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The transitions between categories of special educational needs of pupils with Speech, Language and Communication Needs (SLCN) and Autism Spectrum Disorder (ASD) as they progress through the education system

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This research report was commissioned before the new UK Government took office on 11 May 2010. As a result the content may not reflect current Government policy and may make reference to the Department for Children, Schools and Families (DCSF) which has now been replaced by the Department for Education (DfE).

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

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EXECUTIVE SUMMARY

The Better Communication Research Programme (BCRP) was commissioned as part of the Better Communication Action Plan[1], the government's response to the Bercow review of services for children and young people with speech, language and communication needs (SLCN)[2]. This recommended a programme of research 'to enhance the evidence base and inform delivery of better outcomes for children and young people' (p.50). This is one of 10 publications reporting the results from individual BCRP projects. These contribute to a series of four thematic reports and the main report on the BCRP overall in which we integrate findings and present implications for practice, research and policy from the BCRP as a whole (see Appendix 1 for full details).

We have carried out two studies of pupils with speech language and communication needs. This second study also includes pupils with Autism Spectrum Disorder (ASD).[3] This report summarises the second study, but also includes some material from the first study[4]. In this report we consider the transitions made by children who have been identified by the school system as having Speech, Communication and Language Needs (SLCN) or Autism Spectrum Disorder (ASD) as they progress through the education system. Specifically, we explore the following questions:

- How does the proportion of children identified as having SLCN vary over time and by age?
- How does the proportion of children identified as having ASD vary over time and by age?
- What are the characteristics of individuals who make transitions into and out of both the SLCN and the ASD category of need during secondary school?

[1] https://www.education.gov.uk/publications/eOrderingDownload/Better_Communication.pdf

[2] Bercow, J. (2008). *The Bercow Report: A review of services for children and young people (0-19) with speech, language and communication needs.* Nottingham: DCSF. https://www.education.gov.uk/publications/eOrderingDownload/Bercow-Report.pdf

[3] Meschi, E., Vignoles, A., & Lindsay, G. (2010). *An investigation of the attainment and achievement of speech, language and communication needs (SLCN).* http://www.warwick.ac.uk/go/bettercommunication

[4] Lindsay, G., Dockrell, J.E., Law, J., Roulstone, S., & Vignoles, A. (2010). *Better communication research programme 1st interim report DfE-RR070.* London: DfE. http://publications.education.gov.uk/eOrderingDownload/DFE-RR070.pdf

- How does having English as Additional Language relate to the likelihood of a child having been identified as ever being SLCN, as well as the likelihood of them moving out of the SLCN category?
- Do different types of schools have different proportions of children identified as having SLCN and ASD and do these students make different transitions in different school contexts?

To answer these questions we analyse the characteristics and SEN status of multiple cohorts of children. We describe the characteristics of students who transition into and out of the SLCN and ASD categories of SEN over time and by age. This will be of interest in itself and will also improve our understanding of the relative achievement of these groups[5].

Key Findings

- SLCN is strongly related to socio-economic background: young people who are socially disadvantaged are much more likely to be identified as having SLCN.
- We also found evidence of some conflation of SLCN and the needs associated with having English as an additional language (EAL).
- Pupils who initially had SLCN and who changed their category of primary need in secondary school were most likely to be identified as having moderate or specific learning difficulties but not behavioural, emotional or social difficulties.

Methodological Approach

Our previous research shows that the dynamic nature of the special educational needs of students with SLCN and ASD is an important issue.

- 3% of seven year olds (Year 2) have been identified as having Speech, Language and Communication Needs (SLCN), whilst 0.8% have been identified as having Autism Spectrum Disorder (ASD).
- Yet the proportion of students who have been identified as having these particular special educational needs changes markedly with age.
- The proportion identified with SLCN falls to around 0.6% of 16 year olds (Year 11) and the proportion with ASD increases to around 1% at the beginning of secondary school and falls to 0.7% by age 15/16 at the end of Key Stage 4.

[5] A complementary report examines ethnic disproportionality in the identification of SLCN and ASD, see Strand, S., & Lindsay, G. (2012). *Ethnic disproportionality in the identification of speech, language and communication needs (SLCN) and autism spectrum disorders (ASD).* London: DfE.

This report specifically investigates these transitions made by students into and out of different categories of SEN (or indeed into and out of the no SEN category). We focus on a sample of pupils who have at some point in time been identified as having either SCLN *or* ASD.

We used system wide English administrative data (the School Census) which tells us whether a student has been identified as having a primary special educational need of SLCN or ASD, (or any other category of special educational needs) as well as providing us with other important information on student and school characteristics.

We undertook multivariate analysis to determine the pupil level and school level factors that are statistically associated with making a positive transition from the SLCN category into another SEN category, such as a different primary special need, no special needs at all or a lower level of special need.

We used information on multiple cohorts of pupils, specifically the 3 cohorts of children born in 1990/91, 1991/2 and 1992/3. However, in the pupil level School Census, which is the data set that provides information on the child's SEN status, it is only possible to identify the specific type of SEN that the child has from 2003/04 onwards[6]. Since we needed disaggregated data on each child's *type* of primary special educational need for many of our analyses, we largely used the cohort born in 1992/3. We were able to track this cohort all the way through the education system from the end of Key Stage 2 to the end of Key Stage 4. We excluded from our sample those pupils for whom we did not have complete test score data at all Key Stages and when we do this the sample size for the cohort born in 1992/3 is 554,483 (sample sizes are similar for the other two earlier cohorts).

Caveats

Our data are administrative and were not collected specifically for this research project. [7]. This leads to some limitations in the analysis. Most crucially, we lack clinical information on the needs of children. We can therefore only determine whether the child has been identified

[6] This information is also not provided for all the pupils who have been identified as having SEN in the data but rather for those who need school action plus or a statement of special educational need. This is only a proportion of all pupils who have SEN (around 45%).

[7] State schools in England are required to complete the School Census each term. This includes specifying whether a pupil has i) special educational needs with a statement or at School Action Plus, in which case the category of SEN for the primary need must be specified (e.g. SLCN or ASD); ii) special educational needs at School Action, which are unclassified, or iii) does not have SEN.

as having particular special educational needs by the school system and we acknowledge that it is highly likely that some children with SLCN or ASD needs may not be identified in our data. Further, we analyse pupils' primary special educational need, as identified in the School Census and it may be that some students will have SLCN as a secondary need. We do not analyse these secondary needs as the data are partial but the consequence of this is we will not identify some pupils who have some level of SLCN.

What we found

The prevalence and characteristics of those with SLCN/ASD

In our 1st Interim Report we reported that the prevalence of SLCN reduced with age and that this occurred mainly during Key Stage 2 with a lower rate of decrease during Key Stages 3 and 4. Furthermore, this reduction was essentially a function of fewer pupils at school action plus (SAP): the prevalence of pupils with statements where SLCN was the primary need was relatively stable across the age range (Figure 1).

In this report we extend our analysis further to include students with ASD (Figure 2) and to examine the relationship between identification as having SLCN or ASD and several other factors including having English as an additional language (EAL).[8]

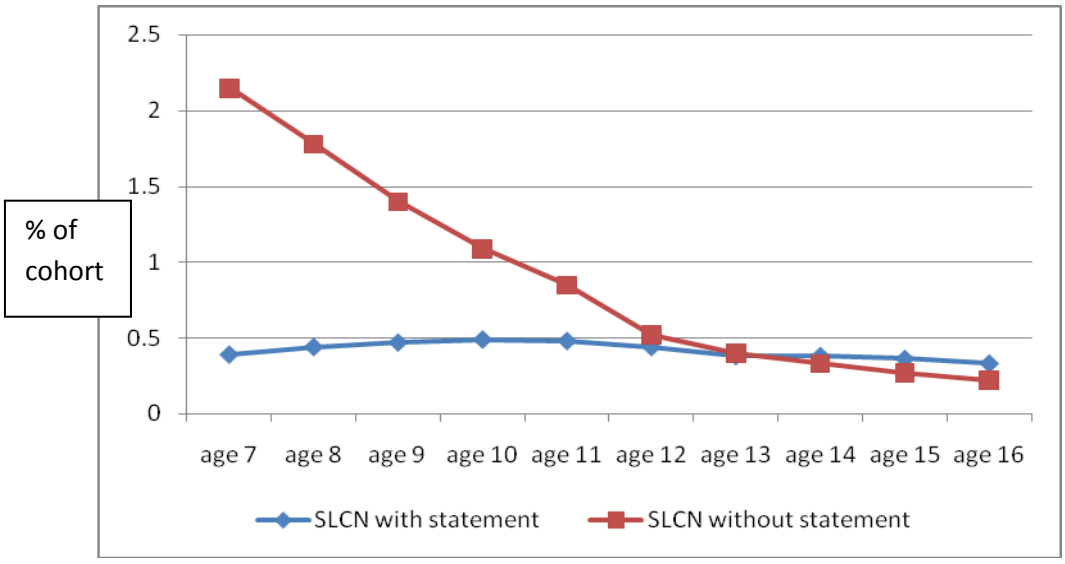

Figure 1: Prevalence of SLCN across ages, by SEN status

[8] These figures show the prevalence of SLCN or ASD for individuals of in a particular year group i.e. age 6/7 (Year 1), age 7/8 Year 2 etc. See main report for further details of data definitions.

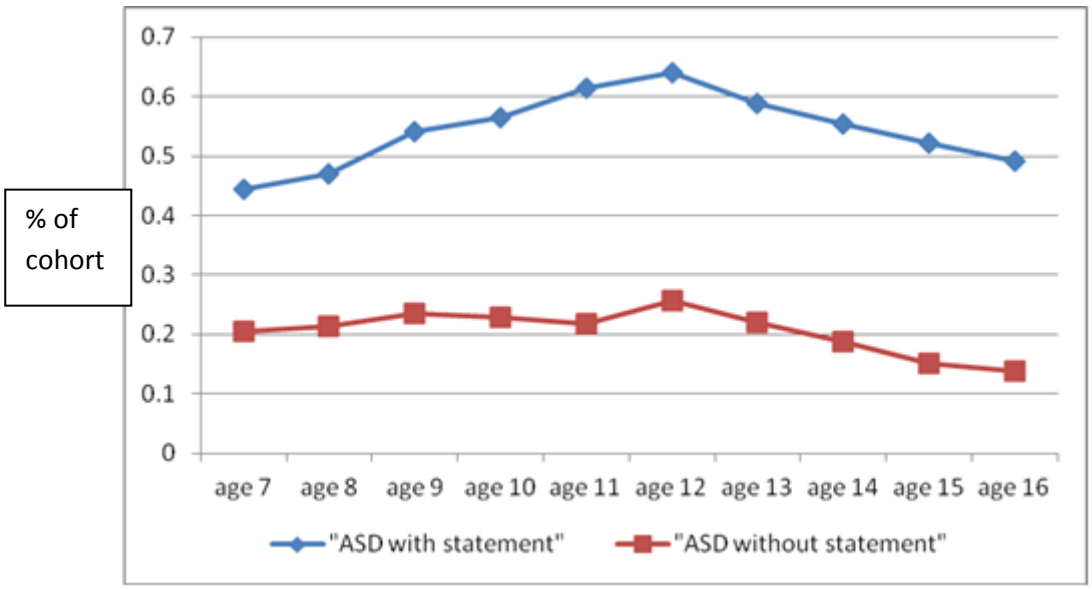

Figure 2: Prevalence of ASD across ages, by SEN status

The prevalence rates also show very different trends. The rates for pupils with SLCN at School Action Plus (SAP) are much higher than those with statements at age 6/7 years old at the end of Key Stage 1[9]. However, whereas the rate for pupils with statements for SLCN remains stable, that for pupils with SLCN at SAP drops considerably between Year 2 (age 6/7) and Year 6 (age 10/11), before flattening. The trend in the prevalence for pupils with ASD is very different, first there are consistently more pupils with statements than at SAP and second the SAP trajectory increases between age 6/7 (Year 2) and age 10/11 (Year 6) before reducing; the prevalence for pupils with statements for ASD is similar to that for the SLCN group, approximately flat with a small increase to age 10/11 (Year 6) and then a slight downward trend to age 15/16 (Year 11).

Prevalence rates over Key Stage 2 to 4

The likelihood of being identified as having SLCN or ASD differs amongst different types of children.

- Young people who are socio-economically disadvantaged or who have English as an additional language are most at risk of being identified as having SLCN (at age 11, the end of Key Stage 2). This is particularly true for children at School Action Plus. The risk of having SLCN is still not particularly high however, even for these groups, since only 3% of the school population are ever identified as having SLCN.

[9] The analysis throughout the report is based on academic school year rather than age. A few children will be somewhat younger or older in a given year.

- Other research has indicated that many conditions that result in SLCN are not socially graded, such as stammering. Yet in the school system, it is the case that the likelihood of being identified as having SLCN is socially graded. This discrepancy may therefore either reflect parents' differing willingness to identify their child's needs or a tendency for schools to be more likely to identify SLCN needs in low SES children (or both).
- By contrast, being socio-economically disadvantaged or having EAL are not such major risk factors for being identified as having ASD at the end of Key Stage 2, though students with ASD are nonetheless more disadvantaged than pupils with no SEN[10].
- Low achievement is a risk factor for both SLCN and ASD groups but pupils identified as having SLCN are lower achieving compared to those with ASD.

Movement into and out of categories of SEN

We found significant movement of pupils during secondary school into and out of the categories of SLCN and ASD, with most movement being between primary and secondary school (end of Key Stage 2 to end of Key Stage 3).

- Of those who initially start secondary school with SLCN without a statement, approximately one quarter move into the non-SEN category, just under one fifth remain in the non-statemented SLCN category and a further fifth moved into another type of specified SEN for which they did not have a statement. Around 5% acquired a statement of special need (for SLCN (2.5%) or some other type of special need). More than one third moved into an unspecified category of SEN by the end of Key Stage 3. This latter group will consist largely of students who moved into the school action category, where the type of special need is not recorded.
- Hence many pupils move from the SLCN category of need into another type of SEN category of need during secondary school. We found the most common categories for pupils to move into were the categories of Moderate Learning Difficulties (MLD) and Specific Learning Difficulties (SpLD).

We found less movement of pupils identified as having ASD. Those initially identified as having non-statemented ASD are more likely to remain in that category by the end of Key Stage 3 than was the case for pupils with SLCN.

[10] See also Strand, S., & Lindsay, G. (2012). *Ethnic disproportionality in the identification of speech, language and communication needs (SLCN) and autism spectrum disorders (ASD).* London: DfE.

- Of those who at the end of Key Stage 2 are identified as having ASD, 41% remain in this category of need by the end of Key Stage 3.
- Those initially identified at the end of Key Stage 2 as having non-statemented ASD and who move to another SEN category of need are most likely to move into Behavioural, Emotional and Social Difficulties (BESD) and Moderate Learning Difficulties (MLD).
- For those who initially at the end of Key Stage 2 had a statement for ASD, the most common category to move into is MLD, followed closely by SLCN.

Another striking result was that pupils who were identified as having SLCN in Year 6 (age 10/11), and *also* had EAL, were much more likely to no longer have SLCN by the end of Key Stage 3. Such pupils were much more likely to make a positive transition during secondary school into either the non-SEN category or to a lower level of need, namely unspecified school action SEN. Hence some EAL students are identified as having SLCN at the end of Key Stage 2 in primary school but this apparent need does not persist into secondary school. We think this implies some confusion about the needs of children who have EAL in primary school, some of which may have been categorised as having SLCN when their primary need related to the fact that they have EAL.

Perhaps unsurprisingly, we found that students who are succeeding at school and have higher achievement are more likely to make a positive transition from SLCN or ASD into either no special needs at all or unspecified school action SEN. Lower achieving pupils are by contrast more likely to exit SLCN and ASD into another different type of SEN.

The School Context

We wanted to determine whether students at certain types of school had a higher chance of making a positive transition during secondary school, moving out of the categories of SLCN or ASD for example.

Children who are identified as having SLCN or ASD may however, enrol in particular types of school. Whilst in principle students identified as having SEN have priority in terms of accessing the school of their choice, in practice students with some special education needs may not have a genuine choice of school and rather than pupils choosing a particular secondary school, it may be that schools de facto select which pupils they admit. This means that one has to be cautious in interpreting the relationship between school characteristics and pupil transitions as causal. Further, some children with SLCN attend a

special school. **Children in special schools are included when we describe the samples we use but they are, by necessity, excluded from our modelling of transitions.**

Some but by no means all school characteristics were associated with statistically significant differences in the likelihood of students making positive transitions during secondary school. We focused particularly on the following school characteristics: a) total funding per pupil at the school, b) SEN funding per child identified as having SEN at the school and c) average pupil achievement on entry into the school. We found that:

- Pupils identified as having SLCN and who attend better funded schools are *not* more likely to make a positive transition out of SLCN, as compared to those attending less well-resourced schools.
- Pupils identified as having ASD and who attend better resourced schools ***are*** slightly more likely to move out of SEN altogether or move to another category of SEN as compared to those who remain in the ASD category.
- Attending a school with a higher level of expenditure on SEN is not associated with positive transitions. In fact pupils attending schools with higher per capita expenditure on SEN are actually less likely to exit the SLCN/ASD categories. This may mean that students who have major and persistent SLCN/ASD are more likely to choose schools with higher levels of SEN funding and such pupils are less likely to make a positive transition out of these categories. Such a result could also suggest that schools with more funding for SEN are more likely to identify children as having special educational needs. A third factor is that some schools receive additional funding to support specialist resources ('units') for pupils with SEN, including pupils from other schools, making the relationship between resources allocated to the school and the transitions made by pupils actually enrolled in that school somewhat difficult to interpret.
- Pupils attending higher achieving schools, with above average school mean Key Stage 2 test scores, are somewhat less likely to make a positive transition out of the SLCN category. This may again mean that students with persistent SLCN who are less likely to make a positive transition are also more likely to choose schools that have higher achievement levels or that such schools are more likely to identify students as having SLCN.
- Pupils attending higher achieving schools are however, more likely to make a positive transition from ASD to non-SEN. Attending a higher achieving school is associated with being more likely to make a positive transition for ASD students but not for pupils identified as having SLCN.

