.

6.4 CATEGORY OF NEED AT ENTRY

A category of need is provided within the SSDA903 for each period in care. The category of need code records the main reason for a child becoming 'looked-after' at the time a particular period in care began. The code recorded at the start of a period of being 'looked-after' will remain the same for as long as a period care continues, even where that period lasts for several years (Welsh Government, 2014a) The variable consists of nine categories of need (coded N1-N9), these are:

- Abuse and neglect (N1)

- Disability (N2)

- Parental illness and disability (N3)

- Family in acute stress (N4)

- Family dysfunction (N5)

- Socially unacceptable behaviour (N6)

- Low income (N7)

- Absent parenting (including children given up for adoption)(N8)

- Adoption disruption (N9)

(Welsh Government, 2014a, p.26)

There are limitations to using a single category of need, which are discussed in the Methods chapter (see Section 4.12, Chapter 4), but in the context of this administrative data set it provides the best available indicator of the reason for a child becoming 'looked-after'.

Of the 10542 children who experienced first periods of care, the numbers that became 'looked-after' based on the categories of need outlined are as follows:

Table 18: Number of children at first entry to care by category of need

	N1	**N2**	**N3**	**N4**	**N5**	**N6**	**N7**	**N8**	**N9**	**Total**
Number	6437	177	398	1067	1558	412	*	467	21	10542
Percentage	61.1%	1.7%	3.8%	10.1%	14.8%	3.9%	0.05%	4.4%	0.2%	100%

*suppressed as less than 10

Of those children and young people entering care for the first time during the observation period, three quarters (75.9%) did so, on the basis of only two of the categories of need - abuse and neglect and family dysfunction. If the category Family in Acute Stress (N4) is also included, three of the nine categories account for 86% of all first entries. Two of the categories of need account for very lower numbers of the total of first entries. These two categories of need were removed from the analysis in

relation to plotting the percentage of children entering care under each category and overall 'looked-after' children rates as the results would not be statistically robust.

Table 19 provides a summary of the highest and lowest rates per 10,000 of children becoming 'looked-after' under each of the nine categories of need.

Table 19: Rates per 10,000 of children entering care for the first time by category of need

	Highest Rate	Local Authority	Lowest Rate	Local Authority
Abuse and neglect	223	Merthyr Tydfil	37	Vale of Glamorgan
Disability	6	Pembrokeshire	0	Flintshire
Parental illness or disability	16	Ceredigion	1	Merthyr Tydfil Blaenau Gwent Monmouthshire
Family in acute stress	48	Torfaen	2	Merthyr Tydfil
Family dysfunction	54	Cardiff	2	Torfaen
Socially unacceptable behaviour	14	Ceredigion	2	Flintshire Merthyr Tydfil Monmouthshire
Low income	0.5	Carmarthenshire	0	*
Absent parenting	17	Monmouthshire	1	Merthyr Tydfil
Adoption disruption	1.5	Caerphilly	0	*

* indicates a substantial number of authorities

The table identifies that in some cases there are substantial variations between local authorities in the rates that they bring children into care dependent on their predominant care need. The biggest of these variations is in relation to family dysfunction, defined in the guidance as needs that arise where children are living in families "where the parenting capacity is chronically inadequate" (Welsh Government,

2014a, p.26). A child living in the Cardiff is 27 times more likely to become 'looked-after' for this reason than one living in Torfaen.

Children living in households where, as a result of a crisis, parenting capacity is diminished and their needs are not adequately met (family in acute stress) are the next category with large variations between rates. Based on the rates calculated, a child in Torfaen is 24 times more likely to become 'looked-after' on this basis than their peers living in Merthyr Tydfil.

With regard to both parental illness / disability and absent parenting (including adoption), the rates in the authorities with the highest rates per 10,000 of children enter care for this reason, are respectively 16 and 17 times higher than those in the lowest. Both of these categories have relatively small numbers of cases (398 and 467) it is therefore necessary to be cautious in terms of the effect of relatively small variations in numbers on rates.

As highlighted in table 19 in terms of numbers at first entry, children and young people whose predominant care need comes from them having been abused or neglected represent the largest category overall. There are, however, still substantial variations in the rates of children entering care for this reason.   Based on the calculated rates, a child in Merthyr Tydfil is 6 times more likely to become 'looked-after' for this reason than a child in The Vale of Glamorgan.

It is interesting to note that the authority with the highest rate per 10,000 of children entering care as a result of abuse and neglect, Merthyr Tydfil, is also one of the

authorities that appear under four of the other categories of need as being one of those having the lowest rates.   This relationship is discussed further in the next section.

Figure 23: Percentage of children 'looked-after' for the first time by category of need against mean 'looked-after' rates by local authority
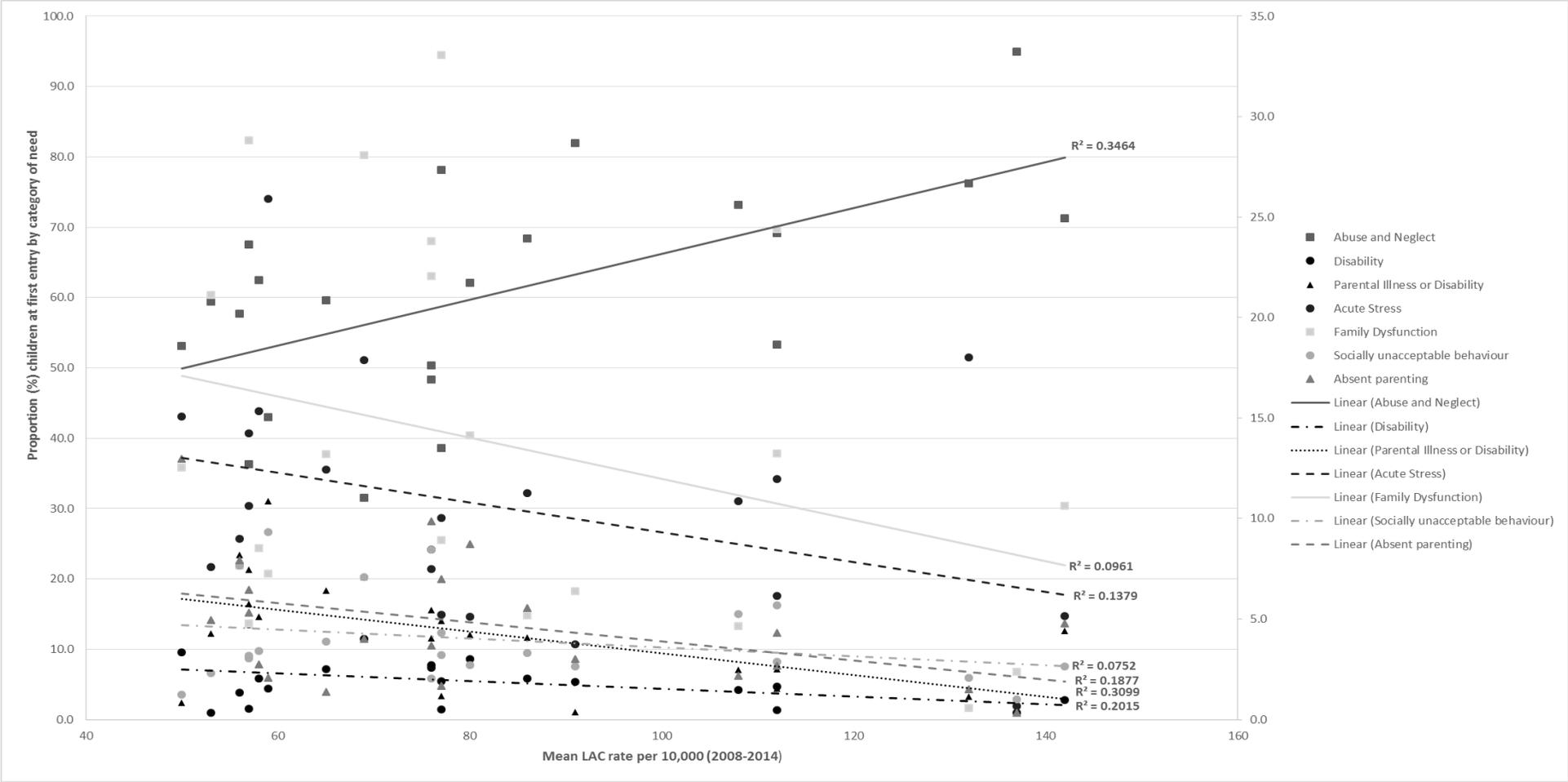
It would perhaps not seem unreasonable on cursory examination to assume that in considering the differences between those local authorities with the lowest overall rates per 10,000 of children 'looked-after' and those with the highest that any difference would simply be one of volume. This would be based on the assumption that the 'looked-after' children's populations of all local authorities are constituted of broadly similar proportions of children by age, category of need, legal status, etc. If this hypothesis was found to be true then local authorities with the highest rates are just doing more of 'everything' relative to other authorities. The analysis within this section is suggesting that is not the case. The category of need under which a child becomes 'looked-after' provides another example of differences between authorities that are not just based on overall numbers of cases. Figure 23 shows the percentage of children entering care for the first time by their predominant category of need, with this plotted against each authority's mean overall 'looked-after' children rate. The graph illustrates some interesting differences in the percentage of children entering care by category of need and the relationship between those percentages and an authority's overall 'looked-after' children rates. Firstly, in relation to children entering care as the result of abuse or neglect, the graph suggests a relationship between the percentage of these children and an authority's overall rate of children 'looked-after'. Broadly, as the percentage increases the overall rate appears to increase as well. This is confirmed by an R^2 value of 0.3464, indicating that almost 35% of the variance in overall rates is explained by variation in the percentage of children entering care under this category. This relationship was tested and found to be statistically significant at the 1% level (p = .004 Kendall's Tau = .009). However, as indicated, that is not the case with all need categories. In fact, to a greater or lesser extent the graph shows a negative correlation between all the other six need categories plotted and

the overall rates of local authorities. The R² values for these negative correlations vary from 0.0752 to 0.3099, indicating relationships that explain between almost 7% and almost 31% of variance in rates. This suggests that as overall rates increase the proportions of children entering care under categories of need, other than abuse and neglect, reduce. Those authorities with the highest overall rates do not therefore appear to be doing more of 'everything' but are instead broadly providing placements at first entry to care to increasing percentages of children and young people who are classified as having been abused or neglected and reducing proportions of children in the other need categories. Of those categories of need with a negative relationship to overall rates, the two with the strongest correlations are parental illness or disability with an R² of 0.3099 (therefore explaining almost 31% of variation in overall rates) and disability relating to the child or young person with an R² of 0.2015 (explaining almost 20% of variance).

6.5 CATEGORY OF NEED ON SECOND ENTRY TO CARE

Of the children who entered care between April 2008 and March 2014, 3979 went on to experience a further one or more periods of being 'looked-after'.

Table 20: Number of children at second entry to care by category of need

	N1	N2	N3	N4	N5	N6	N7	N8	N9	Total
Number	2328	90	173	413	610	184	*	172	*	3979
Percentage	58.5	2.3	4.3	10.4	15.3	4.6	0.1	4.3	0.2	100
Percentage at 1st entry	61.1	1.7	3.8	10.1	14.8	3.9	0.05	4.4	0.2	100

*suppressed as less than 10

As can be seen from the table above, the percentage of children and young people under each category of need becoming 'looked-after' at second time of entry is broadly the same in terms of the percentage of children entering as when first placed.

However, as illustrated by figure 24 the proportion of children entering care as a result of abuse or neglect has a slightly stronger correlation to overall rates than at first entry, increasing from explaining almost 35% of variance to almost 37% (R^2=0.3699). The negative correlations found at first entry between the other categories of need and overall rates of children 'looked-after' persists at second entry.

Figure 24: Percentage of children 'looked-after' for the second time by category of need against mean 'looked-after' rates by local authority
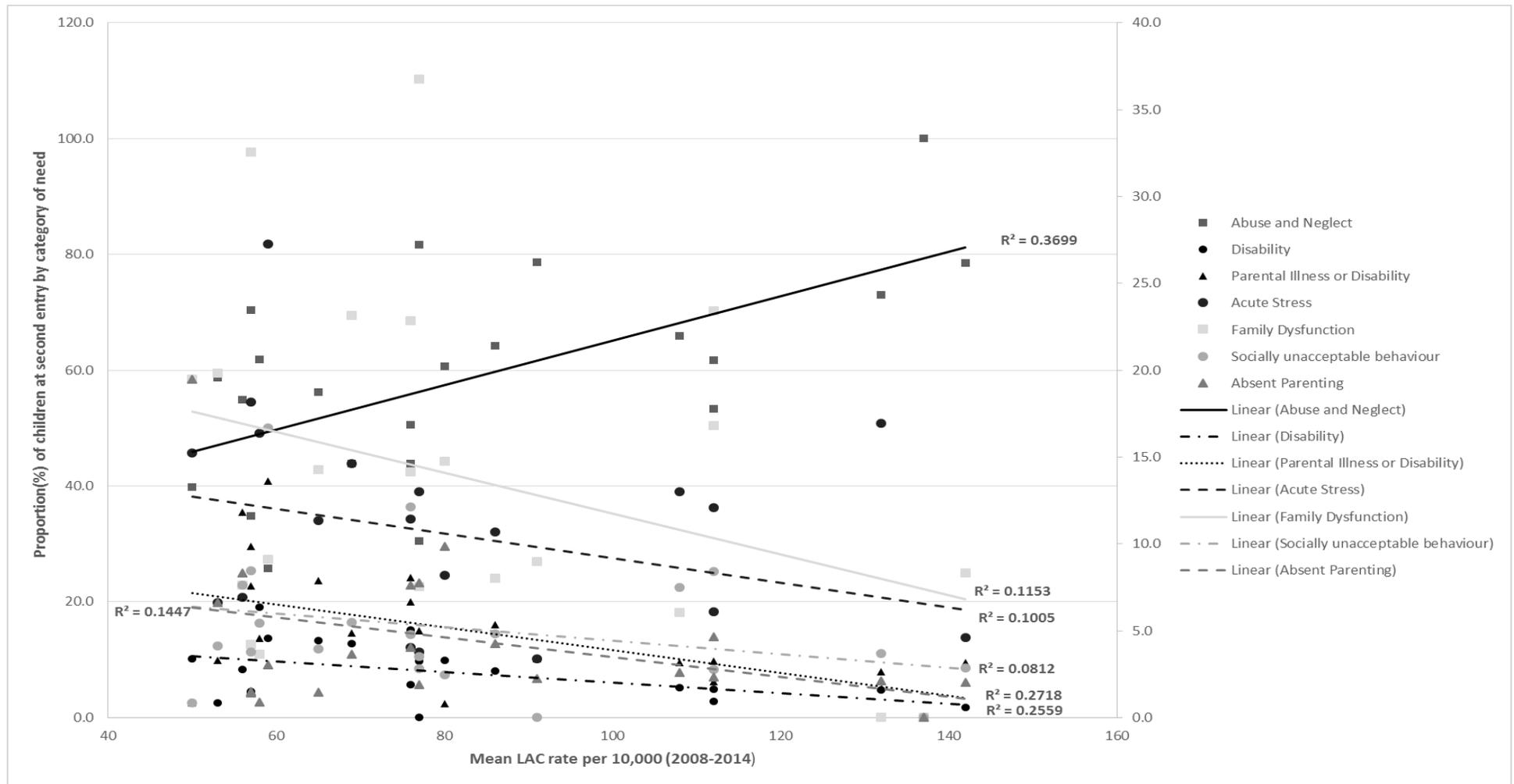
Table 21 : Rates per 10,000 of children entering care for the second time by category of need

	Highest Rate	Local Authority	Lowest Rate	Local Authority
Abuse and neglect	96	Neath Port Talbot	13	Ceredigion
Disability	2.7	Powys	0	Merthyr Tydfil Caerphilly
Parental illness or disability	7	Ceredigion	0	Merthyr Tydfil
Family in acute stress	16	Torfaen	0	Merthyr Tydfil
Family dysfunction	22	Swansea	0	Torfaen Merthyr Tydfil
Socially unacceptable behaviour	9	Ceredigion	0	Merthyr Tydfil Blaenau Gwent
Low income	0	*	<1	Caerphilly Cardiff
Absent parenting	12.3	Monmouthshire	0	Merthyr Tydfil
Adoption disruption	0	*	<1	Gwynedd Conwy Powys Carmarthenshire Bridgend Monmouthshire

* indicates a substantial number of authorities

At second entry to care the two categories of need with the largest variations in rates per 10,000 are the same as those at first entry, Family in Acute Stress and Family Dysfunction, although in both cases the level of difference has reduced.

With regard to the rates of children and young people becoming 'looked-after' as a result of abuse and neglect, the difference between authorities remains relatively

consistent between first and second entry to care, with rates only varying from a six-fold variation in rates at first entry to a seven fold difference at second entry.

The only other category of need that has an increase in the variation in rates per 10,000 between first and second entry to care is in respect of young people becoming 'looked-after' as a consequence of Socially Unacceptable Behaviour. At second entry to care a young person in Ceredigion is nine times more likely to enter care for this reason than a young person in either Merthyr Tydfil or Blaenau Gwent. This is an increase from the seven fold difference at first entry.

6.6 NUMBER OF TIMES EACH CHILD BECAME 'LOOKED-AFTER' DURING THE PERIOD

This section of the analysis will consider whether the number of times a child became 'looked-after' varies between local authorities and whether that variation is linked to a local authorities overall rate of children in care.

Calculation of rates per 10,000 of children experiencing one, two or three or more entries to care suggest that there are differences in rates between local authorities for all three groups and that those differences are broadly similar for each group. For those experiencing one, two or three or more entries the difference in rates between authorities is a three-fold one. Of those children who only experienced one entry during the period, the authority with the highest rate per 10,000 is Torfaen having a rate that is 3.1 times that of Flintshire. For children who experienced two entries, Neath Port Talbot had a rate that was 3.2 times that of Flintshire. With regard to those children who experienced the highest number of separate entries to care, children in Neath Port Talbot are 3.5 times more likely to enter care three or more times than children in Gwynedd.

Figure 25 plots the percentage of children entering care for a first, second or third (or more) time against each local authorities mean overall rates per 10,000. The graph illustrates that there appears to be no relationship between the percentage of a local authorities total number of children entering care only once or twice and those authorities overall rates. There is however a negative correlation between the percentage of children who have experienced three or more entries to care and overall rates. Variation in the percentage of children within this group explains almost 25% of overall variations. This negative correlation would seem to indicate that there

is an extent to which those authorities with lower mean overall rates of children 'looked-after' have a more mobile care population than those with higher rates in that they have higher proportions of children experiencing 3 or more entries to care within the six years covered by the data.

Figure 25: Percentage of children 'looked-after' who experienced one, two or three or more entries to care during the period
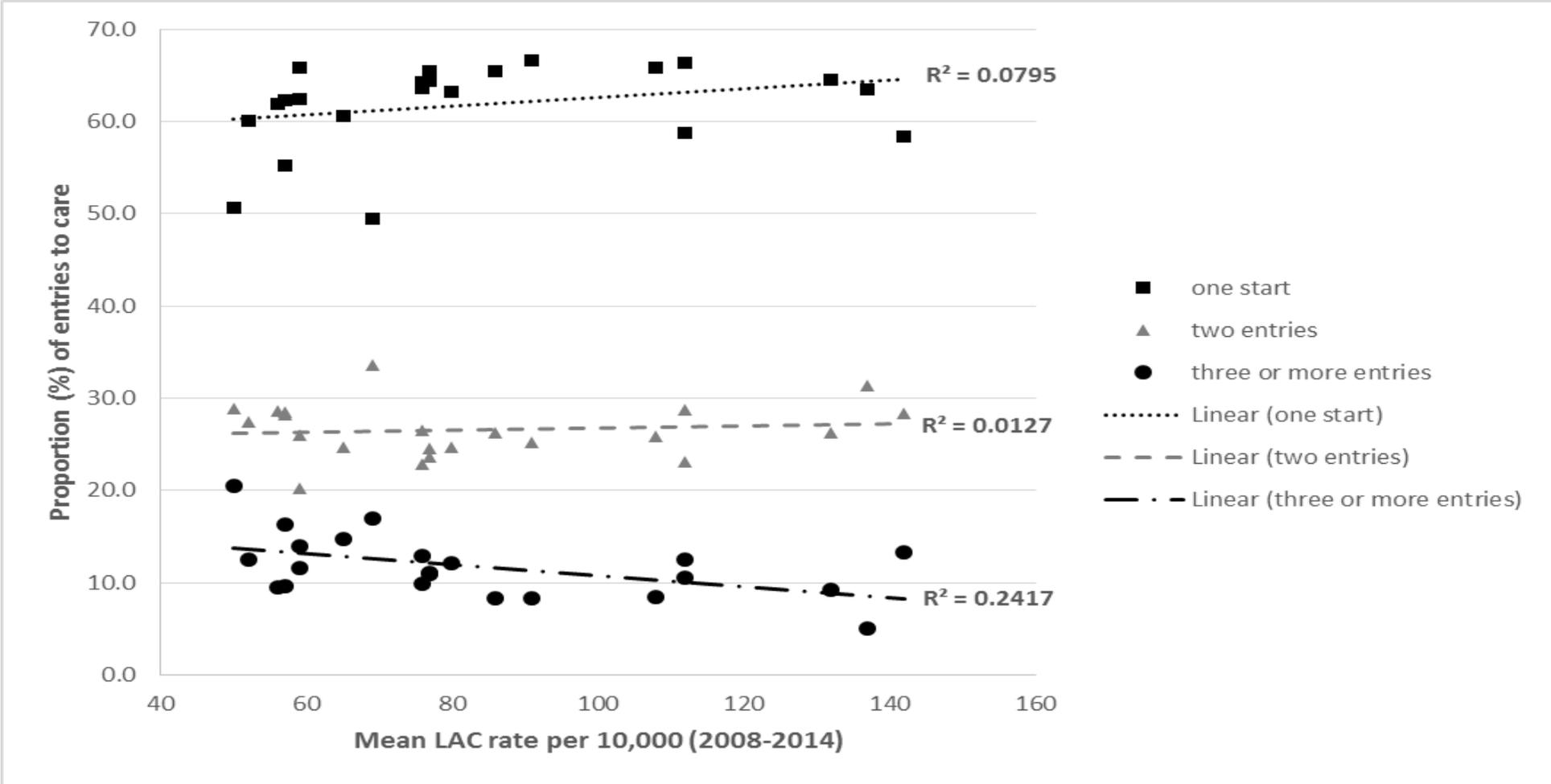
6.7 PRESSURES ON THE SYSTEM

In order to accurately consider the characteristics of the population of children who have started new periods in care, it is clearly necessary to consider not just numbers of episodes, but also the number of children to which those episodes relate. However, when looking at the episode data from the standpoint of local authorities, and arguably the children themselves, such a distinction is, I would argue, less relevant. Each episode represents a child entering the 'looked-after' system from home, whether that is for the first time in that year or more. Each episode involves social workers undertaking assessments and being involved in decision-making processes leading to the decision to place a child in care. Where the legal basis for placing of the child is a care order, or other legal mandate, this has also involved the local authority engaging in the court process. Each episode also requires a local authority to identify a suitable placement where the child can then be placed.

Figure 26 illustrates the 16385 instances of children starting a new period of being 'looked-after' during the six collection years (1st April – 31st March) covered by the data. The graph highlights the dramatic increase in starts of new periods in care during 2009/10, the collection year that followed the publication of both the Serious Case Review and Laming Report into the death of Peter Connelly. During the collection year covering 2008/09 there were 1798 instances of children and young people starting new periods in care. By the following collection year (2009/10) this had increased by almost 1000 to 2777.

Figure 26: Total numbers of new starts per collection year
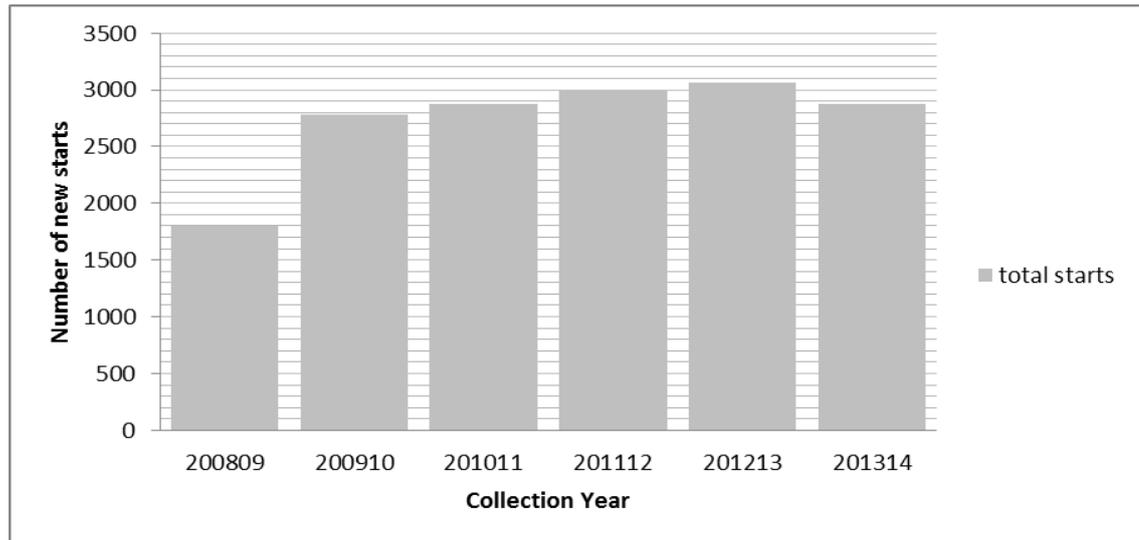
The numbers of new starts increased year on year, until reaching a peak of 3067 during 2012/13. Whilst 2013/14 saw a decrease, the overall number of new periods in care starting during this 12 month period were still over a thousand entries to care more than 2008/09 levels. These substantial increases, over a prolonged period of time, clearly put pressure on local authorities, both financially and in terms of resources such as appropriate placements for children to be placed in.

Such pressures are perhaps not so apparent from the 'as at 31st March' snapshot figures, which are often the quoted measure of a country's 'looked-after' children population. On the 31st March 2009 the reported number of children 'looked-after' was 4700. At the same point the following year that had increased to 5160, an increase of 460 children. What the census measure clearly doesn't illustrate is the increase of over double this number in children entering care at some point between the two census dates.

Even using the data on the total number of new periods of being 'looked-after' starting within a collection year, the source of that pressure is not always as obvious as it may appear. Table 22 shows the numbers starting a new period in care in a collection year, broken down by whether this represents the first, second, third, etc. time a child has started a new period in care during the six years covered by the data.

Table 22: **Total numbers of new starts per collection year by period number**

	Number of new periods						
Collection year	**1**	**2**	**3**	**4**	**5**	**6+**	**Total**
2008/09	1644	126	25	3	0	0	1798
2009/10	1898	752	98	21	5	3	2777
2010/11	1695	826	287	53	13	1	2875
2011/12	1754	754	312	115	27	28	2990
2012/13	1809	801	257	113	53	34	3067
2013/14	1742	720	224	96	56	40	2878
Total	10542	3979	1203	401	154	106	16385

The table would suggest that some of the overall pressure on the system has been caused by children returning to care. The numbers of first periods in care increased over the period, but that increase was relatively small. If however the difference in numbers of children experiencing a third period in care is considered for example, there was a ten-fold increase between 2008/09 and 2013/14.

6.8 CHILDREN CEASING TO BE 'LOOKED-AFTER'

This section of the analysis will focus on children and young people at the point they ceased to be 'looked-after'. Specifically, it will focus on the characteristics of those children and their placements at the point a period of being 'looked-after' ended (for example their age or the reason an episode in care ceased).

During the six years there were 11412 instances of children and young people (0 – 18 years) ceasing periods in care in Wales. These exits from care were experienced by a total of 9990 children and young people.

Table 23: The number of exits from the 'looked-after' system in Wales 2008 – 2014

Number of exits per child	1	2	3	4	5	6+	Total
Number of children	9026	683	190	55	20	16	9990
Percentage	90.4	6.8	1.9	0.6	0.2	0.2	100

Of the children whose period of being 'looked-after' ended, 90% experienced just one exit. Of the 9990 who experienced one exit from care during the period, 964 went on to re-enter care on one or more occasion and cease to be 'looked-after' again during the period covered by the observation period.

REASON PERIOD CEASED: SYSTEM MISSING DATA

The data contained within the SSDA903 is complete in that it contains all values for all variables and therefore has no missing data. It does however contain examples of 'system missing' data and this is nowhere more apparent than in relation to data on the reason an episode in care ceased. There are 12 codes within the SSDA 903 used to record the reason a period in care ended. One of these codes is "period of being looked-after ceased for any other reason (E8) (Welsh Government, 2014a, p.39)". Clearly, whilst use of this code means no data is missing from the variable, those cases where it has been used contain no useful information on why a child ceased being 'looked-after'. There are 9990 instances of children and young people leaving care for the first time within the data. Of these cases 1904 have been coded as periods that ended 'for any other reason'. This represents 19% of all the cases of children leaving care for the first time during the observation period. Of those cases where this coding has been used, when they are broken down by age it is also clear that these cases are disproportionately drawn from young people who became 18 during the data collection year. Of the total number of cases, 1021 or almost 54% are young people of this age. Whilst for the purposes of this analysis these cases will be included in the calculation of percentages for example, a clear recommendation from this study would be that in order to make full use of the information contained within administrative data, such as the SSDA903, to inform policy and practice, the quality of the data needs to be improved. Had those 1904 cases included accurate coding of the reason a child ceased to be 'looked-after' it would clearly enhance the picture of the 'looked-after' population that can be derived from it.

6.9 AGE AT EXIT

9990 children and young people (aged 0 – 18 years) ceased to be 'looked-after' for the first time during the observation period. The percentage that each age makes up of this total figure is represented below in Figure 27.

Figure 27: The percentage of children ceasing to be 'looked-after' for the first time by age
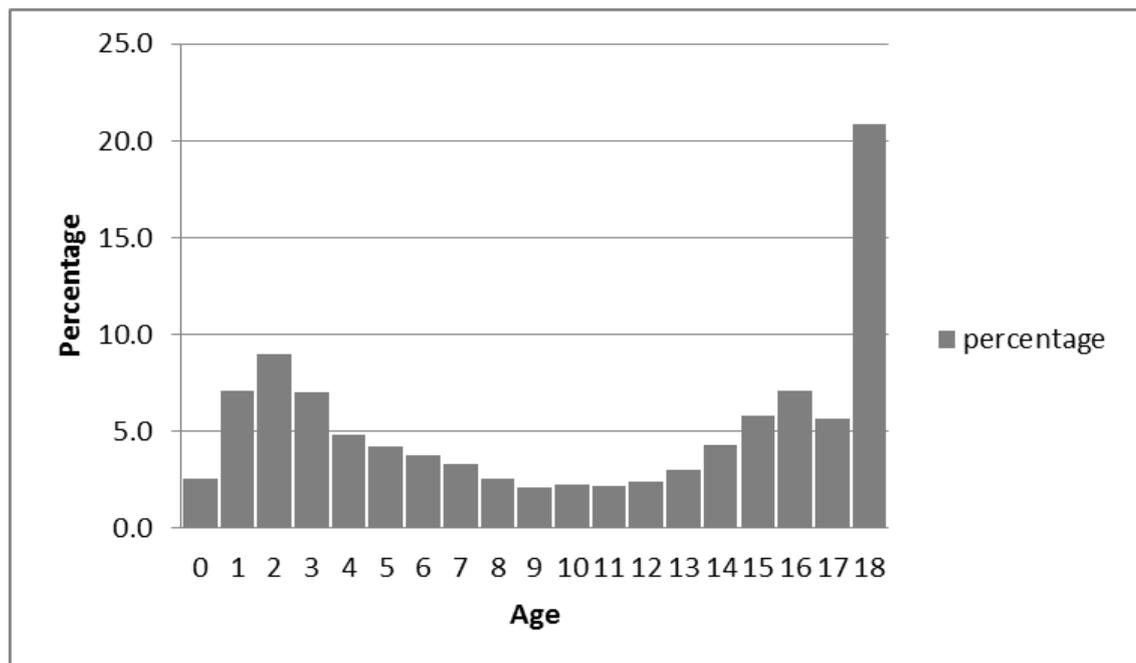
The most obvious characteristic identified by the graph is that 18 year olds represent the large proportion of those children who cease to be 'looked-after' for the first time during the period. Young people who reached 18 years of age within the collection year account for one fifth (20.9%) of children and young people who ceased to be 'looked-after' for the first time. The other age points where there are higher percentages of children leaving care are at 2 years of age (9%) and at 1 and 16 years of age with both of these ages each accounting for a further 7.1% of those children ceasing to be 'looked-after'.

6.10 REASON AN EPISODE CEASED

The data collected for the SSDA903 uses a total of 12 categories to describe the reason a period of being 'looked-after' ended. One of the categories used relates to periods in care that ended for 'any other reason' not covered by the other categories, which whilst retained within the analysis is problematic (See section: Reason period 'looked-after ceased: system missing data). Of the remaining 11 categories two, 'died' whilst 'looked-after' and 'care taken over by another LA in the UK' were excluded from the analysis due to the small numbers (18 and 50 respectively). Six of the categories relating to adoption, special guardianship and independent living arrangements were amalgamated into three categories (see below). The six categories below were used to explore whether there is a relationship between the percentage of each category in the population of children leaving care and an authorities overall rate per 10,000 of children 'looked-after':

- Adoption (both unopposed and consent dispensed with)

- Returned home

- Special Guardianship Order (SGO) (both with foster carers and other carers)

- Independent Living Arrangement (IL) (both with and without formalised support)

- Transferred to care of adult social services

- Sentenced to custody

The plotting of the percentage of children and young people ceasing to be 'looked-after' for the first time for the following reasons: returned home, sentenced to custody and special guardianship orders; against each local authority's mean overall 'looked-after' children rate showed no meaningful level of correlation between the two factors. In the case of young people who ceased to be 'looked-after' as a result of moving into some form of independent living arrangement, a small negative

correlation ($R^2=0.1211$) was identified. This would broadly suggest that young people exiting care from authorities with lower overall rates are proportionally more likely to do so through the route of independent living than those in authorities with higher rates. This would seem to tie in with the inverse correlation found earlier in this chapter that suggested that authorities with lower mean overall rates take in a larger proportion of older children and young people, who are arguably the age group more likely to exit through this route. The two remaining categories, adoption and transferred to the care of adult social services, both show correlations (one positive ($R^2 = 0.3743$) and one negative ($R^2 = 0.2899$) respectively) between the proportion of children ceasing to be 'looked-after' for these reasons and an authority's overall rates of children 'looked-after' (see figure 28).

In terms of correlation between an increasing percentage of children ceasing to be 'looked-after' as a result of adoption and increasing overall rates of children 'looked-after' within an authority, this would seem to link to the earlier findings regarding children and young people whose primary need relates to having been abused or neglected. When considering the categories of need at first entry to care during the period covered by the data a relationship was identified between increasing percentages of children entering care as a result of abuse and neglect and an authority's overall rates of children 'looked-after'. As children who have been subjects of child protection procedures are arguably those most likely to be placed for adoption it is therefore perhaps not surprising to also find a relationship between the percentage of children ceasing to be 'looked-after' as a result of having been adopted and overall rates. Of those children whose reason for ceasing to be 'looked-after' at

first exit from care was adoption (n=1621), 79% (n=1287) had a primary category of need at entry to care which related to them having been abused or neglected.

With regard to the negative correlation between overall rates of children 'looked-after' and the percentage of young people whose care is transferred to Adult Services, this would seem to have some relationship to children and young people who on entry to care had a predominant care need related to disability, although not entirely. As highlighted in the section on children starting to be 'looked-after' negative correlations were identified between categories of need other than abuse and neglect and an authority's overall rates of children 'looked-after'. Broadly, as an authority's overall rates increase, the proportion of children entering care as a result of a care need other than abuse and neglect reduces. There may therefore be a relationship between these other categories of need and children and young people ceasing to be 'looked-after' as a result of their care being transferred to Adult Services. Of the young people who left care through this route (n=135), 38.5% (n=52) entered care as a result of having a predominant care need related to disability. However, almost 35% (n=47) become 'looked-after' as a result of having been abused or neglected. Therefore, such a relationship is not clear cut.

Figure 28: Percentage of children exiting care for the first time by reason episode ceased against mean 'looked-after' rates by local authority
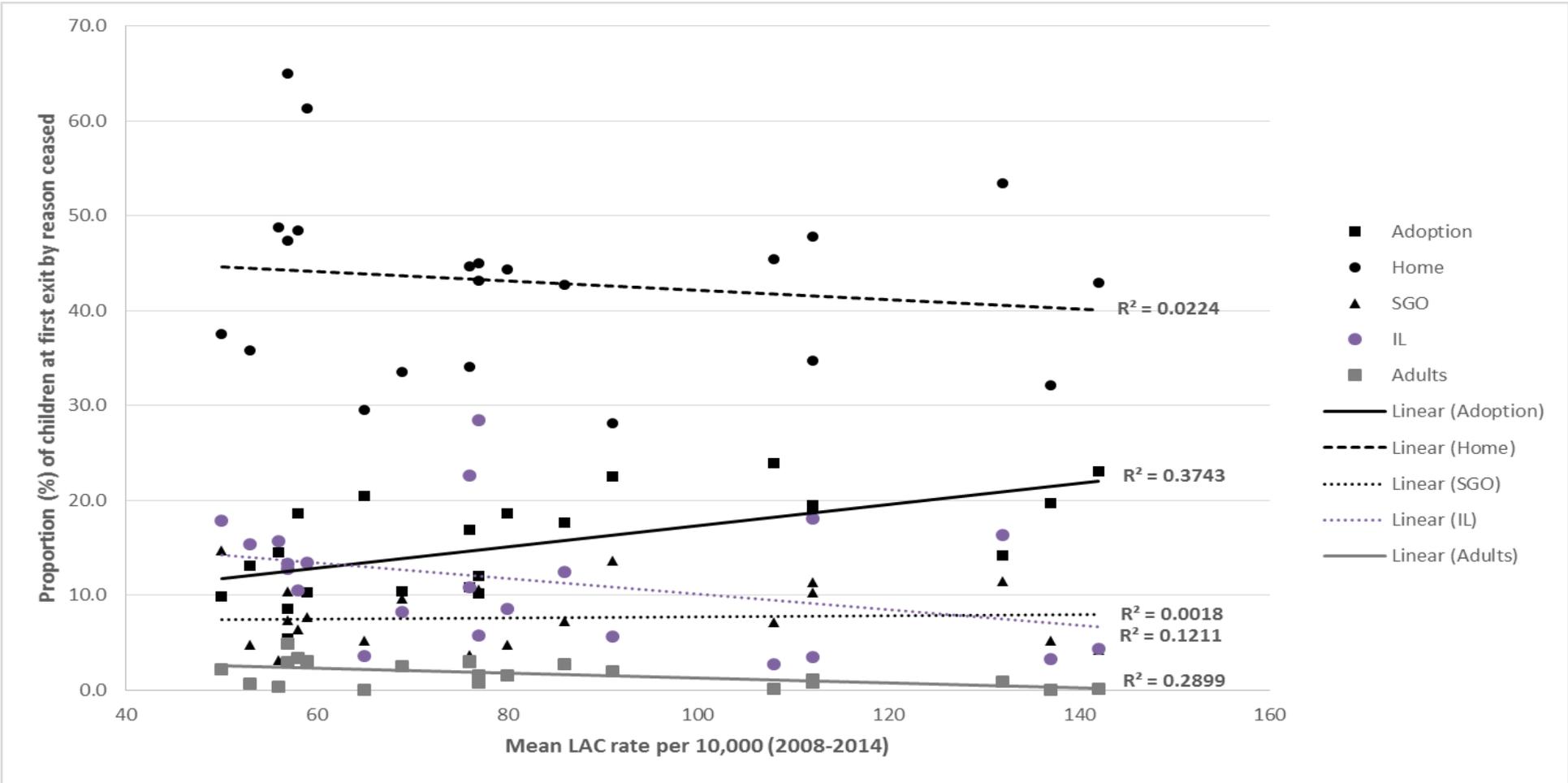
Rates per 10,000 were calculated using the collapsed categories of reason an episode ceased outlined previously. The highest and lowest rates for each category are presented below in table 24.

Table 24: Rates per 10,000 of children leaving care for the first time by reason episode ceased

	Highest Rate	Local Authority	Lowest Rate	Local Authority
Adoption	56	Neath Port Talbot	8	Anglesey
Home	127	Torfaen	30	Flintshire
Special Guardianship	27	Torfaen	3	Wrexham
Independent Living	46	Cardiff	5	Rhondda Cynon Taff Carmarthenshire
Transfer to Adults	7	Anglesey	0	Carmarthenshire Merthyr Tydfil Wrexham Neath Port Talbot Rhondda Cynon Taff

Based on the above, there are noticeable differences between local authorities in the routes by which children and young people ceased to be 'looked-after' for the first time during the observation period. The largest variations in rates are in terms of young people ceasing to be 'looked-after' as a result of either, moving to independent living (either supported or unsupported) or through the granting of a Special Guardianship Order.

A young person in Cardiff, at first exit from care, is nine times more likely to exit an episode of care through moving to an independent living provision, when population differences are taken into account, than a young person in Rhondda Cynon Taff or Carmarthenshire.

The use of Special Guardianship Orders (SGO) also shows the same level of variation in rates per 10,000, with children in Torfaen 9 times more likely to exit care via this route than their peers in Wrexham.

Use of adoption as a route out of care is the reason for an episode ceasing with the next biggest variation in rates per 10,000. At first time of ceasing to be 'looked-after' a child in Neath Port Talbot is 7 times more likely to leave care as a result of having been adopted than a child in Anglesey.

