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Disadvantage and Place in Scottish Secondary Education

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Disadvantage and Place in Scottish Secondary Education

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After the 2016 Scottish General Election, the Scottish Government put school education right at the top of its policy agenda, aiming to close the attainment gap between young people from less and more disadvantaged neighbourhoods. But by the summer of 2018, its flagship Education Bill had been shelved and, in the intervening period, the initially central policy focus on place-based disadvantage had faded away. This was a disappointing result for what had seemed like a very promising new direction for education reform in Scotland.

Against the context of policy in Scotland towards secondary schooling, this paper explores what is known about educational disadvantage and place in Scotland. The broad evidence shows wide attainment differences between young people who live in neighbourhoods at different points on the deprivation rank, but there is little understanding of whether place-based factors, social class differences, or differences in school effectiveness that are most influential. This is important, because each factor requires a different approach to closing the gap. Particularly with regards to place-based attainment gaps, the international evidence shows that schooling is context-derived as well as context- generative, i.e. there is a dynamic relationship between schools and places. However, understandings of 'the spatial school system' and its role in accentuating educational disadvantage in Scotland, are lacking.

The paper makes proposals about how the attainment gap might be better defined and it interrogates the uncertain progress of the 'closing the gap' policy, its cloudiness over the nature of the gap, and disjunctures between the means and ends. The paper observes that attention to the place-based attainment gap was an important initiative but it partly foundered due to lack of evidence about the nature and causes of the gap.

The paper welcomes the direction of travel towards a new series of indicators about the attainment gap, with caveats about maintaining a strong place focus. The emerging proposal that the government will develop a new index of social background is also an essential underpinning of any policy that claims to challenge disadvantage. In the meantime, more could be done with existing data if it were to be analysed at individual pupil level in order to better unscramble the influences of places, schools and family background on educational attainment.

Figures

1. A New Defining Mission?

Ahead of the 2016 Scottish General Election, there was a stirring within the educational policy community in Scotland led by the First Minister as she made a series of speeches about educational inequalities, focused on the qualifications and post-school destinations of secondary school students from disadvantaged neighbourhoods (e.g. McNab, 2015). The SNP's manifesto for the 2016 Scottish introduced a new flagship policy in the following terms:

'*Ensuring educational excellence for all and closing the gap in attainment between young people from our most and least deprived communities will be the defining mission of the SNP in the next parliament'* (Scottish National Party, 2016).

Although place-based variations in school-level educational attainment have longstanding concern across the UK, reaching as far back as the Plowden Report of the 1960s (see Smith, 1987), this was a significant shift in the debate in Scotland. A new 'challenge fund' intended to raise attainment was announced ahead of the election (Scottish Government, 2015), said to be inspired by New Labour's London Challenge, which was associated with major improvements in educational attainment in secondary schools (Baars et al, 2014)[1]. After the re-election of the SNP to government, John Swinney, a major name in Scottish politics and formerly cabinet secretary for finance, was appointed as cabinet secretary for education. This was widely viewed as confirmation that educational attainment- and reform- was right at the top of the new Scottish Government's priorities (BBC, 2016).

This interest in place-based inequalities in Scottish schooling was remarkable because the debate about place-based differences in educational attainment had been hitherto subdued almost to the point of non-existence. As evidence of the lack of attention to place, the most recent edition of the standard reader *Scottish Education* (Bryce et al, 2013); runs to over 1100 pages and with the explicit aim to provide 'an informed and critical account of contemporary education in Scotland' (Bryce and Humes, 2013a, p.1). Although it contains 11 chapters on 'challenges and responses' it touches on place-based inequalities only once and very briefly within a short chapter discussing diverse aspects of poverty and education (Sime, 2013).

This paper, then, aims to examine the background to the concern about place-based disadvantage in schooling in Scotland, and to consider the drivers of it, especially dynamic factors where parental agency and public policy meet. It also examines the Scottish Government's emerging policy approach and concludes with some directions for better understanding the attainment gap.

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[1] Notwithstanding that Burgess (2014) attributes the improvement in educational attainment in London to changes in demographic composition, particularly increases in the proportion of minority ethnic pupils, rather than to policy change.

2. A Distinctive Policy Context

An important part of the context for the debate is the school education policy environment in Scotland. For anyone familiar with the progress of Education reform in England over the last 20 years, the Scottish environment has been altogether much calmer. UK governments under New Labour between 1997 and 2010 put substantial emphasis on school reform in England. Tony Blair, as Prime Minister, expressed a need for schools to move into the 'post-comprehensive era', while his spokesperson Alastair Campbell famously announced that 'the day of the bog-standard comprehensive school is over' (Clare and Jones, 2001). Reforms included the widespread introduction of 'academy' schools, outwith the control of the local authorities, and efforts to enhance the performance management of all schools through geared-up regulation, and by exposing more of the education system to competition. Under New Labour there was also an emphasis on raising the aspirations of young people in schools as a prerequisite of academic success (Kintrea et al, 2011), and a schools building programme. School leadership was also emphasised (Barker, 2010). The big idea that lay behind all this was that schooling was believed to be an important foundation of the economic success of the UK as it competes with other nations for a share of the spoils of the 'knowledge economy' (see Ball, 2013), although there were also concerns about social inclusion (Lupton and Obolenskaya, 2013) and, latterly, about social mobility.

School education was also a high profile policy area for the Conservative-led UK coalition government between 2010 and 2015 and continued in the same broad direction. A particular innovation was the introduction of 'free schools', which were presented as an opportunity for parents and communities to set up new schools in order to meet local demands, outwith local government influence. The coalition continued with intense regulation of schools (which was afforded a high media profile) and with competition as routes to drive up standards, and it forced many local authorities to transfer schools to chains of 'academies'.

The result of these reforms was to disembed schools from their local settings. In England there is now a complex and highly uneven landscape of state-funded secondary schools. Foundation and faith schools, and privately provided 'academies' and 'free schools' co-exist in the same localities, sometimes alongside remaining local authority 'community' schools. Only 15% of pupils in state funded secondary schools in England now attend schools provided by the local authority (Department for Education, 2017, Table 2d). Complexity in the secondary education sector is extended further by the surge and backwash of regulation, competition, investment and disinvestment that has seen schools open, close, merge and be frequently rebranded (Kerr at al, 2014). The years of reform in England have fuelled a highly charged political and public debate about school management, standards, curriculum, attainment, teaching standards and school leadership, which has only barely let

up under the post-2015 Conservative governments, with the return of selection by academic ability a feature of the Conservative's 2017 General Election manifesto.

In contrast, in Scotland, school policy debates have been much more subdued. Education in Scotland has for a very long time been regarded as one of the points of evidence for a distinctive Scottish culture (Humes and Bryce, 2013). After devolution in 1999, education came under the control of the Scottish Parliament, which has been dominated by social democratic political parties, with Labour in power in coalition with the Liberal Democrats until 2007 until they were replaced by governments led by the SNP. Secondary education in Scotland is influenced by a similar high-level policy agenda to that of England, with clear recognition by government of the importance of Scotland's standards of education to the 'knowledge economy', as well as some concerns about social justice. Indeed, this has been a force shaping the direction of educational reform in developed nations as they face challenges arising from deindustrialisation and globalisation; and, submit to a common set of international performance indicators. Scotland's adherence to this agenda became more obvious with the publication of an Organisation for Economic Co-operation and Development (OECD) report on the quality of Scottish schooling (Teese et al, 2007). In its wake, the emphasis on the role of education in securing Scotland's international economic competitiveness was strengthened, and the report is now routinely identified as influential on the development of policy goals (e.g. Audit Scotland, 2014; Mowat, 2018).

Some commentators completely align Scotland's reforms with those of UK governments, arguing that the education systems of both countries are now fully neoliberal. Poole and Mooney argue that there is a drive towards 'nurturing a British edubusiness sector' (2006, p.582). However, others contend that reforms in Scotland have proceeded with caution and the school system contains far fewer market elements. Humes and Bryce (2013) point out that most education reforms in Scotland are embedded within existing approaches, and achieve a reasonable consensus. Effectively, the market-oriented reform that has caused the UK government in England to be simultaneously both more centralist *and* more reliant on quasi-markets locally has been blunted within a distinctively Scottish educational polity.

3. Secondary Schools and Educational Reform

Scotland's secondary school landscape is far less differentiated than in England, and it still largely resembles what has been called the comprehensive 'welfare model' of schooling (Ball, 2013, p.104). Compared with England, many fewer children attend fee-paying schools, which are nearly all in

Edinburgh or Glasgow[2]. Schools are non-selective, co-educational[3], and attended by pupils who mainly live within defined local catchment areas. All schools are expected to align their teaching to the government-mandated Curriculum for Excellence, and all students take the same qualifications from age 15 onwards, which are organised centrally by an agency of the Scottish Government, the Scottish Qualifications Authority (SQA)[4]. All schools are regulated by a single inspectorate, which is part of Education Scotland, another government agency. Teachers must be accredited to work in Scotland, a function that is undertaken by another statutory body, and most teachers are represented by the same trade union, the Educational Institute of Scotland (EIS).