- Lastly, students in socio-economically deprived schools, with a larger proportion of pupils eligible for free school meals (FSM) for example, are no more or less likely to make positive transitions out of SLCN/ASD than those in socio-economically advantaged schools.

Policy implications

- We have shown that students have special educational needs, particularly in the case of SLCN, that are quite dynamic and in particular change during the course of secondary school. The implication of this is that funding decisions and indeed monitoring of pupils needs to take this fluidity of need into account.
    - For example, the funding and resource needs of pupils are likely to change quite radically in response to their changing special needs and on the basis of the evidence presented here, a much larger proportion of pupils with SLCN need additional support in primary school as compared to secondary school.

- The decline in the proportion of pupils identified as having SLCN as the pupils progress through secondary school needs close monitoring to ensure that:
    - pupils are being properly identified in terms of their special needs in the first instance and
    - That pupils who do have SLCN receive adequate support as they progress through secondary school.

- Our findings do indeed suggest that there may be some misidentification of children who have SLCN.
    - A significant proportion of pupils identified as having SLCN in primary school are then identified as having some other kind of need in secondary school or in fact no special needs at all.
    - There also appears to be some conflation between having EAL and having a speech, learning and communication need.

- It is important that further investigation is carried out to determine whether there is indeed systematic misidentification of children's needs in primary school and specifically if those with EAL often have their needs mistakenly identified as SLCN.

- In general terms, our work also clearly shows that these routinely collected administrative data can be used effectively to monitor common transitions made by students who are initially identified as having SLCN or ASD.
    - This will help determine whether some common trajectories exist and hence enable better support for such students to be devised.
    - It can also highlight potential anomalies in the system, such as the disproportionate number of children who have EAL who are also identified as having SLCN.

- There is no strong and systematic relationship between school resourcing (whether measured by school funding levels or SEN funding), nor pupil intake (whether measured by average pupil achievement or percentage eligible for FSM), and the likelihood of individuals making positive transitions out of SLCN or ASD. In other words, the likelihood of a student no longer needing additional support for SLCN or ASD appears to be unrelated to the level of resourcing their school receives.
    - Some caution is needed here however as the financial data do not enable us to identify specialist resourced schools with specialist provision for particular types of SEN, and hence it is not clear what the relationship between resources and outcomes would be if we took such additional funding into account.
    - There are myriad factors that might influence the transitions made by students who have SLCN or ASD and resourcing is but one factor.
    - Our data imply that there is no clear relationship between resourcing levels and students' progress in the system but until we have better resource data it will not be possible to directly relate the resources received by schools and more specifically students with SLCN and their outcomes.

1. INTRODUCTION

The Better Communication Research Programme (BCRP) was commissioned as part of the Better Communication Action Plan[11], the government's response to the Bercow review of services for children and young people with speech, language and communication needs (SLCN)[12]. This recommended a programme of research 'to enhance the evidence base and inform delivery of better outcomes for children and young people' (p.50). These contribute to a series of four thematic reports and the main report on the BCRP overall in which we integrate findings and present implications for practice, research and policy from the BCRP as a whole (see Appendix 1 for full details).

In this our second report on the topic of students who have been identified by the school system as having Speech, Communication and Language Needs (SLCN), we also include a focus on those pupils identified as having Autism Spectrum Disorder (ASD). 3% of pupils age 6/7 in Year 2 have been identified by the English school system as having special educational needs that specifically relate to Speech, Language and Communication Needs (SLCN) and about 0.8% have been identified as having Autism Spectrum Disorder (ASD). Our previous report indicated that the proportion of students who have been identified as having SLCN changes markedly with age however: the proportion identified with SLCN falls to around 0.6% of 15/16 year olds in Year 11. The proportion with ASD increases to around 1% at the end of primary and beginning of secondary school and falls to 0.7% by the end of Key Stage 4. Hence the dynamic nature of the identified needs of these groups of students is an important issue. This report specifically investigates the transitions into and out of different categories of SEN (or indeed into and out of the no SEN category) experienced by pupils who have ever been identified as having either SLCN *or* ASD. In particular we undertake multivariate analysis to determine the pupil and school factors associated with making a positive transition from the SLCN category of need (which in the data consists of those with statements for SLCN and those identified as School Action Plus (SAP) for SLCN) into either the no SEN category or into a lower level of need such as school action. The reason for considering the ASD group alongside those with SLCN is that our previous work highlighted that a significant number of children are flagged as having SLCN in primary

[11] https://www.education.gov.uk/publications/eOrderingDownload/Better_Communication.pdf

[12] Bercow, J. (2008). *The Bercow Report: A review of services for children and young people (0-19) with speech, language and communication needs.* Nottingham: DCSF. https://www.education.gov.uk/publications/eOrderingDownload/Bercow-Report.pdf

school but later are identified as having ASD, hence some understanding of both groups is needed (Meschi and Vignoles, 2010).

We are of course mindful that our data is administrative, i.e. information collected by schools for their own purposes and for the DfE in order to analyse national trends, and not collected specifically for this research project. Hence we do not have any clinical information on the needs of children. Rather, we rely on information about whether the school system has identified the child has having particular special educational needs. We therefore recognise that there are likely to be children in our data with particular needs that have not been identified by the school system.

Research questions

The analysis addresses the following specific research questions:

- How does the proportion of children identified as having SLCN vary over time and by age?
- How does the proportion of children identified as having ASD vary over time and by age?
- What are the characteristics of individuals who make transitions into and out of both the SLCN and the ASD category of need during secondary school?
- How does having English as an Additional Language relate to the likelihood of a child having been identified as ever having SLCN, as well as the likelihood of them moving out of the SLCN category?
- Do different types of schools have different proportions of children identified as having SLCN and ASD and do these students make different transitions in different school contexts?

This report, just like our previous one, makes use of system wide administrative data to describe the prevalence of SLCN and ASD in the English school system. We aim to show the characteristics of and transitions made by SLCN and ASD pupils. As we rely on English administrative education data, described further below, this means that identification of pupils with these particular special education needs is entirely based on whether a) the individual has been identified by the school as having special educational needs and b) that the individual has an SLCN or ASD code for their primary special educational need. We discuss in detail below some of the limitations of these categories and the data. Clearly there

may be pupils who have either SLCN or ASD but who have not been formally identified. Equally, some pupils may have been identified as having SLCN or ASD but in fact have some other kind of primary special educational need. We come back to these important points in our discussion.

Previous work

As this report builds on our previous work, we start by explaining the key findings from our earlier report on this topic[13]. This previous work considered the prevalence of SLCN specifically and how it changes as pupils get older. As shown in Figure 3 below, the prevalence of non-statemented SLCN (school action plus) falls markedly between age 6/7 (Year 2) and age 15/16 (Year 11). The steepest falls in prevalence occur during primary school (ages 6/7 in Year 2 to 10/11 in Year 6). Significant numbers of students initially identified as having SLCN at the end of Key Stage 2 make the transition out of the SLCN category of special needs during Key Stage 3 and 4, and it is these (potentially) positive transitions that are the focus of this report. Further details as to how we define the cohort used in our analysis are given in Section 2 below.

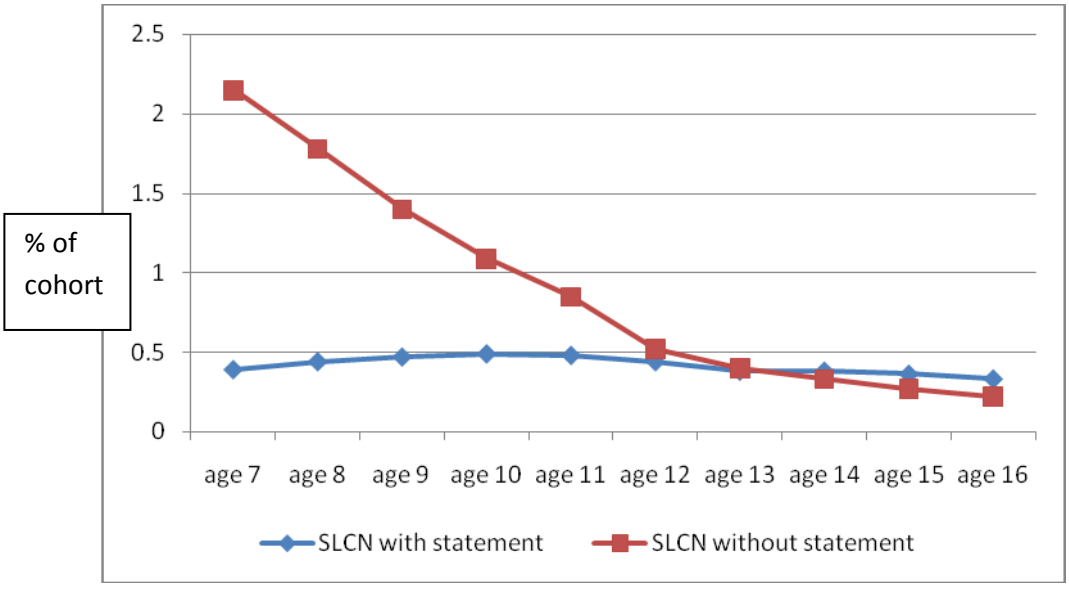

Figure 3: Prevalence of SLCN across ages, by SEN status

Our previous work also identified some key risk factors for being identified as ever having SLCN as a primary special educational need, namely being male, socio-economically

[13] Meschi, E., Vignoles, A., & Lindsay, G. (2010). *An investigation of the attainment and achievement of speech, language and communication needs (SLCN).* http://www.warwick.ac.uk/go/bettercommunication

disadvantaged, having EAL and being from certain ethnic minority groups. We also noted that the probability of being identified as having SLCN varies somewhat by school characteristics, even when considering only pupils who are not in special schools. Being in a single sex school and attending a school with a higher proportion of non-white British students is associated with a higher probability of having SLCN. By contrast pupils in more socio-economically disadvantaged schools, with a higher proportion of FSM pupils, are less likely to be identified as having SLCN. In this report we extend this analysis by considering the pupil and school level factors associated with *changes* in the pupil's SEN status. Specifically we analyse the personal and school characteristics of those pupils who:

a) are initially (at age 10/11, Year 6) identified as having SLCN (statemented or school action plus) and who then make a positive transition out of the SLCN category to either having no special educational needs at all or into the school action category; or
b) who make a transition into another type of SEN.

We take a similar approach for our analysis of pupils initially identified as having Autism Spectrum Disorder (ASD).

Our aim in this report is to determine which types of pupils in what school contexts make a transition out of the category of SLCN or ASD. Clearly a transition out of any category of special educational need could be seen as a positive outcome in its own right and we are interested in the factors associated with making such positive transitions.

However, another reason for focusing on the transitions made by those students who are moving into and out of SLCN and ASD is that in our previous report we used a particular type of longitudinal modelling[14] which compares the educational achievement of students who remain in the SLCN category with the achievement of those students who transition into or out of SLCN. The reason for doing this is that arguably those who transition into and out of SLCN make for a better comparison group against which to compare the educational achievement of those who remain in the SLCN category. We found that pupils identified as always having SLCN make similar progress to pupils in this transitioning comparison group. Whilst this result is highly suggestive it is important to note that our model essentially compared the progress made by pupils who had SLCN throughout secondary school with those who move into and particularly out of this category of need. Given the nature of this type of modelling, it is essential that we understand the dynamics of the transitions made by individuals moving into and out of the SLCN category. Specifically our model enables us to

[14] Fixed effect models: see Meschi et al. (2010) ibid.

compare the group of pupils who are always identified as having SLCN with a control group that consists of pupils moving into and out of the category of SLCN. We need to have a clear understanding of the characteristics of pupils in the latter groups. Here therefore we use multiple cohorts of children to describe the characteristics of students who transition into and out of the SLCN and ASD categories of SEN over time and by age in order to improve our understanding of the relative achievement of these groups.

We model directly the transitions made by SLCN/ASD students and consider the pupil factors, such as EAL, and the school context factors, such as school resourcing levels, that may be related to the likelihood of a student making the transition out of the SLCN category.

Just as in the previous work we did on this issue, we aim to build on the findings of the Bercow Review[15] and the existing literature which has looked at provision for children with SLCN and ASD (Dockrell, Lindsay, Letchford, & Mackie (2006); Law, Lindsay, Peacey, Gascoigne, Soloff, Radford, & Band, 2000; Law, Lindsay, Peacey, Gascoigne, Soloff, Radford, & Band, 2001; Lindsay, Soloff, Law, Band, Peacey, Gascoigne, & Radford, 2002); Lindsay, Dockrell, Mackie, & Letchford, (2002; 2005a,b).

[15] Bercow, J. (2008). *The Bercow Report: A review of services for children and young people (0-19) with speech, language and communication needs.* Nottingham: DCSF. https://www.education.gov.uk/publications/eOrderingDownload/Bercow-Report.pdf

2. WHAT WE DID

Our analysis relies on administrative data collected by the Department for Education (DfE) on all pupils in state schools (primary and secondary, though most of the analysis excludes special schools) in England. The data come from the National Pupil Database (NPD) held by DfE. This provides information on pupils' records in standard national tests and teacher assessments at the end of Key Stages 1 to 3 (Key Stage tests/teacher assessments) as well as GCSE, A level and other examinations. It also includes information from the School Census on pupil characteristics which are collected every year a child is at school. Additional data were merged into our combined data set, as discussed below. In particular, we merged in data on school resourcing levels.

We use information on multiple cohorts of pupils as set out in Table 1 below. However, in the pupil level School Census it is only possible to identify the specific type of SEN that the child has from 2003/04 onwards[16]. For example, from 2003/4 onwards it is possible to identify pupils with Speech, Language and Communication Needs (SLCN) and Autism Spectrum Disorder (ASD)[17]. Since disaggregated data by different *type* of primary special educational need are only available from 2003/4, for our longitudinal analyses we are only able to track cohort 3 all the way through the education system from the end of Key Stage 2 to the end of Key Stage 4. This is the cohort of pupils born between September 1992 and August 1993.

[16] This information is also not provided for all the pupils who have been identified as having SEN in the data but rather for those who need school action plus or a statement of special educational need. This is only a proportion of all pupils who have SEN (around 45%).

[17] The other types of SEN are the following: Specific Learning Difficulty (SpLD); Moderate Learning Difficulty (MLD); Severe Learning Difficulty (SLD); Profound & Multiple Learning Difficulty (PMLD); Behaviour, Emotional & Social Difficulties (BESD); Hearing Impairment (HI); Visual Impairment (VI); Multi-Sensory Impairment (MSI); Physical Disability (PD); Other Difficulty/Disability (OTH).

Table 1: Longitudinal panel description

	End KS1 (age 7)	End KS2 (age 11)	End KS3 (age 14)	End KS4 (age 16)
Cohort 1 (born 1990/1991)	1998	2002	**2005**	**2007**
Cohort 2 (born 1991/1992)	1999	2003	**2006**	**2008**
Cohort 3 (born 1992/1993)	2000	**2004**	**2007**	**2009**

Note: in bold the years for which the disaggregation of **SEN type** is available

We exclude from our sample those pupils for whom we do not have complete test score data at all Key Stages (described below in section 2.3). Hence the analysis is always based on what is known as a *balanced panel*, i.e. only students present in the data at all time points and for whom we have information on their Key Stage test results. The sample sizes for this panel are 574,805 for cohort 1 (born in 1990/1991), 564,994 for cohort 2 (born in 1991/1992) and 554,483 for cohort 3 (born in 1992/1993). However, at some later time points, students sometimes have missing data on SEN status. Rather than drop these pupils altogether, we include them in the analysis where possible and hence our sample size changes somewhat when analysing Key Stage 2 to 3 transitions as opposed to Key Stage 3 to 4 transitions.

2.1 Pupil characteristics

The School Census data set contains a number of pupil-level background characteristics, such as ethnicity, gender, month of birth, whether s/he is a recipient of Free School Meals (FSM), whether s/he has English as an Additional Language (EAL), and whether s/he is classified as having Special Educational Needs (SEN). This dataset has features that make it the ideal dataset to use in this context: first, it is a census, and therefore provides information on *all* children in state schools in England[18]. This ensures the results are general and not specific to a particular sample of the population. Second, it is longitudinal, and children can be followed throughout their school careers as they progress through primary and secondary school. Third, children can be tracked across schools and it is possible to link in other datasets with school-level characteristics. There are however, some limitations of the data. Firstly, the data contain incomplete information on children in independent (private) schools, including independent special schools. In general, data on some personal

[18] We include only state school pupils (about 93 percent of all pupils) and exclude private schools, since they do not carry out all the Key Stage tests.

characteristics and Key Stage test score information are missing for children in independent schools and hence we drop these pupils from our sample. It may be that children who have special educational needs are more likely to enrol in independent schools in order to seek greater support and hence we may not be observing the full population of children who have been identified as having SLCN. Another limitation is that unfortunately we do not have exclusion data, so whilst we can observe children as they move from one school to another (and indeed to other institutions such as Pupil Referral Units); we may be missing some who are permanently excluded (although technically they should still be recorded in the data).