Whilst a number of local authorities (Carmarthenshire, Merthyr Tydfil, Wrexham, Neath Port Talbot and Rhondda Cynon Taff) have rates of 1 child per 10,000 or less whose cases are transferred to Adult Services as the means by which they cease to be 'looked-after', young people in Anglesey are up to 7 times more likely to cease to be 'looked-after' for this reason.

The reason for a period in care ceasing with the smallest level of variation between local authorities is in terms of children returning home. Whilst Flintshire has the lowest rate per 10,000 of children returning home at first exit from care, children in Torfaen are 4 times more likely to cease to be 'looked-after' for this reason.

6.11 LEGAL STATUS AT EXIT FROM CARE

Figure 29 shows the relationship between a local authority's overall mean 'looked-after' children rate and a child's legal status at the point of exit from care. The graph shows a negative correlation between those children accommodated under S20 of the Children Act ceasing to be 'looked-after' and a local authority's overall rate of children in care. As the proportion of children ceasing to be 'looked-after' who were accommodated on this basis reduces the overall rate of children 'looked-after' increases. There is also a positive correlation between exiting care through adoption and overall rates. Those local authorities with the highest rates overall have a larger percentage of children leaving through this route than those with the lowest rates of children 'looked-after'.

Figure 29: Percentage of children exiting care for the first time by legal status at exit against mean 'looked-after' rates by local authority
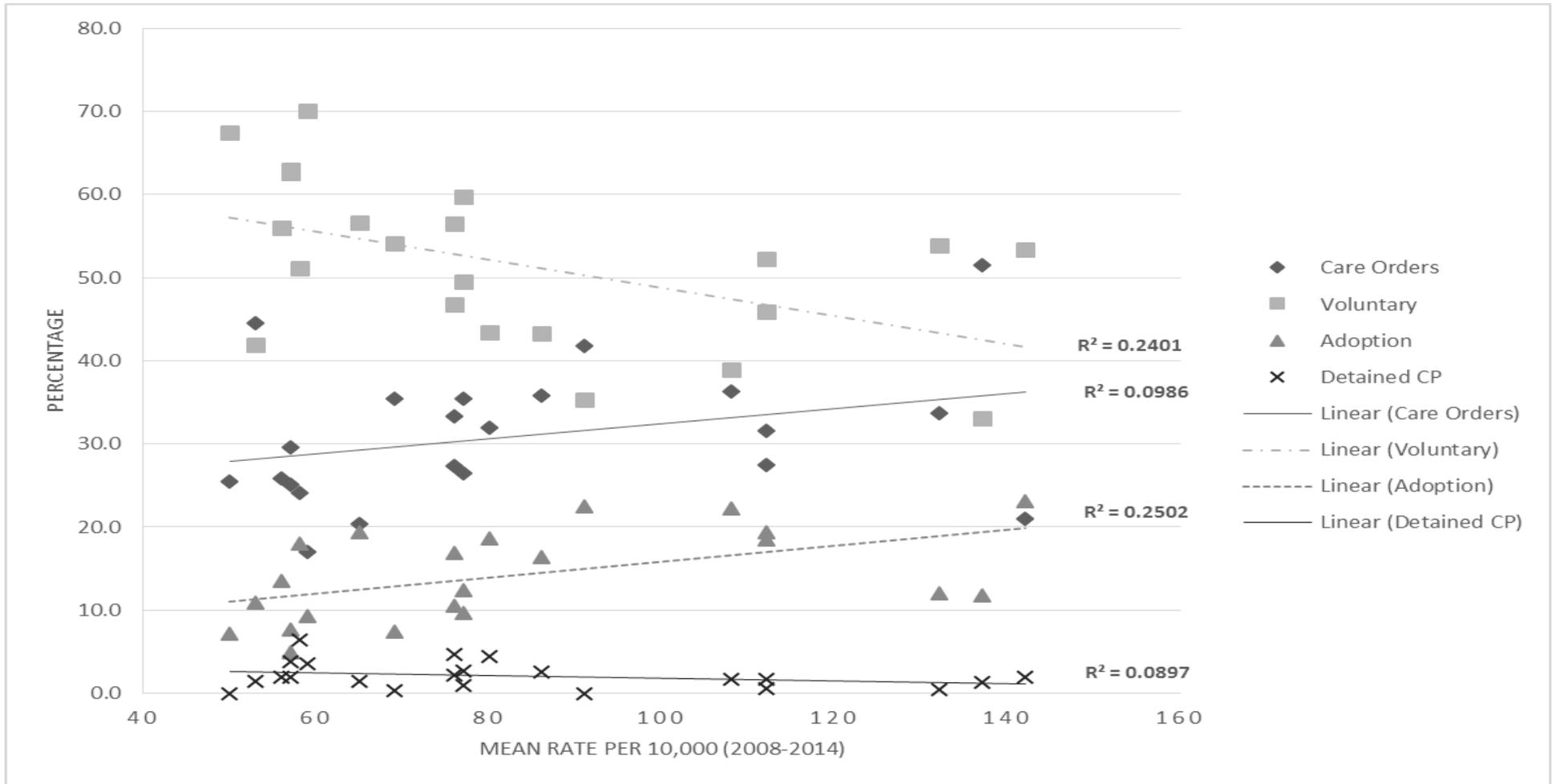
6.12 DISCUSSION

The intention of this analysis was to seek to identify whether there are differences in the characteristics of children at entry and exit to care and whether there is a relationship between those differences and overall rates of children 'looked-after'. The analysis has identified both age at entry to care and category of need as having statistically significant relationship to overall rates. The analysis has however also identified a number of differences, which whilst not correlated to overall rates of children 'looked-after', identify potential differences in practice between local authorities, which are important in their own right.

AGE

Age at entry has a statistically significant relationship to overall rates. Local authorities which take in a higher proportion of younger children have broadly higher overall rates, whilst the reverse is true of those that take in a larger proportion of older children. This is an important finding as the age profile of entrants and leavers can have implications for the pressures placed on the 'looked-after' children's system within individual local authorities (Janzon and Sinclair, 2002).

Figure 30: Swansea/Monmouthshire comparison of children 'looked-after' by age
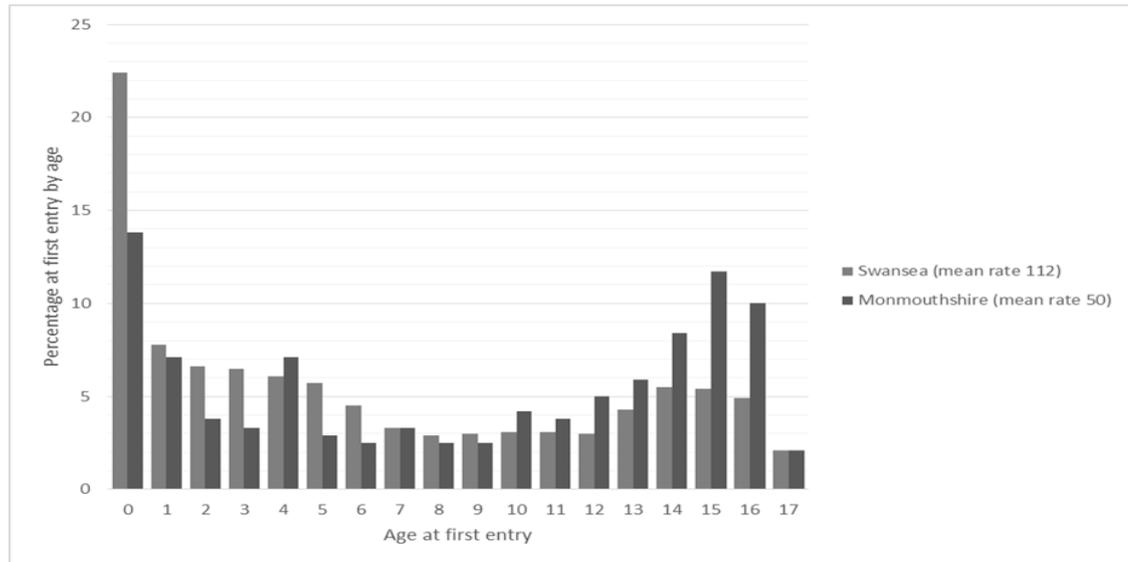
A comparison of two local authorities illustrates the differences between the age profiles of children entering care. Swansea has an overall rate of children 'looked-after' just over double that of Monmouthshire and very different age profiles (see figure 30). However, the differences between the two case study authorities appear not to have their roots in demographics. When the percentage of the child population in each authority is calculated by age, the differences between the two authorities are not substantial. The differences in proportion of each age are less than 1%. In contrast there are differences between the percentages of children entering care by age. For example, when the percentage of children entering care at under one year of age within each authority is considered there are marked differences. Whilst Monmouthshire had fewer than 14% of children entering care coming from this age group, Swansea had 22.4% from this group. At the other end of the age range, only 5.4% of entries to care in Swansea were 15 year olds, whilst in Monmouthshire they took in over twice that percentage with 11.7%. Differences in regional rates of entry to care of the type identified within this thesis were also identified by Wulczyn et al. (2000). Whilst the findings of an American study are not transferable to the UK

context, it does provide a further example of differences in the way that cohorts of children are placed in out of home care. Similarly, Statham et al. (2002) in their study exploring differences in the volume of care provided by local authorities over time, identified a relationship between the age structure of a local authorities 'looked-after' population and increases or decreases in the numbers of days of care provided. Those authorities who took in a larger proportion of young people aged 16+ had smaller increases or reductions in the volume of care provided than local authorities with fewer older children. They also found that larger percentages of children aged between 5 – 9 years within a care population increased the rate of 'looked-after' days. It is not clear whether there is both a relationship between volumes of care days provided, overall numbers of children 'looked after' and the age profile of the 'looked-after' children population.

AGE, NEUROSCIENCE AND SOCIAL POLICY

The data show not only that the 'looked-after' population is made up disproportionately of young children, particularly those under one year old, but that it is this age group that have predominantly fuelled the overall increases in numbers in care over the period being considered (see Figure 18). This may have its roots in notions of child rescue and early intervention, but more specifically it may be, as Wastell and White (2012) have argued be evidence of the prominence of neuroscientific evidence within recent social policy initiatives. These are based on neurodevelopmental evidence that suggests that neglect and poor parenting in the early years can have profound and permanent effects on the neurological development of children. This has led to a discourse around a now-or-never imperative for the state to intervene and 'rescue;' children before such long terms

damage is done. The focus on removing younger children and placing them in care may in part provide evidence of the influence of this discourse on social policy and social work practice.

CATEGORY OF NEED

The main support need under which a child was 'looked-after' also has a statistically significant relationship to overall rates. Whilst the use of a single subjective category of need is problematic, as discussed in the section on the limitations of this study (see Methods chapter, section 4.12) it provides the only available proxy indicator of child and family need present within the data.

For all local authorities in Wales, the category of need which underpins the largest number of entries to care is that of abuse and neglect. However, during the observation period the proportion of children entering care under the categories of abuse and neglect and family dysfunction vary significantly between local authorities. For example, in the case of Cardiff, 38.6% (n=447) of first entries to care were under the category of Abuse and Neglect and 33.1% (n=383) under Family Dysfunction. In stark contrast in Merthyr Tydfil these percentage proportions are 94.9% (n=281) and 2.4% (n=<10) respectively. This clearly poses the question of whether the 'looked-after' population in Cardiff has different characteristics to that of Merthyr Tydfil, or whether, given the potential overlap in the definitions used, the way in which predominant need is subjectively characterised by the two local authorities is different. In reality, within this study there is no way to verify the way in which the predominant category of need has been operationalised within the limited definitions provided by guidance by those responsible for coding the data in relation to each child

'looked-after'. However, it does raise the issue of the socially constructed nature of social work and social work practice. Social workers are engaged in the "construction of certain areas of social life as problematic" (Parton and O'Byrne, 2000, p.15). As such the presenting needs of children and their families are situational and are interpreted, defined and categorised during each encounter and for each case (Broadhurst et al. 2010). As a consequence there will be variability. Social work is at its heart not a rational-technical activity. It is not scientific, but is instead a practical-moral activity, and as such it does not lend itself to tightly defined, single categories of need. Variations between local authorities in the nature of the care needs of their 'looked-after' populations may therefore not just be the result of the administrative necessity to tick one box on a system, but instead rooted in the way that families' problems are socially constructed by social workers in their interactions with families.

DIFFERENCES IN PRACTICE

A number of examples of differing practice were identified by the analysis. One such area of identified practice difference between local authorities is in the use of emergency measures, such as Emergency Protection Orders (EPO) to place children in care. The analysis shows a thirteen fold difference between the local authority with the lowest rate of use of such measures and that with the highest, although this difference is not correlated to overall rates of children in care. Masson (2005) discussing the use of such emergency interventions suggests that whilst some local authorities apply to the courts for Emergency Protection Orders or request assistance from the Police in emergency situations, others negotiate with families for children to be voluntarily accommodated or for "some other protective arrangement, for example temporary care by relatives (p.77)" to be put in place. It may therefore be

possible that local authorities with lower rates of emergency measures usage are using voluntary arrangements to respond to such situations whereas those with higher rates address these situations through court proceedings or Police protection powers. Possible explanations for such variations in practice include a belief that such voluntary agreements are rooted in working in partnership with families and provide a basis for implementing a plan going forward. Cynically, it could also be argued that by not going down the route of applying for an order through the courts, local authorities avoid the time pressures and scrutiny that such proceedings bring. Other explanations may be linked to the Police force that covers a local authority and their willingness to use powers of protection and the court whose jurisdiction the local authority falls under. Whilst these would provide interesting avenues for future research they are beyond the scope of this study.

The differences between local authorities in the make-up of their 'looked-after' children populations and the potential impact of that on their overall rates of children in care will be returned as part of the overall discussion in Chapter 9.

CHAPTER 7

SOCIAL INEQUALITY

In this chapter the analysis will focus on the relationship between poverty and social inequality and the influence they may have on the likelihood of a child becoming 'looked-after'. The analysis will focus on whether there is a relationship between neighbourhood level deprivation and rates of 'looked-after' children. Using a social inequalities lens the intention is to explore whether there is a 'social gradient' (Marmot, 2010) in the likelihood of children entering care. Furthermore the analysis will test whether the 'Inverse Intervention Law' proposed by Bywaters et al. (2015) is present in Wales.

7.1 DATA

This section of the analysis will use child level 'looked-after' children data, population data and socio-demographic characteristics at the level of small area geographies (Lower Super Output Areas - LSOA).

The child-level data from the SSDA903 relate to the children and young people at first entry to care. As identified in chapter 6, during the period covered by the data, in Wales there were 16385 instances of children becoming 'looked-after' relating to 10542 children. The first time that these 10542 children and young people become 'looked-after' during the 6-year observation window is the point used in these analyses. The LSOA code for the home address of each child enables this to be linked to neighbourhood deprivation and population data.

CHILD POPULATION DATA

The population data used are mid-year population estimates for 2011. There are a number of reasons for using this particular dataset. Firstly, they are derived from the 2011 Census and are arguably more robust than other population estimates for the period covered by the study data. Secondly, the data, collected around June 2011 also represent the mid-point for the years covered by the 'looked-after' children data. Thirdly, these data are readily publicly available by individual age rather than by age group allowing the 0 - 17 year old population of 'neighbourhoods' at an LSOA level to be derived.

DEPRIVATION MEASURE

The analysis in this section will predominantly use the Welsh Index of Multiple Deprivation (WIMD) for 2014, which are the most recent data for socio-demographic characteristics. The decision to choose the Welsh Index of Deprivation (2014) over the Child Index Welsh Index of Multiple Deprivation (2011) is discussed in Chapter 5 on the aggregate level analysis undertaken to contextualise the study overall.

DATA COVERAGE AND MISSING DATA

The SSDA903 child-level data were requested to include the Lower Super Output Area (LSOA) for each child 'looked-after' during the period April 2008 to March 2014. This was generated by the Welsh Government Data Unit prior to supplying the data using "the postcode of the address where the child was living when they first became looked after" (Welsh Government, 2014a, p.16) which is routinely collected in the return.

As identified there were 10542 children who became 'looked-after' for the first time during the period covered by the data and it is this group that form the basis of this part of the analysis. However, Lower Super Output Area (LSOA) codes were only available for 9297 children, representing 88.2% of the total number of cases. These 9297 cases would therefore provide the variable that could be linked to small area data on the socio-demographic characteristics of the area from which each child entered the care system. The 11.8% of cases with no LSOA code were either as a result of it being suppressed, in the case of children placed for adoption (Deleted); not provided by the local authority (Unknown); or it relates to a child whose postcode at time of becoming 'looked-after' was outside of Wales (Outside W).

However, when the data are disaggregated by local authority and data collection year, four local authorities did not have data covering all six collection periods. These local authorities are Denbighshire (2012/13 and 2013/14 only), Wrexham (2011/12, 2012/13 and 2013/14 only), Ceredigion (2008/9, 2009/10, 2010/11 and 2011/12 only) and Monmouthshire (2008/9, 2012/13 and 2013/14 only). Those local authorities with incomplete data were dropped, giving 18 local authorities whose data could be analysed for this section of the study.

The remaining 18 local authorities account for 9400 children and young people at first entry to care during the period between 2008 and 2014 (89% of all first entries at a country level during the six years). However, only 8853 have a valid LSOA code (84% of all first entries during the six years), with 547 cases coded as 'system missing'. Therefore, the final dataset contains 94.2% of possible cases from the local authorities.

While the data represent a whole country sample and are not affected by issues of representativeness, the effect of removing some local authorities needs to be considered. The representativeness of the final sample was checked in terms of age and sex against the data for all entries to care for the first time during the period. Table 25 below, shows the comparison between the two sample before and after the selection. There is less than one per cent variance between both sets of data, indicating that the cases removed have not substantially skewed the data.

Table 25: Full dataset and sample percentage comparison by sex

Sex	All	Sample	Variance
Boys	52.1	51.7	0.4
Girls	47.9	48.3	-0.4
Total	100	100	

The second table (Table 26) shows the same comparison by single ages. Again, the variance between the full data set and the sample is less than one per cent for each age included

Table 26: Full dataset and sample percentage comparison by age

Age	All	Sample	Variance
0	18.9	19.5	-0.6
1	8.1	8.2	-0.1
2	6.8	6.9	-0.1
3	5.9	6	-0.1
4	5	5	0
5	4.2	4.3	-0.1
6	3.7	3.9	-0.2
7	3.3	3.3	0
8	3.1	3.2	-0.1
9	2.9	3	-0.1
10	3.2	3.2	0
11	3.4	3.5	-0.1
12	3.4	3.4	0
13	4.6	4.6	0
14	6.1	6	0.1
15	7.6	7.4	0.2
16	6.3	5.6	0.7
17	3.5	2.9	0.6
Total	100	100	

7.2 INVERSE INTERVENTION LAW (IIL) ANALYSIS

One of the objectives of this chapter is to test the 'Inverse Intervention Law' (IIL) as proposed by Bywaters et al. (2015) on the Welsh child population using longitudinal data rather than cross-sectional census data. This requires the data to be combined to form three comparative groups of local authorities in line with the approach of Bywaters et al. Bywaters et al. grouped their sample of local authorities in the West Midlands according to overall Index of Multiple Deprivation (IMD) score at a local authority level. Comparisons were made between "the top third nationally by deprivation (i.e. the most advantaged third) with those in the bottom third by deprivation" (Bywaters et al., 2015, p.101). The Bywaters study only used a 10% sample of all local authorities in England and therefore had to ensure that the spread of local authorities was representative of these relative levels of deprivation across the whole of the country.

In Wales the Index of Multiple Deprivation is not routinely published with overall scores, or scores for the component domains, in the same way as in England, instead using ranks in the way outlined above. In order to make comparisons at a local authority level, the recommended method is to calculate the percentage of the total number of LSOAs in a local authority that fall within a given decile e.g. the 10% most deprived LSOA within Wales (Welsh Government, 2014b). Whilst this procedure provides a robust method of ranking local authorities by overall levels of deprivation, there is some ambiguity around which decile would be chosen for example the 10%, 20% or 30% most deprived in Wales. Dependent on which was used the rank order of local authorities would change. The original intention was to rank them using the percentage of LSOAs in the 10% most deprived in each local authority. The rationale is

that this decile accounts for 30% of all children entering care for the first time during the period, the highest percentage for a single decile. However, this approach was not used because of the relative arbitrariness of choosing a particular LSOA percentage to group them in this way. In addition, this approach does not fit with the intention to replicate the methodology used by Bywaters et al. as closely as possible comparative purposes. With this in mind I requested a copy of the LSOA level IMD scores (both overall and by domain) for Wales for the 2014 WIMD from Stats Wales. Using these scores I calculated a population adjusted overall IMD score at a local authority level and used these scores to rank authorities. The population adjusted score was calculated using the following steps:

1. The overall IMD score for each LSOA within a local authority was multiplied by the total population (all ages) of that LSOA; this was done for all the LSOAs within each local authority;

2. The figures for each LSOA within each local authority were then added together

3. This sum was divided by the total local authority population (all ages).

The resulting figure for each local authority is an overall deprivation score which takes into account population variations within LSOAs. As well as replicating more closely the methods used in the Bywaters et al. study, this method of calculating a score for each local authority also addresses one of the issues present with the use of Lower Super Output Areas, which could contain vastly different sizes of population, ranging from 1000 to 3000 people.

Table 27 shows all 22 local authorities in Wales placed in rank order based on the population adjusted overall WIMD score, including the relative positions of the four local authorities excluded from the analysis within that rank order. The table also

shows the authorities grouped into three comparison groups by overall levels of deprivation at the Wales level which will be used later in this chapter to test the Inverse Intervention Law.

Table 27: local authorities ranked by overall WIMD score (population adjusted)

Local Authority	Pop. Adj. Score	Missing Data
Blaenau Gwent	33.3	
Merthyr Tydfil	31.3	
Rhondda Cynon Taff	27.5	
Neath Port Talbot	25.7	
Caerphilly	25.7	
Newport	25.2	
Torfaen	23.4	
Cardiff	22.8	
Bridgend	22.7	
Swansea	21.5	
Denbighshire	21.4	X
Carmarthenshire	20.2	
Wrexham	20.1	X
Isle of Anglesey	19.1	
Pembrokeshire	18.9	
Conwy	18.5	
Gwynedd	16.6	
Flintshire	16.6	
Vale of Glamorgan	15.6	
Ceredigion	15.2	X
Powys	14.8	
Monmouthshire	12.6	X

Based on all of the above and excluding the authorities with missing data, the Inverse Intervention Law (IIL) part of the study will, for comparison purposes, use three groups of local authorities with broadly similar levels of deprivation at the Wales level. Clustered in this way the three groups contain unequal numbers of local authorities. The three comparison groups are shown in Table 28; Group A, contains the seven local authorities with the overall highest levels of relative deprivation in Wales; five local authorities in the middle group are in Group B; and six local authorities that are among the least deprived of local authorities in Wales are in Group C.

Table 28: Local authorities included in the analysis by comparison group

Group	Local Authority	Pop. Adj. Score
A	Blaenau Gwent	33.3
	Merthyr Tydfil	31.3
	Rhondda Cynon Taf	27.5
	Neath Port Talbot	25.7
	Caerphilly	25.7
	Newport	25.2
	Torfaen	23.4
B	Cardiff	22.8
	Bridgend	22.7
	Swansea	21.5
	Carmarthenshire	20.2
	Isle of Anglesey	19.1
C	Pembrokeshire	18.9
	Conwy	18.5
	Gwynedd	16.6
	Flintshire	16.6
	Vale of Glamorgan	15.6
	Powys	14.8

7.3 DEMOGRAPHIC PROFILE OF THE WELSH CHILD POPULATION

In order to contextualise the analysis of child welfare intervention by deprivation level, as characterised by children being taken into care, it is clearly important to first consider the demographic composition of the child population in Wales as a whole. Lower Super Output Areas (LSOA) are broadly constituted from geographical areas with similar numbers of people and are routinely used in demographic analyses. As highlighted in the Methods Chapter (see Section 4.3) Lower Super Output Areas (LSOA) are constructed from geographies containing a population of between 1000 and 3000 people living in between 400 and 1200 households. Based on this definition it would seem reasonable to assume that each decile or quintile would therefore broadly contain approximately 10 or 20% respectively of the population as a whole, although as highlighted earlier, this level of comparison can be problematic. To take this a stage further would be to assume that by extension this would also equate to 10 or 20% of the child population. Importantly, as previously discussed the child population is not equally distributed across deprivation deciles or quintiles (Bywaters et al., 2015). In the sample of English local authorities used in the Bywaters' study they found that whilst each quintile of neighbourhoods could be expected to contain 20% of the population, and therefore arguably of children and young people, in the case of the 20% LSOA containing the most deprived neighbourhoods they actually contained 23.7% of the child population of those local authorities. Similarly, in Wales the quintile relating to the 20% most deprived neighbourhoods in Wales contains 22.7% of the 0-17 year old child population, based on the 2011 mid-year population estimate. In contrast, the 20% least deprived neighbourhoods in Wales only contain 18.8% of the child population. This would seem to suggest that children are disproportionately over-represented in relatively poor households. Figure 31 shows

the distribution of the Welsh child population (0-17 years) by deprivation quintile of the Welsh Index of Multiple Deprivation (WIMD), where quintile 1 is the most deprived and quintile 5 is the least.

Figure 31: Welsh child population (0-17 years) by deprivation quintile (WIMD 2014)
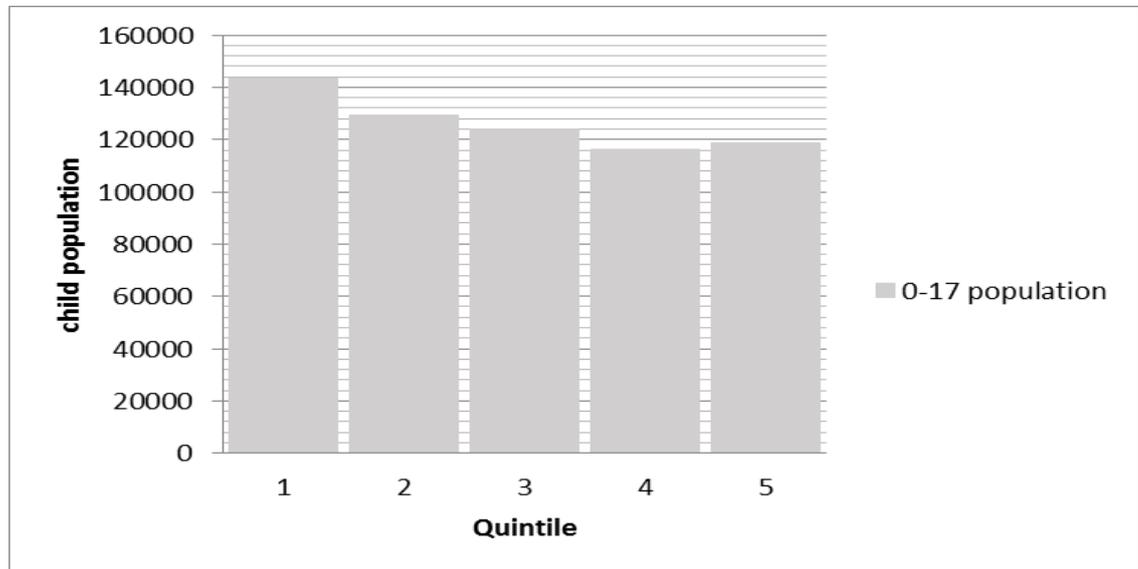
Townsend (1979) found that the likelihood of households being in poverty, or on the margins of poverty, increased with family size. This was found to be a linear relationship, with the percentage of households in poverty increasing from 21% of households with one child to 69% of households with four or more children (p.288). Based on the proposition that households with higher numbers of children are more likely to be deprived, deprived neighbourhoods are therefore more likely to contain higher numbers of children as illustrated by the previous tables. A supplementary argument would be that if one child is known to children's services, it is likely that all children within a household would be known. Given the link between family size and poverty identified by Townsend, in more deprived neighbourhoods this likely to mean a larger number of children than in a household in a less deprived neighbourhood.

7.4 OVERALL DEMOGRAPHIC PROFILE OF CHILDREN 'LOOKED AFTER'

Moving on to 'looked-after' children, this section provides a brief summary of the demographic profile of 'looked-after' children and young people when they entered care. Figure 32 provides a break-down of the 8853 cases included in the analysis by Welsh Index of Multiple Deprivation (2014) deprivation decile, where decile 1 are the 10% most deprived LSOA within Wales and decile 10 is the least.

Figure 32: Percentage of children at first entry by deprivation decile (WIMD 2014)
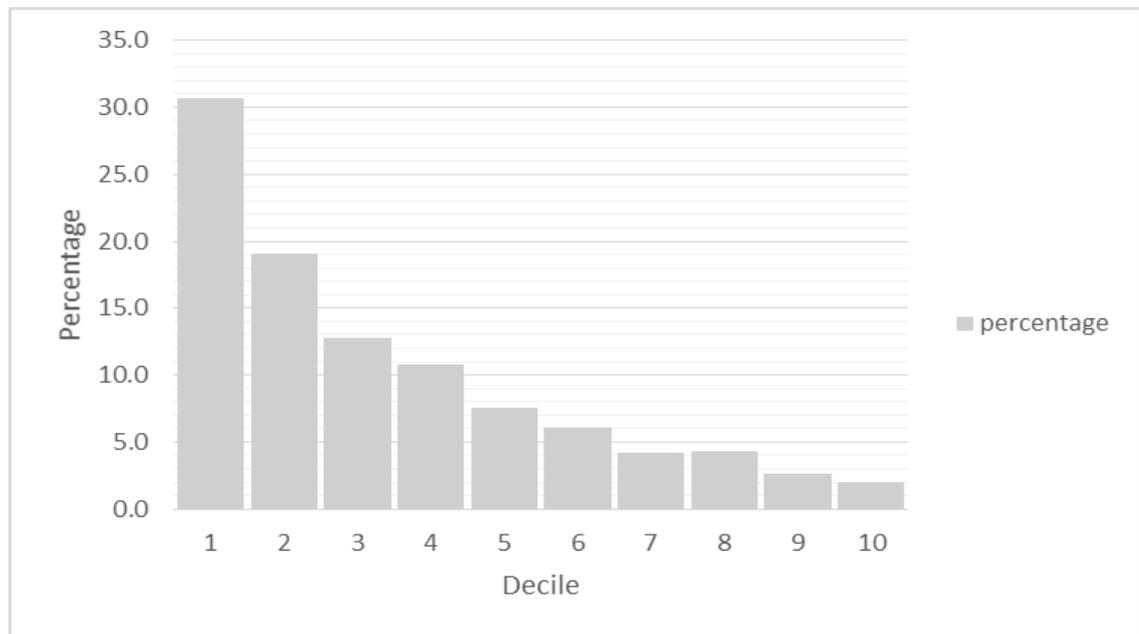
The graph illustrates that of those children and young people becoming 'looked after' for the first time during the period, 30% did so from neighbourhoods in the 10% most deprived in Wales. A later element of the analysis will involve calculation of rates per 10,000 per quantile within each of three comparison groups of local authorities based on the overall relative deprivation levels at a local authority. It is likely that in the relatively less deprived LSOA there will potentially be insufficient cases to carry out comparisons at the decile level. To resolve this 'small N' problem the deciles will be collapsed into quintiles to provide bigger numbers in each quintile for each of the

three comparison groups of local authorities. The results by deprivation quintile are shown in Figure 33.

Figure 33: Percentage of children at first entry by deprivation quintile (WIMD 2014)
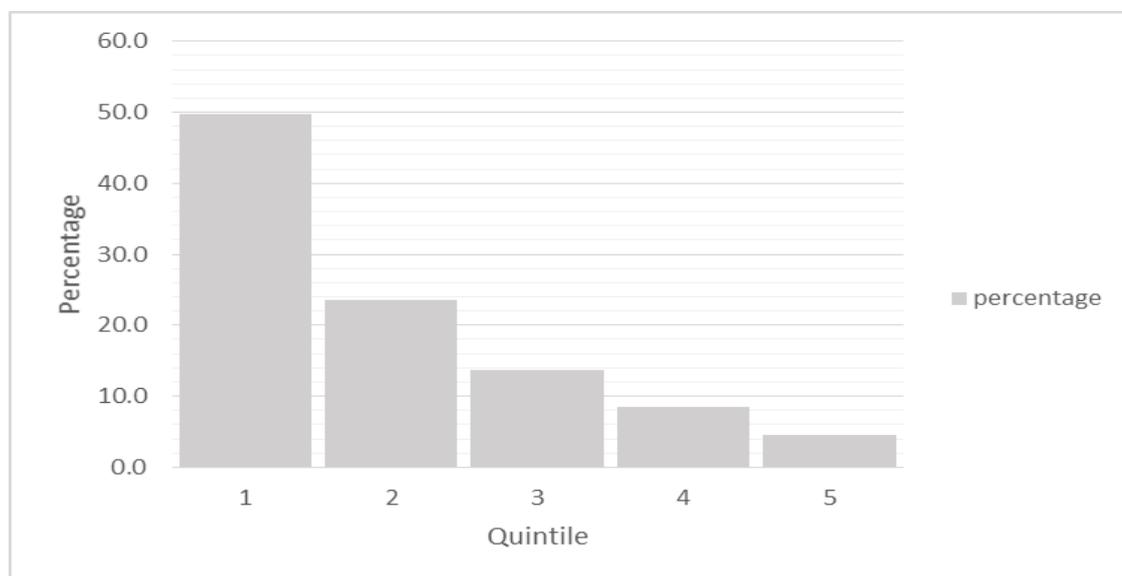
The figure shows that of all first entries to care during the observation period from the 18 authorities included in the analysis, almost half (49.7%) were living in neighbourhoods in the 20% most deprived in Wales. 'Looked-after' children's rates and deprivation appear to have a linear relationship. For each reduction in the level of neighbourhood level deprivation the proportion of children becoming 'looked after' reduces, almost halving on each occasion.

7.5 AREA LEVEL DEPRIVATION AND RATES OF CHILDREN ENTERING CARE

Using the cases from the derived sample, rates per 10,000 of the child population were calculated for each deprivation decile based on the neighbourhood from which each child entered care. The results are presented in figure 34.

Figure 34: The rates of children becoming 'looked-after' for the first time by deprivation decile (WIMD 2014) 2008-2014
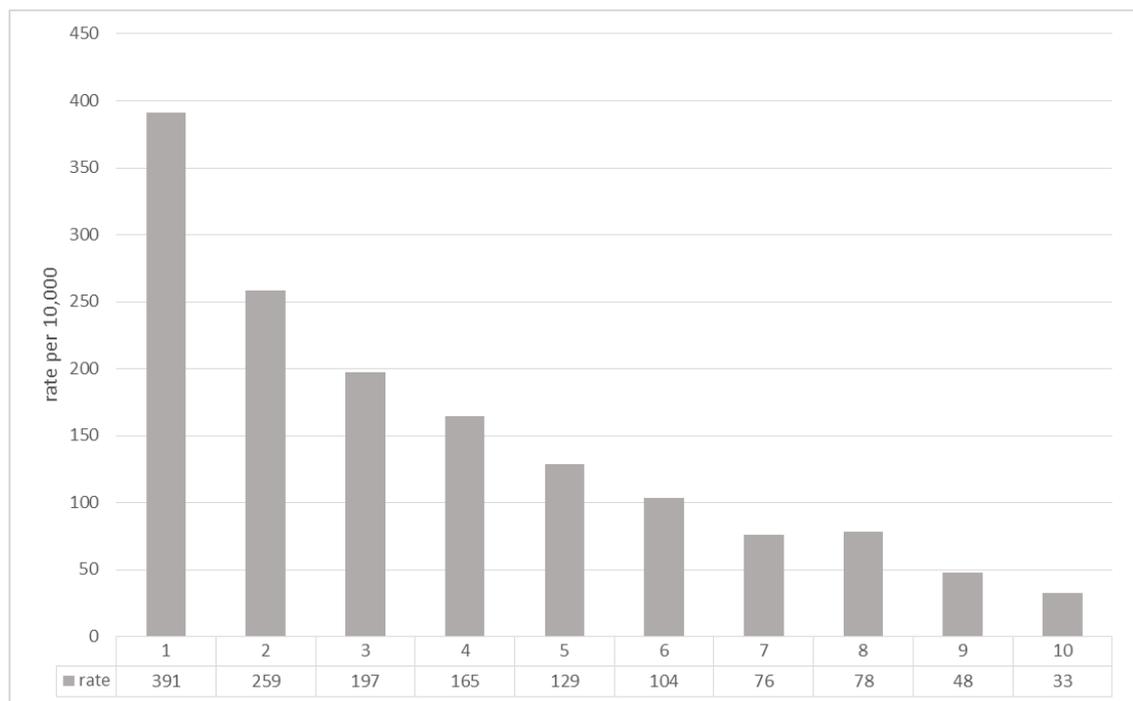
What the figure above illustrates is the 'social gradient' (Marmot, 2010, p.37) of entries to the care system within Wales. Broadly speaking for each decile decrease in relative deprivation (with the exception of deciles 7 and 8) there is a corresponding decrease in the rate of children becoming 'looked-after' for the first time during the observation window.   A child living in decile 1, the 10% of most deprived neighbourhoods in Wales, is almost 12 times (11.8) more likely to become 'looked after' than their peers living in neighbourhoods in decile 10. This finding is lower than that found in the Child Welfare Inequalities results for Wales where a 16-fold difference was found between the most and least deprived deciles.

GENDER

The rates per 10,000 of the child population were calculated for those children entering care by sex and deprivation decile (see Figure 35). Again, the results show a downward trend in rates as relative deprivation decreases. The figure below suggests that there is no statistically significant difference between boy and girls in the rates of entry to care when the rates at each deprivation decile are compared.

Figure 35: Children becoming 'looked-after' by sex and deprivation decile 2008-2014

	1	2	3	4	5	6	7	8	9	10
Boys	395	264	198	170	129	100	80	74	48	34
Girls	386	253	197	160	129	107	72	83	48	32
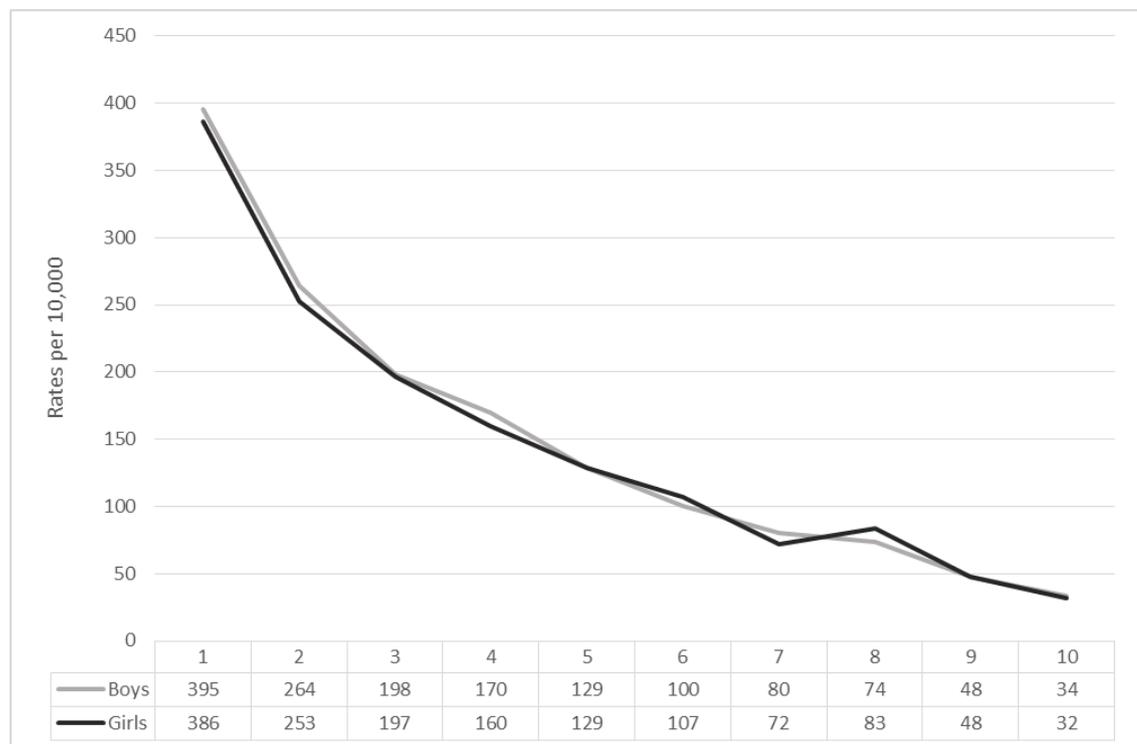
AGE GROUP

Figure 36 shows the data plotted by the age groups used throughout the thesis and deprivation quintiles. The graph shows that for all age groups there is a 'social gradient' of entries to care and that for each step increase in the level of neighbourhood level deprivation there is a corresponding increase in the rates of children becoming 'looked-after'.

