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English as an Additional Language: Proficiency in English, educational achievement and rate of progression in English language learning

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About The Bell Foundation

The Bell Foundation is a charity which aims to overcome exclusion through language education by working with partners on innovation, research, training and practical interventions. Through generating and applying evidence, we aim to change practice, policy and systems for children, adults and communities in the UK disadvantaged through language.

The Foundation works in two key areas:

- **The EAL Programme aims to improve the educational outcomes of children with English as an Additional Language in the UK to benefit the individual child and society as a whole. The Foundation works in partnership with a range of organisations across the education system to provide training and resources in order to build capacity, develop and evaluate models of good practice, and provide thought leadership.**
- **The Criminal Justice Programme seeks to break down the language barrier to accessing justice and rehabilitation for individuals in contact with the criminal justice system for whom English is an Additional Language. In 2017 the Foundation developed a long-term strategy for its work in the sector, with a focus on both victims and offenders of crime. The Foundation works through interventions in research, policy, practice and service support.**

About Unbound Philanthropy

Unbound Philanthropy is an independent private grant-making foundation that works to ensure that migrants and refugees are treated with respect and engage with their new communities. We support pragmatic, innovative and responsive approaches to immigration and immigrant integration in the United States and United Kingdom.

Contents

Abstract

This report focusses on a central question for teachers, curriculum developers, administrators, and government officials alike: how long does it take for pupils New to English to acquire Proficiency in English, and how long do pupils need special language support? This study reports on 5,453 EAL pupils who entered Reception class at age 4/5 in Wales between 2009 and 2011. We tracked these pupils over their subsequent six years in primary school. Every January the Proficiency in English (PIE) of the pupils was recorded on a five-point scale, ranging from A (New to English) through B (Early Acquisition), C (Developing Competence) to D (Competent) and E (Fluent).

We asked how long does it take for a majority (at least 50%) of pupils to make any specified transition? For pupils who entered Reception at level A (New to English) over half (59%) had transitioned to level B (Early Acquisition) by Y2, taking on average 2.4 years (SD=1.4); and over half (51%) had transitioned to level C (Developing Competence) by Y4, taking on average 3.7 years (SD=1.6). However, only one-third (31%) had transitioned to level D/E (Competent/Fluent) by the end of Y6, with an average 4.6 years for those who made this transition within this six year period.

Overall, by the end of Y6, nearly all (96%) transitioned to B (Early Acquisition), and over three-quarters (78%) transitioned to C (Developing Competence) but only around one-third (31%) transitioned to D/E (Competent or above). This indicates that the majority of pupils starting Reception class New to English will take **more than six years** to be rated as Competent/Fluent. This is broadly comparable to recent and methodologically strong research from the US which estimate 4-8 years are needed to acquire academic English proficiency.

There may be additional challenges for pupils who do not start with a whole cohort in Reception class but join school at later points. We therefore also looked at a further 1,839 pupils recorded as New to English who joined their school in Y1 to Y5, and followed them for at least six further years. The estimates for these pupils were substantially the same as those reported above for pupils starting in Reception.

This has significant implications for national pupil funding formula. For example, in England the national formula currently provides targeted funding to EAL pupils for a three-year period after they join school. This might be appropriate in relation to gaining oral proficiency, but is less than half the minimum time suggested by the current data for gaining academic proficiency.

The report also addresses a number of further findings including issues around the consistency of interpretation of the Competent/Fluent distinction, demographic factors associated with progress and the relationship between PIE and achievement in English and mathematics at age 7, 11, 14 and 16.

Executive summary

Background

This report is the third in a series exploring the relationship between English as an Additional Language (EAL), Proficiency in English (PIE) and educational achievement. The research has been funded by The Bell Foundation and Unbound Philanthropy. The main findings from the previous two reports are summarised below.

Strand, Malmberg and Hall (2015)

The report used the National Pupil Database (NPD) in England to analyse trends in the number and distribution of pupils with EAL, and the relationship between EAL and educational achievement at age 5, 7, 11 and 16 years of age using the 2013 national data for all pupils. The key results were:

- The EAL population in English schools more than doubled from 7.6% in 1997 to 16.2% in 2013, totalling just over one million pupils. In 2019 the figures are even higher, now 1.56 million EAL pupils, constituting just under one-in-five (19.6%) of all pupils aged 5-16. While one-quarter of schools had <1% of pupils recorded as EAL, in around 1 in 11 schools EAL pupils constituted >50% of the pupil roll, so need was very concentrated in some schools.
- On average, EAL pupils catch up with their First Language English (FLE) peers in terms of educational achievement by age 16. At age 5, only 44% of EAL pupils had achieved a Good Level of Development compared to 54% of other pupils. By age 16, this gap has narrowed significantly with 58.3% of EAL pupils achieving five A*- C GCSEs including English and maths compared to 60.9% of other pupils, and there was no EAL gap at all in the average GCSE Best 8 points score.
- There was huge variation in the educational results achieved by pupils classified as EAL. As well as risk factors generic to both EAL and FLE pupils, such as Special Educational Needs, family and neighbourhood socio-economic deprivation, gender, and season of birth, there were other risk factors for low achievement that were particularly strong among EAL pupils: certain first languages within the Black-African and White-Other ethnic groups, absence of a prior attainment score from the beginning of the Key Stage, and pupil mobility between schools. All these are proxies for international arrival from overseas.
- Crucially, the report concludes the definition of EAL used in the NPD is limited because *it gives no indication of a student's proficiency in the English language*[1]. Thus, the EAL group includes both (i) second or third generation ethnic minority students who may be exposed to a language other than English as part of their cultural heritage, but use English as their everyday language and are fully fluent in it, and (ii) new migrants arriving in England who speak no English at all, and may have varying levels of literacy in their previous country of origin. The report concludes Proficiency in the English language is the major factor influencing the educational achievement and the degree of support an EAL student will require, and it is low Proficiency in English associated with international arrivals that is proxied by the risk factors identified in the bullet point above.

The major recommendation of the report was that the Department for Education (DfE) in England should introduce a measure of pupils' Proficiency in English (PIE) so that schools can assess this within a common framework to identify and address pupils' needs. After consultation the DfE did introduce such a measure, adopting the measure used in schools in Wales since 2009[2], with the first nationwide collection of Proficiency in English for all EAL pupils in England in January 2017[3].

1. "A first language other than English should be recorded where a child was exposed to the language during early development and continues to be exposed to this language in the home or in the community. If a child was exposed to more than one language (which may include English) during early development the language other than English should be recorded, irrespective of the child's proficiency in English". (DCSF, 2006, p10).
2. The five-level scale of Proficiency in English (PIE): A="New to English", B="Early Acquisition", C="Developing Competence", D="Competent", E="Fluent". See Appendix B for detailed descriptors of each category.
3. The PIE measure was used in the January 2017 and 2018 school censuses, but collection of PIE was discontinued by the DfE after that point.

Strand and Hessel (2018)

While the Proficiency in English data was collected by the DfE, it was not included in the NPD and was therefore not available for research. Neither was any analysis of the data undertaken by the DfE other than production of a single table (DfE, 2017). Therefore, we worked with colleagues in Local Authorities (LA) and schools to collect a large and nationally representative sample of data. The research collected anonymised pupil level data from the January 2017 School Census data for more than 140,000 pupils attending 1,569 schools in six Local Authorities across England. It also collected and matched these data to the pupils' national assessment results at age 5, 7, 11 and 16. The main results were:

- EAL pupils varied widely in terms of their degree of Proficiency in English. In the context of mainstream schooling in England this was not a trivial observation. Teaching is almost entirely delivered through the medium of English language, be it texts, video or audio materials, or in classroom discussions. A group of pupils who can only access this information to a limited degree is also less likely to perform to their full potential.
- What mattered most for EAL pupils' degree of English proficiency was not their ethnicity, gender or FSM eligibility, but their age. At the end of Reception, more than half (55%) of EAL pupils are acquiring Proficiency in English (rated as New to English, Early Acquisition or Developing Competence). At the end of KS1, still almost half (49%) of EAL pupils are acquiring proficiency. At the end of KS2 though this drops to under a quarter (23%) and by KS4 just one in six (15%). Looking at the other end of the spectrum, by KS4 the vast majority of EAL pupils (85%) are Competent or Fluent in English, compared to 30% of EAL pupils at Reception. Thus, language support is particularly important in the early years of primary education in order to allow pupils to access the curriculum from the earliest stage.
- In later years, support may be needed for fewer pupils, but is still warranted, particularly for pupils who are new to the country. If the aspiration of the school system is to provide full access to the (English language) curriculum for all pupils, language support will still be needed for one in six EAL pupils at KS4, where 15% were judged less than 'Competent' in regard to their proficiency.
- Across all ages 5-16 and all subjects, EAL pupils with different levels of Proficiency in English varied greatly in their achievement. Indeed, PIE is central to understanding achievement and levels of need among pupils with EAL. Proficiency in English could explain 22% of the variation in EAL pupils' achievement, compared to the typical 3-4% that can be statistically explained using gender, Free School Meal status and ethnicity.
- While EAL pupils New to English or at the Early Acquisition stage score below the national average, those who were Developing Competence were very close to the national average and those who were Competent or Fluent score significantly higher than monolingual English speakers. Thus being bilingual is not a barrier to learning, what can be a barrier to achievement is low proficiency in the language of instruction at school. Pupils need to be supported so that they can acquire the proficiency that they need to succeed.

The report recommended that the DfE should include the data on PIE in the NPD so it was available for research purposes, and should reinstate the collection of PIE in the School Census. Although the DfE no longer required schools to assess a child's Proficiency in English after 2018, the report strongly urged schools to continue to record PIE to identify needs and target support. This position was strongly supported by the National Association for Language Development in the Curriculum (NALDIC), the national subject association for EAL[4].

4. https://naldic.org.uk/about-naldic/activism/position-statements/dfe-proficiency-data

The Current Study

The current report builds upon and extends the above work. In particular, it focusses on a central question for teachers, curriculum developers, administrators, and government officials alike: how long does it take for pupils New to English to acquire Proficiency in English, and how long do pupils need special language support? A review of the available literature (see Literature Review at the start of Section 3 in the main report) indicated that while a figure of 4-7 years is commonly cited, the research evidence is frequently extremely old and methodologically questionable. There was also only a single study that had looked at this question in the UK (Demie, 2013).

This report presents cross-sectional and longitudinal descriptive analyses of pupils' Proficiency in English (PIE) and time to progress through levels of PIE based on Welsh national pupil data. Since 2009, schools in Wales have used a five-point scale from A (New to English) to E (Fluent) to rate the PIE of pupils with EAL[5], so we were able to track EAL pupils' progress through the different PIE levels over time. This report also replicates some of the previous research on the relationship between PIE, pupil demographics and educational achievement at age 7,11, 14 and 16 in a further national setting (Wales). It also extends the work to consider not only PIE at a given point in time but also how the rate at which pupils' move through levels of proficiency may be associated with achievement.

Research questions

The analyses in this report aim to answer the following overall question:

What can we learn from Welsh national pupil data about the length of time it takes to transition between levels of Proficiency in English?

To this we can identify further sub-questions:

(a) Do trajectories in English language proficiency over time differ between pupils with different background characteristics (e.g. age, gender, ethnic group, entitlement to Free School Meals or level of Special Educational Need)?

(b) Are trajectories in English language proficiency over time associated with educational achievement? Do pupils who move through the levels of proficiency more quickly have higher levels of achievement later in school than pupils who progress more slowly?

(c) Do trajectories in English language proficiency over time differ between pupils who enter school in Reception, and those who enter school at later points in time?

(d) Do trajectories in English language proficiency vary by school and by Local Authority (LA)?

(e) Are any school or LA compositional or contextual variables related to school or LA variation in trajectories in English language proficiency?

5. See Appendix B for descriptors. The guidance for the process of rating and reporting pupil PIE in Wales can be found at https://s3-eu-west-1.amazonaws.com/hwb-live-storage/e1/eb/6b/26/46e949f294825cb0ce41f1c3/Needsassessmentsurveyguide_4.pdf.

Datasets

Data from the Welsh Pupil Level Annual School Census (PLASC) was supplied by the Welsh Government. The dataset is ideal because PIE has been recorded on all pupils annually since 2009, giving a rich longitudinal dataset. Additionally, the Welsh Government supplied other pupil background characteristics (e.g. gender, age, ethnicity, entitlement to FSM) and educational achievement data at age 7, 11, 14 and 16 years of age. Our dataset contains records for all pupils in Wales between the 2009 and 2017 January School Censuses inclusive (though there were some issues with missing data for the Reception year group in 2017 which we discuss below). We decided to focus on the years of compulsory schooling, from Reception (age 4/5) through to Year 11 (age 15/16), and by necessity we limited our analysis to pupils in mainstream schools as special schools do not have to record pupils' PIE. This gave a total of 3,528,064 pupil records including the data from all nine years.

Comparability with England

Proficiency in English data is only collected for pupils whose first language is not either English or Welsh, so speakers of Welsh are not considered to have EAL. The ratings are specifically of Proficiency in English, not of proficiency in Welsh, and indeed it was this same scale that was briefly used in England in 2017 and 2018. The EAL group in Wales is therefore comparable to that in the England NPD data. We have used the shorthand 'English/Welsh (E/W) speakers' for the group of pupils who speak English and/or Welsh, to contrast them with the EAL group.

One potentially complicating factor in Wales is those schools where Welsh is the language of school instruction. In these schools Proficiency in English would not be the major concern, since Welsh would be the language in which EAL pupils would need to gain proficiency in order to access the curriculum. However, the proportion of EAL pupils in Welsh medium schools is very small. For English/Welsh pupils, in primary 22.1% and in secondary 8.4% are educated in Welsh medium schools. However, among EAL pupils, in primary only 2.5% and in secondary only 0.3% attend Welsh medium schools (See Appendix A). Put another way, the mean proportion of EAL pupils in English medium schools (6.6% and 7.6% in primary and secondary respectively) is far greater than in Welsh medium schools (0.8% and 0.2% respectively).

There appears to be systematic sorting of EAL pupils into English medium schools rather than Welsh medium schools, and so our results are very unlikely to be impacted by the small numbers of EAL pupils in Welsh medium schools. We also ran our key time to progression results excluding Welsh medium schools and they were robust to the exclusion (see Appendix J). We are therefore satisfied that the results are of relevance as much to England as they are to Wales.

Cross-sectional dataset

The number of pupils in Reception for whom we had records in 2017 was very low (N=5,647 compared to N=31,539 in 2016). We cannot ascertain the reason for this based on the available data. This is not a problem for our longitudinal analyses which focused on pupils entering Reception in 2009-2011 who were at the end of primary school by 2017. However, because of this we used the 2016 rather than 2017 data in our cross-sectional analysis. We analysed the data for 389,775 pupils in 1,310 primary and 205 secondary mainstream schools in Reception through Y11, across the 22 LAs in Wales. We analyse the PIE data in relation to a range of pupil background factors (year group, gender, ethnic group, entitlement to educational FSM, level of SEN), school factors (type, English/Welsh medium, size) and to achievement at age 7, 11, 14, and 16.

Longitudinal datasets

For our longitudinal analysis, three cohorts of pupils could be tracked from Reception through to the end of Y6, specifically the cohorts of pupils who entered Reception in 2009, 2010 and 2011 and completed Y6 in 2015, 2016 and 2017 respectively. Because the number of EAL pupils was relatively small within each cohort, we combined the three to a single analytic sample to achieve a larger sample size. Selecting those pupils who had valid records throughout primary school, yielded a sample of 90,476 pupils, 5,453 of whom (6.0%) were recorded as EAL in Reception. We derived measures of time to progression (in years) from each level of PIE in Reception, to determine the average number of years to transition, for example, from level A to level B, from level B to level C and so forth.

EAL pupils who join school in later year groups may differ in important ways from those who join in Reception; they may also not have the benefits of joining as part of a whole cohort. For the sake of comparison, we therefore created a further matched dataset for EAL pupils who entered after Reception. There were a further 1,839 pupils with EAL starting at level A (New to English) in Year 1 to Year 5 and with at least a further six years' worth of subsequent valid PIE data. We computed similar measures of time to transition between PIE levels for these pupils to see if the estimates were consistent between those entering in Reception and later entrants to school.

Results

Proficiency in English and pupil characteristics in 2016

The percentage of pupils recorded as EAL was relatively consistent across years at around 6%-8% of a year group, generally slightly higher in primary school than in secondary school. However, there were substantial changes in PIE levels across year groups. The proportion of pupils at level A (New to English) decreased from 56% in Reception to just over 2% in Y11. Equally, the proportion of EAL pupils rated as levels D (Competent) or E (Fluent) increased from 7.5% in Reception to 65% in Y11. This is cross-sectional data, but we note similar trends in our longitudinal data below.

There were few relationships between PIE and other pupil demographic factors. Not surprisingly, proportions with EAL were trivial among White British pupils (0.3%) and <10% among Black Caribbean and Mixed White & Black Caribbean pupils, but over 80% among White Other, Asian Other, Indian, Pakistani, Bangladeshi, Black African, Chinese and Any other ethnic groups. Some ethnic groups (particularly Roma and White Other) had very high proportions (>50%) at the New to English or Early Acquisition stages. There was no strong relationship with gender or with FSM. Somewhat fewer pupils with SEN were recorded as EAL (6%) than pupils without SEN (7%), although EAL pupils with SEN were much more likely to be at the earlier stages of acquisition compared to EAL pupils without SEN.

Proficiency in English and pupil achievement in 2016

The relationship between pupil achievement and PIE varied somewhat by Key Stage. English/Welsh speaking pupils outperformed EAL pupils who were New to English or at the Early Acquisition stage at all Key Stages. However, there were inconsistent results for EAL pupils rated at level C (Developing Competence) who on average actually achieved higher than English/Welsh speakers at age 7, including in English, and in maths and science at KS2, but lower than English/Welsh speakers at KS3 and KS4. EAL pupils rated as Competent or Fluent consistently outperformed English/Welsh speakers at all key stages. However, differences between pupils rated as Competent and Fluent were not always in the direction anticipated. For example, at age 7 those rated Competent had on average higher levels of achievement than those rated Fluent, and there were no differences in attainment between the two groups at KS2. It was not until KS3 and KS4 that pupils rated as Fluent consistently had higher achievement than those rated as Competent. This suggests that there may be a question of validity in the assessment of PIE at these levels, an issue that we address further below in examining time to transition between levels of PIE.

School and LA variation in PIE in 2016

There was considerable variation between schools and Local Authorities (LA) in the proportions of pupils with EAL and in the proportion of EAL pupils still Developing Competence in English i.e. at PIE levels A-C. For LAs, the proportion of pupils recorded as EAL ranged from 0.8% in the Isle of Anglesey and <5% in 17 of the 22 LAs, up to 10% in Swansea, 17% in Newport and 23% in Cardiff. There was also substantial variation between schools. The average school has 5% pupils with EAL, but the distribution was highly skewed with many schools with 0% EAL pupils and a small minority with >50% EAL.

Voluntary schools had considerably higher proportions of EAL pupils and pupils at PIE levels A-C than Community or Foundation schools[6]. The same was true for larger schools (those with greater numbers of pupils) compared to smaller schools. Interestingly English medium primary schools had much higher proportions of EAL pupils (7.6%) and pupils at PIE levels A-C (6.0%) than Welsh medium schools (0.8% and 0.5% respectively). The same pattern of differences was true for secondary schools. This does not seem to reflect demographic variation between LAs as even within LAs there were big differences. For example, within Cardiff, 27.8% of pupils in English medium schools were recorded as EAL compared to 6.7% of pupils in Welsh medium schools. Further, less than 2% of all EAL pupils were enrolled in Welsh medium schools, and less than 5% in bilingual schools, as of 2016 (see Appendix A, Table A1). This may indicate selection effects, with families and pupils with EAL choosing English medium rather than Welsh medium schools. We do not know whether the use of Welsh for instruction, as well as for day-to-day school business and communication with parents, in any way bears directly on the school's approach to identifying English language proficiency.

Time to progression in Proficiency in English

As well as the achievement patterns noted above, there were also inconsistencies in the way in which the highest two levels of PIE (Competent and Fluent) were recorded over time. Numbers of pupils recorded as Fluent were far higher than the numbers recorded as Competent until 2014, after which the numbers of pupils in these categories appears to be approximately similar or reversed. Combined with the counter-intuitive achievement profiles at age 7 and age 11, there are questions about the validity of the Competent/Fluent distinction in the way it has been assessed or recorded; previous research suggests that not enough attention may be paid to pupils' progress beyond Developing Competence in the Welsh education system (Learner Support Directorate, 2015). Thus, we do not place much emphasis on the transition between Competent and Fluent, instead considering the transition to "Competent or above" where appropriate[7].

Our longitudinal analyses show that there was substantial variability between pupils in the time it took to make transitions, and indeed whether they made transitions at all, between levels of PIE. We report two metrics below. First, to take account of the fact that some pupils do not make transitions, we report the year at which a majority (>50%) of pupils who started at one level in Reception made the transition to the next level. We also report, for those pupils who did make the transition at some point during primary school, the average (mean) years taken to make the transition. To emphasise the degree of variability in these time between pupils, we also report the standard deviation (SD). This lets us calculate a range from a low of 1SD below the mean, to a high of 1SD above the mean, which will contain two-thirds of the observed values. For example, a mean time to transition of 3.0 years (SD=1.5) indicates the average time to transition for those who made a transition was 3.0 years but with a typical range across pupils of between 1.5 and 4.5 years.

6. In Wales, Community schools are those owned and run by the local LA, Voluntary schools are run by voluntary organisations (usually the Church of Wales or Roman Catholic Church), and Foundation schools are owned by their governing bodies or by a charitable foundation.
7. Note that in combining the Competent and Fluent categories analytically because of empirically observed patterns in the data, we are not suggesting that these categories should be combined in practice as the competencies associated with them differ (see Appendix B). Rather, the observed patterns suggest that assessment of pupils' English language proficiency at these levels may require improved moderation, clearer definition of competencies, or additional training for practitioners to inform valid judgements. Current guidance and moderation processes used in Wales can be found at https://s3-eu-west-1.amazonaws.com/hwb-live-storage/e1/eb/6b/26/46e949f294825cb0ce41f1c3/Needsassessmentsurveyguide_4.pdf.

For pupils who started Reception at level A (New to English) over half (59%) had transitioned to level B (Early Acquisition) by Y2, taking on average 2.4 years (SD=1.4), over half (51%) had transitioned to level C (Developing Competence) by Y4, taking on average 3.7 years (SD=1.6), but only one-third (31%) had transitioned to level D (Competent) by the end of Y6, taking on average 4.6 years for those who made this transition within primary school.

For pupils who started Reception at level B (Early Acquisition) over half (58%) transitioned to level C (Developing Competence) by Y3, taking on average 2.9 years (SD=1.6), and over half (52%) transitioned to level D (Competent) by Y6, taking on average 4.3 years (SD=1.7).

For pupils who started Reception at level C (Developing Competence) nearly half (48%) transitioned to level D (Competent) by Y5, taking on average 3.7 years (SD=2.0), for those who made the transition. Nearly two-thirds (68%) had transitioned to Competent by Y6.

To summarise, for the pupils who started as level A (New to English) in Reception, we find that by the end of Y6 nearly all (96%) transitioned to B (Early Acquisition), and nearly three-quarters (78%) transitioned to C (Developing Competence) but that only around one-third (31%) transitioned to D/E (Competent or above). The fact that, even six years after starting schools, two-thirds of pupils have not transitioned to Competent has significant implications for the national pupil funding formula in England, which currently only provides targeted funding to EAL pupils for a three-year period after they join school.

Time to progression starting in different year groups

Generally, the times to transition are similar for those pupils starting at level A (New to English) whether they joined the school in Reception or in a later year group. Pupils starting in Y5 appeared slightly more likely to skip past levels of proficiency (e.g. to have New to English in one year and then Developing Competence in the next) than those starting in earlier year groups but, other than that, there were no strong differences. This means we can generalise our finding on transition times from the Reception cohort to pupils starting in later year groups. EAL pupils who enter school in later year groups may be more likely to have lower levels of PIE and to have lower levels of attainment in end of Key Stage tests (e.g. DfE, 2019) but on average they should be expected to make the same progress in learning English, and at the same rate, as pupils joining in Reception.

Time to progression and pupil characteristics

For the most part, pupil demographics did not appear to be related to time to PIE progression. Two notable exceptions were (i) that Pakistani pupils took longer to progress to Early Acquisition and to Developing Competence than most other ethnic groups, and (ii) that pupils with SEN transitioned somewhat more quickly from New to English to Early Acquisition, which may be a result of the additional support provided to pupils with SEN.

Time to progression and pupil achievement

Pupils who progressed more quickly from level A (New to English) through to Early Acquisition and to Developing Competence tended to have higher end of KS2 English performance. This is good evidence for the validity of the time to progression measure, since we would expect pupils who acquire Proficiency in English more rapidly to have higher levels of attainment. We also note that pupils who made each transition within primary school tended to have higher achievement in English at KS2 than those pupils who did not make the same transitions.

School and LA variation in time to progression

There was considerable variation between schools and LAs in transition times. Time to progression between levels of PIE was associated with some measures of school composition and context. Pupils in larger schools, schools with higher percentages of pupils with EAL and schools with higher percentages of pupils at PIE levels A-C took longer to progress, on average, than schools low on these measures. This was unexpected as we thought that schools with larger EAL populations might have greater expertise and resources to facilitate progression in Proficiency in English. It may be that there are other demographic differences between these schools that account for the variations, and the results need to be explored further in multiple regression models. Pupils in English medium schools did not differ significantly from those in Welsh medium schools in time to transition, but did take longer to progress between levels of PIE than those in Mixed (bilingual, dual stream or transitional) schools. However, there were less than 50 EAL pupils in Mixed medium schools so the results are not very robust. There were no significant patterns in time to progression according to school type (Community/Foundation/Voluntary).

Conclusions

The finding that over three-quarters (78%) of pupils who start in Reception as New to English progress to Developing Competence by the end of primary school is promising, in that most of these pupils are likely to be able to access the English language curriculum in secondary school. However, the fact that, even six years after starting school, only around one-third (31%) had transitioned to D (Competent) or above, is concerning; this suggests that while many pupils have Developing Competence, relatively few gain academic linguistic proficiency in this timeframe. **The DfE pupil funding formula for England currently offer additional funding for three years after a pupil's arrival at school, either in Reception or if from abroad in a later year group. Given the majority of the pupils in this national study have not made the transition to Competent in six years, the duration of the financial support in England appears less than adequate.**

The year group in which a pupil at level A (New to English) began school did not seem to be a strong determinant of time to progression to higher PIE levels. EAL pupils who enter school in later year groups may be more likely to have lower levels of PIE and to have lower levels of attainment in end of Key Stage tests (e.g. DfE, 2019) but on average - when other unmeasured factors, such as level of home language literacy, are equivalent - they should be expected to make the same rate of progress in learning English as pupils joining in Reception.

Time to progression to higher levels of PIE appears to be strongly related to achievement in English at the end of KS2. This is an important finding, as it offers evidence of the validity of the time to progression measure. Also, we know from the cross-sectional findings that attainment gaps between English/Welsh speaking pupils and pupils developing Proficiency in English (PIE levels A-C) are larger at later Key Stages. Those who start with the lowest levels of proficiency may struggle to access the curriculum and become increasingly at a disadvantage if they progress slowly in developing their Proficiency in English.

It is also significant that despite wide variation in the proportions of different ethnic groups with EAL and at different levels of PIE, there were largely no significant differences in time to progression except for the Pakistani group, who on average took longer than most other groups to progress through the lowest levels of proficiency when starting from New to English in Reception. Further investigation is warranted to understand why this might be the case.