The current secondary school landscape emerged during the late 1960s when Scotland's system of secondary education became made fully comprehensive after a strong push to create a unified secondary school sector, with one type of school across Scotland, which has carried through into the 21st century (Paterson, 2003). Many secondary schools carry historical names that include words such as 'academy', 'high school' and 'grammar school', which imply that their intakes are selective but this is not so. Since the 1970s, all Scottish state-funded secondary schools have been comprehensive, which stands in contrast to all the other parts of the UK where elements of selection remain.

There is also little apparent variety in educational philosophy between Scottish secondary schools. Leaving aside schools that provide for physically or learning-disabled children, almost all education is on the same model. State-funded secondary schools in Scotland are owned and managed by local authorities[5], which also employ the staff, and control the distribution of funding to schools. Local authority funding and management extends to 'denominational' schools, which at secondary level in Scotland are all Roman Catholic schools. Almost all Catholic schools were brought into the state system after 1918 and the Catholic Church passed the ownership of its schools to local authorities and, since then, Catholic schools have been provided on the same terms as the 'non-denominational' schools that make up the rest of the provision (McKinney, 2013)[6]. The only difference is that appointments to religious education and 'guidance' (pastoral care) teaching posts and to senior

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[2] 4.1% of school pupils in Scotland attend private schools, across all age groups (Scottish Council of Independent Schools, 2017). About 25% of secondary school students in Edinburgh attend fee-paying schools although some of these travel in from other local authority areas.

[3] Except Notre Dame High School for Girls, a Catholic secondary school in Glasgow

[4] Ordinary Grades ('O grades') were qualifications taken by 15-16 years olds until the mid-1980s. They were replaced by 'Standard grades' which were phased out from 2014 onwards with the introduction of the Curriculum for Excellence with pupils taking qualifications called National 4s and National 5s, which represent Levels 4 and 5 of the Scottish Credit and Qualifications Framework (SCQF). 'Highers', taken at 16 or 17, have been the higher level of school academic qualification in Scotland since the 1960s. From the 1970s students could stay for a further year at school and take the Certificate of Sixth Year Studies at 17 or 18, which was replaced by 'Advanced Highers' in the early 2000s. Highers represent Level 6 and Advanced Highers Level 7 of the SCQF. Five good Highers are the usual qualification for university entrance. (Murphy et al, 2015, Appendix 1; SCQF, 2018).

[5] Except Jordanhill School in Glasgow, which is funded directly by the Scottish Government.

[6] Among local authority schools, there are also many Catholic primary schools and a Jewish primary school in East Renfrewshire, and a small number of Episcopal primary schools elsewhere in Scotland

management posts have to be approved by the Catholic authorities. Catholic schools educate about 20 per cent of Scottish pupils, mainly in west central Scotland, reflecting historical migration from Ireland and the Highlands.

All Scottish secondary schools admit children in their 8th year of schooling at age 11 or 12 and offer education for six years through to age 17 or 18. There is no equivalent in Scotland to the sixth-form colleges in some areas in England. Among secondary schools, there are a handful of specialist institutions that have, a focus on sport or dance, for example. These educate pupils from their catchment area, plus others who may travel a distance to take advantage of the specialism. There are a small number of schools that conduct some teaching in the Gaelic language in line with the Scottish government's Gaelic language strategy, and one Gaelic-medium secondary school (in Glasgow).

By law, local authorities must define school catchment areas, which shape the geography of school intakes. The default position is for children to attend the school within whose catchment area they live. Where 'non-denominational' and Catholic secondary schools co-exist, catchment areas are complicated by overlapping geographies, with Catholic school catchments being typically larger. Where there is a choice of non-denominational and Catholic schools in a locality, parents can freely select a Catholic or non-denominational school.

The presence of a market-oriented approach to school place allocation is much weaker in Scotland compared to England. Parental choice in Scotland was legislated for in the 1980s under a Conservative government and has been continued ever since. There are rights for parents to make a 'placing request' to allow their child to attend a school outside the defined residential catchment area and there is published guidance on the circumstances under which such requests can be accepted or refused.

In England, a key element of creating a quasi-market in the 1990s was the introduction of a pupil-testing regime with results published by school, in order to provide signals to parents about how well a school was performing. Routine testing of children was resisted and not implemented in Scotland (Humes and Bryce, 2013). Although primary teachers assess their pupils according to a set of published criteria, until 2017 there were no external tests at primary school nor during the early years of secondary school. Therefore the basis of school 'league tables' in Scotland is restricted to published results of examinations that are taken by students in the last three years of secondary school and to published leavers' destinations, plus the outcomes of school inspections by Education Scotland. Indeed, the government itself do not publish league tables but instead leave that task to the media.

The most prominent reform since devolution before 2016 was the introduction of the Curriculum for Excellence (CfE), which was developed under the Labour-Liberal coalition but implemented by the SNP from 2007. CfE operates across the whole of the 5-18 age group and aims to develop four key

capacities among pupils at all levels of study concerned with 'learning', 'confidence', 'citizenship' and 'ability to contribute'. Although the OECD describes it as 'an ambitious and important departure' (2015, p.37), Priestley suggests that it may be less innovative than its proponents claim and that it is 'a shift in lexicon more than a shift in substance' (2013, p.36). Elsewhere, CfE has been criticised as lacking a strong conceptual underpinning (Priestley and Humes, 2010).

Whatever its merits, CfE illustrates the consensual nature of education policy reform in Scotland compared to other parts of the UK. CfE is intended to be flexible so that it meets local needs. Teachers are expected to develop topics and teaching delivery styles that are appropriate to their students (Priestley and Minty, 2013). CfE operates almost as a collective project across the Scottish educational establishment. Oversight is by a management board that includes representation from local authorities, teachers' associations, national bodies, parents and universities, and is not embedded in law. Schools are, however, expected to adopt it, and it is regulated by the schools inspectorate.

Major reform or not, public debate about CfE, beyond the worlds of education professionals and academics, has been subdued and, at its introduction, centred mainly on the resources available to schools and the preparedness of teachers rather than what is taught and how, and what it meant for standards. The OECD comments that 'building consensus, as well as designing and creating extensive frameworks, reference material and professional engagement, have thus been part of a deliberate policy' (2015, p.37).

4. Pupil Attainment in Scotland

Scotland's approach to schooling appears to be moderately successful in terms of attainment outcomes. In 2012, Scotland lay in 18th place out of 37 countries in the international PISA ranking, which reports scores for maths, science and reading from standardised tests.[7] Scotland's outcomes were above the OECD average, but well below the highest performing countries such as Korea, Japan and Switzerland. Scotland's PISA rank was just above that of England, in 19th place. It was also well above Northern Ireland (25th place) and Wales, which came in in 32nd (Boyling et al, 2013).

Other key performance indicators for secondary schooling in Scotland, such as staying-on rates, and percentages achieving good qualifications and 'positive destinations' show general improvement over time (Audit Scotland, 2014), and the official regulator's assessment of schools also appears to be increasingly positive (Education Scotland, 2013). Critics, however, point to other indicators that appear to show a recent decline in standards. *The Scottish Survey of Literacy and Numeracy* shows declining numbers of pupils performing well at the time of the latest survey (Scottish Government

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[7] PISA (Programme for International Student Assessment) is an international measure of the performance of 15 year olds in maths, sciences and reading carried out every three years in OECD and other participating countries.

2016a; 2017a). The latest PISA survey shows that there has been a decline in mathematics achievement since 2003 compared to other countries (OECD, 2016). It also shows a decline in performance in reading and science, so that its scores in all three areas were similar to the OECD average (Scottish Government, 2016b). Whatever the reason for these recent downturns, which the SNP's political opponents have seized upon, the argument that Scotland's performance is in line with international norms (Teese et al, 2007; OECD, 2015) remains convincing.

Overall, then, Scotland's secondary schooling seems uncontroversial. The policy environment is consensual, there is universal comprehensive provision and an inclusive approach to reform that has been gradual and considered. Attainment measured against international norms is respectable, even if there is room for improvement and grounds for concern about recent falls in PISA scores. Scotland's attainment until the 2015 PISA has been on the same level as England in spite of a full-on neoliberal approach in England, which has led to major system change. Policy towards schooling in Scotland appears to be broadly social democratic, with elements of progressivity in line with Scotland's dominant centre-left politics. Market influences are present, but they are bounded and subdued. State-regulated, state-funded, local government-provided schooling in Scotland is the norm, and non-selective schooling is available on the same terms to every young person, within which policy encourages teaching to meet specific local and pupil needs. Alongside this there is a wide range of support mechanisms in Scotland for more disadvantaged children covering, *inter alia*, early-years child care, health, improving literacy and numeracy, and social and emotional support (Scottish Government 2017b; OECD, 2015).