Figure 36: Children becoming 'looked-after' by age group and deprivation quintile

	1	2	3	4	5
■ 0-4 years	522	280	175	113	51
■ 5-11 years	227	116	77	52	25
■ 12-15 years	281	182	121	84	40
■ 16-17 years	201	133	95	64	58
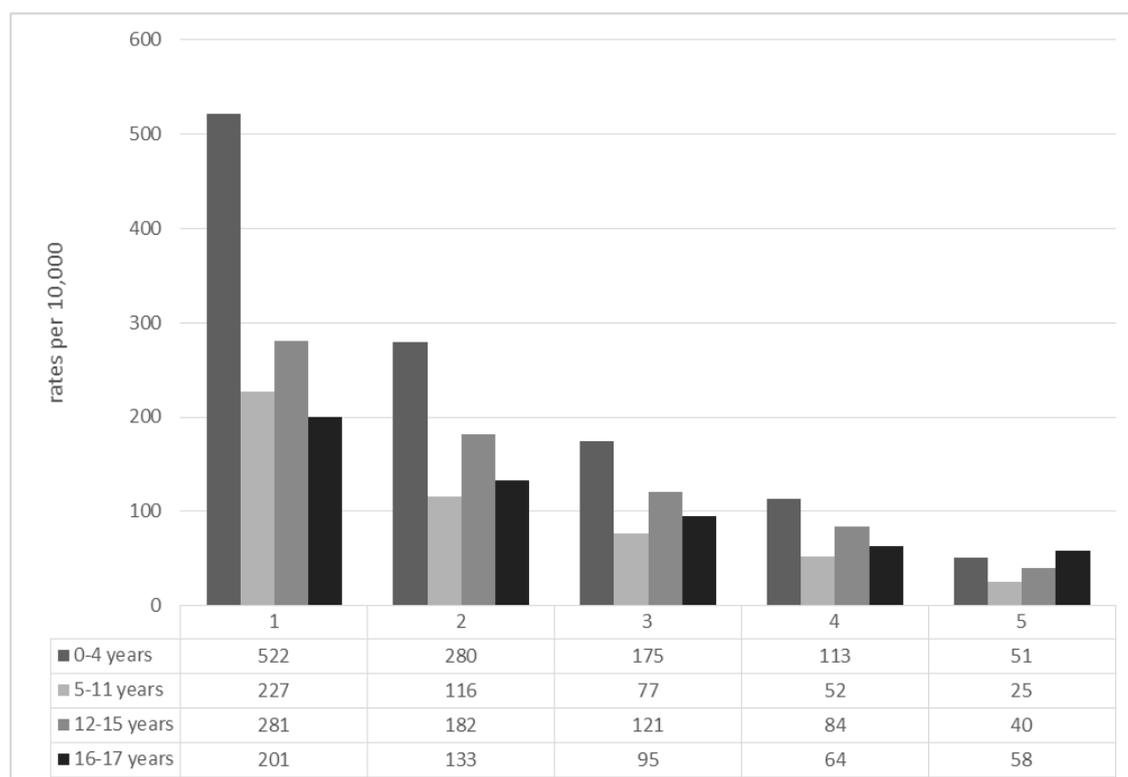
The steepest gradient is present in rates of the youngest children entering care. The graph shows that children aged 0-4 years entering care from the 20% most deprived neighbourhoods (quintile 1) in Wales are 10 times more likely to do so than children from the same age group living in the least deprived neighbourhoods (quintile 5). In contrast the gradient present in the data on young people aged 16-17 years is considerably less steep with the variation in rates between the most and least deprived quintiles being less than four-fold.

CATEGORY OF NEED

Table 29 describes the sample by category of need and deprivation level, in this case by quintile (20%) rather than deciles. The largest category are those children entering care as a result of abuse and neglect and within this category, again, there is a clear 'social gradient' observable within the rates. A child living in the 20% most deprived

neighbourhoods in Wales is almost 13 times (12.9) more likely to become 'looked-after' than a child in the 20% least deprived LSOA. A similar gradient can be seen in the rates for most of the categories of need used within the SSDA903 return except disabled children. Although the rates overall are low, it is interesting to note that the rates of children in care whose predominant need relates to their disability is almost flat across the deprivation quintiles. This shows that disabled children are entering care at a similar rate from neighbourhoods across the socio-economic spectrum. This is in contrast to children entering care as a result of abuse and neglect where cases appear to be concentrated in more deprived neighbourhoods.

Table 29: Rate per 10,000 by category of need and deprivation quintile (WIMD 2014)

	1	2	3	4	5
Abuse and Neglect	219	113	70	41	17
Family Dysfunction	49	27	17	14	7
Disability	3	3	2	2	2
Parental Illness	9	6	6	4	2
Acute Stress	27	18	12	10	7
Socially Unacceptable Behaviour	10	9	5	3	2
Absent Parenting	9	4	3	4	2

LEGAL STATUS

Figure 37 shows the rates per 10,000 of the child population of children entering care for the first time by the legal basis under which children became 'looked-after'. Due to the small numbers two categories, adoption and youth justice have been excluded from this analysis.

Figure 37: Children becoming 'looked-after' by legal status and deprivation decile

	1	2	3	4	5	6	7	8	9	10
■ Voluntary	266	173	136	114	89	71	54	56	37	25
■ Care Orders	86	54	40	31	23	21	15	12	6	3
■ Detained CP	34	30	20	19	15	11	6	10	4	4
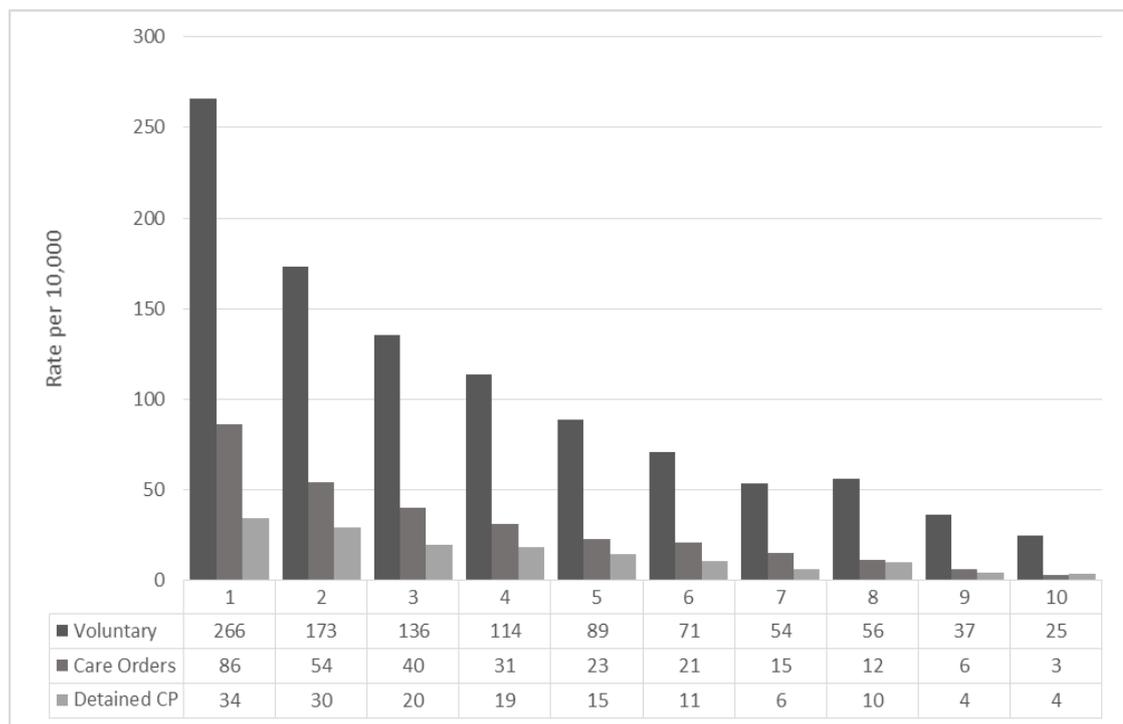
As with previous graphs in this chapter, a level of 'social gradient' is observable within the data, although in the case of both voluntary accommodation and detained Child Protection cases there is a small increase between deciles 7 and 8. Despite this, the overall trend within the data is one in which as deprivation increases so does the rate at which children become 'looked after'. In respect of children and young people entering care through a voluntary arrangement, those from neighbourhoods in the 10% most deprived in Wales are almost 11 times (10.6) more likely to become 'looked-after' through this route than children living in neighbourhoods in the 10% least deprived in the country. In contrast, there is an almost 29-fold increase in rates

of children coming into care through the use of care orders between the 10% least deprived and the 10% most deprived LSOAs in Wales. The marked difference in the steepness of the 'social gradients' between voluntary care and the use of the courts would seem to suggest that the use of voluntary agreements with parents is more evenly distributed across deprivation quintiles (although still higher in the poorest neighbourhoods), whilst the more invasive use of the courts to remove children from families is focused much more clearly in the most deprived quintiles (see appendix 9).

CHANGES OVER TIME

Figure 38 below shows the rates per deprivation quintile calculated for each of the six years covered by the data.

Figure 38: Children becoming 'looked-after' by collection year and deprivation quintile

	1	2	3	4	5
2008/09	46	29	21	14	7
2009/10	64	31	17	12	7
2010/11	55	29	18	13	7
2011/12	53	28	23	12	6
2012/13	53	35	22	12	7
2013/14	56	29	15	14	7
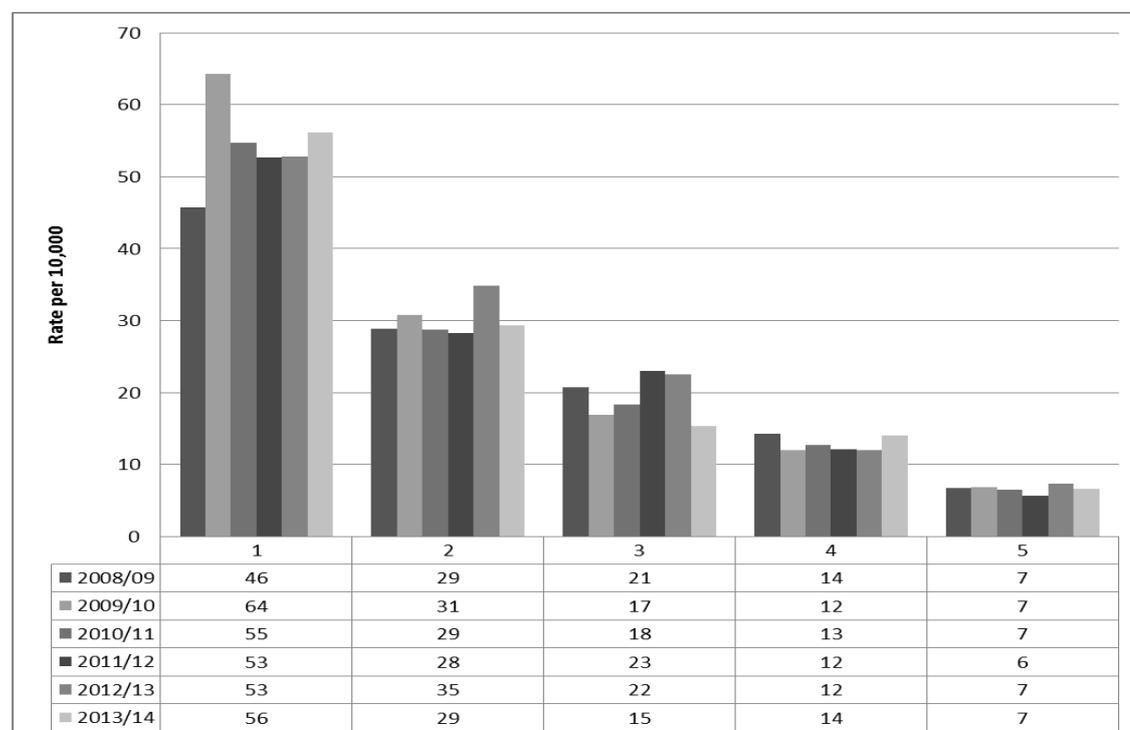
The graph shows that in three of the five quintiles (quintiles 2, 4 and 5), whilst there has been some small variations in rates between years, the rates in the final year of

data collection are the same as those in the first. In general, rates in these quintiles have remained relatively unchanged over time. The biggest changes are present within the rates in quintile 1, the 20% most deprived neighbourhoods in Wales. The most obvious of these year-on-year changes within this quintile appears to be between 2008/09 and 2009/10, where there was an increase of 18 children per 10,000 children. This change would have occurred during the period of extensive media coverage of the Peter Connelly (Baby P) case and its immediate aftermath in terms of the surge in care applications and children entering care. The graph would seem to suggest that the increase in numbers of children in care in Wales was predominantly fuelled by an increase in children from the most deprived areas becoming 'looked-after'. Whilst rates in subsequent years are lower than the peak in 2009/10 they remained higher than the rate for this quintile at the start of the period covered by the data, with the rate in 2013/14 being 10 children higher per 10,000.

RATES PER QUINTILE BY LOCAL AUTHORITY

The analysis undertaken within this chapter has thus far been concerned with all the cases included from the eighteen local authorities taking into account deprivation. It is however also possible to consider these data at the level of individual local authorities and in so doing consider whether the 'social gradient' is present in all local authorities and whether that gradient is steeper for certain authorities. What is shown in Table 30 are the rates per 10,000 children entering care for the first time, by local authority and deprivation quintile.

Table 30: Rate per 10,000 by local authority and deprivation quintile.

	1	2	3	4	5
Isle of Anglesey	257	115	84	63	100
Gwynedd	447	119	112	51	22
Conwy	309	187	51	96	39
Flintshire	199	139	76	75	20
Powys	362	277	144	42	63
Pembrokeshire	179	153	51	45	32
Carmarthenshire	295	130	106	83	48
Swansea	470	228	152	111	29
Neath Port Talbot	513	269	162	112	67
Bridgend	413	234	175	109	50
Vale of Glamorgan	263	132	122	40	23
Rhondda Cynon Taff	341	183	137	87	16
Merthyr Tydfil	358	206	176	131	0
Caerphilly	250	129	82	68	40
Blaenau Gwent	248	111	125	156	N/A
Torfaen	418	202	231	190	205
Newport	302	155	64	63	36
Cardiff	247	225	148	94	45

What the table above shows is that in the majority of cases (14 of the 18 local authorities included in the analysis) the social gradient is present at the local authority level. The highest rates are seen in quintile 1 (the most deprived) and there is a reduction in rates at each quintile with the lowest rates recorded for quintile 5 (the least deprived). There are however, outliers to this pattern in the case of four local authorities (Isle of Anglesey, Powys, Blaenau Gwent and Torfaen). In the case of two of these local authorities a possible explanation is that in quintiles 4 and 5, in which a higher rate occurs in these authorities, what is causing these rates are a small number of children becoming 'looked-after' from within a very small child population living in these less deprived neighbourhoods.

7.6 INVERSE INTERVENTION LAW (IIL)

Having described the overall relationship between deprivation and being 'looked-after', this section will explore the relationship between neighbourhood level deprivation, local authority level deprivation and the overall rates at which local authorities intervene to bring children into public care. In particular it will test whether the idea of an Inverse Intervention Law (IIL) as proposed by Bywaters et al. is present in Wales.

LOCAL AUTHORITY LEVEL DEPRIVATION AND OVERALL RATES OF CHILDREN LOOKED AFTER

When local authority (LA) level population adjusted WIMD scores are plotted against each local authority's mean overall rate of children becoming 'looked-after' a correlation between the two is shown to exist, as illustrated by the graph below.

Figure 39: Population adjusted local authority IMD scores plotted against mean LAC rates
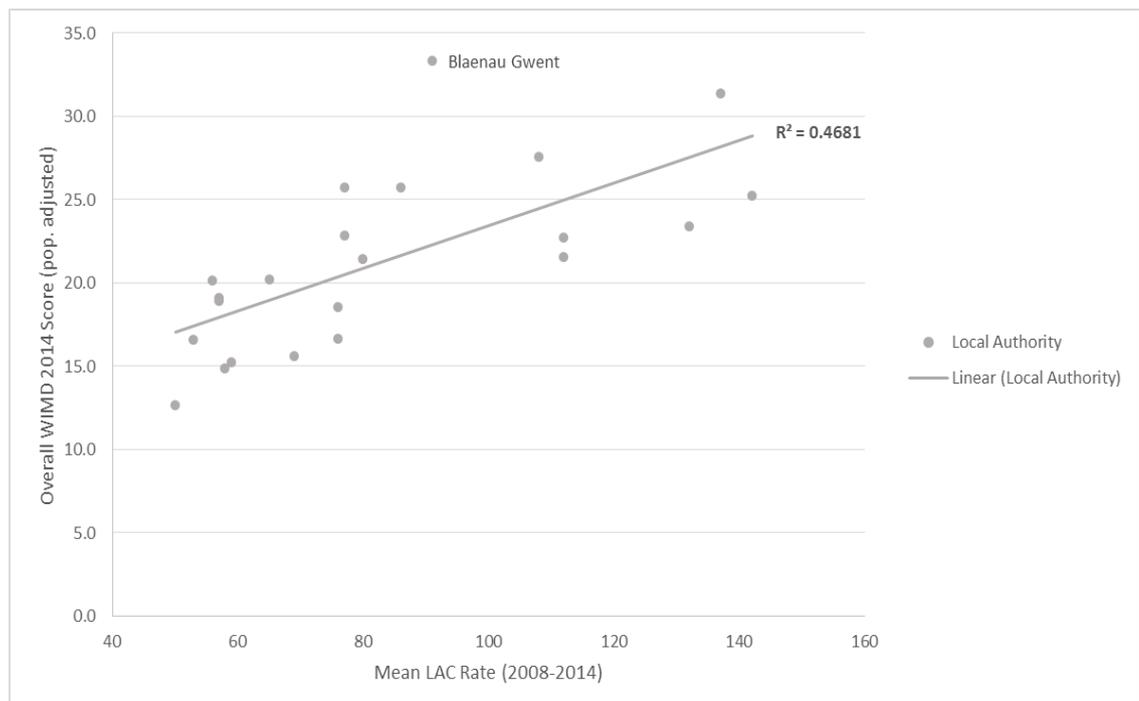
The graph shows a clear relationship between the two variables, with an r-squared value of .4681, indicating that almost 47% of the variation in overall 'looked-after' children rates is explained by variation in the deprivation score at a local authority level.   One authority, Blaenau Gwent, appears from the graph to be an outlier, given its very high population adjusted Index of Multiple Deprivation score; it has only a moderately high overall 'looked-after' children rate, which would place it in the middle of rates for Welsh local authorities. In fact, if Blaenau Gwent is removed from the data the fit improves further, with the r-squared value increasing to .5732.

NEIGHBOURHOOD LEVEL DEPRIVATION AND OVERALL RATES OF CHILDREN LOOKED AFTER

Figure 40 provides an illustration of the rates per 10,000 of children and young people becoming 'looked-after' for the first time from each quintile, plotted against each local authority's mean overall 'looked-after' children's rates in 2008-2014.   The graph shows a very strong statistical relationship (R^2 = 0.7615 and 0.697) between the rates of children entering care from the first and second quintile and a local authority's overall rates of children 'looked-after'.   This suggests that as the rates of children becoming 'looked-after' from the 40% most deprived LSOAs within a local authority increase, the overall mean rate of children in care increases too. Conversely it shows no statistical relationship between the rates at which children become 'looked-after' from the other three quintiles and overall rates.

Figure 40: Rates per 10,000 of children from the sample local authorities at first entry to care by deprivation quintile
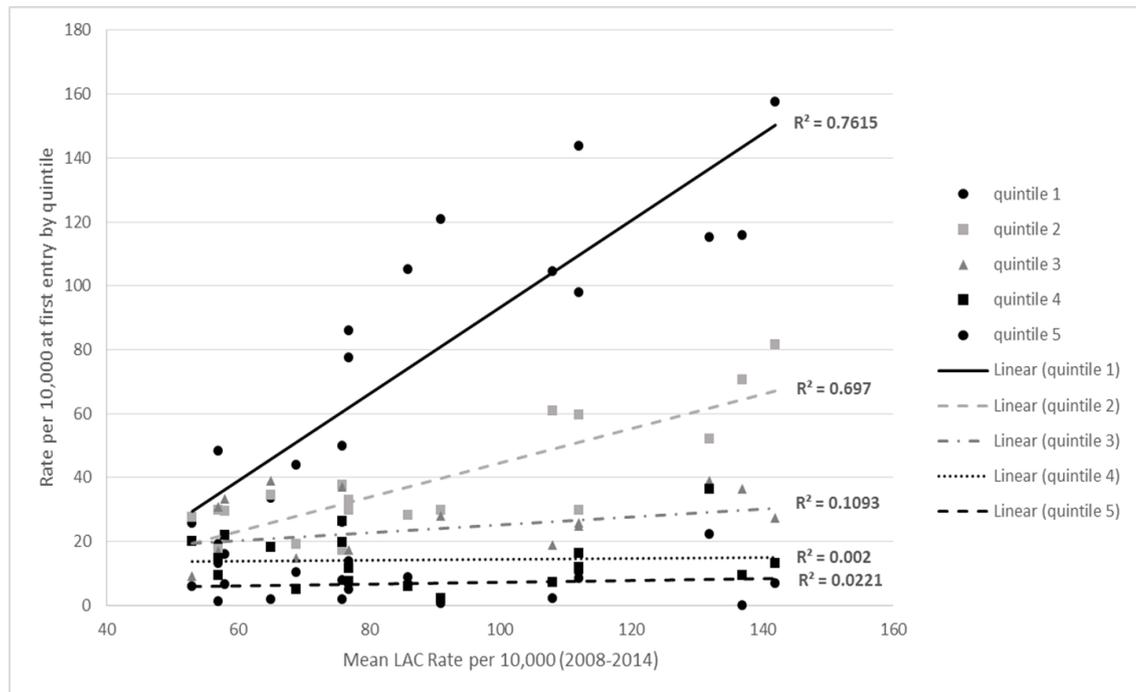
CHILD POPULATION DISTRIBUTION ACROSS THE THREE COMPARISON GROUPS

In order to compare with the Bywaters study, the distribution of child population is presented in three comparison groups of local authorities. Figure 41 shows the child population (0-17 years) of the three comparison groups, the composition of which are described in section 7.2, by deprivation quintile at the Wales level. Group A, the group of local authorities with overall highest levels of relative deprivation at a local authority level have a child population of which almost a third (32.6%) live in the first quintile (the 20% most deprived LSOAs in Wales). This group of local authorities sees a reduction in the percentage of children living in neighbourhoods in quintiles 1 to 4, although perhaps surprisingly a larger percentage of children (12.9%) were living in the least deprived quintile (quintile 5) than living in neighbourhoods in quintile 4 (10%). Group C, the group of authorities which overall are the least deprived, in some

ways presents the mirror image of Group A, with the smallest percentage (11.2%) of children living in quintile 1 (the most deprived) and a linear increase in percentage of children between quintiles 1 and 4. The largest single group of children living in Group C local authorities are those living in neighbourhoods in the 4th most deprived quintile (31.3%). In quintile 5 it is perhaps interesting to note that it is those authorities in group B, rather than the least deprived group of authorities (group C), that contains the highest percentage of children living in quintile 5.

Figure 41: Percentage of child population (0-17 years) by deprivation quintile and comparison group
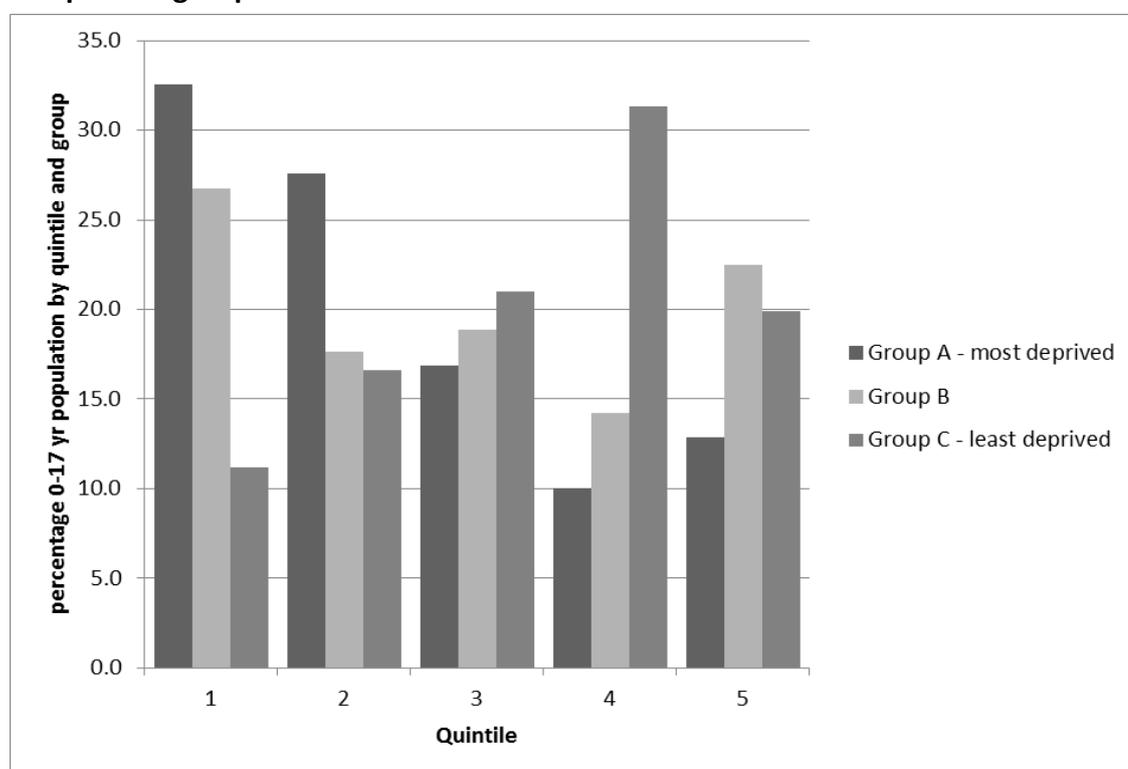
OVERALL INTERVENTION RATES BY COMPARISON GROUP

Figure 42 plots the rates per 10,000 of children and young people becoming 'looked-after' for the first time by deprivation quintile and by comparison group based on overall relative levels of local authority deprivation.

Figure 42: Rates per 10,000 quintile child population at first entry by comparison group
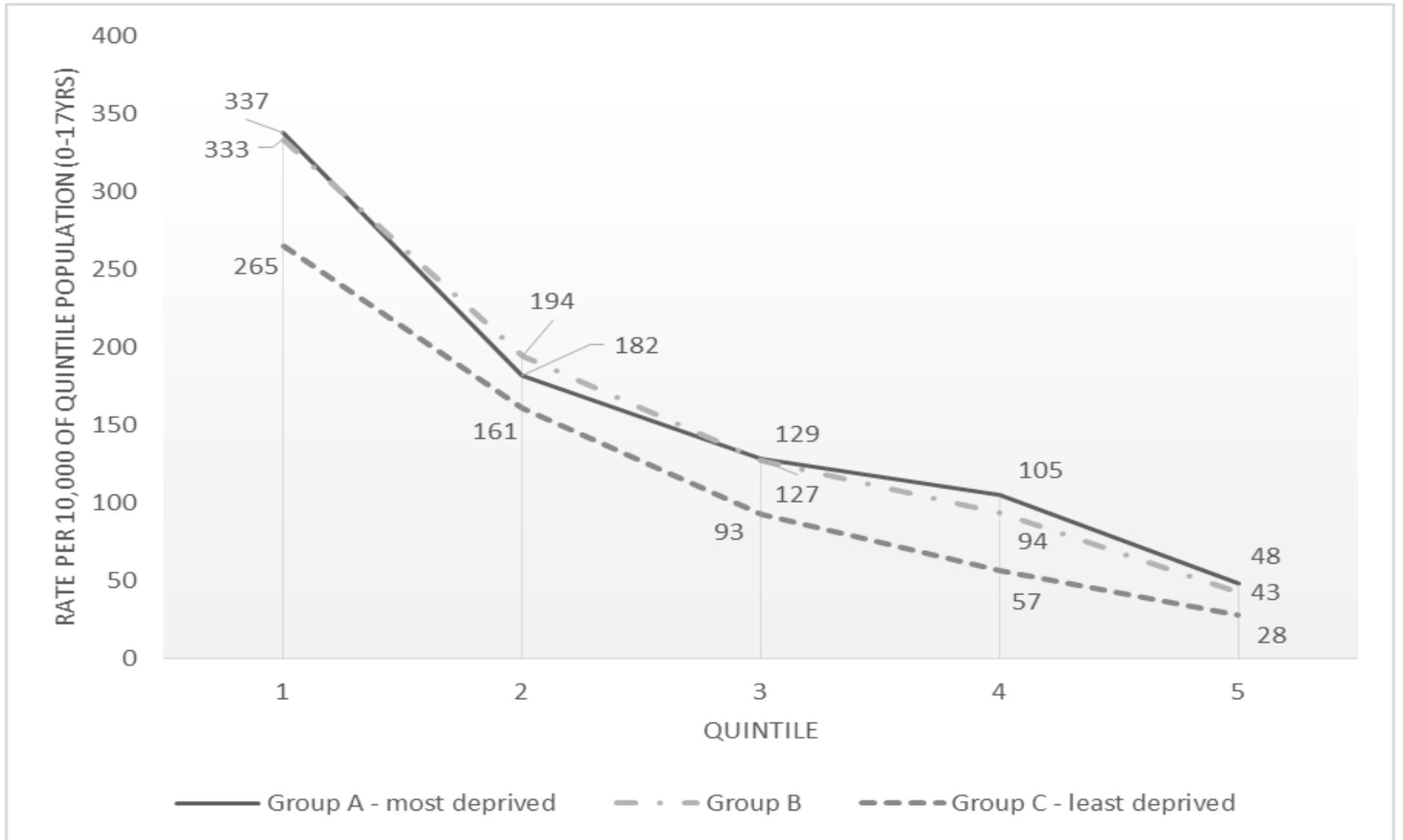
The graph appears to show that those authorities in Group A (the most deprived) and Group B, intervened by placing children in the care of the local authority at broadly similar rates across all quintiles. In contrast, the local authorities in the group with the lowest levels of overall deprivation (Group C) intervened at much lower rates at all levels of neighbourhood deprivation. So for example, in the first quintile (the 20% of neighbourhoods that are the most deprived in Wales), from which we know almost 50% of children in Wales enter care, this group of authorities placed children in care at a rate which is 68 children per 10,000 child population lower than those authorities in Group B (72 fewer children than Group A). Even in quintile 4 which represents the neighbourhoods in which almost a third of children and young people living in group C authorities live, the rate at which children are placed in care is still lower than that of the other two groups (15 children per 10,000 child population lower than Group B) at the comparable level of deprivation.

As will be discussed shortly, the comparison between these findings and those of Bywaters et al. are striking, although in drawing such comparisons it is necessary to exercise some caution given that whilst the methodology used is broadly the same, the cohorts of children used in the analyses have differences. As highlighted already, The Bywaters et al. (2015) study used cross sectional data to look at the relationship between social inequality and social care interventions in children's lives. These interventions included becoming 'looked-after', placed on the child protection register or receiving services as a child in need. The data used in this study is routinely collected 'as at 31st March' administrative data collected for the SSDA903 and the Child in Need Census and because of the nature of the data it only relates to children and young people who were receiving those interventions on a specific date. On this

basis the children included in the study could therefore have entered care the day before the census date or have been in care, for example, for the preceding 16 years. In contrast the children included in this study were all known to have entered care from home during the observation window. Whilst it could be argued that the socio-economic conditions of the neighbourhoods from which the Bywater study cohort entered care may have changed little in the intervening period, even when that may have been many years before, it still needs to be acknowledged that the children in each study were sampled in a different way and therefore this study is not an exact replication.

Another area in which this study deviates from that undertaken by Bywaters et al. is in terms of consideration of legal status. In this study, legal status is considered at the point of a particular event, for example, at the point when a child enters or leaves care. Whilst this may happen at any time during the six years it is still a defined and consistent event. With the use of data collected at a particular census point, such as the 31st March, this level of clear definition is lost. A child may, for example, have become 'looked-after' a matter of days or weeks before the census under a voluntary arrangement and that is still the case at the census point. A child may however have become 'looked-after' several years before and had several changes of legal status in the intervening period. I would therefore argue that the methods used in this study provide a more robust way in which to make comparisons between local authorities.

The data used in the Bywaters et al. study also only relate to a sample (approx. 10%) of the 152 local authorities in England. In contrast this study has a sample of

authorities, when the authorities without a full 6-years data are excluded, representing over 80% of authorities at the country level in Wales.

With those caveats borne in mind the results presented here are very different to those of the Bywaters et al. study. In that study, local authorities in the comparison group with the lowest levels of relative deprivation overall were found to intervene at higher rates at all deprivation quintiles, the so-called Inverse Intervention Law (IIL). This is clearly not present in the Welsh local authorities. In fact the graph appears to show quite the reverse, with those authorities that are the least deprived intervening at much lower rates at all quintiles as discussed above.

OVERALL RATES BY COMPARISON GROUP AND STATISTICAL SIGNIFICANCE

In order to test if the relationship between the rates at which children become 'looked-after' and deprivation at local authority and neighbourhood levels is statistically significant the non-parametric Kruskal Wallis test was used. This is a non-parametric test and is used when the assumptions of ANOVA .i.e. that data are normally distributed and that there is approximately equal variance between the scores for each group, are not met. This is a 'between groups' analysis, which allows comparison of three or more groups, where there are different subjects in each group. The data used to undertake the statistical test are the rates per 10,000 of children entering care for the first time (overall; through voluntary accommodation and care orders; by age group) from each of the 1909 LSOA covering the whole of Wales, divided by either quintile, comparison group or both. The data used contain a substantial number of Lower Super Output Areas (LSOA) where there are no children that have entered care from those neighbourhoods and this has an effect on the

distribution of the data, meaning they are not normally distributed. The Kruskal Wallis

test converts scores within a group and ascribes a rank to each value (Pallant, 2001).

The tests undertaken are illustrated in figure 43 from top to bottom they are:

- To test the overall relationship between the rates per 10,000 in each of the three

  comparison groups (A,B and C) of local authorities

- To test the relationship between the overall rates in each of the five quintiles (1-5)

- And finally, to test whether there are statistically significant differences in the

  rates of children entering care from neighbourhoods of comparable levels of

  deprivation (quintiles) in each of the three comparison groups. These are pairwise

  comparisons of LSOA rates , therefore as illustrated in the diagram for quintile 1

  the rates in neighbourhoods in group C are compared to those in group A (C-A),

  group C to group B (C-B) and finally group A to group B (A-B).

Figure 43: Kruskal Wallis group comparisons template

For each test a box and whisker plot was produced. Representing the data in this way enables the range and shape of the data to be interpreted. The box plot represents the inter quartile range, which falls within the 25th and 75th percentile. The whiskers represent the smallest and largest values within the data (except where data are identified as outliers). Outliers are identified by SPSS as values that extend more than 1.5 box-lengths from the edge of the box (indicated by a circle) or in the case of extreme values, those that extend to more than 3 box lengths from the edge of the box (indicated by a cross) (Pallant, 2001). The line within each box plot represents the median value within each group of data.

Figure 44: Kruskall Wallis Test – Comparison Groups

Independent-Samples Kruskal-Wallis Test

Total N	1,664
Test Statistic	126.564
Degrees of Freedom	2
Asymptotic Sig. (2-sided test)	.000
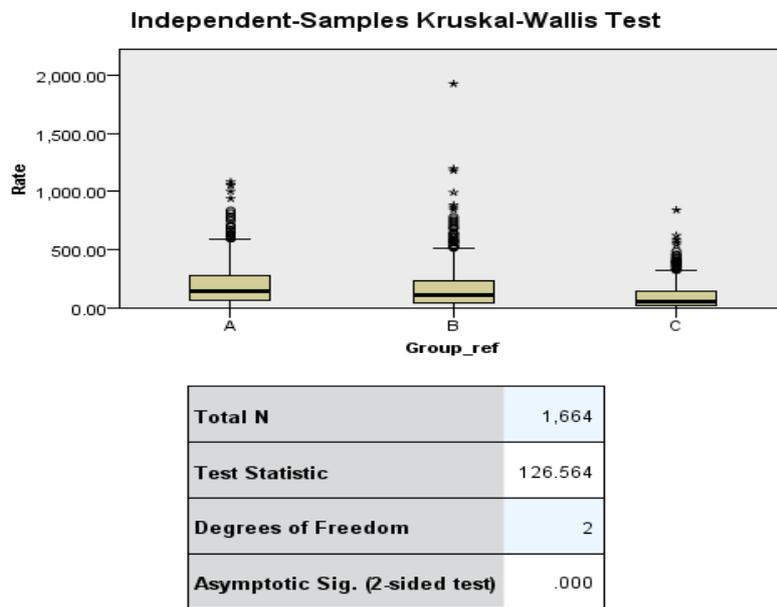
1. The test statistic is adjusted for ties.

Figure 45: Kruskall Wallis Test – Quintiles

Independent-Samples Kruskal-Wallis Test

Total N	1,664
Test Statistic	723.670
Degrees of Freedom	4
Asymptotic Sig. (2-sided test)	.000
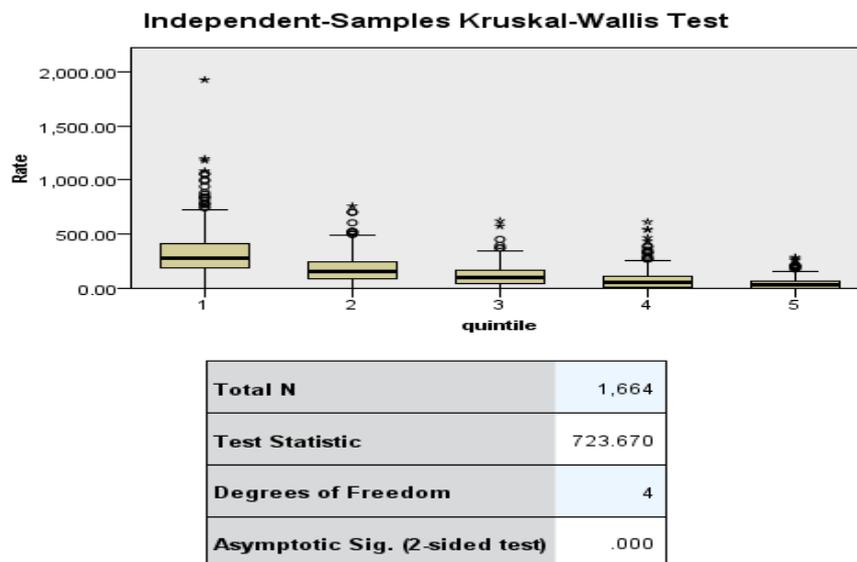
1. The test statistic is adjusted for ties.

The null hypothesis tested by the Kruskal Wallis test is that the mean ranks of the groups compared are the same. The significance level for the test was set at the 5% level, therefore for a result to be statistically significant requires a p-value (Sig.) of $p=<0.05$.

The first data tested as shown in Figure 44 were those relating to the rates per 10,000 of children becoming 'looked-after' for the first time within each comparison group (A, B and C). The test produced a value of $p=<.0001$ and therefore the difference between the pairs of groups tested (C-B, C-A and B-A) is statistically significant at the 1% level.

The pairwise comparison of pairs of quintiles shown in Figure 45 also produced a statistically significant result for all pairs of $p=<.0001$ and therefore the difference between all the pairs of quintiles tested are statistically significant at the 1% level.

The final set of tests compared the rates for the same deprivation quintile in each of the three comparison groups. The test results for quintile 1 resulted in no multiple pairwise comparisons being performed as the overall test returned a p-value of >0.05 ($p=.244$) and therefore there is no statistically significant difference across local authority groups at this quintile. Similarly the test identified no overall significant differences across samples within quintile 2. For quintile 3 the test did run multiple pairwise comparisons as the overall test returned a value of $p=.002$ and identified two pairs of samples where the null hypothesis was not met and difference between samples was significant at the 5% level. The differences between both groups C-A ($p=.007$) and C-B ($p=.003$) within this quintile were both significant. Comparison of

groups A-B within this quintile returned a p-value of 1.000 indicated no statistically difference between the two groups. Quintile 4 also returned an overall p-value of <.0001. As with quintile 3, pairwise comparisons of groups C-A and C-B identified statistically significant differences between the groups (p=<.0001). With regard to quintile 5 the overall test returned a value of p=.080. As it does not meet the criteria set for the running of the test no pairwise comparisons were generated.

INVERSE INTERVENTION LAW - INTERVENTION RATES OVER TIME

The data use within this study were collected over a six-year period has allowed me to explore not only the relationship between relative deprivation levels and the rate at which local authorities intervene by placing children in care, but also to consider how that changes over time. The graphs presented in figure 46 show the data by individual collection year for the six years covered by the observation window. The six individual graphs clearly illustrate is that those local authorities with the highest levels of relative deprivation overall (Group A) intervened more at almost all quintiles across all years (the exceptions being quintile 4 in 2009/10 and quintile 5 in 2013/14), by placing children and young people in care at a higher rate per 10,000 of the child population within each quintile than the local authorities in the two other groups. However, over the course of the six years observed, the relationship between the middle group of authorities and those in the group of local authorities with the lowest levels of overall relative deprivation (Group C) changes. In the first collection year (2008/09) these two groups of local authorities had intervention rates in respect of children becoming 'looked-after' that were broadly comparable. At all but one quintile (quintile 3) the two groups of authorities had rates which only varied from each other by one child per 10,000 child population within each quintile. By the final data collection year (2013/14) the authorities in the middle group (Group B) have diverged from the least deprived group of local authorities and are shown to have higher rates of children entering care for the first time during the collection period at all quintiles. What is more, at a number of quintiles the differences in rates per 10,000 are substantial. For example, at quintile one (the 20% most deprived LSOA in Wales) the two groups have gone from having virtually the same rates, to a difference

of 18 children per 10,000 child population (Group B = 56 looked-after children per 10,000; Group C = 38 looked-after children per 10,000).

As highlighted earlier, in Wales almost 50% of children and young people entering care for the first time do so from neighbourhoods which are in the 20% most deprived in the country. This would therefore seem the obvious starting point when considering differences between the groups of local authorities over time. In the collection year 2009/10, following the Peter Connelly serious case review and media coverage, the rates of children entering care from this quintile rose in all three groups of local authorities. However, the increase was bigger in Groups A and B, than in the group of local authorities with the lowest levels of overall relative deprivation (Group C). This group had both a lower starting rate and the smallest increase as a result of the 'Baby P effect'. The largest increase was in those authorities in the middle group (Group B), although the difference in level of increase between this group and Group A (most deprived group) was only 2 children per 10,000 child population within that quintile. In the following year, 2010/11, the middle group of authorities experienced a substantial reduction of first admissions to care of 15 children per 10,000 child population within quintile 1. In contrast, both Group A and Group C experienced small increases. After this year, the least deprived group of authorities (Group C) saw their rates of entry to care broadly reducing (although this decrease was not linear), culminating in a rate in the final collection year, which was marginally lower than that in the first collection year.   By the final collection year, both Group A and Group B had rates of children becoming 'looked-after' from the first quintile that were higher than in the first collection year, respectively 9 children and 16 children per 10,000 child population within that quintile.