We cannot attribute significant associations to processes taking place in LAs and schools, as we do not have information on these processes. However, our findings do suggest that it will be important to investigate further what might be contributing to school and LA variation, and to associations with school composition or context.

English as an Additional Language: Proficiency in English, educational achievement and rate of progression in English language learning

1. Methods

Research questions (RQ)

RQ1: What can we learn from Welsh national pupil data about the length of time it takes to transition between levels of Proficiency in English?

Sub-question 1: How are the trajectories in English language proficiency over time different between pupils with different background characteristics in Reception (e.g. ethnic group, SEN, gender, socio-economic deprivation (via Free School Meal eligibility)?

Sub-question 2: To what extent and how are the trajectories in English language proficiency over time associated with achievement?

Sub-question 3: To what extent and how are the trajectories in English language proficiency over time different between pupils who enter a given cohort after Reception and those who entered the same cohort in Reception?

Sub-question 4: To what extent do trajectories in English language proficiency vary by school and by Local Authority (LA)?

Sub-question 5: Are any school or LA compositional or contextual variables related to school or LA variation in trajectories in English language proficiency?

Description of the data source and analytic sample

We used Pupil Level Annual School Census (PLASC) data from Wales from 2009-2017 inclusive. Information on each pupil included a pupil identifier (anonymised), a school identifier, Local Authority (LA), Consortium, ethnic group, Free School Meal eligibility, year group, year (of January School Census), Special Educational Needs (SEN) provision (None, School Action; SA; School Action Plus; SAP, or Statement), first language (defined as home language), and English as an Additional Language (EAL) acquisition (recoded as Proficiency in English; levels including English/Welsh, A=New to English, B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent). Information on schools and Local Authorities (LAs) included school type (Community, Foundation, or Voluntary governance), and school language medium[8], school and size (computed based on the number of pupils in R-Y11 in a given school within a given year, separated for schools into quintiles for the analytic sample), school and LA proportion of pupils with EAL (computed based on all pupils in R-Y11 in a given school or LA within a given year, separated for schools into quintiles for the analytic sample), school and LA proportion of pupils with Proficiency in English (PIE) lower than Competent (computed based on all pupils in R-Y11 in a given school or LA within a given year, separated for schools into quintiles for the analytic sample).

8. We simplified categories to English, Mixed/Bilingual, and Welsh, where numbers were low for some of the original categories of school language medium. Original categories included English medium, English with significant Welsh (day-to-day language or languages determined by the school's linguistic context, all subjects available in English and 20-49% of subjects available in Welsh), Bilingual type A (at least 80% of subjects apart from English and Welsh taught in English), Bilingual type B (at least 80% of subjects apart from English and Welsh taught in Welsh but also in English), Bilingual type C (50-79% of subjects apart from English and Welsh taught in Welsh but also in English), Bilingual (all subjects), Dual stream (both Welsh and English used in the day-to-day business of the school), Transitional (Welsh is the language of the day-to-day business of the school, with priority given to creating a Welsh ethos), and Welsh medium.

Cross-sectional dataset

For the descriptive analysis of the prevalence of various Proficiency in English (PIE) levels across year groups and years, as well as by various pupil background characteristics (language spoken at home, Free School Meals as a proxy for deprivation, ethnic group, and Special Educational Needs identification), we included all pupils with valid data in Reception through Year 11 (ages 4-16) who were in mainstream schools at the time of each January School Census in 2009-2017), for a total of 3,528,064 records (29,772 pupils in special schools had to be excluded, as they had no information on PIE). Where totals vary from this number, this is because records with missing information on the relevant variables have been excluded (using listwise deletion). This is the case for any analysis including ethnic group (missing for 3,411 records, or approximately 0.1% of the total number of records). For some of the descriptive analyses, we used 2016 data only to obtain clear and recent statistics without combining across years (N=389,775 records for pupils in Reception through Year 11, with 260 or <1% missing ethnic group).[9]

The descriptive analysis of patterns of achievement by PIE level included those pupils in relevant year groups that were assessed at the end of each Key Stage (Foundation Phase or FP in Year 2, age 7; KS2 in Year 6, age 11; KS3 in Year 9, age 14; and KS4 in Year 11, age 16). Achievement information consisted of Teacher Assessment (TA) levels in three subjects[10] for FP through KS3, and total Capped Points in KS4. We again focused on 2016 to make use of recent data while avoiding combining results across years. There were data missing or recorded as a different KS or year group than expected for a small percentage of pupils, and these records were excluded from analyses involving KS attainment, resulting in somewhat lower total numbers (see Table 1.1).

Table 1.1: Missing values for Key Stage attainment in 2016

					Missing					
		Total pupils in Year Group	Core Subject/ FP Indicator		English TA		Maths TA		Science TA	
		N	N	%	N	%	N	%	N	%
Key Stage	Foundation Phase (Y2)	34,388	652	1.9	8,253	24.0	685	2.0	685	2.0
	KS2 (Y6)	32,693	396	1.2	431	1.3	431	1.3	433	1.3
	KS3 (Y9)	30,114	422	1.4	468	1.6	464	1.5	471	1.6
	KS4 (Y11)	31,026	223	0.7	--	--	--	--	--	--

Note: English TA missing percentage in the Foundation Phase appeared rather high, and we investigated whether this related to EAL status; however, 8,019 of the missing values were for pupils classified as English/Welsh speakers (25.4% of this group) compared to 108 or 15.3% of those New to English, so there was no indication that missing values were a consequence of Proficiency in English (possibly instead of Welsh as a first language). N = number.

9. We did not use 2017 data due to some problems with the data obtained for that year; details are given in the executive summary.
10. For Foundation Phase, subjects were "Language, literacy and communication skills" (LCE), "Mathematical development" (MDT), and "Personal and social development, well-being and cultural diversity" (PSD). For KS2 and KS3, subjects were English, mathematics and science (we have not considered Welsh here, given the primary interest in English language proficiency).

Longitudinal dataset

For the analysis of progression through levels of English proficiency over time, we matched cohorts of pupils beginning Reception in 2009, 2010 and 2011 up to Y6 in 2015, 2016 and 2017. We aggregated these cohorts by year group in order to gain a larger sample size, as counts for an individual cohort within a given year for different PIE categories were in some cases very small.

Our matched dataset included those who were missing in some of these years (i.e. those who joined the cohort in Wales later than Reception, those who were absent in a given year or more and returned, and those who left the cohort during the period from Reception to Year 6) for a total of 107,333 pupils. However, our main analysis of times to progress in PIE uses an analytic sample that includes only those present throughout the period from Reception through Year 6 (N=90,476 pupils including those who were EAL and those who were English/Welsh speakers; N=5,453 including only those recorded as EAL in Reception) and who were in mainstream schools in the relevant baseline year (2009, 2010 or 2011). In any analysis that includes those who joined or left the cohort, we include those who were in mainstream schools at the time of their first valid record (N=98,741 pupils in total, with approximately N=6,500 to 7,500 pupils with EAL at any given point in time).

In addition to the pupil and school information originally provided in the PLASC data and the school variables calculated as described on page 12, we derived several pupil-level variables to aid in our analysis of time to progression. These included:

- Number of years to transition (picking up the first instance of a given level, e.g. New to English, and calculating time to first instance of the target level for a particular calculation, e.g. Early Acquisition); time could be an integer value between 1 and 6, with missing values representing a combination of those who stayed at the initial level throughout Reception to Year 6 and those who had been misclassified and were later recorded as English/Welsh speakers.
- Indicators for those who joined the cohort after Reception, left before Year 6, or left for a year or more and returned subsequently.
- Indicators for "odd" trajectories, including one for those with trajectories that suggested a decrease in PIE and one for those with a combination of EAL in some years and English/Welsh in others.
- School mobility indicators for those changing schools year-to-year, computed for each combination of years in which a pupil had valid records, as well as an "ever mobile" indicator for pupils who changed schools in any year from Reception to Year 6.

Data issues

There are several issues that needed to be considered within our analyses which must be taken into account when interpreting our findings.

First, the PIE measure in the School Census data does not distinguish between English/Welsh speakers amongst those not identified as having EAL. This is not a major concern for the analyses of time to progression in PIE, however, as those pupils classified as EAL were explicitly progressing through levels of English proficiency (not applicable to Welsh-speakers).

There were some unusual values in the original English Acquisition variable that was recoded into PIE; these made up a very small proportion of records (823 records or 0.02% of all original pupil records in Reception through Year 11 from 2009-2017); we took this to be negligible.

We also found that there was a fairly small number of pupils (3,878 or 4.3% of the 90,476 pupils in the analytic sample for our longitudinal analysis) with unexpected trajectories in terms of their development in PIE (e.g. some were recorded as EAL in some years and English/Welsh in other years; others progressed in a non-monotone increasing trajectory, i.e. they were recorded as lower in PIE in a later year than they had been previously). We did not exclude these pupils from our analyses, but we calculate all transitions from the first time at which a pupil had a particular level of PIE (i.e. we do not consider later transitions from that same level in cases where proficiency appeared to increase and then decrease).

Additionally, there were some apparent inconsistencies in the way in which the highest two levels of PIE (Competent and Fluent) were recorded. Before 2014, the number of pupils recorded as Fluent were far higher than the number recorded as Competent (see Table 2.1 and Figure 2.1, below). In 2014 and later years, the numbers of pupils in these categories appears to be approximately similar, with more Competent than Fluent pupils in 2017; the reason for this change cannot be determined based on the available data.[11] Further, the associations between these levels of PIE and achievement is counter-intuitive in FP and KS2; Competent pupils appear to outperform Fluent pupils based on the 2016 data (see Figures 2.3 and 2.4). This raises questions about the validity of these categories in terms of the way in which they were assessed and recorded; as a result, we do not place much emphasis on the transition between Competent and Fluent, instead considering the transition to "Competent or above" where appropriate.

Finally, we had some inconsistency in the 2017 data in that the number of pupils in Reception for which we had records was very low (N=5,647 compared to N=31,539 in 2016; see Tables A10 and A11 in Appendix C). We cannot ascertain the reason for this difference based on the available data, but it does raise questions about data quality for the records from 2017. For this reason, we rely on 2016 data in our cross-sectional analysis, although this issue does not affect our longitudinal data given the year group affected.

2. Cross-sectional findings

Proficiency in English over time

Table 2.1 shows the frequency and percent of pupils identified as having each level of Proficiency in English in each census from 2009-2017, as well as the total number and percent of pupils with EAL. Trends are illustrated in Figure 2.1 (excluding 2017 due to the issue with Reception pupils in that year noted above).

For the most part, the proportion of pupils recorded as EAL has remained stable over time at around 6.5% of the population. There are though distinct trends in the levels of proficiency recorded within the EAL group.

There is a general upward trend in prevalence for category A-D, but the Fluent category in particular shows a marked decrease particularly in 2010 and then again in 2014. On one hand, these trends may have been determined to some extent by changing patterns of immigration to Wales over the time period considered here. On the other hand, the simultaneous increase in the proportion of pupils recorded as Competent (D) and decrease in the proportion of pupils recorded as Fluent (E) suggests that, as noted above, there may have been changes (seemingly beginning in 2014) in the way in which pupils' English language proficiency was assessed that affected how schools made judgements between these two categories. We can speculate about possible changes in policy and practice, but the lack of availability of clear records of how Proficiency in English is assessed makes it impossible to provide conclusive reasons for the patterns observed in prevalence over time.

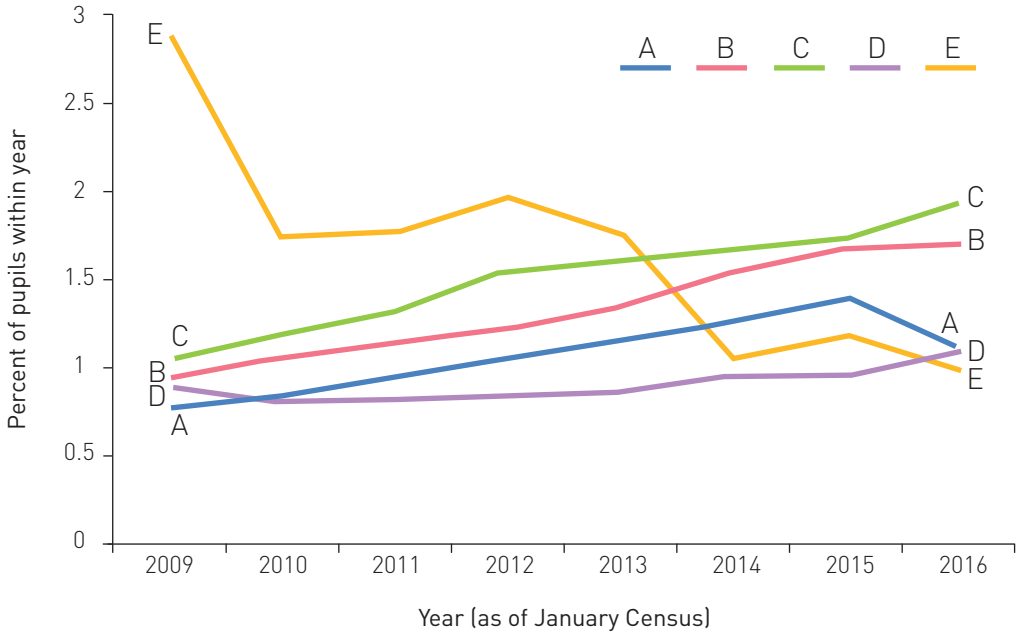
11. There were changes to the grant arrangements in 2015, combining the Minority Ethnic Achievement Grant and 10 others under the Educational Improvement Grant (Learner Support Directorate, 2015), but this does not explain the observed change in 2014.

Table 2.1: Proficiency in English (PIE) by year 2009-2017 (including pupils from Reception-Year 11)

	2009		2010		2011		2012		2013		2014		2015		2016		2017		Total	
PIE level	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
E/W	377,182	93.5	376,989	94.4	372,658	94.0	369,031	93.4	368,892	93.3	369,037	93.6	367,988	93.1	363,445	93.2	335,605	93.4	3,300,827	93.6
A	3,132	0.8	3,310	0.8	3,758	0.9	4,110	1.0	4,565	1.2	4,949	1.3	5,442	1.4	4,366	1.1	2,437	0.7	36,069	1.0
B	3,765	0.9	4,121	1.0	4,474	1.1	4,792	1.2	5,303	1.3	5,979	1.5	6,584	1.7	6,586	1.7	5,021	1.4	46,625	1.3
C	4,246	1.1	4,662	1.2	5,248	1.3	6,105	1.5	6,325	1.6	6,583	1.7	6,835	1.7	7,408	1.9	7,447	2.1	54,859	1.6
D	3,519	0.9	3,150	0.8	3,209	0.8	3,319	0.8	3,450	0.9	3,746	0.9	3,792	1.0	4,175	1.1	4,943	1.4	33,303	0.9
E	11,503	2.9	6,925	1.7	6,985	1.8	7,695	1.9	6,980	1.8	4,125	1.0	4,662	1.2	3,795	1.0	3,711	1.0	56,381	1.6
Total	403,347	100.0	399,157	100.0	396,332	100.0	395,052	100.0	395,515	100.0	394,419	100.0	395,303	100.0	389,775	100.0	359,164	100.0	3,528,064	100.0

Note: E/W=English and/or Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. Only pupils in mainstream schools are included; no information was available on 29,772 pupils in special schools. N = number.

Figure 2.1: Proficiency in English (PIE) by year 2009-2016 (including pupils from Reception-Year 11)



Proficiency in English (PIE) by pupil background characteristics

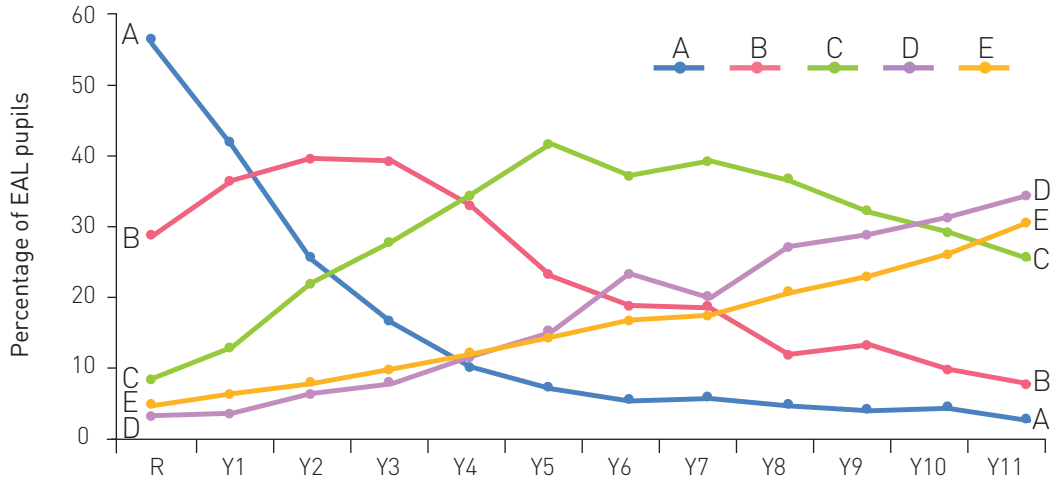
PIE by year group

Table 2.2 provides the frequency and percent of pupils with EAL and for each level of PIE by year group (R-Y11) using the 2016 data.

Table 2.2: Proficiency in English (PIE) by year group (Reception-Y11) in 2016

			Proficiency in English levels of those with EAL				
Year group	Total pupils	% EAL	A	B	C	D	E
R	31,539	7.1	55.9	28.5	8.1	2.9	4.6
Y1	34,630	7.6	41.1	36.5	12.9	3.4	6.0
Y2	34,388	8.1	25.3	39.4	21.8	6.0	7.6
Y3	35,221	7.6	16.1	39.2	27.5	7.6	9.5
Y4	33,726	7.4	10.1	32.7	34.2	11.2	11.8
Y5	33,013	6.8	6.8	22.7	41.4	15.0	14.1
Y6	32,693	6.9	5.1	18.5	36.9	23.0	16.5
Y7	31,310	6.2	5.5	18.4	39.1	19.8	17.2
Y8	31,004	6.1	4.5	11.6	36.5	26.9	20.5
Y9	30,114	5.5	3.7	13.0	31.9	28.7	22.8
Y10	31,111	5.5	4.2	9.5	29.1	31.2	26.0
Y11	31,026	5.7	2.3	7.5	25.3	34.4	30.5
Total	389,775	6.8	16.6	25.0	28.1	15.9	14.4

Figure 2.2: Proficiency in English (PIE) by year group (Reception-Y11) in 2016



Generally, the percentage of pupils with EAL was relatively consistent across years at around 6%-8% of a year group. The proportion was highest in primary school at around 7% and lower in secondary school, decreasing slightly from 6.2% in Y7 to 5.7% in Y11.

There were substantial changes in proficiency levels across years, as also shown in Figure 2.2. The proportion of pupils New to English decreased from 56% at Reception to just over 2% in Y11. Equally the numbers that were Competent/Fluent increased from 7.5% in Reception to 65% in Y11.

Due to the cross-sectional nature of these data (i.e. different pupils in the different year groups), we cannot interpret this pattern as demonstrating individual trajectories through levels of proficiency, but it provides an initial indicative snapshot of how proficiency might develop over time. We revisit pupil trajectories in PIE over time in more detail in Section 3.

Analogous tables are provided for each year from 2009-17 in Appendix C.

PIE by ethnic group

Table 2.3 presents EAL and PIE results by ethnic group.

Table 2.3: Proficiency in English (PIE) by ethnic group (pupils from Reception-Y11 in 2016)

	Proficiency in English (PIE) level							
	E/W	EAL	A	B	C	D	E	
Ethnic group	% all pupils	% all pupils	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	Total N
White British	99.7	0.3	9.6	14.2	17.8	14.5	43.9	349,248
Traveller Irish	95.4	4.6	0.0	5.6	0.0	0.0	94.4	391
WROM	88.4	11.6	49.3	34.8	11.6	0.0	4.3	597
White Other	20.8	79.2	23.1	29.0	25.9	12.6	9.5	9,719
MWBC	92.6	7.4	1.7	6.9	6.3	2.3	82.9	2,349
MWBA	83.0	17.0	13.1	18.4	20.4	11.0	37.1	1,444
MWAS	77.1	22.9	7.7	15.4	21.1	13.5	42.3	2,325
Mixed Other	63.2	36.8	15.0	24.0	24.5	14.2	22.4	4,471
Indian	15.3	84.7	10.5	20.7	29.2	19.7	19.8	2,027
Pakistani	11.9	88.1	16.2	27.1	33.1	15.4	8.2	2,906
Bangladeshi	5.3	94.7	12.8	23.7	34.4	21.0	8.1	3,097
Asian Other	18.4	81.6	13.5	24.1	27.0	19.5	15.9	880
Black Caribbean	90.4	9.6	0.0	17.6	0.0	5.9	76.5	178
Black African	15.9	84.1	13.8	24.0	32.9	19.3	10.1	2,579
Black Other	51.1	48.9	9.7	23.2	28.1	21.1	17.8	378
Chinese	12.7	87.3	18.2	22.6	24.4	17.0	17.7	699
Any Other	11.9	88.1	16.2	26.0	29.6	16.4	11.8	4,312
Unknown	87.6	12.4	9.7	16.0	28.2	21.8	24.4	1,915
Total %	93.2	6.8	1.1	1.7	1.9	1.1	1.0	100
Total N	363,200	26,315	4,359	6,578	7,408	4,175	3,795	389,515

Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent; WROM=Traveller Gypsy/Roma; MWBA=Mixed White & Black African; MWBC=Mixed White & Black Caribbean; MWAS=Mixed White & Asian. 260 pupils (0.1%) had missing information on ethnic group, and an additional 3,361 (0.9%) were in special schools with no information on PIE. N = number.

There is some apparent variation across ethnic groups in the proportion of pupils classified as EAL and at each level of PIE based on the 2016 data (see Table 2.3). The White Other (79.2%), Asian Other (81.6%), Black African (84.1%), Indian (84.7%), Chinese (87.3%), Pakistani (88.1%), Any Other (88.1%) and Bangladeshi (94.7%) groups, for example, are more likely than others to be classified as EAL in general. Amongst those classified as EAL within each ethnic group, the Traveller Gypsy/Roma (49.3%) and White Other (23.1%) were proportionally the most frequently classified as New to English, while the Traveller Irish (94.4%) and Mixed White and Caribbean (82.9%) more likely than other groups to be classified as Fluent.

There are some trends in ethnic group prevalence over time that are worth remarking on here, as changing immigration patterns over time may have contributed to the likelihood of certain groups being identified as having lower levels of English language proficiency. In particular, the White Other group has increased from 1.4% to 2.5% of the total population between 2009 and 2017 and there was a decrease in the proportion recorded as Unknown (from 1.3% in 2009 to 0.5% in 2017), while the prevalence of most other groups has not changed greatly over time. Appendix D provides a full tabulation of frequencies and percentages for each ethnic group in each year from 2009-17.

PIE by entitlement to FSM

Table 2.4 shows that overall percentages of pupils with EAL and each proficiency level are quite consistent across pupils with and without FSM eligibility (as a proxy for socio-economic deprivation). This seems to suggest that deprivation is not an especially influential factor, although it is possible that a finer-grained measure of family income or neighbourhood deprivation might have yielded different results. We further assess this relationship longitudinally in Section 3 of this report.

Table 2.4: Proficiency in English (PIE) by FSM eligibility (pupils from Reception-Y11) in 2016

	Free School Meal eligibility					
	Eligible		Ineligible		Overall	
PIE level	N	%	N	%	N	%
E/W	296,673	93.2	66,772	93.6	363,445	93.2
EAL	21,758	6.8	4,572	6.4	26,330	6.8
		% of EAL		% of EAL		% of EAL
A	3,557	16.3	809	17.7	4,366	16.6
B	5,351	24.6	1,235	27.0	6,586	25.0
C	6,145	28.2	1,263	27.6	7,408	28.1
D	3,488	16.0	687	15.0	4,175	15.9
E	3,217	14.8	578	12.6	3,795	14.4
Total	318,431	100.0	71,344	100.0	389,775	100.0

Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,361 pupils (0.9%) were in special schools with no information on PIE. N = number.

PIE by Special Educational Needs (SEN)

Table 2.5 provides frequencies and percentages of pupils at each level of English proficiency by level of SEN, ordered from lowest to highest level of need (School Action, School Action Plus, and Statemented respectively).[12]

Pupils with SEN are slightly less likely to be recorded as having EAL (6%) than pupils without SEN (7%). However, those EAL pupils who have recorded SEN tend to be more likely to be New to English or at Early Acquisition (approaching 60%), than those EAL pupils without SEN (37%).

EAL is not a special educational need, and pupils whose only additional need is support in English language learning should not be recorded as having SEN. However, it may be that for some, particularly older pupils, the lower Proficiency in English is a reflection of wider learning difficulties, as indicated by the SEN.

Table 2.5: Proficiency in English (PIE) by level of Special Educational Needs (SEN) identification (pupils from Reception-Y11) in 2016

	SEN provision (level of need)									
	None		School Action		School Action Plus		Statement		Total	
PIE level	N	%	N	%	N	%	N	%	N	%
E/W	274,447	93.0	52,859	93.5	29,196	94.6	6,943	94.1	363,445	93.2
EAL	20,529	7.0	3,693	6.5	1,669	5.4	439	5.9	26,330	6.8
		% of EAL		% of EAL		% of EAL		% of EAL		% of EAL
A	3,029	14.8	740	20.0	458	27.4	139	31.7	4,366	16.6
B	4,598	22.4	1,297	35.1	545	32.7	146	33.3	6,586	25.0
C	5,903	28.8	999	27.1	412	24.7	94	21.4	7,408	28.1
D	3,660	17.8	359	9.7	133	8.0	23	5.2	4,175	15.9
E	3,339	16.3	298	8.1	121	7.2	37	8.4	3,795	14.4
Total	294,976	100.0	56,552	100.0	30,865	100.0	7,382	100.0	389,775	100.0

Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,361 pupils (0.9%) were in special schools with no information on PIE. N = number.

12. School Action involves a judgement within the school that there is a need for additional support/provision; School Action Plus further involves external support services (e.g. health professionals, speech and language therapists), and a Statement requires a statutory assessment undertaken when the support available via School Action or School Action Plus is not sufficient to meet a child's needs.

PIE by gender

Table 2.6 provides frequencies and percentages of pupils at each level of English proficiency by gender in 2016. The overall proportions of boys and girls classified as English/Welsh speakers and with EAL are nearly identical. Although slightly higher proportions of EAL boys are recorded as New to English, Early Acquisition or Developing Competence and slightly higher proportions of EAL girls are recorded as Competent or Fluent, these differences are minor.

Table 2.6: Proficiency in English (PIE) by gender (pupils from Reception-Y11) in 2016

	Gender					
	Girl		Boy		Overall	
PIE level	N	%	N	%	N	%
E/W	178,121	93.4	185,324	93.1	363,445	93.2
EAL	12,670	6.6	13,660	6.9	26,330	6.8
		% of EAL		% of EAL		% of EAL
A	1,958	15.5	2,408	17.6	4,366	16.6
B	3,032	23.9	3,554	26.0	6,586	25.0
C	3,540	27.9	3,868	28.3	7,408	28.1
D	2,173	17.2	2,002	14.7	4,175	15.9
E	1,967	15.5	1,828	13.4	3,795	14.4
Total	190,791	100.0	198,984	100.0	389,775	100.0

Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,361 pupils (0.9%) were in special schools with no information on PIE. N = number.