Based on this evidence, it might be therefore be imagined that there would also be common experience among young people in obtaining benefits from education in terms of credentials, and thereby access to higher education and the labour market, or at least benefitting according to their individual ability. Yet the evidence is of a strong connection between social background and educational outcomes in Scotland. Beneath the calm surface of Scotland's consensual, inclusive and universal approach to secondary schooling lie significant inequalities. Popular debate now refers to the 'attainment gap' between pupils from different backgrounds, and policy makers have awoken to the need to close it, referring to the 'poverty-related attainment gap' (e.g. Scottish Government, 2015). When the debate was starting up the journalist Kevin McKenna referred to it as 'Scotland's educational apartheid' (2015). Moreover, research shows that low educational attainment at school has a direct impact on the probability of poor labour market outcomes for young people in Scotland, with an enhanced likelihood of unemployment, low occupational status, and low earnings (Howieson and Iannelli, 2008). The problem is then, for many, that schooling in Scotland appears to confirm, rather than to combat, social and economic inequality.

5. What is the 'Attainment Gap'?

A public policy focus on the 'attainment gap' necessitates a consideration of what exactly this gap is, how it should be measured, and what strategies might therefore be effective to close it. In this paper the central concern is with the place-based elements of the attainment gap, defined as:

- The difference in educational attainment between children who live in different areas, i.e. a gap that represents *place-based inequality*.

However, discussion of the attainment gap often centres on differences in attainment between children from different backgrounds, that is:

- The difference in educational attainment between children from households that occupy different socio-economic positions, i.e. a gap that represents *socio-economic or social class inequality*.

Third, not least because of the frequent focus on school improvement, a further, related gap is:

- The difference in educational attainment between children who attend different schools, i.e. a gap that represents *institutional (or school) inequality*.

In practice, these three dimensions are conflated routinely in policy debate in Scotland. In spite of all the talk of 'closing the attainment gap', the debate in Scotland is often clouded concerning the nature of the gap. The Scottish Government's reference point in relation to inequality of attainment is the Scottish Index of Multiple Deprivation (SIMD) (Scottish Government 2016c), which is a measure of place-based inequality that can be applied at individual pupil level based on home address (Education Scotland, 2013; Scottish Government, 2017c). There appears to be a degree of pragmatism in the selection of this measure in consequence of the lack of other any database in Scotland that can be used to link young people's attainment with their socio-economic background. However, this does not excuse the often frequent misleading presentation of the 'attainment gap' as if it is a measure of general (social class) inequality, even if there is in practice some overlap between children who live in disadvantaged areas and those who come from disadvantaged households. Moreover, because children in Scotland often attend a nearby school, place-based inequality also can coincide with institutional inequality as, in many cases, the children who attend a particular school tend to live in a common set of neighbourhoods. Overall, while most children are not disadvantaged, others may experience disadvantage relating to one, two or three of these dimensions. So while there are, in practice, overlaps, the debate often misses the point that place, social class and schools each have the potential to exert independent influences on children's attainment, and that the policy implications that therefore arise from foregrounding any one against the others are different. Each dimension of inequality also prompts a different policy response.

If the main concern is *socio-economic or social class inequality*, public policy should be logically aimed at disadvantaged children wherever they live, including in predominantly non-disadvantaged areas or in rural areas where socio-economic groups show little spatial concentration.

If the concern is *institutional inequality*, policy should seek to concentrate on improving poorly performing schools. (In fact, this approach seems particularly to attract education policy makers, not least perhaps because they have the means of financing and regulation of schools readily at their disposal and because the policy and research community in education tend to focus on what happens in the classroom, including teaching practices and curricula).

But if the essence of the concern is *place-based inequality*, that is a gap in attainment between children who live in more and less deprived areas, the emphasis of policy should be on area-based programmes designed to raise attainment, regardless of their socio-economic status and which schools they attend.

A significant issue in designing policy responses in Scotland is that there is a lack of understanding of the relative contribution of these different elements of to current school attainment outcomes. However, in spite of the apparently low historic level of interest in differences in educational attainment, there is a good deal of evidence from almost 30 years of studies of comprehensive secondary education in Scotland about social class and institutional inequality, with a weaker historical understanding of place-based inequality, which suggests attainment gaps are nothing very new.

5.1 Social Class Inequality

In spite of all schools becoming non-selective in the 1970s, McPherson and Willms (1987) showed that in the 1980s there was still a very strong correlation between the mean attainment in a school and parental socio-economic status. They demonstrated that, although there were also some school effects, i.e. variations in school attainment that could be attributable to school composition, these accounted for only about two per cent of the variance overall. However, their study also showed that social class differences in attainment were reducing following the establishment of the comprehensive system. This was further supported by research in 1990s when Gamoran (1996) found that after the introduction of Standard Grades (a then new form of examination) relative levels of attainment among lower socio-economic groups accelerated more strongly than before, i.e. there was a narrowing of the gap. Paterson and Raffe (1995) also found that there were increases in staying-on rates among children of manual workers.

However, these changes in favour of children from more disadvantaged backgrounds were not enough to close the attainment gap between those from different socio-economic backgrounds, in spite of the continuing growth since the 1980s of numbers of children from all backgrounds obtaining national

qualifications. Croxford (2009) reviewed the relationship between educational outcomes from the 1980s to the mid-2000s; and a range of social characteristics. Although she concurred that there was evidence that the attainment gap between pupils from different backgrounds had narrowed over time, she concluded that social class remained a 'major source of inequality' (2009 p.3) and that other aspects of pupils' backgrounds, including parents' education and employment status, made additional contributions to inequality. She also identified that school intake characteristics, especially where there were low proportions of children whose parents could be described as managers or professionals, had further negative impacts, especially concerning outcomes at age 18.

The overall importance of social background to educational attainment in Scotland was further confirmed by the 2007 OECD study that commented that 'who you are in Scotland is far more important than what school you attend, so far as achievement differences on international tests is concerned' (Teese et al, 2007, p.15). The 2015 PISA results for Scotland continue to show the strong influence of 'economic, social and cultural status' (a measure developed from students' self-reporting of their parents' occupations and their learning resources and cultural possessions at home) (OECD, 2016).

More recent research has uncovered a further layer of inequality relating to subject choices (Iannelli et al, 2015; Iannelli and Duta, 2016). Children from more disadvantaged backgrounds are less likely to select science and language subjects, and at Higher level, less likely to select Maths and English. Instead, they tend to choose subjects with a business, technical or vocational orientation. While such subject choices may often seem rational in relation to perceived labour market requirements, they serve as a barrier to successful pathways into higher education, especially access to prestigious degree programmes at Russell Group and pre-1992 universities.

5.2 Institutional Inequality

At first sight, segregation of students from different socio-economic backgrounds in different schools appears to be something Scotland needs not be concerned about. Evidence suggests that, at national level, school segregation is low compared with many countries, and has even been declining. For example Jenkins et al (2008), using PISA data from OECD countries on parental occupations and school selectivity, found that Scotland had amongst the lowest rates of school segregation internationally, alongside the Nordic countries and Japan. The highest rates of segregation were found in those countries where the school system channels young people either into academic or into vocational secondary institutions, especially Germany, Austria and Hungary. Croxford and Paterson (2006) found schools in Scotland to be less segregated than elsewhere in the UK. They examined evidence of segregation over time from school leaver studies in England, Wales and Scotland in the 1980s and 1990s, based on parental occupation data. Scottish schools were, on most measures, less

segregated than schools in England, with the data suggesting that segregation was falling, while for the comparators it was rising.

Scotland appears, then, to have a low rate of segregation at national level but disaggregated studies over three decades consistently show the persistence of school segregation in urban areas. Segregation was recognised at the point of school reorganisation in the 1970s when an aim of policy was to ensure that schools 'represented a fuller cross section of the community' (McPherson and Willms, 1987, p.512). Indeed, studies shortly after the establishment of comprehensive secondary education showed that the end of selection, alongside raising the school leaving age to 16, was associated with a reduction in school segregation by social class across most local authority areas in Scotland. McPherson and Willms (1987) also showed that schools in Edinburgh, Glasgow and Dundee (the three largest cities) and the large town of Paisley exhibited the highest degrees of segregation both before and after comprehensive reform, and that segregation persisted at a higher level in urban areas across Scotland than in small towns and rural areas.

A further study by Willms (1986) confirmed that Scotland's schools remained notably segregated by social class into the 1980s and that much of the variation between schools was associated with the four largest cities (Glasgow, Edinburgh, Dundee and Aberdeen). More recent data confirms that these tendencies persist. Using data from the Scottish School Leaver's Study from the 1980s to the 2000s, Croxford (2009) showed that there were indications that segregation between schools had declined in the period from 1988 and 2002 across Scotland as a whole. However, the same analysis demonstrated that segregation between schools in the four major cities was significantly higher, and that it had not fallen over time.

Following the 1996 local government organisation in Scotland that gave single-tier local authorities the responsibility for providing school education, Pacione (1997) found that that in Glasgow 95% of the variance in outcomes for Standard Grade Credit Level (academic examinations taken at age 15 or 16) between schools was associated with three factors. These were the percentage of children receiving clothing grants (an indication of low parental income), the socio-economic status of the children's home neighbourhood, and school absenteeism. In Glasgow at that time the context was of rapid de-industrialisation and extensive unemployment, especially in the outer city (Lever, 1991), leading to neighbourhood decline and what Maclennan and Gibb (1988) called the 'immiserisation' of households in Glasgow's very extensive council-built neighbourhoods.

