Collective Co-production in English Public Services – The case of voluntary action in primary education

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Abstract

In this paper we explore the extent and distribution of collective co-production across the single policy area of primary education in England. Whilst much attention has been paid to the virtue of co-production, often drawing on particular, single, case studies, there is less literature exploring the wider impacts. However, ongoing marketisation, fiscal pressures and increased competition in education has led school leaders to turn to co-production as one mechanism for survival, while recognition of some of the potential benefits has led to a surge in efforts to implement co-productive activities. Focussing on collective co-production efforts, this article explores voluntary income data from over 300 primary schools and their respective Parent Teacher Associations, supported by 70 questionnaires exploring volunteer contributions were completed by Head-teachers and 10 in-depth interviews with Head-teachers. Our data reveals three significant findings: the extent of collective co-production in primary education is increasing; this activity is driven by fiscal challenges resulting in schools feeling coerced into co-production which has wider implications and; this is resulting in increasing inequalities. We conclude with a discussion about what this means for the wider policy agenda.

Introduction

Whilst recognised as a contested term, co-production typically refers to contributions from service users and providers to raise the quantity and quality of public services (Bovaird et al., 2015). Fiscal pressures facing public services has led to a renewed interest in this topic, with co-production becoming a core focus of public policy (Brandsen and Honingh, 2015). As a result, we have seen calls for increased volunteer engagement in health services, in social care and in education. In this paper we explore a specific case of co-production, that is the co-production of primary education in the English social policy environment. Whilst much attention has previously been paid to *individual* forms of co-production in primary education, often also referred to as parent engagement, with the aim to improve individual children's attainment, less has been applied to the *collective* co-production by parents and communities in the resourcing and delivery of the service of education through active involvement (Honingh et al's., 2018).

We view co-production in education as parents and community members actively contributing to the work of schools through voluntary action. We define voluntary action as the voluntary giving of time (in the form of volunteering), money or items for no financial incentive, of one's own free will and to benefit the environment or someone (individuals or groups) other than, or in addition to, close relatives (Payton and Moody, 2008; Body et al., 2017). Whilst voluntary action has a long and established role in education in England (Miller et al., 2009; Morris, 2011), the scale on which it is currently occurring is beyond any seen since the state took responsibility for education provision in the early 20th Century. As fiscal pressures increase (school budgets have fallen by 8% in real terms since 2010 (IFS, 2018)) and marketization of education increases, schools increasingly turn to parents and citizens to collectively support them to continue to deliver a public education service. This activity goes beyond co-production with parents to improve their own children's educational attainment, to a wider collective engagement to support collective outcomes (Bovaird et al., 2015).

This is what led, in 2016, to us conducting the first significant piece of research into voluntary action in primary schools conducted in England (see Body et al., 2017). In this research we found that voluntary action – the giving of time or money – was widespread within primary schools, with many examples of schools where generosity was resulting in increased opportunities for pupils. However, whilst it was clear that there are substantial benefits that voluntary action can provide to schools and their pupils, we observed that the consequences of a substantial uneven distribution of that voluntary efforts could serve to exacerbate existing inequalities, particularly if voluntary action plays an even greater role going forward. In this research we identified a need for further research on the impact that a growth in collective co-production would have on public services. The research summarised in this paper, responds directly to that need, drawing on a second wave of data collection, conducted in 2018. Drawing on data collected from 2016 and 2018, we are able to capture the increasing role that voluntary action is playing in state education.. We treat this as a case study for what the results of an increased reliance on co-production might be for public services across the piece.

This research is timely and the case study of education in England relevant, given current debates around school funding, and the extent to which public services in general are being underfunded. On Friday 28th September 2018, we witnessed an unprecedented grass-roots uprising of Head-teachers campaigning against school budget cuts. Teaching union members, parents and staff had taken part in various protests about the fiscal challenges in recent years. However, this rally was very different – made up of those people who run the schools – who set the budgets and who felt they no longer had any place to turn. On the 8th March 2019, 7,000 Head-teachers sent letters home with pupils accusing the Department for Education of refusing to face effects of cuts. High-profile campaign groups such as Worth Less?, School Cuts and Fair Funding for All Schools, have all highlighted the growing demands on parents and other community members to donate to fund children's education.

To investigate this topic, this paper draws on a study of 306 primary schools in a single local authority area in Southern England, which contains distribution of wealth and deprivation which is relatively consistent with England as a whole, drawing on school financial data, Parent Teaching Association (PTA) data obtained from the Charity Commission, a survey distributed to Head-teachers and Chairs of Governors and follow up interviews with 10 Head-teachers and Chairs of Governors. The central argument to this paper is that the ongoing marketisation of education, alongside heightened fiscal and resource pressures in schools, has led primary schools to explore innovative ways to co-produce with citizens (mainly parents/ carers of children with the school), to respond to these challenges. Other public service leaders are increasingly facing similar challenges, making this a hugely timely piece of research.

This paper therefore begins by exploring the role of voluntary action in schools through the lens of collective co-production, a framework for understanding citizen engagement in public service provision. It follows this by reflecting on the way in which state funded primary education has become increasingly marketized and how it is being affected by policy decisions, in particular, sharp declines in funding since 2010. Next, we outline the qualitative and quantitative methods used to explore this phenomenon. In our findings we present the responses to the outlined research questions, finally concluding that collective co-production exacerbates inequality in primary education, a finding which has significant potential implications for wider public services in England and beyond.