Proficiency in English and end of Key Stage attainment

In this section, we examine relationships between PIE and achievement in Wales in the Foundation Phase (FP), Key Stage 2 (KS2), Key Stage 3 (KS3), and Key Stage 4 (KS4). Up until KS4, achievement is measured via Teacher Assessment (TA). We focus on three subjects for each Key Stage except for KS4, for which the data included only the total number of points (Capped Points) earned across subjects. We consider both mean achievement and the proportions of pupils achieving expected standards across levels of PIE for each age group.

Table 2.7: Achievement (Teacher Assessment) by Proficiency in English (PIE) in 2016: Foundation Phase, Key Stage 2 and Key Stage 3

	FPI/CSI		English				Mathematics				Science*				Total N
	N	% achieving expected standard	N	% achieving expected standard	M	SD	N	% achieving expected standard	M	SD	N	% achieving expected standard	M	SD	Pupils in year group
Foundation Phase (Year 2, age 7)															
E/W	31,113	88.4	23,570	89.6	5.23	0.76	31,086	91.1	5.26	0.72	31,086	95.4	5.53	0.69	31,589
A	614	68.7	600	70.5	4.76	0.89	611	75.5	4.86	0.84	611	87.7	5.16	0.80	708
B	1,050	89.1	1,035	90.6	5.14	0.60	1,047	92.5	5.19	0.66	1,047	96.6	5.48	0.59	1,102
C	594	96.3	582	97.3	5.47	0.65	594	97.6	5.48	0.59	594	99.0	5.70	0.54	609
D	161	99.4	156	98.1	5.61	0.80	161	98.8	5.62	0.66	161	100.0	5.83	0.38	168
E	204	92.6	192	92.7	5.42	0.71	204	93.1	5.36	0.69	204	96.1	5.65	0.60	212
Total	33,736	88.3	26,135	89.4	5.23	0.76	33,703	91.0	5.25	0.72	33,703	95.4	5.53	0.69	34,388
Key Stage 2 (Year 6, age 11)															
E/W	30,148	89.8	30,117	91.7	4.34	0.71	30,117	92.1	4.35	0.71	30,115	93.1	4.35	0.66	30,437
A	77	46.8	74	51.4	3.38	1.22	74	58.1	3.62	1.17	74	55.4	3.49	1.18	115
B	381	69.0	380	71.8	3.74	0.68	380	79.5	3.94	0.77	380	76.1	3.85	0.68	417
C	816	93.3	816	93.6	4.25	0.62	816	95.2	4.39	0.65	816	95.7	4.32	0.61	832
D	506	98.8	506	99.0	4.65	0.56	506	98.8	4.71	0.58	506	99.0	4.65	0.52	520
E	369	96.5	369	97.8	4.65	0.60	369	96.5	4.69	0.66	369	97.8	4.62	0.55	372
Total	32,297	89.8	32,262	91.6	4.34	0.72	32,262	92.1	4.36	0.71	32,260	93.0	4.35	0.67	32,693
Key Stage 3 (Year 9, age 14)															
E/W	28,089	87.8	28,046	91.3	5.67	0.97	28,047	91.8	5.86	1.06	28,040	94.8	5.84	0.91	28,447
A	47	31.9	44	43.2	3.95	1.28	47	55.3	4.74	1.54	47	48.9	4.49	1.20	62
B	191	45.0	191	50.8	4.41	1.00	191	63.9	4.86	1.31	191	73.8	4.94	0.93	216
C	520	84.4	520	88.7	5.43	0.84	520	91.3	5.68	0.96	520	94.0	5.62	0.84	531
D	471	96.6	471	98.1	5.95	0.82	471	97.7	6.24	0.89	471	98.5	6.16	0.85	478
E	374	96.8	374	98.1	6.25	0.82	374	98.1	6.60	0.98	374	98.7	6.44	0.88	380
Total	29,692	87.6	29,646	91.1	5.67	0.98	29,650	91.8	5.87	1.07	29,643	94.7	5.84	0.92	30,114

Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent; FPI=Foundation Phase Indicator; CSI=Core Subject Indicator (Key Stages 2 and 3); for Foundation Phase, Science is instead Personal and Social Development. Only pupils in mainstream schools are included. N = number.

Foundation Phase (FP) achievement by PIE

Achievement is based on TA levels normally assessed at the end of Y2 (age 7). Here, we focus on outcomes in "Language, literacy and communication skills" (LCE), "Mathematical development" (MDT) and "Personal and social development, well-being and cultural diversity" (PSD). The expected outcome for this age group is 5 or above in all three of these areas (Statistics for Wales, 2017a).[13] Table 2.7 provides the proportions of pupils achieving expected standards in each subject as well as in the FP Indicator (5 or above in LCE, MDT and PSD), as well as descriptive statistics for TA levels for each level of PIE.

Of the English/Welsh speaking pupils, 88.4% achieved the overall FP Indicator expected standard; fewer of the New to English group (68.7%) achieved this standard, while larger percentages of pupils at each of the other levels of PIE achieved the expected standard than did English/Welsh speaking pupils. This pattern was consistent across each of LCE, MDT and PSD. As mentioned above in Section 1, it is worth noting that in FP a greater proportion of pupils were missing LCE TA outcomes than was the case for the other subjects or Key Stages; results must therefore be interpreted with caution for LCE, as it is likely that at least some of the pupils missing this outcome were not assessed specifically because of low Proficiency in English.

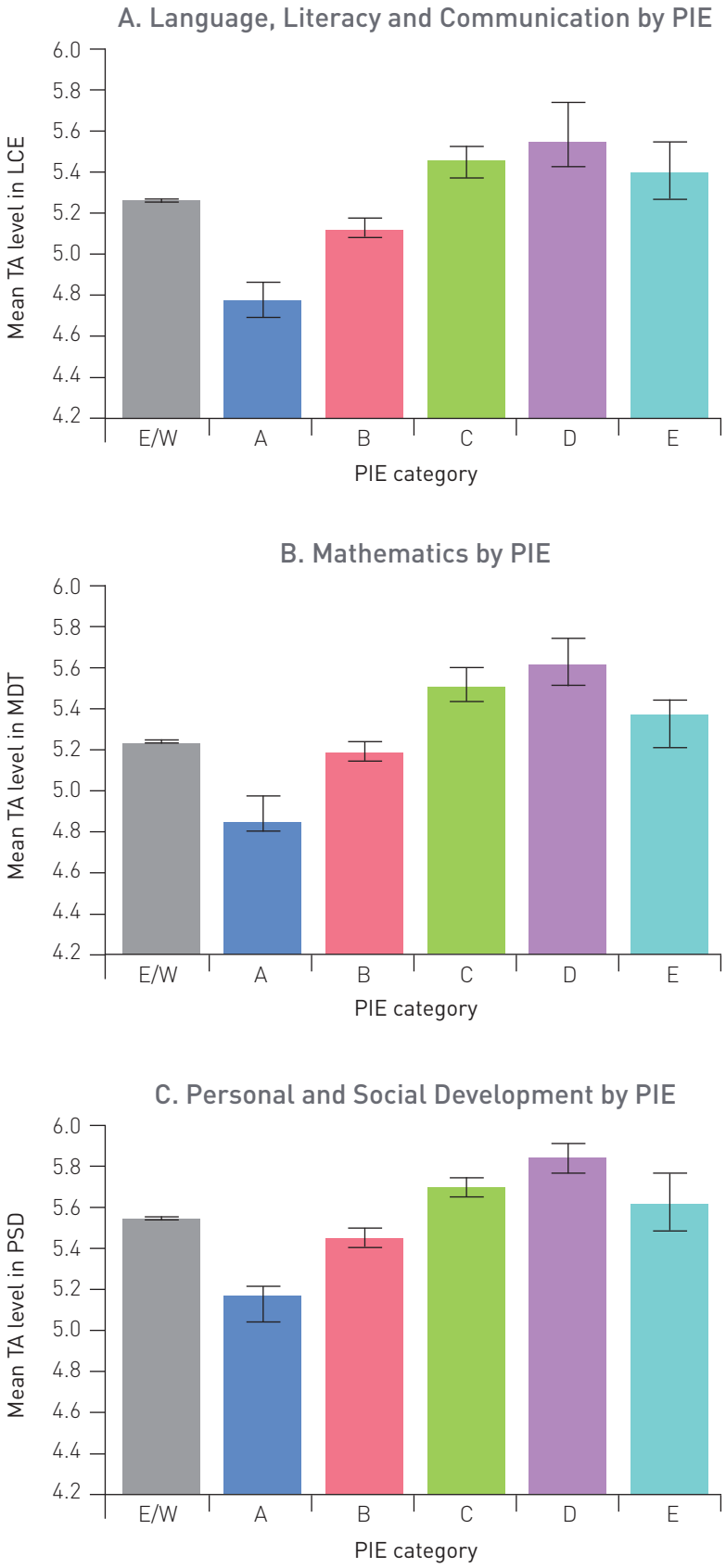
In LCE, Figure 2.3A shows that English/Welsh speaking pupils (M=5.23) outperformed pupils New to English (M=4.76) and those at the Early Acquisition stage (M=5.14), but on average were outperformed by pupils Developing Competence (M=5.47), Competent (M=5.61) and Fluent (M=5.42). Although (as noted above) the Competent versus Fluent average achievement appears to be counter-intuitive, the differences between the groups with the highest three levels of PIE (based on 95% confidence intervals) does not appear to be significant.

In Maths, the pattern is similar to that of LCE. Figure 2.3B shows that English/Welsh speaking pupils (M=5.26) outperformed pupils who were New to English (M=4.86), performed approximately equally to those with Early Acquisition (M=5.19), but were on average outperformed by pupils with Developing Competence (M=5.48), Competent (M=5.62) and Fluent (M=5.36). Again, pupils rated as Competent do appear on average to significantly outperform pupils rated as Fluent. This is mathematics, but it is still counter-intuitive and again underscores the question of the validity of the recorded distinction between Competent and Fluent levels of PIE. While we cannot determine the reason for these results based on the available data, some previous research has suggested that not enough attention may be paid to the assessment/support of pupils with higher levels of PIE (Learner Support Directorate, 2015).

In PSD, Figure 2.3C shows a similar pattern to that of Maths, though with generally higher average outcomes across levels of PIE. English/Welsh speaking pupils (M=5.53) outperformed pupils New to English (M=5.16) and to some extent Early Acquisition (M=5.48), but on average were outperformed by EAL pupils rated as Developing Competence (M=5.70), Competent (M=5.83) and Fluent (M=5.65) in English. Again, Competent pupils outperform Fluent pupils on average, and this appears to be borderline significant.

13. While the three broad areas of assessment in the Foundation Phase in Wales correspond roughly to those used in England in the Foundation Stage, it is important to note that the Foundation Phase assessment in Wales is distinct in that it is designed to be used with a group of pupils who are two years older (Y2, compared to Reception in England).

Figure 2.3: Foundation Phase (Year 2, age 7) mean Teacher Assessment (TA) outcomes in English, Maths and Science by Proficiency in English (PIE) category in 2016



Note: E/W=English and/or Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent; error bars displayed are 95% confidence intervals for the mean; FP=Foundation Phase; LCE=Language, literacy and communication skills – English; MDT=Mathematical development; PSD=Personal and social development, well-being and cultural diversity. Only pupils in mainstream schools with valid Key Stage Teacher Assessment values are included.

Key Stage 2 achievement by PIE

KS2 achievement is based on TA levels normally assessed at the end of Y6 (age 11). Here, we focus on outcomes in English, Mathematics and Science. The expected outcome for this age group is 4 or above in all three of these areas (Statistics for Wales, 2017a). Table 2.7 provides the mean TA level and the proportions of pupils achieving expected standards in each subject, as well as in the Core Subject Indicator (CSI) of level 4 or above in all of English/Welsh, Mathematics, and Science for each level of PIE.

Of the English/Welsh speaking pupils, 89.8% achieved the CSI expected standard. Fewer of the New to English (46.8%) and Early Acquisition (69.0%) pupils achieved this standard. It is interesting that EAL pupils who were rated as Developing Competence (93.3%) performed better than their English/Welsh speaking peers, as did those who are Competent (98.8%) and Fluent (96.5%). This pattern in terms of the percentages at expected level or above was consistent across each individual subject.

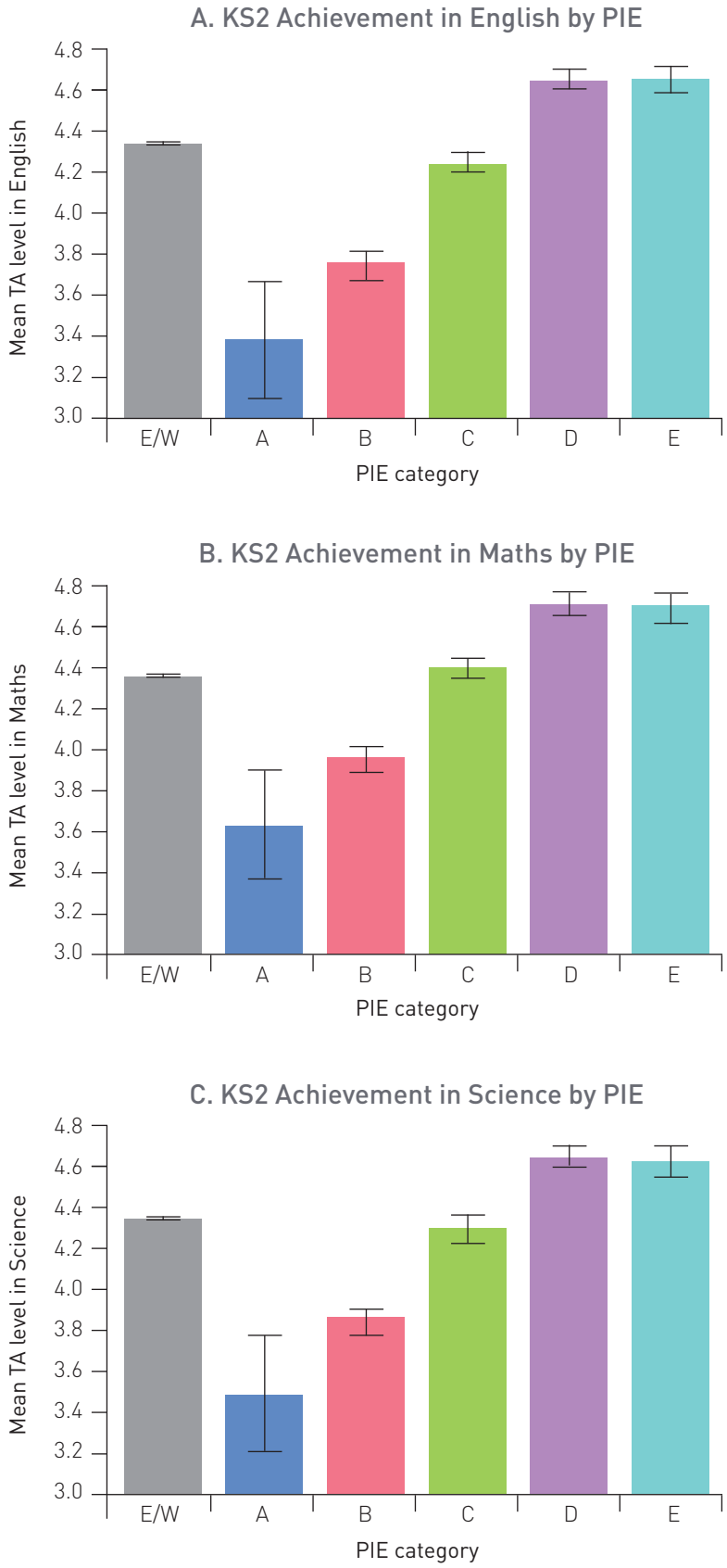
In English, Figure 2.4A shows that English/Welsh speaking pupils (M=4.34, SD=0.71) outperformed pupils with New to English (M=3.38, SD=1.22), Early Acquisition (M=3.74, SD=0.68) and to some extent Developing Competence (M=4.25, SD=0.62) PIE levels, but were outperformed by pupils with Competent (M=4.65, SD=0.57) and Fluent (M=4.65, SD=0.60) PIE levels, on average. In KS2, unlike FP, it appears that Competent and Fluent pupils performed equally well in English, on average.

In Mathematics, the pattern is roughly similar to that of English. Figure 2.4B shows that English/Welsh speaking pupils (M=4.35, SD=0.71) outperformed pupils who were New to English (M=3.62, SD=1.17) and those with Early Acquisition (M=3.94, SD=0.77), approximately the same as those with Developing Competence (M=4.39, SD=0.65), and were outperformed by pupils who were Competent (M=4.71, SD=0.59) and Fluent (M=4.69, SD=0.66), on average. As was the case in English, Competent and Fluent pupils did not perform significantly differently in Mathematics in KS2.

In Science, Figure 2.4C shows a similar pattern to that of Mathematics, though with generally higher average outcomes across levels of PIE. English/Welsh speaking pupils (M=4.35, SD=0.67) outperformed pupils who were New to English (M=3.49, SD=1.19) and those with Early Acquisition (M=3.85, SD=0.68), approximately the same as those with Developing Competence (M=4.32, SD=0.61), and were outperformed by pupils who were Competent (M=4.65, SD=0.52) and Fluent (M=4.62, SD=0.55), on average. As was the case in English and Mathematics, Competent and Fluent pupils did not perform significantly differently in Science in KS2.

Appendix E shows the distributions of outcomes at Key Stage 2.

Figure 2.4: Key Stage 2 (Year 6, age 11) mean Teacher Assessment outcomes in English, Maths and Science by Proficiency in English (PIE) category in 2016



Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent; error bars displayed are 95% confidence intervals for the mean. Only pupils in mainstream schools with valid Key Stage Teacher Assessment values are included.

Key Stage 3 achievement by PIE

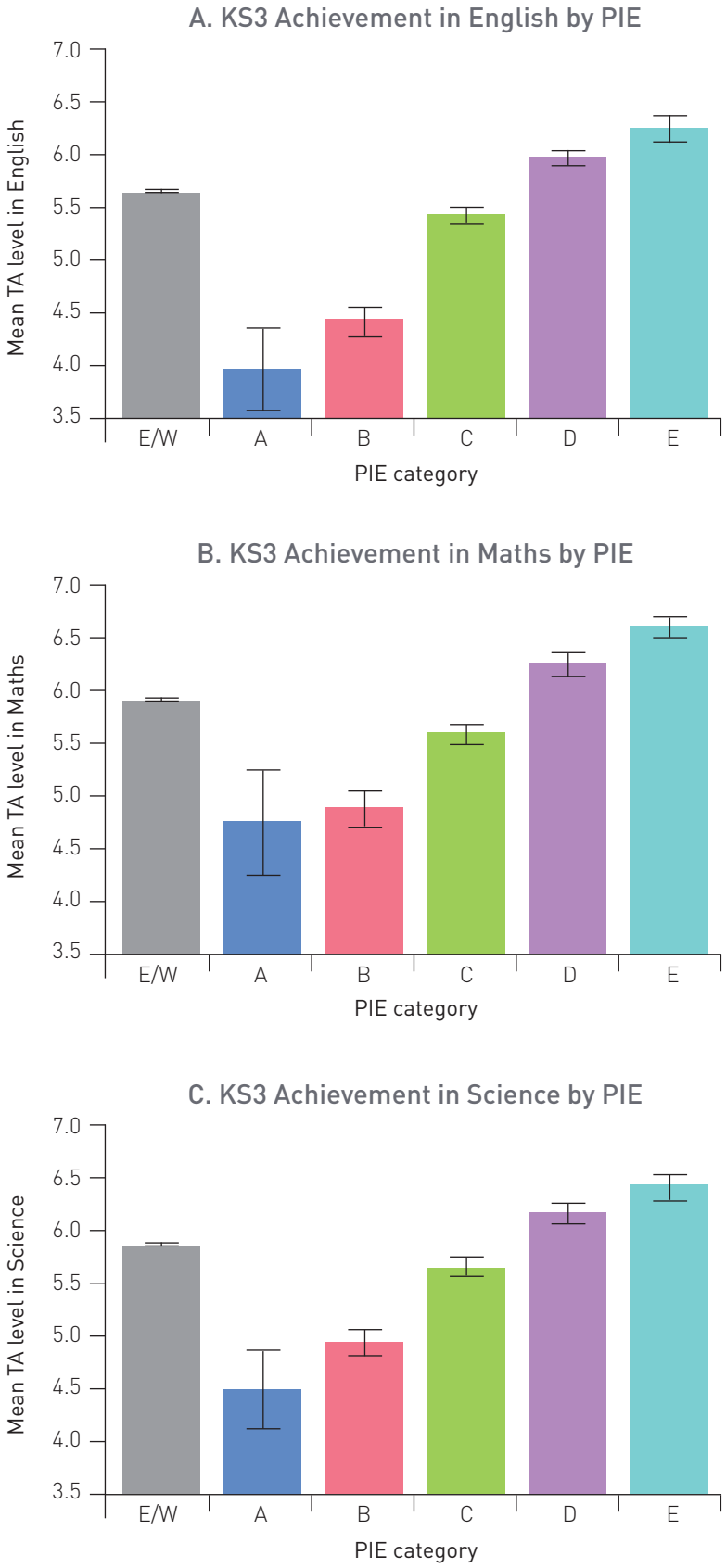
KS3 achievement is based on TA levels normally assessed at the end of Y9 (age 14). As in KS2, we focus on outcomes in English, Mathematics and Science. The expected outcome for this age group is 5 or above in all three of these areas (Statistics for Wales, 2017a). Table 2.7 provides the proportions of pupils achieving expected standards in each subject as well as in the Core Subject Indicator (CSI; 5 or above in English/Welsh, Mathematics, and Science), as well as descriptive statistics for TA levels for each level of PIE. Of the English/Welsh speaking pupils, 87.8% achieved the overall CSI expected standard; fewer of the New to English (31.9%), Early Acquisition (45.0%) and Developing Competence (84.4%) groups achieved this standard, while larger percentages of pupils at the two highest levels of PIE achieved the expected standard than did English/Welsh speaking pupils. This pattern was consistent across each individual subject, although the differences between the English/Welsh speaking and Developing Competence groups were smaller in Mathematics and Science than in English and the CSI. Taking these results together with those from FP and KS2, there is some indication of widening achievement gaps for pupils in later year groups for those pupils with lower levels of PIE.

In English, Figure 2.5A shows that English/Welsh speaking pupils (M=5.67, SD=0.97) outperformed pupils with New to English (M=3.95, SD=1.28), Early Acquisition (M=4.41, SD=1.00) and Developing Competence (M=5.43, SD=0.84) PIE levels, but were outperformed by pupils who were Competent (M=5.95, SD=0.82) and Fluent (M=6.25, SD=0.82), on average. In KS3, Fluent pupils also significantly outperformed those who were Competent, though this difference was fairly small.

In Mathematics, the pattern is again roughly similar to that of English. Figure 2.5B shows that English/Welsh speaking pupils (M=5.86, SD=1.06) outperformed pupils who were New to English (M=4.74, SD=1.54), Early Acquisition (M=4.86, SD=1.31), and Developing Competence (M=5.68, SD=0.96), but were outperformed by pupils who were Competent (M=6.24, SD=0.89) and Fluent (M=6.60, SD=0.98), on average. As was the case in English, Fluent pupils outperformed those who were Competent.

In Science, Figure 2.5C again shows a similar pattern to the other two subjects. English/Welsh speaking pupils (M=5.84, SD=0.91) outperformed pupils who were New to English (M=4.49, SD=1.20) and those with Early Acquisition (M=4.94, SD=0.93), approximately the same as those with Developing Competence (M=5.62, SD=0.84), and were outperformed by pupils who were Competent (M=6.16, SD=0.85) and Fluent (M=6.44, SD=0.88), on average. Again, Fluent pupils outperformed those who were Competent.

Figure 2.5: Key Stage 3 (Y9, age 14) mean TA in English, Maths and Science by Proficiency in English (PIE) category in 2016



Note: E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent; error bars displayed are 95% confidence intervals for the mean. Only pupils in mainstream schools with valid Key Stage Teacher Assessment values are included.

Key Stage 4 achievement by PIE

Unlike the other Key Stages, KS4 achievement is based on overall points earned across subject areas assessed at the end of Y11 (age 16). The expected outcome for this age group is the level 2 inclusive threshold, which refers to achieving at level 2 including a grade A*-C in English or Welsh and Mathematics (Statistics for Wales, 2017b).

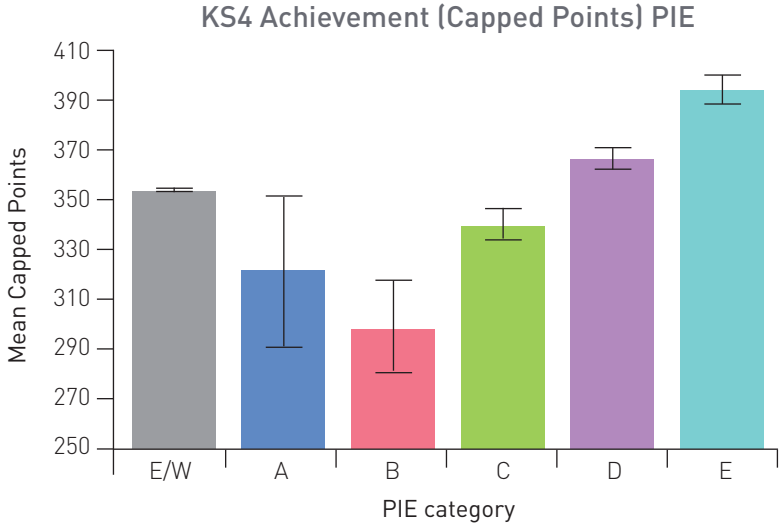
Table 2.8 shows the proportions of pupils achieving expected standards. Of the English/Welsh speaking pupils, 62.6% achieved the overall CSI expected standard. Fewer of the New to English (33.3%), Early Acquisition (21.5%) and Developing Competence (43.1%) groups achieved this standard, while larger percentages of Competent (69.8%) and Fluent (87.7%) pupils achieved the expected standard than did English/Welsh speaking pupils.

The mean best 8 capped points score is also presented in Table 2.8 and Figure 2.6. The pattern across levels of PIE in KS4 was roughly similar to that of KS3. English/Welsh speaking pupils (M=354.3) outperformed those EAL pupils rated as New to English (M=320.5) (although this was such a small group of pupils that the difference was borderline significant), Early Acquisition (M=299.3) and Developing Competence (M=338.8). However, they were outperformed by EAL pupils who were rated Competent (M=367.5) or Fluent (M=392.6) in English.

Table 2.8 and Figure 2.6: KS4 Achievement (capped points score) by Proficiency in English (PIE) in 2016

	Overall		Capped points		Total N
Pie Level	N	% achieving expected standard *	M	SD	Pupils in year group
E/W	29,128	62.6	354.3	62.8	29,266
A	21	33.3	320.5	73.0	41
B	107	21.5	299.3	92.6	132
C	422	43.1	338.8	64.3	445
D	596	69.8	367.5	46.5	606
E	529	87.7	392.6	47.7	536
Total	30,803	62.7	354.8	62.8	31,026

Note: E/W English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. Only pupils in mainstream schools with valid Key Stage Teacher Assessment values are included. N = number.



Note: Error bars displayed are 95% confidence intervals for the mean. Only pupils in mainstream schools with valid Key Stage Teacher Assessment values are included.

Variation across schools and Local Authorities (LAs)

In considering variation across schools and LAs, our analysis can only account for mainstream schools as special schools did not provide information on pupil PIE. As was the case for pupil-level descriptive information above, we focus on data from 2016 as this is the most recent and reliable year of data we obtained.