Pacione (1997) was able to predict the average educational attainment of schools across the city using the socio-economic characteristics of their intakes, but he also discovered some notable outliers. In a group of schools located in older areas in the inner city and on the urban periphery, educational

attainment was far below the predicted level, while attainment in a group of schools located in areas described by Pacione as 'predominantly middle class', was well above.

The historical evidence is scant, then, but it suggests that institutional inequality has persisted through the era of comprehensive schooling in urban Scotland.

5.3 Place-based Inequality

The tendency for Scottish secondary pupils to attend their local school has perhaps meant that this aspect of inequality has been less well researched, as differences between schools could be considered largely to also represent differences between areas. In 1980, for example, over 95% of Scottish secondary pupils attended a local neighbourhood comprehensive school (Willms, 1997).

Garner (1988) showed that neighbourhood deprivation in Glasgow, controlling for parental social class, had an independent, negative impact on educational attainment among secondary school students and that neighbourhood deprivation alone accounted for the difference between obtaining one 'O grade' (in the most deprived neighbourhood) and 6 'O grades' (in the least deprived neighbourhood). In other words, Garner's finding was that there was a very strong neighbourhood effect on educational attainment. This kind of study has not been repeated so it is not possible to pull out whether neighbourhood *per se* is still associated with educational attainment, noting that since the 1980s, there has been very significant change in many Glasgow neighbourhoods due to demolition, rebuilding, tenure change, and demographic transitions.

The Scottish Government's measure of the 'attainment gap', as the recent debate has emerged, is the place-based Scottish Index of Multiple Deprivation (SIMD) (Scottish Government, 2016c). The concept of deprivation is intended to capture aspects of well-being as well as elements of low income or poverty, so it is designed to be a broad socio-economic measure. The SIMD is compiled from seven domains (employment, income, crime, health, adults' educational qualifications, housing, and geographical access), each of which is made up of a number of different indicators, drawn from data available at small area level. The domains then receive a weighting, and a rank is calculated for each small area in Scotland. Therefore the SIMD is a measure of deprivation in one neighbourhood relative to all other neighbourhoods across Scotland. Public policy typically takes the most deprived 15% or 20% of the ranking as its target. However, for the purposes of understanding educational inequality, it needs to be made clear that for an individual or a household, residence in an area in the low, policy-relevant ranks of the SIMD does not in itself mean that they are experiencing deprivation. And conversely many individuals and households who are experiencing deprivation do not live in SIMD-defined deprived areas.

A basic understanding is now emerging that there are significant differences in educational attainment between young people who live in neighbourhoods at different points on the deprivation rank. Some

detail on place-based inequalities in attainment is provided by Sosu and Ellis (2014) who use a variety of administrative data sets and surveys. They demonstrate the existence of attainment gaps between more and less deprived areas and that the gaps widen between primary and secondary level, and continue beyond schooling into further and higher education. Using official data they report that over 60% of school leavers from the least deprived 20% of areas go on to higher education, compared to under 20% of those from the most deprived 20% (Sosu and Ellis, 2014, Figure 8, p.14). However, these data do not show if there is an independent relationship between neighbourhood and educational attainment, nor whether the IMD is standing in for social class.

Looking across the three dimensions of inequality (social class, institutional and place) we can conclude that the understanding of the links between educational disadvantage and disadvantaged neighbourhoods in Scotland is basic, at best, with the most interesting findings, such as those of Garner (1988) and Pacione (1997) from previous eras.

6. Explaining Spatial Inequality in Educational Attainment: 'The Spatial School System' and Neighbourhood Effects

While place-based inequalities have recently emerged on the agenda of education policy in Scotland, there is a substantial international literature on the subject. At its simplest, the existence of place based inequalities derives from the relationship between socio-economic divisions in cities and the existence of locally-based school catchment areas but research shows that there are also a series of interlocking dynamic factors that derive from the interaction of local agency and public policy, which together create what might be called 'the spatial school system'. As Thomson observes, schools are context-derived but they are also 'context-generative' (Thomson, 2002).

6.1 Spatial Sorting and School Impacts

Lupton (2006) observed that school education is intimately connected to place, and to a greater extent than most other public services. This arises most obviously from the deliberately dispersed location of schools, which typically means that the default option for young people is to attend their local school. Where there is strong residential segregation caused by a combination of historic and current patterns of urban development and residential sorting processes, student intakes typically demonstrate distinct socio-economic characteristics that, in turn, are reflected in their overall educational attainment.

Socio-spatial sorting and the strong role of local catchment areas in scripting who attends which school are key factors in school segregation (see Taylor and Gorard, 2001) and are highly pertinent in explaining the relationships between schools and educational disadvantage in Scotland. In rural and small-town Scotland, due to population sparsity, there may be effectively no choice of secondary school so children from all social classes, except for those that are privately educated, go to the same

school. In contrast, in more densely populated urban areas with many schools, the pervasiveness of social divisions between schools is associated with historic patterns of urban development, which leads to a narrowing of the social mix in individual schools. This issue is well known elsewhere, for example in Australian 'rust belt' suburbs (Thomson, 2002). In Scotland, there are highly distinctive patterns of urban development arising from particular forms of industrialisation (and subsequent de-industrialisation); and, from public policy towards housing development in the twentieth century (e.g. Walsh et al, 2016). This means that an important part of the context for schooling is very deep and longstanding socio-spatial segregation. After a study examining the concentration of labour market disadvantage in Scottish cities, Rae concluded that:

'The data generated in this study provide concrete empirical evidence that deprivation is highly concentrated, that isolation of deprivation and affluence are key characteristics, and that this situation has persisted through time' (2012, p.605).

McPherson and Willms (1987) attributed segregation both to the role of private schools in the cities in removing some of the most advantaged pupils, and to the difficulty of constructing catchment areas that were socially mixed given the segregated patterns of residential development. Murphy later observed:

'In local omnibus school (schools for everyone, the original comprehensive schools) children from all social backgrounds mix together and learn from each other, but they are a minority in Scotland. Private schools, particularly in the cities and above all in Edinburgh, educate a disproportionate number of the most affluent and only a very, very few of the least affluent. The economic changes of industrialisation and social housing led to socially uniform but geographically separate school communities in working class mining villages, industrial towns, council house estates and middle class suburbs' (2014, pp. 33-34).

But the impact of traditional residential divisions on schools has become overlain since the 1980s by two elements of 'choice', resulting in a more dynamic 'spatial school system' that appears to have accentuated inequalities between schools and neighbourhoods.

First, parental choice deliberately encourages a quasi-market in schools, whereby some parents seek to gain access for their children to the 'better schools'. Within the UK this is perhaps most evident in London's variegated and highly pressured school system (e.g. Hollingworth and Archer, 2009; Butler and Hamnett, 2011) but it goes on to in all areas where there is both a choice of schools and engaged parents. Accounts of parental choice show that it is used disproportionately by middle class parents to leverage further advantage (e.g. Ball, 2003; Reay, 2007). In Scotland, several studies on choice were conducted by Willms and his colleagues after its introduction in 1981 (e.g. Willms and Echols, 1992; Echols and Willms, 1995; Willms, 1997) and they arrive at similar conclusions. They found that less

than ten per cent of parents exercised placing requests but those who did tended to be more highly educated and in better jobs in comparison with those that did not. They chose schools with higher levels of overall educational attainment and where children came from more advantaged backgrounds. Willms concluded that segregation between schools had increased over the period since choice was introduced and that:

'the tendency has been for middle class pupils to increasingly become isolated in a small number of schools in each community ... the biggest increase was in the isolation of middle class pupils in Scotland's largest cities (Glasgow, Edinburgh, Paisley, Aberdeen and Dundee)' (1997, p.3).

By 2009 placing requests at the start of secondary school had increased to about 14% of the school roll nationally and to over 25% in five local authority areas: Aberdeen, Edinburgh, and Glasgow and two of the suburban local authorities that adjoin Glasgow, East Renfrewshire and East Dunbartonshire (Scottish Government, 2010). No recent studies have been conducted on parental choice in Scotland and the government no longer publishes data on placing requests.

The second element of the 'spatial school system' concerns how schools affect the housing market, and vice versa. Taking the long view, the majority of households in Scotland's cities became homeowners only in relatively recent times, with the percentage peaking in the mid-2000s, in consequence of policy change that favoured home ownership. There is a relationship between schools and the housing market which tends to result in premium prices for houses in the catchment areas of the 'best schools' (see Croft, 2007). International evidence provides an estimate of a three per cent rise in house prices per standard deviation increase in test scores (Black and Machin, 2010; Machin, 2011). The price differential further serves to accentuate the association between schools and social class as less well-off parents are priced out of the most sought-after catchments (Glen and Nellis, 2010).

Price effects may be particularly apparent when fractions of the urban middle class seek to suburbanise for reasons of school access prior to the key junctures in children's educational careers, i.e. at the start of primary school and the transfer to secondary school (see Butler and Hamnett, 2007). It is not always entirely clear, however, what educational advantages parents believe they are buying through the housing market. Is it about leveraging access to schools that are more effective (because of better teachers and/ or more resources); or, is it about accessing a catchment area that will have a more favourable school composition? (see Gibbons et al, 2013)). Although to our knowledge there have been no studies of schooling and house prices in Scotland, marketing of homes for sale often mentions a property's location in the catchment areas of favoured schools.