Understanding Voluntary Action as a Mechanism of Co-production in Schools

Within Social Policy and Public Administration studies, the role of co-production in the delivery of public services has been widely debated ever since the term was first coined by Ostrom and Ostrom in 1977. Co-production is based on a logic which considers that, in the provision of public services, the distinction between producer and consumer is not so defined and that through participation in the co-production of the services they benefit from, people can improve the quality of the public services they use (Brudney and England, 1983). The co-producer is often the direct recipient of the service provided but may also be family members such as parents of school children (Brandsen and Honingh, 2016). Co-produced public services, then, involve collaboration between professional staff and private citizens (Whitaker, 1980).

Multiple and various interpretations of co-production exist, creating a challenge for researchers to find comparability across research findings. Classically, Ostrom (1996) defines co-production as "the process through which inputs used to produce a good or service are contributed by individuals who are not 'in' the same organisation" (p.1073), whilst the widely used definition by Parks et al (1981) focuses more on the 'efforts by individuals and groups' to enhance services. Voorberg et al's., (2015) systemic review of co-production identifies citizen involvement on three levels, as a co-implementer, a co-designer or as an initiator. They also draw attention to the fact that whilst much literature has been published on the identification and influential factors of co-production, significantly less attention has been paid to the outcomes of co-production (Voorberg et al., 2015). Brandsen and Honingh's (2016) presentation of the four potential types of co-production focusses on the extent to which citizens are involved in service design and/or implementation of core and/or complementary services, while earlier conceptualisations have drawn distinction between individual, collective and group co-production, dependent on who the recipients of the benefits of the activity may be (Brudney and England, 1983). Particularly useful in this regard is Bovaird et al's (2015) distinction between individual and collective co-production, where collective co-production is conceptualised as the joint action of citizens, versus individual co-production which focuses on actions which are not jointly undertaken.

In the specific case of education, co-production remains an ill-defined concept. Whilst there has been much debate about parents and teachers co-producing educational outcomes, this is largely viewed through the lens of schools working in partnership with individual parents to improve children's individual educational outcomes (for example, see the work of Epstein and Dauber, 1991; Goodall, 2017; Huntsinger and Jose, 2009). We interpret this as *individual* co-production, and distinguish this activity from the *collective* coproduction we are focusing on in this paper (Bovaird et al., 2015). Indeed, Epstein and Dauber's (1991) six types of parental involvement is widely used within the literature, supporting the understanding of individual forms of co-production as being dominant in primary education (Honingh et al., 2018). This parental engagement activity includes 1) basic obligations at home; 2) positive communications between home and school; 3) assistance in learning activities at home; 4) assistance at the school through volunteer help; 5) involvement in school decision making, governance and advocacy; and 6) collaboration and exchange of support with community organisations to benefit the school. Honingh et al's., (2018) systematic literature review on the topic of co-production in primary education highlighted significant attention in the literature to individual co-production to improve children's educational attainment (broadly speaking Epstein and Dauber's first three types of parental engagement), but less attention was paid to the more organisational forms of co-production such as involvement in service design and delivery of core and complementary services, under which more collective types of co-production are likely to emerge.

Focusing on voluntary action in schools through the framework of *collective* co-production, we examine the joint action of schools and parents, and other community members, in achieving benefits which are collectively experienced (Bovaird et al., 2015). In two areas of British education policy collective co-production is already made explicit: first, free schools which are run on a non-profit basis, and can be established by charities, universities, businesses, parents, teachers, and community and faith groups and; second, the role of volunteer school governors in the governance and leadership of schools. However, cuts to funding have meant that schools of all types are increasingly looking to other forms of collective co-production to deliver core and complementary services, which go beyond raising attainment of individual students, and instead focus on resourcing and supporting the schools core services (Cepiku et al., 2020). In this context, collective efforts may include fundraising by the PTA to raise money for the school, individuals volunteering within the school (from supporting reading to school maintenance), schools forming partnerships with local community businesses/groups to support the school, or parents contributing to a 'school fund', and many more. In each of these examples, the co-production includes some sort of formal or informal coordination mechanism and joint or group action, to collective benefit – commonly in the form of increased resources for distribution. As identified by others (e.g. Andrews, 2012; Kunzel, 2012; Bovaird et al., 2015), fiscal pressures on public services commonly provide a driver of this co-production activity, and in this way schools are no exception.

However, there is evidence from existing literature to suggest that an increased reliance on co-production, individual or collective, may not lead to equitable outcomes in public service provision (Steen et al., 2018). Public services as a whole are often designed in ways that advantage more affluent groups (Hastings, 2009; Hastings and Matthews, 2015), and co-production may exacerbate this further. Co-production of all types requires engaged citizens who have components of social and cultural capital such as a sense of being part of a community, trust in others and a range of other material and cultural resources (Andrews, 2012). These resources are not evenly shared between areas, and it is therefore likely that engagement in co-production activities reflect the same biases found in other types of participation (Brandsen and Honingh, 2016; Musick and Wilson, 2008; Clark et al., 2013).