Of 1,310 total mainstream primary schools (Table 2.9), there was a wide range in terms of both the percentage of EAL pupils (0.0-92.3%) and the percentage of pupils with PIE from New to English (A) to Developing Competence (C) (0.0-91.8%) in a given school. These ranges were somewhat narrower for secondary schools (N=205), both for the percentage of EAL pupils (0.0-75.7%) and the percentage of pupils with PIE A-C (0.0-44.3%). For the percentage PIE A-C, the difference between phases may be a consequence of students having gained higher proficiency levels by the time they move into secondary school and through secondary school, as we saw earlier in the analysis of PIE by year group.

Table 2.9: 2016 School proportions EAL and PIE=A to C by school phase

Primary				
	M	SD	Min	Max
Percent EAL	5.4	11.5	0.0	92.3
Percent A to C	4.2	10.5	0.0	91.8
Number EAL	13.19	36.10	0	483
Number A to C	10.62	33.43	0	483
Secondary				
	M	SD	Min	Max
Percent EAL	5.12	9.04	0.0	75.7
Percent A to C	2.51	5.61	0.0	44.3
Number EAL	43.31	93.19	0	1,018
Number A to C	21.20	55.63	0	595

Note: Total number of schools = 1,310 in primary, 205 in secondary. Total number of pupils = 233,942 in primary, 151,240 in secondary.

Tables 2.10 (primary phase) and 2.11 (secondary phase) provides descriptive information about several school variables including school type (Community, Foundation or Voluntary/Church), language medium, and school size (quintiles), as well as descriptive information on the percent of pupils with EAL and with PIE of A to C for each category of these school context and composition variables.

Community schools were by far the most numerous school type in both phases (85.2% of primary and 85.9% of secondary schools) compared to Foundation (0.5% and 3.9%, respectively) and Voluntary (14.3% and 10.2%, respectively) schools. In general, Voluntary schools had the highest mean percentages of pupils with EAL (M=10.7% in primary and M=13.6% in secondary) and PIE levels A-C (M=8.5% in primary and M=6.0% in secondary) of all school types, while Foundation schools had the lowest average percentages of pupils with EAL (M=1.2% in primary; M=3.6% in secondary) and pupils with PIE levels A-C (M=0.9% in primary; M=1.2% in secondary).

In terms of language of school instruction, English medium schools had much higher proportions of pupils with EAL (6.6% and 7.6% in primary and secondary respectively) compared to Welsh medium schools (0.8% and 0.2% respectively). The same was true for the proportion of pupils at PIE levels A-C, which were 0.5% and 0.0% in Welsh medium primary and secondary schools respectively. Part of this may reflect demographic variation in different parts of the country. However even within LAs there were big differences. For example, within Cardiff which had the largest proportion of EAL pupils of any LA, 27.8% of pupils in English medium schools were recorded as EAL compared to 6.7% of pupils in Welsh medium schools. This may indicate selection effects, with families and pupils with EAL choosing English medium rather than Welsh medium schools. We do not know whether the use of Welsh for instruction, as well as for day-to-day school business and communication with parents, in any way bears directly on the school's approach to identifying English language proficiency.

In terms of school size, schools with more pupils tended to have higher percentages of pupils with EAL and with PIE levels A-C. We might speculate that this was because larger schools were in more highly-populated urban areas with higher levels of immigration. However, Appendix F does not provide support for this, with Table A13 indicating that larger schools are not necessarily concentrated in LAs containing major cities (Cardiff, Swansea, and Newport).

Table 2.12 displays the number and percentage of pupils with EAL for each LA, as well as the percentage of pupils with EAL at each level of PIE within each LA. There is a wide variation across LAs both in terms of overall numbers of pupils and percent of pupils with EAL (from 0.8% of only 8,051 total pupils in the Isle of Anglesey, to 22.8% of 44,143 total pupils in Cardiff). Within the EAL group, there is also considerable variation across LAs in the percentages of pupils at each level of PIE.

In the next section, we revisit these school variables to consider whether and how they relate to pupils' times to progression through the different levels of PIE.

Table 2.10: Descriptive information about primary schools in 2016: School type, language medium, and school size

Primary								Percent EAL		Percent A-C	
		N (schools)	% of schools	N (pupils)	% of pupils	M	SD	M	SD	M	SD
Type	Community	1,116	85.2	204,431	87.4	--	--	4.5	10.4	3.5	9.6
	Foundation	7	0.5	1,573	0.7	--	--	1.2	2.2	0.9	1.8
	Voluntary	187	14.3	27,938	11.9	--	--	10.7	16.0	8.5	14.2
	Total	1,310	100.0	233,942	100.0	--	--	5.4	11.5	4.2	10.5
Language medium	English medium	848	64.7	172,909	73.9	--	--	7.6	13.6	6.0	12.4
	English w/ significant Welsh	34	2.6	4,883	2.1	--	--	6.5	10.0	4.9	9.0
	Dual stream	38	2.9	7,367	3.1	--	--	2.2	3.0	1.6	2.5
	Transitional	4	0.3	472	0.2	--	--	1.4	1.7	1.1	1.4
	Welsh medium	386	29.5	48,311	20.7	--	--	0.8	2.4	0.5	1.7
	Total	1,310	100.0	233,942	100.0	--	--	5.4	11.5	4.2	10.5
School size (N pupils on roll)	Lowest quintile	265	20.2	11,948	5.1	45.1	17.0	1.4	5.2	1.0	3.8
	Low-Middle	261	19.9	26,810	11.5	102.7	15.8	3.4	8.3	2.5	7.4
	Middle quintile	261	19.9	42,821	18.3	164.1	17.1	5.6	11.6	4.4	10.2
	Middle-High	261	19.9	56,868	24.3	217.9	23.0	6.4	11.0	5.0	10.2
	Highest quintile	262	20.0	95,495	40.8	364.5	71.0	10.0	16.6	8.2	15.6
	Total	1,310	100.0	233,942	100.0	178.6	115.3	5.4	11.5	4.2	10.5

N = number.

Table 2.11: Descriptive information about secondary schools in 2016: School type, language medium, and school size

Secondary								Percent EAL		Percent A-C	
		N (schools)	% of schools	N (pupils)	% of pupils	M	SD	M	SD	M	SD
Type	Community	176	85.9	128,004	84.6	--	--	4.2	8.8	2.2	5.6
	Foundation	8	3.9	7,798	5.2	--	--	3.6	4.0	1.2	1.3
	Voluntary	21	10.2	15,438	10.2	--	--	13.6	7.9	6.0	5.8
	Total	205	100.0	151,240	100.0	--	--	5.1	9.0	2.5	5.6
Language medium	English medium	148	72.2	116,064	76.7	--	--	6.6	10.2	3.3	6.4
	English w/ significant Welsh	8	3.9	5,942	3.9	--	--	4.3	4.3	1.5	1.8
	Bilingual - 50-79% both lang.	4	2.0	2,027	1.3	--	--	1.7	1.1	0.9	0.3
	Bilingual - >=80% both lang.	10	4.9	7,277	4.8	--	--	1.2	0.6	0.5	0.4
	Bilingual - >=80% Welsh	19	9.3	8,790	5.8	--	--	0.7	0.8	0.4	0.7
	Welsh medium	16	7.8	11,140	7.4	--	--	0.2	0.5	0.0	0.0
	Total	205	100.0	151,240	100.0	--	--	5.1	9.0	2.5	5.6
School size (N pupils on roll)	Lowest quintile	41	20.0	15,530	10.3	378.8	68.1	2.7	3.4	1.1	1.6
	Low-Middle	41	20.0	22,945	15.2	559.6	54.1	5.5	11.8	2.8	7.4
	Middle quintile	42	20.5	29,946	19.8	713.0	38.0	4.2	6.1	2.4	4.1
	Middle-High	40	19.5	34,832	23.0	870.8	60.3	4.3	6.4	2.3	4.9
	Highest quintile	41	20.0	47,987	31.7	1,170.4	149.3	8.8	12.9	4.0	7.6
	Total	205	100.0	151,240	100.0	737.8	283.4	5.1	9.0	2.5	5.6

N = number.

Table 2.12: LA frequency and percent of pupils with EAL and PIE in 2016 (R-Y11)

	N (Primary schools)	N (Secondary schools)	N (EAL pupils)	% EAL	A % of EAL	B % of EAL	C % of EAL	D % of EAL	E % of EAL	Total N (Total pupils)
Isle of Anglesey	47	5	65	0.8	26.2	7.7	20.0	10.8	35.4	8,051
Caerphilly	75	14	273	1.1	33.0	11.7	15.0	14.7	25.6	24,465
Monmouthshire	30	4	190	2.0	26.8	14.7	12.1	7.9	38.4	9,472
Rhondda Cynon Taff	104	16	659	2.1	10.2	11.1	20.8	18.1	39.9	31,873
Torfaen	26	6	264	2.1	19.3	15.2	16.3	7.6	41.7	12,607
Pembrokeshire	61	8	322	2.2	4.0	19.9	40.1	29.5	6.5	14,619
Blaenau Gwent	23	3	211	2.6	27.0	17.5	25.1	23.2	7.1	8,162
Gwynedd	93	14	385	2.6	26.0	16.1	21.0	19.0	17.9	14,570
Powys	83	11	405	2.7	24.7	20.5	30.4	13.1	11.4	14,841
Bridgend	48	9	583	3.1	11.0	22.6	33.4	19.9	13.0	18,697
Conwy	55	7	467	3.5	22.9	18.0	32.3	19.7	7.1	13,168
Flintshire	67	12	742	3.7	15.8	34.0	26.4	13.3	10.5	19,961
Denbighshire	46	7	497	3.8	15.9	19.9	34.8	22.7	6.6	13,144
Carmarthenshire	101	12	934	4.1	14.0	19.0	16.4	15.8	34.8	22,823
Neath Port Talbot	58	11	805	4.5	2.9	9.7	12.5	17.6	57.3	18,032
Ceredigion	47	5	354	4.5	11.0	19.2	24.6	22.3	22.9	7,792
The Vale of Glamorgan	45	7	868	4.8	7.0	20.0	31.8	24.0	17.2	18,014
Merthyr Tydfil	22	4	467	6.1	13.5	28.5	28.1	14.8	15.2	7,634
Wrexham	59	9	1,284	7.5	14.6	28.6	32.6	17.2	7.0	17,038
Swansea	79	14	3,115	10.3	10.2	28.6	30.1	16.5	14.6	30,183
Newport	44	8	3,395	16.6	32.4	27.7	27.7	8.0	4.2	20,486
Cardiff	97	19	10,045	22.8	15.2	27.5	29.9	16.3	11.1	44,143
Total	1,310	205	26,330	6.8	16.6	25.0	28.1	15.9	14.4	389,775

N = number.

3. Longitudinal findings: Development of Proficiency in English over time

Literature review of previous research

Cummins (1981) emphasised the distinction between Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP). BICS includes skills such oral fluency, phonology and listening comprehension, and is characterised by conversational language that is cognitively undemanding and embedded in context. CALP reflects the greater complexity of language when it has to be used for learning complex academic subjects, including vocabulary, reading comprehension and so on. This distinction between oral language fluency and academic English proficiency has come to be widely recognised. Cummins analysed the language test scores of 5,386 immigrant students aged 11, 13 and 15 years in the Toronto school system in Canada. He calculated the length of residence of 1,200 immigrant students, born outside Canada. The mean vocabulary test scores for those who had resided in the country for seven or more years did not differ significantly from the mean for native speakers, but those who had been resident for five or less years had significantly lower scores than their native peers. For the oral fluency measures (sound discrimination and sound recognition), only those who had been resident for one to three years showed a decrement compared to native speakers. He concluded that while oral fluency may be acquired within about two years, "it takes at least five years, on the average, for immigrant children who arrive in the host country after the age of six to approach grade norms" (p148).

In another seminal study, Collier (1987) analysed cross-sectional test score data across grades 4, 6, 8 and 11 for 1,548 students with Limited English Proficiency (LEP) in a large US public school district. Achievement was assessed through standardised tests in reading, language arts, mathematics, science and social studies, and success was defined as a group mean national centile score of 50 or above, based on national norms. The study was cross-sectional with students arriving in different grades, so both number of years of schooling and age of arrival varied, but all students were placed in beginning level English language classes on arrival. The group mean centile scores for the reading tests for Grade 4 and Grade 6 averaged above 50 for students 3-4 years after arrival, giving 3-4 years of schooling as her estimate. There were two exceptions to this.

- First, students who were aged 5-7 years on arrival did not score so highly, which Collier ascribes to them not having the two years of literacy development in their L1 which their 8-11 year olds peers presumably had and which she believed helped speed their English learning. For these students she estimates 5-6 years of schooling are needed to meet grade norms.
- Second, arrivals at age 12-15 experienced much greater difficulty, which she attributes to the greater academic demands of upper secondary school, so that by the time EAL students have acquired the Proficiency in English needed to benefit from the content area classes they had fallen 2-3 years behind. She estimates 6-8 years of schooling might be needed for this age group (p633).

Summarising her work, Collier concludes that typically Limited English Proficiency (LEP) students require 4-8 years to meet national grade level norms of native speakers in all subject areas.

14. The authors do not specify exactly what this criterion was.

Hakuta, Butler and Witt (2000) report data from a large school district in San Francisco, again looking at length of exposure. 1,872 children who had been in the district since Kindergarten and were classified as English Learners were assessed annually on the IPT, a teacher completed oral language assessment, graded A-F. By Grade 2 two-thirds (67%) were classified as proficient and by Grade 4 over 90%, indicating for most students it takes between 2-4 years to acquire oral English. However, for academic proficiency, assessed by the MacMillan Informal Reading Inventory, the success criterion[14] was not achieved by 50% of pupils until Grade 4 and not achieved by nearly 90% until Grade 6, indicating academic proficiency takes between 4-6 years.

There has been only a single study of rate of English fluency acquisition in England. Demie (2013) used data from Lambeth in South London where EAL pupils have been rated by their teachers for many years using the four-stage Hilary Hester English stage of fluency in English scales (New to English, Becoming familiar with English, Becoming confident as a user of English, Fully fluent). He looked at historical data for 940 pupils in Y6-Y11 rated as 'Fully fluent' and looked retrospectively at the number of years it had taken them to reach this stage. He estimated the average was 6.2 years, though variation between different first languages suggested a typical 5-7 year window. There are a number of problems with this retrospective methodology. On the one hand it might be conservative because by starting from a base of those Fully fluent it excludes any pupils who have not progressed beyond 'Becoming confident', which may be a not insignificant proportion. On the other hand some of the EAL pupils Fully fluent in Y6-Y11 may not have started school as New to English, they may have been 'Becoming familiar' or 'Becoming confident' or may even have started as 'Fully fluent', but it is not clear how such pupils are treated in the analysis. Thus, while the overall conclusion agrees with previous research, there is some insecurity in the analysis underlying the conclusion.

It is apparent from the above that much of this research is dated, cross-sectional and inferential. The methodology, particularly in Colliers work, is questionable, as the group mean percentile tells us nothing about the distribution of proficiency across pupils, or directly about time to transfer. It is also assumed that the only barrier to learning for EAL learners is their language, whereas we know that other barriers such as poverty and low socio-economic status are also higher among language minority students. The ideal data base to make a determination of the time to acquisition of English fluency would be a longitudinal one in which individuals are followed over time from initial identification on entry to school to classification as English proficient. Some recent studies from the US have addressed this. Slama (2014) used eight waves of longitudinal data on a statewide cohort of 5,354 LEP learners as they entered Kindergarten in 2002, employing survival analysis to determine the average time to reclassification as Fluent English Proficient (FEP). The majority were reclassified as FEP and entered mainstream classrooms just over three years after entry to Kindergarten (end of Grade 2). The figure was closer to four years for Spanish speaking, low income students. This might reflect the high concentration of the later in high poverty urban schools with high proportions of ELLs, ethnic minority and low-income students, all risk factors for low academic achievement (Rios-Aguilar and Gandera, 2012). Subsequent studies with other statewide datasets beyond Massachusetts broadly replicate these findings (Burke, Morita-Mullaney & Singh, 2016 in Indiana; Thompson, 2017 in California).

Description of PIE in the aggregated cohort

In this section we replicate the approach of Slama (2014) with our dataset. We consider the development of Proficiency in English over time for a cohort of 90,476 pupils who entered Reception in 2009, 2010 or 2011, including 5,453 pupils who were recorded as EAL when they entered Reception class. We then track this cohort over their subsequent six years at primary school.

Table 3.1 displays the number and percent of pupils with and without EAL in each year for the aggregated cohort, as well as the percent of pupils at each level of PIE in each year, for pupils who had valid records for each census year from Reception to Y6. Appendix G provides descriptive information for the full cohort including those who joined or left the cohort after Reception, and Appendix H provides full descriptive information about pupil demographic characteristics in the aggregated cohort by PIE category and EAL status.

Although 6% of these pupils had EAL in Reception, only 4.8% were on record as having EAL by Y6; this suggests that some may have been misclassified or else were no longer recorded as EAL after attaining the highest level of PIE (i.e. E; Fluent). School mobility did not seem to be a driving factor in these cases (see Appendix I). This is also reflected by the numbers and proportions of pupils classified as Fluent over time, versus the numbers and proportions classified as English/Welsh speaking.

This table also gives some initial indication of the rates of progression through the various levels of PIE via decreasing numbers and proportions of pupils at level A (New to English) and increasing numbers and proportions of pupils at level D (Competent) over time.

Table 3.1: Frequency and percent of pupils by category of Proficiency in English (PIE) in the cohorts beginning Reception in 2009, 2010, and 2011

	Year Group																				
	R			Y1			Y2			Y3			Y4			Y5			Y6		
	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL
E/W	85,023	94.0		85,047	94.0		85,018	94.0		85,304	94.3		85,642	94.7		85,967	95.0		86,103	95.2	
A	2,112	2.3	38.7	1,698	1.9	31.3	1,007	1.1	18.4	608	0.7	11.8	303	0.3	6.3	170	0.2	3.8	64	0.1	1.5
B	973	1.1	17.8	1,395	1.5	25.7	1,557	1.7	28.5	1,652	1.8	31.9	1,358	1.5	28.1	960	1.1	21.3	606	0.7	13.9
C	491	0.5	9.0	583	0.6	10.7	1,006	1.1	18.4	1,286	1.4	24.9	1,660	1.8	34.3	1,853	2.0	41.1	1,660	1.8	38.0
D	320	0.4	5.9	234	0.3	4.3	348	0.4	6.4	372	0.4	7.2	513	0.6	10.6	735	0.8	16.3	1,118	1.2	25.6
E	1,557	1.7	28.6	1,519	1.7	28.0	1,540	1.7	28.2	1,254	1.4	24.2	1,000	1.1	20.7	791	0.9	17.5	925	1.0	21.2
Total EAL	5,453	6.0		5,429	6.0		5,458	6.0		5,172	5.7		4,834	5.3		4,509	5.0		4,373	4.8	
Total	90,476	100.0		90,476	100.0		90,476	100.0		90,476	100.0		90,476	100.0		90,476	100.0		90,476	100.0	

N = number.

Note: Counts and percentages given are for those pupils in mainstream schools at baseline with valid records for each year from Reception through Y6, starting in 2009, 2010 or 2011. EAL=English as an Additional Language; PIE=Proficiency in English; E/W=English/Welsh speaker; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent.

Transition times between levels of Proficiency in English

Table 3.2 summarises descriptive information about the times to transition from levels A, B, C and D in Reception, as well as cumulative frequencies of the group starting at each level of PIE who made each relevant transition in each year of primary school. Throughout this section, in order to avoid overlooking pupils who progressed by more than one level at a time, we consider all transitions to a given level or above. In other words, statistics for transitions from A to B include pupils' first transitions from A to B or *higher*.

- **For those pupils who started Reception at level A (N=2,112)**, about a third (32.3%) had progressed to level B by Y1, well over half (59.4%) had made this transition by Y2, over three-quarters (75.9%) by Y3, and nearly all (92.7%) by Y5, with an overall mean transition time of 2.4 years. Over a third (34.8%) of these pupils had progressed to level C by Y3, over half (50.7%) by Y4, two-thirds (66.0%) by Y5, and over three-quarters (78.2%) by Y6. Far fewer of the pupils who started at level A in Reception progressed to level D overall (30.8% by Y6), and even fewer progressed to level E (9.3% by Y6), though the latter may to some extent relate to an insufficiently clear distinction between levels D and E as reflected in the issues noted in Section 1 above. Figures 3.1 A-C visualise these cumulative frequencies of pupils progressing from level A in Reception to each subsequent level of PIE up to D.
- **For those pupils who started Reception at level B (N=973)**, 42.1% had progressed to level C by Y2, over half (57.9%) by Y3, over two-thirds (69.8%) by Y4, over three-quarters by Y5, and 85.6% by Y6 (see Figure 3.2A). Of the same group of pupils, approximately one-quarter (25.3%) had progressed to level D by Y4, nearly one-third by Y5 (32.9%), and over half by Y6 (51.6%; see Figure 3.2B). Only one-fifth (19.1%) of those pupils who started at level B progressed to level E by Y6.
- **For those pupils who started Reception at level C (N=491)**, around one-third (32.0%) had progressed to level D by Y3, nearly half (47.9%) by Y5, and over two-thirds (68%) by Y6. Under one-third (29.3%) of these pupils progressed to level E by Y6 (see Figure 3.2C).
- **For those pupils who started Reception at level D (n=320)**, only 98 (30.6%) had a record of progressing to level E by Y6 (see Figure 3.3 for cumulative frequencies by year).

Table 3.2: Descriptive information for times to progression in the cohort

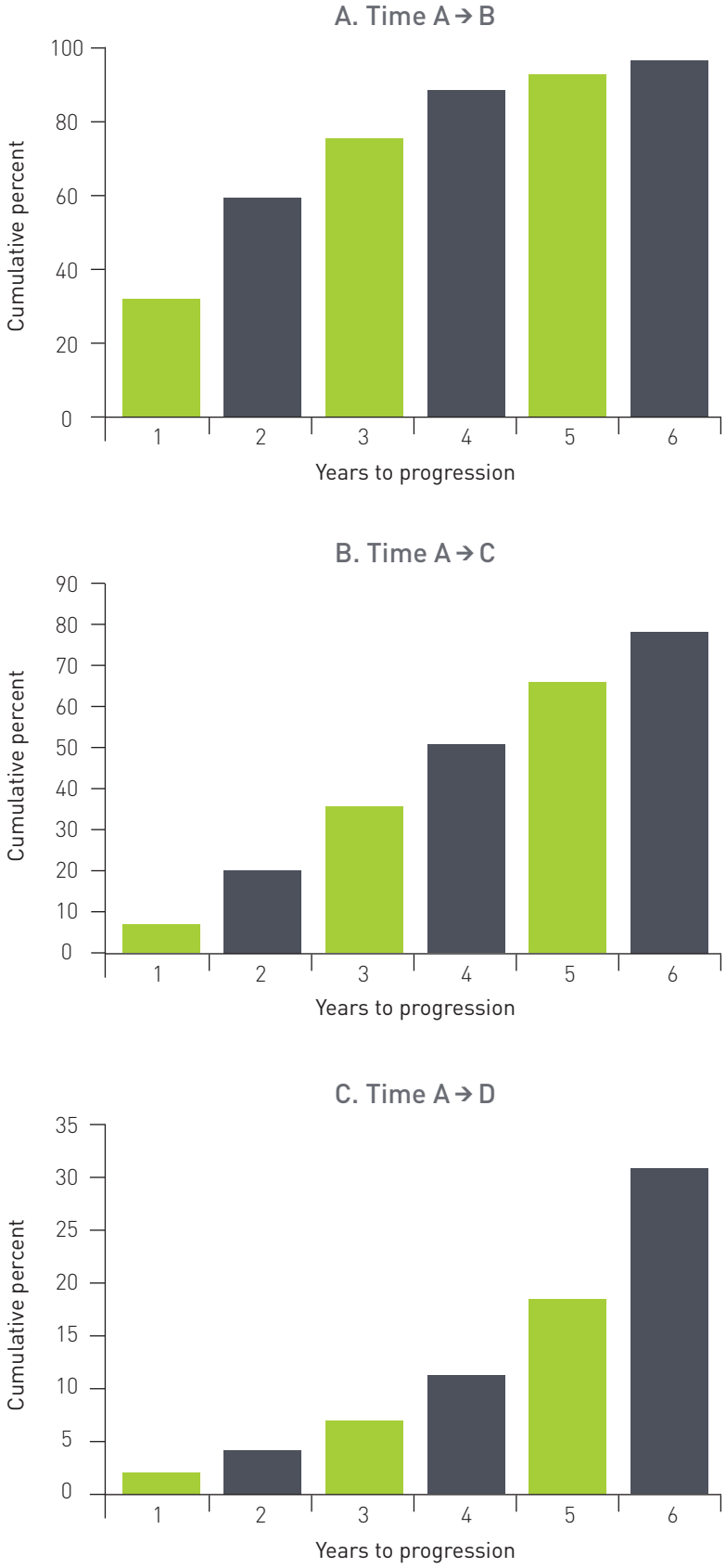
PIE in R	Transit-ion							Cumulative % progressing by...					
		Total N	N with transit-ion	Did not prog-ress by Y6	Mis-class-ified?	M	SD	1 year	2 years	3 years	4 years	5 years	6 years
A	A→B	2,112	2,031	38	43	2.4	1.4	32.3	59.4	75.9	87.5	92.7	96.2
	A→C	"	1,652	393	67	3.7	1.6	7.1	20.0	34.8	50.7	66.0	78.2
	A→D	"	650	1,366	96	4.6	1.5	1.7	4.2	7.1	11.3	18.5	30.8
	A→E	"	197	1,803	112	4.7	1.6	0.5	1.1	2.2	3.3	5.2	9.3
B	B→C	973	833	79	61	2.9	1.6	18.3	42.1	57.9	69.8	78.4	85.6
	B→D	"	502	395	76	4.3	1.7	3.7	10.6	16.6	25.3	32.9	51.6
	B→E	"	186	697	90	4.4	1.7	1.3	3.5	5.7	8.6	11.7	19.1
C	C→D	491	334	133	24	3.7	2.0	13.8	24.8	32.0	39.3	47.9	68.0
	C→E	"	144	314	33	3.9	1.9	5.1	8.8	11.6	15.1	20.6	29.3
D	D→E	320	98	87	135	3.21	1.92	8.8	13.4	18.1	20.6	24.4	30.6

Note: Only pupils in mainstream schools who had records in every year from Reception (in 2009, 2010 or 2011) through Y6 are included. Time to transition is calculated based on the first instance of a pupil being recorded at the relevant level, regardless of whether the previous level was skipped or not (e.g. if a pupil progressed from A to C without being recorded in the interim at level B). N = number.

Appendix J breaks down transition times (and numbers of pupils who did not make the transition to a particular level) by school language medium, demonstrating that only a very small percentage of the 2,112 pupils who started at "New to English" in Reception in 2009, 2010 and 2011 were in Welsh medium or bilingual schools, and that results for only pupils in English medium schools were almost identical to the above overall results.