Although the 'spatial school system' emphasises the dynamic relationships between schools and places, mediated by housing markets and parental choice, the result in Scotland often seems to be of

long term stasis. The history of some schools in Scotland that are currently subject to large number of placing requests and sit within high value residential locations can be traced back to the selective institutions that existed before the comprehensive system. This fixity is consistent with approaches to understanding long term residential change that stress path dependency and the 'spatial lock-in' of housing markets, which are resistant to significant change in the absence of major external shocks (Nygaard and Meen, 2013). The significance of spatial lock-in is that the characteristics of residential areas, and hence the composition of the school population, are associated with decades-long (or even centuries-long) social structures and land values, and therefore they are only marginally responsive to changes in education policy. Nygaard and Meen's work is consistent with the historical sociological approach of Robertson et al (2010) who sought to explain why there is persistent influence lasting for 80 years or more, in the social class of Scottish residential areas, of decisions made at the point of their construction.

Butler and Hamnett (2011) show that such persistency can be overturned in more dynamic locations. Their study of East London in the 2000s shows how substantial labour market and demographic transitions can change a school system. At the time of their research the traditional white working class had been largely replaced by a diverse, multi-ethnic, but mainly service-class population, expanding out of the inner city towards the suburbs. These groups had strong educational aspirations for their children, which was key to their social and spatial mobility. There was also a smaller group of mainly white professionals moving into the inner city who needed to navigate a school system that was 'designed in a previous age to fail the working class' (Butler and Hamnett, 2011 p.227). While they show that both groups benefit from a school system that permits choice and offers a range of types of school, schools were both a lever of social change and, as their composition changed, an indicator of it.

The research evidence from beyond Scotland is also clear that the social composition of schools, accentuated by the 'spatial school system', matters for what goes in within them so that it is more difficult to provide good education in disadvantaged contexts. Thomson conceptualises schools as 'a distinctive blend of people, happenings, resources, issues, narratives, truths, knowledges and networks' through which 'the effects of geographies and histories are manifest' (2002, p.73). Schools are context-derived in the sense that their everyday operations are affected by their embeddedness in their neighbourhood. She provides a number of observations about how a poor neighbourhood context influences schooling. A basic problem for some families may simply be a lack of income to pay for extra-curricular activities, school trips and so on, which affects the activities that the school can offer to children. It also is acknowledged that poorer parents are harder for schools to engage with, and less able to contribute financially for desirable extras. A concentration of students from disadvantaged backgrounds also appears to exert a downward pressure on the quality of schooling

(Levin, 2007). Thomson (2002) points to the problem that arises from a presence within a school of many children from families that experience insecurity and stress. In a study of London schools, many of these same factors were recognised by young people themselves who identified that poverty, and especially instability in their home lives, disrupted their engagement with education (Archer at al, 2010).

Management is also challenging in schools with more disadvantaged intakes. Thomson (2002) points to the high turnover of households in many poorer (and unpopular) residential areas that leads to transient school populations, requiring continual assessment of learning needs of incoming pupils, and regular class reorganisations. School management is also routinely deflected to cope with the consequences of disadvantaged school intakes, as pupil welfare problems continually surface and have to be managed. In schools with high poverty intakes Lupton (2006) demonstrated that even senior managers were routinely occupied by pastoral, attendance and disciplinary requirements. Thrupp (1999) showed complementary findings: schools with intakes from higher socio-economic groups were able to raise academic performance through management and development activity, which was much more difficult to perform in the more demanding context of lower socio-economic settings. Gewirtz (1998) also showed that management and development in deprived schools was routinely side-tracked by staffing problems, including recruitment and strained staff relationships.

Research shows that teaching quality is also related to the social composition of pupils. Bell (2003) found clear relationships between the quality of teaching and the social composition of pupils and, particularly relevant to this paper's concerns, that poor neighbourhoods were associated with poor quality teaching. Similarly, Lupton (2005) found that 'high poverty' contexts exerted a downward pressure on teaching quality, including difficulties in attracting and retaining qualified staff. She also found that classroom teachers spent more time on activities that were peripheral to teaching including counselling pupils, behaviour problems, enforcing rules and dealing with distractions. Under these circumstances, she noted that there was also a tendency to try to keep children occupied, with a high value placed on keeping them 'on task' rather than considering what they were actually learning. Thrupp and Lupton together comment that 'low expectations and unchallenging work were in evidence in all the schools we studied' (2010, p.318). These low expectations were a response to pupils whose social backgrounds were a problem for their learning, or so teachers believed. Overall, Lupton (2006) noted that the official regulator's ratings of school quality (in England) aligned with the index of multiple deprivation, which is also confirmed by more recent research (Clifton and Cook, 2012).

6.2 Neighbourhood Effects and Schooling

The explanations for the relationship between educational disadvantage and place discussed above are mainly about the concentration of disadvantage, and how this feeds into the social composition of

schools and the processes within them. However, an important question is whether poor neighbourhoods merely cluster disadvantage or if they also serve to maintain and extend it by embedding their residents in a context that further activates it. 'Neighbourhood effects' is a significant stream of research in urban studies (e.g. see Van Ham et al. 2013; Kerr at al, 2014) and reflects the idea that places are not only a physical setting, a built environment and a fixed location but also the spatial representation of social and economic forces.

A key theoretical mechanism, influenced significantly by Wilson (1987, 1996) and by Bourdieu and Putnam, concerns collective socialisation in disadvantaged settings. A central element of 'neighbourhood effects' theory holds that the attitudes, beliefs and behaviours of an individual are directly influenced by those of their neighbours. There are multiple potential neighbourhood relationships through which collective socialisation processes might operate (e.g. Andersson et al., 2007; Galster, 2007; 2012). The literature considers the power of social networks and information, and attributes key potential influences to role models and peers. It also theorises about the intensity of neighbourhood poverty required to generate a neighbourhood effect, including the possibility of 'contagion' or 'epidemic' effects after a certain threshold of a critical subset of the population has been reached. Recent theoretical developments suggest further complex, cumulative and path-dependent loops that operate between individuals and across generations whereby effects are created by myriad, apparently individual, decisions (Galster and Sharkey, 2017).

Across all of these ideas, the local formation of subjective worldviews plays a central role in the idea that living in a poor neighbourhood intensifies disadvantage. The presence of intense, place-based social relationships are said to shape individuals' social identities, attitudes and aspirations which, in turn, are held to be instrumental in how individuals relate to wider society and its institutions. In particular, the theory suggests that residents in disadvantaged neighbourhoods will adopt negative or perhaps even fatalistic dispositions towards education. This is because they have developed identities for themselves that are shaped by living in neighbourhoods where most people are subject to social and economic exclusion (Atkinson and Kintrea, 2001; Quane and Wilson, 2012). In turn it is held that these dispositions directly influence the individual's outcomes, for example their educational attainment or their employment.

Although neighbourhood effects theory was not developed specifically with young people in mind, it is particularly relevant for two reasons. First, especially in disadvantaged areas, more so than adults, young people tend to have stronger exposure to local social worlds (e.g. Childress, 2004; Pickering et al, 2012). Second, it is widely recognised that traditional transitions from school to work dissolved with the demise of the industrial economy (Morris, 1995). In the post-industrial economy, young people are instead engaged in a more complex process of transition within which subjectivities- such as dispositions, attitudes, values and 'soft skills'- have become much more important to adult

outcomes (e.g. Furlong and Cartmel, 2007). Many writers, whether working explicitly within a neighbourhood effects framework or not, identify that young people's sense of their own identity and the values and attitudes that come from their identity, can contribute to a disjuncture with mainstream education (Kerr et al, 2014). For example, Archer et al (2010) show that the strategies that young people adopt for developing their identity and status in working class areas create disadvantages for them in educational settings so that it is less likely, for example, that they will favour higher education.

Altogether, then, we can conclude that place matters for schooling because:

- There is a dynamic, recursive relationship between schools and places: the 'spatial school system'. Neighbourhood social composition shapes the social composition of school intakes, which may affect the perception of the school. In turn this affects the popularity and price of residential property in the neighbourhood, which in turn further influences the neighbourhood social composition.
- The composition of pupils in a school is typically shaped by defined catchment areas and it potentially affects the management of the school and educational processes, and therefore impacts on the educational experience and the quality of education available.
- The social composition of a neighbourhood potentially shapes the world views of students who live in that neighbourhood and, in consequence, there may be a risk of negative attitudes to school and low aspirations which impacts negatively on educational attainment.

There have been many studies that have tried to quantify the impact of living in a disadvantaged neighbourhood on educational attainment (see Lupton and Kintrea, 2011; Nieuwenhuis and Hooimeijer, 2016). The latter conducted a meta-analysis of 88 studies in developed countries and, concluded that neighbourhood poverty had an independent influence on educational attainment. Nieuwenhuis and Hooimeijer also raise the important question of the how to disentangle the specific neighbourhood influences on educational attainment from other related factors such as parents' socio-economic status, parenting styles, and school factors. Their conclusions survive controlling for these factors, but they comment that 'it is necessary to add the right control variables to … avoid overestimating or underestimating neighbourhood effects' (2016, p.329). This means being able to access good data across all three domains of place, school and family background, which is currently problematic in Scotland.