It would appear that the effect of the Peter Connelly case had far less of an impact on the rates of children entering care from the most deprived quintile, within the least deprived group of local authorities. The observed increase in overall rates at a national level in the period after his case seems to have therefore been fuelled predominantly from those authorities that are more deprived overall (Groups A and B), even when, as has been done here, you compare rates of entry from neighbourhoods with the same high levels of deprivation and from which a substantial proportion of children enter care. These fluctuations in the rates of children becoming 'looked-after' for the first time from this quintile are illustrated in figure 47.

Figure 46: Rates per 10,000 by quintile and collection year for each comparison group
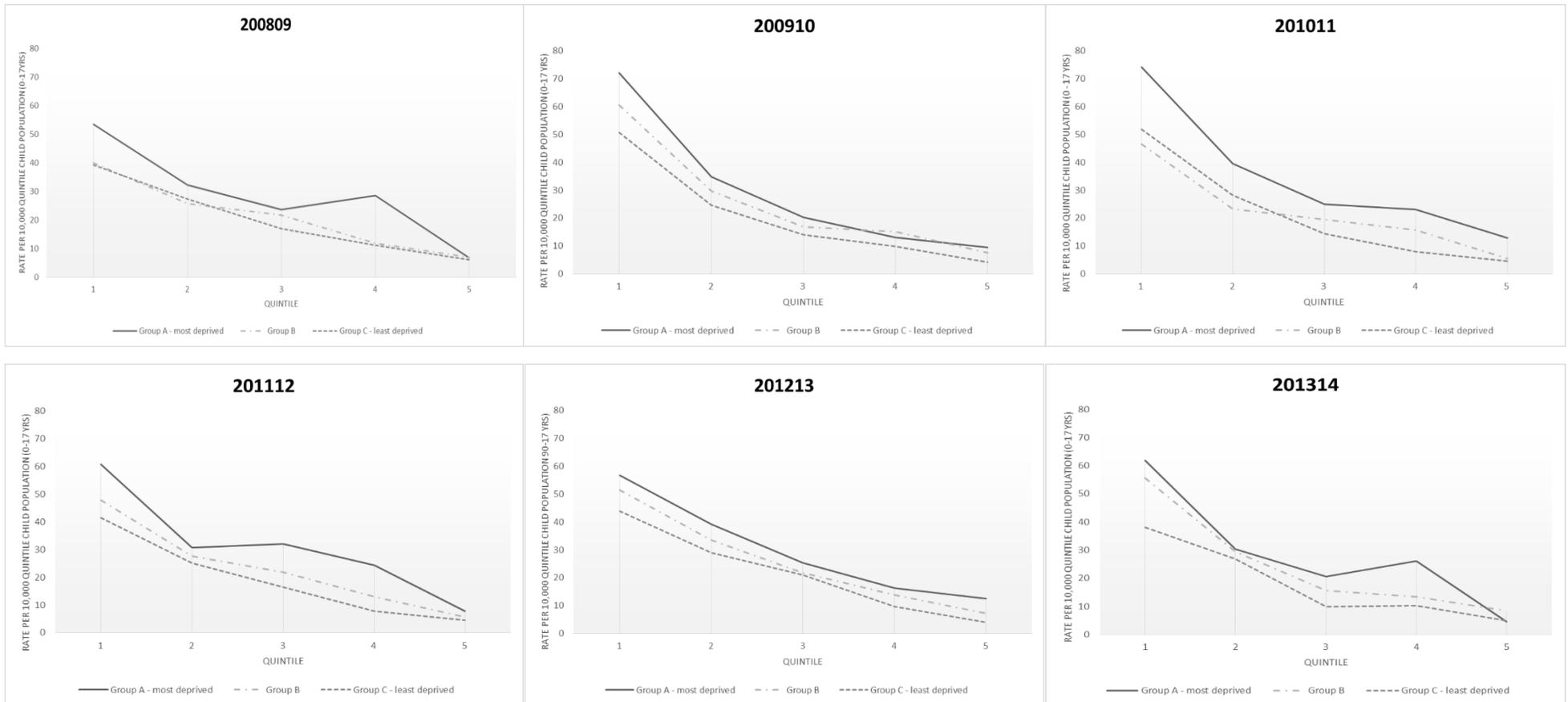
Figure 47: Rates per 10,000 of children becoming LAC from quintile 1 by comparison group
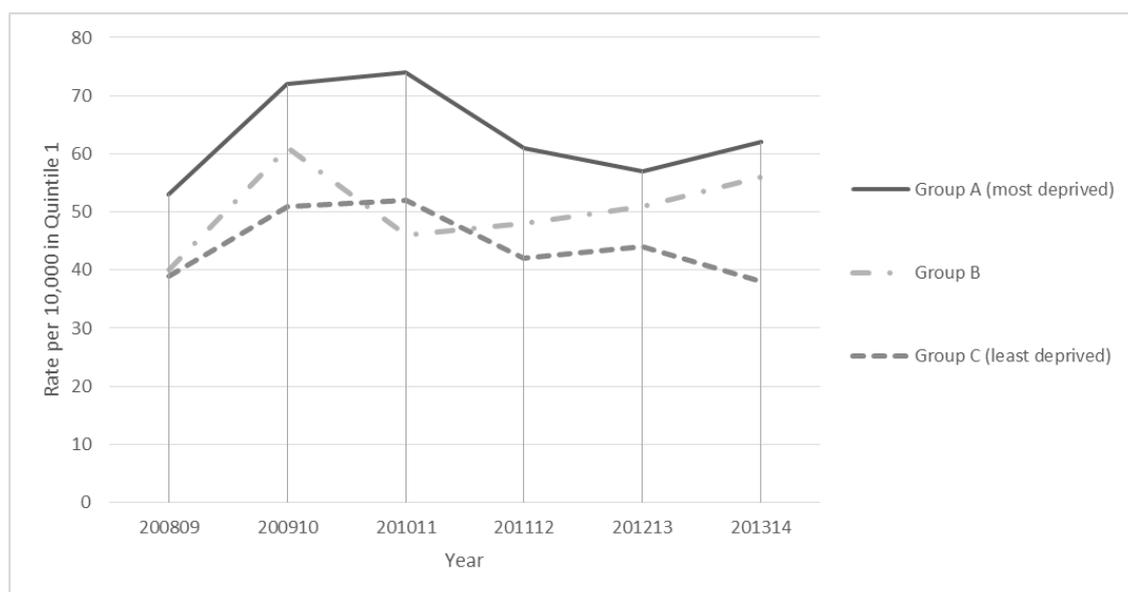
INVERSE INTERVENTION LAW AND LEGAL STATUS

As with overall rates of children and young people becoming 'looked-after' for the first time, this study also aims to consider the possible relationship between neighbourhood and local authority level deprivation and the legal basis on which children enter care. As previously shown (see section 6.2) the vast majority of children becoming 'looked-after' do so under only two categories of legal status – voluntary accommodation under S.20 of the Children Act 1989 and Care Orders (either interim or full) by the courts, accounting for 88.8% of all cases at first entry to care. It is just these two legal statuses that this analysis will therefore focus on. Figures 48 and 49 show the rates per 10,000 child population (at the quintile level) of children entering care by legal status, quintile and local authority comparison group.

Figure 48: Rates per 10,000 of children entering voluntary care (S.20) by quintile for each comparison group
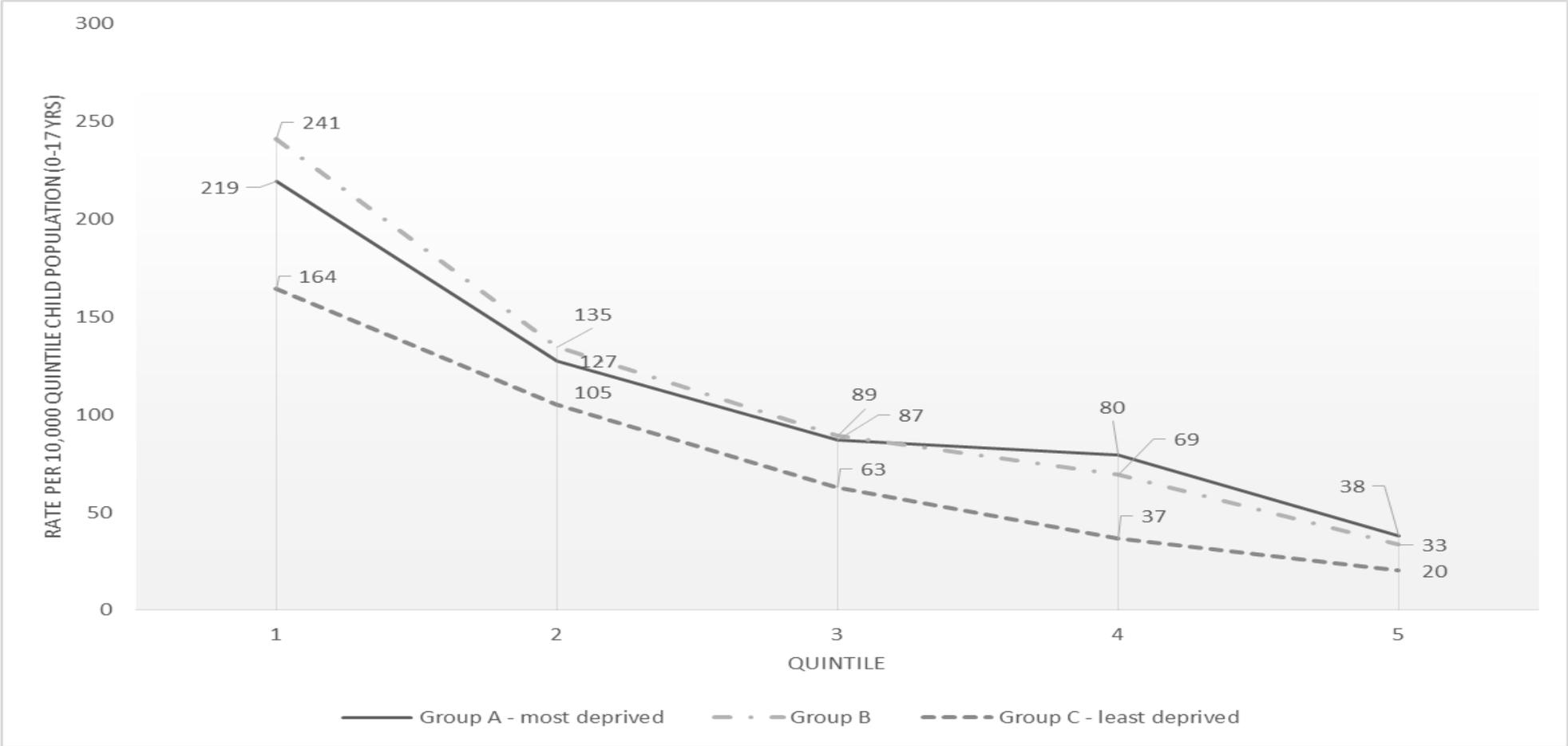
Figure 49: Rates per 10,000 of children entering care via a care order by quintile for each comparison group
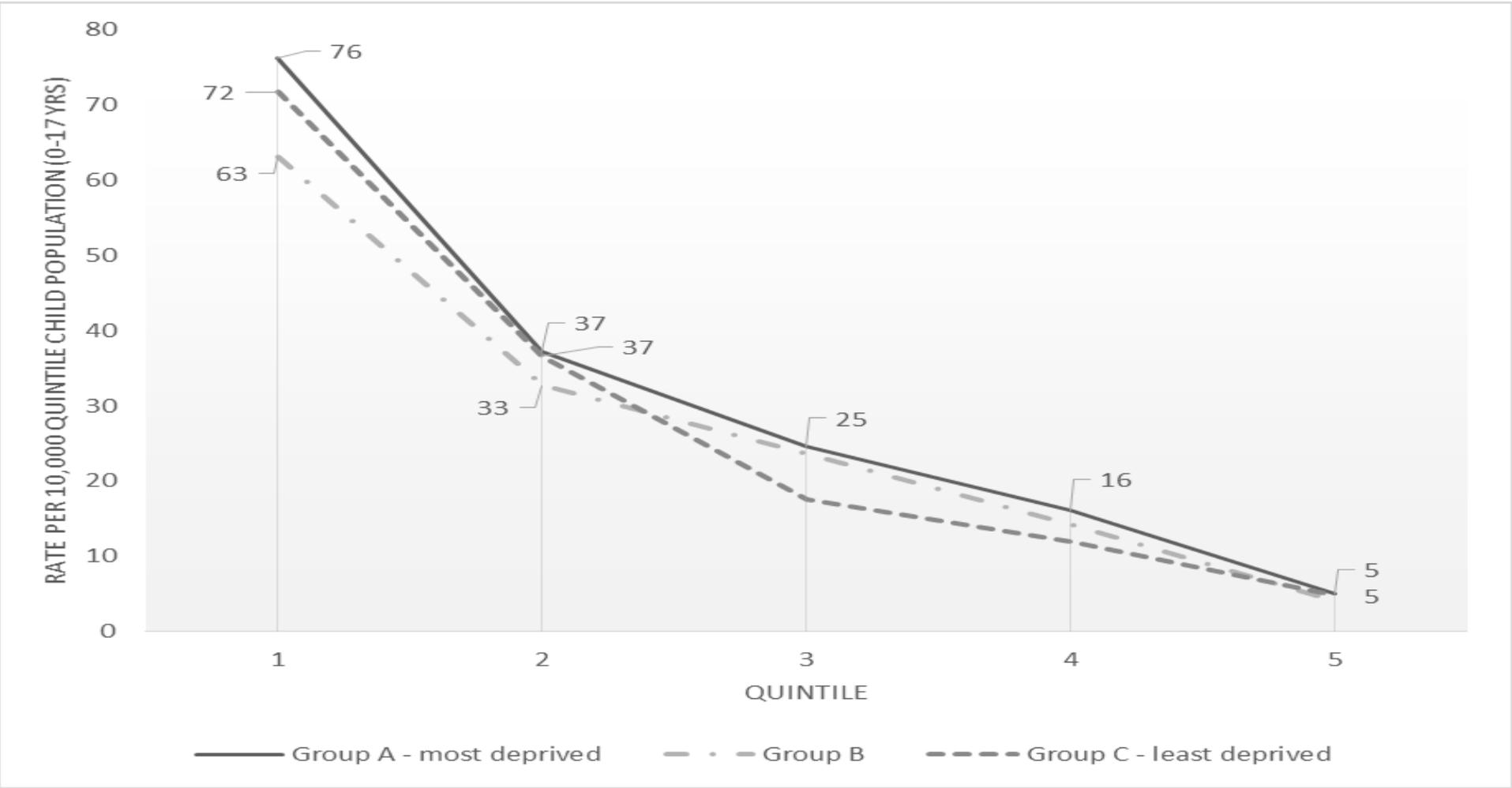
Figure 48 shows the rates per quintile of children becoming 'looked after' on the basis of a voluntary agreement between children's services and the family/carers for the child. At quintiles 1, 2 and 3 (the three quintiles accounting for 87% of children entering care in the sample), it would appear that the middle comparison group (Group B) takes children living in neighbourhoods in these quintiles into care on the basis of a voluntary agreement at a higher rate than the other two groups of local authorities. At quintile 1, the rate per 10,000 of children becoming 'looked-after' from Group B is 241, a rate 77 children per 10,000 higher than in comparison Group C. Interestingly, in the case of the two quintiles that are relatively the least deprived (quintiles 4 and 5), the local authorities with the highest levels of deprivation overall (Group A) intervene by taking children into voluntary accommodation in these quintiles at a higher rate than the other two comparison groups of local authorities when the numbers of children living in these neighbourhoods within each comparison group is accounted for. At all quintiles the group of local authorities with the lowest levels of overall deprivation (Group C) place children in care under a voluntary arrangement at much lower rates.

In contrast, when the rates at which each of the comparison groups of local authorities intervene by placing children in care on the basis of a care order are calculated, Group C has a very different relationship to the other two comparison groups. At both quintiles 1 and 2, Group C has rates per 10,000 that are higher than those of Group B. This group of authorities (Group C) have rates, which are only 4 children per 10,000 lower than Group A (most deprived) at quintile 1 and the same at quintile 2. At quintiles 3 and 4, Group C has rates below those of the other two groups, whilst at quintile 5 all three comparison groups intervene at the same rate.

This would seem to suggest that whilst overall this group of local authorities (Group C) intervenes much less than the other two groups in terms of placing children in care, when children do become 'looked-after' in these authorities that intervention is likely to be with those families living in the 40% most deprived neighbourhoods and will be more likely to be as a consequence of intervening through the courts. This may be as a result of the level of the thresholds within these local authorities. A high threshold would mean that they would potentially intervene less often using services provided under S.20 and only intervene where concerns about a child's safety and well-being are of a magnitude to warrant seeking to remove the child through the courts. This would perhaps explain both the lower rates of children being placed in voluntary accommodation by authorities in group C and the high rates of children and young people entering care under care orders. The lower overall rates in Group C may be linked more widely to resources within this group of authorities. In real terms (raw numbers) many of these local authorities will have fewer children 'looked-after'. Placing children in care presents a significant drain on limited resources for local authorities and so those authorities with lower numbers in care would potentially have more financial and staff resources to invest in working with families in order to address their needs and enable children to remain at home. The opposite may however also be at work. The Children Act 1989 stresses the ethos of working in partnership with families and intervening in family life in ways that are the least intrusive. It could therefore be argued that authorities with high rates of children becoming 'looked-after' on a voluntary basis (such as Groups B and C) are adopting this partnership approach and that perhaps local authorities in Group C are working with families in a much more authoritarian manner.

AGE GROUPS

Using the same age groups used elsewhere in this thesis (0-4 years, 5-11 years, 12-15 years and 16-17 year olds) comparison was made between the three groups of local authorities at comparable levels of deprivation.

Figure 50 shows the rates at which children entered care for the first time by age group, deprivation quintile and comparison group. The graphs show that local authorities with the highest overall deprivation levels (Group A) have higher rates of young children 'looked-after' (birth to 4 years old) at all quintiles, than the other two comparison groups. As age increases this picture changes until in terms of young people aged 16-17 years, particularly in quintiles 1 and 2 (the most deprived neighbourhoods), this group of authorities (Group A) intervene at much lower rates than Groups B and C. This would seem to support an earlier finding with regard to local authorities with high overall rates of children 'looked-after' taking in to public care a smaller percentage of older children when compared to those local authorities with low overall rates, given the relationship identified earlier in the thesis between local authority level deprivation and overall rates of children 'looked-after'.

Figure 50: Rates per 10,000 of children entering care by age group and quintile for each comparison group
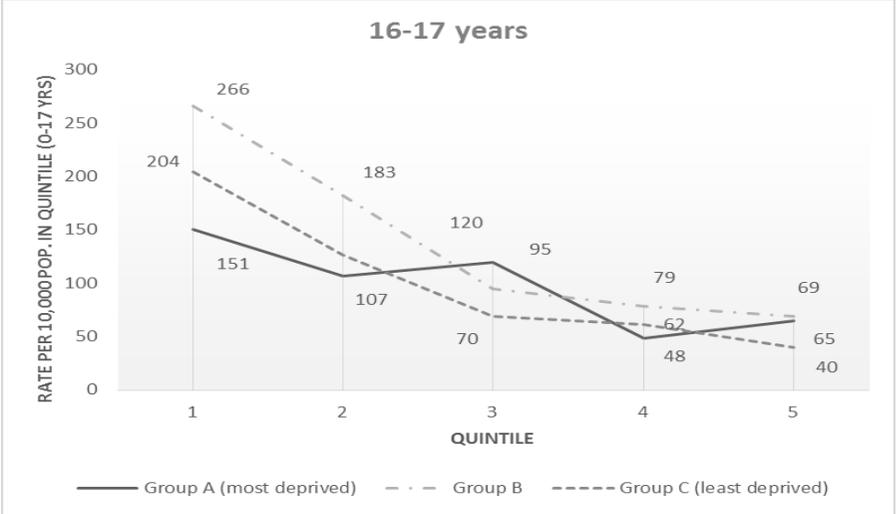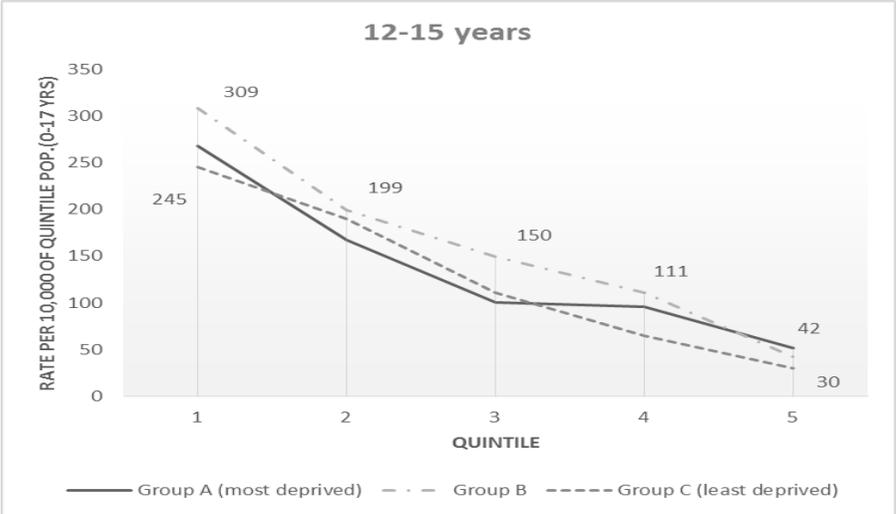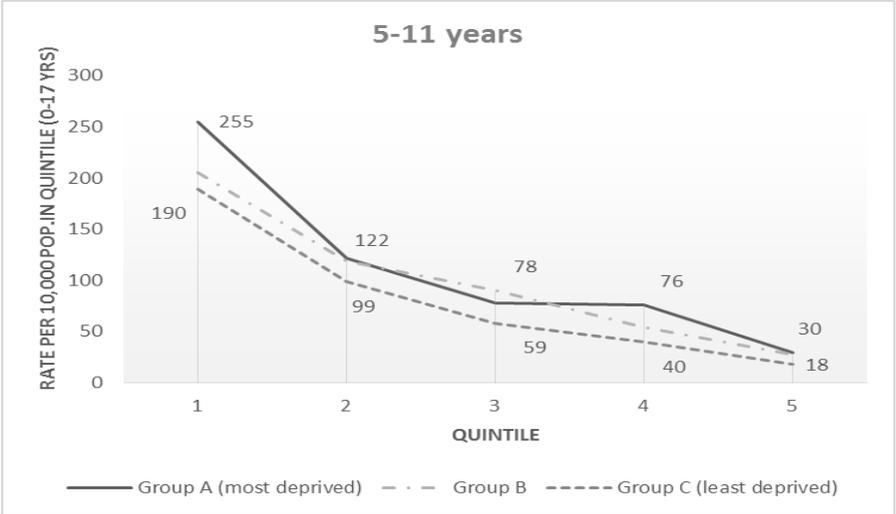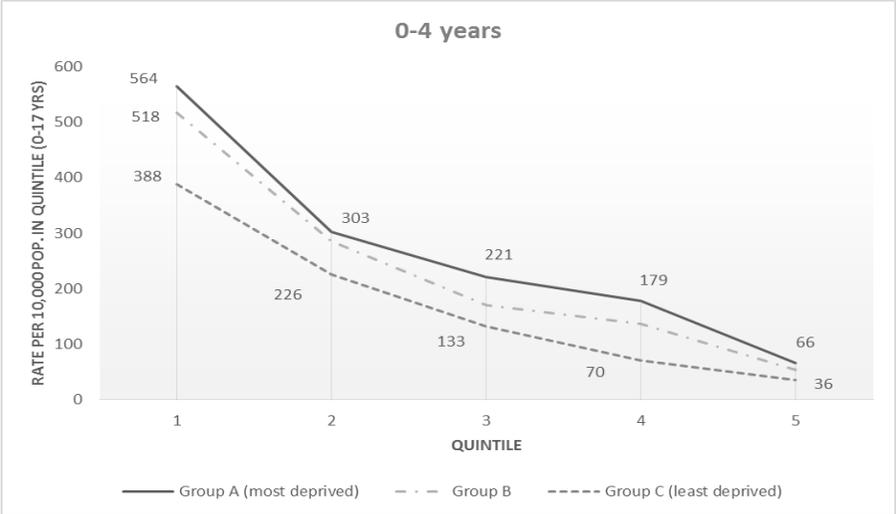
7.7 DISCUSSION

THE 'SOCIAL GRADIENT' OF INTERVENTION

The findings of the analyses show the presence of a 'social gradient' in the rates at which children are placed in care in Wales. This finding is consistent with those of the original Bywaters et al. (2015) study and those of the follow up "four nation study" (CWIP, 2017), a pattern in which rates increase for each step increase in deprivation level is shown fairly consistently across years and regardless of how the data are disaggregated i.e. age group, legal status, etc. The data suggest that a child's likelihood of becoming 'looked-after' in Wales is to an extent not a postcode lottery. It is instead part of a systemic pattern where there is a concentration of intervention in children's lives in the most deprived areas in the most punitive way, by removing children from their homes or making them subject to 'looked-after' children's regulations at home. This idea is one which is not straightforward and requires some grappling with the many dilemmas it throws up. As McSherry (2004) highlighted in a discussion of the 'chicken and egg' nature of poverty and neglect the relationship is difficult. Such discussions touch on the sociological conceptualisations of 'structure' and 'agency' and the relationship between the two and also the way in which public policy and social work practice have privileged one explanation over another at different points in time. To suggest that child abuse and neglect (the main reasons for a child becoming 'looked-after') is a result of poverty alone is to assume incorrectly that such behaviour is inevitable within poor families and by extension that most poor parents are abusive. This is clearly not the case. Equally to focus on abuse and neglect as actions and omissions by individuals without considering the structural context of poverty within society is also to seek only partial explanations. McSherry's conclusion is that the relationship between abuse and poverty is not a causal one, but

is instead circular and interdependent. As C Wright Mills suggests in *the sociological imagination* (2000) a sociological lens allows us to understand 'personal troubles' within the context of the political and economic institutions of society within which they are situated rather than just the character and personal circumstances of unconnected individuals. In considering the findings of this chapter and possible responses to it I have found C. Wright Mills' analysis of the nature of unemployment useful. Wright Mills suggests that:

> "When, in a city of 100,000 only one man is unemployed, that is his personal trouble, and for its relief we properly look to the character of the man, his skills, and his immediate opportunities. But when in a nation of 50 million employees, 15 million men are unemployed, that is an issue, and we may not hope to find its solution within the range of opportunities open to any one individual. The very nature of opportunities has collapsed" (Wright Mills, 2000, p.9)

The presence of such a clear pattern of intervention, replicated in the other UK nations as part of the Child Welfare Inequalities Project (CWIP, 2017) suggests an urgent need not only for social work practice which works with the 'personal troubles' of individual families but a policy approach to address the 'public issue' of poverty and social inequality and its impact on the likelihood of children and young people suffering abuse.

THE ABSENCE OF THE 'INVERSE INTERVENTION LAW' IN WALES

A further significant finding of this research is the absence of the 'Inverse Intervention Law' in Wales. Unlike in the Bywaters et al. study that found that local authorities in the English Midlands that were less deprived overall intervened by placing children in care at higher rates, at all deprivation levels, than local authorities that were more deprived, this study found the opposite to be true. Initially, I thought that this may be a result of using the same broad methodology but with a different sample of children

i.e. children at the point of entry to care over a 6 year period rather than children in care on a particular day in a single year. However, during the period when I undertook the research for this thesis, Prof. Bywaters led a further study based on the original research, but this time making a comparison across the four UK home nations. I undertook the analysis for the Wales quantitative data for this study, which used data on children 'looked-after' or on the child protection register on a single day (31st March 2015). This study, whilst again finding the Inverse Intervention Law in a larger sample of local authorities in England (and amongst local authorities in Scotland too) failed to find evidence of the IIL in Wales (Elliott and Scourfield, 2017). This would seem to suggest that something different is happening in Wales.

In order to make sense of this finding and that of the Child Welfare Inequalities Project (CWIP) led by Prof. Bywaters, a useful starting point would be some base line comparison of deprivation in each country, which may help explain the different findings between the two studies. This is, to an extent, problematic as the Indexes of Multiple Deprivation (IMD) in the UK for each constituent country are not directly comparable because of differences in the weighting of domains from which each index is constituted. However, approaches have been developed to adjust for these differences allowing comparisons to be made. One such approach is that described Payne and Abel (2012) who used the Scottish Index of Multiple Deprivation as baseline to generate adjusted UK level scores using the employment and incomes domains of each of the four homes nations. Through my involvement as a research associate with the Child Welfare Inequalities Project (CWIP, 2017), I was given access to a copy of a dataset of UK IMD scores at the LSOA level (Bywaters and Sparks 2016) recalculated in this way to enable a Wales / England comparison. Using this adjusted measurement

of deprivation it is possible to look at the percentage of LSOA in each country, which would fall into a given decile at the UK level. The results of that comparison are summarised in the figure below.

Figure 51: The percentage of LSOAs per deprivation decile in England and Wales at the UK level (UKIMD)
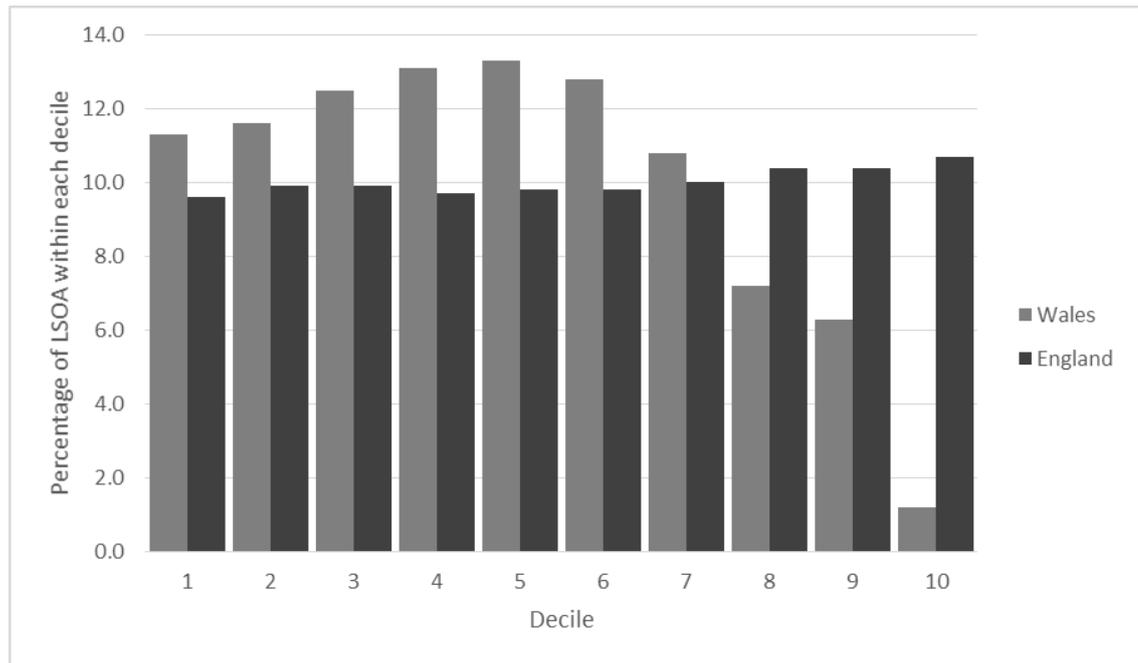
The graph shows quite striking differences in the profile of relative deprivation within each country when put in the context of UK deprivation. Firstly, the graph shows what appears to be a relatively even distribution of LSOAs in England across the deciles in terms of relative deprivation at a UK level. So, for example, whilst 9.6% of LSOAs in England are placed within the 10% most deprived in the UK, at the other end of the spectrum 10.7% are within the least deprived neighbourhoods. Comparing this picture to that within Wales shows some marked differences. At deciles 1 – 5 (the most deprived at a UK level) Wales has a higher percentage of LSOA that fall within those deciles (61.8%) relative to England (48.9%). At deciles 8, 9 and 10, those that are the least deprived at a UK level, Wales has, as perhaps would be expected, much

lower percentages of these LSOA when compared to England. For example, whilst England have has 10.7% of their total LSOAs that fall within decile 10 (the least deprived decile at a UK level) Wales has only 1.2%.

Based on the description above it would seem reasonable to argue that the nature of deprivation in terms of profile in each country is different. Neighbourhoods, and consequently local authorities that are the least deprived in Wales using the WIMD measure are likely to not be considered as such within the context of England, instead probably being viewed as still having some level of deprivation. Conversely, local authorities that are defined as deprived within an English context are likely to be over-represented within the 22 local authorities in Wales. Whilst Wales may have a high proportion of local authorities that would compare in deprivation terms to somewhere like Blackpool (one of the most deprived local authorities in England with the highest rate of children 'looked-after') it does not have an equally sized proportion of local authorities such as Wokingham (one of the least deprived local authorities in England with one of the lowest rates of children in care) in the way that England does (Davies, et al. 2011). The least deprived local authorities in England, with small numbers of children looked-after, may be in a position to have the resources available to intervene more readily than a deprived local authority with already high numbers of children in care. This arguably is not the case in Wales. This skewing in the nature of overall local authority and neighbourhood level deprivation in Wales compared to England may not only provide a partial explanation of the absence of the Inverse Intervention Law, but may also go some way to explaining the longstanding differences in rates of children becoming 'looked-after' between the two countries.

WHAT DO WE KNOW ABOUT FAMILIES' CIRCUMSTANCES?

The results of these analyses have identified the relationship between deprivation and being 'looked after', but how is that relationship reflected in the routinely collected administrative data? As highlighted in Chapter 4 (see Section 4.12) the data collection system currently used to identify the category of need under which a child becomes 'looked-after' relies on this being captured in a single descriptor. As Forrester et al (2007) suggest such an approach, which reduces the range of factors impacting on a family's life to a single code is problematic. One obvious example found in this study is the use of the category of 'Low Income' under the category of need for children 'looked-after'. As highlighted in Chapter 5 of this thesis, this category is used very infrequently in Wales and in some local authorities not at all within the period covered by the data. This lack of usage was also noted by Bywaters et al 2016. However, despite this lack of recognition of low income as the main reason for children entering care according to official data, the analysis presented here clearly shows that it has a strong relationship with local authorities intervening and placing children in care, which is not obviously initially apparent.

The SSDA903 return allows some analysis of poverty and social inequality on the basis of neighbourhood level deprivation data in the way that has been undertaken in this study. However, as undertaken here, this requires a vast amount of work to convert postcodes to LSOA which are linked to deprivation data. In Wales home postcode data is routinely collected in the children 'looked-after' return in a way that is not replicated in England at the time of writing. This makes this task slightly easier. What such work yields is a way of gaining insights into the effect of neighbourhood level deprivation. What it does not provide is data on the circumstances of individual

children and their families. Whilst this provides useful indicators of the circumstances

of some families that children's services have contact with it does not provide similar

opportunities to gain understands of, for example, those children (and their families)

that are worked with in the context of them being 'children in need'. In trying to

understand the lives of those families it would seem an important step to also collect

postcode data for those families as part of the Children in Need Census (now the

Children in Need of Care and Support Census).

Furthermore in the UK, apart from postcode level data that allows some consideration

of neighbourhood level effects, no information is routinely collected on the socio-

economic circumstances and other factors affecting the families with which children's

services work. In order to fully understand the families with which services work and

the outcomes of those interventions, it is clearly vitally important that this

information is collected or made more readily available through data linkage or other

mechanisms so that it can be used to inform both policy and practice.
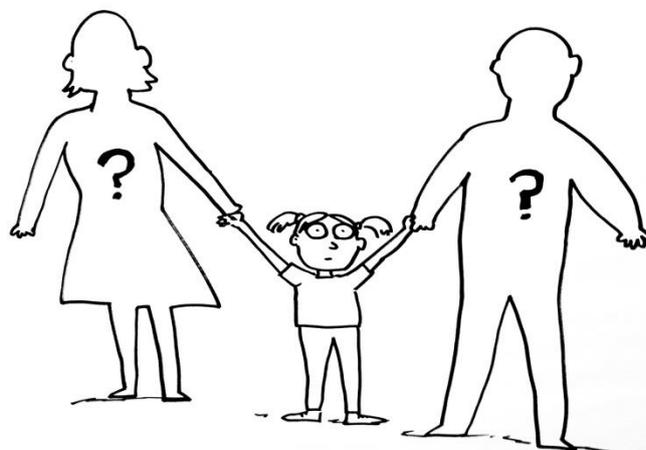
Credit: Harry Venning

In order to fully understand the lives of those families with which social workers work and the causal nature of the increasingly acknowledged link between deprivation and intervention by services requires both qualitative research into the lived experiences of children and their families who live in poverty, but also richer sources of quantitative data to enable further more detailed analysis of the type that has been started within this thesis.

POVERTY: EVERYWHERE AND NOWHERE IN SOCIAL WORK WITH FAMILIES?

Within child and family social work, I would argue as others are beginning to that there is and has been for many years a taken-for-granted understanding that the children and families with which social workers work are predominantly from the poorest families and neighbourhoods. That this is the case appears to be seen within the profession and more widely as both unremarkable and goes therefore largely unremarked upon. It has been suggested that there is an extent to which poverty has now become the "wallpaper of practice" (CWIP, 2017). It is always there providing the backdrop to much social work with families, but also so familiar that sometimes it is almost forgotten it is there.

Credit: Harry Venning

One of the main aims of this study has been to hold up a mirror to social work practice around placing children in care and to reflect on the clearly demonstrated impact of poverty on the likelihood of children and young people becoming 'looked-after'. Within the context of public health and education research, ideas of poverty and social inequality, and their impact on life chances and educational aspiration and attainment respectively, are mainstream and widespread, both in the UK and elsewhere. The same cannot be said of child welfare, particularly in the UK, although it does get some attention in the US and elsewhere. This study therefore contributes to a small but growing body of literature in the UK that calls for a 'social determinants' lens to be applied to social work and social work outcomes and interventions.

CHAPTER 8

RE-ENTRY TO CARE

The aim of this last analysis chapter is to undertake an exploratory analysis of data comparing children who returned to care having ceased to be 'looked-after' and those that did not. In making a comparison of these two groups of 'looked-after' children, it aims to establish whether there are characteristics of either the children who returned to care or their first care placements which would predict their likelihood of returning to care. The analysis to establish whether there is a statistically significant relationship between certain characteristics and return to care will be undertaken using binary logistic regression and it is this analysis which will form the majority of this chapter.

In a period of increasing number of children 'looked-after' and budgetary constraints it has been argued that there is pressure on social workers to return children home often with insufficient support (Community Care, 2012). The longer children remain in care the less likely they will return home, although rapid return home is also associated with increased likelihood of return to care (Courtney, 1995; Courtney, Piliavin and Wright, 1997; Wulczyn, 1991). This is therefore an area of social work practice in which factors are finely balanced. Despite this reunification with parents is an area of practice to which relatively little research or policy attention given (Biehal, 2006) and arguably there is even less focus on children more broadly who return to care regardless of their exit destination. Many of the studies undertaken in the UK have used relatively small samples of cases, which are followed up after exit. In contrast in the US, studies such as those by Wulczyn (1991) and Courtney (1995) have used large administrative datasets of the type used in this study.

8.1 CHILD PLACEMENT 'TYPES'

In order to undertake the analyses in this chapter a number of decisions were made regarding the data in terms of which cases could be included and which needed to be excluded from the analysis. In order to make these decisions the number and nature of complete periods of care experienced by children and young people were categorised into a number of child placement types. The criteria for this classification were based on several factors, including whether a child experienced more than one stay and the relationship between the stays experienced and the start and end of the observation window.

One of the main influencing factors on deciding which cases to include was the effect of censoring and truncation on the data (see section 4.10, Chapter 4). Examples of this are provided by children whose time in care are characterised by child placement types G and H (see figure 52). In each case, the child's first known period in care started before the observation window. Some of these periods in care, particularly in the case of child type G may have begun as early as the mid-1990s, up to 14 years before the start of the observation window in April 2008. As a consequence of the large number of intervening years there is potential for bias by including these cases, given that they represent only a very small proportion of all children that would have experienced a period in care during the period from the earliest start date to the start of the observation window. I therefore decided to exclude these cases from the analysis. Similarly, I decided to exclude cases where the child's period in care started before the observation window and it continued uninterrupted past the end of the observation window in March 2014 (child type F).