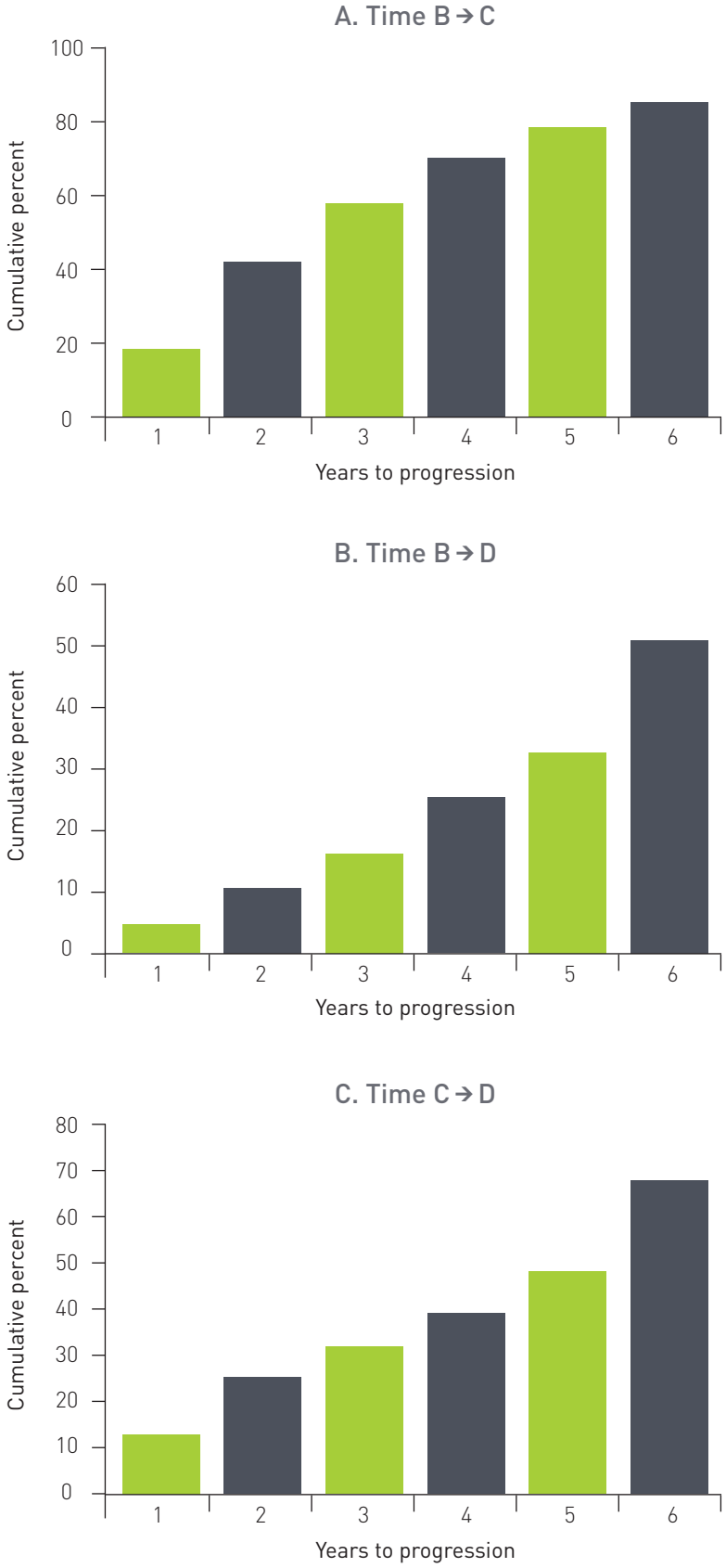
A good way to visualise these outcomes is through 'Transition Graphs', for example as shown in Figure 3.1 and 3.2.

Figure 3.1: Transition Graphs: Time to progression in Proficiency in English (PIE) for pupils starting in Reception in the New to English (A) category



Note: Of the N=2,112 pupils originally New to English in Reception in 2009-2011, 38 pupils did not progress to Early Acquisition or above by Y6 (an additional 43 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6), 393 did not progress to Developing Competence or above by Y6 (an additional 67 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6), and 1,366 did not progress to Competent or above by Y6 (an additional 96 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6).

Figure 3.2: Time to progression in Proficiency in English (PIE) for pupils starting in Reception in the Early Acquisition (B) and Developing Competence (C) categories



Note: Of the N=973 pupils with Early Acquisition in Reception in 2009-2011, 79 pupils did not progress to Developing Competence or above by Y6 (an additional 61 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6), and 395 did not progress to Competent or above by Y6 (an additional 76 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6). Of the N=491 pupils with Developing Competence in 2009-2011,133 pupils did not progress to Competent or above by Y6 (an additional 24 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6).

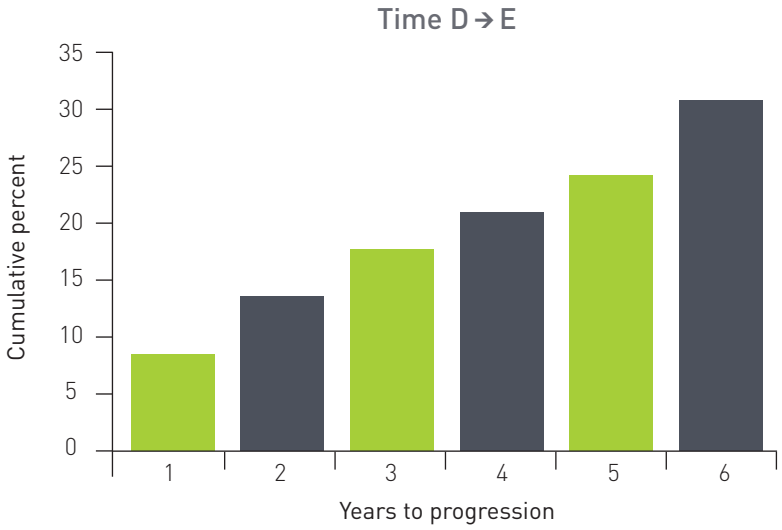
Figure 3.1 shows for all pupils starting at level A (New to English) in Reception class, the proportion who have transitioned in each subsequent year to B or above, to C or above and to D or above, shown in the three separate graphs.

Figure 3.2 uses the same format but shows the data for those starting Reception at level B (Early Acquisition) and transitioning to level C (Developing Competence) or level D (Competent), and those starting Reception at level C (Developing Competence) and transitioning to level D (Competent).

Reasons for not considering Competent and Fluent separately

As noted under "Data Issues" in Section 1 of this report, our initial examination of the data showed that there were some incongruous patterns in the numbers of pupils classified as Competent (D) and those classified as Fluent (E). It also appeared that there had been some change over time in the relative size of these groups (see Appendix C). In addition to these unexpected patterns in the frequencies of these groups, there was also an unexpected pattern in the relationship between achievement and D/E classification; the D group had higher performance than the E group, on average, in every Key Stage assessment. As this raised questions about the validity of the distinction between D and E, we proceeded to treat these as one group with regard to progression through proficiency levels. However, further research is needed to explore why these issues arose, and what they might mean in the context of school assessment practices and pupils' development of English proficiency. As there are clear distinctions between the descriptors of competencies for D and E, the unexpected patterns noted above suggest that there may be a need for improved training for practitioners involved in assessing PIE at these levels, or for an improved or more standardised moderation process.

Figure 3.3: Time to progression in Proficiency in English (PIE) for pupils starting in Reception in the Competent (D) category



Note: Of the N=320 pupils recorded as Competent in 2009, 2010 and 2011, 87 pupils did not progress to Fluent by Y6 (an additional 135 had no record of a transition but with a mix of EAL and English/Welsh speaking records between R and Y6).

Relationship between achievement and time to progression in Proficiency in English

Whereas in Section 2 we investigated relationships between concurrent levels of PIE and achievement for each Key Stage, in this section we consider the relationships between KS2 achievement and time to progression from each level of PIE in Reception for our selected cohort. Our particular interest is in the experiences of pupils over the course of primary school, so we focused on the sample of pupils who were present with valid records for each year of primary school from Reception through Y6, as noted above. If our calculated measure of progression in proficiency is valid, then we would expect to see pupils who made the transition to higher levels have better attainment at the end of KS2 than those who did not transition, and that pupils who transitioned more quickly would have higher achievement at the end of KS2 than those who took longer to transition to the same level.

Table 3.3 summarises descriptive information about the KS2 achievement of pupils who started Reception with level A, B, C or D, and either progressed to each subsequent level by Y6, did not progress to each subsequent level by Y6, or were potentially misclassified (i.e. had a mixture of records of having/not having EAL over the course of their primary education in Wales). On average, those who progressed to each subsequent level had higher KS2 TA levels than both the group that did not progress by Y6 and the group that was potentially misclassified.

Table 3.4 expands upon these patterns in more detail by providing descriptive information about pupil KS2 performance by number of years to each relevant transition between levels of PIE for the groups of pupils starting with level A, B, C or D in Reception. In general, for pupils who started at level A in Reception, those who progressed more quickly to level B had higher KS2 performance, on average. This was also broadly the case for time to progression to level C, with a small deviation from this pattern (slightly lower average performance for those who progressed in one year than those who progressed in two years; M=4.50 and M=4.61 respectively).

For those who started Reception at level B, those who progressed more quickly to level C generally had higher KS2 performance, on average, again with a small deviation (M=4.60, SD=0.55 for those who progressed in two years; M=4.62, SD=0.54 for those who progressed in three years).

Time to progress to levels D and E did not appear to have a clear relationship to KS2 attainment for pupils starting at all levels of PIE from A to D.

On the whole, these results suggest the measure of progression in Proficiency in English has good validity, with poorer outcomes for those who do not transition or transition more slowly to higher levels of proficiency.

Table 3.3: Key Stage 2 (Year 6, age 11) achievement in English by whether or not pupils progressed between various PIE levels, for groups starting in Reception at each level of PIE

	KS2 English Teacher Assessment level for pupils who...								
	Were misclassified?*			Did not progress			Progressed		
	N	M	SD	N	M	SD	N	M	SD
Time to transition from...									
A in Reception									
A → B or above	39	4.08	1.09	36	3.17	1.34	1,954	4.26	0.71
A → C or above	60	4.12	1.11	384	3.69	0.83	1,585	4.37	0.64
A → D or above	89	4.15	1.03	1,318	4.08	0.73	622	4.58	0.60
A → E	104	4.21	0.99	1,739	4.19	0.73	186	4.67	0.62
B in Reception									
B → C or above	59	4.22	1.20	75	3.95	0.84	820	4.54	0.60
B → D or above	74	4.26	1.11	388	4.24	0.69	492	4.69	0.54
B → E	88	4.33	1.06	684	4.43	0.65	182	4.70	0.59
C in Reception									
C → D or above	24	4.21	1.18	131	4.32	0.60	329	4.67	0.57
C → E	33	4.24	1.06	310	4.52	0.62	141	4.70	0.54
D in Reception									
D → E	123	4.32	0.77	85	4.53	0.55	<100	4.74	0.63

*"Misclassified?" refers to pupils with no record of the relevant transition, but with a mix of EAL and English/Welsh speaking recorded over Reception to Year 6; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. N = number.

Table 3.4: Key Stage 2 (Year 6, age 11) achievement in English by time to progression for groups starting in Reception with each level of PIE

	KS2 English Teacher Assessment level for those transitioning in ___ years																	
	1			2			3			4			5			6		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Time to transition from...																		
A in Reception																		
A → B or above	663	4.43	0.65	557	4.29	0.64	337	4.17	0.66	220	4.11	0.77	106	3.89	0.88	71	3.83	0.88
A → C or above	145	4.50	0.74	262	4.61	0.64	306	4.49	0.55	309	4.34	0.66	312	4.28	0.61	251	4.05	0.53
A → D or above	32	4.59	0.56	53	4.72	0.89	58	4.55	0.60	87	4.63	0.61	145	4.56	0.61	247	4.55	0.52
A → E	10	4.30	0.67	12	4.58	0.79	22	4.59	0.67	21	4.71	0.64	37	4.65	0.63	84	4.74	0.56
B in Reception																		
B → C or above	174	4.65	0.61	227	4.60	0.55	152	4.62	0.54	115	4.47	0.57	83	4.35	0.71	69	4.23	0.65
B → D or above	36	4.78	0.76	65	4.68	0.56	58	4.66	0.55	83	4.72	0.50	71	4.63	0.57	179	4.69	0.48
B → E	13	4.85	0.69	21	4.48	0.75	21	4.62	0.67	28	4.64	0.56	29	4.55	0.57	70	4.86	0.49
C in Reception																		
C → D or above	67	4.64	0.54	53	4.55	0.61	35	4.51	0.66	36	4.69	0.58	40	4.85	0.58	98	4.74	0.52
C → E	24	4.63	0.49	17	4.47	0.72	14	4.79	0.58	17	4.53	0.51	27	4.74	0.59	42	4.86	0.42
D in Reception																		
D → E	28	4.50	0.69	15	5.00	0.38	15	4.67	0.62	<10	4.38	0.92	12	4.83	0.72	19	5.05	0.23

Note: A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. N = number.

Time to PIE progression: Relationships to demographic background characteristics

In addition to investigating overall time to progress between levels of PIE, we also followed up the cross-sectional descriptive analysis of PIE by ethnic group, deprivation (via FSM as a proxy), SEN and gender by considering whether and how time to progression varied according to these pupil background factors. Here, we focus on background factors as reported in the baseline year (Reception) and investigate average progression times for the group who were New to English in Reception and had valid records in the PLASC data throughout Reception to Y6.

Time to PIE progression and ethnic group

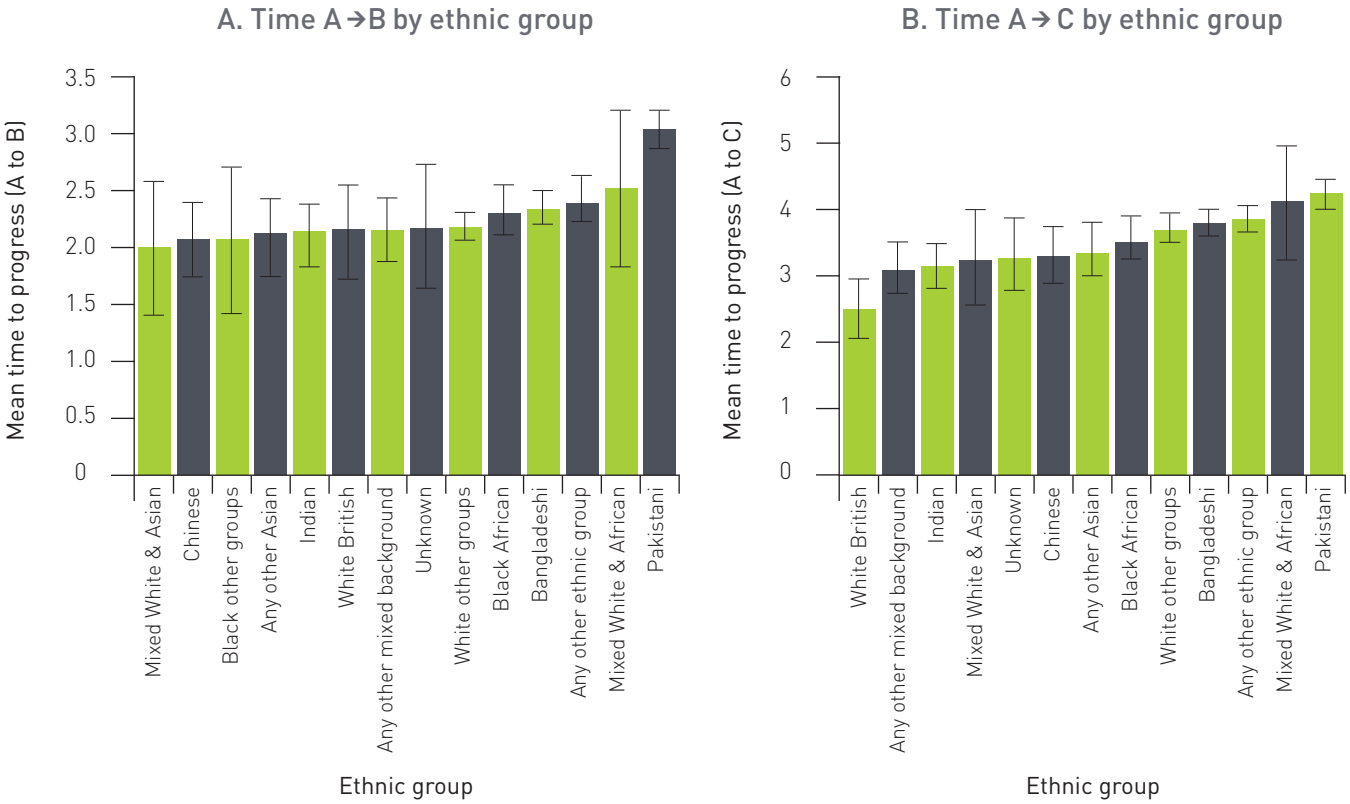
Table 3.5 provides descriptive statistics for the time to each relevant transition (to levels B, C and D) by ethnic group for pupils starting at level A in Reception. For the most part, there do not appear to be significant differences between ethnic groups in terms of their average time to each transition. The Pakistani group is an exception, with longer times to progress from A to B (Mean=3.0 years) and to C (Mean=4.19 years) than most other groups, though this is not true of the time to transition to level D (see Figures 3.4A, B and C).

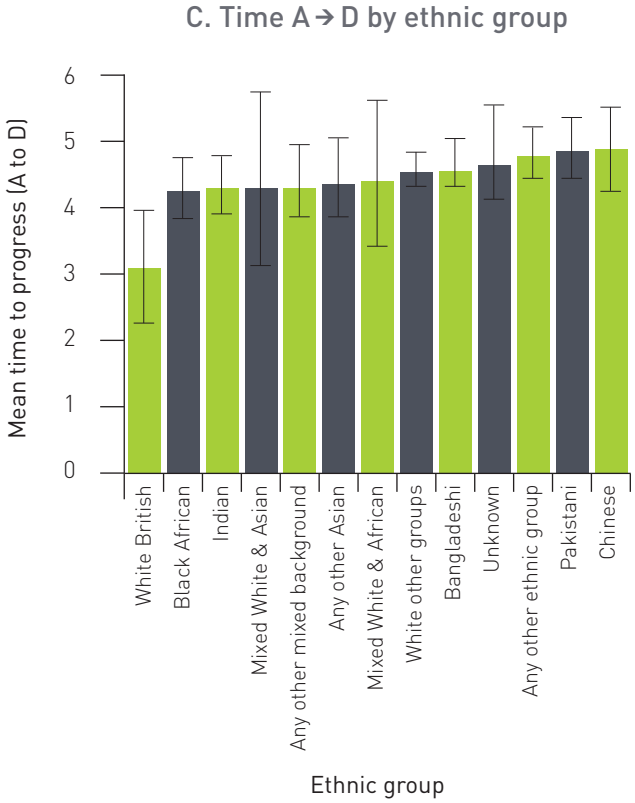
Table 3.5: Time to transition from New to English in Reception by ethnic group

		Time to transition									
	Transition	A→B			A→C			A→D			Total N starting A in R
		N	M	SD	N	M	SD	N	M	SD	
Ethnic group	Traveller	--	--	--	--	--	--	--	--	--	--
	White Other	475	2.2	1.3	389	3.8	1.6	170	4.6	1.5	498
	MWBC	--	--	--	--	--	--	--	--	--	--
	MWBA	19	2.5	1.5	17	4.1	1.7	10	4.5	1.6	20
	MWAS	23	2.0	1.4	20	3.3	1.7	10	4.4	2.0	23
	Other Mixed	81	2.1	1.2	69	3.1	1.6	37	4.4	1.6	90
	Indian	110	2.1	1.2	90	3.1	1.4	46	4.4	1.5	113
	Pakistani	307	3.0	1.5	243	4.2	1.4	67	4.9	1.5	319
	Bangladeshi	373	2.4	1.4	301	3.8	1.5	91	4.7	1.5	378
	Asian Other	65	2.1	1.4	54	3.4	1.5	20	4.5	1.4	65
	Black Caribbean	--	--	--	--	--	--	--	--	--	--
	Black African	165	2.3	1.3	130	3.6	1.8	54	4.3	1.9	170
	Black Other	15	2.1	1.3	--	--	--	--	--	--	18
	Chinese	50	2.1	1.2	47	3.3	1.5	24	4.9	1.4	51
	Any Other	278	2.4	1.4	225	3.9	1.5	88	4.9	1.4	280
	Unknown	36	2.2	1.5	29	3.3	1.5	14	4.8	1.3	41
	White British	29	2.1	1.2	25	2.5	1.1	14	3.1	1.5	39
	Total	2,031	2.4	1.4	1,652	3.7	1.6	650	4.6	1.5	2,112

Note: A=New to English, B=Early Acquisition, C=Developing Competence, D=Competent, E=Fluent. "--" denotes values for which counts were too low to report (<10). MWBA=Mixed White & Black African; MWBC=Mixed White & Black Caribbean; MWAS=Mixed White & Asian; Traveller=Traveller Gypsy/Roma. N = number.

Figure 3.4: Time to progress from New to English in Reception by ethnic group





Note: Some ethnic group categories have been omitted from these figures due to counts that were too small to report (<10). Error bars represent 95% confidence intervals.

Time to PIE progression and socio-economic deprivation

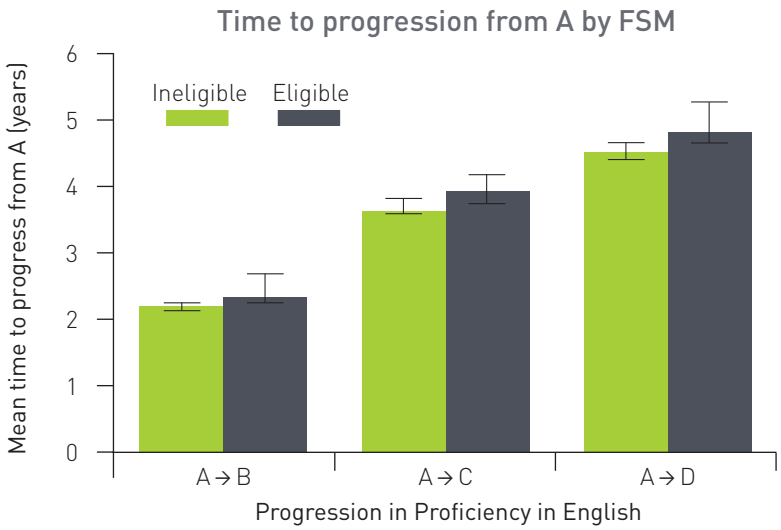
Descriptive statistics for the time to each transition for those pupils starting at level A in Reception are provided in Table 3.6 and visualised in Figure 3.5. There did not appear to be significant or substantial differences between pupils eligible for FSM and those who were not eligible (based on FSM in Reception), though on average pupils who were eligible for FSM took slightly longer to progress from level A to levels B, C and D.

Table 3.6: Time to transition from New to English in Reception by FSM, SEN and gender: Descriptive information

		Time to transition									
	Transition	A→B			A→C			A→D			Total N starting A in R
		N	M	SD	N	M	SD	N	M	SD	
FSM	Ineligible	1,686	2.4	1.4	1,382	3.7	1.6	557	4.6	1.5	1,749
	Eligible	345	2.5	1.4	270	4.0	1.5	93	4.9	1.5	363
	Total	2,031	2.4	1.4	1,652	3.7	1.6	650	4.6	1.5	2,112
SEN	None	1,719	2.3	1.3	1,428	3.7	1.5	582	4.6	1.5	1,776
	SA	185	2.8	1.6	133	3.9	1.7	38	4.3	1.7	194
	SAP	95	2.4	1.5	72	3.4	1.4	27	5.0	1.4	106
	Statement	32	2.9	1.8	19	4.0	1.8	<10	2.0	1.0	36
	Total	2,031	2.4	1.4	1,652	3.7	1.6	650	4.6	1.5	2,112
Gender	Girl	945	2.4	1.4	801	3.6	1.5	326	4.6	1.5	973
	Boy	1,086	2.4	1.4	851	3.8	1.6	324	4.6	1.6	1,139
	Total	2,031	2.4	1.4	1,652	3.7	1.6	650	4.6	1.5	2,112

Note: "--" denotes values for which counts were too low to report (<10). N = number.

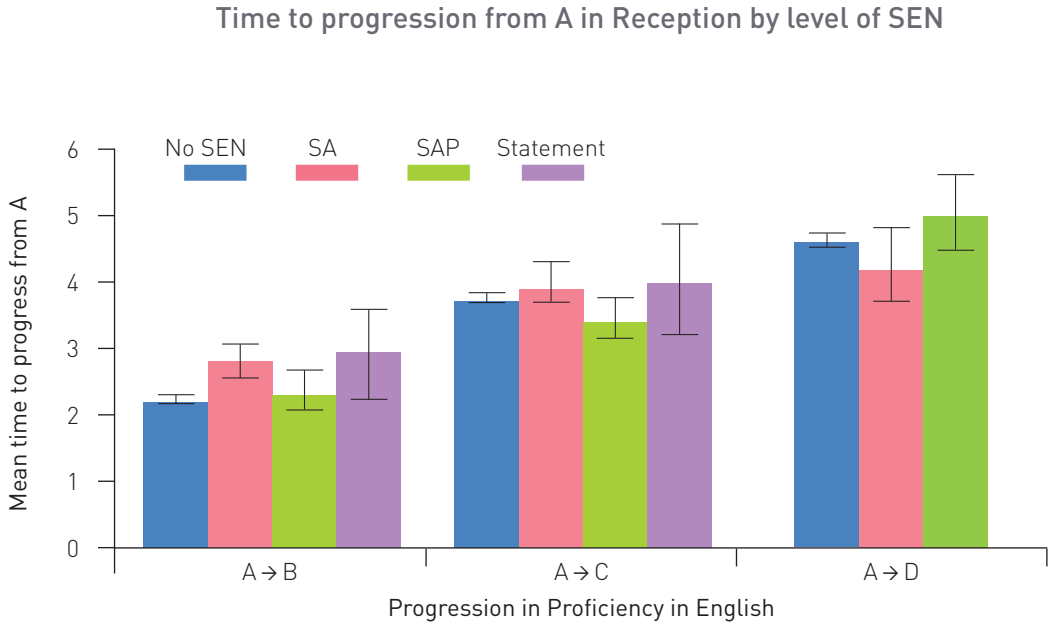
Figure 3.5: Time to progress from New to English in Reception by Free School Meal eligibility



Time to PIE progression and SEN

Descriptive statistics for the time to each transition for those pupils starting at level A in Reception are provided in Table 3.6. Few significant or substantial differences in progression from New to English to higher levels of PIE were apparent between levels of SEN, as displayed in Figure 3.6. However, pupils with no SEN identification in Reception class did progress significantly more quickly to level B than those identified at School Action (SA).

Figure 3.6: Time to progress from New to English in Reception by level of SEN

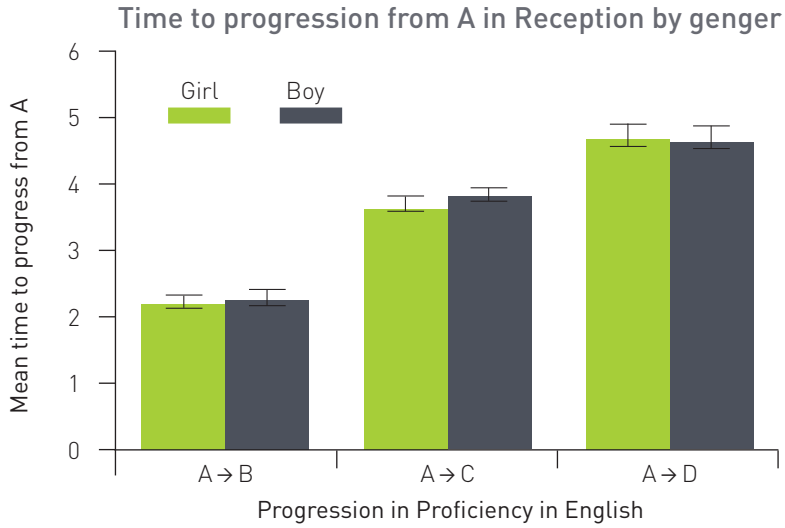


Note: Some categories have been suppressed in the above figure due to counts too low to report. SA=School Action; SAP=School Action Plus.