7. Defining the Attainment Gap

Concern about the attainment gap in Scotland is now widely shared but it is less often discussed how precisely it should be defined and what kinds of targets might be set for narrowing the gap. Starting at first principles, there are three main approaches and each implies different kinds of policy action.

The first approach maintains that that the attainment gap might be assessed by whether *a defined proportion of children (a number close to 100%) attain specified targets that represent an acceptable normative minimum outcome* (Figure 1). Using this *minimum standards* definition, therefore, the attainment gap represents the difference in outcomes between the minimum and those that fall below it, and the policy objective would be for (almost) all children to reach the minimum. Of course, not all young people who are have attainment levels below the minimum will be disadvantaged in other respects (socio-economically or in terms of neighbourhood) although, according to the available data, they are more likely to be so, probably depending also on how high or low the minimum is set. This approach is comparable to other familiar public policy approaches applied in fields such as, social security, and housing conditions, where the policy objective is to achieve a position where all citizens should enjoy the agreed minimum level.

A second approach maintains that the attainment gap might be identified by comparing the outcomes of disadvantaged and less disadvantaged groups, i.e. *when the attainment levels of a policy-relevant group of disadvantaged children are no worse than children who do not experience such disadvantages.* For example, the policy relevant group might be those that grow up in the 'worst' neighbourhoods for deprivation compared with all the other neighbourhoods (Figure 2). This could be called a *comparative cohort definition*. The policy implications that arise are to concentrate efforts on improving the educational attainment of the target group. Such an approach would be consistent with longstanding approaches to regenerating disadvantaged neighbourhoods; and, would be conceptually aligned with other policies that address disadvantage, such as the child poverty strategy in Scotland.

A third approach maintains that the attainment gap might be identified *when attainment distribution aligns with international norms* or, more ambitiously, *when it aligns with those countries where there is the least difference between the poor and the better off and which have high educational attainment* (Figure 3). Using this *comparative international* definition then, the attainment gap represents the difference in the gradient between the home country and chosen international comparator(s). Policy would then aim to raise the educational attainment of all those children whose outcomes lie beneath the comparator line, effectively aiming to flatten the gradient across the whole distribution of disadvantage.
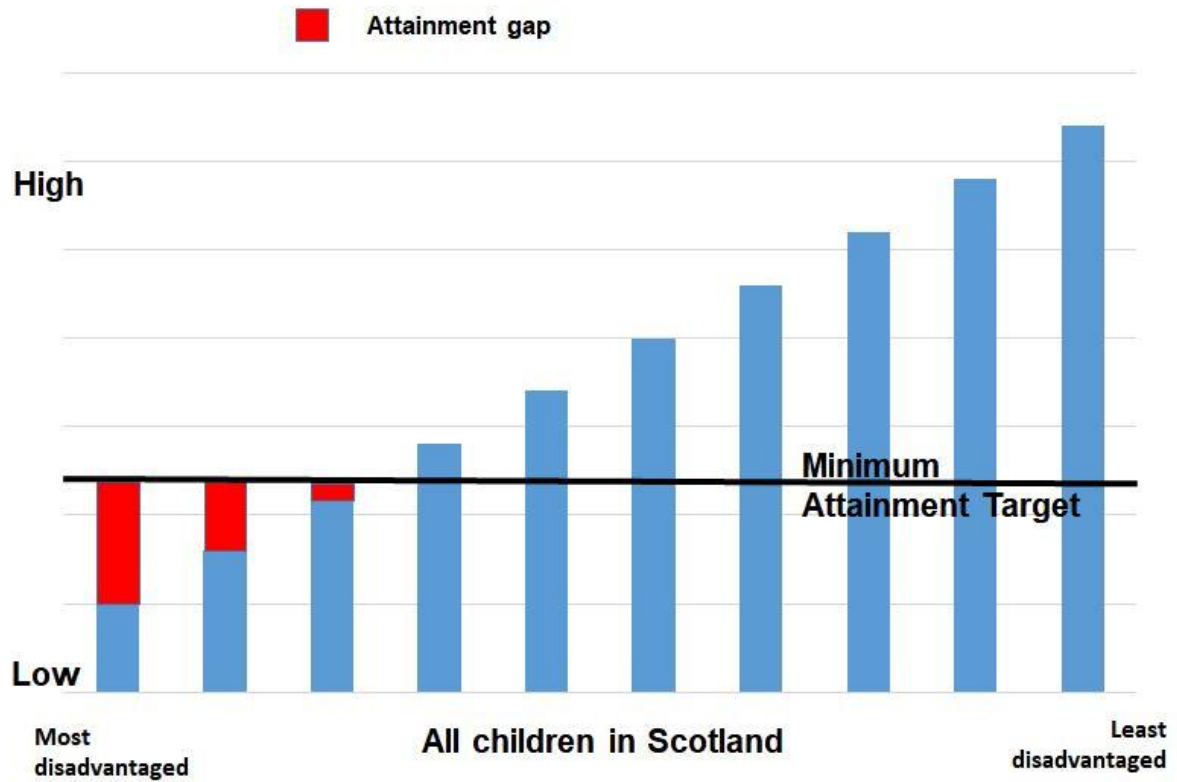
Figure 1: Minimum Standards Attainment Gap

Figure 2: Comparative Cohort Attainment Gap (based on targeting the most disadvantaged 20% of areas)
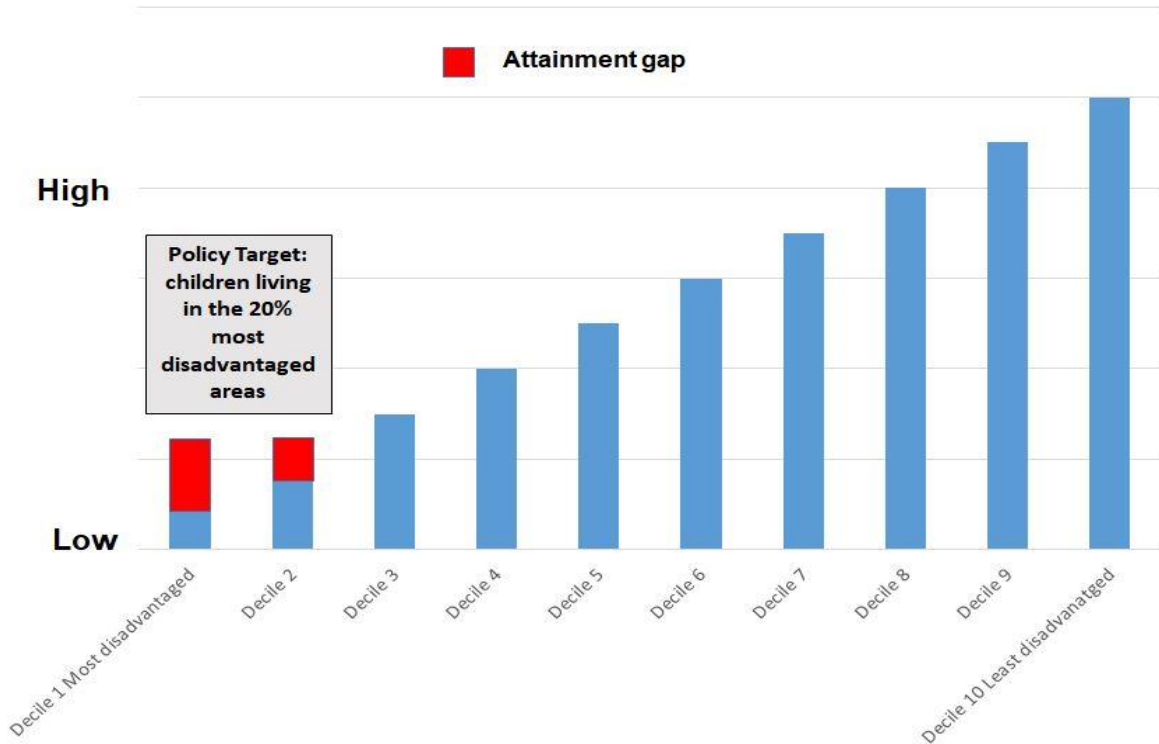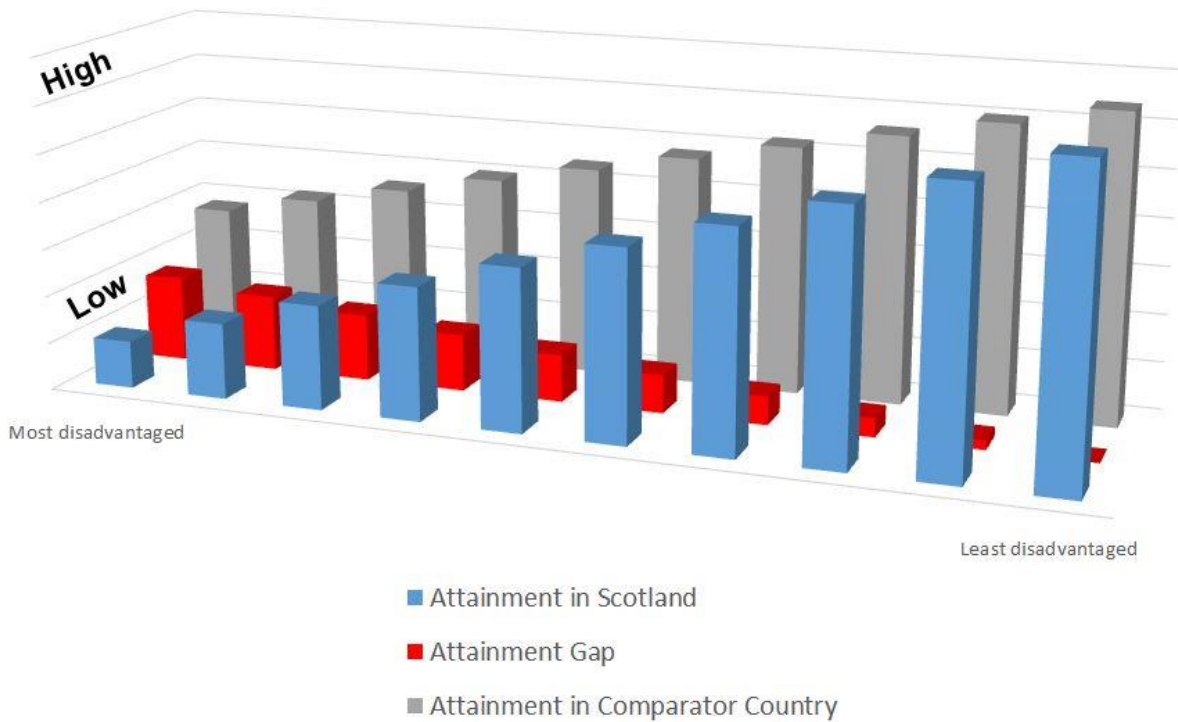
Figure 3: Comparative International Attainment Gap