2.2 School characteristics

We used the school codes included in the School Census to match individual-level data to national school-level data available in EDUBASE and in the "LEA and School Information Service" (LEASIS). In particular, we used information on measures of school outcomes (exam results), inputs (pupil-teacher ratios, expenditure), disadvantage (the percentage of students eligible for FSM or identified as SEN, or belonging to an ethnic minority group) and other school characteristics (school type; school size; whether single-sex school). In our previous report we were unable to include information on school expenditure. However, in these analyses we are able to incorporate a number of important pieces of data on school resources. As before, we have information on pupil teacher ratios. In addition we have total expenditure per pupil for the school as a whole from Section 52 outturn data[19] for the relevant academic year. Ideally we would want to know the level of expenditure at school level allocated to SLCN or ASD support and interventions specifically but this is not available. Instead we have the total expenditure on SEN identified in Section 52 outturn data which we can compute as a per capita figure for each school (i.e. total SEN expenditure per SEN pupil). Clearly these resources may not actually be allocated to children with SLCN or ASD specifically (or indeed even to SEN pupils more generally) but they should provide some indication of the resource environment of the school as it relates to special educational needs provision.

[19] Under Section 52 of the 1998 Schools Standards and Framework Act, local authorities are required to submit budgets which details planned expenditure at the school level. Here we use the outturn data which records actual spend at the school level. Note that from 2010/11 onwards, these data are known as Section 251 data.

2.3 Achievement data

Data on academic achievement are taken from NPD that provides individual pupils' results in end of Key Stage tests and teacher assessments. Key Stage 1 is usually completed at age 6/7, Key Stage 2 at age 10/11, Key Stage 3 at age 13/14 and Key Stage 4 (GCSE and equivalent) at age 15/16. Throughout Key Stage 1 to Key Stage 3, pupils are assessed (by teachers at the end of KS1 and in externally assessed tests at the end of KS2 and KS3) in the core disciplines English, Mathematics, and Science. During Key Stage 4 pupils take a variety of subjects.[20]

For each Key Stage we create a synthetic score averaging the scores in different subjects. More precisely, for Key Stage 2 and Key Stage 3, we compute the total score by averaging the marks in the core subjects English, Maths and Science. For Key Stage 4, we use a capped average point score[21] - already available in the raw data - that takes into account the pupil's eight highest grades. The data available on Key Stage 1 only indicate the teacher assessed level obtained, which is obviously a cruder measure of achievement. We therefore decided to exclude KS1 from our analysis. In order to make the results at different Key Stages comparable, we standardize all the scores so that they have mean 0 and standard deviation 1.

2.4 Measuring SEN in school administrative data

Our key variable of interest is each pupil's Special Educational Need (SEN) status taken from the School Census data.

As explained in Keslair, Maurin, McNally (2010), the Special Educational Needs Code of Practice recommends a graduated approach to helping children who are deemed to have learning difficulties that require special educational provision. The first stages are at the discretion of the school which identifies and labels SEN students and decides the type of

[20] The system is somewhat more complex than suggested here. For example, not all children sit the Key Stage tests nor take GCSEs. Children performing below the level of the test for example do not sit Key Stage 2 and Key Stage 3 tests. Some children also take tests at a somewhat different age from others.

[21] According to the new scoring system introduced between 2002–03 and 2003–04, 58 points were awarded for an A*, 52 for an A, 46 for a B, 40 for a C, 34 for a D, 28 for a E, 22 for F, and 16 for a G. Marks are allocated for standard GCSEs, but also for all qualifications approved for use pre-16, such as entry-level qualifications, vocational qualifications, and AS levels taken early.

provision given (School Action or School Action Plus)[22]. For pupils with greater needs, the school may request a statutory assessment, which may lead to a *statement* of special educational need for the child. This statement imposes a statutory duty on the Local Authority and not only on the school. In this report, where we can, we use a more disaggregated typology of SEN, distinguishing between those with school action, SAP and statemented SEN. There are issues however with the school action category, which is both more variable than the other categories in the way it is used across schools and crucially does not require schools to report the type of SEN that the child has. We discuss these data issues now in some detail.

In our previous analysis, we distinguished between *SEN without a statement* and *SEN with a statement* (the latter constitutes only a small percentage of the school population). The prevalence of those identified as having any special educational needs at all at age 10/11 (Year 6 in primary school) and the end of Key Stage 4 at age 15/16 and how this has changed over time is shown in Figure 4, which separates those children with and without a statement. Figure 4 clearly shows the rise over time in the prevalence of non-statemented SEN by the end of Key Stage 2 and particularly by the end of Key Stage 4, a trend which has produced much policy debate. These data are however, potentially problematic to interpret when used as a time series, as we explain below.

[22] '*School Action*' is when the school identifies a child as having 'special educational needs' and sets about providing an intervention that is additional to or different from that which is provided to the rest of the pupils. '*School Action Plus'* is a category of need that is given if 'School Action' is considered inadequate and the school seeks the help of external support services.

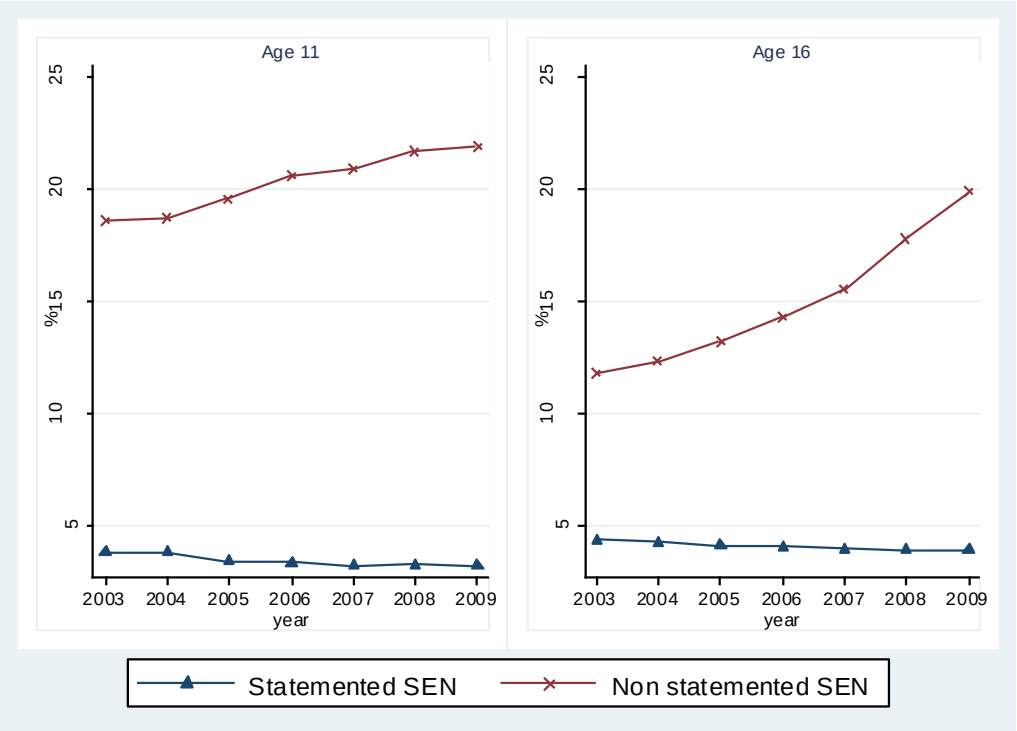

Figure 4: Per cent of pupils with SEN over time measured at the end of Key Stage 2 (age 10/11) and the end of Key Stage 4 (age 15/16)

The problem is that the data on the prevalence of SEN have only limited comparability over time. Specifically, in 2002 there was a major change to the way data on the special educational needs of pupils were recorded, when data began to be reported at an individual pupil level for the first time. Further, in 2003 the way SEN was recorded for individuals changed from the previous fivefold typology of SEN to the current threefold categories of school action, SAP and statemented SEN. These changes in the way data are recorded and in the categories of SEN used had the effect of reducing the number of pupils identified as having SEN without a statement. This means that there is a discontinuity between data collected prior to and up to 2002 and data collected after that point, affecting particularly the proportion of pupils with non-statemented SEN. This is evident in the shift in the national prevalence of children with non-statemented SEN observed in published data from the Department for Education, as shown in Figure 5 below. Due to these discontinuities, our analyses can only use data from 2003 onwards. That said, the prevalence of pupils with non-statemented SEN in our data for 2003-2009 (Figure 4) is very similar to data provided by the DfE (Figure 5 below).

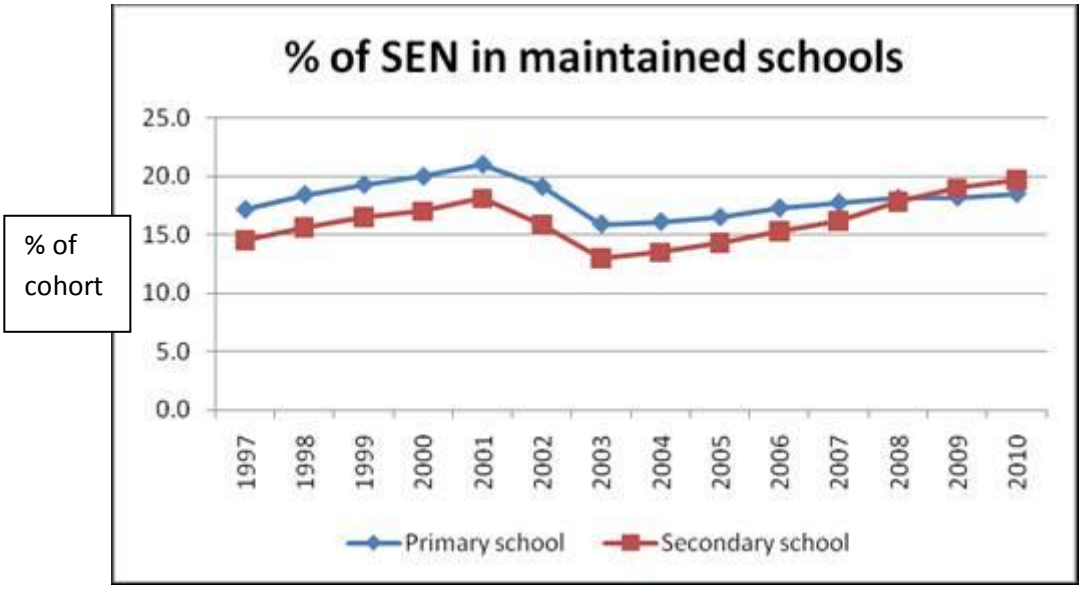

Figure 5: Prevalence of pupils who have non-statemented SEN over time (1997-2010)

Source: DfE: Special Educational Needs in England, various years, excluding pupils in special schools. http://www.education.gov.uk/rsgateway/index.shtml

With the problem of comparability over time in mind, Table 2 shows the prevalence of different categories of SEN for cohorts 1, 2 and 3 for our balanced panel of pupils for whom we have data for all Key Stages. Recall that cohort 1 took their Key Stage 2 tests in 2001/2 before the change in the way SEN is recorded in 2002 and hence we should view data for cohort 1 at KS2 as not being comparable with data for cohort 3 at KS2. However, this issue notwithstanding, Table 2 suggests quite clearly that the proportion of children identified as having school action or indeed school action plus SEN falls between the end of KS2 and KS3 as they enter secondary school. By contrast the proportion of children with statements of SEN increases marginally on entry into secondary school.

Table 2: Prevalence of pupils with SEN status by cohorts and Key Stages (percentage and total numbers)

		End KS2		End KS3		End KS4	
Cohort 1	*SEN – school action*	16.11%	91,044	10.53%	59,409	10.42%	57,933
	SEN – school action plus	5.71%	32,299	4.09%	23,086	4.84%	26,918
	SEN – statement	2.21%	12,495	2.60%	14,657	2.47%	13,750
Cohort 2	*SEN – school action*	12.55%	69,678	11.15%	61,875	11.75%	64,555
	SEN – school action plus	5.16%	28,679	4.43%	24,568	5.43%	29,858
	SEN – statement	2.22%	12,341	2.34%	13,007	2.28%	12,509
Cohort 3	*SEN – school action*	12.52%	68,816	12.00%	65,765	13.09%	71,103
	SEN – school action plus	5.70%	31,311	5.15%	28,217	6.48%	35,181
	SEN – statement	3.19%	17,512	3.38%	18,538	3.36%	18,242

Note: cohort 1=born in 1990/91; cohort 2=born in 1991/92; cohort 3=born in 1992/93.

This table includes pupils in special schools.

School action SEN

Schools are not supposed to provide information on the type of SEN that a child has for students with school action SEN. Since our analysis focuses on particular types of SEN (SLCN, ASD), we will be unable to include children who have school action SEN since we do not know whether their need relates to SLCN or indeed Autism Spectrum Disorder. Hence we need to be aware that when we are analysing children who have SLCN or ASD, we are really examining children who will have more significant needs i.e. who are either SAP or statemented. This particular data issue raises a potentially important policy question. In the schools administrative data as currently collected, we are unable to identify and monitor the academic progress of those who have less severe SLCN i.e. those with school action only. This clearly raises questions about how schools can judge and be judged on how well they address the needs of these children, though the costs of providing data on the primary special educational need of those with school action SEN should also be considered.

Table 3: Prevalence of known and not classified SEN by SEN status (row %)

	End KS2		**End KS3**		**End KS4**	
	SEN type known	*SEN type not classified*	*SEN type known*	*SEN type not classified*	*SEN type known*	*SEN type not classified*
Cohort 1						
SEN – SA	.	.	70.81	29.19	0	100
SEN – SAP	.	.	100	0	100	0
SEN – ST	.	.	100	0	100	0
Total	.	.	85.65	14.35	46.13	53.87
Cohort 2						
SEN - SA	.	.	78.04	21.96	0	100
SEN - SAP	.	.	100	0	99.95	0.05
SEN - ST	.	.	100	0	100	0
Total	.	.	89.39	10.61	44.76	55.24
Cohort 3						
SEN - SA	3.63	96.37	0	100	0	100
SEN - SAP	100	0	99.98	0.02	100	0
SEN - ST	100	0	100	0	100	0
Total	44.18	55.82	42.08	57.92	43.31	56.7

Notes: SEN-SA: SEN School Action**; SEN-SAP**: SEN School Action Plus; **SEN-ST**: Statemented SEN. This table includes pupils in special schools.

For cohorts 1 and 2 at the end of KS3 we do have some information on the type of need that those children with school action SEN (Table 3) have but since these data are not supposed to be reported we cannot use them with confidence in our analysis. Most of the analysis in this report focuses on cohort 3 in any case, and for that cohort all children identified as having school action SEN are included in our analysis in a category of SEN we have designated as "type not specified" (SEN-TNS).

In summary, there are a number of data challenges that arise when working with these data, which the reader needs to be aware of. The most significant problem is that we generally do not know the type of special educational need of those children who are recorded as having school action SEN. **Thus by necessity the report focuses on those with school action plus or statemented SLCN or ASD.**

3. WHAT WE FOUND

3.1. The Prevalence of SLCN and ASD across the English school population

In this section we provide a full account of the prevalence of SLCN and ASD, and specifically the prevalence of school action plus (SAP) and statemented SLCN/ASD across the three cohorts of pupils identified above. For this part of the analysis we include pupils in special schools, as well as those in mainstream schools. We also focus on how this prevalence of SLCN/ASD changes over time and across Key Stages. We explore how common SLCN and ASD are amongst those who have special educational needs and the severity of the educational need associated with SLCN and ASD. This analysis will help us understand more about the types of pupils who are identified as having SLCN or ASD.

Figure 6 shows the evolution of the percentage of pupils who are identified as having SLCN at the end of Key Stages two to four. The graph is restricted to pupils in Cohort 3 for whom we have information on SEN type, therefore it excludes those at school action SEN (see Table 3). It suggests that the proportion of the cohort that is identified as having SLCN at SAP decreases markedly through the Key Stages. By contrast the proportion of the cohort that has SLCN with a statement falls through the Key Stages to a much lesser extent. Furthermore, there are more pupils identified with ASD with a statement than ASD at School Action Plus – the opposite to SLCN.

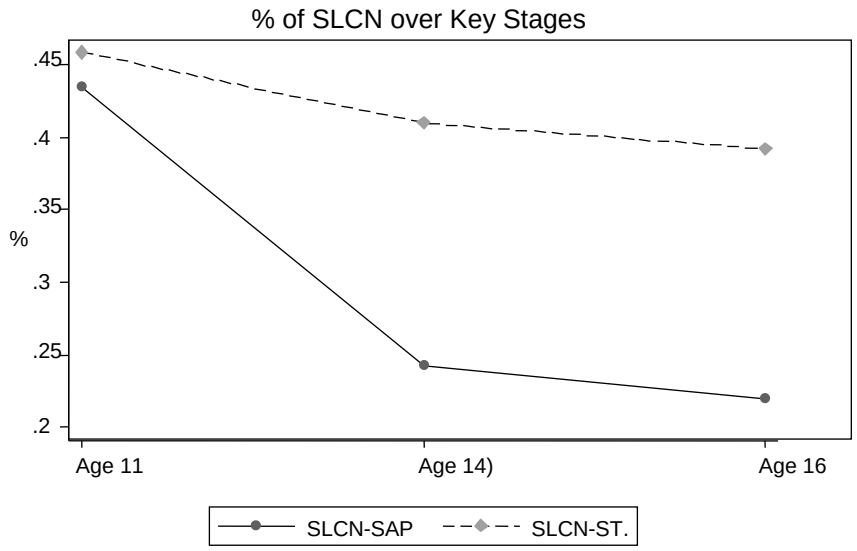

Figure 6: Prevalence of SLCN (SAP, ST) over Key Stages - cohort 3
Note: age 11, end of Key Stage 2; age 14, end of Key Stage 3; age 16, end of Key Stage 4.