Figure 52: 'Looked-after' Children - Child Placement Types
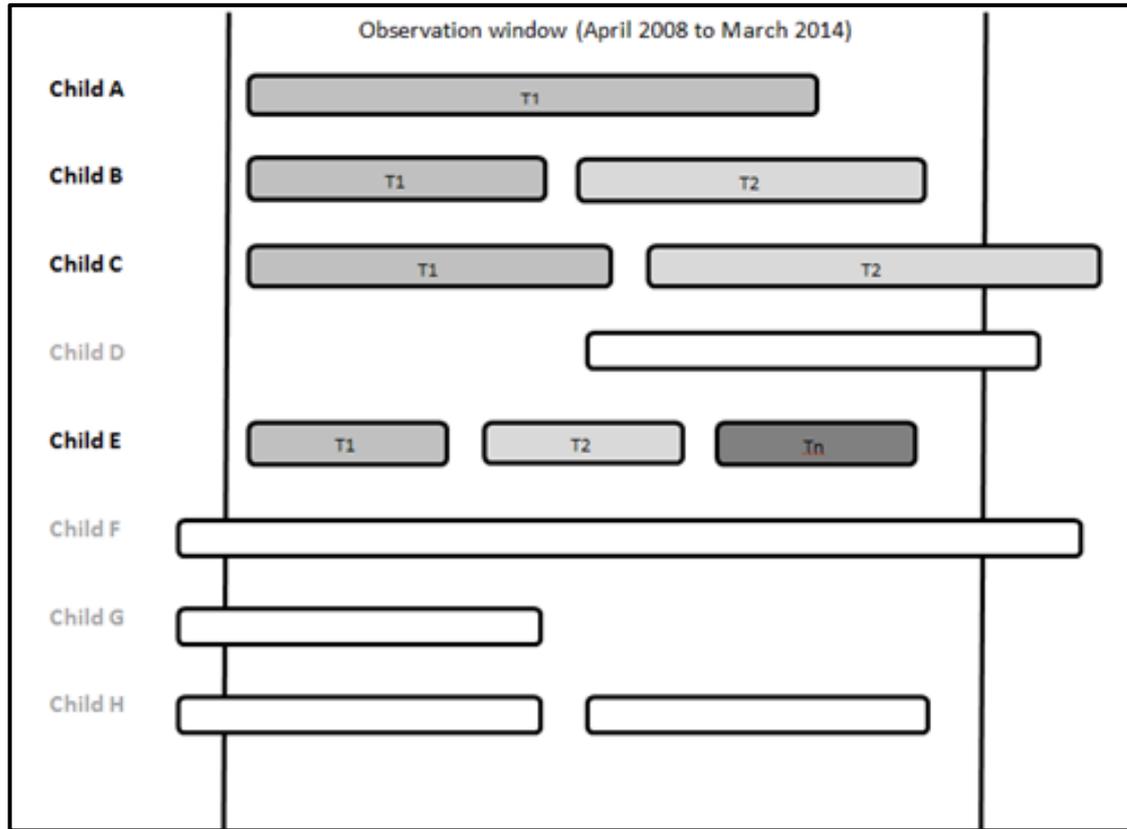
The final group of cases excluded from the analysis are those in child type D. For these children, whilst their first 'period' in care started within the observation window, this period did not end before 31st March 2014. The outcome of that period in care is therefore not known. They may, for example, remain in care for the rest of their childhood and 'age out' of the system by reaching 18 years of age. As a result these cases too were excluded from the sample.

By excluding these child placement types from the data, it enables the analysis to be undertaken on cases where all the observed first 'periods' in care have started and finished within the period covered by the data and for those children who subsequently go on to re-enter care again those periods have started within the observation window as well.

8.2 THE FIRST STAY IN CARE

Earlier in the thesis the characteristics of children and their placements were considered at their point of entry or exit to care (see Chapter 6). Using the earlier data in its 'episode' format it was not possible to look at total lengths of stay, but now the data set has been structured into whole 'periods' in care the opportunity will be taken to briefly consider this characteristic before undertaking the regression analysis. This analysis is undertaken using data on all children in the sample from child types A, B, C and E, including those that 'aged out 'of the care system by reaching 18 years of age at the end of their first period in care. For reasons that will be explained later not all these cases will be included in the regression analysis.

All of the children in the sample experienced one complete 'period' in care in the six years. It is therefore possible to look at the length of that stay in days. The average (mean) length of stay for a child's first complete 'period' in care during the observation window was approximately 11 months (334 days). Over a quarter (28%) of children had a first stay that was 30 days or less. The median stay was approximately 6 months (178 days) and therefore half the children ceased to be 'looked-after' within this timeframe. Three quarters of children in the sample had left care within 18 months. The longest stay within the observation window was 2266 days, which based on using standardised 30 day months would mean a period in care of 75 months or over 6 years. This shows that the lengths of stay for the last 25% of cases are spread over a long timeframe with 'periods' in care varying from 18 months to more than 6 years, which affects the mean length of stay calculated as shown above.

Figure 53: Mean length of stay and age at first entry to care
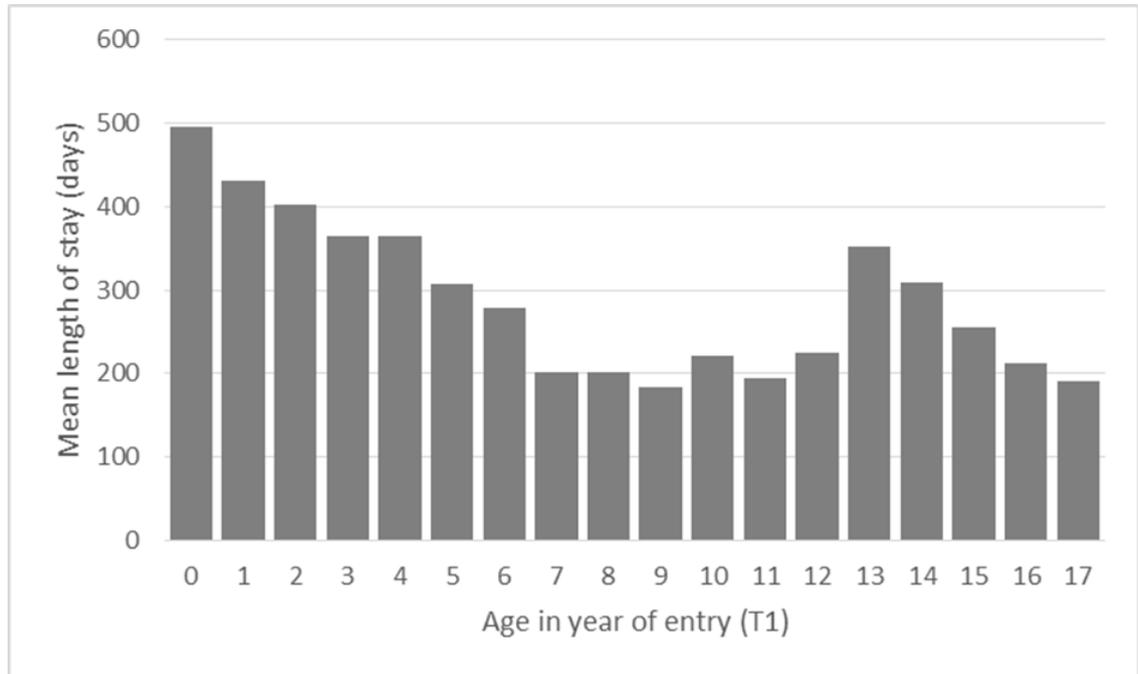
Figure 53 above shows the mean length of stay (in days) by age at first entry to care. The graph shows that very young children, those under one year of age, on average have the longest stays and that length of stay decreases with age until children are around 7 years of age. Lengths of stay for children between the ages of 7 and 12 years are broadly similar, but increase for younger teenagers. After those children who entered aged 13 years old there is again a reduction in length of stay, which as age increases is likely to be mainly attributable to the natural cap on stay length of young people reaching 18 years of age and 'aging out' of the system.

The average (mean) length of stay does not appear to be affected by the sex of the child. The mean length of stay for boys was 339 days, whilst for girls it was 328 days.

8.3 LENGTH OF STAY AND OVERALL RATES OF CHILDREN 'LOOKED-AFTER'

One of the central research questions of this thesis is whether characteristics of children's placements are related to differences in local authorities overall rates of children 'looked-after'. Here the correlation between lengths of stay and overall rates was examined. Both a local authority's mean and median length of stay were plotted against their mean rate of children 'looked-after'. Although not strong, explaining 20% of the variance, a stronger relationship was found between median length of stay and overall rates (R^2 = 0.208) rather than mean lengths of stay (R^2 = 0.1448).

Figure 54: Median length of stay and overall rates of children 'looked-after
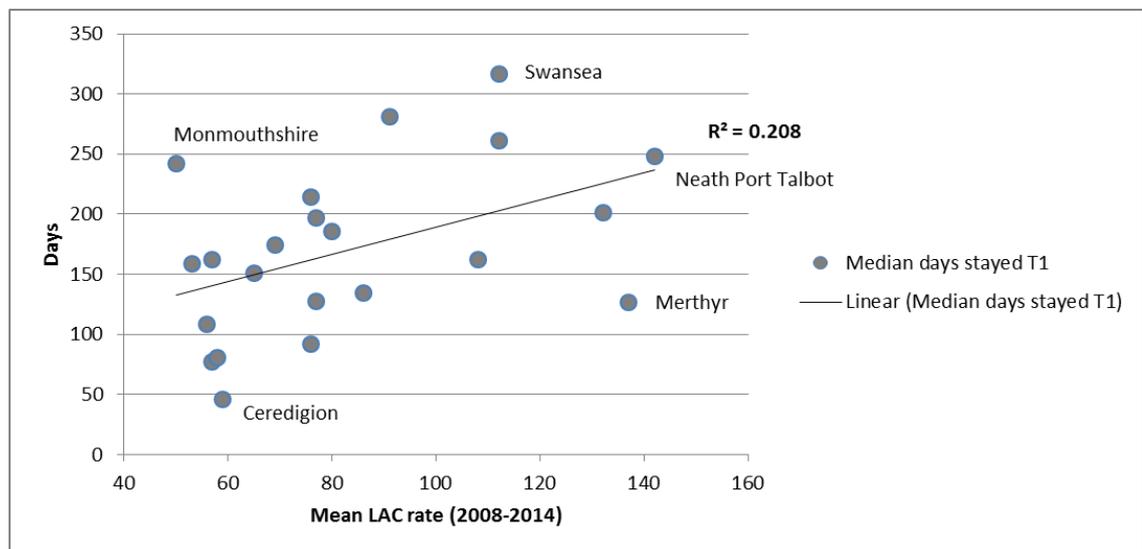
The graph identifies some interesting differences between local authorities. For example Monmouthshire and Ceredigion have broadly similar overall mean rates of children 'looked after' however they have very different median lengths of stay. In Monmouthshire the median length of stay was more than 8 months where in Ceredigion it was less than 2 months. Similarly, Merthyr Tydfil has a median length of stay half that of Neath Port Talbot, whilst they have very similar mean overall rates of children 'looked-after'.

8.4 LENGTH OF TIME BETWEEN PERIODS IN CARE

For those children that experienced one complete 'period' in care during the observation window covered by the data and then subsequently returned for further 'period' in care the data allow calculation of the number of days between exit and return. The mean (average) period in days until return was 209 days (7 months) and the median was 101 days (almost 3.5 months). Among the 'returnees' a quarter returned within 30 days of their previous period in care ending. The majority (94%) of children that had a second period of being 'looked-after' had returned within two years. The longest gap between exit and return to care was 1761 days (58 months).

8.5 CASE SELECTION FOR THE REGRESSION MODEL

For analytical purposes, some children were excluded from the linear regression. The first group of young people excluded from the regression analysis were those where the young person was 18 years of age at the end of their first 'period' in care. Local authorities only provide services to children and young people up to the age of 18 (unless they were already 'looked-after' before this age). The data used for this thesis do not include dates of birth, instead having the birthday celebrated within the relevant data collection year. The reason for removing young people who were 18 at the end of their first period in care is that all children included in the analysis need to have experienced one complete period of care during the window and still have the ability to return to care for a further period in care after their exit (whether they did or not). Young people who had therefore 'aged out' by reaching 18 needed to be removed as they are not physically be able to return. Cases where children entering care and potentially remained long enough to reach age 18 were present at all ages from 12 – 17 years, with children under 12 not being able to stay long enough within the 6 year observation window to reach 18.

The first step taken was to remove all cases where the young person had their 17th birthday in the year they first entered care. If the young person's 17th birthday falls on the first day of the collection year (1st April) and became 'looked-after' on the last day of that collection year (31st March the following year) theoretically the minimum length of stay from entry to 18 is 1 day. It is accepted that this would almost never happen but it is theoretically possible and so is therefore used as a quantifiable cut off point. In contrast, if the same young person was the opposite and became 'looked-after' on the first day (1st April) but had their 17th birthday on the last day of the

collection year (31st March) that is a potential total length of stay of 729 days. There is no way with only age in the collection year and total length of stay in days to identify a minimum number of days that would ensure that no young person who reached 18 years of age is included in the sample other than to use the 1 day limit, which would remove all cases anyway. On this basis, the decision was taken to remove all young people who were 17 in the year they first entered care from the sample.

The rationale of using the first day of the collection year in which a child became 'looked-after' as their 'birthday' (1st April) and the last day of the collection year as the day they entered care (31st March the following year) as a means of calculating the minimum possible number of days from age at entry to 18 was used for all ages from 12 – 16 years. So for example, for a young person who was 16 years old in the year they entered care the minimum possible number of days to get them to age 18 using this method is 366 days. On this basis all young people whose first stays were longer than 366 days were removed from the sample and only those of less than 366 were included. This methodology has the potential to remove some children and young people who in reality did not reach 18 at the end of their first stay, but there is no way to know this with the variables available within the data. What can be known is that by using this very conservative selection method no children are able to reach 18 by the end of their first period in care based on the number of days they stayed. The fact that a small number of cases were removed where the child was not 18 at the end of their first period in care is illustrated by there being 44 children who did return, which were removed from the sample. This represents 3.5% of the total number of 'returners' in the original sample identified. However, it was not possible to return these cases to the sample, even though they were known to return, as this would

skew the sample based on the likelihood that there were also cases where the young person was not 18 but didn't return and couldn't be identified from the data.

Cases involving adoption provided another area where methodological choices had to be made regarding their inclusion or omission from the analyses. Unlike young people who 'aged out' of the system by reaching the age of 18, who would be physically unable to return to care, children who have left through the adoption route provide more of a grey area. Whilst viewed as one of the most permanent means by which a child would cease to be 'looked-after', children who are placed with adoptive families do sometimes return to care, albeit in very small numbers. Indeed one of the categories of need used in the SSDA903 under which children enter care is 'Adoption Disruption'. The difficulty presented by this group of children is in identifying them as having returned. With a new last name and a different ID number within the dataset, the only way to link periods together for adopted children of school age who returned to care is likely to be through the use of the Unique Pupil Number (UPN), which isn't contained within this study's dataset. This would also only be possible for children of school age. The decision was therefore taken to exclude from the analysis those children whose reason for ceasing to be 'looked-after' at the end of their first period in care was that they had been adopted. This decision removed 1014 cases from the analysis. A small number of cases (22) were left in the analysis despite the legal status being either adoption or wardship. The rationale for their inclusion was that whilst that was their legal status on entry to care that appears not to be the route by which they exited care at the end of the first period in care and it is therefore possible to link any further periods in care to their first stay, if for example they left care through a Special Guardianship Order.

Selecting cases based on the above criteria resulted in a total of 4892 children being included in the analyses. Of these, 1208 children experienced more than one 'period' in care. This means that almost a quarter (24.7%) of children within the sample who ceased to be 'looked-after' subsequently returning to care within a maximum period of 6 years. A number of studies of reunification of children with their birth parents have commented on the percentage of cases of children returning home who subsequently returned to care. The percentage of cases quoted varies substantially between studies. Some of the studies used case file information on relatively small samples of children who were returned home (mainly UK studies), whilst others used large administrative dataset (mainly in the US). This disparity in findings will be discussed further at the end of the chapter.

8.6 DEPENDENT AND INDEPENDENT VARIABLES

In order to establish who returns to care by undertaking a binary logistic regression it was first necessary to identify both a suitable binary dependent (outcome) variable and a number of independent (predictor) variables that were present or could be derived from the dataset.

Outcome variable - the dataset, which was originally organised by care 'episodes' rather than complete 'periods' in care (see definitions in section 4.3) was reorganised so that a single row of data represented a total 'period' in care for a child. Each row includes characteristics relating to the child at entry to their first period in care within the observation window and the end date of that first 'period'. Once the data were formatted in this way a binary outcome variable was created (Returned Y/N). Children who experienced only one 'period' of care during the observation window (Child Type

A) were coded as 1 (No) and those that entered care on at least one further occasion during the observation window (Child Types B, C and E) were coded as 2 (Yes).

Predictor variables - the following set of characteristics of the child and their placement at first entry were identified as potential predictor variables:

- **Age** – The age of each child in the data collection year in which they entered care for the first time during the observation window

- **Sex** – Information on the sex of each 'looked-after' child is directly available within the SSDA903 data

- **Local Authority** – The local authority which placed the child in care

- **WIMD 2014 Deprivation decile** – The child-level data includes the Lower Super Output Area code for the home address from which a child entered care. These data were linked to a file containing the overall deprivation rank for all 1909 LSOA within Wales. The file also included the LSOA grouped into deprivation deciles. Within this variable 654 cases (13.3%) were coded as Unknown, Deleted or Outside Wales. These cases were coded as 'Unknown' and included in the analysis.

- **Category of Need** – The data include a category for the main reason for a child becoming 'looked-after'. The category used within the analysis is the category used for the child's first period in care. Category of Need remains unchanged for the period a child remains in care

- **Legal Status** – The SSDA903 return includes information on the legal basis under which a child is 'looked-after'. A child's legal status may alter during their time in care, but for the purposes of this analysis the legal status used is that at entry to care for the first period in care.

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- **Length of Stay** – The SSDA903 return includes dates for both the start of a new period in care and the date on which a child ceased to be 'looked-after'. The presence of these variables within the return enables the generation of a length of stay variable based on these dates for the first period in care.

- **Local Authority Deprivation decile** – building on the analyses undertaken in the previous chapter (Social Inequality) the intention is to explore if there is a relationship between children returning to care and a local authority's overall level of deprivation. In order to explore this, population adjusted overall WIMD scores calculated for the Social Inequality chapter (see Table 27) were used. The Local authority variable was recoded to group them into 10 groups (deciles) based on overall deprivation scores. The 22 Welsh local authorities were grouped with three each in the first (most deprived) and tenth (least deprived) deciles and two each in the other eight deciles.

In order to develop and test a model a series of analytical processes were undertaken. These include checking variable frequencies (including levels of missing data); recoding of variables to ensure there is a minimum 5 cases per cell; multicollinearity diagnostics; and finally the building and testing of a regression model, which is both parsimonious and has the most explanatory power (Field, 2013).

8.7 FREQUENCIES

The starting point in identifying suitable variables to be included in any model would usually be to consider each variable in terms of the numbers of cases they contain and the levels of missing data.

Table 31: Frequency – return to care yes/no

Category	Frequency	Percentage
Returned to care - No	3684	75.3
Returned to care - Yes	1208	24.7
Total	**4892**	**100**

Table 31 above shows that there are a total of N=4892 cases included in the analysis of which 1208 are children and young people who experienced more than one period in care during the period covered by the data.

One of the characteristics of the administrative data set used for this study is that it has undergone an amount of audit and cleaning by the local authorities providing the data and the Welsh Government Data Unit to which it is sent. A consequence of this is that there is no missing data within the variables identified for possible inclusion within the regression analysis. Frequencies for each variable to establish the amount of missing data are therefore not presented here.

8.8 RECODING OF VARIABLES

A number of potential variables required recoding for two reasons. First, it ensured that no cell count in the model falls below 5.   Second, recoding ensures the groups were consistent with those used elsewhere in the thesis e.g. age was recoded into age groups, which as closely as possible mirrored those in the rest of the thesis.   One variable, legal status produced one cell with an expected count of 4.69 (very close to 5) when cross tabulated with the dependent variable using the categories used elsewhere in the thesis. This was considered acceptable and no further collapsing of categories was conducted.   Table 32 provides a summary of all the independent

variables in the logistic regression analysis and Table 33 provides a summary of how four of these variables (Age; Category of Need; Legal Status; Length of Stay) were recoded.

Table 32: Summary of independent variables

	Variable	Values
1	Age	Continuous variable for age during the collection year in which the first period in care started (0 to 16 years)
	Sex	Boys; Girls
	Year Code	The data collection year in which the period of care ended – 200809; 200910; 201011; 201112; 201213; 201314
	Local Authority	Blaenau Gwent; Merthyr Tydfil; Rhondda Cynon Taff; Neath Port Talbot; Caerphilly; Newport; Torfaen; Cardiff; Bridgend; Swansea; Denbighshire; Carmarthenshire; Wrexham; Anglesey; Pembrokeshire; Conwy; Gwynedd; Flintshire; Vale of Glamorgan; Ceredigion; Powys; Monmouthshire
	WIMD 2014 deprivation decile	LSOA rank 1-191 =1; LSOA rank 192-382=2; LSOA rank 383-573 =3; LSOA rank 574-764=4; LSOA rank 765-955 =5; LSOA rank 956-1146 =6; LSOA rank 1147-1337 =7; LSOA rank 1338-1528 =8; LSOA rank 1529-1719 =9; LSOA rank 1720-1909 =10
2	Category of Need	Abuse and Neglect (N1); Disability (N2); Parental Illness (N3); Acute Stress (N4); Family Dysfunction (N5); Socially Unacceptable Behaviour (N6); Low Income (N7); Absent Parenting (N8); Adoption Disruption (N9)
3	Legal Status	Care Order; Interim Care Order; Freeing Order; Placement Order; Wardship; Voluntary Accommodation; Police Protection; Emergency Protection Order (EPO); Child Assessment Orders; Remanded; Detained under PACE; CYPA 1969 supervision order
4	Length of Stay	Continuous variable for the total length of stay in care at T1
	Local Authority deprivation decile	Blaenau Gwent; Merthyr Tydfil; Rhondda Cynon Taff = decile 1; Neath Port Talbot; Caerphilly = decile 2; Newport; Torfaen = decile 3; Cardiff; Bridgend = decile 4; Swansea; Denbighshire = decile 5; Carmarthenshire; Wrexham = decile 6; Anglesey; Pembrokeshire = decile 7; Conwy; Gwynedd = decile 8; Flintshire; Vale of Glamorgan = decile 9; Ceredigion; Powys; Monmouthshire = decile 10

Table 33: Summary of recoded independent variables

	Variable	Values
1	Age (recoded)	0-4 years = 1; 5-11 years = 2; 12-15 years = 3; 16 year olds = 4
2	Category of Need (recoded)	Abuse (N1) = 1; Disability (N2) = 2; Parental Illness (N3) = 3; Stress (N4+N7)= 4; Family Dysfunction (N5) = 5; Socially Unacceptable Behaviour (N6) = 6; Low Income (N7); Adoption (N8+N9) = 7
3	Legal Status (recoded)	Care Orders (Care Order; Interim Care Order) = 1; Adoption (Placement Order; Freeing Order; Wardship) = 2; Voluntary Accommodation = 3; Detained CP (Police Protection; Emergency Protection Order (EPO); Child Assessment Orders) = 4; Youth Justice (Remanded; Detained under PACE; CYPA 1969 supervision order) = 5
4	Length of Stay (Recoded)	0-30 days = 1; 31-90 days = 2; 91-180 days = 3; 181-360 days = 4; 361-540 days = 5; 541-720 days=6; >721 = 7

8.9 DESCRIPTIVE STATISTICS

Before proceeding to the regression models, it is customary to establish if each of the independent variables has a statistically significant relationship with the outcome variable, in this case, returning to care. To do this, cross tabulations and Pearson Chi-square tests were used. Table 34 summarises the descriptive statistics from the cross tabulations and the results of the statistical significance tests. Only one dependent variable, the WIMD decile of the child's home address, was found to not have a statistically significant relationship to the independent variable. The SPSS outputs for the cross tabulations are included in the appendices (see Appendix 5). The descriptive statistics summary provides a useful overview of the data and allows some initial exploration of factors of interest. For example the summary of the length of first stay data clearly shows that the percentage of children who return to care reduces as length of stay increases. Over a third (36.6%) of children who stayed less than 30 days returned, whilst only 7.6% of those that stayed more than 2 years returned.

Table 34: Cross tabulation and statistical significance results

Variable	Returned to care			X²	df	p
	No (%)	Yes (%)	Total (%)			
Year						
2008/09	62.4	37.6	100	224.09	5	>.0001
2009/10	66.1	33.9	100			
2010/11	67.6	32.4	100			
2011/12	78.5	21.5	100			
2012/13	79.3	20.7	100			
2013/14	89.4	10.6	100			
Age group						
0-4 years	84.8	15.2	100	247.74	3	>.0001
5-11 years	76.9	23.1	100			
12-15 years	61.2	38.8	100			
16 year olds	77.5	22.5	100			
Length of stay						
0-30 days	63.4	36.6	100	320.29	6	>.0001
31-90 days	70.8	29.1	100			
91-180 days	74.8	25.2	100			
181-360 days	85.6	14.3	100			
361-540 days	90.4	9.6	100			
541-720 days	91.6	8.4	100			
>720 days	92.4	7.6	100			
Category of need						
Abuse and neglect	81.5	18.5	100	159.62	6	>.0001
Disability	79.7	20.3	100			
Parental Illness	64.5	35.5	100			
Stress / Income	64.7	35.3	100			
Family dysfunction	70.3	29.7	100			
Unacceptable behaviour	59.5	40.5	100			
Absent / Adoption	80.3	19.7	100			
Legal Status						
Care Orders	94.8	5.2	100	257.29	4	>.0001
Adoption / Wardship	100	0	100			
Voluntary	70.7	29.3	100			
Detained child protection	67.9	32.1	100			
Youth Justice	59.7	40.3	100			
Sex						
Boys	73.9	26.1	100	5.29	1	.021
Girls	76.8	23.2	100			
WIMD Decile						
1	74.7	25.3	100	9.64	10	.472
2	78.6	21.4	100			
3	74.4	25.6	100			
4	73.1	26.9	100			
5	73.8	26.2	100			
6	76.5	23.5	100			
7	77.8	22.2	100			
8	74.5	25.5	100			
9	75	25	100			
10	69	31	100			
Unknown (99)	75.5	24.5	100			

Table 34: Cross tabulation and statistical significance results (continued)

Variable	Returned to care			X²	df	p
	No (%)	Yes (%)	Total (%)			
Local authority						
Isle of Anglesey	76.4	23.6	100	62.67	21	>.0001
Gwynedd	77.7	22.3	100			
Conwy	64.7	35.3	100			
Denbighshire	71.9	28.1	100			
Flintshire	72	28	100			
Wrexham	66.3	33.7	100			
Powys	69.6	30.4	100			
Ceredigion	73.8	26.2	100			
Pembrokeshire	70	30	100			
Carmarthenshire	68.3	31.7	100			
Swansea	80.7	19.3	100			
Neath Port Talbot	78.4	21.6	100			
Bridgend	78.7	21.3	100			
Vale of Glamorgan	71.9	28.1	100			
Rhondda Cynon Taff	73.9	26.1	100			
Merthyr Tydfil	76.7	23.3	100			
Caerphilly	83.3	16.7	100			
Blaenau Gwent	77.5	22.5	100			
Torfaen	78.8	21.2	100			
Monmouthshire	84.1	15.9	100			
Newport	73.4	26.6	100			
Cardiff	74.6	25.4	100			
Local authority WIMD decile						
1	75	25	100	35.73	9	>.0001
2	80.8	19.2	100			
3	76.1	23.9	100			
4	75.8	24.2	100			
5	78.5	21.5	100			
6	67.5	32.5	100			
7	72.8	27.2	100			
8	70	30	100			
9	71.9	28.1	100			
10	75.5	24.5	100			

8.10 BUILDING THE REGRESSION MODEL

Having identified the outcomes variable and a set of predictors based on their statistically significant relationship, this section goes on to discuss the rationale for the inclusion of the final variables in the logistic regression analysis.

Of the variables in the dataset, one in particular was of interest because of its presence within the literature around the success of reunification from care of children with their birth families (Murphy and Fairtlough, 2015) or more generally factors that lead to re-entry to care (Wulczyn et al. 2007). Length of stay in care before ceasing to be 'looked-after' appears to be a significant factor with often contradictory claims being made around its impact on the likelihood of return to care. It is therefore an obvious characteristic to test in the model to see if it has significance in the Welsh context.

A child's age was of interest because of its presence as a significant factor identified in other studies (Wulczyn, 1991; Festinger, 1996; Bullock, Gooch and Little, 1998; Farmer, 2014) and in terms of its presence as a significant characteristic in the earlier findings of this thesis. Similarly, the category of need leading to a child becoming 'looked-after' has been highlighted as a factor elsewhere in the thesis and therefore worthy of exploration in this section of the study.

The inclusion of the variable relating to the data collection year in which each child ended their first 'period' was included to test the impact of the observation window on the study. In the context of the data used for these analyses a child may end their first period in care within the observation period in the first data collection year, they

may however also end it in the last collection year. In considering those children who returned to care over the period would the likelihood of returning to care be dependent on when the first 'period' in care ended, relative to the six-year observation window? Is the likelihood of return higher for children whose first period in care ended in 2008/09 than those in 2013/14 purely because they have a much longer time scale over which to leave, have a period at home and then return? The inclusion of the collection year at first entry was to explore this further.

The decision on whether to include further variables was based on the explanatory power of this four variable model and the ability of those potential additional variables to improve the model by increasing the percentage of cases correctly predicted by the model; improve the 'goodness of fit' of the model; and/or the amount of variance in the dependent variable estimated to be explained by the model. Balanced against these criteria for adding variables is the aim of creating a model that is parsimonious – a model that has the most predictive power with the least amount of variables. Whilst a model with a large number of variables may explain 'everything' it also explains 'nothing'. Amalgamation of lots of small amounts of explanatory power in large numbers of variables may explain all the variance however it doesn't focus down on those things that explain the majority of the difference in the dependent variable. The addition of the other available statistically significant variables one at a time to the 4-variable model produced the following outcomes:

- **Legal status** – The addition of this variable made a difference to the 'goodness of fit' statistic with the Hosmer and Lemeshow value increasing from .733 for the four-variable model to .891. Inclusion of the legal status variable also increased

the estimate of the amount of variance in the dependent variable explained by the model from 13.5 – 20% to 14.3 – 21.3%. All except for one of the categories within the legal status variable produced statistically significant differences in the likelihood of return to care relative to the reference category of 'care orders'. The number of residual cases was also reduced by including this variable from 127 to 106. Based on these findings the decision was taken to add this variable to the model.

- **Local authority** – inclusion of this variable substantially reduced the 'goodness of fit' value to .066 from .733 for the 4-variable model. The estimate of the percentage of the variance of the outcome variable explained remained almost unchanged as did the ability of the model to predict cases correctly. Only one of the 21 local authorities had a difference in likelihood of return to care that was statistically significant. The number of residual cases was reduced from those in the four-variable model, but again this was a smaller reduction than that produced by the inclusion of legal status.

- **Local authority decile** – the overall levels of deprivation in a local authority reduced the 'goodness of fit' of the model from .733 to .181 whilst the estimate of the variance in the dependent variable was increased slightly (+0.5%). Only two deciles had statistically significant difference in the likelihood of return to care relative to the reference category and these increases in likelihood were relatively small at 50% and 63%. The inclusion of this variable reduced the number of residual cases by only 3 cases from the four-variable model, a reduction much smaller than that produced by including legal status as the fifth variable.

- **Sex** – Inclusion of sex as the fifth variable reduced the 'goodness of fit' statistic from .733 to .222. The estimate of variance of the dependent variable was almost

unchanged as was the number of residuals. The odds ratio produced was statistically significant with girls 78% more likely to return for a further period in care than boys. It was therefore decided that gender was introduced as an interaction term. Separate models were fitted to explore the potentially different effects of the independent variables on the odds of returning to care for boys and girls.

Based on the above, a five-variable model was decided upon for the binary logistic regression using: year code; age; category of need; length of stay; and legal status. A multicollinearity test was undertaken on the five predictors in the model (See Appendix 6 for details). The results show that multicollinearity between the predictors was not an issue and the assumptions of binary logistic regression are met. A more detailed discussion of the test and variance inflation factors is included in the appendices (See Appendix 8 for details).

8.11 BINARY LOGISTIC REGRESSION OUTPUTS

For each predictor in the model a reference category was selected. The reference categories chosen are the 'baseline' within the logistic regression from which odds ratios are calculated. Table 35 summarises the statistically significant results of the logistic regression, including the reference category selected, the odds ratios generated and the level of statistical significance.

In undertaking the logistic regression a range of other outputs were generated including 'goodness of fit' statistics, indications of the predictive power of the model and a case wise list of residuals. The SPSS outputs for these tests are included in the appendices (see Appendix 7).

Table 35: Odds Ratios (OR) of re-entry to care

Variables: Reference Category	Dummy variables	OR
Year: 2013/14	2008/09	2.90***
	2009/10	2.88***
	2010/11	3.31***
	2011/12	2.19***
	2012/13	2.17***
Age: 16 year olds	5-11 year olds	1.51**
	12-15 year olds	2.67***
Length of stay: >721 days	0-30 days	3.54***
	31-90 days	2.72***
	91-180 days	2.75***
	181-360 days	1.57
Category of Need: Abuse and Neglect	Parental illness	1.71***
	Stress/Income	1.47***
	Family dysfunction	1.32**
	Socially unacceptable behaviour	1.49*
Legal Status: Care Order	Voluntary	2.65***
	Detained child protection	2.28***
	Youth Justice	3.27***

Notes: OR = Odds Ratio; *, **, *** denotes statistical significance at $p<.05$, $p<.01$ and $p<.001$ respectively.

8.12 THE INTERACTION OF SEX AND RE-ENTRY TO CARE

In order to examine if the effect of the independent variables on the likelihood of returning to care varies between boys and girls, the regression model was rerun using sex as an interaction term. However, interactions terms are often difficult to interpret, so separate models were fitted for boys and girls so that the effects of the independent variables can be more clearly displayed (Field, 2013). The outputs are summarised in the table 36.

Comparison of the results for length of stay and likelihood of return show a difference in characteristics between the sexes. Boys whose first stay in care was up to 6 months have highly statistically significant results and increases in likelihood of return of between 3.4 and 3.7 times over boys whose first stay was over two years.   The results

for girls are less clear cut. Girls whose first stay was less than 30 days are 3.3 times more likely to return to care than girls whose stay was more than two years. There is however not a statistically significant relationship between first stays of between 31-90 days and increases or decreases in likelihood of return. For girls, those with first stays of between 91 and 180 days were 2.2 times more likely to return compared to girls with first stays of two or more years. The same group of boys is however 3.4 times more likely to return than their counterparts in the reference category.

Table 36: Odds ratios of re-entry to care by sex

Variables: Reference Category	Dummy variables	OR	
		Boys	Girls
Year: 2013/14	2008/09	3.12***	2.67***
	2009/10	2.72***	3.08***
	2010/11	3.27***	3.41***
	2011/12	2.34***	2.04**
	2012/13	2.40***	1.89**
Age: 16 year olds	0 -4 year olds		
	5-11 year olds	1.50*	
	12-15 year olds	2.58***	2.83***
Length of stay: >721 days	0-30 days	3.79***	3.33**
	31-90 days	3.61***	
	91-180 days	3.44***	2.18*
	181-360 days		
	361-540 days		
	541-720 days		
Category of Need: Abuse and Neglect			
	Parental illness	1.73*	1.64*
	Stress/Income	1.57**	1.34*
	Family dysfunction	1.41*	
	Socially unacceptable behaviour	1.50*	
Legal Status: Care Order	Voluntary	2.59***	2.73***
	Detained child protection	2.08*	2.44**
	Youth Justice	2.82**	

Notes: OR = Odds Ratio; *, **, *** denotes statistical significance at p<.05, p<.01 and p<.001 respectively.

8.13 DISCUSSION

The sample used for these analyses included almost 5000 children of which 1208 children returned to care for a further period of being 'looked-after'. When they left care at the end of their first period, almost three quarters (72.8%) of children went home. However, the remaining children left for a number of destinations including placement under a special guardianship order or into some form of independent living. Unfortunately, as highlighted in Chapter 6, a substantial number (571) ceased to be 'looked-after' for 'any other reason' and sadly their destination on ceasing to be 'looked-after' is not known. What is known is that 131 (22.9%) of these children and young people returned to care for a further period of being 'looked-after' children. Indeed, all of the routes out of care at the end of the first period in care included in these analyses, including special guardianship, included some children who returned to care. In the case of special guardianship the numbers returning are very small, representing only 1% of those that left through this route, but some children did return to care. This disruption rate for special guardianship orders in Wales is noteworthy. In their study, Selwyn and Masson (2014) reported a considerably higher breakdown percentage of 5.6% in England. The relatively limited UK research in relation to re-entry to care, outlined in the literature review, has rightly focused on children returning home and whether attempts at reunification are successful. Unsuccessful attempts at reunification may result in further abuse and trauma (Farmer and Parker, 1991; Sinclair et al. 2005; Biehal, 2006) for those returned home and therefore presents a vital focus for research. However, I would argue that the instability in children's lives that may result from repeated admissions, regardless of

where those breakdowns occur, are damaging for children and young people and are therefore similarly worthy of exploration.

SHOULD WE KEEP CHILDREN IN CARE LONGER?

The summary of odds ratios produced by the logistic regression (Table 35) shows a statistically significant relationship between the length of a child's first period of being 'looked-after' and their likelihood of returning for a further period in care. A child whose first stay in care was less than a month in duration is 3.5 times more likely to return to care than a child whose first stay was over two years. A child who had been 'looked-after' for between 3 and 6 months is over 2.5 times more likely to return than a child that stayed for more than two years. Lengths of stay over 6 months however, cease to have a statistically significant relationship to likelihood of return to care. There seems to be a link between short first stays, defined as stays of less than 6 months, and returning to care. This relationship between length of stay and likelihood of return to care mirrors the findings of a number of other studies, predominantly in the United States (Wulczyn, 1991; Courtney, 1995; Courtney, Piliavin and Wright, 1997; Wulczyn et al. 2005). Unlike the majority of studies undertaken in the UK these were predominantly undertaken using quantitative analysis of administrative data relating to children in out of home care. However, as they argued, this is not an argument for children to spend longer in care to prevent re-admission, but rather a case for gaining better understandings of the reasons for the breakdown of reunification home or of other destinations after care. For children who had a short period in period in care before going home, their increased likelihood of returning to care may arguably have its basis in whether there have been changes in the home circumstances. Almost 70% of the cases included in the model have abuse/neglect or

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family dysfunction as their category of need. Studies have identified that parental problems (Brandon et al. 2008) relating to poor parenting; or domestic violence, substance misuse and mental health problems (the so-called 'toxic trio') are often those associated with involvement with Children's Services and as a consequence of children becoming 'looked-after'. What could be argued is that short stays in care lasting only a few months in many cases are not long enough to enable real change in parents' behaviour and therefore children and young people who are reunified with birth parents are returning to a home life that in some instances is largely unchanged. Furthermore, for those children who are returning home, breakdown and return to care is often a consequence of families not receiving the support when the child returns that they need to overcome their problems (Holmes, 2014). These factors combined mean too little time to effect change before a child returns and too little support was in place in some cases for families when children are returned.

AGE AND RETURN TO CARE

There is no statistically significant difference in the likelihood of return to care between children who entered care between birth and four years of age and those who were 16 year old in the year they entered care for the first time, although this is likely to be for very different reasons. The reasons for younger children not returning may have their roots in the cause of their initial placement and the way they exit care. As Farmer (2014) suggests, younger children, particularly those that are in care because of having been abused or neglected, are likely to be subject to more intensive packages of support on their return home than older children and are arguably therefore less likely to return. A younger child's destination on leaving may also be a factor. For example, children of this age group are more likely to exit via a special

guardianship order and as already highlighted this is an exit route from which very small numbers of child return to care. In contrast, a 16-year old that has had a period in care and ceased to be 'looked-after' is possibly less likely to return because of thresholds and practice norms that mean that accommodation as a 'looked-after' child is perhaps not a service routinely offered to a young person who may by then be 17 years old.

The age group for which the odds of returning are the highest are those aged between 12-15 years of age. A child in this age group is over two and a half times more likely to return than a 16 year old young person. This finding has resonance with the suggestion that children in their early teenage years are more likely to 'oscillate' in and out of being 'looked-after' (Bullock, Little and Milham, 1993; Packham and Hall, 1998). It also mirrors the findings of a study by McGrath-Lone et al. (2017) published shortly before submission of this thesis. The study undertaken using the equivalent data for England to that used in this study, found that children aged 11-15 years were more likely to re-enter care than younger children. This may be linked to the legal basis under which children are in care. Of those children in the sample aged 12-15 years, almost 90% were voluntarily accommodated when they entered care. In contrast only 60% of children in the youngest age group entered care on this basis. Children or their parents can choose to end such voluntary placements at any time regardless of whether the issues that led to accommodation have been addressed or not. Again, there is an argument that there is also potentially less support and monitoring for this group of children after returning home than for much younger children who have been subjects of court proceedings.

CHAPTER 9

DISCUSSION AND CONCLUSION

At the end of each of the four preceding analysis chapters there has been some initial discussion of a selection of the key themes or findings that have emerged from the particular analysis undertaken. Those headline findings will now be summarised below and then the remainder of this chapter will pull those initial thoughts and ideas together and develop and discuss them further. At the end of the chapter these discussions will form the basis of a set of recommendations for policy and practice; and suggested foci for future research.

9.1 HEADLINE FINDINGS

The following provides a brief summary of the main findings from the research. In Chapter 5 the 'Baby P effect' was found in the pattern of entries to care in Wales in the same way that it was identified by CAFCASS reports for England (CAFCASS, 2009; CAFCASS 2012). However, it was argued that other factors such as austerity and a changing paradigm within children's social work, which were present during the period covered by the data, have contributed to the extended period of increases in the numbers of children 'looked-after'. It was also noted that whilst this pattern of overall increase is present at the country level, the trajectories of individual local authorities in the numbers of children who become 'looked-after' vary substantially.