Hastings and Matthews (2015) use the lens of Bourdieu's theory of habitus to explore why inequalities of engagement in co-production occur. Using education as an example, they suggest that '*middle-class habitus'* (p.550) enables professional parents to engage with professional teachers with little in the way of barriers, meaning that these parents are more comfortable engaging in the planning and delivery of school services (Hastings and Matthews, 2015). Parents with this middle-class habitus already possess the skills to participate confidently and effectively in school life (Widding, 2013). Multiple studies have explored how school teachers, staff and Head-teachers can inhibit co-productive relationships with parents, based on negative attitudes relating to demographic factors and negative attitudes towards parents (Dumais et al., 2012; Flanigan, 2007; Steiner, 2014; Wood and Olivier, 2011). Put simply, areas rich in capital – economic, social and cultural – are likely to be more able, and more willing, to support effective co-production (Andrews, 2012). Indeed, Mohan's (2015) overview of distribution of PTAs in the UK, identified that the most prosperous were located in the wealthiest areas, whilst areas experiencing disadvantage were simultaneously less likely to have a PTA, and, on average raised less money per pupil.

The Increasing Marketisation of Education Policy in England

Cuts in government funding coupled with an increasing reliance on private support and provision are widespread across public services, with education no exception. Ball and

Youdell argue that there is "a growing tendency amongst governments world-wide to introduce forms of privatisation into public education and to move to privatise sections of public education" (2008:8). Indeed, a plethora of educational reforms in England over the past couple of decades have focused on increasing diversity of types of schools and increasing the role of private businesses within public education. .

The introduction of semi-autonomous academies marked one of the most fundamental changes in education policy in the past two decades. Introduced in the Learning and Skills Act 2000, the percentage of schools converting to academy status remained low until the election of the Conservative led Coalition Government in 2010 (NAO, 2018). The Academies Act 2010 aimed to significantly increase the number of academies, enabling all maintained schools to convert to academy status. By February 2018, 72% of secondary schools and 27% of primary schools in the UK are academies, with far more autonomy over budget setting than local-authority maintained schools.

Subsequent education policies pursued since 2010 have included significant and continued budget cuts, intensified focus on testing and monitoring and the abolishment of bodies that were considered bureaucratic such as the Curriculum Development Agency. As state funding reduces, increasingly autonomous schools are expected to manage and raise their own funds. This was perhaps best epitomised by guidance published by the Department of Education, titled *'Supporting excellent school resource management'* (2018), which urged schools to make "every pound count" and encouraged them to get, "the best value from all of their [school's] resources" (p.3). Indeed, the funding crisis situation facing schools is well documented. The Institute for Fiscal Studies (2018) estimated that 'school funding per pupil has fallen by 8% between 2009–10 and 2017–18'. A 2019 survey of 1,500 Head-teachers by the lobbying campaign Worth Less? found 90% of schools are having to use part of the 'pupil premium', allocated for disadvantaged pupils, to fund core budgets, 80% are cutting numbers of teaching assistants and support staff, and 60% are removing teaching posts to balance budgets. As underfunded schools become progressively diverse in their organisational form and marketized, it is unsurprising that collective co-production plays an increasing role (Body, 2020), with engagement of parents and citizens in fundraising and volunteering a primary response.

Therefore, drawing on the gaps in the literature, primarily the lack of discussion on voluntary action and collective coproduction in primary schools, and building on our previous research (Body et al., 2017) our research focuses on the extent to which primary schools embrace collective co-production and how this activity is dispersed across primary schools. Therefore, we explore the following research questions:

Research Question 1: Has collective co-production increased in primary education?

Research Question 2: What is driving collective co-production in primary education?

Research Question 3: If collective co-production has increased in primary education, is this now more evenly distributed compared to previous findings?

Methods

To answer these research questions, this paper draws on two waves of data collection, in 2016 and 2018. The initial data from the 2016 wave is published in a peer reviewed journal article (see Body et al., 2017). This subsequent article reports on the comparisons between the 2016 and 2018 data sets. In 2016 we analysed the 2013/14 financial data for 380 primary schools from a single local authority area, alongside questionnaires completed by 114 head

teachers, which were completed in 2016. The 2018 data draws upon the financial data for 306 of these primary schools from the same single local authority area in Southern England in 2016/17. On both years this financial information provided data on a school's total income, donated income directly received by the school, number of pupils, pupil premium funding, OFSTED rating, and allowed us to correlate these factors with index of multiple deprivation data. 54 schools were withdrawn from the sample, due to either schools merging together into a single school, or the financial data not being up to date and lacking detail on the 2016/17 financial data.

Additionally, in 2018 we distributed a second survey to Head-teachers at each school, with a 23% response rate, which allowed us to gain a sense of insight into school activity, prioritisation and views on collective co-production in education. School websites and publicly available information were reviewed to gather further information on co-production in the school, volunteer policies and PTA activities. We then conducted follow up interviews with 10 Head-teachers and their respective Chairs of Governors, from a purposive sample selecting 5 of the most 'successful' schools based on their levels of voluntary activity being in the top 10% of schools for fundraising and/or volunteering activity, and 5 schools who struggled to engage in collective co-production.