Figure 7 shows the evolution of the percentage of pupils who are identified as having ASD at the end of Key Stages two to four. It suggests a quite different pattern from that of SLCN. The proportion of the cohort that is identified as having ASD needs actually rises across the Key Stages for those at the SAP and particularly at the statemented level of need. Furthermore, there are more pupils identified with ASD with a statement than ASD at school action plus – the reverse picture compared with SLCN.

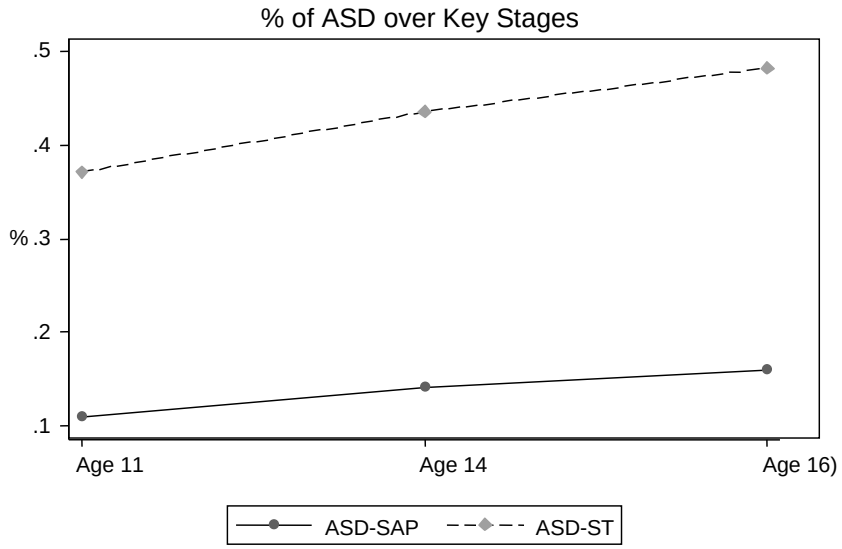

Figure 7: Prevalence of ASD (SAP, ST) over Key Stages - cohort 3

Note: age 11, end of Key Stage 2; age 14, end of Key Stage 3; age 16, end of Key Stage 4.

For comparison purposes, Figure 8 below shows the patterns for all other types of SEN, combining statemented and non-statemented SEN together. Other distinctive trends are the very large increase in the prevalence of pupils identified as having Behavioural, Emotional and Social Disorders across the Key Stages, and the marked downward trend in the prevalence of moderate learning difficulties and specific learning difficulties.

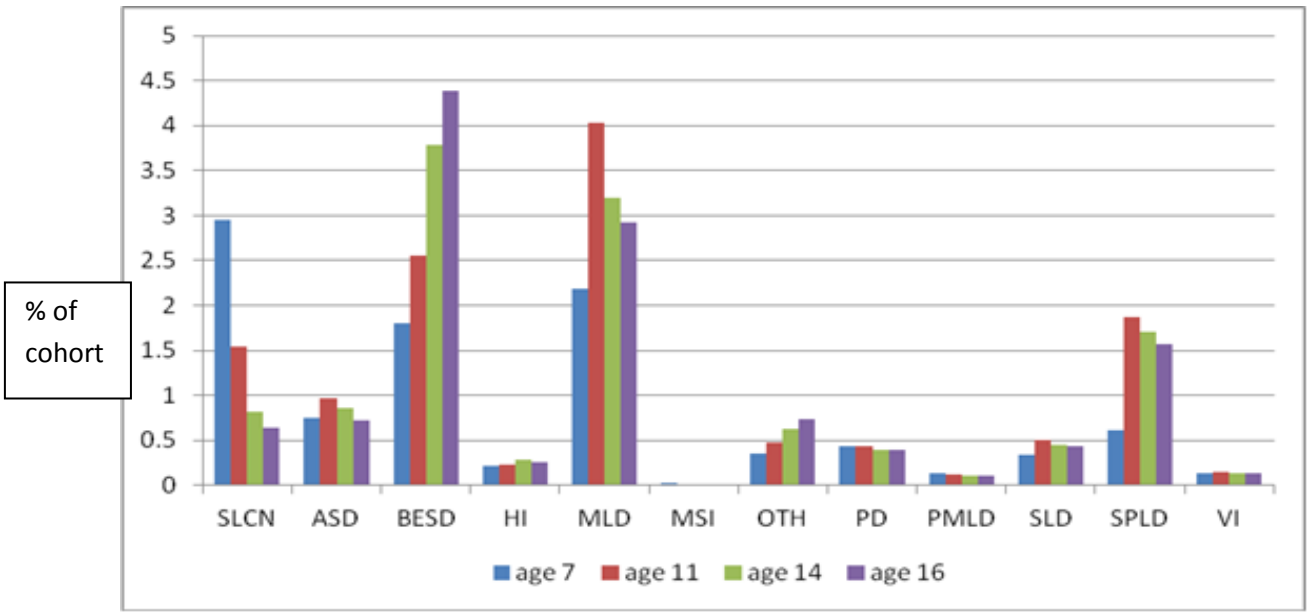

Figure 8: Incidence of different types of SEN, by end of Key Stage

Note: age 7, end of Key Stage 1; age 11, end of Key Stage 2; age 14, end of Key Stage 3; age 16, end of Key Stage 4.

Focusing on those pupils who are identified as having SAP and statemented needs, Table 4 indicates the most common types of SEN across the Key Stages by cohort. Table 4 shows that SLCN and ASD are not common types of SEN. Around 2.5-3% of those children at SAP are idenitifed as having SLCN by the end of Key Stage 4 (age 15/16) across all three cohorts, a further 2% is identified as having ASD. By contrast, nearly half of those at SAP have been identified as having Behavioural, Emotional and Social Needs (BESD). What is striking is the dramatic rise in the proportion of those at SAP who are identified as having BESD between the ends of Key Stages 2 and 3. By contrast the proportion of those at SAP who are identifed as having SLCN actually falls (as do the proportions with Moderate Learning Difficulties and Specific Learning Difficulties) and those identified as ASD remains quite stable.

If we focus on the group that has a statement of SEN (second set of columns), we see that amongst this group of pupils SLCN is more common. About 10% of those with statements of SEN have been identified as having SLCN by the end of Key Stage 4 (age 15/16). For cohort 3 around 13% are identified as having ASD needs by the end of Key Stage 4 but the prevalence of statemented ASD is becoming more common over time. Another common type of SEN is Moderate Learning Difficulties (MLD). Around one in five children who have school action plus SEN have MLD. Nearly 30% of those with statements of SEN have been identified as having MLD by the end of Key Stage 4.

Table 4: Prevalence of SEN at the end of the relevant Key Stage for different cohorts (column %) – SEN- SAP and SEN-ST

	Cohort 1				***Cohort 2***				***Cohort 3***					
	SEN-SAP		***SEN-ST***		***SEN-SAP***		***SEN-ST***		***SEN-SAP***			***SEN-ST***		
	Age 14 (End KS3)	*Age 16 (End KS4)*	*Age 14 (End KS3)*	*Age 16 (End KS4)*	*Age 14 (End KS3)*	*Age 16 (End KS4)*	*Age 14 (End KS3)*	*Age 16 (End KS4)*	*Age 11 (End KS2)*	*Age 14 (End KS3)*	*Age 16 (End KS4)*	*Age 11 (End KS2)*	*Age 14 (End KS3)*	*Age 16 (End KS4)*
SLCN	3.47	2.53	7.99	8.01	3.74	2.41	9.95	9.47	6.71	4.14	2.94	12.65	10.66	10.14
ASD	1.72	1.65	7.63	8.76	2.25	2.04	9.47	10.47	1.71	2.43	2.15	10.24	11.31	12.46
BESD	37.32	47.9	19.6	21.27	35.11	46.44	19.89	20.63	20.74	36.51	45.06	14.94	17.95	18.21
HI	2.38	2.32	3.42	3.61	2.45	2.23	3.32	3.47	1.3	2.11	1.93	2.87	2.86	2.88
MLD	25.86	20.24	29.36	27.43	26.71	20.66	26.82	26.07	36.53	27.54	21.42	31.4	31.49	30.88
MSI	0.06	0.06	0.16	0.08	0.06	0.04	0.22	0.2	0.08	0.07	0.07	0.17	0.15	0.15
OTH	6.86	6.9	2.42	2.04	6.12	7.48	2.11	1.77	4.56	5.51	8.45	2.08	1.84	1.46
PD	1.92	1.76	6.28	6.65	1.99	1.9	6.67	6.97	1.64	2.05	1.96	6.22	5.73	5.9
PMLD	0.04	0.02	0.14	0.15	0.07	0.06	0.18	0.17	0.05	0.03	0.03	0.53	0.42	0.31
SLD	0.38	0.23	1.75	1.59	0.4	0.25	1.22	1.12	1.49	0.45	0.26	5.75	4.06	4.03
SPLD	19.18	15.54	19.15	18.16	20.04	15.56	17.78	17.18	24.5	18.19	14.86	11.43	11.79	11.82
VI	0.81	0.84	2.1	2.25	1.06	0.93	2.37	2.48	0.68	0.97	0.87	1.72	1.74	1.78
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N	*23,086*	*26,917*	*14,657*	*13,750*	*24,568*	*29,842*	*13,007*	*12,509*	*31,311*	*28,213*	*35,181*	*17,512*	*18,538*	*18,242*

***Notes**:* SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability
SEN-SA: SEN School Action**; SEN-SAP**: SEN School Action Plus; **SEN-ST**: Statemented SEN; **SEN-NST**: Non-statemented SEN (=SEN-SA+SEN-SAP).

This table includes pupils in special schools.

As well as understanding how common (or not) SLCN and ASD needs are, we also need to understand the severity of the educational needs of these groups of pupils. Table 5 shows the extent to which pupils with different SEN types have needs that require SAP support or statements, focusing on cohort 3 (born 1992/1993). Table 5 shows that 50-60% of those who have been identified as having SLCN where the school requires external support have a statement. Three quarters of those with ASD have a statement of SEN. Hence it is clear that ASD and SLCN are types of SEN associated with a high degree of educational need compared to, say, those with behavioural, emotional and social needs or indeed with moderate learning difficulties.

Table 5: Percentages of SEN with statement, school action and school action plus by different types of SEN (row %) – Cohort 3

	Age 11 (End KS2)		**Age 14 (End KS3)**		**Age 16 (End KS4)**	
	SEN-NST	***SEN- ST***	***SEN-NST***	***SEN- ST***	***SEN-NST***	***SEN- ST***
SLCN	**48.22**	**51.78**	**39.19**	**60.81**	**39.15**	**60.85**
ASD	**22.05**	**77.95**	**23.81**	**76.19**	**24.27**	**75.73**
BESD	70.08	29.92	74.65	25.35	81.53	18.47
HI	43.11	56.89	50.57	49.43	53.71	46.29
MLD	66.57	33.43	56.36	43.64	57.08	42.92
MSI	43.10	56.90	39.22	60.78	45.28	54.72
PD	30.86	69.14	34.12	65.88	37.95	62.05
PMLD	18.85	81.15	10.64	89.36	15.71	84.29
SLD	30.55	69.45	14.57	85.43	11.05	88.95
SPLD	78.86	21.14	70.18	29.82	71.21	28.79
VI	40.92	59.08	45.96	54.04	48.37	51.63
OTH	79.71	20.29	82.47	17.53	91.93	8.07
Total	**63.31**	**36.69**	**60.17**	**39.83**	**65.62**	**34.38**

Notes: SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability
SEN-ST: Statemented SEN; **SEN-NST**: Non-statemented SEN (=SEN-SAP).
This table includes pupils in special schools.

The high degree of need of those identified as having ASD and SLCN is confirmed below in Table 6 which shows the proportion of pupils in cohort 3 (born 1992/1993) at the end of Key Stage 4 in different types of school, and specifically the proportion in special schools. Attending a special school generally signifies a high degree of special educational need. Most students attend a community school. For example, 61% of students who do not have special educational needs attend a community school[23], 20% attend a foundation school and 15% attend a voluntary aided school. For those pupils with non- statemented special educational needs, 68% attend a community school, a smaller proportion (16%), attend a foundation school and just 11% attend a voluntary aided school. During this period the number of academies was relatively small and thus only a very small (but growing) percentage of students attend these schools. Thus the prevalence of SEN generally varies by school type, with a smaller proportion of students in foundation and voluntary aided schools having been identified as having SEN.

Focusing on students who have been identified as having SLCN or ASD specifically, very few pupils with non-statemented SEN attend special schools since children will only generally be admitted to special schools when the statementing process is underway or complete. However, of those with statements of SEN, 16.2% of those with SLCN attend a special school and nearly 30% of those with ASD attend a special school. By contrast, of those with other types of statemented SEN just over one third attend a special school.

In summary, although pupils with SLCN and to a much greater extent ASD are more likely to have a statement than pupils with other types of SEN, those with statements for SLCN or ASD are actually less likely to attend a special school.

[23] Another factor is the determination and ability of parents to secure a place in specialist provision

Table 6: School types and SEN/SLCN/ASD status at the end of Key Stage 4 (col. %) – Cohort 3

	Non-SEN	SLCN-NST	SLCN-ST	ASD-NST	ASD-ST	Other SEN-NST	Other SEN-ST	SEN-TNS	Total
Academies	1.04	2.14	1.01	0.73	0.90	2.14	0.91	1.63	1.16
City Technology College	0.34	0.26	0.30	0.15	0.05	0.11	0.09	0.18	0.30
Community	61.19	68.12	53.11	58.69	43.43	68.03	42.58	66.25	61.55
Community Special	**0**	**0**	**13.91**	**0.73**	**26.67**	**0.16**	**33.46**	**0.01**	**1.05**
Foundation	19.14	13.16	15.02	23.36	12.24	15.68	11.53	16.88	18.45
Foundation Special	**0**	**0**	**0.51**	**0**	**0.81**	**0**	**0.65**	**0**	**0.02**
Non-Maintained Special	**0**	**0**	**1.82**	**0**	**1.95**	**0**	**1.04**	**0**	**0.04**
Voluntary aided	15.27	12.65	11.89	13.14	11.90	11.59	7.92	12.59	14.54
Voluntary controlled	3.02	3.68	2.43	3.21	2.05	2.29	1.83	2.47	2.88
Total	100	100	100	100	100	100	100	100	100

Note: NST=Non- Statemented; ST= Statemented; TNS=Type Not Specified, including children at school action. This table includes pupils in special schools.

3.2 The characteristics of those with SLCN or ASD

In the following tables, we explore the characteristics of pupils who have been identified as having SLCN and ASD in comparison to students without special educational needs or indeed pupils with other types of SEN. For reference, Appendix A (Table 2) contains details of the prevalence of SEN generally for pupils with different characteristics. We note again that our analysis covers those pupils who are at SAP or who have a statement of special educational need.

At age 15/16 at the end of Key Stage 4, when compared with pupils who do not have special educational needs, we can see from Table 7 that those pupils who have been identified as having SLCN are more likely to be male, more likely to be eligible for FSM and more likely to have English as an additional language (EAL). This is consistent with our previous report. Pupils who have been identified as having SLCN also have lower mean Key Stage 2 test scores. (The units are in standard deviations, so a mean of e.g. -0.84 for Key Stage 2 scores for pupils who have school action plus SLCN the end of Key Stage 4 implies that these pupils on average scored 0.84 standard deviations below the mean for all pupils). Those with statements of SLCN are lower achieving than those who do not have statements of SLCN as one might expect (this is true for pupils with ASD too). Interestingly those with statements of SLCN are not as disadvantaged (as measured by FSM eligibility) as those who have non-statemented SLCN (19% versus 24%). This hints that severe Speech, Language and Communication Needs are not as correlated with socio-economic disadvantage as lesser needs. Further, pupils with non-statemented SLCN are not as disadvantaged, nor as low achieving, as other non-statemented SEN students. Thus other forms of SEN are more closely tied to socio-economic disadvantage.

Another critical finding from Table 7 is that many of those identified as having SLCN at age 11 at the end of Key Stage 2 are students who have EAL. At the end of Key Stage 2, just under 10% of the school population has EAL. However, of those identified as having non-statemented SLCN at the end of Key Stage 2, the proportion which has EAL is twice as large that, at 20%. This percentage does not change by age 16 at the end of Key Stage 4. At all Key Stages, around one fifth of those students who have non-statemented SLCN also have EAL. By contrast, the proportion of students with statemented SLCN who are also identified as having EAL is only marginally more than in the population as a whole. This clearly shows that pupils who have EAL also have a much higher probability of being identified as having lower level SLCN.