Time to PIE progression and gender

Descriptive statistics for the time to each transition for those pupils starting at level A in Reception are provided in Table 3.6. Based on gender (Girl/Boy) as reported in Reception, there is little to no difference between boys and girls in the time taken to progress from New to English to higher levels of proficiency during pupils' primary school careers (see Figure 3.7).

Figure 3.7: Time to progress from New to English in Reception by gender



Note: A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent.

"Newcomers" to the cohort

Up until this point, we have considered only those pupils who started school in Reception and had valid records for each year through to Y6. Some pupils "joined" the cohort later. We refer to these as "newcomers", although it is important to note that we do not have a record of whether these pupils were new to the UK or simply to the Welsh education system in the year in which they entered. Our question here is whether our 'time to transition' can be generalised more widely, or is only true for pupils who start in Reception Year. For example, is the average time to progress from level A to level B (2.4 years) the same for pupils who join the school later, say in Y2 or Y3 and so forth?

There are a reasonably large number of newcomers, as shown in Table 3.7. Of the 6,455 pupils with EAL in Y6, almost 30% had joined after Reception Year. We cannot directly compare time to PIE progression for those who entered the cohort later as we only track our cohort up to Y6, so we do not observe them for the same length of time. For example, a pupil entering in Y3 will only be observed for three years not six.

Table 3.7: Frequency and percent of pupils in Y6 with EAL by year group with first valid record

		Number/% of pupils with EAL in Y6	
		N	%
Present from R		4,569	70.8
Newcomer in Year…	1	410	6.4
	2	333	5.2
	3	320	5.0
	4	321	5.0
	5	322	5.0
	6	180	2.8
Total		6,455	100.0

Note: Only pupils who were in mainstream schools in the year in which they first had a valid record are included. N = number.

Instead, drawing on the full dataset with information on all pupils in R-Y11 between 2009-17, we compared time to transition from level A to each subsequent level of PIE for pupils starting at level A in each year group from R to Y5 (regardless of in which calendar year a pupil was in the relevant year group, and including only pupils with at least six subsequent years' worth of valid data, to allow for equitable comparisons).

Table 3.8 provides descriptive statistics and cumulative frequencies for the transition times for pupils starting at level A in each year group. These results seem to indicate no strong relationship between year group at which pupils were first recorded at level A and time to transition; although transition times appear relatively shorter for those starting at A in Y4 and Y5, it is worth noting that there were nearly no pupils with more than seven years' worth of PIE data in these groups, which will have biased the Y4 and Y5 means downwards. The cumulative frequencies (up to six years from the starting year group) are more illuminating, showing no strong or consistent patterns across year groups and different transitions from A to higher levels. The one exception to this is that it is possible pupils starting at A in Y5 may have been more likely to skip past levels B and C, as smaller percentages of this group had progressed to B and C within six years, but greater percentages had progressed to D and E.

We conclude that our estimates of 'transition times' from level A to higher levels are robust, regardless of whether the pupil starts school in Reception or anytime up to Y5 (the latest age at which we can observe pupils for a full six years).

Table 3.8: Transition times by year group of first record at level A (for pupils starting at A in R-Y5)

Transi-ton	A in Year Group	Total N	N with transit-ion	M	SD	Cumulative % progressing by...							
						1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years
A→B	R	2,170	2,100	2.4	1.5	31.9	58.7	75.3	87.0	92.3	95.9	96.6	96.8
	Y1	746	726	2.0	1.4	46.6	73.3	84.2	91.2	93.0	96.4	97.3	97.3
	Y2	383	372	2.3	1.6	41.3	67.4	81.2	86.4	89.8	95.6	96.6	97.1
	Y3	223	217	2.1	1.4	43.0	70.4	82.1	90.1	94.6	96.9	96.9	97.3
	Y4	260	202	2.0	1.2	32.7	59.6	70.0	73.8	75.8	77.7	--	--
	Y5	227	184	1.8	1.0	37.9	66.1	74.4	79.7	80.6	81.1	--	--
A→C	R	2,170	1,829	4.0	1.8	7.1	19.8	34.4	50.4	65.5	77.6	82.4	84.3
	Y1	746	659	3.9	1.8	9.7	21.8	37.0	52.3	70.9	81.4	86.2	88.3
	Y2	383	337	3.9	1.9	7.3	24.3	41.3	55.4	65.8	79.9	83.6	88.0
	Y3	223	204	3.5	1.8	11.7	29.6	48.4	66.4	76.7	84.8	89.7	91.5
	Y4	260	191	3.2	1.5	8.5	25.8	48.8	58.8	66.5	71.2	--	--
	Y5	227	165	3.0	1.4	12.8	30.4	46.7	58.1	70.0	72.7	--	--
A→D	R	2,170	855	5.2	1.8	1.7	4.2	7.0	11.2	18.4	30.5	35.8	39.4
	Y1	746	374	5.3	2.0	2.4	5.5	10.6	14.6	24.5	34.3	41.6	50.1
	Y2	383	179	5.2	2.0	1.8	5.2	10.7	15.7	24.8	33.2	38.1	46.7
	Y3	223	111	5.2	1.9	1.3	5.4	10.8	16.1	27.4	35.0	42.2	49.8
	Y4	260	110	4.7	1.7	1.9	5.0	11.5	16.9	26.5	35.0	--	--
	Y5	227	101	4.0	1.7	5.3	12.8	15.9	22.0	34.4	44.5	--	--
A→E	R	2,170	267	5.4	1.9	0.6	1.2	2.2	3.3	5.2	9.3	10.6	12.3
	Y1	746	120	5.2	2.1	0.8	2.3	4.2	5.2	8.6	11.3	13.1	16.1
	Y2	383	51	5.1	2.3	1.0	2.1	3.9	5.5	7.0	8.1	11.0	13.3
	Y3	223	34	5.0	2.3	0.9	4.0	4.9	5.8	7.2	9.9	13.5	15.2
	Y4	260	40	5.1	1.7	0.4	1.2	4.2	5.0	7.7	11.5	--	--
	Y5	227	33	3.3	1.7	2.2	6.2	7.9	10.1	12.3	14.5	--	--

Note: This only includes pupils with at least six years of valid data after the relevant year in which a pupil was first recorded at level A. A=New to English, B=Early Acquisition, C=Developing Competence, D=Competent, E=Fluent. "..." denotes too few pupils in the relevant year group with the relevant number of years of records of PIE to report. N = number.

School and Local Authority variation in EAL and PIE

School and LA statistics in this section were calculated based on schools and LAs containing pupils in our analytic sample (those joining Reception class in 2009-2011). Our aim throughout this section, in other words, is not to provide a representative sample of all schools and pupils in Wales, but to understand the contexts and experiences of pupils with EAL and their trajectories through the different levels of Proficiency in English. As in the previous sections, special schools are excluded throughout as they are not required to rate the PIE of their pupils.

Time to PIE progression and school composition/context

Table 3.9 provides descriptive information for each quintile of school percent EAL and percent levels A-C at baseline (i.e. when pupils in the aggregated cohort were in Reception in either 2009, 2010 or 2011). School percent EAL and school percent PIE levels A-C were calculated based on *all pupils (R-Y11) in a given school within a given year including those not in the analytic sample . Quintiles were computed based on the number of schools containing pupils in our analytic sample*[15] (i.e. schools containing pupils with EAL in their baseline year); numbers of pupils were roughly equal across quintiles for both of these variables. Table 3.10 additionally provides frequencies of schools according to bands of their percentages of pupils with EAL and with PIE between A and C.

Table 3.11 provides descriptive information on additional school variables including descriptive school type, school language medium and school size. School size was calculated based on the total number of pupils in R-Y11 in a given year (analogous to percent EAL and percent at levels A to C), and quintiles were calculated based on the schools in the analytic sample. In this case, higher numbers of pupils are in higher quintiles as more pupils were enrolled in larger schools. In general, larger schools tended to have higher but also more variable (based on standard deviation) percentages of pupils with EAL and with PIE levels A to C, although this pattern was less consistent (the second-highest quintile of school size had lower mean percentages for both EAL and PIE levels A-C than the middle quintile) than was the case for the 2016 cross-sectional results in Section 2.

Voluntary schools had the highest average proportions of pupils with EAL (M=20.4%) and PIE levels A to C (M=13.3%), followed by Community schools (M=12.7% and M=7.6% respectively) and Foundation schools (M=6.1% and M=3.8% respectively), although it is important to note that there were only three Foundation schools in the sample.

As some categories had very low school numbers, we simplified the school language medium categories to English, Mixed (including all Bilingual, Dual Stream and Transitional schools using any mix of the two languages) and Welsh. English medium schools had the highest proportions of pupils with EAL (M=14.7%, SD=19.2%) and PIE levels A to C (M=9.3%, SD=15.6%); these were also the most numerous schools (N=1,007 compared to 61 Mixed medium and 105 Welsh medium schools). Welsh medium schools had the lowest proportions of pupils with EAL (M=9.0%, SD=14.7%) and PIE levels A to C (M=2.4%, SD=5.9%), but we might expect this if the focus in these schools was not on English language proficiency.

15. This means that schools have individual values on all school and LA variables for each relevant year to allow for change over time (2009, 2010, 2011), i.e. the number of schools in the below tables reflects the number of school by year records. Appendix K provides descriptive information about the proportions of pupils with EAL and PIE=A to C for each baseline year.

Table 3.9: School descriptive information by quintile: Percent EAL and percent PIE=A to C (within the relevant 2009/2010/2011 aggregated cohort) at baseline

		N (schools)	% of schools	N (pupils)	% of pupils	M	SD	Min	Max
School percent EAL	Lowest quintile	234	19.9	7,446	20.1	1.6	0.6	0.29	2.69
	Low-Middle	234	19.9	7,257	19.5	3.9	0.7	2.70	5.23
	Middle quintile	236	20.1	7,268	19.6	7.2	1.2	5.26	9.57
	Middle-High	235	20.0	7,665	20.6	13.5	2.9	9.59	19.87
	Highest quintile	234	19.9	7,493	20.2	43.8	23.6	20.00	100.0
	Total	1,173	100.0	37,129	100.0	14.0	18.7	0.29	100.0
School percent PIE=A to C	Lowest quintile	234	19.9	7,861	21.2	0.2	0.3	0.00	0.86
	Low-Middle	235	20.0	7,336	19.8	1.5	0.4	0.86	2.19
	Middle quintile	235	20.0	7,268	19.6	3.3	0.7	2.20	4.50
	Middle-High	235	20.0	7,036	19.0	6.8	1.7	4.55	10.48
	Highest quintile	234	19.9	7,628	20.5	31.0	21.3	10.64	92.2
	Total	1,173	100.0	37,129	100.0	8.5	14.9	0.00	92.2

Note: Schools included are only those with EAL pupils in the baseline year (Reception) who had valid R-Y6 records in the relevant cohorts. M=Mean; SD=Standard deviation; quintiles computed based on school composition information from 2009, 2010 and 2011 as relevant. N = number.

Table 3.10: Number and percent of schools in 2009 and 2016 by proportion EAL and PIE=A to C

		EAL				PIE=A to C			
		2009		2016		2009		2016	
		N	% of schools	N	% of schools	N	% of schools	N	% of schools
Percent of pupils in the school	<1%	987	56.5	673	43.1	1,236	70.7	879	56.3
	1-5%	411	23.5	499	32.0	333	19.1	394	25.2
	5-10%	146	8.4	186	11.9	89	5.1	141	9.0
	10-20%	106	6.1	107	6.9	47	2.7	80	5.1
	20-30%	36	2.1	41	2.6	18	1.0	22	1.4
	30-40%	17	1.0	19	1.2	5	0.3	14	0.9
	40-50%	7	0.4	14	0.9	3	0.2	14	0.9
	50%+	37	2.1	22	1.4	16	0.9	17	1.1

N = number.

Table 3.11: School descriptive information by quintile: School type, language medium and school size with corresponding percent EAL and PIE=A to C statistics (within the relevant 2009/2010/2011 aggregated cohort) at baseline

								Percent EAL		Percent A-C	
		N (schools)	% of schools	N (pupils)	% of pupils	M	SD	M	SD	M	SD
Type	Community	974	83.0	32,049	86.3	--	--	12.7	18.4	7.6	14.9
	Foundation	3	0.3	153	0.4	--	--	6.1	1.3	3.8	1.5
	Voluntary	196	16.7	4,927	13.3	--	--	20.4	18.9	13.3	13.9
	Total	1,173	100.0	37,129	100.0	--	--	14.0	18.7	8.5	14.8
Lang. medium	English	1,007	85.8	31,966	86.1	--	--	14.7	19.2	9.3	15.6
	Mixed*	61	5.2	1,822	4.9	--	--	10.2	14.7	6.2	10.4
	Welsh	105	9.0	3,341	9.0	--	--	9.0	14.7	2.4	5.9
	Total	1,173	100.0	37,129	100.0	--	--	14.0	18.7	8.5	14.9
School size (# pupils)	Lowest quintile	233	19.9	4,371	11.8	91.5	29.9	11.7	16.3	7.1	10.9
	Low-Middle	232	19.8	5,795	15.6	155.9	12.2	14.0	18.9	7.9	13.5
	Middle quintile	239	20.4	6,592	17.8	196.2	12.0	14.1	17.3	8.4	13.4
	Middle-High	237	20.2	8,630	23.2	266.5	29.5	12.4	15.0	7.5	12.2
	Highest quintile	232	19.8	11,741	31.6	383.1	56.5	17.9	24.3	12.0	21.7
	Total	1,173	100.0	37,129	100.0	218.6	104.7	14.0	18.7	8.5	14.9

Note: Schools included are only those with EAL pupils in the baseline year (Reception) who had valid R-Y6 records in the relevant cohorts; these are not representative of all schools in Wales, but of those schools attended by pupils with EAL in the cohort of interest starting in 2009, 2010 or 2011.
Lang.=Language, M=Mean; SD=Standard deviation; quintiles computed based on school composition information from 2009, 2010 and 2011 as relevant.
* "Mixed" medium combines categories including Dual Stream, Bilingual and Transitional. N = number.

Results

Table 3.12 shows descriptive information about the time taken to progress through levels of PIE for each category of each measure of school composition and context. Pupils in schools with higher percentages of pupils with EAL and at PIE levels A-C tended to progress more slowly between levels of PIE, though there were some minor deviations from this trend for a few isolated quartiles for some specific transitions (see Table 3.12). At a later stage of this project, we will investigate further whether there are any other demographic factors that might have contributed to the trend of higher time to progression for schools with higher proportions of pupils with EAL and PIE levels A to C.

Time to progression was longer, in general, in larger than in smaller schools (see Table 3.12), though there were a few inconsistencies in this pattern. Shorter progression times in smaller schools may be a consequence of smaller pupil-teacher ratios, though we cannot test this empirically without data on this factor. Figure 3.8 visualises the mean times to progression for compositional variables including school percent EAL, school percent at PIE levels A to C, and school size.

Differences in the time to progress between levels of PIE were similar in Community and Voluntary schools, and although progression times were somewhat longer in Foundation schools, this result was not significant (as it was based on very few Foundation schools); Figure 3.9A visualises these mean progression times.

Pupils in English medium schools progressed significantly more slowly on average from level A to levels B, C and D than did pupils in Mixed medium schools (see Figure 3.9B), which raises questions for further investigation about what other demographic factors might contribute to this pattern.

Table 3.12: Time to progression in PIE by school composition in the aggregated cohort

Schools		A→B					A→C			A→D			B→C			B→D			C→D		
		N (sch.)	% (sch.)	N (pup.)	M	SD	N (pup.)	M	SD	N (pup.)	M	SD	N (pup.)	M	SD	N (pup.)	M	SD	N (pup.)	M	SD
Proportion EAL	Lowest	89.0	15.2	100.0	1.9	1.3	87.0	3.2	1.5	41.0	4.2	1.5	49.0	2.8	1.3	35.0	3.8	1.5	33.0	3.1	1.7
	Low-Mid	83.0	14.2	116.0	1.9	1.1	98.0	3.3	1.6	46.0	4.3	1.7	51.0	2.5	1.4	38.0	4.1	1.6	34.0	3.6	1.6
	Middle	119.0	20.3	191.0	2.1	1.3	168.0	3.5	1.5	102.0	4.8	1.5	95.0	2.6	1.4	72.0	3.9	1.5	34.0	3.5	1.6
	Mid-High	109.0	18.6	250.0	2.1	1.2	208.0	3.2	1.5	111.0	4.2	1.5	123.0	2.7	1.4	78.0	4.1	1.6	59.0	3.0	1.9
	Highest	186.0	31.7	1,374.0	2.6	1.4	1,091.0	3.9	1.5	350.0	4.8	1.5	515.0	3.0	1.6	279.0	4.5	1.7	174.0	4.1	2.1
Proportion A to C	Lowest	28.0	4.8	29.0	1.7	0.9	27.0	3.6	1.4	17.0	4.1	1.4	13.0	2.6	1.3	12.0	3.2	1.5	13.0	3.2	1.5
	Low-Mid	76.0	13.0	85.0	2.0	1.4	69.0	3.0	1.6	26.0	4.0	1.5	57.0	2.6	1.5	45.0	3.6	1.5	52.0	3.1	1.7
	Middle	110.0	18.8	153.0	2.0	1.2	133.0	3.4	1.5	70.0	4.6	1.5	98.0	2.6	1.5	68.0	4.1	1.7	57.0	3.4	1.6
	Mid-High	167.0	28.5	307.0	2.0	1.1	263.0	3.2	1.5	160.0	4.3	1.7	122.0	2.6	1.3	82.0	4.1	1.4	49.0	2.8	2.0
	Highest	205.0	35.0	1,457.0	2.5	1.4	1,160.0	3.9	1.5	377.0	4.8	1.5	543.0	3.0	1.6	295.0	4.5	1.7	163.0	4.3	2.0
Size (N=pupil)	Lowest	99.0	16.9	175.0	2.2	1.4	147.0	3.4	1.6	78.0	4.7	1.5	73.0	2.5	1.2	59.0	3.8	1.4	32.0	3.3	2.0
	Low-Mid	121.0	20.6	258.0	2.0	1.1	218.0	3.3	1.6	108.0	4.3	1.5	117.0	2.8	1.5	63.0	4.0	1.6	60.0	3.6	2.0
	Middle	109.0	18.6	319.0	2.4	1.4	259.0	3.6	1.6	112.0	4.8	1.4	152.0	2.7	1.5	97.0	4.2	1.8	75.0	3.6	2.0
	Mid-High	140.0	23.9	462.0	2.4	1.4	385.0	3.8	1.6	181.0	4.8	1.6	180.0	3.0	1.5	113.0	4.4	1.6	61.0	3.4	1.8
	Highest	117.0	20.0	817.0	2.6	1.4	643.0	3.9	1.4	171.0	4.5	1.6	311.0	3.0	1.7	170.0	4.5	1.7	106.0	4.1	2.0
Type	Community	459.0	78.3	1,615.0	2.4	1.4	1,318.0	3.7	1.6	494.0	4.6	1.6	615.0	3.0	1.6	357.0	4.3	1.7	271.0	3.7	2.0
	Voluntary	126.0	21.5	413.0	2.1	1.3	331.0	3.7	1.5	154.0	4.6	1.4	215.0	2.6	1.4	144.0	4.2	1.5	62.0	3.6	2.0
Language medium	English	540.0	92.2	1,951.0	2.4	1.4	1,586.0	3.8	1.5	615.0	4.7	1.5	789.0	2.9	1.6	472.0	4.3	1.7	314.0	3.7	1.9
	Mixed	27.0	4.6	49.0	1.6	1.0	42.0	2.8	1.3	25.0	3.6	1.7	33.0	2.2	1.2	22.0	3.0	1.5	14.0	2.5	1.6
	Welsh	19.0	3.2	31.0	2.1	1.5	24.0	2.9	1.6	10.0	4.1	2.3	11.0	3.6	1.9	<10.0	3.8	1.8	<10.0	2.8	2.1

Note: N=number of pupils in given school quintile; M=Mean; SD=Standard deviation; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; proportions and quintiles calculated based on school-level data. Where only one school was in a given category, that category has been suppressed in the above table (but pupil records were still used to calculate pupil-level statistics for earlier sections of this report). Pupil counts below 10 have been suppressed and noted as <10. N = number.

Figure 3.8: Time to progression between PIE categories by quintile of each school composition variable in the aggregated cohort

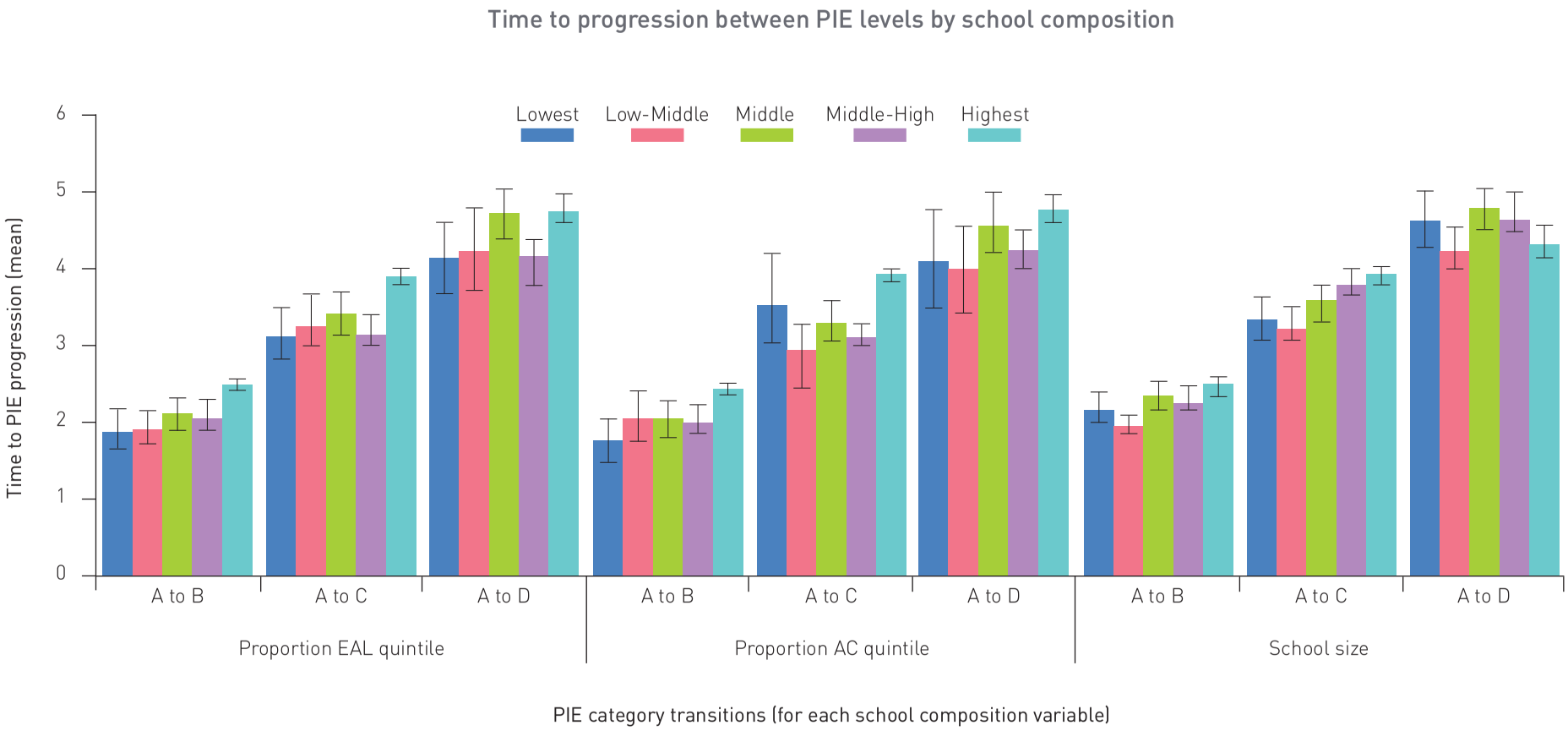
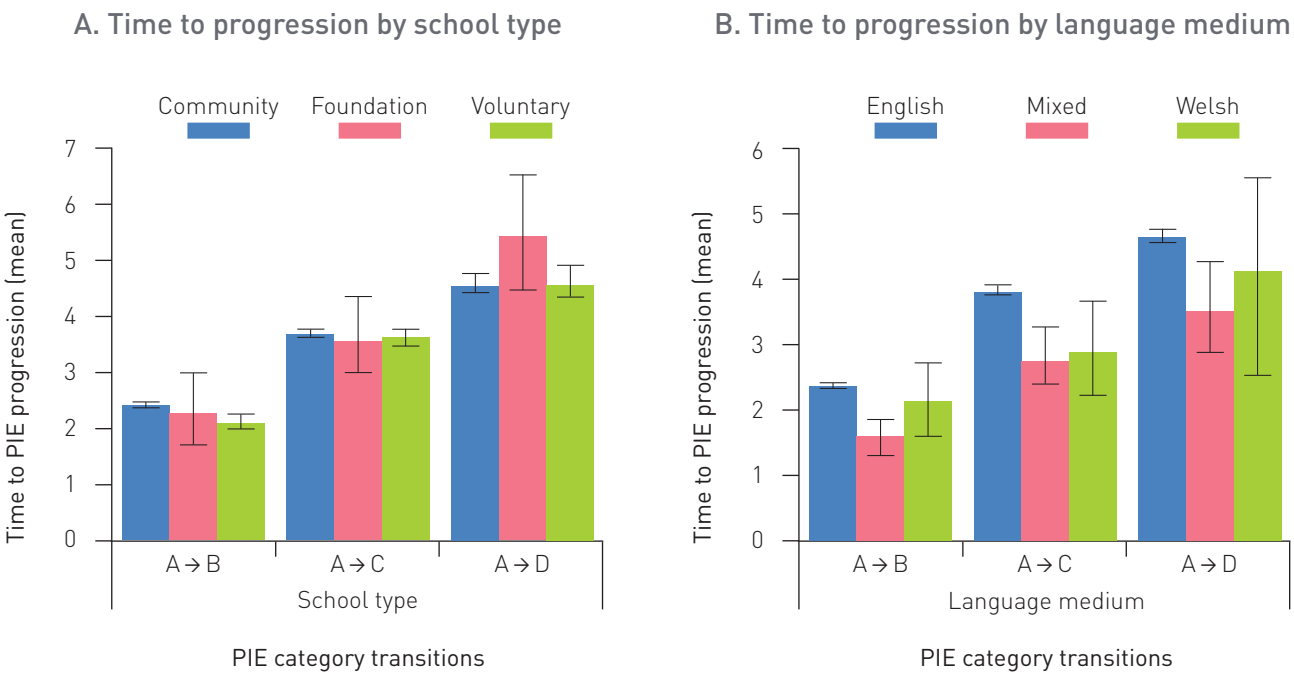


Figure 3.9: Time to progression between PIE categories by school type (Graph A) and language medium (Graph B) in the analytic cohort



Time to PIE progression across LAs

To provide an initial snapshot of variation between LAs, Table 3.13 displays the numbers and percentages of pupils starting with each category of PIE in Reception (2009, 2010 and 2011) in the largest LAs (Swansea, Newport, and Cardiff) compared to one another and to all other (smaller) LAs combined. Results indicate considerable variation across LAs, both in terms of the proportions of pupils with EAL and the proportions of pupils within the EAL group at each level of PIE.