Furthermore, for both data sets we draw on the equivalent PTA data obtained from the Charity Commission for the financial years under investigation. Whilst the Charity Commission is keen for all eligible PTAs to register as charities, unless a PTA has a turnover more than £5,000 they are under no obligation to register with the Charity Commission, which can make tracking PTA activity difficult. Where PTAs are registered separately to schools their finances exist separately to school financial data. This enables us to present as clear as possible the picture of collective co-production in schools. In 2018, 94% of the primary schools in our sample had a PTA or similar association set up to raise funds and support the school. For 6% of schools, all falling within the lowest 10% of schools by fundraised income per pupil, we could find no evidence of a PTA or equivalent friend's association. For 22% of schools, we found evidence of a friend's association which was either constituted as a community group or, more commonly, sat under the umbrella of the school. This leaves the majority, 72% of the schools, which have a PTA which is registered as an independent charity with The Charity Commission.

To measure whether collective co-production is evenly distributed between schools, we use the index of multiple deprivation decile data as a proxy indicator of the socio-economic situation of a school. Deciles are calculated by ranking 32,844 neighbourhoods in England from most deprived to least deprived and dividing them into 10 equal groups. These range from the most deprived 10 per cent of neighbourhoods nationally (decile 1) to the least deprived 10 per cent (decile 10) of neighbourhoods nationally.

Whilst the data has provided some rich findings, explored in this paper, we acknowledge some caveats which must be considered, for example:

- There is some inconsistency in how schools record 'donations'. Where donations are in kind, for example new playground equipment or donated computer equipment, this 'gift' often does not appear in the accounts. We therefore speculate that there is an amount of donated income (i.e. in kind or gifts) which remains 'hidden'.
- PTAs do, at times, 'donate' financial gifts to the school. Where accounts have provided enough data to ensure we are able to eliminate double counting of this income, we have done so. However, we also take care to distinguish between donations directly to the school and fundraising activity by the PTA in our analysis to avoid double counting.

- Whilst most PTA accounts cover the same accounting period as their partner schools, some adhere to other accounting periods, with differing year ends. In these cases, we have taken the closest accounting year for comparison purposes.

Findings

We now report the findings in response to our three research questions:

Research Question 1: Has collective co-production increased in primary education?

In response to our first research question, we can clearly observe that *collective co-production in primary education is increasing.* Firstly, the overall quantitative data shows sharp increases in fundraised income. Comparing the 2016 financial data for the school sample with the financial data for 2018, we see an overall 24% increase in the amount schools are raising per pupil directly through donations to the school, and a 25% increase in the amount PTAs are raising per pupil per year on the school's behalf. The changes in donations of money between 2016 and 2018 can be seen in Table 1.

2016	2018
Schools raise on average £41 per pupil	Schools raise on average £51 per pupil
PTAs raise on average £36 per pupil	PTAs raise on average £45 per pupil
10% of schools secure more than £10k of donations	40% of schools secure more than £10k of donations
Schools bring in up to £250 per pupil in a year through donated income	Schools bring in up to £595 per pupil in a year through donated income

Table 1. Changes in fundraised income based on the 2016 and 2018 data sets

A similar pattern can be seen in the reported data on volunteer activities in schools. Excluding the role of School Governors from our analysis, which we would expect to remain stable, the data suggests the average amount of time volunteers give, when calculated as a per child, per week, has increased on average from 12.5 minutes in 2016, to 21 minutes per pupil, per week in 2018, as shown in Table 2.

2016	2018
Schools receive an average of 12.5 minutes per child, per week	Schools receive an average of 21 minutes per child, per week
Schools receive anywhere between 1 minute to 227 hours of volunteer time per week.	Schools receive anywhere between 1 minute to 324 hours of volunteer time per week
Schools bring in up to 72 minutes of volunteer time per child, per week	Schools bring in up to 75 minutes of volunteer time per child, per week

Table 2. Changes in volunteer time based on the 2016 and 2018 data sets

Research Question 2: What is driving collective co-production in primary education?

Our second significant finding is that, *collective co-production in primary education is primarily being driven by fiscal pressures as schools become increasingly reliant on this activity to survive.* In the 2016 data, we found that schools viewed the more 'traditional' types of collective co-production, for example school fairs, funding of extra-curricular activities and volunteer readers, as positive for the wider school community and good for

parental engagement. The growing pressure to pursue fundraising and volunteer support beyond these traditional mechanisms was viewed less favourably (Body et al., 2017).

This pressure has increased, with the proportion of school leaders who reported feeling under pressure to increase fundraised income rising from 66% in 2016 to 94% in 2018, while the proportion who say that fundraising is a core strategic focus of the school has risen from 29% in 2013/14 to 60% in 2016/17. Similarly with volunteering, in 2018 63% of schools stated that they increased their strategic focus on engaging and using volunteers over the past year, and 70% claimed to have increased the volunteer support their school receives. Further, we have seen a rise in several areas of fund-raising activity that were previously relatively uncommon. For example, 50% of schools in 2018 say they have sought support from local businesses, compared to 31% in 2016, whilst 36% stated in 2018 that they work in partnership with other schools to fundraise and attract volunteers compared to just 6% in 2016.