When examining the characteristics of children at entry and exit from care in Chapter 6, age at entry was identified as being statistically associated with differences in overall rates of children 'looked-after' at a local authority level. Broadly, local authorities with higher overall rates of children 'looked-after' take in more children of primary school age or younger, whilst those with lower rates took in proportionally more young people aged between 12-17 years. Similarly, those local authorities with

higher rates also took in more children under the category of abuse and neglect whilst those with lower rates took in a wider range of children in terms of category of need. As well as characteristics statistically associated with overall rates, the analysis presented in this findings chapter also identified a number of differences in characteristics between local authorities 'looked-after' children populations, which whilst not statistically associated with differences in overall rates of children in care, have significance for practice. Examples of these include differences in the rate of usage of Special Guardianship Orders as a route out of care and the use of emergency measures such as Emergency Protection Orders at entry.

The investigation of the relationship between deprivation and becoming 'looked-after' in Chapter 7 showed a strong statistical relationship between neighbourhood level deprivation and rates of children becoming 'looked-after'. The 'social gradient' present in the data illustrates that for every step increase in deprivation there is an associated increase in rates of children 'looked-after'. This gradient is present at the level of individual local authorities; within differing age groups; by gender; and a range of placement characteristics. The analysis also shows a strong association between deprivation at the local authority level and overall 'looked-after' children rates, with this relationship being identified as a contributing factor to differences in the rates at which local authorities bring children into care. Broadly, less deprived local authorities take children into care at lower rates than those that are more deprived overall.

The final analysis chapter, Chapter 8, considered factors that might predict a child who had experienced a period of being 'looked-after' returning to care. What was found

was that for children who have a period of being 'looked-after' and then exited care there is an increased likelihood of returning to care where the child's first stay was less than 6 months. This group of children are more than two and a half times more likely to return than those children whose first stay was more than two years, with children who stay 30 days or less being three and a half times more likely to return.

The further discussion of these key findings that will now follow will be framed within an ecological framework. Although Bronfenbrenner's ecological model cannot be fully applied to the data contained within the secondary data used within this study, as they lack the detail required to fully explore the complexity of the interaction of risk and protective factors across the levels of the model, they do provide a useful framework within which to organise and further discuss the findings of the analysis. The discussion of findings will therefore reflect on the level within Bronfenbrenner's model within which factors are located.

9.2 NEIGHBOURHOOD DEPRIVATION AND BEING 'LOOKED-AFTER'

At the 'mesosystem' level, those factors that act at the level of neighbourhood or community, this study's results clearly show a statistically significant relationship between neighbourhood characteristics, specifically the level of relative deprivation within a community, and the rates of children becoming 'looked-after'. This is consistent with the findings of previous studies, both in the UK and elsewhere (Bywaters et al. 2016; Coulton et al.2007; Eckenrode et al. 2014). As recognised within the literature relating to the social determinants of health, what is observed is a 'social gradient'. For each step up in level of deprivation there is a corresponding increase in the rates at which children become 'looked-after'.

Almost half of children becoming 'looked-after' during the period covered by the data lived in neighbourhoods which are within the 20% most deprived at the Wales level and almost 75% (73.3%) from the 40% most deprived neighbourhoods. There is therefore a clear relationship between entry to care and levels of neighbourhood deprivation. This reflects the taken for granted experience of practitioners that they work predominantly within the poorest communities and with the most disadvantaged families. What this study provides is empirical evidence of this taken for granted practice knowledge.

At the level of individual children and their families, the 'micro system' level, the data also show that three quarters (75.9%) of children entering care do so as a result of abuse and neglect or the chronically inadequate parenting categorised as 'family dysfunction', which could similarly be seen as representing neglectful parenting. The impact of neighbourhood deprivation and the likelihood of maltreatment are therefore also clearly associated with being 'looked-after'. What are less clear are the mechanisms by which this happens.

9.3 THEORIES OF POVERTY AND ABUSE

Whilst there is a substantial body of research that shows the relationship between poverty and child maltreatment and/or becoming 'looked-after', there is scant research focused on identifying and explaining the causal relationship between the two (Slack et al. 2017). There is however the beginnings of an emerging literature that suggests the presence of a causal relationship (Shook and Testa, 1997; Fein and Lee, 2003; Cancian et al. 2013). In particular the quasi-experimental study by Cancian et al. in the US showed a reduction in maltreatment reports within a group whose income

was increased by as little as $100 a month relative to a control group, suggesting a causal relationship between household income and child maltreatment. However, within the UK the political message for social work is that the idea of a correlation, much less a causal relationship, is one that should be challenged. In addition to the comments by Michael Gove highlighted earlier in the thesis that structural explanations were being used to portray abusive parents as victims of social injustice (Gove 2013), Martin Narey (2014) in a report on the education of children's social workers stated that "there may be a partial correlation between disadvantage and poor parenting but there is not a causal link" (p.11). The understanding and even acceptance of a relationship between poverty and child abuse is therefore contested. By extension, the relationship between families' socio-economic circumstances and their children becoming 'looked after' would not be accepted at a political level either. The findings of this study clearly show a relationship between poverty and being 'looked-after' and that a child's chance of becoming 'looked-after' increase with increases in neighbourhood level deprivation. As shown in Chapter 7, children living in the most deprived neighbourhoods are almost 12 times more likely to be 'looked-after' than their peers in the least deprived neighbourhoods.

This association between neighbourhood level deprivation and becoming 'looked-after', could be explained by so called 'parental stress' theories, which have been developed within a predominantly US literature. Pelton (Pelton, 1994; Pelton 2015) and others (Conger et al. 1994) have for a number of years sought to explain the strong relationship between low income, poverty and child abuse and neglect. Conrad-Heibner and Scanlon (2015) in their study on the economic conditions for physical abuse argued that the family stress model provides possibly the only clear

theoretical explanation of the relationship between socio-economic conditions at the family or neighbourhood level and physical abuse. Their review of the literature covering studies published between 1970 and 2013 identified a number of socio-economic characteristics including: income, socioeconomic status and receipt of welfare benefits; unemployment; material hardship; housing hardship; food insecurity and neighbourhood characteristics; associated with likelihood of child maltreatment. In order to further explain this relationship, Pelton (2015) describes "two pathways that can lead from poverty to child abuse and neglect" (p.34) these being characterised as the material hardships and material deficits of poverty. The first of these, the material hardships that poverty brings to families, can lead, Pelton argues, to parental stress. Such stress can manifest itself in parents and carers as either anger which can lead to child abuse, or depression, which can become a factor in parents not adequately meeting the needs of their children (see also Conger et al. 1994). The impact of such stress is described in the qualitative study by Russell et al. (2008). Other examples of the impact of poverty on parental stress include the inability to afford childcare and therefore parents having limited opportunities to have a break from the caring role, which can lead to overload (Jonson-Reid et al. 2009). The second of the pathways described by Pelton relates to the impact of inadequate housing; neighbourhoods with limited community resources; and high levels of environmental stressors, such as crime and anti-social behaviour (Pelton, 2015; Jonson-Reid et al. 2009). Poor housing can of itself present hazards that can, at least in part, contribute to situations that may be harmful to children when coupled with a parent's inability or failure to act to protect children from those hazards. Whilst parental stress theories are commonly quoted as a way of explaining the causal relationship between poverty and abuse and by extension of becoming 'looked after', there is a case for arguing that

such an explanation of the mechanisms involved is relatively simplistic. For example, in relation to issues associated with possible parental involvement in the child protection system that have a relationship to a greater or lesser extent with poverty such as mental health problems or substance misuse, does poverty cause these issues? Or do people affected by these issues gravitate towards living in poverty?

9.4 POVERTY AND BEING 'LOOKED-AFTER': A COMPLICATED RELATIONSHIP

The relationship between neighbourhood deprivation and child abuse and by extension the correlation between deprivation and becoming 'looked-after', given the high proportion of children who do so as a result of abuse and neglect is clearly evidenced in this study and wider research. This picture is however complicated by the findings in Chapter 7, which show that even at comparable levels of neighbourhood deprivation, local authorities with different levels of overall deprivation intervene at varying rates. Even in the most deprived neighbourhoods, in those local authorities that are the least deprived overall, children are brought into care at lower rates than in the most deprived local authorities. This finding is contrary to the findings of the initial Bywaters et al. study. The study found that in a sample of English local authorities, when neighbourhoods with the same deprivation level were compared, those with lower overall levels of deprivation intervened more, the so called 'Inverse Intervention Law (ILL)'. Within the Bywaters et al. study the hypothesis put forward to explain this difference in rates is that this group of local authorities have, in real terms, much lower numbers of children in care and have therefore more available resources with which to intervene e.g. there is not the pressure on placements and finances experienced by those local authorities with higher levels of deprivation given the correlation between deprivation and overall rates of children in

care. Given the smaller number of children living in these local authorities, they therefore intervene at higher rates when this is taken into account.

The findings of this study and that of Bywaters et al., which show different rates of intervention at the same level of neighbourhood deprivation, would suggest that whilst deprivation plays a significant role in children and young people becoming 'looked-after' it doesn't fully explain differences in rates. This is perhaps best illustrated by figure 39 in Chapter 7, which shows that when local authorities' overall deprivation scores are plotted against mean 'looked-after' children's rates, the variation in deprivation is able to explain 47% of the variation in local authorities overall rates of children 'looked-after'. Whilst a single variable that explains almost half of the variation in rates is clearly important, it does also highlight that over half of the variation between the overall rates of local authorities is explained by other factors. A further example is provided within the same graph when a local authority such as Blaenau Gwent is considered in this context. The graph clearly identifies this local authority as having the highest levels of overall deprivation and yet this local authority's average rate of children 'looked-after' is lower than 6 of the other 21 local authorities in Wales. Based on deprivation level alone this shows a difference between what we might expect in terms of rates of children 'looked-after' and what is actually observed. This would suggest that whilst deprivation levels at the local authority level have a significant impact on numbers of children becoming 'looked-after', there are other factors at work that also contribute to differences between local authorities.

9.5 LOCAL PRACTICE, THRESHOLDS AND THE 'CREATING OF SERVICE USERS'

In *'Lost in Care'*, Millham et al. (1986) highlight the way in which the children's social care system plays a role in creating the service user. They suggest that research "has highlighted the long-term consequences of initial professional definitions of presenting problems and has charted the 'avenues' along which clients are directed as a result of decisions (p.220)". This concept would appear to provide a useful starting point for exploring both the differences in intervention rates between local authorities at the same level of deprivation and also some of the other differences between local authorities identified in this study's results. The idea that different local authorities play a role in 'creating' those children who become 'looked-after' through the ways in which their support needs are framed and responded to seems to be one with merit and one which would start to draw out some of the differences in the characteristics of children entering care in different local authorities. Whether as a result of:

> "Departmental policies and operational processes such as the availability of preventative services and decision-making procedures; resource and staffing levels; and wider culture of the department, the beliefs about care and the attitudes of individual members of staff" (Dickens et al. 2007. p.599)

There is an extent to which it does appear that there are differences in the way that individual local authorities 'construct' the cohort of children and young people they bring into care and how they respond to the needs with which families present. This can be seen for example in the different age profiles and needs categories identified in the 'looked-after' populations of different authorities.

One possible explanation of these local differences in the children identified as needing periods in care and differences in characteristics such as the age groups of children 'looked-after' is provided by Lipsky's ideas of street level bureaucrats (Lipsky,

1980). Social workers in their face-to-face interactions with families are the 'human face' of government legislation and public policy and key players in there implementation (Riccucci, 2005). Whilst required to operate within the law and in line with regulation and guidance, in their interactions with the public, social workers as street level bureaucrats have some level of discretion in their decisions and in how they interpret and react to given situations. As Lipsky puts it "Street-level bureaucrats make policy in two related respects. They exercise wide discretion in decisions about citizens with whom they interact. Then, when taken in concert, their individual actions add up to agency behavior'' (1980, p.13). The second point raised is equally as important. Whilst highlighting social workers as individual street level bureaucrats' exercising discretion, it also introduces the idea that when those decisions are added together they collectively form team or service behaviour. Arguably such an organisational or team culture will vary from location to location, contributing to the sort of variations observed in the data. Social work in the modern era can be seen as very bound by procedures and rules, a product of 'new managerialism'. However, as Maynard-Moody and Musheno observe when commenting on street level work more generally, whilst such face to face work is defined by rules and procedures the work is "rule saturated, not rule bound" (Maynard-Moody and Musheno, 2000, p.334) as they often only provide weak constraints on street level decision making. A further possible explanation is provided by the socially constructed nature of social work practice as described at the end of Chapter 6 (Parton and O'Byrne, 2000, p.15). This explanatory route is based in the ideas of social constructionism which hold that the social world is creatively produced by individuals and groups in their interactions. Families that require support or parenting behaviour that may be seen as problematic may arguably

have been socially constructed differently by social workers, teams or local authorities in different localities.

9.6 DIFFERENCES IN PRACTICE

The results of the analysis also point towards differences in local practice, not always statistically linked to differences in overall rates, but worthy of note and further discussion. An example of such a practice difference was discussed at the end of Chapter 6 in relation to the use of emergency protection measures such as Emergency Protection Orders. The use of such measures is subject to large variations between local authorities, with a thirteen fold difference in their use between local authorities with the lowest and highest rates. A further example of such differences is identified in the analysis in relation to the use of Special Guardianship Orders (SGO) as an exit route from care. There is no correlation (negative or positive) between the proportion of children leaving care by this route and a local authority's overall rates of children in care, but there are substantial variations in their usage with a nine fold variation in rates of usage. As highlighted, such variations may be a consequence of external factors such as the courts or the Police force area within which a local authority is located. Both of these findings would seem to provide potentially interesting starting points for further research.

In considering the way in which the child protection system works, Gibbons, Conroy and Bell (1995) used the analogy of a fish net suggesting that it was:

> A small meshed net in which a large number of minnows – which have later to be discarded – are caught as well as the marketable fish….no rules exist about the correct size of the mesh. Each fishing fleet may therefore set its own (Dartington Social Research Unit, 1995, p.32-33).

This analogy identifies the key role of child protection thresholds and other criteria and how they may vary from area to area. Families who may pass through the net in one area would be 'caught' in another. Given the substantial proportion of children 'looked-after' who are in care as a result of abuse and neglect, the way in which the child protection system functions and how that might vary geographically has significant implications for the care population. If considered in the context of ideas around the development of the 'investigative turn' (Bilson et al. 2017) as the current paradigm within child welfare it identifies one of the potential mechanisms by which increasing numbers of children potentially become 'looked-after' children. An ever broadening net, with increasingly fine mesh, in which fewer 'minnows' are put back and for many children the outcome is becoming 'looked-after'. Such an increase in levels of investigations is evidenced in the work of Bilson and Martin (2016) who identified that of children born in England during 2009-10 almost a quarter (22.5%) were referred to children's services by their fifth birthday. There are arguably two subtly different factors in action, firstly an overall broad change in practice that is seeing more and more families caught up in the system, but within that also threshold variations at a local level – nets with different size mesh – that result in variations. Possible explanations for the overall change, including risk aversion and austerity will be discussed further in the sections that follow.

9.7 DEFENSIVE PRACTICE AND RISK AVERSION

Oliver et al. (2001), in a study looking at differences in rates of children 'looked-after' between English local authorities, suggest that high overall rates are linked to "an interventionist and legalistic approach…(and) a cautious organisational ethos (p.17)". Furthermore, they suggest that high numbers of children 'looked-after' are also

related to increased levels of staff time dedicated to the procedures and paperwork associated with the regular reviews and other processes connected with a child being placed in care. As a consequence social workers have less time to undertake the type of direct work with families which may, for example, result in children and young people ceasing to be 'looked-after' more quickly, or as discussed in Chapter 8 provide support to ensure such returns home are successful. The data within this study in contrast would seem to suggest that local authorities with the lowest levels of overall deprivation whilst intervening less, when they do intervene use legalistic approaches such as care orders more than more deprived local authorities. However, when the picture provided by comparison of the aggregate (as at 31st March) data and the child level data on children entering care is considered a further level of complexity emerges. The aggregate data show that a large proportion of children 'looked-after' are in care on the basis of a care order. In contrast the child level data at entry show a high proportion of children entering under voluntary agreements (see appendices 9, 10 and 12). Given the average length of stay for those children that entered and exited during the observation period was six months, many of those in care under S20 of the Children Act would have left between census points. However, of those who did not leave the picture would suggest that a large proportion move from entering under a voluntary arrangement to remaining through the use of care orders. This could arguably be an illustration of the use of S20 arrangements as a lengthy prelude to care proceedings as highlighted by Lord Justice Munby (Stevenson, 2015). Some local authorities would however argue (and have done so during presentations of the initial findings of this study) that the use of S20 is using voluntary arrangements in the spirit that they were intended under the Children Act 1989, as part of working in partnership with families not as a way of circumventing the system.

Jones (2014) states that there has been a crisis of confidence in child protection services in the wake of the Baby P case, which I would argue, has been a significant driver of the increases in entries to care. As discussed in Chapter 5, the media coverage in the wake of the death of Peter Connelly was instrumental in reducing societal confidence in the ability of social work to protect children by linking his death inextricably to the failures of the social workers responsible for his case. As such, ideas of professional and societal confidence, despite being "nebulous and unmeasurable" (Hood et al., 2016, p.17) and therefore arguably at odds with a quantitative analysis such as this, have explanatory merit when considering the findings from this study. Societal attitudes to the task of social work are rooted in the 'macrosystem' within the ecological model. Such a crisis of public confidence manifests itself in social work practice that has at its core "a defensive 'take no chances' approach to risk" (Hood et al., 2016, p.17), with greater use of child protection interventions, often accompanied by children becoming 'looked-after'. Whilst such media coverage of child death cases is not new, it has a history dating back to the Maria Colwell case in the 1970s it has arguably become more vociferous in the last decade. The impact of this, as noted in Chapter 5 is the increased sensitivity of social work practice and outcomes such as becoming 'looked-after' to such external forces.

9.8 CHANGES IN RATES THAT RELATE TO A POINT IN TIME

The data used have a temporal component and as such sit within Bronfenbrenner's notion of the 'chronosystem'. As discussed in Chapter 5 one obvious temporal component within the findings is the time period prior to and following the Peter Connelly case. At the Wales level, the impact of the media coverage surrounding the

Baby P case can clearly be seen within the data, with a noticeable increase in numbers of children 'looked-after' after 2009, which has persisted until the end of the period covered by the data. This is an example of a factor rooted in particular timespans acting on the 'exosystem', the level within which the child and their family are not present but which has an impact on their immediate environment. The media coverage surrounding high profile child deaths and the resulting levels of risk aversion within the decision-making of professionals working with many families, resulting in children entering care more readily than would have been the case in the preceding period, provide an example of something that has had a major impact that can be pinpointed to a particular time.

Arguably, similarly rooted at a point in time, although perhaps less obvious as a result of having also happened in 2009, is the impact of House of Lords judgement in respect of R (G) v London Borough of Southwark (Shelter, 2009). The Southwark judgement reiterated to local authority children's services departments their responsibilities with regard to young people aged 16-17 years old who present as homeless and the requirement where appropriate to make such young people 'looked-after'. The Southwark judgement led to an increase in 16/17 year olds becoming 'looked-after' which was highlighted in the *'Looked After' Children in London* report (London Councils, 2013). The data clearly show, at the Wales level, increases in the rates of young people entering care at these ages over time. However, as with other characteristics, there are marked differences in rates between local authorities, when differences in child population at those ages are accounted for. The data show a six-fold difference in the rates at which young people in this age group are placed in care between Wales' largest city, Cardiff and the largely rural authority of Powys. This

would again seem to be the result of the avenues down which children are directed and how clients are 'constructed' within different authorities as a result of variations in resources, thresholds and decision-making processes and organisational culture and how these elements interact. One other possible factor is that of the migration of young people from other parts of Wales to the capital. The rates calculated in the study use the child population at the time of the 2011 population census or the mid-year estimates derived from it. What these figures obviously cannot capture is the short-term movement of people from where they were on the census date to other parts of the country. As discussed in Chapter 5, Cardiff is also an asylum seeker dispersal centre and the increase in older teenagers may also be reflective of the local authority providing placements to unaccompanied children.

9.9 CHARACTERISTICS LINKED TO DIFFERENCES IN OVERALL RATES

The age at which a child enters care and the reason for them becoming 'looked-after' are both shown by the data to be correlated to a local authority's overall 'looked-after' children rate. Those local authorities with higher overall rates appear to take into care higher percentages of younger children and a larger proportion of children under the category of abuse and neglect. These are children who are arguably more likely to be in care under a care order and as younger children are likely to remain in care longer (see appendices 11, 12 and 13).

This appears to have a knock on effect in terms of how children exit care. Of the potential ways in which a child could cease to be 'looked-after', the route with the strongest statistical relationship to overall rates of children in care is adoption. The analysis shows a relationship between a local authorities overall rate of children

'looked-after' and the proportion of children leaving care as a consequence of having been adopted. The likelihood of a child being adopted is related to their age, with the likelihood diminishing as age increases. It therefore appears that those local authorities with higher overall rates and therefore higher proportions of younger children entering care see more children exiting care through adoption. The fact that those children are also more likely to have entered care as a consequence of abuse rather than for example, categories of need such as being a disabled child, would also appear to be a factor in them exiting via a route such as adoption. It is interesting to note that it is not negatively linked to overall rates. There is not therefore a case for arguing that those local authorities with low overall rates in part maintain those levels of children 'looked-after' as a consequence of children exiting care through adoption.

9.10 DECADES HAVE PASSED BUT HAS MUCH CHANGED?

In undertaking the background reading for this thesis I visited what may now be considered some of the 'classic' texts of UK social work literature. These included *The Client Speaks* by Mayer and Timms (1970) and Robert Holman's *Inequality in Child Care* from 1974. Mayer and Timms writing almost 50 years ago identified the realities of supporting families living in poverty. In *The Client Speaks* they suggested that to offer clients (parents) help:

> "without satisfying, and preferably at the start, their material needs – in our view utterly fails to come to grips with their problems - Plainly put, these individuals were desperately in need of money (or its equivalent) and to offer them something else is to offer a suit of clothes to a drowning man" (Mayer and Timms, The Client Speaks, 1970, p.140)

There is an argument to be made that in the intervening years, despite good intentions and policy changes there are aspects of what they describe that remain little changed. To offer parenting programmes and other forms of targeted individualised support to families struggling with parenting, without first attending to their fundamental needs for decent housing and sufficient income to properly feed and clothe themselves, is arguably setting families up to fail. If this argument is framed using the public health and social determinants lens that was used to locate parts of this study the implications of such an approach are illustrated by the picture below. If the 'boulder' of health hazards is replaced with the pressures to provide 'good enough' parenting and the individually oriented preventative action are defined as parenting programmes and other forms of individualised behaviour change, making those changes becomes increasingly more difficult for families dependent on the steepness of the gradient caused by poverty, poor housing, lack of education and a range of other factors. Action to reduce the steepness of the gradient would therefore arguably reduce the stress experienced and make the task of individualised change around parenting easier to achieve for parents living in poverty.

Figure 55: 'Social Gradient' of health

Source: *Making Partners: Intersectoral Action for Health* 1988 Proceedings and outcome of a WHO Joint Working Group on Intersectoral Action for Health, The Netherlands.
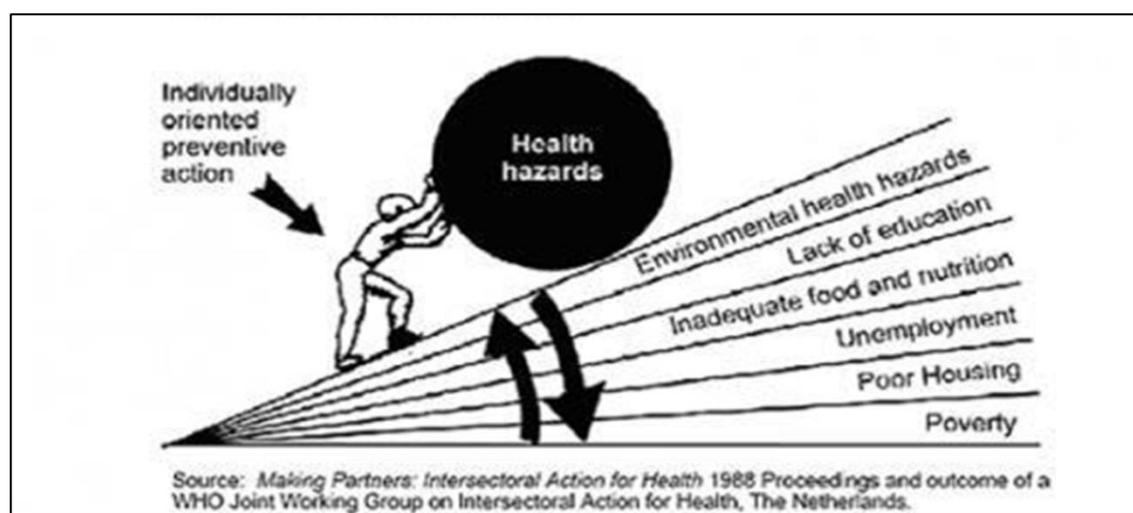
This speaks to the fundamental question of what social work is for and how it is manifest, particularly in relation to people living in poverty. The international Federation of Social Workers state that:

> "Human rights and social justice serve as the motivation and justification for social work action. In solidarity with those who are disadvantaged, the profession strives to alleviate poverty and to liberate vulnerable and oppressed people in order to promote social inclusion" (ISFW, 2000 in Schiettecat et al. 2015)

This clearly identifies that alleviating poverty is identified internationally as a central focus of the task of social work, but this appears at odds with the focus of practice within the UK in recent decades, which arguably has as its motivation the "managing and securing against risk as opposed to genuine attempts to respond meaningfully to need" (Stanford, 2010, p.1065).

Research suggests that more unequal societies have worse outcomes (Wilkinson and Pickett, 2009). Wales is arguably less unequal than for example England, however as identified in the introduction to this thesis this is in part explained by the fact that those who live in the least deprived areas of Wales are not as affluent as those in the least deprived parts of England. Within local authorities in Wales, levels of social inequality are arguably low because the vast majority of households are in poverty. This might explain the historically higher levels of children 'looked-after' in Wales than in England.

9.11 FROM 'RESCUE' (BACK) TO 'REPAIR'

In this thesis it has been argued that the period from 2008 to 2014 has seen the pendulum swing from social work practice aimed predominantly at 'repairing' families to practice and systems more focused on 'rescuing' children by firstly placing them in

care. The argument put forward based on the clear social gradient of intervention in terms of placing children in care present in the data is that the pendulum now needs to be rebalanced. The aim of recalibrating the system has within it an assumption that reunification with birth family after a period in care should be the aim wherever that is possible. However, this needs to be balanced against the impact of multiple returns to care, including the potential risk of further abuse and trauma of children returned home. The findings of chapter 8 have shown the association between short periods in care and increased likelihood of re-entry to care, predominantly for a group of children that when they exited care went home. As argued at the end of that chapter, where it is necessary for children to become 'looked after', as part of supporting parents to care appropriately for their children, then support and services must be put in place to minimise the likelihood of those reunifications failing when children exit care.

The move from the risk averse practice that predominates currently to working with families in ways that acknowledge their circumstances and seeks to recognise the role of poverty and deprivation in their needs for support requires change. As Stanford (2010) highlighted in order for social work practitioners to be able to 'speak back' to the fear of risk that drives practice requires organisations that are willing to support social workers to take such risks. It is about social work educators reinforcing the idea that some level of risk taking is an integral part of social work practice and it is about a theoretical understanding of change for families can be facilitated through risk-taking by practitioners. Some elements of what is described may already be present in local authorities included in the study. The leadership and management within some local authorities may provide the type of support described to practitioners, enabling them

to work with families differently with the consequence of varying the numbers of children who become 'looked after'.

9.12 A 'PERFECT STORM: MORE THAN 'BABY P'

As discussed in chapter 5, there appears to have been a number of factors that have come together within recent years to provide the conditions to enable the increase in rates attributed to the aftermath of death of Peter Connelly to be maintained over a substantial number of years. This set of conditions would seem to fit with Featherstone et al.'s (2013) description of a 'perfect storm'.

Briefly, those conditions would seem to be a high profile child death and the resulting media and political focus on the perceived failings of social workers; reduced societal confidence in social work; social work practice increasingly focused on reducing risk rather than responding to need; the individualisation of poverty and family troubles; and austerity and the hollowing out of preventative services.

The period preceding the timeframe covered by this data saw a move away from the broad family support orientation of the New Labour era, characterised by Sure Start services in the early years of their inception, to more and more targeted protection services. This move in focus is characterised by what Featherstone and Bilson (forthcoming, 2017) describe as the 'investigative turn'. The 'investigative turn' refers to a shift in paradigm based in the idea that requests for support are ever increasingly responded to through child protection investigation processes (section 47) and a focus on risk. A system predominantly focused on risk rather need is one that is likely to remove children at increasing rates as a means of protecting them. But, this may not

entirely be just an overt focus on risk, but also a perceived inability to address the needs of families, particularly those relating to poverty. As Lindsey (2004) argues in the context of the US, the overuse of placing children in care may be a reaction to the limited abilities of local authorities to address families' underlying problem, that of family poverty, the elephant in the room.

To big to tackle, or invisible because of familiarity

POVERTY

Credit: Harry Venning
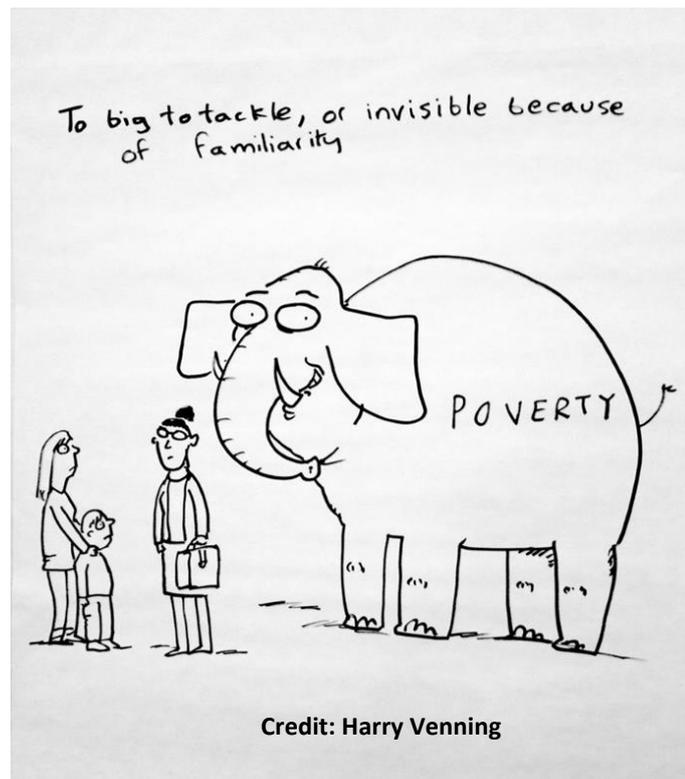
The backdrop to the period under consideration has also been the emergence of the 'Risk Society' as described by Beck (1992), in which society generates anxiety and fears about particular risks, such as child abuse, with ever more elaborate means to attempt to manage such risks and disagreement about the methods of management used. As Cohen (2002) argues "the construction of risk refers not just to the raw information about dangerous or unpleasant things but also to the ways of assessing, classifying and reacting to them (p.xxv)". Arguably, the emergence of the 'investigative turn', the widening of the child protection 'net', the increasing use of the removal of children and placing them in care, are all manifestations of the reaction to child abuse within a

'risk society', which have contributed to the maintaining of high levels of child protection investigations and children being removed from their parents and placed in care.

The period covered by the study is one characterised by UK Government austerity and this is often suggested as a factor within the cocktail of factors that have impacted on the increase in 'looked-after' children. Austerity has arguably played a role in terms of both families and local authorities during the period under consideration. Firstly, it has reduced the ability of the poorest families to provide for their children's well-being as a result of welfare reform, placing them under increasing levels of stress. At the same time, cuts in funding to the public sector have reduced the capacity of the state, at a local level, to support families or deal with the increasing numbers of families who require such support because of such pressures. The paper by Bywaters et al. (2017) highlighted the impact in England of austerity in terms of the budgetary cuts to local authorities and the 'hollowing out' of early support services, illustrated by the decimation of Sure Start funding and the closure of a third of Sure Start family centres in England since 2010 (Guardian, 2017). But arguably this hasn't happened in Wales in the same way and yet rates have increased more here in Wales than in England. Is this in part explained by the figures on overall spend that show that whilst increasing in Wales, in stark contrast to the austerity cuts in social care budgets experienced in England, those increases only brought spending per head in Wales up to the post cuts level in England? Wales has focused early support in the shape of Flying Start, a programme that has been developed and maintained during the austerity years. The programme is targeted at the youngest children (0-4 years) in the most deprived neighbourhoods and yet numbers in care have continued to rise. These are the families and neighbourhoods from which the study data have shown the

sustained increases in admissions to care have come. This poses questions as to whether a programme such as Flying Start is failing because it appears not to have brought about a reduction in numbers entering care, or whether the increase in services has also resulted in an increase in identification of cases.

As described in Chapter 3, explanations of poverty can be framed both in terms of structural and individualistic causes. In recent years individualised explanations of poverty have held sway in terms of government policy and arguably in terms of societal attitudes, poverty as 'personal trouble' rather than 'public issue'. Given the relationship between poverty, contact with statutory services and as an outcome of that contact children becoming 'looked after', it would seem reasonable that the same framework that is brought to bear on poverty is brought to bear on child maltreatment and families struggles with parenting. The explanations and responses are focused entirely on the 'personal trouble' rather than all the families in contact with such services being seen as a 'public issue'.

9.13 CONCLUSIONS

The research set out to explore the differences in the rates that local authorities in Wales bring children into the 'looked-after' system. It has also sought to contribute to emerging discussion within the UK of the broader issues around the role of poverty and social inequality in the state intervening in the lives of families and in this study of placing children in care.

What the findings have identified is a relationship between the level of deprivation within the neighbourhoods in which children live and their likelihood of entering care. Children living in the most deprived neighbourhoods are substantially more likely to become 'looked-after' and the care population in Wales overall is predominantly drawn from the poorest neighbourhoods. Whilst there is an extent to which this is a taken for granted 'truth' within social work practice, the study contributes to a growing if small body of empirical research both in Wales and the UK that evidences it. It is hoped that the findings will reinvigorate discussion of how social policy and social work should respond. Should the state continue to 'rescue' children from the poorest homes and place them in care? Or should they seek to change the paradigm within social work and return to ideas of 'repair' and working with families in ways that more consciously acknowledge their daily struggles with poverty and its effects?

The findings around poverty and social inequality would suggest that they have a substantial impact on the variations in rates of children 'looked-after' between areas, but the data also suggest that they only provide a partial explanation. Whilst variations in levels of deprivation may 'trump' other factors in terms of their influence on rates, as noted by Dickens et al. (2007) a variety of factors may be at work. The

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way that social workers work as street level bureaucrats interpreting policy and legislation in their face to face interactions with families and the socially constructed nature of social work itself may also play a part. Leadership, management support and culture, including the level of risk aversion within an authority, may also influence the numbers of children in care, as would the resourcing of services including budgets and the availability of preventative services.

In the overall picture of pressures on the 'looked-after' system those children who exit the care system but later return play a part. Return has potential implications both for resources (Holmes, 2014) and outcomes (Sebba et al., 2015). The research suggests that those children who experience short initial stays in care are more likely to return than those who stay longer, but it is also recognised that the longer children stay in care the less likely they are to go home. Children aged 11-15 years are highlighted as being the age group most likely to return and the way that exits from care for this age group are supported warrants further research.

Whilst the results clearly contribute to the knowledge base regarding understanding the role of poverty and social inequality and other factors contribute to variations in the rates children become 'looked-after', it is acknowledged within the study has limitations and only provide a partial explanation. It has however, significant implications for policy and practice. The follow sections will summarise the recommendations and make suggestions for future research, based in the identified limitations of this study (see Methods Chapter, section 4.11).

9.14 RECOMMENDATIONS FOR POLICY AND PRACTICE

The study has identified a number of recommendations for both policy and social work practice.

- This study has clearly identified that greater attention needs to be paid at both a policy and practice level to the impact of poverty and financial insecurity on child welfare and specifically the intervention of the state in the lives of children and their families in placing children in care. This is an area that should receive the same attention as that afforded to health inequalities and inequalities in educational attainment.

- From a Welsh policy perspective the Well-being of Future Generations Act 2015 requires public bodies to seek to prevent persistent problems such as poverty. The Act states that by "understanding the underlying causes of the problems people and communities face can help us find different solutions, intervene early and prevent problems from getting worse or arising in the future (p.23)". Whilst there is an explicit focus on health inequalities within the legislation, a recommendation from this study is that equal weight is given to action stemming from the Act to prevent inequalities in child welfare.

- Given the relationship identified in this and other studies between poverty and child abuse and neglect, it is important that changes are made to administrative data collection systems to enable the capture of information regarding the material circumstances of the families to which local authorities provide services and support. Such data would allow researchers, policy makers and practitioners

to develop more detailed understandings at a household rather than neighbourhood level of circumstances of the families with which we work. In the context of this study this would be in relation to those families whose children have periods of being 'looked-after', but more broadly this information should also be collected in relation to children who are subject to child protection procedures and those identified in Wales as Children in Need of Care and Support (formerly Children in Need).

- Administrative data, such as the SSDA903 return used in this study, provide relatively ready access to large scale, country level data for secondary analysis. However, arguably the opportunities for such analysis, particularly in terms of social care and social work are under-utilised. Through the Administrative Data Research Centres (ADRC) network greater use should be made of the opportunities provided by large scale administrative social work data, particularly in Wales.

9.15 FURTHER RESEARCH

The limitations of the study are outlined in Chapter 4 (See Section 4.11) and clearly have implications for future research. This study has identified a number of issues that warrant further investigation and avenues for future research. These can be summarised as follows:

- Quantitative or mixed methods research which uses child or household level data on socio-economic circumstances to explore the relationship between poverty, social inequality and becoming 'looked-after' or having the state intervene in family life in some other way

- Explore opportunities in the UK to replicate quasi-experimental research of the type undertaken by Cancian et al. (2013) to test the hypothesis of a causal relationship between poverty and child maltreatment.

- Whilst some qualitative research has been undertaken to describe the causal relationship between poverty and abuse and/or contact with statutory services (e.g. Russell et al. 2008) the literature is relatively underdeveloped, particularly in the UK. In order to further develop our understandings and move further than the insights currently provided by the type of research undertaken within this thesis requires research to be conducted that explores the lived experiences of families in poverty with a specific focus on abuse and contact with statutory children's services.

- Further research focused on the practice differences identified between local authorities is needed. For example the research shows quite substantial differences in the use of emergency measures to bring children into care through the routes of police protection or emergency protection orders.

- Research to gain further insights into the experiences of teenagers who return home after a period in of being 'looked-after', given the identification of this group of young people as one that has the potential to oscillate in and out of care. There is a need to understand what works in terms of support for these young people and their families in terms of enabling them to stay at home

REFERENCES

Administrative Data Liaison Service (ADLS). 2015. Data Protection Act. Accessed [on-line] at http://www.adls.ac.uk/adls-resources/guidance/legal-guidance/data-protection-act/

Administrative Data Liaison Service (ADLS). 2015a. Guidance note. Can a researcher legitimately process non-sensitive personal data for research purposes? Accessed [on-line] at http://www.adls.ac.uk/adls-resources/guidance/legal-guidance/data-protection-act/

Administrative Data Liaison Service (ADLS). 2015b. Guidance note. Can a researcher legitimately process sensitive personal data for research purposes? Accessed [on-line] at http://www.adls.ac.uk/adls-resources/guidance/legal-guidance/data-protection-act/

Ayre, P. 2001. Child protection and the media: Lessons from the last three decades. *British Journal of Social Work. 31. pp. 887 - 901*

Barbosa, G. 2016. The geography of child maltreatment: a spatiotemporal analysis using Bayesian Hierarchical Analysis with integrated nested laplace approximation. *Journal of Interpersonal Violence, pp.1-31*

Barnardo's. 2006. *Failed by the System: The views of young care leavers on their educational experiences.* London: Barnardo's.

Barth, R. P., Wildfire, J., and Green, R.L. 2006. Placement into foster care and the interplay between urbanicity, child behavior problems, and poverty. *American Journal of Orthopsychiatry* 76(3), pp. 358-366.

BASW. 2012. British Association of Social Workers – Code of Ethics. Accessed [on-line] at http://cdn.basw.co.uk/upload/basw_112315-7.pdf

Bebbington, A. and. Miles, J. 1989. The Background of Children who enter Local Authority Care. *British Journal of Social Work* 19, pp. 349-368.

Beck, U. 1992. *Risk Society: Towards a new modernity.* London. Sage.

Beckett, C. 2001. The Great Care Proceedings Explosion. *British Journal of Social Work* 31, pp. 493-501.

Bell, K. 2013. Poverty, Social Security and Stigma. Child Poverty Action Group. Accessed [on-line] at http://www.cpag.org.uk/content/poverty-social-security-and-stigma

Bell, J. & Gowans, H. 2016. Legal Issues for ADRN Users. Administrative Data Research Network. Accessed [on-line] at https://adrn.ac.uk/media/174205/legal_guide_final.pdf

Belsky, J. 1980. Child Maltreatment: An Ecological Integration. *American Psychologist. Vol.35. No.4. pp. 320 – 335.*

Belsky, J. and Stratton, P. 2002. An Ecological Analysis of the Etiology of Child Maltreatment in Browne, K.D., Hanks, H., Stratton, P. and Hamilton, C. (eds.). 2002. *Early Prediction and Prevention of Child Abuse: A Handbook.* Chichester. John Wiley and Sons.

Biehal, N. 2006. Re-uniting looked-after children with their families: A research review. National Children's Bureau.

Bilson, A., Featherstone, B., Martin, K. 2017. How child protection's 'investigative turn' impacts on poor and deprived communities. *Family Law. 47. pp.316-319*

Bilson, A. and Martin, K. 2016. Referrals and Child Protection in England: One in five children referred to Children's Services and one in nineteen investigated before the age of five. *British Journal of Social Work (advanced access) pp.1-19*

Bohlin, A.-B., and Larsson, G. 1986. Early identification of infants at risk for institutional care. *Journal of Advanced Nursing* 11, pp. 493-497.