Table 3.14 provides descriptive transitions for transition times between levels of PIE across the same broad groupings (Swansea, Newport, Cardiff, and all other LAs). These results provide evidence of some variation across LAs in terms of mean time to progress between levels of PIE; for example, pupils in Swansea (N=224 pupils with the relevant transition, M=1.8 years, SD=1.1 years) appear to progress more quickly from A to B than do pupils in Newport (N=447 pupils with the relevant transition, M=3.3 years, SD=1.5 years). Analyses at a later stage of this project will further investigate the extent to which school factors may contribute to variation in progression times across LAs.

Appendix L presents descriptive statistics for transition times for all LAs except those with counts too low to report (<10). This information further underscores the variation across LAs in terms of the mean time taken for pupils to progress through levels of PIE; this holds true for pupils starting with levels of A, B and C in Reception within the aggregated cohort.

Table 3.13: PIE level frequencies by LA (for the largest LAs) in the aggregated cohort at baseline

	Cardiff			Newport			Swansea			Other LAs			Total		
	N	%	% of EAL	N	%	% of EAL	N	%	% of EAL	N	%	% of EAL	N	%	% of EAL
E/W	7,382	74.0	--	3,879	85.1	--	6,456	92.7	--	67,306	97.6	--	85,023	94.0	--
EAL	2,589	26.0	--	677	14.9	--	510	7.3	--	1,677	2.4	--	5,453	6.0	--
A	819	8.2	31.6	479	10.5	70.8	227	3.3	44.5	587	0.9	35.0	2,112	2.3	38.7
B	432	4.3	16.7	68	1.5	10.0	132	1.9	25.9	341	0.5	20.3	973	1.1	17.8
C	272	2.7	10.5	14	0.3	2.1	44	0.6	8.6	161	0.2	9.6	491	0.5	9.0
D	105	1.1	4.1	68	1.5	10.0	27	0.4	5.3	120	0.2	7.2	320	0.4	5.9
E	961	9.6	37.1	48	1.1	7.1	80	1.1	15.7	468	0.7	27.9	1,557	1.7	28.6
Total	9,971	100.0	--	4,556	100.0	--	6,966	100.0	--	68,983	100.0	--	90,476	100.0	--

N = number.

Table 3.14: Time to progression in PIE by LA (reduced LA categories) in the aggregated cohort

	Cardiff			Newport			Swansea			Other LAs			Total		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
A → B	800	2.4	1.3	447	3.3	1.5	224	1.8	1.1	560	2.0	1.2	2,031	2.4	1.4
A → C	594	3.8	1.7	367	4.0	1.3	196	3.9	1.5	495	3.3	1.5	1,652	3.7	1.6
A → D	219	4.7	1.6	84	4.5	1.6	65	5.1	1.4	282	4.4	1.5	650	4.6	1.5
B → C	387	3.1	1.7	37	3.3	1.3	124	3.3	1.5	285	2.4	1.3	833	2.9	1.6
B → D	220	4.5	1.8	16	3.7	1.3	62	4.9	1.6	204	3.9	1.5	502	4.3	1.7
C → D	171	4.0	2.0	--	--	--	32	3.9	2.1	126	3.2	1.7	334	3.7	2.0

Note: "--" in this table denotes counts that were too small to report. N = number.

4. Summary and conclusions

In this report, we presented our approach to analysing Welsh national pupil data in order to understand pupil trajectories through levels of Proficiency in English, and the results from that approach. We took a descriptive approach to fully understand the data, and to understand issues with the data that were outlined in Section 1.

Relationships between PIE pupil demographic characteristics

Our cross-sectional analysis of data from 2016 showed that there were few strong relationships between pupil PIE and other demographic characteristics (e.g. ethnicity, FSM, gender, SEN). There was though a strong relationship between year group and PIE, with much higher proportions of pupils New to English in the lower year groups than the higher ones, and the reverse for the proportion of pupils rated as Competent/Fluent.

Relationships between PIE and pupil achievement

The relationship between pupil achievement and PIE varied somewhat by Key Stage; English/Welsh speaking pupils outperformed pupils who were New to English, and increasingly outperformed pupils with Early Acquisition and Developing Competence after the Foundation Phase, but were generally outperformed by pupils who were Competent or Fluent.

Time to transition between levels of PIE over six years

Our longitudinal analysis showed that pupils who started Reception at New to English progressed, on average, to Early Acquisition in 2.4 years, to Developing Competence in 3.7 years, and to Competent or above in 4.6 years, **for those who made these transitions within primary school**. Over half of the pupils who started at New to English had progressed to Early Acquisition by Y2 and to Developing Competence by Y4, and nearly one-third had progressed to Competent by Y6. Pupils who started Reception with Early Acquisition progressed on average to Developing Competence in 2.9 years, and to Competent or above in 4.3 years, for those who made these transitions within primary school. Over half of the pupils starting with Early Acquisition had progressed to Developing Competence by Y3, and to Competent by Y6. Pupils who started Reception with Developing Competence progressed to Competent in two years, on average, for those who made these transitions within primary school. Nearly half of the pupils starting with Developing Competence progressed to Competent by Y5.

Relationships between time to transition between levels of PIE and pupil demographic characteristics

There were few strong relationships between pupil demographic characteristics and time to progression from New to English. A notable exception was that Pakistani pupils took significantly longer to progress to Early Acquisition and Developing Competence (though not Competent or above) than most other ethnic groups. Also, pupils with SEN progressed more slowly from New to English to Early Acquisition, although this was only statistically significant for the group of pupils with School Action.

Relationships between time to transition between levels of PIE and pupil achievement

There were associations between time to transition between PIE levels and achievement at KS2, which offer evidence validity for the time to transition measure. Pupils who progressed more quickly to Early Acquisition (starting from New to English in Reception) and to Developing Competence (from New to English or Early Acquisition in Reception) on average had higher KS2 English attainment. Furthermore, pupils who made each transition tended to have higher KS2 English attainment than those who did not make the same transitions.

PIE and time to transition between levels of PIE in schools and LAs

Findings from Section 2 showed that there was considerable variation between schools and between LAs in the proportions of pupils with EAL and the proportion at PIE levels A-C. Findings in Section 3 show that there are also differences between schools and LAs in terms of the time pupils take to progress to higher levels of PIE. We also found trends in time to progression between levels of PIE associated with some measures of school composition and context; pupils in larger schools and schools with higher percentages of pupils with EAL and the lowest three levels of proficiency took longer to progress, on average, with only a few deviations from these trends. Pupils in English medium schools took the longest to progress between levels of PIE, followed by Welsh medium and then Mixed medium schools, but it is important to note that only small proportions of EAL pupils were in Welsh or Mixed medium schools (see Appendix J). There were no significant patterns in time to progression according to school type (Community/Foundation/Voluntary).

We cannot attribute significant associations to causal processes taking place in LAs and schools, as we do not have information on these processes. However, our findings do suggest that it will be important to investigate further what might be contributing to school and LA variation, and to trends according to factors of school composition and context.

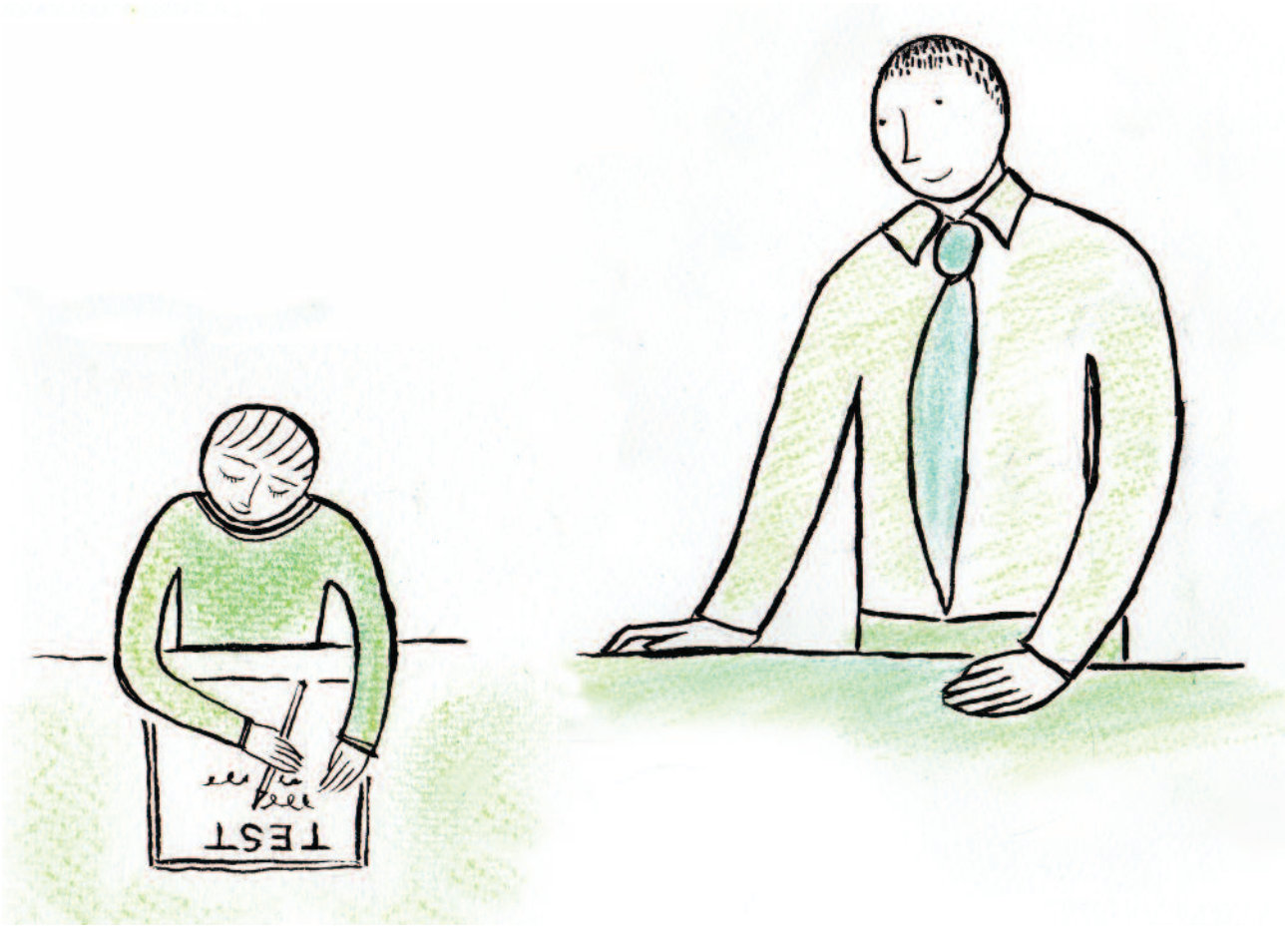
Limitations to our results

We should note that while there is a statutory duty on schools to annually assess and record in PLASC the PIE levels of their EAL pupils, there are no strong consequences for failing to do so. The system is relatively low stakes. This is in contrast to the situation in the US, as described in studies such as Slama (2014), Burke et al (2016) and Thompson (2017), where there are rigorous annual targets for Limited English Proficiency (LEP) students to reach proficiency, and testing and reporting requirements to support this, that ensure high levels of compliance with the monitoring procedures. It is therefore possible our data overestimate transition times, particularly maybe in the transition from Developing Competence (C) to Competent and above (D/E), if some pupils are not being reassessed by their schools. We cannot rule this out, but there are two observations that mitigate against this. First, we note that looking at Table 3.1 the proportions of pupils at different levels do change quite substantially each year, suggesting that most pupils are indeed being revaluated. Second, there is evidence for the validity of our calculated progression measure, for example pupils who transition more quickly through PIE levels tend to achieve higher KS2 test scores than those who transition more slowly, indicating the progress measure does indicate language ability. Nevertheless, we will need to make further checks in the final year of the project, for example in seeking to identify if there are any schools where no pupils change their PIE level year on year.

Next steps in this research

This document constitutes the interim report for the project. Based on the findings from these descriptive analyses, there are several analytical next steps that will be undertaken and presented in the final project report in 2020. These include:

1) For the 2009-2010 cohorts only, extend the tracking window to Y7, to explore what happens at primary/secondary transfer in terms of changes in PIE levels.
2) Do some robustness checks on the proportion of pupils within schools who change levels each year, seeking to identify the range in the proportion of pupils who change PIE level or who stay at the same level.
3) Use log-hazard regression procedures such as survival analysis and ordinal regression to build models of time to transition to particular thresholds, allowing us to combine estimate of progression and pupil characteristics in single models.
4) Multilevel regression analysis to investigate more rigorously and thoroughly the variation in time to progression in PIE that lies between pupils, schools and LAs. How important is the school level?
5) Further analysis to investigate what factors might be contributing to trends in time to progression for some school composition/context variables.
6) Doing some comparisons using similar methods to that use by Demie (2013) to test the robustness of different analytic approaches when using the same dataset.



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Appendix

Appendix A. Language and education in Wales

Although in some respects the education systems in England and Wales have similar approaches to the definition of and support for pupils with EAL, the circumstances surrounding language in the Welsh context are somewhat more complex. Schools in Wales have a variety of different classifications in terms of their medium of instruction; a majority of schools are classified as English medium, a minority as Welsh medium (though this is a substantial minority amongst primary schools), and a small number of schools use a variety of combinations of English and Welsh[15] for instruction and day-to-day school business (see Table A1 below for the number of schools in each category as of 2016). Ethnic majority (White British) pupils may have either English or Welsh as their first language and language spoken at home, and the education system as a whole prioritises pupils having the opportunity to learn Welsh as well as English language skills as laid out in the Welsh in education Action Plan 2010-17 (Education Wales, 2017).

Table A1: Pupil and school frequencies by school language medium and pupil PIE level, 2016

School Language Medium		Primary (R-Y6)				Secondary (Y7-11)			
		E/W	EAL	PIE= A to C	Total	E/W	EAL	PIE= A to C	Total
English	N (schools)	--	--	--	848	--	--	--	148
	% of schools	--	--	--	64.7%	--	--	--	72.2%
	N (pupils)	157,023	16,328	13,306	173,351	108,967	8,419	4,187	117,386
	% of pupils in group	72.1%	94.0%	95.2%	73.7%	74.8%	93.9%	95.7%	75.9%
Mixed	N (schools)	--	--	--	76	--	--	--	41
	% of schools	--	--	--	5.8%	--	--	--	20.0%
	N (pupils)	12,739	600	433	13,339	24,469	520	189	24,989
	% of pupils in group	5.8%	3.5%	3.1%	5.7%	16.8%	5.8%	4.3%	16.2%
Welsh	N (schools)	--	--	--	386	--	--	--	16
	% of schools	--	--	--	29.5%	--	--	--	7.8%
	N (pupils)	48,086	434	245	48,520	12,161	29	--	12,190
	% of pupils in group	22.1%	2.5%	1.8%	20.6%	8.4%	0.3%	--	7.9%
Total	N (schools)	--	--	--	1310	--	--	--	205
	% of schools	--	--	--	100.0%	--	--	--	100.0%
	N (pupils)	217,848	17,362	13,984	235,210	145,597	8,968	4,376	154,565
	% of pupils in group	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Middle schools (N=7 in total) are excluded from school counts/percents. However, pupil counts/percents are based on all pupils in Reception through Year 6 for primary, and all pupils in Y7 through Y11 for secondary. N = number.

16. Bilingual schools encompass a range of arrangements for instruction and school day-to-day business using Welsh and English in different proportions and structures (e.g. dual-stream or specific subjects taught in one language or the other). Further details can be found in Department for Children, Education, Lifelong Learning and Skills (2007). *Defining schools according to Welsh medium provision* [Document no: 023/2007].

As a result, pupils who do not have English or Welsh as a first language can be considered to have English as an Additional Language (EAL) and/or Welsh as an Additional Language (WAL). While there is a requirement for schools to report pupil EAL status and English proficiency in the annual School Census, however, there is not an equivalent requirement for schools to report Welsh proficiency nor WAL status as such. Instead, there are separate items reported in the annual census which identify whether a pupil is fluent in Welsh and whether the pupil speaks Welsh at home as reported by parents (Education Directorate, 2016; see Table A2 for descriptive information from 2016 by school phase from Stats Wales). Some schools and Local Authorities record WAL status and Welsh proficiency using a five-stage model based on that used for English proficiency (A through E), but this is not nationally standardised across LAs and schools (Jones & Bhatt, 2014).

Table A2: Frequency and percent of pupils who speak Welsh at home and Welsh fluency as reported by parents, by school phase in 2016

		Primary		Secondary	
		N	%	N	%
Fluent in Welsh	Speaks Welsh at home	15,540	7.6	12,505	8.3
	Does not speak Welsh at home	12,800	6.2	12,900	8.6
	Not applicable / cannot speak Welsh	1,220	0.6	285	0.2
	Total	29,560	14.4	25,690	17.1
Can speak Welsh but not fluently	Speaks Welsh at home	5,555	2.7	2,075	1.4
	Does not speak Welsh at home	39,300	19.2	49,445	32.8
	Not applicable / cannot speak Welsh	6,665	3.3	10,785	7.2
	Total	51,520	25.1	62,305	41.4
Cannot speak Welsh	Speaks Welsh at home	--	--	--	--
	Does not speak Welsh at home	--	--	--	--
	Not applicable / cannot speak Welsh	121,240	59.2	57,500	38.2
	Total	121,250	59.2	57,510	38.2
No information	Speaks Welsh at home	--	--	--	--
	Does not speak Welsh at home	175	0.1	40	0.0
	Not applicable / cannot speak Welsh	2,445	1.2	5,080	3.4
	Total	2,625	1.3	5,125	3.4
Total	Speaks Welsh at home	21,105	10.3	14,590	9.7
	Does not speak Welsh at home	52,280	25.5	62,390	41.4
	Not applicable / cannot speak Welsh	131,570	64.2	73,650	48.9
	Total	204,955	100.0	150,630	100.0

Note: Some values have been redacted as they are too small to report; counts have been rounded to the nearest 5. Counts obtained from statswales.gov.wales. N = number.

Appendix B. Levels of Proficiency in English

The below descriptors are taken from the 2017 Wales PLASC guidance (Education Wales, 2017).

A = New to English
May use first language for learning and other purposes. May remain completely silent in the classroom. May be copying/repeating some words or phrases. May understand some everyday expressions in English but may have minimal or no literacy in English. Needs a considerable amount of EAL support.

B = Early Acquisition
May follow day-to-day social communication in English and participate in learning activities with support. Beginning to use spoken English for social purposes. May understand simple instructions and can follow narrative/accounts with visual support. May have developed some skills in reading and writing. May have become familiar with some subject-specific vocabulary. Still needs a significant amount of EAL support to access the curriculum.

C = Developing Competence
May participate in learning activities with increasing independence. Able to express self orally in English, but structural inaccuracies are still apparent. Literacy will require ongoing support, particularly for understanding text and writing. May be able to follow abstract concepts and more complex written English. Requires ongoing EAL support to access the curriculum fully.

D = Competent
Oral English will be developing well, enabling successful engagement in activities across the curriculum. Can read and understand a wide variety of texts. Written English may lack complexity and contain occasional evidence of errors in structure. Needs some support to access subtle nuances of meaning, to refine English usage, and to develop abstract vocabulary. Needs some/occasional EAL support to access complex curriculum material and tasks.

E = Fluent
Can operate across the curriculum to a level of competence equivalent to that of a pupil who uses English as his/her first language. Operates without EAL support across the curriculum.

0 = Not applicable

Appendix C. English as an Additional Language and Proficiency in English frequency by year group for 2009-17

Table A3: 2009 PIE by year group

2009		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	92.8	92.6	92.9	93.6	93.3	93.8	94.0	94.0	93.5	94.1	93.5	93.9	93.5	377,182
	Total EAL	7.2	7.4	7.1	6.4	6.7	6.2	6.0	6.0	6.5	5.9	6.5	6.1	6.5	26,165
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	37.5	30.1	16.3	9.7	10.7	9.9	7.2	4.7	4.7	3.5	3.5	2.3	12.0	3,132
	B	15.5	23.0	25.3	27.9	22.5	15.9	10.9	7.2	8.4	5.9	5.7	4.5	14.4	3,765
	C	8.5	8.1	14.6	17.4	22.4	22.8	27.7	19.5	14.2	15.1	13.6	13.4	16.2	4,246
	D	8.1	7.6	8.1	7.6	9.6	11.5	14.4	15.2	18.9	16.0	21.2	23.1	13.4	3,519
	E	30.4	31.3	35.7	37.4	34.8	39.8	39.7	53.5	53.8	59.5	55.9	56.8	44.0	11,503
	Total	32,521	31,510	30,823	31,696	32,257	33,478	34,509	35,516	34,365	34,823	35,842	36,007	100.0	403,347

Note: E/W=English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,300 pupils in special schools had no PIE. N = number.

Table A4: 2010 PIE by year group

2010		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	93.0	93.2	93.2	93.7	94.1	94.0	94.6	95.0	95.6	95.2	95.5	95.8	94.4	376,989
	Total EAL	7.0	6.8	6.8	6.3	5.9	6.0	5.4	5.0	4.4	4.8	4.5	4.2	5.6	22,168
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	43.4	35.4	21.5	14.2	8.7	8.1	6.6	5.4	6.1	4.5	3.7	2.4	14.9	3,310
	B	18.6	24.8	30.2	28.7	24.7	20.0	16.5	11.8	11.0	9.2	9.8	7.9	18.6	4,121
	C	9.4	9.9	15.9	22.4	26.5	29.8	25.9	29.5	25.5	22.1	21.2	21.0	21.0	4,662
	D	5.2	4.3	6.1	7.0	10.1	13.8	16.5	19.8	22.0	27.8	26.1	24.7	14.2	3,150
	E	23.4	25.6	26.2	27.7	30.0	28.3	34.5	33.5	35.4	36.4	39.1	44.1	31.2	6,925
	Total	33,062	32,124	31,515	30,859	31,668	32,324	33,488	34,145	35,476	34,302	34,845	35,349	100.0	399,157

Note: E/W=English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,266 pupils in special schools had no PIE. N = number.

Table A5: 2011 PIE by year group

2011		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	92.8	92.5	93.0	93.0	93.5	93.9	93.9	94.9	94.7	95.3	95.0	95.4	94.0	372,658
	Total EAL	7.2	7.5	7.0	7.0	6.5	6.1	6.1	5.1	5.3	4.7	5.0	4.6	6.0	23,674
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	43.8	36.2	24.1	14.4	10.9	8.4	6.7	5.9	5.3	6.2	4.9	3.2	15.9	3,758
	B	20.6	25.8	27.7	32.2	22.5	20.3	15.9	13.8	11.6	10.4	7.1	7.4	18.9	4,474
	C	8.8	10.3	16.2	19.9	30.5	29.0	31.3	27.8	30.8	25.9	24.5	20.4	22.2	5,248
	D	3.7	4.4	7.0	6.9	9.6	12.3	17.0	16.2	19.1	23.0	28.0	29.1	13.6	3,209
	E	23.1	23.3	25.0	26.6	26.4	30.0	29.2	36.4	33.2	34.4	35.5	39.8	29.5	6,985
	Total	33,571	32,837	32,113	31,517	30,828	31,768	32,349	33,115	34,120	35,429	34,307	34,378	100.0	396,332

Note: E/W=English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,248 pupils in special schools had no PIE. N = number.

Table A6: 2012 PIE by year group

2012		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	92.0	92.0	92.1	92.8	92.7	93.2	93.6	93.7	94.5	94.3	95.0	94.9	93.4	369,031
	Total EAL	8.0	8.0	7.9	7.2	7.3	6.8	6.4	6.3	5.5	5.7	5.0	5.1	6.6	26,021
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	44.8	34.3	22.7	16.9	10.2	9.6	6.9	5.1	5.5	4.6	4.2	2.3	15.8	4,110
	B	19.9	24.8	29.6	28.8	27.3	18.0	16.8	11.3	10.1	8.0	7.8	5.7	18.4	4,792
	C	9.0	11.7	16.9	21.6	25.1	32.1	30.1	35.7	30.1	31.3	26.3	23.8	23.5	6,105
	D	2.5	4.4	6.6	7.4	9.7	11.7	14.6	17.1	17.9	21.7	24.7	28.9	12.8	3,319
	E	23.8	24.8	24.3	25.3	27.7	28.7	31.6	30.8	36.4	34.5	37.0	39.4	29.6	7,695
	Total	34,311	33,231	32,870	32,061	31,533	30,867	31,774	31,988	33,096	34,083	35,461	33,777	100.0	395,052

Note: E/W=English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,287 pupils in special schools had no PIE. N = number.

Table A7: 2013 PIE by year group

2013		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
E/W		91.9	91.6	92.1	92.2	92.8	92.9	93.3	94.1	93.9	94.7	94.5	95.2	93.3	368,892
Total EAL		8.1	8.4	7.9	7.8	7.2	7.1	6.7	5.9	6.1	5.3	5.5	4.8	6.7	26,623
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	49.7	35.2	23.8	17.2	12.2	8.4	7.8	6.4	5.0	4.5	4.6	2.9	17.1	4,565
	B	20.3	29.0	28.5	32.1	25.5	23.3	16.0	15.1	10.4	9.5	6.4	6.8	19.9	5,303
	C	8.1	10.1	18.4	21.7	28.2	30.1	32.4	30.3	34.5	31.8	31.0	24.2	23.8	6,325
	D	3.2	3.5	5.6	6.7	9.5	12.1	15.6	17.0	21.5	22.0	26.6	30.5	13.0	3,450
	E	18.7	22.2	23.8	22.3	24.7	26.1	28.1	31.3	28.6	32.0	31.3	35.6	26.2	6,980
	Total	35,620	34,055	33,248	32,875	32,029	31,521	30,803	31,419	31,987	32,967	34,029	34,962	100.0	395,515

Note: E/W English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,309 pupils in special schools had no information on PIE. N = number.

Table A8: 2014 PIE by year group

2014		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
E/W		92.2	92.1	92.5	92.9	93.0	93.4	93.4	94.4	94.7	94.4	95.1	95.1	93.6	369,037
Total EAL		7.8	7.9	7.5	7.1	7.0	6.6	6.6	5.6	5.3	5.6	4.9	4.9	6.4	25,382
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	53.0	43.3	24.5	18.1	13.2	11.8	9.3	8.7	6.8	4.8	5.3	3.1	19.5	4,949
	B	25.8	32.3	37.5	36.6	30.6	23.9	17.4	14.9	13.5	11.2	10.6	7.2	23.6	5,979
	C	9.1	10.0	19.3	25.3	32.2	34.2	35.1	34.0	34.6	33.9	30.7	30.9	25.9	6,583
	D	3.2	4.2	6.8	6.6	10.9	13.4	18.5	23.5	24.5	28.2	27.8	32.2	14.8	3,746
	E	8.9	10.1	11.9	13.5	13.1	16.8	19.7	18.9	20.6	22.0	25.6	26.6	16.3	4,125
	Total	34,755	35,537	34,040	33,278	32,927	32,038	31,585	30,474	31,420	31,927	32,933	33,505	100.0	394,419

Note: E/W English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,259 pupils in special schools had no information on PIE. N = number.