By 2018, we found a significant shift in school leaders' views in relation to collective co-production. Whereas individual co-production and parental engagement with parents and the community was largely viewed by Head-teachers as having multiple benefits, the largely singular driver of fiscal challenges for collective co-production was met with more criticism:

> *"In reality this work is an unwelcomed necessity to bolster budgets, when it should be a good thing to do in community engagement." Head-teacher*

> *"I am very angry that this is the focus of schools, to keep heads above water and not on providing excellent education." Head-teacher*

The rise of the campaign groups such as Worthless?, Fair Funding for All Schools and School Cuts, highlight the significant challenges raised by schools in face of the funding crisis they are experiencing, and thus by providing solutions to the issues many feel they are *'letting the government off the hook'* (Head-teacher). Whilst many schools still raised ideological challenges relating to engaging in collective co-production, nearly all schools now identified it as a mechanism through which they could engage parents and citizens in responding to budgetary challenges, though this was not always done willingly. Indeed, Head-teachers were clear, whilst they felt they had to engage in this activity, they were angered by the government's funding approaches:

> *"Voluntary action is a necessity to bridge the gap and the decreasing funding we are receiving…..But is this something we really want our schools to be focusing on - surely they should be focused on the education and development of our children? Our backs are against the wall - it looks like we will increasingly have to do this, but it is not a teacher's core skillset and arguably it shouldn't have to be." Head-teacher*

Whilst this has resulted in increases in collective co-production in education, as highlighted in our first finding, some worrying factors emerge as this activity becomes more about necessity than choice. The percentage of schools who reported in questionnaires that they are at least now partly reliant on co-production to deliver core, statutory education provision has increased from 28% to 43% between our 2016 and 2018 data, whilst 75% schools claim in the latest study that they are reliant on fundraised income to deliver general school activities, compared to 52% in the previous study.

The qualitative data revealed that this has led to growing tensions between what schools felt collective co-production should achieve versus what it does achieve. Interviews with Head-teachers revealed increasing concerns about the *'unsustainable reliance on volunteers'* (Head-teacher); whilst a number of the case studies discussed the increasing tensions experienced between the PTA and school, as schools ask PTAs to fund basic core costs rather

than the more traditional enrichment activities. Furthermore, individuals interviewed commonly expressed anger at greater proportions of their time being dedicated to raising additional funds, rather than focusing more directly on the education of children:

> *"Previously it was needed for the 'extras' but this year we used PTFA funds to buy reading books." Head-teacher*

> *"Voluntary action in school generally enhances what we are able to offer. It used to be 'the icing on the cake' but now it is sometimes used for more core activities as well." Chair of Governors*

In short, Head-teachers recognised that collective co-production supported core services, but expressed anger that it had to, raising the suggestion that embracing this activity *'gave the red light to government to keep cutting education' (Head-teacher).*

Research Question 3: If collective co-production has increased in primary education, is this now more evenly distributed compared to previous findings?

Our third significant finding is*, as collective co-production increases in primary education, the distribution of this activity becomes more uneven.* As co-production has become more significant for primary schools, we see increasing inequalities in the distribution of that activity. This was as the result of four different factors.

The first factor is the distribution of fundraised income across schools. When we combine direct donations to schools with that of the PTAs, income for 2016/17 ranged from £1 to just over £170,000, equating to a range between £0 and £594 per pupil, per year of additional income. For the schools most successful in securing this additional income, this resulted in an 11% increase in the schools' budget. Table 1 shows the relationship between school income and indices of multiple deprivation. Three important factors emerge from this data. Firstly, the trendline demonstrates a clear link between an area's relative wealth, and the total amount of fundraised income schools receive. Second, for schools within areas considered to be more deprived fundraising income is generally dominated by donations directly to the schools, whereas for schools in wealthier areas PTA income plays a more equal, or even larger, role. Third, whilst there is a link between area wealth and overall fundraised income achieved by a school, this does not fully account for widening gaps in fundraised income by schools.