Pupils with ASD are also more likely to be male, somewhat less advantaged and have lower KS2 scores as compared to those who have no special educational needs (Table 7). Pupils with ASD are by no means as socio-economically disadvantaged as those who have SLCN however, nor are they as low achieving and this holds for those with and without statements of SEN. (For example, the non-statemented pupils with ASD at age 16 (end of Key Stage 4) have on average a Key Stage 4 score only 0.37 standard deviations below the mean compared to the figure of 0.84 we have noted for non-statemented pupils with SLCN.) In general pupils with non-statemented and statemented ASD are also not as socio-economically disadvantaged or low achieving as those with other types of SEN.

In summary, the risk factors for having SLCN, particularly non-statemented SLCN (those at school action plus), are being socio-economically disadvantaged and having EAL and these are not major risk factors for pupils with ASD. Low achievement is a risk factor for both groups but pupils with SLCN are lower achieving compared to those with ASD.

Table 7: Pupil characteristics by SEN/SLCN/ASD status and age- Cohort 3

		Age 11 (End KS2)	*Age 14 (End KS3)*	*Age 16 (End KS4)*
Non-SEN	Female	52.97%	52.71%	52.49%
	FSM	14.15%	11.37%	9.56%
	EAL	9.64%	8.06%	7.89%
	Mean KS2 std. Score	0.26	0.24	0.28
SLCN-SAP	Female	33.82%	34.19%	34.94%
	FSM	28.27%	27.78%	23.65%
	EAL	19.95%	19.66%	19.03%
	Mean KS2 std. Score	-1.12	-0.97	-0.84
SLCN-ST	Female	26.22%	26.45%	26.70%
	FSM	25.09%	23.01%	19.14%
	EAL	10.33%	10.73%	10.40%
	Mean KS2 std. Score	-1.56	-1.25	-1.21
ASD- SAP	Female	12.22%	14.89%	15.87%
	FSM	13.70%	15.33%	14.95%
	EAL	2.04%	2.04%	1.63%
	Mean KS2 std. Score	-0.48	-0.31	-0.37
ASD-ST	Female	12.65%	12.90%	13.14%
	FSM	16.04%	15.10%	14.77%
	EAL	3.90%	2.68%	2.81%
	Mean KS2 std. Score	-1.29	-0.95	-1.07
Other SEN-SAP	Female	31.20%	32.66%	39.43%
	FSM	30.55%	28.80%	24.76%
	EAL	8.55%	7.97%	7.59%
	Mean KS2 std. Score	-1.09	-1.04	-1.02
Other SEN-ST	Female	28.77%	28.50%	28.93%
	FSM	34.54%	30.34%	28.76%
	EAL	7.83%	6.91%	6.57%
	Mean KS2 std. Score	-1.76	-1.47	-1.65
SEN-TNS	Female	39.50%	39.71%	41.55%
	FSM	26.66%	23.68%	19.73%
	EAL	11.29%	11.38%	10.61%
	Mean KS2 std. Score	-0.72	-0.69	-0.51

Note: NST=Non- Statemented; ST= Statemented; TNS=Type Not Specified, including children at school action. This table includes pupils in special schools.

It is perhaps easier to consider the risk of being identified as having SLCN or ASD from Table 8 which shows the prevalence of SLCN and ASD by category of SEN (school action plus and statemented) across a range of pupil characteristics – that is the probability (expressed as a percentage) that someone with given characteristics is classified as SLCN or ASD. Table 8 confirms that whilst the risk of having either SLCN or ASD is very low for all pupils, males are more likely to have SLCN or ASD; those eligible for FSM are particularly likely to have SLCN; and the risk of having non-statemented SLCN if you have EAL is much higher than for those who do not have EAL. For example, males at the end of Key Stage 4 have a 0.32% probability of having SLCN school action plus whilst females have only a 0.18% chance. A pupil who is eligible for free school meal has a 0.63% chance of having statemented SLCN at the end of Key Stage 4 compared to just 0.36% for non-FSM students.

Table 8: Prevalence of SLCN and ASD by age and pupils' characteristics (%) – Cohort 3

	SLCN-SAP			SLCN-ST			ASD - SAP			ASD-ST		
	Age 11	*Age 14*	*Age 16*	*Age 11*	*Age 14*	*Age 16*	*Age 11*	*Age 14*	*Age 16*	*Age 11*	*Age 14*	*Age 16*
Males	0.59	0.35	0.32	0.7	0.61	0.57	0.20	0.24	0.27	0.66	0.77	0.85
Females	0.29	0.19	0.18	0.25	0.22	0.21	0.03	0.04	0.05	0.09	0.11	0.13
Non-FSM	0.37	0.23	0.22	0.42	0.37	0.36	0.11	0.14	0.15	0.37	0.43	0.46
FSM	0.78	0.53	0.49	0.74	0.7	0.63	0.10	0.17	0.21	0.37	0.51	0.63
Non-EAL	0.39	0.21	0.19	0.47	0.4	0.37	0.12	0.14	0.17	0.39	0.45	0.49
EAL	0.91	0.59	0.52	0.51	0.55	0.51	0.02	0.03	0.03	0.15	0.14	0.17
KS2 (Q1)	1.38	0.76	0.68	1.57	1.43	1.36	0.22	0.26	0.28	1.06	1.24	1.37
KS2 (Q2)	0.22	0.12	0.11	0.14	0.11	0.1	0.09	0.10	0.12	0.20	0.24	0.26
KS2 (Q3)	0.13	0.07	0.06	0.11	0.07	0.06	0.09	0.13	0.14	0.15	0.20	0.21
KS2 (Q4)	0.05	0.04	0.04	0.06	0.04	0.03	0.08	0.12	0.13	0.12	0.12	0.13
KS2 (Q5)	0.02	0.01	0.01	0.00	0.00	0.00	0.05	0.06	0.08	0.06	0.08	0.08

Note: KS2 (Quintile 1) is the bottom quintile (bottom 20%) of the KS2 test score distribution. KS2 (Q5) is the highest quintile (top 20%). This table includes pupils in special schools.

Following up the issue of English as an additional language, we can compare the risk of having EAL across different groups. Table 9 confirms what we found earlier that the prevalence of EAL is higher than average for those who have been identified as having non-statemented SLCN but only slightly higher for those with statemented SLCN. What is also apparent from Table 9 is that pupils with ASD are markedly less likely to have EAL, as compared to the population of English school children as a whole. It is not clear why this might be but the prevalence of EAL is very low indeed (4% or less) for those with ASD. It may be of course that some children who have EAL are being wrongly classified as having SLCN when perhaps they should be identified as having ASD, thereby increasing their prevalence in the SLCN group and reducing it in the ASD group. Their difficulty with language may hide their underlying need in this instance. This issue is considered further below when we investigate transitions into and out of the different SEN types.

Table 9: Prevalence (%) of EAL across different SEN status

	End KS2	End KS3	End KS4
non-SEN	9.64	8.06	7.89
SLCN-NST	**19.95**	**19.66**	**19.03**
SLCN-ST	**10.33**	**10.73**	**10.40**
ASD-NST	2.04	2.04	1.63
ASD-ST	3.90	2.68	2.81
Other SEN-NST	8.55	7.97	7.59
Other SEN-ST	7.83	6.91	6.57
SEN-TNS	11.29	11.38	10.61
Total	10.01	8.43	8.19

Note: NST=Non-Statemented; ST= Statemented; TNS=Type Not Specified, including children at school action. This table includes pupils in special schools.

We noted above that pupils identified as having SLCN or ASD are lower achieving than those without special educational needs but that they are generally higher achieving than other major categories of SEN, such as BESD or MLD. One problem with using Key Stage test scores to determine the achievement levels of these different groups of children is that

some children, particularly those with statements of SEN, do not take the Key Stage tests at all. Hence the mean test score for a group of students with statemented SEN may be misleading as a guide to the achievement of the group as a whole. Table 10 below therefore reports the percentage of pupils who did not take Key Stage test at Key Stage 2 and 3 and didn't sit any GCSE or equivalent examinations. Considering this issue is particularly important as in the modelling of pupil achievement in our previous report we were unable to consider pupils who did not have full information on each of the Key Stage tests. This means our models may have been based on a higher achieving sample of children who have SLCN or ASD and who complete the tests. Table 10 indicates that at Key Stage 2, 3% of those who have SLCN and 5% of children who have ASD do not have Key Stage 2 test score data. The proportion of pupils without test score data then falls as pupils get older however, for all categories of SEN. By age 16 (the end of Key Stage 4) only around 1% of those identified as having SLCN or ASD do not take any GCSE or equivalent qualifications. Note that Table 10 includes pupils in special schools. The prevalence of missing Key Stage data is even lower if we restrict the analysis to pupils who are not in special schools as we do later in this report.

Table 10: Percentage of missing KS2, KS3, and KS4 data by SEN types for all pupils, including those in special schools – cohort 3

	% of pupils with missing KS2	% of pupils with missing KS3	% of pupils with missing KS4
no SEN	1.05	0.38	0.20
ASD	5.39	1.25	1.16
BESD	5.86	3.29	3.68
HI-VI-MSI	4.36	1.99	0.59
MLD	3.38	1.46	2.02
OTH	3.85	1.63	1.66
PD	3.62	2.09	0.79
PMLD	4.10	1.06	0
SLCN	3.09	1.45	0.97
SLD	4.57	2.11	2.44
SPLD	2.38	1.42	1.36
SEN not classified	2.04	0.73	0.78
Total	**1.45**	**0.58**	**0.49**

Notes: SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability This table includes pupils in special schools.

These patterns are similar to those observed at Key Stage 3 and 4 for cohort 1 and 2 (for which we cannot consider Key Stage 2). In summary, at Key Stage 2 only a small but

significant number of pupils identified as having SLCN or ASD do not take the Key Stage tests. For the analysis that follows, which largely focuses on pupils in mainstream secondary schools, we therefore have complete test score data on the vast majority of pupils in the SLCN and ASD categories of need.

3.3 Transitions: descriptive statistics

Thus far we have considered both the prevalence of SLCN and ASD, and the characteristics and school types of those who have been identified as having SLCN/ ASD. We now begin our primary investigation which is focused on the transitions made into and out of these two categories of SEN, highlighting both positive transitions (from SLCN/ASD into the non-SEN category for example) and neutral transitions (moving from one type of SEN to another). All the subsequent analysis in this section relates to cohort 3 only.

Table 11 presents key information on the number and proportions of students in each SEN/ non-SEN category at the end of Key Stages 2, 3 and 4. At each age, nearly 80% of the sample has no special educational needs. We can see that the prevalence of non-statemented SLCN and ASD is relatively low but that in each case we have a minimum of 500 pupils in each category, thus ensuring that we have sufficient sample size to undertake the transition analyses. Note that we are using a balanced panel so the total number of pupils who we observe is the same at each Key Stage. However, the actual usable sample does change because SEN type is not collected for children at school action.

Table 11: SEN categories for transition matrices sample sizes and column percentages in *italic* – cohort 3

	Age 11 (End KS2)	Age 14 (End KS3)	Age 16 (End KS4)
non-SEN	431,976	435,454	418,465
	78.59	*79.46*	*77.06*
SLCN-NST	2,200	1,170	1,036
	0.40	*0.21*	*0.19*
SLCN-ST	2,216	1,977	1,850
	0.40	*0.36*	*0.34*
ASD-NST	540	685	756
	0.10	*0.13*	*0.14*
ASD-ST	1,795	2,100	2,275
	0.33	*0.38*	*0.42*
Other SEN-NST	31,061	26,365	33,394
	5.65	*4.81*	*6.15*
Other SEN-ST	13,508	14,469	14,122
	2.46	*2.64*	*2.60*
SEN-TNS	66,345	65,778	71,109
	12.07	*12.00*	*13.10*
Total	549,641	547,998	543,007
	100	*100*	*100*

Note: NST=Non-Statemented; ST= Statemented; TNS=**Type Not Specified**, including children at school action. This table includes pupils in special schools.

Table 12 presents a transition matrix showing how pupils move between SEN/non-SEN categories between ages 11 (end of KS2) and age 14 (end of KS3). Most of the categories are self-explanatory. The row and column entitled SEN-TNS refers to a specific category of students who have school action SEN where the type of SEN is not specified. Thus movement into this category does not reflect a missing data problem but rather a movement into school action. The great majority of students who were identified as having no special educational needs at the end of Key Stage 2 still have no SEN by the end of Key Stage 3 (92%). A very small number of students (0.03-0.04%) who were identified as having no special educational needs at the end of Key Stage 2 do move into the categories of non-statemented SLCN and non-statemented ASD. 1.69% move into some other non-statemented SEN category. Generally however, the non-SEN category is quite stable.

There is much more movement out of and to a lesser extent into the SLCN and ASD categories however. Of those who initially start by having non-statemented SLCN, more move into the non-SEN category (24%) than remain in the non-statemented SLCN category (18%). The most striking result is therefore the low proportion who initially start in non-

statemented SLCN and who remain in that category by Key Stage 3. Thus few students move into the category of non-statemented SLCN between the end of KS2 and 3 but a significant number move out of this category. Some of this movement out will be positive, in that it is students moving to school action by the end of KS3. Recall that for this cohort all students at school action are recorded in the SEN-TNS category at each age so we can interpret movement into this category from non-statemented SLCN (school action plus) as a positive move. We can see from the table that around a third (35%) of those initially classified as having non-statemented SLCN do indeed move into the category of SEN-TNS i.e. into school action. Further, 17% of those who were identified as having non-statemented SLCN at Key Stage 2 are in another type of non-statemented SEN by Key Stage 3. Again therefore, there is movement out of the category of non-statemented SLCN. However, for those identified as having statemented SLCN at Key Stage 2, a small majority (53%) remain in that category at Key Stage 3 with a further 30% moving to another type of statemented SEN. We consider the specific types of SEN that these pupils transition into below.

Table 12: Transition matrix: End of KS2- End of KS3 (%)

KS2 \ KS3	non-SEN	SLCN-NST	SLCN-ST	ASD-NST	ASD-ST	Other SEN-NST	Other SEN-ST	SEN-TNS	Total
Non-SEN	**92.18**	0.04	0	0.03	0.01	1.69	0.07	5.97	100
SLCN-NST	24.01	**17.78**	2.49	0.88	0.51	17.41	2.21	34.73	100
SLCN-ST	2.87	2.96	**53.98**	0.23	6.01	1.78	29.54	2.64	100
ASD-NST	10.19	1.32	0.57	**40.57**	11.89	10.38	3.21	21.89	100
ASD-ST	1.19	0.11	4.31	1.3	**79.01**	0.23	12.99	0.85	100
Other SEN-NST	22.22	0.93	0.2	0.47	0.25	**37.42**	5.15	33.37	100
Other SEN-ST	1.93	0.08	4.24	0.06	2.58	4.10	**84.35**	2.66	100
SEN-TNS	45.36	0.37	0.02	0.19	0.05	10.07	0.54	**43.43**	100
Total	79.42	0.21	0.36	0.13	0.38	4.83	2.64	12.05	100

Note: NST=Non- Statemented; ST= Statemented; TNS=Type Not Specified, including children at school action. This table includes pupils in special schools.

By contrast, those initially identified as having non-statemented ASD are more likely to remain in that category by Key Stage 3. 41% of those who initially have non-statemented ASD remain in that category by Key Stage 3 (compared to just 18% of those initially having non-statemented SLCN who remain in that category). A further 12% acquire a statement of

need for ASD during this period. 10% move into the non-SEN category and nearly 2% are identified as having SLCN. 22% of those initially identified as having non-statemented ASD move into the SEN-TNS category i.e. into school action, which can be interpreted as a positive move. By contrast, the overwhelming majority (80%) of those initially with a statement of need pertaining to ASD remain in that category by the end of Key Stage 3 (age 14). In summary, there is more stability in the ASD category of special educational need than for SLCN.

Finally, we note that during Key Stage 3 there are significant proportions of students moving into the SLCN and ASD categories from other types of SEN. This is true of statemented and non-statemented SLCN and ASD. In fact what is striking is that of those who start with a statement of SEN that is not ASD or SLCN, 4% acquire a statement relating to SLCN and 2.6% acquire a statement relating to ASD by the end of Key Stage 3 (age 14).

Table 13 below undertakes a similar analysis between the ends of Key Stage 3 and Key Stage 4. There is noticeably more stability in the categories of SEN/non-SEN during this phase, including SLCN and ASD. For instance of those who complete Key Stage 3 as having non-statemented SLCN (ASD), 62% (73%) remain in that category at the end of Key Stage 4. This suggests that there is clearly a lot of movement into and out of SEN categories as pupils move from primary to secondary school but that within secondary school there is much less change. Note however, that even at this late stage of secondary school a very small percentage of children who are identified as having SLCN (statemented or non-statemented) at the end of Key Stage 3 are then recorded as having ASD as their primary need by the end of Key Stage 4. The reverse is not true: very few individuals who have ASD at the end of Key Stage 3 are recorded as having SCLN at the end of Key Stage 4. This suggests that there are potential issues of ‘late identification’ of primary special educational needs amongst the group of pupils who have SLCN initially in primary and early secondary school; or that some young people develop ASD-type behaviours at this point in their development.. This issue will be discussed further when we consider the policy implications of this work.