Attainment in Scotland

Attainment Gap

Attainment in Comparator Country

8. Policy Directions

The emergence of a policy focus on place based disadvantage since 2015 prompts the question about how adequate the Scottish Government's emerging response is.

Until recently, place based inequality was neglected in policy debate in Scotland and the existence of a place-based attainment gap was commented on only very occasionally by Ministers (e.g. Arnott and Ozga, 2010). The neglect is perhaps surprising as there has been a strong policy focus on neighbourhood inequality in other parts of government stretching back more than 30 years, which led to a series of initiatives and spending programmes targeted at area-based disadvantage (see Robertson, 2014). There is still an active policy for disadvantaged communities, which is supported by the 2015 Community Empowerment Act and by spending programmes. The policy does acknowledge a role for education 'in building communities and in maximising the attainment and life chances of young people' (Scottish Government, 2011, p.6). However, in a document containing 45 specific actions for government, across a range of economic, community, housing and built environment themes, there are no actions towards any aspect of education. Education's absence from the area regeneration agenda is all the more surprising as there has been a long-term interest by governments in the role of education in combatting social exclusion and promoting social justice.

Education Scotland's *Corporate Plan* of 2013 previewed a potentially important change of direction. It set out aims in relation to improving the equality of outcomes and highlighted differences in attainment by SIMD rank as 'a key issue holding us back' (Education Scotland, 2013, p.19). Not long after, the Scottish Parliament's Education and Culture Committee held an enquiry into the attainment gap that was evident from the well-publicised report on educational inequalities (Sosu and Ellis, 2014). However, in spite of the authors centring their report on the association between disadvantaged areas and educational attainment, the committee appears to have conflated disadvantaged areas with disadvantaged households. In its deliberations, it chose not to examine place-based inequalities, instead focussing on the possible roles of teachers, schools, parents and employers in closing the gap (see Maxwell, 2015; Constance, 2015). This suggests a certain insecurity of grip on place-based aspects of educational inequalities.

The current government's interest in place based inequalities emerged in the run-up to the 2016 general election. Just before the election, an amendment act was passed that imposed duties on ministers and education authorities to exercise their powers with due regard for 'pupils experiencing inequalities of outcome' including 'as a result of socio-economic disadvantage' (Education (Scotland) Act, 2016, Part 1, Section 1). A new fund, the Scottish Attainment Challenge Fund, was also launched in 2015. It provides extra resources to schools in areas of high deprivation in nine local authority areas, seven of which are in the west of Scotland, centred on Glasgow. The aim of the fund was simply stated as 'to help achieve equity and address the priority to close the attainment gap between children and young people living in our most and least deprived communities' (Education Scotland, 2016). Money goes directly to schools, with a significant emphasis on improving learning and teaching and supporting children with particular needs, with the initial allocations going to primary schools but with the intention of including secondary schools in later funding rounds. However, at its launch there appeared to be a lack of clear thinking about the relationship between households, places and schools, and little sense of the bigger picture of the 'spatial school system'. Nor was there any sense of what the Scottish Government wanted to achieve in a strategic sense. Instead the Attainment Challenge made a general call for greater equity.

After the election, with John Swinney appointed as cabinet secretary for education, further initiatives quickly followed, including an education summit, a new fund to support head teachers, an international advisory committee, and a first delivery plan that promised 'a relentless focus on closing the attainment gap' (Scottish Government, 2016d, p.4). But the lack of clarity about place-based inequality continued with the introduction of the Pupil Equity Fund, which is also said to be aimed at closing the attainment gap. Money is allocated to schools based on the proportion of children from P1 to S3 who get free school meals (a marker of socio-economic disadvantage), to be used at the discretion of the head teacher. So having identified, somewhat imprecisely, a policy focus on spatial

inequalities, the Pupil Equity Fund serves to obfuscate it by allocating additional money to 2,500 schools throughout Scotland in order to close a different gap. Critics also say that these funds do not make up for the cuts to school budgets, which have been made as a consequence of public sector austerity, and therefore cannot be considered to be additional money (BBC News Scotland, 2017).

The Pupil Equity Fund was an early indication of an emerging policy agenda to shift power to school head teachers from local authorities, through which almost all schools funding has been channelled traditionally. Following a discussion paper on school governance (Scottish Government, 2017e), the Scottish Government consulted on new education bill that would establish a 'head teachers' charter' designed to provide more autonomy over the curriculum, improvement plans, staffing and funding. It also proposed to establish a legal basis for six 'Regional Improvement Collaboratives', which were afterwards set up to work across local authority boundaries and support the improvement of attainment (Scottish Government, 2017f). There was not, however, a clear articulation of the theory of change linking the empowerment of head teachers with addressing place-based inequalities in attainment.

In the summer of 2018, however, it became clear that the government was not going ahead with new legislation, even though a few months earlier it had described the bill as 'the centrepiece of the legislative programme for the year ahead' (Scottish Government, 2017j). This was because it faced opposition from within the education community as well as from other political parties, especially the proposals for the headteachers' charter. Nonetheless, a draft bill was published (Scottish Government, 2018a) but it was not presented to Parliament, which was widely taken as a sign that it had been shelved. Instead, continuing the tradition that educational change in Scotland proceeds with broad consent, the government concluded a short agreement with the Confederation of Scottish Local Authorities in which both signatories promised to continue to pursue elements of the erstwhile bill (Scottish Government, 2018b). Given the direction of travel, it was not a surprise that there were no references to place-based inequalities in either document.

Looking at this stalled attempt at educational reform in the round, the 'attainment gap' policy was developed initially as a means to tackle spatial inequalities. But it became apparent from wavering statements and decisions that the governments' aims were not in fact so clearly focussed. During the process of policy development, schools -and more empowered head teachers in particular- emerged as the main focus of reform and the main delivery vehicle, rather than the community- or area-based approaches which would have been a more logical approach to place-based disadvantage.

9. Conclusions: Towards a Better Understanding of the Attainment Gap

In spite of the international evidence that place matters for education, the Scottish Government's uncertainty about its approach in Scotland is to an extent explicable by a lack of evidence about what underlies educational disadvantage in Scotland. Since devolution in 1999, researchers have rarely worked on the relationships between educational disadvantage and place. While there are some papers that have examined the facts of educational inequality and of school segregation, including the official commission of Croxford (2009), there is very little understanding of the contemporary geography of educational inequality. Some data exist about the broad links between educational disadvantage and disadvantaged neighbourhoods as identified by the SIMD (Sosu and Ellis, 2014; Scottish Government, 2017g), however there is no parallel to the understanding that has emerged in England and elsewhere on the dynamic relationships between education and place. Recent papers by McCluskey (2017) and Mowat (2018) critique the current 'closing the gap' policy and throw doubts on its efficacy, with Mowat concluding that 'we cannot focus alone on what schools and individual teachers can do to address the problem' (2018, p.315). But they both appear to take place for granted and do not discuss it explicitly as part of the context for educational disadvantage.