Table A9: 2015 PIE by year group

2015		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	92.3	91.7	92.1	92.4	92.9	93.0	93.4	93.7	93.6	93.8	93.5	94.9	93.1	367,988
	Total EAL	7.7	8.3	7.9	7.6	7.1	7.0	6.6	6.3	6.4	6.2	6.5	5.1	6.9	27,315
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	60.4	43.8	29.2	19.0	12.9	9.9	9.0	7.3	5.9	5.0	4.4	4.1	19.9	5,442
	B	24.3	33.4	37.9	39.8	32.1	26.6	23.2	13.7	12.6	10.6	8.4	7.5	24.1	6,584
	C	7.6	11.9	17.8	23.4	33.0	36.7	34.8	35.9	29.3	29.2	26.7	26.1	25.0	6,835
	D	2.1	3.4	5.7	7.2	9.0	13.8	15.9	21.8	23.9	24.5	27.4	29.9	13.9	3,792
	E	5.6	7.6	9.5	10.5	13.1	13.0	17.1	21.3	28.3	30.6	33.2	32.5	17.1	4,662
	Total	35,422	34,674	35,594	34,074	33,289	32,965	32,046	31,263	30,453	31,348	31,851	32,324	100.0	395,303

Note: E/W English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,349 pupils in special schools had no PIE. N = number.

Table A10: 2016 PIE by year group

2016		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	92.9	92.4	91.9	92.4	92.6	93.2	93.1	93.8	93.9	94.5	94.5	94.3	93.2	363,445
	Total EAL	7.1	7.6	8.1	7.6	7.4	6.8	6.9	6.2	6.1	5.5	5.5	5.7	6.8	26,330
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	55.9	41.1	25.3	16.1	10.1	6.8	5.1	5.5	4.5	3.7	4.2	2.3	16.6	4,366
	B	28.5	36.5	39.4	39.2	32.7	22.7	18.5	18.4	11.6	13.0	9.5	7.5	25.0	6,586
	C	8.1	12.9	21.8	27.5	34.2	41.4	36.9	39.1	36.5	31.9	29.1	25.3	28.1	7,408
	D	2.9	3.4	6.0	7.6	11.2	15.0	23.0	19.8	26.9	28.7	31.2	34.4	15.9	4,175
	E	4.6	6.0	7.6	9.5	11.8	14.1	16.5	17.2	20.5	22.8	26.0	30.5	14.4	3,795
	Total	31,539	34,630	34,388	35,221	33,726	33,013	32,693	31,310	31,004	30,114	31,111	31,026	100.0	389,775

Note: E/W English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,361 pupils in special schools had no PIE. N = number.

Table A11: 2017 PIE by year group

2017		R %	Y1 %	Y2 %	Y3 %	Y4 %	Y5 %	Y6 %	Y7 %	Y8 %	Y9 %	Y10 %	Y11 %	Total %	Total N
	E/W	93.0	93.0	92.7	92.2	92.7	93.0	93.6	93.7	94.1	94.2	94.5	94.6	93.4	335,605
	Total EAL	7.0	7.0	7.3	7.8	7.3	7.0	6.4	6.3	5.9	5.8	5.5	5.4	6.6	23,559
		% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	% of EAL	N
PIE	A	50.4	36.5	21.0	13.3	7.3	5.2	3.0	2.5	2.1	2.5	2.0	1.9	10.3	2,437
	B	29.7	37.7	34.1	32.8	28.1	22.0	13.9	13.8	11.8	7.9	6.7	6.0	21.3	5,021
	C	14.1	15.6	29.1	34.8	37.7	36.0	36.2	35.5	38.0	31.9	29.3	23.7	31.6	7,447
	D	2.0	5.4	9.1	10.6	16.1	23.0	27.6	29.7	25.9	31.9	34.3	36.5	21.0	4,943
	E	3.8	4.8	6.7	8.4	10.7	13.8	19.3	18.4	22.2	25.9	27.6	31.9	15.8	3,711
	Total	5,647	31,058	34,176	33,932	34,810	33,367	32,643	31,888	30,988	30,632	29,939	30,084	100.0	359,164

Note: E/W=English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. 3,393 pupils in special schools had no PIE. N = number.

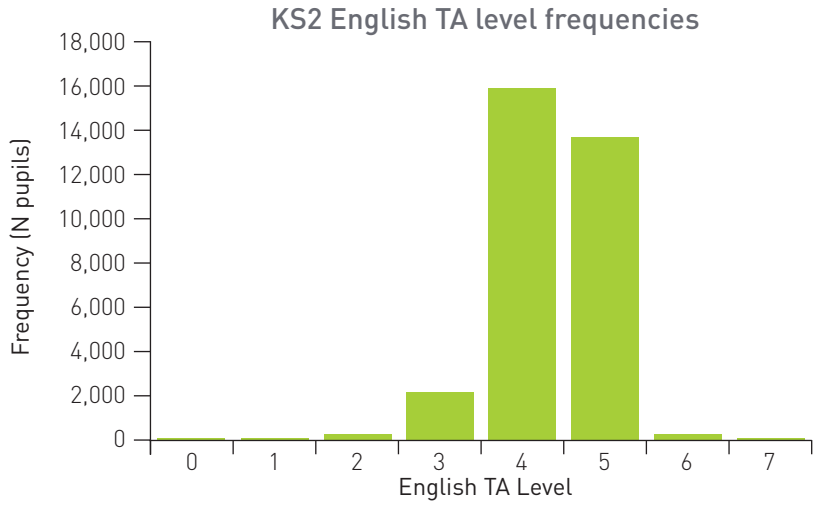
Table A12: Ethnic group prevalence in each year from 2009 to 2017 (amongst pupils in R-Y11 in mainstream schools)

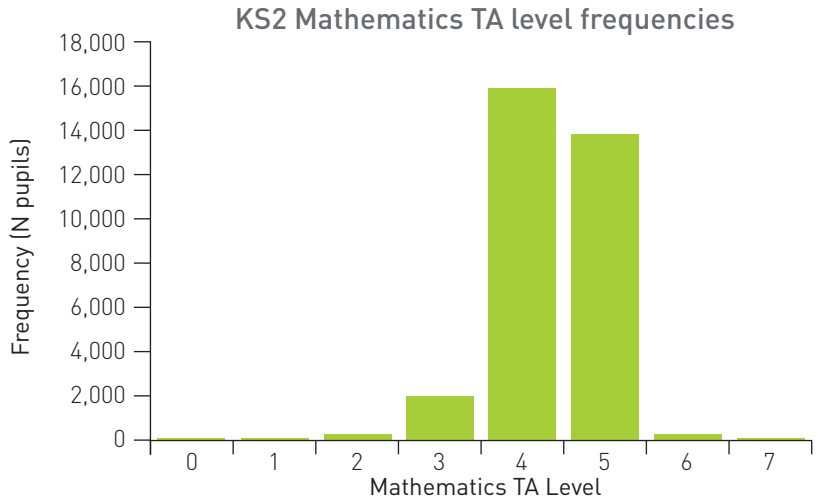
	2009		2010		2011		2012		2013		2014		2015		2016		2017		Total	
Ethnic group	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
White British	370,458	92.0	365,711	91.7	361,473	91.3	359,139	91.0	358,456	90.7	355,253	90.2	354,208	89.7	349,248	89.7	322,398	89.8	3,196,344	90.7
Traveller Irish	264	0.1	269	0.1	316	0.1	359	0.1	374	0.1	380	0.1	411	0.1	391	0.1	341	0.1	3,105	0.1
Traveller Roma	403	0.1	450	0.1	486	0.1	535	0.1	579	0.1	603	0.2	623	0.2	597	0.2	542	0.2	4,818	0.1
White Other	5,629	1.4	5,612	1.4	6,294	1.6	7,012	1.8	7,760	2.0	8,835	2.2	9,788	2.5	9,719	2.5	8,885	2.5	69,534	2.0
MWBC	1,888	0.5	1,990	0.5	2,063	0.5	2,115	0.5	2,164	0.5	2,230	0.6	2,325	0.6	2,349	0.6	2,195	0.6	19,319	0.5
MWBA	833	0.2	911	0.2	984	0.2	1,057	0.3	1,128	0.3	1,233	0.3	1,352	0.3	1,444	0.4	1,401	0.4	10,343	0.3
Mixed White & Asian	1,736	0.4	1,843	0.5	1,923	0.5	2,015	0.5	2,075	0.5	2,185	0.6	2,266	0.6	2,325	0.6	2,153	0.6	18,521	0.5
Any other Mixed	2,925	0.7	3,039	0.8	3,330	0.8	3,558	0.9	3,821	1.0	4,076	1.0	4,377	1.1	4,471	1.1	4,168	1.2	33,765	1.0
Indian	1,460	0.4	1,583	0.4	1,631	0.4	1,780	0.5	1,838	0.5	1,951	0.5	2,037	0.5	2,027	0.5	1,828	0.5	16,135	0.5
Pakistani	2,326	0.6	2,409	0.6	2,498	0.6	2,587	0.7	2,736	0.7	2,887	0.7	2,936	0.7	2,906	0.7	2,686	0.7	23,971	0.7
Bangladeshi	2,506	0.6	2,601	0.7	2,742	0.7	2,844	0.7	2,959	0.7	3,033	0.8	3,079	0.8	3,097	0.8	2,844	0.8	25,705	0.7
Any other Asian	1,165	0.3	796	0.2	871	0.2	898	0.2	898	0.2	946	0.2	933	0.2	880	0.2	765	0.2	8,152	0.2
Black Caribbean	213	0.1	199	0.0	208	0.1	200	0.1	207	0.1	192	0.0	177	0.0	178	0.0	170	0.0	1,744	0.0
Black African	1,728	0.4	1,890	0.5	2,033	0.5	2,212	0.6	2,341	0.6	2,469	0.6	2,603	0.7	2,579	0.7	2,340	0.7	20,195	0.6
Black Other	386	0.1	344	0.1	350	0.1	358	0.1	368	0.1	353	0.1	373	0.1	378	0.1	349	0.1	3,259	0.1
Chinese	733	0.2	630	0.2	629	0.2	637	0.2	654	0.2	674	0.2	699	0.2	699	0.2	648	0.2	6,003	0.2
Any other group	2,785	0.7	3,366	0.8	3,682	0.9	3,981	1.0	4,085	1.0	4,248	1.1	4,530	1.1	4,312	1.1	3,806	1.1	34,795	1.0
Unknown	5,365	1.3	5,111	1.3	4,379	1.1	3,418	0.9	2,675	0.7	2,324	0.6	2,123	0.5	1,915	0.5	1,635	0.5	28,945	0.8
Total	402,803	100.0	398,754	100.0	395,892	100.0	394,705	100.0	395,118	100.0	393,872	100.0	394,840	100.0	389,515	100.0	359,154	100.0	3,524,653	100.0

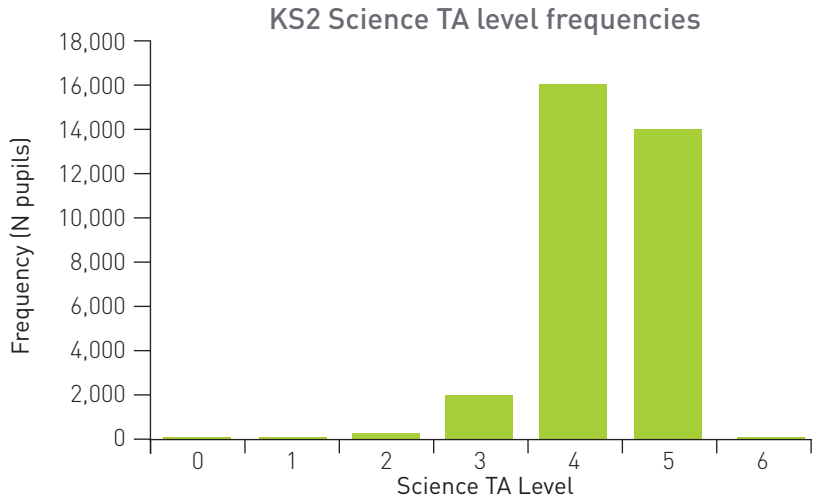
*Missing information on 3,411 records in total, or 0.1% of the data across all included years. MWBC=Mixed White & Black Caribbean; MWBA=Mixed White & African. Only pupils in mainstream schools are included for comparability with other tables. N = number.

Appendix E. Distributions of Key Stage 2 outcomes

Figure A1: Distributions of Key Stage 2 Teacher Assessment levels in English, Maths and Science, 2016







Note: For English and Mathematics, N=32,262 valid values for pupils in Y6 in mainstream schools (N=431 missing). For Science, N=32,260 valid values for pupils in Y6 in mainstream schools (N=433 missing).

Appendix F. School size by Local Authority (large urban centres versus others)

Table A13: Number of schools in each school size quintile by LA category (Cardiff, Newport, Swansea, and other LAs) in 2016

Primary	School size (quintiles)					
	Lowest	Low-Medium	Medium	Medium-High	Highest	Total
Cardiff	2	7	14	24	50	97
Newport	0	2	9	16	17	44
Swansea	3	9	17	26	24	79
Other LA	260	243	221	195	171	1,090
Total	265	261	261	261	262	1,310
Secondary	**School size (quintiles)**					
	Lowest	Low-Medium	Medium	Medium-High	Highest	Total
Cardiff	4	2	2	4	7	19
Newport	0	0	2	2	4	8
Swansea	0	4	3	3	4	14
Other LA	37	35	35	31	26	164
Total	41	41	42	40	41	205

Table A14: Frequency and percent of pupils in each PIE category amongst pupils in the cohorts starting Reception in 2009, 2010 and 2011 (including those who had a first valid record after Reception or who left the cohort)

	Year Group																				
	R			Y1			Y2			Y3			Y4			Y5			Y6		
	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL	N	%	% EAL
E/W	90,684	92.8		91,413	92.6		91,356	92.4		91,707	92.7		92,024	92.9		92,193	93.2		91,872	93.4	
A	2,909	3.0	41.4	2,586	2.6	35.3	1,762	1.8	23.5	1,285	1.3	17.7	896	0.9	12.8	634	0.6	9.5	365	0.4	5.7
B	1,281	1.3	18.2	1,851	1.9	25.3	2,137	2.2	28.5	2,353	2.4	32.5	2,057	2.1	29.4	1,631	1.6	24.4	1,200	1.2	18.6
C	626	0.6	8.9	776	0.8	10.6	1,286	1.3	17.2	1,637	1.7	22.6	2,171	2.2	31.0	2,493	2.5	37.3	2,322	2.4	36.0
D	396	0.4	5.6	319	0.3	4.4	481	0.5	6.4	499	0.5	6.9	679	0.7	9.7	941	1.0	14.1	1,429	1.5	22.1
E	1,811	1.9	25.8	1,796	1.8	24.5	1,823	1.8	24.3	1,475	1.5	20.3	1,189	1.2	17.0	980	1.0	14.7	1,139	1.2	17.6
Total EAL	7,023	7.2		7,328	7.4		7,489	7.6		7,249	7.3		6,992	7.1		6,679	6.8		6,455	6.6	
Total	97,707	91.4		98,741	92.4		98,845	92.5		98,956	92.6		99,016	92.6		98,872	92.5		98,327	92.0	

Note: Counts and percentages given are for those pupils in mainstream schools at the time of their first valid records starting any year from Reception through Y6, for the cohorts who were or would have appropriately been in Reception in 2009, 2010 or 2011. EAL=English as an Additional Language; PIE=Proficiency in English; E/W=English/Welsh speaking; A=New to English; B=Early Acquisition; C=Developing Competence; D=Competent; E=Fluent. N = number.

Table A15: Demographic data for pupils in the cohorts starting Reception in 2009-2011 and with valid records for each year up to Y6

		Overall		E/W		EAL		A		B		C		D		E	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Ethnic group	White British	82,746	91.5	37	56.9	28	43.1	--	--	--	--	--	--	--	--	27	96.4
	Traveller Irish	65	0.1	74	66.7	37	33.3	--	--	--	--	--	--	--	--	31	83.8
	Traveller Gypsy/Roma	111	0.1	331	27.0	893	73.0	498	55.8	134	15.0	56	6.3	34	3.8	171	19.1
	White Other	1,224	1.4	162	37.3	272	62.7	--	--	--	--	--	--	--	--	260	95.6
	MWBC	434	0.5	132	46.2	154	53.8	20	13.0	--	--	--	--	--	--	121	78.6
	MWBA	286	0.3	258	50.7	>250	>50.0	23	9.2	20	8.0	18	7.2	--	--	183	72.9
	MWAS	509	0.6	354	44.0	450	56.0	90	20.0	54	12.0	35	7.8	15	3.3	256	56.9
	Mixed Other	804	0.9	56	15.4	308	84.6	113	36.7	77	25.0	51	16.6	19	6.2	48	15.6
	Indian	364	0.4	45	7.3	574	92.7	319	55.6	120	20.9	65	11.3	30	5.2	40	7.0
	Pakistani	619	0.7	42	6.0	654	94.0	378	57.8	161	24.6	75	11.5	19	2.9	21	3.2
	Bangladeshi	696	0.8	43	21.7	155	78.3	65	41.9	43	27.7	21	13.5	11	7.1	15	9.7
	Asian Other	198	0.2	14	46.7	16	53.3	--	--	--	--	--	--	--	--	14	87.5
	Black Caribbean	30	0.0	34	8.2	381	91.8	170	44.6	92	24.1	46	12.1	17	4.5	56	14.7
	Black African	415	0.5	21	29.2	51	70.8	18	35.3	--	--	--	--	--	--	19	37.3
	Black Other	72	0.1	29	22.8	98	77.2	51	52.0	24	24.5	--	--	--	--	13	13.3
	Chinese	127	0.1	96	13.7	604	86.3	280	46.4	161	26.7	78	12.9	25	4.1	60	9.9
	Any Other Group	700	0.8	994	92.4	82	7.6	41	50.0	17	20.7	10	12.2	--	--	--	--
	Unknown	1,076	1.2	82,301	99.5	445	0.5	39	8.8	52	11.7	18	4.0	120	27.0	216	48.5
	Total	90,476	100.0	85,023	94.0	5,453	6.0	2,112	38.7	973	17.8	491	9.0	320	5.9	1,557	28.6
FSM	Ineligible	72,305	79.9	67,936	94.0	4,369	6.0	1,749	40.0	828	19.0	393	9.0	250	5.7	1,149	26.3
	Eligible	18,171	20.1	17,087	94.0	1,084	6.0	363	33.5	145	13.4	98	9.0	70	6.5	408	37.6
	Total	90,476	100.0	85,023	94.0	5,453	6.0	2,112	38.7	973	17.8	491	9.0	320	5.9	1,557	28.6
SEN	No SEN	76,213	94.0	4,856	6.0	1,776	36.6	884	18.2	454	9.3	303	6.2	1,439	29.6	81,069	89.6
	SA	4,356	92.8	337	7.2	194	57.6	50	14.8	21	6.2	10	3.0	62	18.4	4,693	5.2
	SAP	3,739	95.3	183	4.7	106	57.9	28	15.3	12	6.6	5	2.7	32	17.5	3,922	4.3
	Statement	715	90.3	77	9.7	36	46.8	11	14.3	4	5.2	2	2.6	24	31.2	792	0.9
	Total	85,023	94.0	5,453	6.0	2,112	38.7	973	17.8	491	9.0	320	5.9	1,557	28.6	90,476	100.0

Note: "--" denotes counts too small to report (N<10). Where ethnic group was missing, it was imputed from the first year in which a valid ethnic group was recorded. MWBA=Mixed White & Black African, MWBC=Mixed White & Black Caribbean, MWAS=Mixed White & Asian. N = number.

Appendix I. School mobility in the longitudinal dataset

Table A16: Overall mobility between Reception and Y6 for pupils starting Reception in 2009-2011

		Overall		E/W		EAL	
		N Changed schools	% Changed schools	N Changed schools	% Changed schools	N Changed schools	% Changed schools
Year group	R-Y1	5,393	6.0	5,023	5.9	370	6.8
	Y1-Y2	5,392	6.0	5,051	5.9	341	6.3
	Y2-Y3	11,934	13.2	11,271	13.3	663	12.2
	Y3-Y4	5,043	5.6	4,776	5.6	267	4.9
	Y4-Y5	4,386	4.8	4,154	4.9	232	4.3
	Y5-Y6	3,894	4.3	3,703	4.4	191	3.5
Any school change	R-Y6	27,484	30.4	25,883	30.4	1,601	29.4

Note: N=90,476 pupils; includes those in mainstream schools at baseline and present throughout Reception to Y6, starting Reception in 2009, 2010 or 2011.
N = number.

Table A17: Frequency and percent of pupils with odd trajectories who changed schools

		Changed schools between R-Y6?			
		Yes (N)	Yes (%)	No (N)	No (%)
Odd* trajectory?	No	26,174	30.2	60,424	69.8
	Yes	1,310	33.8	2,568	66.2
	Total	27,484	30.4	62,992	69.6

*Odd trajectories include those with any decrease in PIE and those with any mix of EAL and English/Welsh speaking classification. Total N=90,476 pupils.
N = number.

From the results in Table A17, school mobility does not appear to be the factor driving odd trajectories in PIE assessment (i.e. when a pupil is recorded as a lower level of proficiency in a later year, or when a pupil is recorded as EAL in one year and English/Welsh speaking in another).

Table A18: Descriptive information about time to transition between levels of PIE for pupils starting Reception with PIE=A in 2009, 2010 and 2011 by school language medium

Transition									Cumulative % progressing by...					
School language medium		Total N	% of pupils in sample	N with transition	Did not progress by Y6	Mis-classi-fied?	M	SD	1 year	2 years	3 years	4 years	5 years	6 years
English	A→B	2,025	95.9	1,951	35	39	2.4	1.4	31.3	58.9	75.6	87.5	92.8	96.3
	A→C	--	--	1,586	378	61	3.8	1.5	6.8	19.3	34.2	50.1	65.6	78.3
	A→D	--	--	615	1,323	87	4.7	1.5	1.4	3.9	6.6	10.8	18.0	30.4
	A→E	--	--	184	1,738	103	4.7	1.6	0.5	1.1	2.1	3.1	4.8	9.1
Mixed	A→B	49	2.3	49	<10	--	1.6	1.0	65.3	83.7	95.9	95.9	100.0	100.0
	A→C	--	--	42	<10	--	2.8	1.3	16.3	38.8	57.1	75.5	85.7	85.7
	A→D	--	--	25	<30	<10	3.6	1.7	8.2	14.3	24.5	34.7	42.9	51.0
	A→E	--	--	11	>30	<10	4.0	1.2	--	2.0	8.2	14.3	20.4	22.4
Welsh	A→B	38	1.8	31	<10	<10	2.1	1.5	42.1	57.9	65.8	73.7	76.3	81.6
	A→C	--	--	>20	15	<10	2.9	1.6	15.8	31.6	34.2	52.6	60.5	63.2
	A→D	--	--	10	<30	<10	4.1	2.3	5.3	10.5	10.5	10.5	13.2	26.3
	A→E	--	--	<10	>30	<10	5.5	0.7	0.0	0.0	0.0	0.0	2.6	5.3

Note: Only pupils in mainstream schools who had records in every year from Reception (in 2009, 2010 or 2011) through Y6 are included. Time to transition is calculated based on the first instance of a pupil being recorded at the relevant level, regardless of whether the previous level was skipped or not (e.g. if a pupil progressed from A to C without being recorded in the interim at level B). Some values have been redacted/approximated to prevent identifiability. N = number.

Table A19: School and LA frequencies and proportions of pupils with EAL and PIE=A to C in the Reception Year for the aggregated cohort

		2009					2010					2011				
		N	M	SD	Min	Max	N	M	SD	Min	Max	N	M	SD	Min	Max
Schools	Percent EAL	384	14.8	20.7	0.4	100.0	403	13.0	17.2	0.3	96.2	386	14.2	18.1	0.4	95.4
	Percent A to C	384	8.0	14.7	0.0	88.8	403	8.2	14.4	0.0	91.1	386	9.4	15.6	0.0	92.2
	Number EAL	384	33.2	56.1	1	400	403	30.0	51.5	1	404	386	33.6	54.7	1	384
	Number A to C	384	19.0	44.4	0	396	403	19.5	45.1	0	404	386	22.5	48.0	0	380
LAs	Percent EAL	22	4.9	5.6	0.7	23.4	22	4.1	5.2	0.7	23.8	21	4.5	5.6	0.6	25.7
	Percent A to C	22	2.1	2.8	0.3	11.0	22	2.3	2.9	0.2	12.2	21	2.6	3.3	0.2	13.7
	Number EAL	22	1,189.3	2,140.1	79	9,934	22	1,007.6	2,138.7	102	10,129	21	1,123.0	2,352.5	150	10,957
	Number A to C	22	506.5	1,030.5	25	4,688	22	549.7	1,119.6	42	5,174	21	640.2	1,288.2	52	5,869

Note: Schools included are only those with EAL pupils in the baseline year (Reception) who had valid R-Y6 records in the relevant cohorts. The only LA excluded is the Isle of Anglesey, which did not have any of the pupils in the analytic sample. N = number.

Table A20: Time to transition by LA for those starting with New to English, Early Acquisition or Developing Competence in Reception

LA	A→B			A→C			A→D			B→C			B→D			C→D		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Isle of Anglesey	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Torfaen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caerphilly	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monmouthshire	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bridgend	14	2.3	1.7	13	3.2	1.9	--	--	--	25	2.6	1.3	--	--	--	20	4.6	1.7
Ceredigion	18	1.3	0.6	17	1.9	1.1	12	2.7	1.5	12	1.4	0.5	--	--	--	--	--	--
Gwynedd	19	1.9	1.7	11	2.4	1.8	--	--	--	--	--	--	--	--	--	--	--	--
Pembrokeshire	21	1.7	1.0	20	3.2	1.1	13	4.8	0.9	10	3.1	1.7	--	--	--	--	--	--
Powys	22	2.3	1.2	16	4.0	1.6	--	--	--	--	--	--	--	--	--	--	--	--
Blaenau Gwent	22	2.5	1.1	18	3.1	1.8	13	4.1	1.7	--	--	--	--	--	--	--	--	--
Rhondda Cynon Taff	32	1.6	0.8	31	2.8	1.1	22	3.8	1.4	20	1.9	0.9	20	3.6	1.5	16	3.4	1.5
Merthyr Tydfil	36	3.4	1.6	34	4.3	1.2	19	5.1	0.8	13	2.9	1.3	11	4.5	0.8	--	--	--
The Vale of Glamorgan	37	1.5	0.7	31	2.2	1.3	22	4.0	1.6	33	1.8	1.0	28	3.5	1.8	17	3.5	1.7
Conwy	39	2.1	1.1	34	3.4	1.0	16	5.3	0.9	15	2.9	1.2	--	--	--	--	--	--
Carmarthenshire	40	1.4	0.6	35	2.8	1.3	22	3.7	1.5	26	1.8	0.8	22	3.0	1.3	16	2.1	1.3
Flintshire	41	1.7	1.1	32	3.6	1.6	21	4.7	1.6	10	1.6	0.7	--	--	--	--	--	--
Denbighshire	49	1.9	1.0	47	3.9	1.1	24	5.5	0.5	16	2.9	1.3	12	5.3	0.9	--	--	--
Neath Port Talbot	50	1.6	0.8	49	2.9	1.3	38	4.3	1.2	27	2.3	1.0	25	4.0	1.2	16	3.0	1.3
Wrexham	98	2.1	0.9	91	3.8	1.3	31	4.6	1.4	44	2.5	1.3	28	4.4	1.5	--	--	--
Swansea	224	1.8	1.1	196	3.9	1.5	65	5.1	1.4	124	3.3	1.5	62	4.9	1.6	32	3.9	2.1
Newport	447	3.3	1.5	367	4.0	1.3	84	4.5	1.6	37	3.3	1.3	16	3.7	1.3	--	--	--
Cardiff	800	2.4	1.3	594	3.8	1.7	219	4.7	1.6	387	3.1	1.7	220	4.5	1.8	171	4.0	2.0
Total	2,031	2.4	1.4	1,652	3.7	1.6	650	4.6	1.5	833	2.9	1.6	502	4.3	1.7	334	3.7	2.0

Note: "--" in this table denotes counts that were too small to report (<10). N = number.

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