Table 13: Transition matrix: End of KS3 - End of KS4 (%)

KS3 \ KS4	non-SEN	SLCN-NST	SLCN-ST	ASD-NST	ASD-ST	Other SEN-NST	Other SEN-ST	SEN-TNS	Total
Non-SEN	**92.35**	0.02	0	0.02	0.01	2.13	0.03	5.45	100
SLCN-NST	8.55	**61.64**	0.88	0.62	0.18	8.91	0.53	18.69	100
SLCN-ST	0.93	2.32	**84.96**	0	2.22	0.31	7.83	1.44	100
ASD-NST	4.63	0.15	0	**72.8**	5.83	3.14	0.30	13.15	100
ASD-ST	0.53	0	0.78	1.07	**94.04**	0	3.20	0.39	100
Other SEN-NST	9.83	0.29	0.01	0.33	0.09	**69.8**	1.64	18.03	100
Other SEN-ST	0.75	0.05	1.03	0.01	1.23	2.12	**94.01**	0.80	100
SEN-TNS	23.59	0.19	0.01	0.13	0.02	9.98	0.10	**65.99**	100
Total	77.10	0.19	0.34	0.14	0.42	6.14	2.58	13.1	100

Note: NST=Non-Statemented; ST= Statemented; TNS=Type Not Specified, including children at school action. This table includes pupils in special schools.

As has been said, our previous report on the academic progress of children with SLCN was based on comparing those who move into and out of the category of SLCN with those who remain in the category during secondary school. These transition matrices suggest that there is undoubtedly sufficient movement into and out of SLCN and ASD categories to operationalize the model in our previous report. The key question however, is what are the likely characteristics and achievement levels of those moving out of and into SLCN. Already we can see that some of those who move out of the SLCN category move into the ASD category. We also saw earlier (Table 8) that children with ASD tend to have higher achievement than those in the SLCN category. Hence in our previous models we were comparing the always SLCN group to potentially higher achieving students who were eventually identified as having ASD. In this situation we are likely to under estimate the progress of always SLCN pupils by comparing them to a higher achieving group. We can start to understand this better however if, for each of the above transition matrices, we look at the full range of other types of SEN that SLCN (and indeed ASD) pupils move into and the categories of other SEN from which newly identified SLCN/ASD pupils originate. We do this below.

Table 14 shows the categories of other types of SEN that SLCN pupils move into across the Key Stages. This is done separately for those who have SLCN school action plus and SLCN statements initially. Starting with children who have SAP needs at the end of Key Stage 2,

we see that if a student moves out of the SLCN category during Key Stage 3 they are most likely to go into the school action category of SEN for which their type of need is not recorded. We can view this as a positive transition in that the child has moved to a lesser level of need. Other common transitions are from the school action plus SLCN category to moderate learning difficulties (MLD) or specific learning difficulties (SPLD) and, to a lesser extent, behavioural, emotional and social difficulties (BESD). For those who have a statement of SEN with SLCN needs at the end of Key Stage 2, they are most likely to move into the moderate learning difficulties, ASD and specific learning difficulties categories. Hence for those with more acute needs, the transition from SLCN to ASD is common though not as common as the transition from SLCN to MLD.

Table 14: Categories of other SEN that <u>SLCN pupils</u> move into: End KS2- End KS3 and End KS3- End KS4 (distinguishing between SLCN ST and SAP at initial stage) – cohort 3

	End KS2-End KS3				**End KS3-End KS4**			
	SAP		**ST**		**SAP**		**ST**	
	Freq.	*%*	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*
ASD	30	2.48	137	15.52	9	2.74	43	18.78
BESD	89	7.36	84	9.51	28	8.54	30	13.10
HI	3	0.25	13	1.47	2	0.61		
MLD	179	14.79	373	42.24	30	9.15	68	29.69
MSI			1	0.11				
OTH	30	2.48	28	3.17	8	2.44	5	2.18
PD	5	0.41	15	1.70	2	0.61	1	0.44
PMLD	1	0.08	3	0.34				
SLD	7	0.58	39	4.42			11	4.80
SPLD	110	9.09	129	14.61	37	11.28	41	17.92
VI	2	0.17	3	0.34			2	0.87
SEN-TNS	754	62.31	58	6.57	212	64.63	28	12.23
Total	1,210	100	883	100	328	100	229	100

Note 1*:* SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability
Note 2. SAP = School Action Plus, ST = Statement, SEN-TNS includes school action.
This table includes pupils in special schools.

Between the ends of Key Stages 3 to 4 the numbers moving out of SLCN are much smaller, due to the greater stability discussed above. However, the common destination categories are similar to that observed in Key Stage 3.

Table 15: Categories of other SEN from which newly labelled SLCN pupils originate: End KS2-End KS3 and End KS3-End KS4 – cohort 3

	End KS2-End KS3				End KS3-End KS4			
	SAP		ST		SAP		ST	
	Freq.	*%*	*Freq.*	*%t*	*Freq.*	*%*	*Freq.*	*%*
ASD	9	1.65	79	11.10	1	0.50	16	9.64
BESD	47	8.64	69	9.69	10	5.03	26	15.66
HI	1	0.18	8	1.12			2	1.20
MLD	132	24.26	299	41.99	42	21.11	66	39.76
MSI							1	0.60
OTH	17	3.13	26	3.65	8	4.02	10	6.02
PD	2	0.37	27	3.79			5	3.01
PMLD			6	0.84	1	0.50	1	0.60
SLD	8	1.47	63	8.85	2	1.01	11	6.63
SPLD	88	16.18	123	17.28	14	7.04	23	13.86
VI			1	0.14			1	0.60
SEN-TNS	240	44.12	11	1.54	121	60.8	4	2.41
Total	544	100	712	100	199	100	166	100

Note 1: SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability
Note 2 SAP = School Action Plus, ST = Statement, SEN-TNS includes school action.
This table includes pupils in special schools.

In Table 15, we consider those moving into the SLCN category across the Key Stages. Between the ends of Key Stages 2 and 3 significant numbers of students move into the SLCN school action plus and SLCN statement categories. The patterns are essentially a reverse of what we saw in Table 14, i.e. the most common categories of need for students to have before moving into the SLCN categories are moderate learning difficulties, specific learning difficulties and, for statemented children, ASD. Between the ends of Key Stages 3 and 4 the numbers moving into SLCN are very small. Those originating in the school action category are identified in the last row labelled as SEN-TNS. A relatively high proportion of children from school action into school action plus SLCN, though absolute numbers are low. Between Key Stage 2 and 3, 44% of those newly identified as having school action plus

SLCN come from the school action category, whilst 61% of those newly identified as having school action plus SLCN between Key Stage 3 and 4 come from the school action category.

In summary, when we look at pupils moving into and out of the SLCN category of need we see that there is some ambiguity about these pupils' primary need with some blurring, in terms of identification, between SLCN, moderate and specific learning difficulties and ASD. The causes of this blurring may be actual changes in pupils' needs, as well as misidentification of need. Additionally, a relatively large proportion of students previously identified as having only school action are recognised to have SAP needs during this stage of their schooling, though again absolute numbers are low.

Table 16: Categories of other SEN that <u>ASD pupils</u> move into: End KS2-End KS3 and End KS3-End KS4 (distinguishing between ST and SAP at initial stage) – cohort 3

	End KS2-End KS3				End KS3-End KS4			
	SAP		ST		SAP		ST	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
BESD	29	14.65	59	18.10	12	10.71	24	26.67
HI			1	0.31	2	1.79	1	1.11
MLD	21	10.61	116	35.58	5	4.46	27	30.00
OTH	5	2.53	13	3.99	2	1.79	3	3.33
PD	1	0.51	4	1.23	1	0.89		
PMLD			3	0.92				
SLCN	10	5.05	78	23.93	1	0.89	16	17.78
SLD			14	4.29			5	5.56
SPLD	15	7.58	20	6.13	1	0.89	6	6.67
VI	1	0.51	3	0.92				
SEN -TNS	116	58.59	15	4.6	88	78.57	8	8.89
Total	198	100	326	100	112	100	90	100

Note 1: SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability
Note 2. SAP = School Action Plus, ST = Statement, SEN-TNS includes school action.
This table includes pupils in special schools.

For those pupils who move out of the ASD category, Table 16 shows the categories of SEN that they move into across the Key Stages. Movement out of the ASD category during Key Stage 3 is far greater than during Key Stage 4, as was the case with SLCN. Interestingly,

during Key Stage 3 movement out of the ASD category is greater for those who are initially statemented. Those who at the end of Key Stage 2 are identified as having school action plus ASD are most likely to make a positive transition into the school action category (SEN-TNS). Behavioural, emotional and social difficulties and moderate learning difficulties are also common categories for these pupils to move into. For those who had a statement for ASD at the end of Key Stage 2, the most common category to move into is moderate learning difficulties, followed closely by SLCN (as observed above).

Table 17: Categories of other SEN from which newly labelled <u>ASD pupils</u> originate: End KS2-End KS3 and End KS3-End KS4 – cohort 3

	End KS2-End KS3				**End KS3-End KS4**			
	SAP		**ST**		**SAP**		**ST**	
	Freq.	*%*	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*
BESD	77	25.5	152	25.5	49	28.49	66	26.51
HI	1	0.33	3	0.50			1	0.40
MLD	30	9.93	139	23.32	7	4.07	81	32.53
MSI			1	0.17			1	0.40
OTH	16	5.30	21	3.52	9	5.23	10	4.02
PD	5	1.66	7	1.17	2	1.16	2	0.80
PMLD			4	0.67			1	0.40
SLCN	24	7.95	143	23.99	7	4.07	45	18.07
SLD	2	0.66	30	5.03			5	2.01
SPLD	20	6.62	58	9.73	14	8.14	23	9.24
VI			2	0.34			2	0.80
SEN-TNS	127	42.05	36	6.04	84	48.84	12	4.82
Total	302	100	596	100	172	100	249	100

Note 1: SPLD=Specific Learning Difficulty; MLD=Moderate Learning Difficulty; SLD=Severe Learning Difficulty; PMLD=Profound & Multiple Learning Difficulty; BESD=Behaviour, Emotional & Social Difficulties; SLCN=Speech, Language and Communication Needs; HI=Hearing Impairment; VI=Visual Impairment; MSI=Multi-Sensory Impairment; PD=Physical Disability; ASD=Autism Spectrum Disorder; OTH=Other Difficulty/Disability
Note 2: SAP = School Action Plus, ST = Statement, SEN-TNS includes school action.
This table includes pupils in special schools.

Table 17 shows the categories from which newly identified ASD pupils originate across the Key Stages. Comparing Table 16 and Table 17 we can see that more pupils move into the ASD category than move out. There is also more movement between the ends of Key Stages 2 and 3, though the numbers moving into statemented ASD during Key Stage 4 are not inconsequential. Taking the end of Key Stage 2 to 3 transition, most students who enter the ASD category originate from the categories of behavioural, emotional and social difficulties, moderate learning difficulties and for those with statements, SLCN. Between Key

Stage 2 and 3, around 42% of pupils previously at school action are newly identified as having school action plus ASD. Between Key Stage 3 and 4, around 49% of pupils previously at school action are newly identified as having school action plus ASD. So again there is considerable relatively late identification of significant ASD needs.

Hence we have seen that there is significant movement into and out of the categories of SLCN and ASD. There is also significant movement between the categories of SLCN and ASD specifically, with most movement being amongst statemented children between the ends of Key Stages 2 and 3. The most common destinations for those exiting the SLCN category are the categories of moderate and specific learning difficulties.

The next tables (Table 18 and 19) describe the characteristics of those moving in and out of SLCN and ASD categories of SEN (i.e. those at SAP and those with a statement) for the end of KS2-KS3 transition (we do not show the end of KS3-KS4 transitions due to low numbers of pupils making the transitions). For these descriptive tables we include students in special schools though in our modelling in the next section we by necessity restrict ourselves to students who are not enrolled in a special school. We consider the following transitions in Table 18. Firstly, the positive transition from SLCN to having no special educational needs, secondly, the neutral transition from SLCN to having some other type of SEN (as described in detail above) and thirdly the positive transition to SEN- type not specified (school action). We also consider the characteristics of those who are identified as having SLCN throughout the period. In Table 19 we do the same analysis for those who initially are identified as having ASD. In both tables we provide mean characteristics for the population of school children at that age for comparison purposes (whole sample final column).

Table 18: End KS2-End KS3 Transition: mean characteristics of those making different transitions from SLCN – cohort 3

	From SLCN[a] to non-SEN	From SLCN[a] to other SEN	SLCN[a] to school action SEN	Always SLCN[a]	Whole Sample
Pupil' characteristics					
Female	37.67%	28.26%	31.90%	28.09%	49.16%
FSM	23.29%	30.44%	25.62%	25.25%	17.19%
EAL	22.43%	13.66%	17.61%	12.00%	9.75%
KS2 std. score (*SD*.)	-0.66 (0.88)	-1.63 (1.08)	-1.07 (0.95)	-1.50 (1.05)	0.00 (1.00)
% Statemented	10.79%	64.40%	7.14%	73.98%	3.21%
Secondary school characteristics					
School size	310.70	319.07	308.31	309.46	322.54
School resources (for SEN) £ per SEN pupil	4371	5929	4263	6537	4877
School resources £ per pupil	2379	2691	2345	2926	2307
School results (average KS2 score)	-0.06	-0.22	-0.08	-0.27	0.00
PT ratio	22.77	22.09	22.79	21.05	22.99
School % FSM	17.03	18.94	16.78	16.70	14.07
School % SEN-ST	2.07	6.28	1.84	10.77	2.39
School % SEN-NST	19.96	18.63	19.81	17.71	16.45
N of observations	584	1,281	812	1,691	554,483

Note: resources are given in current 2004 prices.

[a] SLCN = school action plus and statement. This table includes pupils in special schools.

Table 18 clearly shows that pupils who have ever been SLCN (i.e. in the first four columns) are less likely to be female, more likely to be eligible for free school meals (FSM), more likely to have EAL and have lower Key Stage 2 achievement than the school population as a whole (final column). Pupils who have ever been SLCN attend slightly smaller schools that are better resourced for SEN as compared to the whole population. They also attend

secondary schools with lower than average Key Stage 2 test scores and where a slightly higher proportion of children are eligible for free school meals and have non-statemented special educational needs. In summary, children who have ever had SLCN are somewhat more disadvantaged themselves and attend more disadvantaged schools than the average.

Table 18 also shows that those who move from SLCN to having no special education needs are more likely to be female, slightly less likely to be eligible for free school meals and much more likely to have EAL, as compared to those who remain in the SLCN category or indeed who move to another type of SEN or school action. Note that we are examining changes over time hence we observe that those who have EAL at the end of Key Stage 2 are more likely to make a positive transition from SLCN to non-SEN than those who do not have EAL. Those who move from SLCN to no SEN also have higher levels of achievement than those who move to another type of SEN or who remain in the SLCN category, as one might expect. Interestingly, those who do make the transition from SLCN to non-SEN are at schools with somewhat *lower* levels of resources for SEN per capita and with higher levels of Key Stage 2 scores as compared to those who do not transition out of the SLCN category or who move into another category of SEN. As we have said however, some caution is needed since determining the resources allocated to students with SEN is particularly problematic, especially in schools that are allocated specialist resources for particular types of SEN. In summary, these data suggest that those who initially have SLCN and who move out of having special educational needs altogether tend to be higher achieving themselves and attend schools with higher achieving intakes than those who remain in SLCN or who move to some other category of SEN. Most strikingly they are much more likely to have EAL than the other groups, confirming our earlier finding that many EAL students appear to be identified as having SLCN in primary school but no longer have these special educational needs by Key Stage 3 potentially highlighting some conflation of EAL and SLCN.

By contrast, those who remain in the SLCN category over the entire period attend schools that are on the one hand better resourced than schools attended by other pupils but equally have much lower levels of Key Stage 2 scores and higher percentages of children with statements.

Table 19: End KS2-End KS3 Transition: mean characteristics of those making 2different transitions from ASD – cohort 3

	From ASD[a] to non-SEN	From ASD[a] to other SEN	ASD[a] to school action SEN	Always ASD[a]	Whole Sample
Female	9.33%	15.52%	11.45%	12.22%	49.16%
FSM	6.67%	19.59%	9.92%	15.23%	17.19%
EAL	2.67%	4.07%	3.82%	3.25%	9.75%
KS2 std. score (SD.)	-0.31 (1.07)	-1.38 (1.24)	-0.22 (1.00)	-1.13 (1.40)	0.00 (1)
% Statemented	28.00%	79.13%	11.45%	83.59%	3.20%
School size	301	284	314	281	323
School resources (for SEN) £ per SEN pupil	4870	5787	3840	6333	4877
School resources £ per pupil	2354	3417	2225	3665	2307
School intake (average KS2 score)	0.1	-0.4	0.1	-0.4	0.0
PT ratio	21.84	20.32	23.49	20.11	22.99
School % FSM	10.81	15.96	10.40	14.91	14.07
School % SEN-ST	2.29	16.69	1.82	19.20	2.39
School % SEN-NST	16.48	15.85	16.77	13.88	16.45
N. of observations	75	393	131	1,694	554,483

Note 1: resources are given in current 2004 prices

[a]ASD = school action plus and statement. This table includes pupils in special schools.

Table 19 provides a very different picture for those identified as having ASD initially at Key Stage 2. The first four columns clearly indicate that a child that has ever had ASD is far more likely to be male and less likely to be disadvantaged than average. Such children are also most unlikely to have EAL. They have lower achievement than the school population as a whole though they do ***not*** always attend schools with lower Key Stage 2 scores, higher levels of free school meal eligibility or special educational needs. Specifically those who remain in the ASD category for the entire period or those who move to another type of SEN do attend schools with slightly lower Key Stage 2 intake scores but other groups actually attend schools that are marginally above the average in terms of intake. Those who are always ASD or who move to another type of SEN during Key Stage 3 also attend schools with higher levels of resourcing for SEN and indeed higher levels of resourcing generally (as

measured by expenditure per pupil or pupil teacher ratio). By and large therefore, pupils who have ever had ASD do not come from particularly deprived backgrounds themselves and do not attend academically or socially disadvantaged schools.