An improved strategy for understanding the attainment gap would embrace a range of research approaches, including qualitative research with parents, young people and teachers, and longitudinal evaluations of particular policies and initiatives, including assembling new data. However, it is evident that much more could be done using existing data sets. Currently, the data that is published relating to the attainment gap is very limited. The home neighbourhoods of pupils described in terms of SIMD is now published by Education Scotland for secondary schools alongside reported attainment for pupils. Local authorities also publish attainment data for their areas organised by the SIMD. In these reports the data is set against a 'virtual comparator' which is designed to show if outcomes are commensurate with the level of SIMD deprivation.

It took two years after the First Minister's first speech on the attainment gap, and four years after the Education Scotland *Corporate Plan* first highlighted it, for the Scottish Government to publish a consultation document on measuring the attainment gap and on milestones towards closing it (Scottish Government, 2017h). The agreed measures were then confirmed in the *National Improvement Framework* for 2018 (Scottish Government, 2017c). The government settled on a definition of its most and least disadvantaged children and young people as being those in the bottom and top 20% of SIMD rank according to their home address but the implications of choosing such broad groups for comparison is not discussed in the document, even though other published evidence shows a strong gradient of attainment within the bottom and top quintiles (Scottish Government, 2017g). Especially at the most deprived end of the spectrum, this approach avoids putting the spotlight on the most

disadvantaged neighbourhoods, which may be deliberate. But even having restated the intention to use the SIMD to define disadvantage, as with other recent government documents, there continues to be a sense of uncertainty about whether the policy focus really is on disadvantaged places. In response to comments received as part of the consultation, the *National Improvement Framework* advises that the decision to stay with the SIMD as the indicator of disadvantage was because no other socio-economic measure was available that could be linked to attainment.

The attainment indicators selected by the *National Improvement Framework* comprise literacy and numeracy measures at different age points, the attainment of one or more school qualifications at SQA levels 4, 5 and 6 upon leaving school, and a measure of the percentage of young people aged 16-19 participating in education, training or the labour market. There are also indicators concerning attendance, exclusion from school and mental wellbeing, none of which are direct measures of attainment. Therefore, in terms of our earlier discussion about how the attainment gap might be defined, the government has chosen essentially a cohort comparison approach. However, the literacy and numeracy measures selected are about the percentage of children or young people that meet target standards for their age group, so some of the measures also use a minimum standards approach.

'Stretch aims' for each indicator have been published also. The status of these is not entirely clear; perhaps the phrase has been coined to indicate something that is less than a target that the government wishes to be held to account for but more than a just an aspiration. The stretch aims can also be interpreted as an attempt to respond to criticisms that, according to recent data, there has been a Scotland-wide decline in some aspects of attainment. From a 2015/16 baseline the stretch aims show the level of improvement desired in future years, going up to 2024/25 in some cases. They apply to all quintiles of the SIMD and the official explanation is that 'they help mitigate the risk of leaving behind those disadvantaged children and young people living in affluent areas, by ensuring we seek to raise attainment for all' (Scottish Government 2017, p.24). Effectively the stretch aims look to lessen the gradient of attainment between pupils from the more deprived and less deprived neighbourhoods, and to raise the level of attainment of pupils across all the SIMD ranks.

It is not clear how the quantitative boundaries of the stretch aims have been arrived at but in spite of the involvement of the OECD in providing advice to Ministers they do not appear to be based on an international comparative approach. Some of them, however, look very ambitious. For example, in 2015/16 only 43% of young people in the most deprived 20% of neighbourhoods left school with one or more level 6 qualifications, a 38 percentage point gap behind those in the least deprived 20%, of whom 81% gained one or more such qualifications. The stretch aim is to increase the 43% to 75% by 2024/25, while also raising the attainment of those in the least deprived quintile from 81% to 90%. So an effect of the 'stretch aims' is to make closing the gap more difficult.

While these forthcoming indicators will be very helpful in better identifying the size of the attainment gap, its incidence across the age range of pupils and by school, in order to understand the attainment gap and take effective action on it, it is important to try to unscramble the factors that underlie it. This paper has tried to promote more clarity about *'what the attainment gap is a gap between'*. The factors that need to be understood include both the separate and the conjoined influences of the family socio-economic background of students, the schools they attend, and the neighbourhoods in which they live. In this paper, the neighbourhood and place-based elements have been accentuated because they appear to be potentially very important in the context of local authority areas that have strong socio-spatial divisions, and have been particularly neglected, and poorly understood in the Scottish context. Although current Scottish policy appears to have a concern about place, policy discourse and actions suggests that the concern is insecure and pragmatic rather than principled.

Concerning the socio-economic background of pupils, currently little is known about attainment of pupils from different backgrounds. In the longer term the Scottish government says it will explore the development of 'a bespoke index of social background' that will contain 'individual-level data (as opposed to area-based)' (Scottish Government, 2017h). Although there currently exists an annual parents' data check, this does not extend to asking about their incomes, occupations, ethnicity, or their own level of education, although it does contain questions about languages spoken at home and about religion- presumably because these indicators can be portrayed more easily as being educationally relevant. It appears that the government intends to seek socio-economic information about parents at the point at which children are registered for school, which would be a major step forward, but details are awaited.

Concerning schools, attainment data is limited to examination results (therefore for the upper levels of secondary schools only), and inspection reports of schools are published. As part of the post-2016 education reforms the Scottish National Standardised Assessment was introduced in 2017-18 for pupils in P1, P4, P7 and S3 (Scottish Government, 2017h). Although this has the potential to provide new attainment data across a range of age groups, the Government has agreed that it will have access to 'national-level data only'. While the intention is to avoid the appearance of league tables, which remain highly contentious in Scotland, it seems remiss if the opportunity has been forgone to carry out any school level analysis, even using anonymised data which would not identify individual schools.

There are also other existing data sets about schools that could provide important insights into the attainment gap. Scottish Government conducts a teacher census, which includes the age, gender, working status, ethnicity, employment status, probationer status, and subject specialisms of teachers, and from which can be calculated the turnover of teachers in particular schools. Data is also available at school level about the overall staffing complement from which staff-student ratios can be

calculated, and class sizes as well as about some aspects of pupil composition. The existing school estates survey could also be used to examine the suitability of school buildings. However, at present these data are not brought into the debate in order to explore the relationships between attainment and the schools that pupils attend. This is in spite of evidence from beyond Scotland that disadvantage exerts downward pressure on school and teaching quality.

Concerning neighbourhood factors, as we have discussed, the literature shows that neighbourhoods can exert an independent influence on educational outcomes. The SIMD is a well-used and accepted descriptor of neighbourhood level deprivation but since it is a composite index there also would be benefit in examining the relationship with some its components to attainment at local level. For example, is there a relationship between adult's and children's educational attainment? There would also be advantage in exploring the precise geography of deprivation in relation to schools. Existing data shows the proportion of young people in secondary schools that have addresses within particular SIMD quintiles, but it is not clear whether this is a mainly matter of the design of school catchment areas (including the overlap between non-denominational and Catholic school catchments, and the existence of local authority boundaries) or whether it is significantly influenced by parental agency. Analysis of individual pupil data by SIMD neighbourhoods would provide a better understanding.

As we have discussed, there is dynamic, mutually-constitutive relationship between schools and places and tackling the attainment gap requires that relationship to be better understood. Part of that understanding concerns the housing system and the choices that households with children make within in, and the constraints they face, which shapes the make-up of particular neighbourhoods, and thereby influences the pupil composition of schools. Also relevant to such an enquiry would be the relationship between public policy towards planning, and neighbourhood regeneration and school provision. The other part of understanding the dynamics lies within the school system. Parental choice data is no longer published in Scotland and there is no public information on how many placing requests there are, nor how many are granted, nor their geography. Given all the evidence of the role of 'school choice' in securing further advantages for children from more advantaged backgrounds, this is an important missed opportunity to gain a better understanding the attainment gap that would be easy to redress.

In conclusion, the attention to place based inequalities that was initiated by the First Minister was very welcome but actions that followed to better understand the attainment gap and to close it faltered very quickly. It was unfortunate that the debate about educational reform was soon caught up in controversy around the empowerment of head teachers, a proposal whose contribution to 'closing the gap' was never well articulated. The thinking about place in the debate in Scotland was inconsistent

and none of the policy actions proposed had a neighbourhood focus, but instead were mainly about schools. It is of course unarguable that schools and teachers should be working to address inequalities, and that head teachers should be accountable but key questions about the attainment gap were not considered. These include which groups are disadvantaged, the characteristics of the schools they attend, the geography of educational disadvantage across Scotland, and the impacts of dynamic spatial factors such as migration, housing markets, catchment areas and placing requests. This means that that there is still little basis for thinking about how interventions, at least those that go beyond the school gates, might close, or at least narrow, the gap in attainment between young people from more and less disadvantaged backgrounds.

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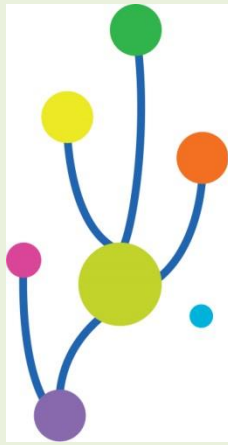
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