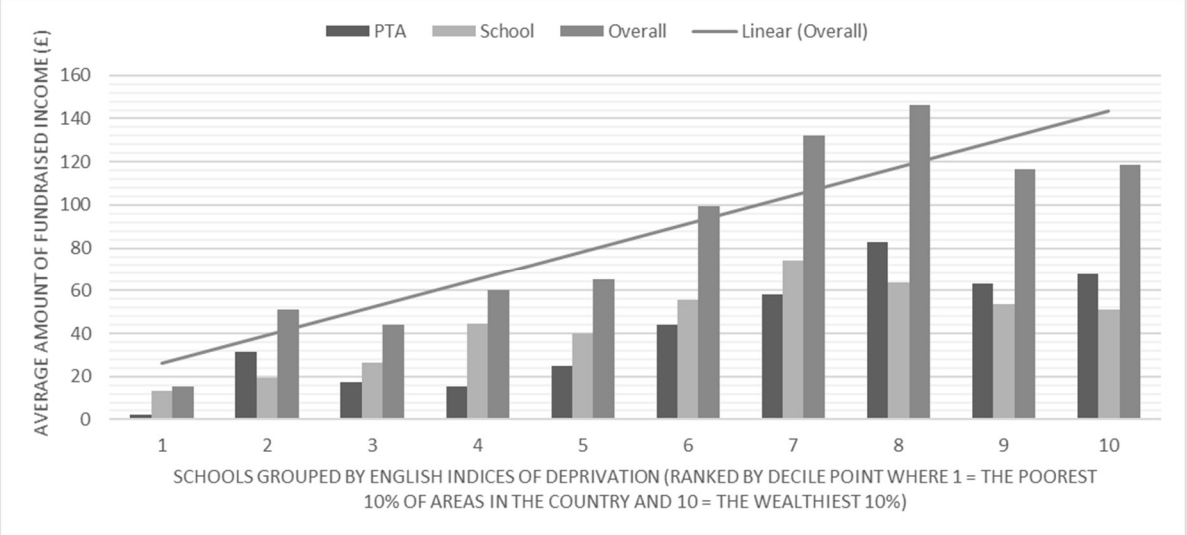

Figure 1. Average amount raised per school, versus index of multiple deprivation data

As with donations of money, volunteer time is not evenly distributed, again widening inequality. Using indices of multiple deprivation, Figure 2 shows a clear relationship between how deprived an area a school is in and how much volunteer time it receives. The differences are stark. In the poorest 10% of areas, schools receive just 10 minutes of volunteer time per pupil per week, compared to 51 minutes in the wealthiest 10% of areas. Indeed, in the poorer half of areas, the average number of minutes is less than half of what it is in the wealthier half.

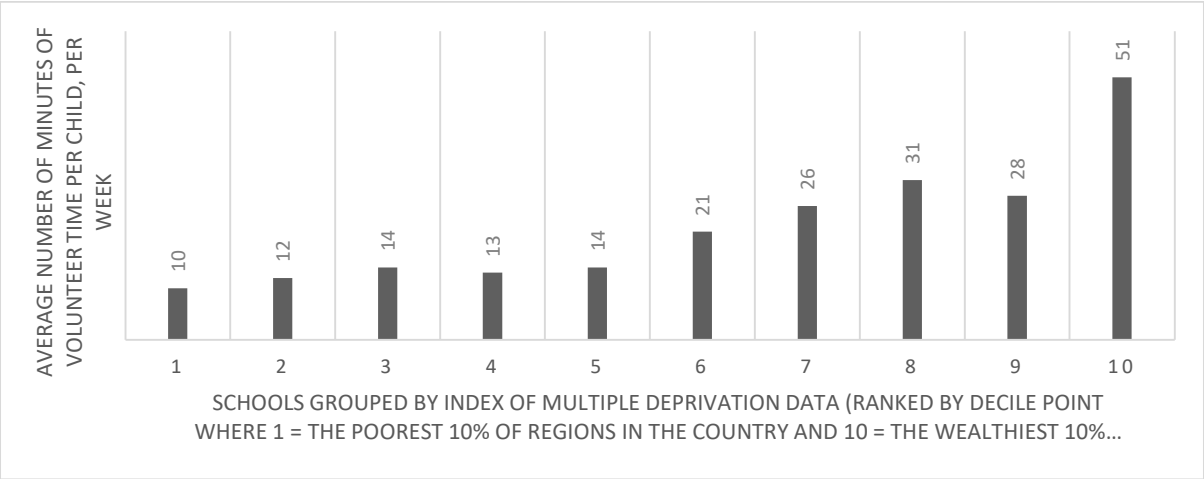

Figure 2. Average amount of volunteer time per pupil per week, versus index of multiple deprivation data

Our third finding that reflects this widening inequality was revealed through the questionnaire data and interviews with schools, is the skills volunteers could offer. For example, a school leader from a school in a wealthier area highlighted how they were achieving significant cost savings by reducing support staff time and replacing this with volunteers who were established child support professionals. On the other hand, leaders at a school in an area of significant deprivation highlighted how they struggled to get parents to engage in the school more generally, and that a high proportion of their parents did not speak fluent English. Therefore, their 'friend's association' focused solely on engaging parents in the school community, and volunteering and fundraising was viewed as *'a step too far' (Head-teacher).*

Finally, an increasingly disproportionate amount of total fundraised income is harnessed by the top 10% of primary schools, and particularly by the top 1%. Whilst the average school, taking into account both funds donated directly to schools and PTA income, fundraised approximately £19,883 in 2016/17, in terms of distribution less than a third of the schools made this or above. A large proportion of fundraised income is concentrated in a few schools - the top 10% accounted for 25% of all the donated income, and the top 1% of schools account for 10% of all the donated income. If we translate this into figures, in 2016/17 the top 1% of the schools by fundraised collectively raised £476,784, compared to a total of fundraised income of £875 for the bottom 1%. In terms of the amount raised per pupil, this means the top 1% of fundraising schools bring in £563 of additional income per child through donations, versus the bottom 1% who secure £0.33 per child, per year of additional income.

Discussion

In this section we consider these findings in relation to the literature on collective co-production, identifying considerations for policy and future research discussions.