3.4 Transitions: multivariate analysis

Thus far we have looked descriptively at the characteristics of those pupils who make different transitions into and out of SLCN and indeed ASD. In this section we undertake a multivariate analysis of these transitions to determine the key factors associated with moving into or out of these categories of SEN. This allows us to consider the impact of several factors simultaneously. For example, we can determine the extent to which a pupil's own prior achievement predicts the transition they make once we allow for the type of school that they attend. Equally we can determine the relationship between school resourcing levels for example and the transitions made out of SLCN/ASD, whilst also taking account of the child's own prior achievement.

For these transition models, the sample is those who start the period (end of Key Stage 2 in 2004) with SLCN, i.e. those with school action plus SLCN or statemented SLCN (Table 20). The reference group or base case for the model is the group of pupils who remain in the SLCN category between the end of Key Stage 2 and 3. We then investigate the association between pupil and school characteristics, and the likelihood of an individual making the (positive) transition out of the SEN category altogether (column 1), the (neutral) transition into another category of SEN (column 2), and the (positive) transition to other unspecified SEN, which is largely a movement into the school action category of SEN (and out of the categories of SAP and having a statement) and hence could be considered a positive transition towards a lesser level of need (column 3). The model is estimated using a multinomial logit which allows us to consider the association between pupil and school characteristics and these 3 different transitions simultaneously. For this analysis we exclude children in special schools or with missing Key Stage 2 test scores.

The results from a multinomial logit can be interpreted in the following way. The table reports marginal effects. Coefficients that are negative and statistically significant suggest that the particular characteristic being considered is associated with a lower probability of making a particular transition *relative to those who remain in SLCN* throughout the period. Coefficients that are positive and statistically significant suggest that the characteristic is associated with

a greater probability of making that particular transition relative to those who remain in SLCN.

Table 20 indicates that many of the characteristics of pupils and their schools (recall those in special schools are excluded) are not statistically significantly related to the likelihood of them making a transition out of SLCN. However, some pupil characteristics are associated with particular transitions. Females are more likely to make the positive transition into the non-SEN category compared to remaining in SLCN throughout the period for example. In this multivariate analysis we also still see that having EAL means you are significantly more likely to make the positive transition into the non-SEN category or indeed into school action SEN (unspecified SEN). This confirms our finding that some EAL students may be identified as having SLCN in primary school but this apparent need does not persist into secondary school and may therefore reflect some confusion about the needs of children who have EAL.

Not unexpectedly the Key Stage 2 results of the individual pupil are strongly associated with the transition they make through Key Stage 3. Those with higher achievement at the end of KS2 are much more likely to make positive transitions into the non-SEN category and to a lesser extent into school action SEN (unspecified SEN) as compared to those who remain in the SLCN category throughout the period. By contrast, those with higher KS2 scores are significantly less likely to exit to another category of SEN as compared to those who remain SLCN throughout the period. What this means is that even allowing for other characteristics and the schools that pupils attend, higher achieving pupils are likely to exit from SLCN into non-SEN or school action whilst lower achieving pupils are more likely to be identified as having another different type of SEN. Again unsurprisingly, those pupils who have a statement of SEN are much less likely to make any transition at all and are more likely to remain in the SLCN category for the period.

Table 20: Multinomial logit model of factors associated with different transitions out of SLCN between Key Stage 2 and 3 – marginal effects – cohort 3

	To non-SEN	To other SEN type	To School Action SEN
Female	0.54***	-0.11	0.08
	[0.12]	[0.09]	[0.11]
FSM	-0.09	0.08	-0.05
	[0.14]	[0.09]	[0.12]
EAL	0.69***	-0.18	0.26*
	[0.16]	[0.13]	[0.15]
KS2 (std. score)	0.96***	-0.15***	0.36***
	[0.07]	[0.04]	[0.06]
Whether statemented	-2.83***	-0.30***	-3.33***
	[0.16]	[0.09]	[0.15]
School size	-0.00***	-0.00	-0.00***
	[0.00]	[0.00]	[0.00]
School resources (for SEN) £ per pupil	-0.01	-0.00	-0.01
	[0.01]	[0.01]	[0.01]
School resources £ per pupil	-0.43**	0.20	-0.40**
	[0.20]	[0.14]	[0.18]
School intake (average KS2 score)	-0.68***	-0.04	-0.43**
	[0.21]	[0.14]	[0.18]
PT ratio	0.01	0.03**	0.01
	[0.02]	[0.01]	[0.02]
School % FSM	0.00	0.01***	0.00
	[0.01]	[0.00]	[0.01]
School % SEN-ST	-0.08**	-0.07***	-0.09***
	[0.03]	[0.02]	[0.03]
School % SEN-NST	-0.01	-0.01*	-0.01
	[0.01]	[0.01]	[0.01]
Constant	2.15***	-1.14**	2.41***
	[0.71]	[0.49]	[0.63]
Observations	578	1,227	808

***Note 1*:** Standard errors in brackets

Note 2: the sample for the above model is 4164 and includes those who were initially classified as having SLCN at Key Stage 2. Children in special schools and with missing Key Stage 2 scores are excluded. The base case or reference group is those who remain in the SLCN category over the Key Stage 2 and 3 period. School characteristics are measured for the pupil's KS3 school.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Note 3: The 'other SEN' category does not include any pupils at school action level of SEN even if the type of SEN has been specified. An individual at school action level of SEN is always included in the school action category even if we know the particular nature of their SEN.

In terms of school characteristics, those with higher levels of school resourcing for SEN are actually less likely to make a positive transition out of the SLCN category. This does not of course mean that higher spending on SEN is causally associated with worse outcomes for

SLCN students. It may mean that students who have persistent SLCN are more likely to be in schools with higher levels of SEN funding, including schools with funded specialist resources ('units'). In terms of schools' academic intake, those pupils attending secondary schools with an intake with above average Key Stage 2 test scores are actually less likely to exit from the SLCN category into non-SEN or into school action. Again this does not mean that attending a school with a high achieving pupil intake causes SCLN pupils to be more likely to remain in the SLCN category. Rather, it may mean that in schools with relatively high achieving intakes, students with SLCN are more likely to retain their SLCN label (a point raised by previous research by Keslair et al., forthcoming) or it could mean that pupils with persistent SLCN tend to enrol in schools with a high achieving pupil intake – thus this finding could be about the types of schools that pupils with persistent SLCN access. Interestingly those pupils attending schools that are more disadvantaged (i.e. higher percentage of pupils eligible for FSM) are not more or less likely to make a positive transition from SLCN into the non-SEN or school action categories. However, pupils in more socio-economically disadvantaged schools are more likely to make the neutral transition from SLCN into another type of SEN.

The proportion of children in the school with non-statemented special educational needs is not correlated with the likelihood of a pupil leaving the SLCN category. However, being in a school with a higher proportion of children who have statements is associated with a higher probability of remaining in the SLCN category over the period. There are a number of explanations for this. It could be that schools with high levels of children with statements do not enable pupils to make a positive transition out of SEN. Equally it could be because pupils with severe and persistent SLCN (and hence likely to remain SLCN for the period) will enrol in schools that are supportive of their needs and may have higher levels of statemented children, including schools with designated specialist resources ('units') funded by the local authority. Note that this effect is not however, related to special schools which are excluded from the analysis.

Table 21 now shows the results of a similar multinomial logit analysis for those who have been identified as having ASD at Key Stage 2. The model, as above, considers the characteristics associated with the transition out of SEN altogether, to other SEN and to unclassified SEN (school action). As for the above model for SLCN, Table 21 indicates that many characteristics of pupils and schools are not statistically significant in the model i.e. that they are not associated with making particular transitions (positive or negative). However, the model does suggest that compared to those who remain in ASD throughout

the period, females are significantly more likely to move into another category of SEN (and we know from our previous evidence that females are less likely to have ASD in the first place). The model also suggests that pupils with higher Key Stage 2 scores are less likely to move to another category of SEN and more likely to make the positive move to SEN school action. Interestingly however, higher achieving pupils with ASD are not more likely to move out of SEN altogether. As was the case for the SLCN model, unsurprisingly those with statements for ASD are much more likely to remain in the ASD category for the full period.

In terms of school characteristics, pupils in larger schools are somewhat more likely to move to another category of SEN as compared to those who remain in the ASD category between Key Stage 2 and 3. However, school size is not associated with the positive transitions out of SEN altogether or into school action. Pupils in schools that are better resourced for SEN are actually less likely to move out of the SEN category altogether and indeed are less likely to move to another category of SEN. This was a similar result to that observed for SLCN and does not necessarily suggest that schools that spend more on SEN actually have worse outcomes but rather that pupils with persistent need (in this case ASD) may be more likely to select schools that spend more on SEN or attend schools with designated specialist resources ('units') funded by the local authority. However, it is interesting that ASD pupils in better resourced schools with higher per capita expenditure per pupil and lower pupil teacher ratios are slightly more likely to move out of SEN altogether or move to another category of SEN as compared to those who remain in the ASD category.

Table 21 also implies that ASD pupils in academically advantaged schools with higher achieving pupil intakes are more likely to move out of SEN altogether. This is the reverse of the finding for the SLCN group. Thus students with ASD may do better in more academic schools or alternatively pupils with ASD are more likely to enrol in schools with higher achieving intakes. Generally however, the socio-economic disadvantage of the school as measured by the proportion of children eligible for free school meals is not significantly associated with any particular transition. Lastly those pupils in schools with a higher percentage of pupils with SEN are more likely to move to another type of SEN but no more likely to exit SEN or move to school action.

Table 21: Multinomial logit model of factors associated with different transitions out of ASD between Key Stage 2 and 3 – marginal effects – cohort 3

	To non-SEN	To other SEN type	To school action SEN
Female	-0.08	0.28	0.03
	[0.42]	[0.18]	[0.33]
FSM	-0.77	0.21	-0.23
	[0.49]	[0.17]	[0.34]
EAL	-0.15	0.06	0.66
	[0.83]	[0.36]	[0.66]
KS2 (std. score)	0.14	-0.18***	0.29***
	[0.12]	[0.05]	[0.10]
Whether Statemented	-2.38***	-0.39**	-3.28***
	[0.29]	[0.15]	[0.29]
School size	0.00	0.00	0.00
	[0.00]	[0.00]	[0.00]
School resources (for SEN)£ per SEN pupil	-0.02	-0.03**	-0.03
	[0.03]	[0.01]	[0.03]
School resources £ per pupil	1.03**	0.39	0.59
	[0.50]	[0.24]	[0.43]
School intake (average KS2 score)	1.24**	0.06	0.01
	[0.49]	[0.22]	[0.39]
PT ratio	-0.12**	0.02	0.04
	[0.05]	[0.02]	[0.03]
School % FSM	-0.00	0.00	-0.02
	[0.02]	[0.01]	[0.02]
School % SEN-ST	-0.01	0.05*	-0.01
	[0.07]	[0.03]	[0.06]
School % SEN-NST	0.00	0.01	0.00
	[0.02]	[0.01]	[0.02]
Constant	-1.22	-3.09***	-2.79**
	[1.83]	[0.83]	[1.41]
Observations	75	334	129

***Note 1*:** Standard errors in brackets

Note 2: the sample for the above model is 1928 and includes those who were initially classified as having ASD at Key Stage 2. Children in special schools and with missing Key Stage 2 scores are excluded. The base case or reference group is those who remain in the ASD category over the Key Stage 2 and 3 period.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Note 3: The 'other SEN' category does not include any pupils at school action level of SEN even if the type of SEN has been specified. An individual at school action level of SEN is always included in the school action category even if we know the particular nature of their SEN.

4. CONCLUSIONS AND IMPLICATIONS

4.1 Conclusions

In our previous work (Meschi et al. 2010) we noted that a significant proportion of students initially identified as having SLCN no longer had this need by Key Stage 4. We also found substantial movement into and out of this category of special educational need. For this report we investigated the dynamic nature of particular types of special educational need (SLCN and ASD) further. Specifically, we documented the prevalence of SLCN and ASD from the end of Key Stage 2 to 4, and described the characteristics of pupils who moved into and out of these categories of need.

Our main focus was on the transitions into and out of the different categories of SEN that are made in secondary school by pupils who are initially identified in Year 6 in their primary school as having SLCN or ASD. We used school administrative data to identify the characteristics of pupils who were initially identified as having SLCN or ASD, we then considered the transitions they made (in terms of their SEN status) between the end of KS2 and KS4. We then modelled the pupil and school characteristics associated with making different SEN transitions. This analysis moves the literature forward by enabling us to understand how student's needs change as they pass through the education system and how their trajectories may differ according to their personal or school characteristics.

There are a number of caveats that should be reiterated. The data are administrative and we therefore can only identify a pupil as having a particular special educational need if they are recorded as having that need in administrative data. Some pupils whose needs are not recognised by the education system will therefore not be included in our analysis (or rather they will be counted as having no SEN). Additionally, we would ideally like to understand the primary type of SEN each pupil has, even if they have a moderate level of need (school action). However, this information is not collected and hence we do not know what type of SEN the pupil has if they are only classed as having school action level of need.

We concluded that the risk factors for being identified as having SLCN at the end of Key Stage 2, particularly non-statemented SLCN, are being socio-economically disadvantaged and having EAL. This is an interesting finding, given independent research suggesting that some specific conditions that result in SLCN are not socially graded, such as stammering. The fact that the overall and therefore broader category of SLCN is socially graded may

therefore reflect a number of factors including parents' differing willingness to identify their child's needs or a tendency for schools to be more likely to identify SLCN needs in low SES children (or both). Those identified as having ASD by the end of Key Stage 2 are more socio-economically disadvantaged than those without SEN. However, socio-economic disadvantage and indeed EAL are ***not*** such major risk factors for pupils identified as having ASD at the end of Key Stage 2 as for pupils with SLCN. Low achievement is a risk factor for both SLCN and ASD groups but pupils with SLCN are lower achieving as compared to those with ASD. We also noted that pupils with SLCN and to a much greater extent ASD are more likely to have a statement than pupils with other types of SEN but those with statements for SLCN or ASD are actually less likely to attend a special school than pupils with statements of other types of SEN.

We then investigated the transitions made by those initially identified as having SLCN or ASD. There is significant movement during secondary school into and out of the categories of SLCN and ASD, with most movement being between the ends of Key Stages 2 and 3. Of those who initially start by having non-statemented SLCN, approximately one quarter move into the non-SEN category, just under one fifth remain in the non-statemented SLCN category and a further fifth move into another type of non-statemented SEN by the end of Key Stage 3. Interestingly, for those who move from the SLCN category into another type of SEN category during secondary school, the most common destinations are the categories of moderate and specific learning difficulties.

By contrast, those identified as having non-statemented ASD at the end of Key Stage 2 are more likely to remain in that category by the end of Key Stage 3. 41% of those who initially have non-statemented ASD remain in that category by the end of Key Stage 3. Those initially identified as having school action plus ASD who move to another type of SEN category are most likely to move into Behavioural, Emotional and Social Difficulties and Moderate Learning Difficulties. For those who initially had a statement for ASD, the most common category to move into is moderate learning difficulties, followed closely by SLCN.

A particularly striking finding from our analysis is that pupils who were identified as having SLCN at the end of Key Stage 2, and who also have EAL, are much more likely to make a positive transition during secondary school into either the non-SEN category or the school action SEN (unclassified SEN) category. This confirms our finding that some EAL students are identified as having SLCN in primary school but this apparent need does not persist into secondary school. We think this implies some confusion about the needs of children who

have EAL in primary school, some of which may have been categorised as having SLCN when their primary need related to the fact that they have EAL. It would appear from these data that schools, particularly primary schools, need support to better identify students who have EAL rather than SLCN[24].

Unsurprisingly, pupils' achievement levels in primary school are a key determinant of the transitions they make in secondary school in terms of their SEN status. Higher achieving pupils are more likely to make a positive transition from SLCN (and ASD) into non-SEN or school action. Lower achieving pupils are by contrast more likely to exit SLCN (and ASD) into another different type of SEN. This provides confirmation that a pupils' achievement in school is correlated with the formal level of support they receive for their special educational need, with higher achieving pupils making positive transitions out of SEN school action plus and statement categories and hence needing less support.

We also investigated the types of schools that pupils who make different transitions attend. We are mindful that students with identified special educational needs theoretically have priority in the admissions process when applying to attend a particular school. They should therefore have greater school choice than those without SEN. However, students with particular types of special education need may still not have a genuine choice of school and rather than pupils choosing a particular secondary school, it may be that schools de facto select which pupils they admit. With this in mind, we found that SLCN pupils who attend schools with higher levels of resourcing per pupil are no more likely to make positive transitions out of SLCN than those attending less well-resourced schools. We do not conclude that school resources make no difference to the transitions made by SLCN pupils since other factors may apply. For example, it may be that SLCN pupils who are more likely to make positive transitions choose less well-resourced schools (for example they may choose more socio-economically advantaged schools where per capita funding is lower). By contrast, ASD pupils in better resourced schools with higher per capita expenditure per pupil and lower pupil teacher ratios are slightly more likely to move out of SEN altogether or move to another category of SEN as compared to those who remain in the ASD category.