Bourdieu, P. 1999. *The weight of the world: Social suffering in contemporary society*. Cambridge. Polity

Brandon, M., Belderson, P., Warren, C., Howe, D., Gardner, R., Dodsworth, J. and Black, J. 2008. Analysing Child Deaths and Serious Injury through Abuse and Neglect: What Can We Learn? A Biennial Analysis of Serious Case Reviews 2003-2005. Department for Children, Schools and Families.

Broadhurst, K., Hall, C., Wastell, D., White, S. and Pithouse, A. 2010. Risk, instrumentalism and the humane project in social work: Identifying the informal logics of risk management in children's statutory services. *British Journal of Social Work. 40. pp.1046 - 1064*

Bronfenbrenner, U. 1979. *The Ecology of Human Development*. Cambridge, Massachusetts: Harvard University Press.

Bronfenbrenner, U. and Morris, P. 1998. The ecology of human processes in: Lerner, R. ed. *Theoretical models of human development* New York: Wiley, pp.993-1028.

Brown, J., Cohen, P., Johnson, J. and Salzinger, S. 1998. A longitudinal analysis of risk factors for child maltreatment: findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. *Child Abuse and Neglect. 22 (11) pp. 1065-1078*

Bullock, Gooch and Little. 1998. Children going home.

Bullock, Little and Milham. 1993. Going home: the return of children separated from their families

Butler, I. 2002. A Code of Ethics for Social Work and Social Care Research. *British Journal of Social Work. Vol.3 (2). pp.239 - 248*

Bywaters, P., Jones, C. and Sparks, T. 2017. Identifying and Understanding Inequalities in Child Welfare Intervention Rates: Comparative studies in four UK countries. Single country quantitative study report: England. Accessed [on-line] at
 http://www.coventry.ac.uk/research/research-directories/current-projects/2014/child-welfare-inequality-uk/cwip-project-outputs/

Bywaters, P., Brady, G., Bunting, L., Daniel, B., Featherstone, B., Jones, Chantel, J., Morris, K., Scourfield, J., Sparks, T. and Webb, C. 2017. Inequalities in English child protection practice under austerity: A universal challenge? *Child and Family Social Work. pp.1-9*

Bywaters, P., Brady, G., Sparks, T., & Bos, E. 2016. Child Welfare Inequalities: New Evidence, Further Questions. *Child & Family Social Work. 21. pp. 369-380*

Bywaters, P. 2016a. Inequalities in child welfare: Towards a new policy, research and action agenda. *British Journal of Social Work. 45 (1). Pp. 6 -23*

Bywaters, P., Brady, G., Sparks, T., Bos, E., Bunting, L., Daniel, B., Featherstone, B., Morris, K. and Scourfield, J. 2015. Exploring inequities in child welfare and child protection services: Explaining the 'inverse intervention law'. *Children and Youth Services Review, 57, 98-105.*

Bywaters, P. & Sparks, T. 2016. Calculated UK Index of Multiple Deprivation data at the LSOA for four nation comparison.

Bywaters, P. and Webb, C. 2018. Austerity, rationing and inequity: trends in children's and young peoples' services expenditure in England between 2010 and 2015. Local Government Studies. Accessed [on-line] at
http://www.tandfonline.com/doi/pdf/10.1080/03003930.2018.1430028?needAccess=true

CAFCASS. 2009. The baby Peter effect and the increase in S31 care order applications. CAFCASS. [on-line] Accessed at
http://www.cafcass.gov.uk/media/2567/Baby%20Peter%20exec%20summary%20final.pdf

CAFCASS. 2012. *Three weeks in November...three years on...Cafcass care application study 2012*. CAFCASS. [on-line] Accessed at
http://www.cafcass.gov.uk/media/6437/Cafcass%20Care%20Application%20Study%202012%20FINAL.pdf

Cancian, M., Slack, K. and Yang, M. 2013. The effect of family income on risk of child maltreatment. Social Services Review 87 (3). pp. 417 - 437

Care and Social Services Inspectorate (CSSIW). 2012. Chief Inspectors Report Annual Report 2011-12 [on-line]accessed http://cssiw.org.uk/docs/cssiw/report/130110annualen.pdf

Care and Social Services Inspectorate (CSSIW). 2013. Chief Inspectors Report Annual Report 2012-13 [on-line] accessed
at http://cssiw.org.uk/docs/cssiw/report/140210annualreport1213en.pdf

Catalano, R., Lind, S., Rosenblatt, A., and Novaco, R. 2003. Economic Antecedents of Foster Care. *American Journal of Community* 32(1/2), pp. 47-56.

Children Act 1989

Children Act 1948

Children and Young Persons Act 1969

Community Care. 2012. 70% of looked-after children who return home aren't ready. Accessed [on-line] at http://www.communitycare.co.uk/2012/04/30/70-of-looked-after-children-who-return-home-arent-ready/

Cohen. S. 2002. *Folk devils and moral panics: the creation of the mods and rockers (third edition)*. London. Routledge

Conger, R.D., Conger, K.J., Elder, G.H., Lorenzo, F.O., Simons, R.L. and Whitbeck, L.B. 1992. A Family Process Model of Economic Hardship and Adjustment of Early Adolescent Boys. *Child Development. 63. pp.526 – 541*

Conrad-Heibner, A. and Scanlon, E. 2015. The Economic Conditions of Child Physical Abuse: A Call for a National Research, Policy and Practice Agenda. *Families in Society: The Journal of Contemporary Social Services. 96 (1). pp.59 - 66*

Cordis Bright. 2013. *Research on differences in the looked after children population*. London. Cordis Bright

Coulton, C., Crampton, D., Irwin, M., Spilsbury, J. and Korbin, J. 2007. How neighbourhoods influence maltreatment: a review of the literature and alternative pathways. *Child Abuse and Neglect, 31, pp.1117-1142*

Courtney, M. 1994. Factors associated with the reunification of foster children returned to their families. *Social Services Review. 61. 1. pp. 81 – 108*

Courtney, M. 1995. Re-entry to foster care of children returned to their families. *Social Services Review. 69. 2. pp.226 – 241*

Courtney, M., Piliavin, I. and Wright, B.1997. Note on research. Transitions from and returns to out of home care. *Social Services Review. 71. pp.652 - 667*

Child Welfare Inequalities Project (CWIP). 2016. Accessed [on-line] at http://www.coventry.ac.uk/research/research-directories/current-projects/2014/child-welfare-inequality-uk/

Cresswell, J. and Clark, V. 2011. *Designing and conducting mixed methods research (2nd Ed.)* London. Sage.

Dartington Social Research Unit. 1995. Child Protection: Message from research. HMSO.

Davies, R., Drinkwater, S., Joll, C., Jones, M., Lloyd-Williams, H., Makepeace, G., Parhi, M., Parken, A., Robinson, C., Taylor, C., and Wass, V. 2011. An anatomy of economic inequality in Wales. Wales Institute of Social and Economic Research, Data and Methods (WISERD).

Delfabbro, P., Borgas, M., Rogers, N., Jeffreys, H. and Wilson, R. 2009. The social and family backgrounds of infants in South Australian out-of-home care 2000–2005: Predictors of subsequent abuse notifications. *Children and Youth Services Review* 31(2), pp. 219-226.

Dean, H. and Shah, A. 2002. 'Insecure Families and Low-Paying Labour Markets: Comments on the British Experience'. *Journal of Social Policy, 31 (1): 61-80*

Department for Children, Schools and Families (DCSF). 2010. Working Together to Safeguard Children. Nottingham. DCSF Publications

Department for Education. 2008. Haringey Local Safeguarding Children Board: Serious Case Review Child 'A'. London. Department for Education. [on-line] Accessed at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182527/first_serious_case_review_overview_report_relating_to_peter_connelly_dated_november_2008.pdf

Department for Education. 2014. Children Looked After in England, including Adoption 2010 - 2014. [on-line] Accessed at https://www.gov.uk/government/collections/statistics-looked-after-children

Dickens, J., Howell, D., Thoburn, J. and Schofield, G. 2007. Children starting to be Looked After by Local Authorities in England: An Analysis of Inter-authority Variation and Case-centred Decision Making. *British Journal of Social Work*. 37. pp. 597-617

Drakeford, M. 2012. Number of children in care increasing at a greater rate in Wales than England. Institute of Welsh Affairs. [on-line] Accessed at
http://www.clickonwales.org/2012/11/far-more-welsh-than-english-children-in-care/

Drakeford, M. 2012 (a). Keeping Welsh families together. Institute of Welsh Affairs. [on-line] Accessed at http://www.clickonwales.org/2012/11/keeping-welsh-families-together/ on 20/2/13

Drakeford, M. 2015. Speaking notes – Looked After Children's Summit 12/3/15

Eckenrode, J., Smith, E., McCarthy, M. and Dineen, M. (2014). Income inequality and child maltreatment in the United States. *Pediatrics, 133(3), pp.454 – 461*

Elliott, M. and Scourfield, J. 2017. Identifying and understanding inequalities in child welfare intervention rates: comparative studies in four UK countries. Single country quantitative study report: Wales. Child Welfare Inequalities Project. Accessed [on-line] at http://www.coventry.ac.uk/research/research-directories/current-projects/2014/child-welfare-inequality-uk/cwip-project-outputs/

Elliott, M. 2015. Quantitative research and the secondary analysis of longitudinal data in social work research in Hardwick, L. et al (eds.) *Innovations in social work research: Using methods creatively*. London. Jessica Kingsley Publishers. pp. 259 – 271

Elsley, S. 2010. Media coverage of child deaths in the UK: The impact of Baby P: A case for influence? The University of Edinburgh/NSPCC Child Protection Research Centre.

Evans, K. 2007. Concepts of bounded agency in education, work and the personal lives of young adults. *International Journal of Psychology. 42 (2). pp. 85 - 93*

Farmer, E. 2014. Improving reunification practice: Pathways home, progress and outcomes for children returning from care to parents. *British Journal of Social Work. 44. pp.348-366*

Farmer, E. and Parker, R. 1991. *Trials and Tribulations*. Stationary Office

Featherstone, B., White, S. and Morris, K. 2014. *Re-imagining Child Protection*. Bristol. Policy Press.

Featherstone, B., Morris, K. and White, S. 2013. A marriage made in hell: Intervention meets child protection. *British Journal of Social Work. pp.1-15*

Fein, D. and Lee, W. 2003. The impacts of welfare reform on child maltreatment in Delaware. *Children and Youth Services Review. 25 (1-2). pp. 83 – 111*

Festinger, T. 1996. Going home and return to foster care. *Children and Youth Services Review. 18. 4/5. pp. 383-402*

Field, A. 2013. *Discovering Statistics Using IBM SPSS Statistics (4th ed.)*. London. Sage

Flick, U. 2009. *An introduction to Qualitative Research (4th ed.)*. London. Sage.

Forrester, D., Goodman, K., Cocker, C. and Binnie, C. 2009. What is the Impact of Public Care on Children's Welfare? A Review of Research Findings from England and Wales and their Policy Implications. *Journal of Social Policy* 38(03), p. 439.

Forrester, D., Fairtlough, A. and Bennet, Y. 2007. Describing the needs of children presenting to children's services: issues of reliability and validity. *Journal of Children's Services. Vol 2 (2) pp.48-59*

Fox Harding, L. 1997. *Perspectives in child care policy (2nd Edition)*. London: Longman.

Franzen, E., Vinnerljung, B., Hjern, A. 2008. The Epidemiology of Out of Home Care for Children and Youth: A National Cohort Study. *British Journal of Social Work 38, pp. 1043-1059.*

Garbarino, J. 1981. An ecological approach to child maltreatment in Pelton, L.H (ed). 1981. *The social context of child abuse and neglect*. New York. Human Sciences Press. pp. 228-267

Gibbons, J., Conroy, S. and Bell, C. 1995. Operating the child protection system: A study of child protection practice in English local authorities. HMSO

Goffman, E. 1963. *Stigma: Notes on the Management of Spoiled Identity*. Harmondsworth. Penguin Books

Gorard, S. and Taylor, C. 2004. *Combining methods in educational and social research.* Maidenhead. Open University Press.

Gove, M. 2013. Speech to the NSPCC: getting it right for children in need. Accessed [on-line] at https://www.gov.uk/government/speeches/getting-it-right-for-children-in-need-speech-to-the-nspcc

Grannis, R. 1998. The importance of trivial streets: residential streets and residential segregation. *American Journal of Sociology. 78(6). pp. 1530-1564*

Gubrium, E., Pellissery, S. and Lodemel, I. 2014. *The shame of it: global perspectives on anti-poverty policies*. Bristol. Policy Press.

Hare, A. D. and Bullock, R. 2006. Dispelling misconceptions about looked after children. *Adoption and Fostering* 30(4), pp. 26-35.

Haringey Local Safeguarding Children Board. 2009. Serious Case Review: Baby Peter. Accessed [on-line] at
http://www.haringeylscb.org/sites/haringeylscb/files/executive_summary_peter_final.pdf

Harker, R. M., Dobel-Ober, D., Akhurst, S., Berridge, D. and Sinclair, R. 2004. 'Who takes care of education eighteen months on? A follow-up study of looked after children's perceptions of support for educational progress'. *Child and Family Social Work, 9: 3, 273–84.*

Harwin, J., Alrouh, B., Palmer, M., Broadhurst, K., and Swift, S. 2015. A national study of the usage of supervision orders and special guardianship over time (2007-2016). Briefing paper no 1: Special guardianship orders. Nuffield Foundation. Accessed [on-line] at
https://www.nuffieldfoundation.org/sites/default/files/files/BRIEFING%20PAPER%20NO%201%20SPECIAL%20GUARDIANSHIP%20ORDERS%20FINAL%2016_12_2015.pdf

Hayes, N. 2000. Doing psychological research: gathering and analysing data. Buckingham. Open University Press.

Hiilamo, H. 2009. What could explain the dramatic rise in out-of-home placement in Finland in the 1990s and early 2000s? *Children and Youth Services Review* 31(2), pp. 177-184.

Holman, R. 1974. Inequality in child care. Child Poverty Action Group.

Holmes, L. 2014. Supporting children and families returning home from care: counting the costs. NSPCC. Accessed [on-line] at
https://www.nspcc.org.uk/services-and-resources/research-and-resources/2014/supporting-children-families-returning-home-from-care-counting-costs/

Hood, R., Goldacre, A., Grant, R. and Jones, R. Exploring Demand and Provision in English Child Protection Services. *British Journal of Social Work. Advanced Access published May 2016. pp.1 - 19*

International Federation of Social Work (IFSW). 2000. Definition of social work in Schiettecat, T., Roets, G. and Vandenbroek, M. Do families in poverty need child and family social work? *European journal of Social Work. 18 (5). pp.647 – 660*

Jackson, S. and Sachdev, D. 2001. *Better Education, Better Futures: Research, Practice and the Views of Young People in Public Care*. London: Barnardo's.

Janzon, K. and Sinclair, R. 2002. Needs, Numbers, Resources: Informed planning for looked after children*. Research Policy and Planning 20(2), pp. 1-7.*

Jones, P. & Elias, P. (2006) Administrative data as a research resource: A selected audit. National Centre for Research Methods Working Paper 452.

Jones, R. 2014. *The story of Baby P: Setting the Record Straight.* London. Policy Press.

Joseph Rowntree Foundation. 2015. In-work poverty is keeping poverty rates high in Wales. Accessed [on-line] at https://www.jrf.org.uk/blog/work-poverty-keeping-poverty-rates-wales-high

Jonson-Reid, M., Drake, B. and Kohl, P.L. 2009. Is the over-representation of the poor in child welfare caseloads due to bias or need? *Children and Youth Services Review. Vol.31. pp. 422-427*

Jutte, S., Bentley, H., Miller, P. and Jetha, N. 2014. *How Safe are our Children?* London. NSPCC

Kalland, M., Sinkkonen, J., Gissler, M., Merilainen, J. and Siimes, M.A. 2006. Maternal smoking behaviour, background and neonatal health in Finnish children subsequently placed in foster care. *Child Abuse Neglect* 30(9), pp. 1037-1047.

Katz, I., Corlyon, J., La Placa, V. and Hunter S. 2007. *The relationship between parenting and poverty*. York. Joseph Rowntree Foundation.

Kirkwood, B. and Sterne. J. 2003. Essential Medical Statistics (2nd edition). Oxford. Blackwell
Local Government Association. 2009. Opinion poll shows impact of Baby P case on protecting children. Accessed [on-line] at
http://webarchive.nationalarchives.gov.uk/20090806170142/http://www.lga.gov.uk/lga/core/page.do?pageId=1738929

Lindsey, D. 2004. *The welfare of children (second edition).* Oxford. Oxford University Press.

Lister, R. 2004*. Poverty: Key Concepts*. Cambridge. Polity Press.

Lonne, B., Parton, N. Thomson, J. and Harries, M. 2016. Reforming Child Protection.

London Councils. 2013. *Looked After Children in London: An analysis of changes in the numbers of Looked After Children in London*.

Mandipour, A., Cars, G. and Allen, J. (eds). 1998. Social exclusion in European cities. London. Jessica Kingsley Publishing

Marmot, M. 2010. Fair Society Healthy Lives (The Marmot Review). London. Marmot Review. Accessed [on-line] at http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review

Masson, J., Pearce, J. and Bader, K. with Joyner, O., Marsden, J. and Westlake, D. 2008. Care Profile Study. Bristol University. Accessed [on-line] on
http://www.bris.ac.uk/media-library/sites/law/migrated/documents/care-profiling-study-report.pdf

Masson, J. 2005. Emergency intervention to protect children: using and avoiding legal controls. *Child and Family Law Quarterly. 17 (1). pp. 75 - 96*

Mayer, J. and Timms, N. 1973. *The Client Speaks: working-class impressions of casework*. London. Routledge and Kegan Paul

Maynard – Moody, S. and Musheno, M. 2000. State agent of citizen agent: Two narratives of discretion. *Journal of Public Administration Research and Theory. 2. pp. 329 – 358*

McGhee, J., Bunting, L., McCartan, C., Elliott, M., Bywaters, P. and Featherstone, B. (forthcoming). Looking after children in the UK – convergence or divergence? *British Journal of Social Work*

McGrath-Lone, L., Dearden, L., Harron, K., Nasim, B. and Gilbert, R. 2017. Factors associated with re-entry to out-of-home care among children in England. *Child Abuse and Neglect. 63. pp.73 - 83*

McSherry, D. 2004. Which came first the chicken or the egg? Examining the relationship between child neglect and poverty. *British Journal of Social Work. 34. pp. 727 - 733*

Meltzer, H., Gohuard, R., Corbin, T., Goodman, R. and Ford, T. 2003. The Mental Health of Young People Looked After by Local Authorities in England, London: Social Survey Division of Office of National Statistics of the Department of Health.

Millham, S., Bullock, R., Hosie, K. and Haak, M. 1986. *Lost in Care: The problems of maintaining links between children in care and their families*. Aldershot. Gower.

Ministry of Justice. 2014. Practice Direction 12A – Care, Supervision and other Part 4 proceedings: Guide to case management. Accessed [on-line] at
 https://www.justice.gov.uk/courts/procedure-rules/family/practice_directions/pd_part_12a

Murphy, E. & Fairtlough, A. 2015. The Successful Reunification of abused and neglected looked after children with their families: A case file audit. *British Journal of Social Work. 45. pp. 2261-2280*

Narey, M. 2014. Making the education of social workers consistently effective. London Department for Education

Narey, M. 2008. The case for care. *Public Policy Research* 15(4), pp. 180-181.

Narey, M. 2007. *Beyond Care Matters: Future of the care population*.

National Assembly for Wales. 2009. In Figures: Looked after children. Members Research Service.

National Assembly for Wales / Home Office. 2001. Framework for the Assessment of Children in Need and their Families. London. The Stationary Office. Accessed [on-line] at
http://gov.wales/topics/health/publications/socialcare/guidance1/childreninneed/?lang=en

NSPCC. 2014. Child Killings in England and Wales. London. NSPCC. Accessed [on-line] at
https://www.nspcc.org.uk/globalassets/documents/information-service/factsheet-child-killings-england-wales-homicide-statistics.pdf

Office for National Statistics. 2008. A framework for identifying sources of statistical error in estimates of public service output and productivity. Accessed [on-line] at
https://www.ons.gov.uk/ons/guidemethod/ukcemga/ukcemgapublications/publications/archive/a-framework-for-identifying-sources.pdf

Office of National Statistics (ONS). 2013. Population Estimates for England and Wales, Mid-2002 to Mid-2010 Revised (Subnational). ONS [on-line] accessed at
 http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-280885

Office of National Statistics (ONS). 2012. Population Estimates for England and Wales, Mid-2011 (2011 Census-based). ONS [on-line] accessed at
http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-262039

Office of National Statistics (ONS). 2013a. Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2011 and Mid-2012. ONS [on-line] accessed at
http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-319259

Office of National Statistics (ONS). 2013b. Mid-2011 Population Estimates for Lower Layer Super Output Areas in England and Wales by Single Year of Age and Sex; based on the results of the 2011 Census. ONS [on-line] accessed at
http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/pop/april-2013/index.html

Office of National Statistics (ONS). 2014. Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2013. ONS [on-line] accessed at http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-322718

Office of National Statistics (ONS). 2015. Annual Mid-year Population Estimates, 2014. ONS [on-line] accessed at http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/mid-2014/stb---mid-2014-uk-population-estimates.html

Oliver, C., Owen, C., Statham, J. and Moss, P. 2001. *Figures and facts: Local authority variance on indicators concerning child protection and children looked after.* London. Thomas Coram Research Unit, University of London Institute of Education.

Orr, S., Brown, G., Smith, S. J., May, C. and Waters, M. 2006. When Ends Don't Meet: Assets, Vulnerabilities and Livelihoods. An Analysis of Households in Thornaby-on-Tees. Church Action on Poverty and Oxfam

Packman, J. 1968. *Child Care Needs and Numbers*. London: George Allen and Unwin Ltd.

Packham,J. and Hall, C. 1998. *From care to accommodation, support, protection and control in child care*. The Stationary Office

Palant, J. 2001. *SPSS Survival Manual*. Buckingham. Open University Press.

Parton, N. 1981. Child abuse, social anxiety and welfare. *British Journal of social work. 11. pp. 391-441*

Parton, N. and O'Byrne, P. 2000. Constructive Social Work: Towards a New Practice. Palgrave MacMillan.

Paxton, W. and Dixon, M. 2004. The State of the Nation: An Audit of Social Injustice. London. Institute of Public Policy Research.

Payne, R.A. and Abel, G.A. 2012. UK indices of multiple deprivation – a way to make comparisons across constituent countries easier. *Health Statistics Quarterly. 53. pp.1-16*

Pelton, L.H. 2015. The continuing role of material factors in child maltreatment and placement. *Child Abuse and Neglect. Vol. 41. pp. 30-39*

Pelton, L. H. 1994. The role of material factors in child abuse and neglect in Melton. G and Barry, F.(Eds.). *Protecting children from abuse and neglect: Foundations for a new national strategy*. pp. 131–181. New York. Guilford Press

Placement of Children (Wales) Regulations 2007

Porta, M. (ed.). 2008. A Dictionary of Epidemiology (5th edition). Oxford. Oxford University Press.

Poverty and Social Exclusion (PSE). 2015. Definitions of Poverty. Accessed [on-line] at http://www.poverty.ac.uk/definitions-poverty

Pritchard C. and Williams, R. 2010. Comparing possible "child-abuse-related-deaths" in England and Wales with the major developed countries 1974–2006: Signs of progress? *British Journal of Social Work. vol. 40 (6). pp. 1700-1718*

Raymer, J., Yildiz, D. & Smith, P.W.F. 2013. Review of methods for estimating populations with administrative data. Southampton Statistical Sciences Research Institute. Accessed [on-line] at https://www.nrscotland.gov.uk/files/census/2021-census/reportspublications/review-pop-admin-data.pdf

Riccucci, N. 2005. Street-level bureaucrats and intrastate variation in the implementation of temporary assistance for needy families policies. *Journal of Public Administration Research and Theory. 15 (1). pp. 89 – 111*

Ridge, T. and Wright, S. 2008. Introduction in Ridge, T. and Wright, S (eds.). 2008. Understanding inequality, poverty and wealth: Policies and perspectives. Bristol. Policy Press

Rivaux, S., James, J., Wittenstrom, K., Baumann, D., Sheets, J., Henry, J. and Jeffries, V. 2008. The intersection of race, poverty, and risk: understanding the decision to provide services to clients and to remove children. *Child Welfare, Vol. 87 (2), pp. 151-168*

Roberts, H. 2000. *What Works in Reducing Inequalities in Child Health?* London: Barnardo's.

Roberts, K., Clark, S.C. and Wallace, C. 1994. Flexibility and individualisation: A comparison of transitions into employment in England and Germany. *Sociology. 28 (1). pp.31 - 54*

Rowe, J., Hunderby, M. and Garnett,L. 1989. *Child Care Now: A survey of placement patterns*. London. British Agencies for Adoption and Fostering

Rowlands, J. and Statham, J. 2009. Numbers of children looked after in England: a historical analysis. *Child & Family Social Work* 14(1), pp. 79-89.

Russell, M., Harris, B. and Gockel, A. 2008. Parenting in poverty: perspectives of high risk parents. *Journal of Children and Poverty. 14 (1). pp. 83 - 98*

Sampson, R.J., Morenoff, J.D. and Gannon-Rowley, T. 2002. Assessing "neighbourhood effects": Social processes and new directions in research. *Annual Review of Sociology. 28. pp.443-478*

Save the Children. 2005. Uncertain Futures: Children seeking asylum in Wales. Cardiff. Save the Children

Sayer, A. 1992. *Methods in Social Science: A Realistic Approach (2nd. Ed.)*. London Routledge.

Sebba, J., Berridge, D., Luke, N., Fletcher, J., Bell, K., Strand, S., Thomas, S., Sinclair, I. and O'Higgins, A. 2015. The Educational Progress of Looked After Children in England: Linking Care and Educational Data. Rees Centre, University of Bristol.

Selwyn, J. and Masson, J. 2014. Adoption, special guardianship and residence orders: a comparison of disruption rates. *Family Law. pp. 1709 - 1714*

Sergeant, H. 2006. *Handle with Care: An Investigation into the Care System*. London: Centre for Policy Studies.

Shelter. 2009. Responding to youth homelessness following the G v LB Southwark judgment. London. Shelter. Accessed [on-line] at https://england.shelter.org.uk/__data/assets/pdf_file/0005/231269/G_v_Southwark_briefing_revised_Nov_11.pdf

Shildrick, T and Rucell, J. 2015. Sociological perspectives of poverty. Joseph Rowntree Foundation. Accessed [on-line] at https://www.jrf.org.uk/report/sociological-perspectives-poverty

Shook, K. and Testa, M. 1997. Cost-savings evaluation of the Norman program: finding report to the Department of Children and Family Services. Chicago. Illinois Department of Children and Family Services

Simkiss, D. E., Stallard, N. and Thorogood, M. 2012. A systematic literature review of the risk factors associated with children entering public care. *Child Care Health Dev* 39(5), pp. 628-642

Simkiss, D. 2012. Outcomes for looked after children and young people. *Paediatrics and Child Health. 22 (9). pp. 388-392*

Sinclair, I., Baker, C., Wilson, K. and Gibbs, I. 2005. *Foster children where they go and how they get on*. Jessica Kingsley

Slack, K., Berger, L., and Noyes, J. 2017. Introduction to the special issue on the economic causes and consequences of child maltreatment. *Child and Youth Services Review. 72. pp. 1-4*

Stanford, S. 2010. 'Speaking back' to fear: Responding to the moral dilemmas of risk in social work practice. *British Journal of Social Work. 40. pp.1065 – 1080.*

Statham, J., Candappa, M., Simon, A., and Owen, C. 2002. *Trends in Care: Exploring reasons for the increase in children looked after by local authorities*. London. Institute of Education.

StatsWales. 2011. Welsh Index Multiple Deprivation Child Index 2011: Local authority analysis. [on-line] Accessed at https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2011-Child-Index/WIMDChildIndex2011LocalAuthorityAnalysis

StatsWales. 2014. Welsh Index Multiple Deprivation 2014: Local authority analysis. [on-line] Accessed at https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2014/wimd2014localauthorityanalysis

StatsWales. 2014a. Children Looked After in Wales: Numbers and characteristics of children looked after by local authorities 2003 – 2014. [on-line] Accessed at https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Children-Looked-After

StatsWales. 2014b. Welsh Index of Multiple Deprivation 2014: Domain score data by LSOA. [on-line] Accessed at http://gov.wales/docs/statistics/2015/150812-wimd-2014-domain-scores-revised-en.xlsx.

StatsWales. 2014c. Children in Need Census. Accessed [on-line] at
https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Children-in-Need

StatsWales. 2014d. Social services revenue expenditure by client group. Accessed [on-line] at
https://statswales.gov.wales/Catalogue/Local-Government/Finance/Revenue/Social-Services/social-services-socialservicesrevenueexpenditure-by-clientgroup

Stein, M. 2006. Wrong Turn: The consensus that children in care are failing, and that the system is to blame, is plain wrong. *Guardian* [on-line] Accessed at
http://www.theguardian.com/society/2006/dec/06/childrensservices.guardiansocietysupplement1

Stevenson, L. 2015. Social workers given new guidance for section 20 arrangements amid 'misuse and abuse'. Community Care [on-line] Accessed at
http://www.communitycare.co.uk/2015/11/10/social-workers-given-new-guidance-section-20-orders-amid-misuse-abuse/

SWEC. 2015. JUC Social Work Education Committee: Code of Ethics for Social Work and Social Care. Accessed [on-line] at http://www.juc.ac.uk/swec-research-code.html

Teater, B., Devaney, J., Forrester, D., Scourfield, J. and Carpenter, J. 2017. *Quantitative Research Methods for Social Work: Making Social Work Count.* London. Palgrave

The Guardian. 2016. Dave Hill: 'You've got to look after fewer children' accessed [on-line] at
http://www.theguardian.com/society/2016/may/11/dave-hill-childrens-services-look-after-fewer-children-families?CMP=share_btn_tw

The Guardian. 2017. A third of Sure Start children's centres in England lost, says Labour. Accessed [on-line] at
https://www.theguardian.com/society/2017/apr/05/sure-start-childrens-centres-cuts-labour

The Lord Laming Report. 2009. The Protection of Children in England: A Progress Report. London. The Stationary Office. Accessed [on-line] at
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328117/The_Protection_of_Children_in_England.pdf

The Placement of Children with Parents etc. Regulations 1991

Thoburn, J. 2007. Globalisation and child welfare: some lessons from a cross-national study of children in out-of-home care.

Townsend, P. 1979. *Poverty in the United Kingdom: A survey of household resources and standards of living*. Berkeley: University of California Press

Townsend, P. 1993 in Flaherty, J., Veit-Wilson, J. and Dornan, P. 2004. Poverty: the facts (5th edition). London. Child Poverty Action Group.

Tudor Hart, J. 1971. The inverse care law. *The Lancet. Saturday 2th February 1971. pp.405 - 412*

Viner, R.M. & Taylor B. 2005. Adult health and social outcomes of children who have been in public care: population-based study. *Pediatrics. 115. pp. 894-899*.

Vinnerljung, B. & Sallnas M. 2008. Into adulthood: a follow-up study of 718 young people who were placed in out-of-home care during their teens. *Child & Family Social Work.13. pp. 144-55*.

Wales Governance Centre. 2017. Welsh Government Budgetary Trade-offs: Looking Forward to 2021-22. Wales Governance Centre. Cardiff. Accessed [on-line] at https://warwick.ac.uk/fac/soc/ier/publications/2017/luchinskaya_2017_wales_public_services.pdf

Ward, H., Holmes, L. and Soper, J. 2008. *Costs and Consequences of Placing Children in Care*. London: Jessica Kingsley.

Warner, J. 2015. *The emotional politics of social work and child protection*. Bristol. The Policy Press

Wastell, D. and White, S. Blinded by neuroscience: social policy, the family and the infant brain. *Families, relationships and societies. 1 (3). pp.397-414*

Well-being of Future Generations Act 2015

Welsh Government. 2014. Guidance notes for the completion of the Children in Need Census 2014. [on-line] Accessed at http://gov.wales/statistics-and-research/wales-children-need-census-data-collection/?lang=en

Welsh Government. 2014a. Guidance notes for the completion of SSDA903 records 1 April 2013 to 31 March 2014. Welsh Government

Welsh Government. 2014b. Welsh Index of Multiple Deprivation 2014: Guidance on Use. [on-line] Accessed at http://gov.wales/docs/statistics/2014/141112-wimd-2014-guidance-en.pdf

Welsh Government. 2014c. Wales Children in Need Census (2010 – 2014) [on-line] Accessed at http://gov.wales/statistics-and-research/wales-children-need census/?tab=previous&lang=en

Welsh Government. 2015. Shared Purpose: Shared Future. Statutory guidance on the Well-being of Future Generations (Wales) Act 2015

Wilkinson, R. and Pickett, K. 2009. *The Spirit Level*. London. Penguin Books.

World Bank. 2013. Measuring poverty. Accessed [on-line] at http://www.worldbank.org/en/topic/measuringpoverty

Wright Mills, C. 2000. The sociological imagination (40th anniversary edition). Oxford. Oxford University Press.

Wulczyn, F. 1991. Caseload dynamics and foster care re-entry. *Social Services Review. 65. pp.133-156*

Wulczyn, F., Hislop, K.B. and Goerge, R.M. 2000. Foster Care Dynamics 1983-1998. Chicago. Chapin Hall Centre for Children at the University of Chicago [On-line] Accessed at https://www.chapinhall.org/sites/default/files/old_reports/75.pdf

Wulczyn, F., Chen, L., and Hislop, K.B. 2007. Foster Care Dynamics 2000 – 2005: A report from the multi-state Foster Care Data Archive. Chicago. Chapin Hall Centre for Children at the University of Chicago. [Online] Accessed at
http://www.chapinhall.org/research/report/foster-care-dynamics-2000-2005

Wulczyn, F., Michelle, E., and Fisher, P. 2011. Who Are the Infants in Out-of-Home Care? An Epidemiological and Developmental Snapshot. Chapin Hall. Chicago. Accessed [on-line] at
https://www.chapinhall.org/sites/default/files/publications/06_08_11_Issue%20Brief_F_1.pdf

APPENDICES

APPENDIX 2: DATA ACCESS AGREEMENT

Knowledge and Analytical Services

Llywodraeth Cymru
Welsh Government

AGREEMENT IN RESPECT OF INFORMATION PROVIDED BY THE WELSH GOVERNMENT

1. The Welsh Government has agreed to supply Cardiff University ("us", "we") with the information ("the Information") described in clause (i) of the schedule to this agreement ("the Schedule") on or by 30th September 2014 for the duration of the period set out under clause (v) of the Schedule, subject to the terms of this agreement, and subject to the signature by us of this agreement as duly authorised signatory for and on behalf of Cardiff University.

2. We acknowledge that the Information may include personal data within the meaning of the Data Protection Act 1998 ("personal data") to which the provisions of that Act ("the DPA 1998") apply.

3. After receiving the Information we may use it for the purpose(s) specified in the Schedule, but we will not use it for any other purpose unless the Welsh Government gives us express written permission to do so.

4. We will store the data on a secure area of our network with access restricted to the analytical contact and named individuals listed in clause (vi) of the Schedule. Where any hard copies of data are made, these will be kept secure with access restricted to the analytical contact and named individuals listed in clause (vi) of the Schedule.

5. We acknowledge that we have read the Code of Practice for Official Statistics: Principles 5 - Confidentiality and 8 - Frankness and accessibility[1], which describes the procedures adopted by the Welsh Government Knowledge and Analytical Services to protect the confidentiality of personal data that it holds and to comply with the provisions of the DPA 1998. We confirm that our use of the Information under the terms of this agreement will be in accordance with these procedures.

6. Subject to paragraph 7, we will not allow any other person or organisation access to the Information without obtaining the prior written permission of the Welsh Government and where such permission is given we will ensure that the conditions attached to such permission are met and that the permitted recipient of the Information signs an agreement in respect of the

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[1] http://statisticsauthority.gov.uk/assessment/code-of-practice/index.html

Information in a form approved by the Welsh Government. The conditions attached to such permission will include details of how we and the third party organisation will ensure that our ethical responsibilities and legal obligations are met during the transmission, storage, analysis, reporting on and (in due course) destruction of the Information.

7. The restrictions and obligations placed on us by paragraph 6 do not apply in a situation in which we are legally obliged to disclose the Information by or under legislation (for example, the Freedom of Information Act 2000), by a rule of law or by an order of a court or tribunal. Once we have a reasonable expectation that such a situation may arise we will as soon as is reasonably practicable notify the Welsh Government of that and provide the Welsh Government with such information as the Welsh Government may reasonably require in order to enable it to make representations to any person about the disclosure of the Information.

8. We will comply at all times with the provisions of the DPA 1998 in respect of any part of the Information that is personal data, and will not take any step that could put at risk the confidentiality or security of the Information.

9. We will not publish any of the Information or results based on analysis of the Information without the prior written approval of the Welsh Government.

10. Where the Information or any part of it is personal data we will give notification to the Information Commissioner according to the requirements of the DPA 1998.

11. We will comply with all relevant legislation, protocols, codes of practice and ethical guidelines in respect of our use of the Information. [NOTE: KAS to provide detail of protocols etc. where possible.]

12. Where the Information includes aggregate or anonomised data, we will not attempt to establish the identity of any individual to which the Information relates.

13. If we become aware that any term of this agreement, or of any agreement entered into under paragraph 6, may have been breached, or we become aware that there may have been a breach of the DPA 1998 by any person in relation to the Information, we will notify the Welsh Government as soon as is reasonably practicable.

14. We agree that the Welsh Government may terminate immediately our right to use the Information under this agreement, without giving us notice, if it has reasonable grounds to believe that there may have been a breach of any term of this agreement, or of any agreement entered into under paragraph 6, or of the DPA 1998.

15. If we have reasonable grounds to believe that there may have been a breach of any agreement entered into under paragraph 6 for us to share the data with a third party, or of the DPA 1998, by any person in connection with such agreement, we will terminate immediately the right of the other party to that agreement to use the Information under it.

16. If we no longer wish to use the Information we may give notice to the Welsh Government advising it of that.

17. When the permitted period for our use of the information expires (as provided in clause (v) of the Schedule), or our right to use the Information is terminated by the Welsh Government, or where we have notified the Welsh Government that we no longer wish to use the Information, we will at our own cost and at the Welsh Government's discretion either (1) destroy or procure the destruction of all of the Information in our possession or control and furnish to the Welsh Government a certificate evidencing destruction in a form acceptable to the Welsh Government or (2) promptly deliver or procure the delivery of all such Information to the Welsh Government in accordance with the Welsh Government's reasonable instructions.

18. We acknowledge that, in providing us with the Information, the Welsh Government makes no representations and offers no guarantees as to its completeness, quality or accuracy. We also acknowledge that in no event will the Welsh Government be liable for any loss or damage including, without limitation, indirect or consequential loss or damage, arising from use or loss of use of the Information.

19. We acknowledge that the Information is Crown copyright, and that any reproduction, copying, broadcasting, adapting or onward supply of Crown copyright material beyond the terms of this agreement may be a copyright infringement and will be a breach of the terms of this agreement.

20. If we are required by this agreement to give any notification to the Welsh Government, we will send that notification in writing by first class post and e-mail to the main analytical contact at the Welsh Government named in clause (vii) of the Schedule.

21. We agree to fully participate in any information assurance audit or security assessment implemented by or on behalf of the Welsh Government.

SCHEDULE

i. Description of the information requested

Child-level data from the SSDA 903 return on children 'looked-after' covering the period from 1st April 2008 – 31st March 2014. The data items requested cover both those relating to Child Identity and Episodes of Care.

Only the variables that are essential for the stated analysis will be provided.

Variables requested are included in Appendix A.

ii. Purpose for which the information is requested

The data is requested by Cardiff University for analysis as part of a doctoral research study. The PhD researcher will use the data to examine the increases in looked-after children numbers in Wales and also the variation in rates between Welsh authorities. Specifically, the analysis of the requested child-level data will seek to establish whether there are:

* Differences between Welsh local authorities in the nature of the 'flow' of children and young people in and out of the care system over time

* Differences between authorities in the main reason for children becoming 'looked-after' and differences in their legal status

* Differences between authorities in the age profiles of the children entering, leaving and remaining in longer term care

* Differences between local authorities, in terms of the destinations of children leaving the 'looked-after' system

* Is there a correlation between indices of deprivation and LAC rates at an LSOA level in Wales

* And, how the above factors have changed over time

The intention is to also examine how the findings of the analysis of child-level data for Welsh authorities compare to data collected by a parallel study being undertaken in England. The findings of the study will be of interest to both the Welsh Government and the individual local authorities.

We confirm that this purpose is consistent with the aims of National Statistics.

iii. Information transfer method

The data will be securely transferred to the University's server using AFON

iv. Legal and Data Protection Act considerations

The data to be requested and analysed (as per appendix 1) is non-sensitive personal data within the definition of the Data Protection Act 1998. The data will be processed on the basis of the research being undertaken being of legitimate public interest and therefore in compliance with Schedule 2 of the DPA 1998.

As part of the agreement for access to the data, further anonymisation processes will be undertaken. Specifically; DOB will be converted to age as at 31st March for the relevant SSDA903 period; Home postcodes will be converted to LSOA; and LA identifiers will be converted to auto generated anonymised ID numbers.