The extent to which primary schools seek to encourage and rely on collective co-production is increasing, this is presenting some fundamental challenges for education. Our research highlights, in agreement with other scholars (e.g. Andrews, 2012; Bovaird et al., 2015; Kunzel, 2012), the rapid increase of collective co-production in education and other public services is predominantly driven by fiscal pressures. Whilst the introduction of a new National Funding Formula offered hope for a more equitable funding arrangement, most schools in England will not benefit from the new funding formula (IFS, 2018). While the National Funding Formula does seek to provide additional income for schools in areas of deprivation or facing challenging circumstances, there was shared acknowledgment across the surveyed and interviewed primary school leaders that overall they are simply not provided with sufficient government funding to fund adequate levels of staffing, support and basic equipment. Thus, although struggles to engage collective co-production may also point to a lack of organisational structures and/or procedures within schools which further deter collective co-production (Andrews and Brewer, 2013; Bovaird and Loeffler, 2012), schools largely feel coerced into engaging in collective co-production on the scale it is now being practiced (Body, 2020). This coerced collective co-production potentially means opportunities are not fully explored, and benefits not fully evident (Voorberg et al., 2015).

Furthermore, drawing on Brandsen and Honingh's (2015) distinction between co-production of core and complimentary services, we have witnessed a notable increase of 58% in the number of schools, over a relatively short period of time, who say that they are now at least partly relying on collective co-production to deliver core, statutory services. This means that Head-teachers and school staff feel they have to re-position themselves in their orientation from engagement of parents on an individual level, to collective mobilisation of parents, community members and wider stakeholders to achieve their shared goals, which raises multiple challenges.

Furthermore, schools recognised that they had very different resources to draw upon from their school and wider communities. The sum of collective co-production with parents and communities in more socially and economically disadvantaged areas is significantly less than that in wealthier areas. The increased bifurcation of schools between those who benefit from collective co-production and those who do not is concerning. Along with previous studies, our research suggests, this formal collective co-production is more likely to occur in non-deprived areas (Clark et al., 2013; Hastings and Matthews, 2015; Voorberg et al., 2015; Widding, 2013). Moreover, we found that the most vulnerable children were disproportionately affected, with over one third of schools reporting that they had reduced specialist school staff, and replaced them with skilled volunteers, a strategy which appears more successful in the more affluent areas.

However, we urge caution against suggesting that socio-economic factors can fully explain this disparity. The qualitative data behind this research suggested that many Head-teachers, particularly those in most disadvantaged areas, pre-judged parent and community willingness and capabilities to participate, and thus had an unwillingness to support or engage in collective co-production. This phenomenon has been explored in greater depth in consideration of individual parent engagement and individual co-production (for example see Dumais et al., 2012; Flanigan, 2007; Steiner, 2014; Wood and Olivier, 2011) although as our research did not set out to explore school leaders attitudes, we suggest this is an area requiring further research.

On the other hand schools which embrace collective co-production with multiple success tend to be situated in areas rich in capital – economic, social and cultural (Andrews, 2012; Hastings and Matthews, 2015; Widding, 2013). Furthermore, these schools are often building

upon successful existing systems and processes of fundraising and volunteer engagement – they were ahead of the game and had established systems and processes in places to support collective co-production through voluntary action. Some, but not all schools in these resource-rich areas pro-actively identify and celebrate co-production as a mechanism to differentiate their school from others and in a competitive marketplace (where parents selectively choose where to send their children). These schools see co-production as a way of gaining an edge over the competition and are well situated to achieve this.

The implications of these findings are important for the wider discussions concerning co-production of public services. We conclude that majority of school leaders feel coerced in coproduction, driven by economic need rather than social purpose, focusing on income and performance targets rather than more broader goals of parental and community engagement and empowerment, compelled into collective co-production due to the high-value nature of what is at stake – children's education (Tõnurist and Surva, 2017). This is likely to be counter-intuitive to producing positive outcomes, with research highlighting that professionals must embrace new practices and roles to successfully engage in co-production (Sicilia et al., 2019). Furthermore, recruitment of parents and community members as co-producers varies significantly across the schools, with schools in wealthy areas facilitating higher levels of voluntary engagement than those in deprived areas. This is keeping with wider studies which recognise that demographic factors impact participant recruitment (Sicilia et al., 2019). This cautions against a 'one size fits all' approach to co-production in primary schools.

In addition, whilst co-production is commonly viewed with optimism, in line with Steen, Brandsen and Verschuere (2018) this research brings to light some of the potential pitfalls of co-production, which we argue must be taken into consideration in this research agenda. Steen et al. (2018) highlight the seven potential 'evils' of co-production: 'the deliberate rejection of responsibility, failing accountability, rising transaction costs, loss of democracy, reinforced inequalities, implicit demands and co-destruction' (p.284). This study provides empirical evidence which is in keeping with some of these 'evils'. First, we contend the pressure on schools to address financial shortfalls through voluntary action is a deliberate move by the government to shift financial responsibility onto schools as part of a wider marketisation agenda (Ball, 2017). It all blurs the boundaries of responsibility, opening-up the question of accountability – if a school does not have enough financial resources to meet its statutory obligations, who is to blame the senior leadership of the school or the government? Furthermore, this research highlights how co-production can reinforce the entrenched inequalities in education, providing significant advantage to schools in areas of wealth compared to those in areas of deprivation with the top 1% of fundraising schools bringing in £563 of additional income per child through donations, versus the bottom 1% who secured £0.33 per child. Thus, this research provides solid empirical evidence that collective co-production is not necessarily a self-evident good and requires further research. Involving over 300 primary schools, the research broadens the scope of understanding, providing a better sense of the results of collective co-production for different schools within England.