Counter intuitively perhaps, pupils attending schools with higher per capita expenditure on SEN are actually less likely to exit the SLCN/ASD categories. This does not of course mean

[24] The legislation makes clear that English as an Additional Language is, of itself, not a form of special educational need (e.g. see SEND Code of Practice, DfES 2001). However, pupils with EAL may *also* have a special educational need and this may be a form of speech, language and communication need.

that higher spending on SEN is causally associated with worse outcomes for SLCN students. It may mean that students who have persistent SLCN/ASD, and who consequently are less likely to make positive transitions, are more likely to choose schools with higher levels of SEN funding. Alternatively it may be that schools with more funding for SEN tend to have more resource and hence have an increased likelihood of identifying children's special needs. This is consistent with the fact that SLCN pupils who attend schools with a higher proportion of children who have statements are actually more likely to remain in the SLCN category during secondary school. These results do suggest (in line with previous research) that the likelihood of a pupil being identified as having a particular special educational need is dependent on the school environment in which s/he is in.

A further factor concerns the system of resourcing schools for SEN. Some schools have specialist resources (e.g. 'units' or 'specialist designated provision' which are designed to support inclusive education and admit pupils from other schools, providing targeted specialist provision. In this case, therefore, the additional funding reflects the local authority's system of supporting SLCN rather than the need of the school's own pupils alone.

Pupils attending secondary schools where pupils have higher than average Key Stage 2 test scores are actually less likely to make a positive transition from the SLCN category into non-SEN or into school action though they are more likely to make a positive transition from ASD to non-SEN. Thus attending a higher achieving school is associated with being more likely to make a positive transition for ASD students but not for pupils identified as having SLCN.

Pupils attending schools that are more disadvantaged (i.e. with a higher percentage of pupils eligible for FSM) are not more or less likely to make positive transitions from SLCN/ASD into the non-SEN or school action categories.

These findings have implications for our previous work which suggested that pupils identified as having SLCN make similar academic progress during secondary school as compared to otherwise similar pupils. This result was derived from a model which compares the achievement of pupils who remain in the SLCN category during secondary school to pupils who exit the SLCN category during secondary school or indeed who enter the SLCN category during secondary school. To better understand the comparisons we are making, in this report we have investigated exactly which types of pupils make these different transitions and hence against which types of pupils we are comparing SLCN pupils. Our analysis indicates that higher achieving pupils who make a positive transition from SLCN to

no SEN are approximately balanced by a similar proportion of lower achieving pupils who move into another type of SLCN (particularly MLD and SPLD). We can therefore interpret our previous work as suggesting that pupils who remain in the SLCN category during secondary school have similar achievement to the combined average of these two groups.

4.2 Policy implications

- We have shown that students have special educational needs, particularly in the case of SLCN, that are quite dynamic and in particular change during the course of secondary school. The implication of this is that funding decisions and indeed monitoring of pupils needs to take this fluidity of need into account.
    - For example, the funding and resource needs of pupils are likely to change quite radically in response to their changing special needs and on the basis of the evidence presented here, a much larger proportion of pupils with SLCN need additional support in primary school as compared to secondary school.

- The decline in the proportion of pupils identified as having SLCN as the pupils progress through secondary school needs close monitoring to ensure
    - that pupils are being properly identified in terms of their special needs in the first instance and
    - that pupils who do have SLCN receive adequate support as they progress through secondary school.

- Our findings do indeed suggest that there may be some misidentification of children who have SLCN.
    - A significant proportion of pupils identified as having SLCN in primary school are then identified as having some other kind of need in secondary school or in fact no special needs at all.
    - There also appears to be some conflation between having EAL and having a speech, learning and communication need.

- It is important that further investigation is carried out to determine whether there is indeed systematic misidentification of children's needs in primary school and specifically if those with EAL often have their needs mistakenly identified as SLCN.

- In general terms, our work also clearly shows that these routinely collected administrative data can be used effectively to monitor common transitions made by students who are initially identified as having SLCN or ASD.
    - This will help determine whether some common trajectories exist and hence enable better support for such students to be devised.
    - It can also highlight potential anomalies in the system, such as the disproportionate number of children who have EAL who are also identified as having SLCN.

- There is no strong and systematic relationship between school resourcing (whether measured by school funding levels or SEN funding), nor pupil intake (whether measured by average pupil achievement or percentage eligible for FSM), and the likelihood of individuals making positive transitions out of SLCN or ASD. In other words, the likelihood of a student no longer needing additional support for SLCN or ASD appears to be unrelated to the level of resourcing their school receives.
    - Some caution is needed here however as the financial data do not enable us to identify specialist resourced schools with specialist provision for particular types of SEN, and hence it is not clear what the relationship between resources and outcomes would be if we took such additional funding into account.
    - There are myriad factors that might influence the transitions made by students who have SLCN or ASD and resourcing is but one factor.
    - Our data imply that there is no clear relationship between resourcing levels and students' progress in the system but until we have better resource data it will not be possible to directly relate the resources received by schools and more specifically students with SLCN and their outcomes.

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APPENDIX 1 – BCRP REPORTS

All the BCRP reports are available from the BCRP page on the Department for Education's website: http://www.education.gov.uk/researchandstatistics/research and also from the BCRP page in the CEDAR, University of Warwick website: http://www.warwick.ac.uk/go/bettercommunication

Main report

1. Lindsay, G., Dockrell, J., Law, J., & Roulstone, S. (2012). *Better communication research programme: Improving provision for children and young people with speech, language and communication needs.* London: DfE.

This report presents the main recommendations of the whole Better Communication Research Programme (BCRP). It draws on evidence provided in the thematic and technical reports. This report also considers the overall implications for policy, practice and research, and indeed seeks to bridge the gap between this substantial research programme and the policy and practice agenda.

Interim reports

2. Lindsay, G., Dockrell, J.E., Law, J., Roulstone, S., & Vignoles, A. (2010) *Better communication research programme 1st interim report DfE-RR070. London: DfE*. (70pp). http://publications.education.gov.uk/eOrderingDownload/DFE-RR070.pdf

This report presents interim findings from the project that had been underway between January and July 2010; best evidence on interventions; the academic progress of pupils with SLCN; economic effectiveness; the initial phase of the prospective longitudinal study of children and young people with language impairment (LI) and autism spectrum disorder (ASD); and the preferred outcomes of children and young people with SLCN, and of their parents.

3. Lindsay, G., Dockrell, J.E., Law, J., & Roulstone, S. (2011) *Better communication research programme 2nd interim report. DFE-RR 172*. London: DfE. (131pp). https://www.education.gov.uk/publications/eOrderingDownload/DFE-RR172.pdf

This report presents interim findings of the project that had been underway between July 2010 – January 2011. Further work is reported from analyses of the national pupil data sets examining development and transitions of pupils with SLCN or ASD between categories of special educational needs, the prospective study, and parents' preferred outcomes (an online survey). In addition, interim reports from new projects include: the initial phase of development of a Communication Supporting Classrooms Tool; a survey of speech and language therapists' practice regarding interventions; a study of language and literacy attainment during the early years through Key Stage 2, examining whether teacher assessment provides a valid measure of children's current and future educational attainment (led by Margaret Snowling and Charles Hulme); two studies of the relationship between SLCN and behaviour, with Victoria Joffe and Gillian Baird respectively; cost effectiveness of interventions; and the setting up of a prospective cohort study of speech and language therapy services for young children who stammer.

Thematic reports

4. Dockrell, J., Ricketts, J. & Lindsay, G. (2012). *Understanding speech, language and communication needs: Profiles of need and provision.* London: DfE.

This thematic report examines the nature of speech language and communication needs and the evidence from BCRP studies that have explained both the nature and needs encompassed by the category and the provision made to meet those needs. This report draws upon six projects (8, 9, 10, 11, 14 and 15).

5. Law, J., Beecham, J. & Lindsay, G. (2012). *Effectiveness, costing and cost effectiveness of interventions for children and young people with speech, language and communication needs.* London: DfE.

This thematic report first considers the nature of evidence based practice in health and education before reviewing the evidence for the effectiveness of interventions for children and young people with SLCN. The report also considers cost effectiveness and how it might be measured before examining the evidence of the cost effectiveness of SLCN interventions. The report draws on projects, 8, 10, 11 and 12.

6. Lindsay, G. & Dockrell, J. (2012). *The relationship between speech, language and communication needs (SLCN) and behavioural, emotional and social difficulties (BESD).* London: DfE.

This thematic report explores the relationship between SLCN and behavioural, emotional and social difficulties. We argue that there are different patterns of relationship between SLCN and ASD, and different types of behavioural, emotional and social difficulties. The report draws on the 2nd interim report (report 3) and project reports 9, 11 and 15.

7. Roulstone, S. & Lindsay, G. (2012). *The perspectives of children and young people who have speech, language and communication needs, and their parents.* London: DfE.

The BCRP ensured that the perspectives of parents and children were explored through a number of different projects. This project explores the evidence primarily from projects 9 and 12, drawing on evidence from a series of specific studies of parents' and children's perspectives and also those of the parents in our prospective study.

Technical reports

8. Dockrell, J. E., Bakopoulou, I., Law, J., Spencer, S., & Lindsay, G. (2012). *Developing a communication supporting classroom observation tool.* London: DfE.

This study reports the development of an observational tool to support teachers, SENCOs, speech and language therapists and others to examine the degree to which classrooms support effective communication. The report comprises a review of the evidence base for developing effective communication and an account of the empirical study to develop and determine the technical qualities of the tool.

9. Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012). *Profiles of need and provision for children with language impairment and autism spectrum disorders in mainstream schools: A prospective study.* London: DfE.

The prospective study was the most substantial project in the BCRP running throughout the whole period of the research. Focusing on children and young people initially 6-12 years old,

we report on the nature of their abilities in language, literacy, behavioural, emotional and social development; the perspectives of the parents; the support provided as examined by classroom observations and specially created questionnaires completed by their teachers and SENCOs.

10. Law, J., Lee, W., Roulstone, S., Wren, Y., Zeng, B., & Lindsay, G. (2012). *"What works": Interventions for children and young people with speech, language and communication needs.* London: DfE.

This report provides a review of 60 interventions for children and young people with SLCN, all evaluated against 10 criteria. The report will form the basis of a web-based resource to be developed by the Communication Trust for easy access by practitioners and parents.

11. Meschi, E., Mickelwright, J., Vignoles, A., & Lindsay, G. (2012). *The transition between categories of special educational needs of pupils with speech, language and communication needs (SLCN) and autism spectrum disorder (ASD) as they progress through the education system.* London: DfE.

Analyses of the School Census and National Pupil Database are used to examine the transition made by pupils with SLCN or ASD over time and by age. We examine factors that are associated with transition between levels of special educational need (School Action, School Action Plus and Statement) and having no special educational need (non-SEN), including having English as an Additional Language and attainment. We also explore school characteristics associated with different transitions to other categories of SEN.

12. Roulstone, S., Coad, J., Ayre, A., Hambley, H., & Lindsay, G. (2012). *The preferred outcomes of children with speech, language and communication needs and their parents.* London: DfE.

This report provides findings from four different studies addressing the perspectives of children and young people with SLCN, and those of their parents. Data are reported from arts-based participating workshops for children, focus groups and a survey for parents; and a systematic review of quality of life measures for children.

13. Roulstone, S., Wren, Y., Bakopoulou, I., Goodlad, S., & Lindsay, G. (2012). *Exploring interventions for children and young people with speech, language and communication needs: A study of practice.* London: DfE.

As a complementary study to our analysis of the evidence for interventions, we also carried out an interview study of speech and language therapy managers and educational psychology service managers, on the basis of which we conducted a national survey of speech and language therapists to examine prevalence of use of the different approaches.

14. Snowling, M. J., Hulme, C., Bailey, A. M., Stothard, S. E., & Lindsay (2011). *Better communication research project: Language and literacy attainment of pupils during early years and through KS2: Does teacher assessment at five provide a valid measure of children's current and future educational attainments? DFE-RR172a.* London: DfE. https://www.education.gov.uk/publications/eOrderingDownload/DFE-RR172a.pdf

We report a study led by Margaret Snowling and Charles Hulme which explored whether teacher assessment and monitoring could be used to identify children with language difficulties in need of early interventions. This study was conducted to inform the Tickell

Review of the Early Years Foundation Stage, in particular the proposals for a simplified framework and assessment process.

15. Strand, S., & Lindsay, G. (2012). *Ethnic disproportionality in the identification of speech, language and communication needs (SLCN) and autism spectrum disorders (ASD).* London: DfE.

This report complements that of Meschi et al (number 11). Using School Census data from four years (2005, 2007, 2009 and 2011) the report examines the issue of ethnic disproportionality (i.e. over- and underrepresentation of pupils from different ethnic groups) with respect to SLCN and ASD.

16. Roulstone, S., Hayhow, R., White, P. & Lindsay, G. (2012). *Prospective cohort study of speech and language therapy services for young children who stammer.*

This prospective cohort study follows children referred to speech and language therapy services because of stammering. The study tracks the children's process through the system and their outcomes.

17. Meschi, E., Vignoles, A., & Lindsay, G. (2010). *An investigation of the attainment and achievement of speech, language and communication needs (SLCN).* http://www.warwick.ac.uk/go/bettercommunication

This technical report presents early analyses upon which the study reported in report number 11 is based.

APPENDIX 2

Table 1: Prevalence of SLCN and other types of SEN at end of KS2 to end KS4 (%) in 2009

	7	8	9	10	11	12	13	14	15	16
SLCN	**2.95**	**2.60**	**2.19**	**1.85**	**1.54**	**1.13**	**0.92**	**0.82**	**0.73**	**0.63**
SLCN with statement	*0.39*	*0.44*	*0.47*	*0.49*	*0.48*	*0.44*	*0.38*	*0.38*	*0.36*	*0.33*
SLCN without statement	*2.15*	*1.78*	*1.40*	*1.09*	*0.85*	*0.52*	*0.40*	*0.33*	*0.27*	*0.22*
Other types of SEN										
ASD	0.75	0.80	0.91	0.93	0.97	1.05	0.94	0.86	0.77	0.73
BESD	1.81	2.04	2.30	2.44	2.55	2.84	3.29	3.78	4.12	4.38
HI	0.21	0.24	0.23	0.24	0.23	0.27	0.27	0.28	0.27	0.26
MLD	2.19	3.10	3.71	3.91	4.04	3.54	3.41	3.20	3.01	2.92
MSI	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.01
OTH	0.35	0.43	0.45	0.46	0.47	0.59	0.59	0.63	0.63	0.73
PD	0.43	0.43	0.43	0.42	0.43	0.42	0.39	0.40	0.39	0.40
PMLD	0.14	0.15	0.15	0.14	0.12	0.12	0.12	0.11	0.10	0.10
SLD	0.34	0.40	0.43	0.46	0.50	0.48	0.45	0.44	0.43	0.43
SPLD	0.61	1.04	1.42	1.71	1.86	1.94	1.80	1.71	1.65	1.57
VI	0.13	0.14	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.14
Any SEN[1]	22.3	24.3	25.3	25.5	25.1	25.5	24.9	24.2	23.4	23.8
SEN with statement	1.90	2.22	2.56	2.90	3.25	3.62	3.65	3.86	3.89	3.94
SEN without statement	20.4	22.1	22.7	22.6	21.9	21.9	21.2	20.4	19.5	19.9

Notes: SPLD = Specific Learning Difficulty; MLD = Moderate Learning Difficulty; SLD = Severe Learning Difficulty; PMLD = Profound & Multiple Learning Difficulty; BESD = Behaviour, Emotional & Social Difficulties; SLCN = Speech, Language and Communication Needs; HI = Hearing Impairment; VI = Visual Impairment; MSI = Multi-Sensory Impairment; PD = Physical Disability; ASD = Autism Spectrum Disorder; OTH = Other Difficulty/Disability

[1]: This information is based on the PLASC variable: "senprovisionmajor_spr09". The information on different types of SEN is taken from the PLASC variable "primarysentype_spr09". This latter variable is not defined for all those who are labelled SEN according to "senprovisionmajor_spr09". Therefore the sum of percentages for the different types of SEN is not equal to the percentage reported for "Any SEN".

Source: PLASC 2009

Table 2: Prevalence of SEN (any type) by age and pupils' characteristics (%) Cohort 3

	SEN-SA			***SEN-SAP***			***SEN-ST***		
	End KS2	*End KS3*	*End KS4*	*End KS2*	*End KS3*	*End KS4*	*End KS2*	*End KS3*	*End KS4*
Males	14.99	14.30	15.09	8.05	7.21	8.01	4.89	5.20	5.03
Females	10.18	9.86	11.15	3.61	3.61	5.26	1.85	1.94	1.89
Non-FSM	11.08	10.77	12.05	4.90	4.52	5.74	2.80	3.03	2.95
FSM	19.87	19.93	20.70	10.43	10.77	12.97	6.22	6.91	7.18
Non-EAL	12.42	11.66	12.75	5.94	5.05	6.62	3.48	3.43	3.42
EAL	14.59	16.22	16.89	5.24	4.95	6.18	2.66	2.74	2.66
KS2 (Q1)	28.25	26.61	25.69	14.95	12.56	14.06	9.19	9.85	9.93
KS2 (Q2)	10.42	9.49	11.63	2.89	3.34	5.19	0.96	0.97	0.96
KS2 (Q3)	6.51	6.23	8.38	2.16	2.42	3.78	0.73	0.77	0.73
KS2 (Q4)	2.99	3.64	5.56	1.08	1.57	2.60	0.45	0.45	0.44
KS2 (Q5)	1.01	1.85	3.59	0.43	0.74	1.45	0.19	0.20	0.20

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