For guidance see:

http://www.ico.org.uk/for_organisations/data_protection/the_guide/key_definitions

http://www.ico.gov.uk/for_organisations/data_protection/the_guide/principle_1.aspx

http://www.adls.ac.uk/wp-content/uploads/Using-sensitive-personal-data-for-research.pdf

v. Timescale:

The data will be released for a period of **[24]** months from the date of this signed agreement.

vi. Access restricted to:

Main analytical contact at receiving organisation:

Martin Elliott

Named individual(s), in addition to the above, who will have access to the data:

Professor Jonathan Scourfield

Dr. Sin Yi Cheung

vii. Approval

The signatories believe this agreement is compliant with the statements of principle in the Code of Practice for Official Statistics ("the Code") and the specific requirements of the Principles on Confidentiality and Frankness and accessibility (Principles 5 & 8). Where this agreement may appear to contradict the statements of principle in the Code or the specific requirements of the Principles 5 & 8, the Code and the Principles 5 & 8 take precedence, unless explicitly stated.

Receiving organisation

Organisation name	Cardiff University
Address	School of Social Sciences Glamorgan Building King Edward VII Avenue Cardiff CF10 3WT

Responsible analyst for receiving organisation

The responsible analyst for the receiving organisation (that organisation's senior analyst) approves the terms of this Agreement and agrees to meet the requirements specified.

Name	Martin Elliott
Signed	*M. Elliott*
Date	19/8/16
Position held	PhD student
Phone	
Email	ElliottMC1@cardiff.ac.uk

Main analytical contact at receiving organisation

Name	Martin Elliott
Signed	*M. Elliott*
Date	
Position held	PhD student
Address	School of Social Sciences Cardiff University 1-3 Museum Place Cardiff CF10 3BD
Phone	
Email	ElliottMC1@cardiff.ac.uk

Providing organisation: Welsh Government

Responsible Analyst for Welsh Government

The Responsible Analyst for the Welsh Government authorises the provision of access to the data to the receiving organisation under the terms specified in this Agreement

Name	
Signed	
Date	
Position held	
Address	Welsh Government Knowledge and Analytical Services Cathays Park Cardiff CF10 3NQ
Phone	
Email	

Main analytical contact at Welsh Government

Name	
Signed	
Date	
Position held	
Address	Welsh Government Knowledge and Analytical Services Cathays Park Cardiff CF10 3NQ
Phone	
Email	

Appendix to data sharing agreement: Variable list

Item 1 – local authority

Item 2 – child identifier (auto generated anonymised ID)

Item 3 – sex of child

Item 4 – DOB (converted to age as at 31st March of relevant SSDA 903 period)

Item 6 – child's home postcode (converted to LSOA)

Item 9 – date episode commenced

Item 10 – reason for episode

Item 11 – legal status

Item 12 - CiN code (category of need)

Item 13 – placement

Item 14 – date episode ceased

Item 15 - reason episode ceased

APPENDIX 3 : SECURITY ASPECTS LETTER

Llywodraeth Cymru
Welsh Government

Security Aspects Letter for Cardiff University School of Social Sciences.

Please note that **Cyber Essentials** certification must remain valid for the full duration of the work and it is the data processor's responsibility to ensure any recertification is undertaken at the appropriate time.

Welsh Government contact details
Lead analyst
Gareth Brand – Gareth.Brand@wales.gsi.gov.uk – 03000 253 519

Alternative contact
Lee Thomas - Lee.Thomas2@wales.gsi.gov.uk – 03000 251 157

Introduction

The Welsh Government requires all suppliers, sub-contractors and service delivery partners to operate appropriate and secure processes for handling, storing and processing data and information owned by the Welsh Government. You are receiving this letter as you will be processing, for you own purposes as defined in the Data Access Agreement, personal information for which Welsh Government act as Data Controller.

This Security Aspects Letter (SAL) states how our information assets are to be handled

Please note that the term 'information' is used within this document to refer to all data and information handled.

Personal Information

As the data controller (as defined in the Data Protection Act 1998) for the personal information being handled in this contract, the Welsh Government requires the security measures specified in this document to be implemented in relation to the staff, systems and premises handling the information described in the data access agreement. These measures must be implemented to prevent unauthorised or unlawful processing of personal data and protect against accidental loss, destruction or damage to this information.

Specification of security measures required

The following security controls are based on commercial good practice, with an emphasis on staff to respect the confidentiality of all information.

Governance

1. A named individual must be appointed to the role of 'security lead' to take responsibility for the security aspects of this agreement. This named individual will be required to lead on any response required in relation to assessment of the measures in place during the term of the agreement.

2. Any security breaches must be brought to the attention of the named security lead who is then required to report the incident to the Welsh Government contact at the earliest opportunity. Failure to do so could delay an effective response by the Welsh Government.

3. The OFFICIAL–SENSITIVE marking must be retained on all Welsh Government information which is marked as such.

Electronic information:

In addition to meeting the technical requirements prescribed by the **Cyber Essentials** certification the following protective measures must be applied:

4. If any information is stored or processed on equipment other than that owned by Cardiff University then assurance must be provided that partners and subcontractors also comply with Cyber Essentials or ISO27001 standards when processing the information needed to carry out this contract.

5. Storing or processing information on personally owned devices or email accounts is not permitted[2].

6. If 'Cloud' storage services are to be used for sensitive personal information, evidence must be provided that the relevant Government Cloud Security Principles are applied.

7. All sensitive or personal electronic information must be encrypted in transit. Data encryption services such as PGP or Egress Switch must be used when emailing information.

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[2] Personal equipment is defined as equipment which:
- is not a company asset **or**
- the configuration of the equipment is outside company control **or**
- it is used by those not employed by the company e.g. a sole trader who allows their 'work' laptop to be used by other family members. The risk being that Welsh Government personal information can be accessed by those not authorised to see it.

8. All sensitive or personal electronic information at rest on mobile devices handling Welsh Government information e.g. laptops, must be encrypted (minimum FIPS 140-2 / AES 256)[3].

9. Information at rest on servers/individual computers must be encrypted (minimum FIPS 140-2 / AES 256) unless the ICT equipment is located in secure premises with strong physical controls e.g. a data centre with access control measures, alarmed, arrangements for 24 hours security guards.

10. Access to the information involved in this contract must be on a 'need to know' basis. Only authorised staff who have received suitable training (see Personnel Security section) can be given access. A list of authorised staff must be provided within the Data Access Agreement.

11. If contacted by telephone, staff must verify the identity of the caller before discussing Welsh Government data. No personal data shall be passed to another party without absolute verification of the identity of the caller and that they have the authority to receive this information.

12. The information processed or collected under the terms of this contract must be deleted in accordance with the terms of the Data Access Agreement. This includes any information stored on servers, mobile devices or other storage media including CDs or DVDs, other removable media, hard copy [paper] or hard drives. Please confirm in writing when this has been done.

Physical Security:

13. Only authorised personnel can have access to restricted areas containing information systems, removable media or hard copy information relating to this contract. Plans and procedures for dealing with, and intercepting, unauthorised visitors and intruders must be in place and evidence provided to the Welsh Government on request.

14. If it is necessary to take hardcopy information outside the restricted areas this must be kept to the minimum required and protected in transit (e.g. by means of envelope / file / briefcase) to avoid information being visible and to reduce the likelihood of loss or misuse.

15. Local business processes must make it easy for staff to follow the rules (e.g. clear desk policies, separating publicly available printed information from the OFFICIAL-SENSITIVE papers, guidance and facilities for proper disposal etc.).

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[3] For more information about encryption standards see the Information Commissioner's website - https://ico.org.uk/for-organisations/encryption/

Personnel Security:

16. The Contractor must hold accurate and verified information for all staff working on this contract in relation to proof of identity, nationality/immigration status, unspent criminal convictions and employment history. Evidence must be provided on request and the Welsh Government may verify the validity and expiry dates of any existing clearances with the relevant holding agency.

17. Suppliers and their sub-contractors must have, or be able to obtain, sufficient staff who can achieve the appropriate security clearance prior to engagement with the Welsh Government.

18. All staff working on this data must be properly trained to understand that they have a duty of confidentiality and are responsible for safeguarding any WG information that they are entrusted with by applying the measures set out in this letter. The [Security Awareness for Suppliers' Employees](#) guidance document is available for reference.

19. On termination of involvement in this work user access privileges must be withdrawn and employees debriefed on their confidentiality responsibilities. This includes, but is not limited to, pin codes and any passwords known to the user.

Signatures

For and on behalf of Cardiff University	
Signed	
Name [PRINTED]	
Date	
Position	

Annex A - Definitions of sensitive data

1. **Personal Information** -

The Data Protection Act [1998] regulates the use of "personal data". The definition provided by the Information Commissioner's Office makes it clear that personal data means data which relate to a living individual who can be identified [a] from those data, or [b] from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller, and includes any expression of opinion about the individual and any indication of the intentions of the data controller or any other person in respect of the individual.

Sensitive personal data means personal data consisting of information as to:

[a]   the racial or ethnic origin of the data subject,
[b]   political opinions,
[c]   religious beliefs or other beliefs of a similar nature,
[d]   membership of a trade union [within the meaning of the Trade Union and Labour Relations [Consolidation] Act 1992],
[e]   physical or mental health or condition,
[f]   sexual orientation,
[g]   the commission or alleged commission of any offence, or
[h]   any proceedings for any offence committed or alleged to have been committed, the disposal of such proceedings or the sentence of any court in such proceedings.

2. **OFFICIAL – SENSITIVE**

Under the Government Classification System this handling caveat is used in limited circumstances where there is a clear and justifiable requirement to reinforce the 'need to know' principle as compromise or loss could have damaging consequences. This could include, but is not limited to, the following types of information:

1. The most sensitive corporate or operational information, e.g. relating to organisational change, contentious negotiations, major security or business continuity issues;
2. Policy development research and statistics;
3. Advice to ministers on contentious or very sensitive issues;
4. Commercial or market sensitive information that may be damaging to the WG or to a commercial partner if improperly accessed;
5. Information about investigations and civil or criminal proceedings that could compromise public protection or enforcement activities, or prejudice court cases;
6. Diplomatic activities or negotiating positions where inappropriate access could impact foreign relations or negotiating positions and must be limited to bounded groups;
7. Very sensitive personal data, where it is not considered necessary to manage this information in the SECRET tier.

8. Where the consequences of loss or inappropriate access to individual information assets may be particularly damaging [e.g. export licensing, witness data, information of use to terrorist / extremist targeting etc].

APPENDIX 4: SSDA903 LEGAL STATUS DESCRIPTIONS

Care Orders (using those coded both Care Orders and Interim Care Orders) – A court order made under Section 31 of the Children Act 1989 placing a child in the care of the local authority. If granted, the order results in Parental Responsibility for the child being shared by the parents and the local authority. A full Care Order is not time limited and will remain in force until it is discharged or the young person reaches 18 years of age. Made under Section 38, Children Act 1989, an Interim Care Order is the same in all respects to a full Care Order, except that it is time limited to a period of 28 days, although application can be made to renew the order.

Adoption (including both Freeing Orders and Placement Orders) – The majority of children within the six years covered by the data placed for adoption will do so under a Placement Order, which replaced Freeing Orders in December 2005. A Placement Order under Section 21 of the Adoption and Children Act 2002 is an order granted by the courts which gives a local authority legal power to place a child for adoption with prospective adopters of their choosing. Unlike a Freeing Order, where parental responsibility for the child was transferred from the parent to the local authority, with a Placement Order parental responsibility is shared with the parent/guardian. However, the extent to which PR is shared is decided by the local authority. A Placement Order remains in effect until it is revoked, the child is formally adopted, or the child reaches 18, until such time the child remains 'looked-after'.

Voluntary accommodation – this refers to a placement under Section 20 of the Children Act 1989. The child's parent(s) requests or agrees to their child becoming

'looked-after'. Whilst the child is 'looked-after', Parental Responsibility remains with the parent(s).

Detained on child protection grounds (Police Protection, Emergency Protection Order (EPO) and Child Assessment Orders) – Police Protection refers to a child who is placed in the care of the local authority as a result of the Police taking that child into their protection in the course of their duties. The power to remove a child in these circumstances is limited to a period of 72 hours. An Emergency Protection Order can be granted following an application to the court by a local authority or the NSPCC. Such applications are made in crisis situations where there is a need to protect a child without delay. The initial duration of an EPO is eight days, although it can be extended for a further seven days. The local authority acquires Parental Responsibility during the period in which the order is in force. Under Section 43 of the Children Act 1989 a local authority can apply to the court for a Child Assessment Order, which will allow them to undertake an assessment of the state of a child's health or welfare. Where the child is placed in local authority accommodation for the purposes of undertaking this assessment, the child becomes a 'looked-after' child.

Youth Justice (Remanded, Detained under PACE, CYPA 1969 supervision order) – This relates to children and young people who have become 'looked-after' as a result of contact with the courts system as a consequence of their offending. Since 2012 when the Legal Aid, Sentencing and Punishment of Offenders Act came into effect, any child remanded by the youth court in respect of criminal proceedings is classified as a 'looked-after' child, whether placed in local authority or youth detention accommodation. Prior to this date a child would be remanded into the care of the

local authority either under Section 23 of Children and Young Persons Act 1969 or Section 97 of the Crime and Disorder Act 1998.

Detained under PACE refers to young people under the age of 17 who, having been arrested and charged with crime, are detained in local authority accommodation under Section 38(6) of the Police and Criminal Evidence Act 1984 pending a first court hearing .

Where a young person under 17, is found guilty of a second offence, whilst the subject of a Supervision Order for an earlier offence, they may become subject to an order under the Children and Young Peoples Act 1969 and Section 21 of the Children Act 1989, requiring them to live in local authority accommodation.

Wardship - part of the inherent jurisdiction of the High Court and its powers to protect children and vulnerable people, making a child a ward gives the court complete legal control over the life of a child. Making a child a ward of court can be done in cases such as those where there is a threat of international abduction or disputes about serious medical treatment. An example of the former has been the recent cases (2015) regarding families trying to leave the UK with children to travel to Syria in order to join ISIS. In the case of disputes over medical treatment an example would be the Ashya King case where a child was taken abroad for brain tumour treatment against medical advice after a dispute between the child's parents and medical professionals about the best course of action.

APPENDIX 5: SPSS OUTPUTS OF SIGNIFICANCE TESTS

Chi Square test – Age Groups

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	247.745[a]	3	.000
Likelihood Ratio	242.866	3	.000
Linear-by-Linear Association	143.698	1	.000
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 101.98.

Chi Square test - Sex

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.299[a]	1	.021		
Continuity Correction[b]	5.147	1	.023		
Likelihood Ratio	5.305	1	.021		
Fisher's Exact Test				.022	.012
Linear-by-Linear Association	5.298	1	.021		
N of Valid Cases	4892				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 587.70.

Chi Square test - Collection Year

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	224.904[a]	5	.000
Likelihood Ratio	237.201	5	.000
Linear-by-Linear Association	210.559	1	.000
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 134.09.

Chi Square test – Local Authority

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	62.677[a]	21	.000
Likelihood Ratio	62.917	21	.000
Linear-by-Linear Association	9.948	1	.002
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.98.

Chi Square test – WIMD Decile

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.647[a]	10	.472
Likelihood Ratio	9.681	10	.469
Linear-by-Linear Association	.008	1	.929
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.95.

Chi Square test – Category of Need

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	159.624[a]	6	.000
Likelihood Ratio	154.955	6	.000
Linear-by-Linear Association	81.772	1	.000
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.04.

Chi Square test – Legal Status

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	257.298[a]	4	.000
Likelihood Ratio	326.118	4	.000
Linear-by-Linear Association	242.891	1	.000
N of Valid Cases	4892		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.69.

Chi Square test – Length of Stay

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	320.296[a]	6	.000
Likelihood Ratio	346.632	6	.000
Linear-by-Linear Association	302.091	1	.000
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 58.77.

Chi Square test – Local Authority Decile

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.732[a]	9	.000
Likelihood Ratio	35.368	9	.000
Linear-by-Linear Association	8.512	1	.004
N of Valid Cases	4892		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 62.47.

APPENDIX 6: COLLINEARITY DIAGNOSTICS

A multicollinearity test was undertaken on the five predictor variables chosen for inclusion in the model. The test is done to check whether there is a linear relationship between two or more of the predictor variables and whether that is a strong enough relationship to negatively affect the predictive power of the model. The test is undertaken by running a linear regression using the dependent and independent variables to be included in the logistic regression and producing collinearity statistics. The measure of multicollinearity used in this test was the Variance Inflation Factor (VIF). The use of this measure is however not straightforward as there are differing opinions regarding the value of the VIF at which the multicollinearity between variables is significant enough to negatively affect the regression model. Field (2013), highlighting the differences between views on acceptable VIF values, states that "Myers (1990) suggests that a value of 10 is a good value at which to worry. Bowerman and O'Connell suggests that if an average VIF is greater than 1, then multicollinearity may be biasing the regression model" (p.886). This divergence in opinions was further discussed by O'Brien (2007) in his paper on the differing 'rules of thumb' used by researchers highlighting that it is not uncommon for "a VIF of 10 or even one as low as 4 (equivalent to a tolerance level of 0.10 or 0.25)" (p.674) to be used to indicate multicollinearity that is excessive (Elliott, 2013).

Multicollinearity Test

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	69.104	7.531		9.176	.000		
year_code	.000	.000	-.131	-9.040	.000	.883	1.132
age_year_end_recoded	.039	.006	.090	5.965	.000	.816	1.226
T1_days_stayed	.000	.000	-.110	-7.079	.000	.769	1.301
category_of_need_recoded	.009	.003	.041	2.756	.006	.853	1.172
legal_status_recoded	.048	.008	.097	5.958	.000	.703	1.423

The table shows that the Value Inflation Factors for the five predictor variables included in the model varied from 1.132 to 1.423, this suggests that there is no statistically significant linear relationship between them.

APPENDIX 7: LOGISTIC REGRESSION TESTS

Cox and Snell and Nagelkerke tests

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	4711.893[a]	.143	.213

Hosmer and Lemeshow test

Step	Chi-square	df	Sig.
1	3.604	8	.891

Predictive power of the regression model

			Predicted		
			return_Y_N		Percentage Correct
Observed			1	2	
Step 1	return_Y_N	No	3497	187	94.9
		Yes	989	219	18.1
	Overall Percentage				76.0

APPENDIX 8: VARIANCE INFLATION FACTORS

The VIF test is done to check whether there is a linear relationship between two or more of the predictor variables, and whether that is a strong enough relationship to negatively affect the predictive power of the model. The test is undertaken by running a linear regression using the dependent and independent variables to be included in the logistic regression and producing collinearity statistics. The measure of multicollinearity used in this test was the Variance Inflation Factor (VIF). The use of this measure is however not straightforward as there are differing opinions regarding the value of the VIF at which the multicollinearity between variables is significant enough to negatively affect the regression model. Field (2013), highlighting the differences between views on acceptable VIF values, states that "Myers (1990) suggests that a value of 10 is a good value at which to worry. Bowerman and O'Connell suggests that if an average VIF is greater than 1, then multicollinearity may be biasing the regression model" (p.886). This divergence in opinions was further discussed by O'Brien (2007) in his paper on the differing 'rules of thumb' used by researchers highlighting that it is not uncommon for "a VIF of 10 or even one as low as 4 (equivalent to a tolerance level of 0.10 or 0.25)" (p.674) to be used to indicate multicollinearity that is excessive (Elliott, 2013). The output from the multicollinearity test is included in the appendices. The Value Inflation Factors for the five predictor variables included in the model varied from 1.132 to 1.423, this suggests that there is no statistically significant linear relationship between them.

APPENDIX 9: CROSS TAB LEGAL STATUS BY DEPRIVATION DECILE

	Decile										
	1	2	3	4	5	6	7	8	9	10	Total
Care Orders	598	351	230	182	119	109	75	56	30	16	1766
Adoption	*	*	*	*	*	*	*	*	*	*	10
Voluntary	1849	1127	780	658	459	371	263	270	175	134	6086
Detained CP	239	192	114	108	76	57	30	49	21	21	907
Youth Justice	27	11	9	7	13	*	*	*	*	*	82

APPENDIX 10: CROSS TAB LEGAL STATUS BY YEAR (AGGREGATE DATA)

	Care Orders	Voluntary	Total LAC
2014	3710	1215	5745
2013	3800	1170	5765
2012	3760	1330	5720
2011	3620	1310	5410
2010	3465	1310	5160
2009	3140	1220	4695
2008	3230	1100	4635

APPENDIX 11: CROSS TAB CATEGORY OF NEED BY AGE AT FIRST ENTRY

Age	Category of Need									Total
	N1	N2	N3	N4	N5	N6	N7	N8	N9	Total
0	1486	*	54	97	278	6	*	68	*	1993
1	631	6	39	67	96	*	*	16	*	856
2	555	*	24	42	74	5	*	19	*	720
3	466	*	23	46	65	*	*	18	*	619
4	396	*	20	38	55	*	*	15	*	528
5	321	5	20	40	52	*	*	9	*	448
6	294	*	22	24	39	*	*	11	*	394
7	263	8	17	22	23	6	*	4	*	344
8	227	5	19	37	38	*	*	4	*	332
9	193	11	18	30	35	*	*	13	*	306
10	228	9	12	31	39	*	*	10	*	334
11	232	14	23	41	35	7	*	6	*	359
12	195	11	25	46	53	10	*	11	*	354
13	230	20	25	77	93	25	*	13	*	484
14	242	18	21	116	139	70	*	37	*	648
15	250	20	16	146	185	116	*	63	*	797
16	162	18	15	114	166	98	*	82	*	660
17	66	22	5	53	93	57	*	68	*	366
Total	6437	177	398	1067	1558	412	5	467	21	10542

APPENDIX 12: CROSS TAB LEGAL STATUS BY AGE AT FIRST ENTRY

Age	ICO	CO	Freeing	Placement	Remanded	PACE	Police	EPO	Assess	Vol	Ward	Total
					Legal Status							
0	620	*	*	*	*	*	73	62	*	1234	*	1993
1	209	*	*	6	*	*	93	20	*	525	*	856
2	160	9	*	*	*	*	63	22	*	463	*	720
3	155	9	*	*	*	*	78	12	*	363	*	619
4	128	6	*	*	*	*	61	18	*	314	*	528
5	110	*	*	*	*	*	48	12	*	274	*	448
6	97	8	*	*	*	*	41	6	*	240	*	394
7	85	*	*	*	*	*	48	7	*	199	*	344
8	64	5	*	*	*	*	33	*	*	225	*	332
9	70	*	*	*	*	*	27	8	*	197	*	306
10	65	9	*	*	*	*	34	9	*	216	*	334
11	58	*	*	*	*	*	33	*	*	258	*	359
12	55	*	*	*	*	*	27	5	*	261	*	354
13	57	*	*	*	5	*	46	7	*	366	*	484
14	54	*	*	*	7	*	42	*	*	536	*	648
15	30	*	*	*	23	*	56	*	*	683	*	797
16	19	*	*	*	37	*	32	*	*	567	*	660
17	*	*	*	*	28	*	7	*	*	325	*	366
Total	2038	77	*	14	102	*	842	204	8	7246	8	10542

APPENDIX 13: CROSS TAB LEGAL STATUS BY AGE AT FIRST ENTRY AND LOCAL AUTHORITY

LA	Age	Legal Status											Total
		ICO	CO	Freeing	Placement	Remanded	PACE	Police	EPO	Assess	Vol	Ward	
Anglesey	0	8				*		*			17		26
	1	*				*		*			10		13
	2	*				*		*			7		14
	3	5				*		*			7		12
	4	*				*		*			*		5
	5	*				*		*			6		11
	6	*				*		*			3		5
	7	*				*		*			3		8
	8	*				*		*			8		8
	9	*				*		*			*		*
	10	*				*		*			*		*
	11	*				*		*			5		5
	12	*				*		*			6		9
	13	*				*		*			*		5
	14	*				*		*			14		18
	15	*				*		*			18		20
	16	*				*		*			14		17
	17	*				*		*			5		5
	Total	**39**				*****		**15**			**132**		**188**
Gwynedd	0	21				*		*	*		29		53
	1	6				*		*	*		12		19
	2	*				*		*	*		13		20
	3	*				*		*	*		*		11
	4	*				*		*	*		*		5
	5	*				*		*	*		*		7
	6	7				*		*	*		7		17
	7	*				*		*	*		*		6
	8	*				*		*	*		9		12
	9	*				*		*	*		*		8
	10	*				*		*	*		*		8
	11	*				*		*	*		7		9
	12	*				*		*	*		8		13
	13	6				*		*	*		8		16
	14	*				*		*	*		15		20
	15	*				*		*	*		25		32
	16	*				*		*	*		8		11
	17	*				*		*	*		5		5
	Total	**70**				*****		**26**	**6**		**168**		**272**
Conwy	0	28				*		*	*		16		47
	1	*				*		5	*		10		19
	2	6				*		*	*		9		20
	3	*				*		*	*		8		12
	4	*				*		*	*		6		12
	5	*				*		*	*		*		10
	6	*				*		*	*		*		11
	7	*				*		*	*		8		10
	8	*				*		*	*		*		11
	9	*				*		5	*		5		10
	10	*				*		*	*		7		11
	11	*				*		*	*		*		5
	12	*				*		*	*		6		7
	13	*				*		*	*		12		14
	14	*				*		*	*		24		27
	15	*				*		*	*		21		27
	16	*				*		*	*		13		16
	17	*				*		*	*		24		25
	Total	**63**				*****		**37**	**9**		**181**		**294**

D e n b i g h s h i r e	**0**	22	*	*		*		5	*		30		58
	1	11	*	*		*		5	*		15		31
	2	6	*	*		*		6	*		16		31
	3	7	*	*		*		6	*		13		28
	4	5	*	*		*		*	*		9		17
	5	*	*	*		*		*	*		8		14
	6	6	*	*		*		*	*		7		17
	7	*	*	*		*		*	*		8		14
	8	*	*	*		*		*	*		6		10
	9	5	*	*		*		*	*		7		13
	10	*	*	*		*		*	*		8		10
	11	*	*	*		*		*	*		6		9
	12	*	*	*		*		*	*		10		13
	13	*	*	*		*		5	*		6		12
	14	*	*	*		*		*	*		13		16
	15	*	*	*		*		*	*		19		22
	16	*	*	*		*		*	*		6		7
	17	*	*	*		*		*	*		7		10
	Total	**74**	**10**	*****		**6**		**45**	*****		**194**		**332**
F l i n t s h i r e	**0**	18				*		*	*		27		48
	1	18				*		5	*		12		37
	2	7				*		*	*		8		20
	3	7				*		*	*		6		18
	4	6				*		*	*		5		14
	5	14				*		*	*		5		21
	6	*				*		*	*		7		13
	7	*				*		*	*		*		9
	8	*				*		*	*		7		9
	9	*				*		*	*		*		6
	10	6				*		*	*		5		11
	11	*				*		*	*		5		9
	12	*				*		*	*		7		10
	13	6				*		*	*		7		15
	14	*				*		*	*		10		12
	15	*				*		*	*		27		30
	16	*				*		*	*		7		13
	17	*				*		*	*		8		8
	Total	**104**				*****		**23**	**14**		**159**		**303**
W r e x h a m	**0**	27	*			*	*	*	*		36		69
	1	9	*			*	*	5	*		17		31
	2	10	*			*	*	*	*		22		32
	3	7	*			*	*	*	*		14		24
	4	*	*			*	*	*	*		16		22
	5	*	*			*	*	*	*		5		14
	6	*	*			*	*	*	*		7		12
	7	*	*			*	*	*	*		*		10
	8	*	*			*	*	*	*		12		17
	9	*	*			*	*	*	*		*		5
	10	*	*			*	*	*	*		*		7
	11	*	*			*	*	*	*		11		13
	12	*	*			*	*	*	*		7		8
	13	*	*			*	*	*	*		13		16
	14	*	*			*	*	*	*		13		18
	15	*	*			*	*	*	*		21		26
	16	*	*			5	*	*	*		19		24
	17	*	*			*	*	*	*		29		30
	Total	**74**	*****			**11**	*****	**31**	**7**		**251**		**378**

County	Age	1	2	3	4	5	6	7	8	9	10	11	12
Powys	0	13	*			*		*	*		29		47
	1	5	*			*		*	*		12		20
	2	*	*			*		*	*		14		22
	3	*	*			*		*	*		12		18
	4	*	*			*		*	*		11		17
	5	*	*			*		*	*		13		16
	6	*	*			*		*	*		5		7
	7	*	*			*		*	*		12		19
	8	5	*			*		*	*		9		16
	9	*	*			*		5	*		8		16
	10	*	*			*		*	*		*		7
	11	*	*			*		*	*		11		13
	12	*	*			*		*	*		8		12
	13	*	*			*		*	*		5		9
	14	*	*			*		*	*		14		15
	15	*	*			*		5	*		17		24
	16	*	*			*		*	*		11		13
	17	*	*			*		*	*		*		*
	Total	**46**	*****			*****		**42**	**6**		**197**		**293**
Ceredigion	0	10						*	*		12		23
	1	*						*	*		9		12
	2	*						*	*		9		12
	3	*						*	*		*		6
	4	*						*	*		5		8
	5	*						*	*		*		8
	6	*						*	*		*		*
	7	*						*	*		6		8
	8	*						*	*		5		5
	9	*						*	*		*		*
	10	*						*	*		5		6
	11	*						*	*		8		10
	12	*						*	*		*		5
	13	*						*	*		11		11
	14	*						*	*		21		24
	15	*						*	*		22		22
	16	*						*	*		22		22
	17	*						*	*		6		6
	Total	**26**						**12**	*****		**154**		**193**
Pembrokeshire	0	12	*					*	*	*	24		39
	1	*	*					*	*	*	14		22
	2	7	*					*	*	*	5		12
	3	*	*					*	*	*	10		16
	4	*	*					*	*	*	7		8
	5	*	*					*	*	*	7		11
	6	5	*					*	*	*	6		12
	7	*	*					*	*	*	*		6
	8	*	*					*	*	*	*		*
	9	*	*					*	*	*	5		7
	10	*	*					*	*	*	6		7
	11	*	*					*	*	*	*		7
	12	*	*					*	*	*	5		10
	13	*	*					*	*	*	20		23
	14	*	*					*	*	*	22		26
	15	*	*					*	*	*	28		30
	16	*	*					*	*	*	33		35
	17	*	*					*	*	*	19		21
	Total	**43**	*****					**19**	*****	**6**	**222**		**295**
Carmarthenshire	0	25	*		*	*		*	*	*	67	*	94
	1	5	*		*	*		9	*	*	26	*	42
	2	7	*		*	*		*	*	*	15	*	27
	3	13	*		*	*		11	*	*	16	*	40
	4	5	*		*	*		5	*	*	15	*	25
	5	6	*		*	*		5	*	*	12	*	23
	6	*	*		*	*		*	*	*	10	*	16
	7	*	*		*	*		*	*	*	4	*	10
	8	7	*		*	*		*	*	*	10	*	24
	9	*	*		*	*		*	*	*	12	*	16
	10	*	*		*	*		*	*	*	7	*	12
	11	*	*		*	*		5	*	*	15	*	24
	12	*	*		*	*		*	*	*	16	*	21
	13	*	*		*	*		*	*	*	23	*	29
	14	*	*		*	*		*	*	*	30	*	39
	15	*	*		*	*		*	*	*	35	*	41
	16	*	*		*	*		*	*	*	22	*	28
	17	*	*		*	*		*	*	*	*	*	*
	Total	**92**	*****		*****	*****		**67**	*****	*****	**338**	**7**	**515**

Region	Age												
Swansea	**0**	81	*		*	*		*	*		147		234
	1	10	*		*	*		*	*		64		82
	2	5	*		*	*		*	*		60		69
	3	12	*		*	*		*	*		49		68
	4	10	*		*	*		*	*		47		64
	5	10	*		*	*		*	*		41		60
	6	8	*		*	*		*	*		38		47
	7	5	*		*	*		*	*		25		34
	8	7	*		*	*		*	*		19		30
	9	6	*		*	*		*	*		23		31
	10	*	*		*	*		*	*		27		32
	11	5	*		*	*		*	*		24		32
	12	6	*		*	*		*	*		24		31
	13	*	*		*	*		*	*		40		45
	14	6	*		*	*		*	*		48		57
	15	*	*		*	*		7	*		45		56
	16	*	*		*	*		*	*		46		51
	17	*	*		*	*		*	*		19		22
	Total	**177**	*		*	*		**41**	**15**		**786**		**1045**
NPT	**0**	44	*		*	*		8	*		109		164
	1	11	*		*	*		7	*		55		74
	2	6	*		*	*		*	*		54		65
	3	7	*		*	*		*	*		43		56
	4	10	*		*	*		*	*		30		47
	5	10	*		*	*		6	*		35		54
	6	8	*		*	*		*	*		24		35
	7	8	*		*	*		*	*		16		28
	8	*	*		*	*		*	*		21		26
	9	8	*		*	*		*	*		18		30
	10	*	*		*	*		*	*		24		32
	11	6	*		*	*		*	*		23		30
	12	*	*		*	*		*	*		21		29
	13	*	*		*	*		*	*		29		35
	14	5	*		*	*		*	*		37		46
	15	*	*		*	*		*	*		38		41
	16	*	*		*	*		*	*		27		32
	17	*	*		*	*		*	*		12		12
	Total	**138**	*		*	*		**47**	**19**		**616**		**836**
Bridgend	**0**	49	*			*		*	*		73		127
	1	12	*			*		*	*		26		43
	2	10	*			*		*	*		35		50
	3	8	*			*		*	*		18		31
	4	*	*			*		*	*		23		32
	5	5	*			*		*	*		19		25
	6	6	*			*		*	*		18		26
	7	8	*			*		*	*		13		23
	8	*	*			*		*	*		18		24
	9	5	*			*		*	*		11		17
	10	6	*			*		*	*		13		23
	11	*	*			*		*	*		20		25
	12	5	*			*		*	*		19		25
	13	5	*			*		*	*		27		32
	14	*	*			*		*	*		34		39
	15	*	*			*		*	*		40		46
	16	*	*			5		*	*		27		32
	17	*	*			*		*	*		13		15
	Total	**135**	*			**9**		**30**	**14**		**447**		**635**
Vale of Glamorgan	**0**	14	*			*		*	*		36		57
	1	10	*			*		*	*		12		22
	2	6	*			*		*	*		8		14
	3	*	*			*		*	*		13		17
	4	*	*			*		*	*		10		12
	5	*	*			*		*	*		*		6
	6	*	*			*		*	*		*		*
	7	*	*			*		*	*		6		8
	8	*	*			*		*	*		6		9
	9	*	*			*		*	*		5		7
	10	*	*			*		*	*		10		13
	11	*	*			*		*	*		5		8
	12	*	*			*		*	*		11		12
	13	*	*			*		*	*		9		10
	14	*	*			*		*	*		20		22
	15	*	*			*		*	*		31		32
	16	*	*			*		*	*		31		35
	17	*	*			*		*	*		32		36
	Total	**51**	*			**9**		*	*		**250**		**324**

Area	#												
R C T	0	78	*			*	*	7	*		142		231
	1	30	*			*	*	16	*		47		95
	2	32	*			*	*	9	*		28		71
	3	20	*			*	*	9	*		36		65
	4	16	*			*	*	6	*		23		45
	5	13	*			*	*	*	*		27		43
	6	9	*			*	*	6	*		19		34
	7	14	*			*	*	*	*		20		38
	8	5	*			*	*	*	*		12		19
	9	11	*			*	*	*	*		20		35
	10	13	*			*	*	*	*		22		40
	11	7	*			*	*	*	*		22		33
	12	*	*			*	*	*	*		16		23
	13	8	*			*	*	7	*		24		39
	14	*	*			*	*	*	*		40		49
	15	*	*			*	*	10	*		62		76
	16	*	*			*	*	6	*		53		60
	17	*	*			*	*	*	*		15		16
	Total	**264**	*			*	*	**99**	**15**		**628**		**1012**
M e r t h y r T y d f i l	0	15	*		*	*		*	*		40		56
	1	9	*		*	*		*	*		11		22
	2	5	*		*	*		*	*		16		23
	3	7	*		*	*		*	*		7		16
	4	*	*		*	*		*	*		10		16
	5	*	*		*	*		*	*		5		9
	6	*	*		*	*		*	*		11		18
	7	7	*		*	*		*	*		6		15
	8	*	*		*	*		*	*		*		*
	9	*	*		*	*		*	*		5		9
	10	6	*		*	*		*	*		10		16
	11	*	*		*	*		*	*		5		9
	12	5	*		*	*		*	*		8		13
	13	5	*		*	*		*	*		6		11
	14	6	*		*	*		*	*		8		16
	15	*	*		*	*		*	*		16		20
	16	*	*		*	*		*	*		13		14
	17	*	*		*	*		*	*		6		10
	Total	**83**	*		*	**6**		**13**	*		**185**		**296**
C a e r p h i l l y	0	22	*		*	*		*	*		82		110
	1	17	*		*	*		7	*		36		61
	2	*	*		*	*		5	*		26		37
	3	6	*		*	*		*	*		29		41
	4	*	*		*	*		7	*		17		31
	5	*	*		*	*		*	*		18		25
	6	*	*		*	*		*	*		11		19
	7	*	*		*	*		*	*		9		15
	8	*	*		*	*		*	*		12		19
	9	*	*		*	*		*	*		15		19
	10	*	*		*	*		*	*		11		19
	11	5	*		*	*		*	*		20		26
	12	*	*		*	*		*	*		23		29
	13	*	*		*	*		*	*		24		31
	14	*	*		*	*		*	*		31		37
	15	*	*		*	*		*	*		21		27
	16	*	*		*	*		*	*		28		33
	17	*	*		*	*		*	*		12		15
	Total	**83**	*		*	**7**		**58**	**18**		**425**		**594**
B l a e n a u G w e n t	0	9			*	*		*	6		44		59
	1	*			*	*		*	*		15		20
	2	*			*	*		*	*		12		18
	3	5			*	*		*	*		10		16
	4	10			*	*		*	*		*		17
	5	5			*	*		*	*		7		12
	6	5			*	*		*	*		6		12
	7	*			*	*		*	*		8		11
	8	*			*	*		*	*		6		7
	9	5			*	*		*	*		5		10
	10	5			*	*		*	*		7		13
	11	*			*	*		*	*		6		10
	12	*			*	*		*	*		*		7
	13	*			*	*		*	*		9		14
	14	*			*	*		*	*		12		15
	15	*			*	*		*	*		10		12
	16	*			*	*		*	*		8		8
	17	*			*	*		*	*		5		5
	Total	**68**			*	*		*	**11**		**178**		**266**

Area												
Torfaen	0	23	*				*	7		70		103
	1	8	*				*	*		32		44
	2	6	*				*	*		28		39
	3	8	*				*	*		21		31
	4	7	*				*	*		23		35
	5	*	*				*	*		17		22
	6	*	*				*	*		19		23
	7	5	*				*	*		11		19
	8	*	*				*	*		22		29
	9	*	*				*	*		18		19
	10	*	*				*	*		13		16
	11	*	*				*	*		19		25
	12	*	*				*	*		13		15
	13	*	*				*	*		11		16
	14	*	*				*	*		20		21
	15	*	*				*	*		37		39
	16	*	*				*	*		25		25
	17	*	*				*	*		12		12
	Total	**77**	*****				**29**	**15**		**411**		**533**
Monmouthshire	0	9	*		*		*	*		24		33
	1	*	*		*		*	*		12		17
	2	*	*		*		*	*		7		9
	3	*	*		*		*	*		*		8
	4	5	*		*		*	*		12		17
	5	*	*		*		*	*		5		7
	6	*	*		*		*	*		*		6
	7	*	*		*		*	*		*		8
	8	*	*		*		*	*		5		6
	9	*	*		*		*	*		5		6
	10	*	*		*		*	*		6		10
	11	*	*		*		*	*		7		9
	12	*	*		*		*	*		10		12
	13	*	*		*		*	*		9		14
	14	*	*		*		*	*		17		20
	15	*	*		*		*	*		26		28
	16	*	*		*		*	*		24		24
	17	*	*		*		*	*		5		5
	Total	**45**	*****		*****		**8**	*****		**183**		**239**
Newport	0	35				*	9	6		70		120
	1	10				*	7	*		21		38
	2	11				*	6	*		20		38
	3	9				*	6	*		11		26
	4	16				*	8	*		8		32
	5	5				*	*	*		9		16
	6	6				*	6	*		8		21
	7	5				*	*	*		8		14
	8	*				*	*	*		7		15
	9	*				*	*	*		8		12
	10	*				*	*	*		5		12
	11	*				*	*	*		17		20
	12	*				*	*	*		14		20
	13	*				*	*	*		22		29
	14	*				*	*	*		24		30
	15	*				*	7	*		31		45
	16	*				6	6	*		22		38
	17	*				*	*	*		10		15
	Total	**125**				**14**	**78**	**9**		**315**		**541**
Cardiff	0	57	*		*	*	15	13	*	110	*	195
	1	19	*		*	*	8	6	*	57	*	92
	2	13	*		*	*	10	*	*	51	*	77
	3	13	*		*	*	13	*	*	29	*	59
	4	13	*		*	*	*	*	*	29	*	47
	5	6	*		*	*	6	*	*	21	*	34
	6	*	*		*	*	*	*	*	25	*	36
	7	*	*		*	*	9	*	*	17	*	31
	8	*	*		*	*	*	*	*	22	*	30
	9	7	*		*	*	*	*	*	16	*	25
	10	*	*		*	*	*	*	*	17	*	25
	11	*	*		*	*	6	*	*	17	*	28
	12	*	*		*	*	5	*	*	21	*	30
	13	*	*		*	*	5	*	*	48	*	58
	14	*	*		*	*	6	*	*	69	*	81
	15	*	*		*	*	7	*	*	93	*	101
	16	*	*		*	*	6	*	*	108	*	122
	17	*	*		*	9	*	*	*	76	*	87
	Total	**161**	**10**		*****	**13**	**113**	**31**	**1**	**826**	*****	**1158**

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