Conclusion

Steen et al. (2018) contend that to confront the 'evils' of co-production we must 'look them in the eye' (p.290). This research has sought to do just that and counter the dominant narrative which considers co-production as a virtuous activity in and of itself (Voorberg et al., 2015). Indeed the limited studies which report on the outcomes of co-production do not

provide adequate evidence that co-production achieves the promised benefits, and this research adds weight to those arguments. In wider policy discussions it is vital that we consider these potential benefits and drawbacks, with education offering an important test ground for co-production in public services. As a universal provision, the vast majority of children and their respective families engage with the services provided by primary schools which form a central part of most of our communities.

In concluding our research, we suggest that stimulating collective co-production in public services is problematic and requires careful consideration. In our 2016 research we concluded that schools are increasingly turning towards alternative sources for funding and support, to deliver high quality education (Body et al., 2017). However, we highlighted significant disparities in the dispersal of those resources. As a result, we recommended a reconsideration of the role of this collective action in primary education, due to the risk of it further increasing social inequalities. What we now note in this updated research is a significant increase in voluntary action in primary education and whilst we witness some innovative approaches to increasing voluntary action, we also see increasing inequality. Current mechanisms for engagement build upon long established processes, and risk exacerbating existing inequalities. As we see in our example of education, to increase collective co-production, schools sought to expand their current activities through the long-established PTAs and volunteer programmes. In some areas, particularly those likely richer in social capital, this was easier to upscale than in others.

The impact of this unequal distribution has wide implications for the universal provision of education and other public services. In short, some schools have up to almost £600 per child, per year of additional income and up to 75 minutes of volunteer time, per child per week, more than others, because of collective co-production through voluntary action efforts. Furthermore, over a third of schools had reduced support staff, and replaced them with volunteers, impacting the most vulnerable children in the school. If collective co-production in education and wider public services is a policy priority, then more innovative and flexible processes of co-production need to be found which seek to engage a wider range of citizens. In a bid to survive, schools are at risk of further reproducing the very inequalities education seeks to tackle.

Indeed, further consideration must also be paid to the incentives for this co-production in public policy. In education, the motivation for collective co-production is largely, though not wholly, driven at a local level by fiscal pressures – it is on large a rapid reaction to a period of crisis in funding. We suggest collective co-production driven by these mechanisms risks becoming a transactional and limited arrangement which does not fully achieve wider external benefits. Whilst our study specifically examined the extent and distribution of collective co-production in education, we would encourage further examination of its impact across public services more widely.

Nonetheless, we should not blame or criticise any individual school for taking forward this action. Schools are facing increasingly difficult financial circumstances, with reduced budgets coupled with ever increasing costs. As a result, school leaders are taking drastic action with far reaching consequences, reducing staffing, increasing class sizes, severely reducing pastoral and mental health support and even cutting down the length of time they are open or the number of days they open for. They simply cannot manage on the financial resources they are currently allocated, without making some difficult decisions.

These concerns do not by any means imply we are opponents of voluntary action in education. In raising these criticisms, we do not want to throw the baby out with the bathwater – collective co-production in the form of donations of time and money make huge

contributions to both education and other public services in England and beyond. We should both celebrate this and learn from successful schools. However, in education and across public services more broadly we should also be on our guard, wary of a sharp widening of inequalities resulting from an ever-increasing reliance on private support for a public good.

References

Andrews, R., (2012). Social capital and public service performance: A review of the evidence. *Public Policy and Administration*, *27*(1), pp.49-67.

Andrews, R., and Brewer. G. (2013). "Social Capital, Management Capacity and Public Service Performance: Evidence from the US States." *Public Management Review* 15 (1): 19–42

Ball, S. (2017) *The education debate*. Policy Press.

Ball, S. and Youdell, D. (2008). *Hidden privatisation in public education.* Brussels: Education International.

Body, A. (2020) *Children's Charities in Crisis: Early Intervention and the State.* Policy Press.

Body, A., Holman, K. and Hogg, E. (2017) "To Bridge the Gap? Voluntary Action in Primary Schools", *Voluntary Sector Review*. Policy Press, pp. 251-271

Bovaird, T., Van Ryzin, G.G., Loeffler, E. and Parrado, S. (2015). Activating citizens to participate in collective co-production of public services. *Journal of Social Policy*, 44(1), pp.1-23.

Brandsen, T. and Honingh, M. (2016). Distinguishing different types of coproduction: A conceptual analysis based on the classical definitions. *Public Administration Review*, *76*(3), pp.427-435.

Brudney, J. and England, R. (1983). Toward a definition of the coproduction concept. *Public administration review*, pp.59-65.

Cepiku, D., Marsilio, M., Sicilia, M. and Vainieri, M. (2020). Co-production: management and evaluation. London: Palgrave Macmillan.

Clark, B., Brudney, J. and Jang, S.-G. (2013). Coproduction of Government Services and the New Information Technology: Investigating the Distributional Biases. *Public Administration Review*, 73(5), pp. 687-701

Department for Education (2017) *The national funding formula for schools and high needs.* Policy document.

Dumais, S., Kessinger., R and Ghosh, B. (2012) Concerted cultivation and teachers' evaluations of students: Exploring the intersection of race and parents' educational attainment. *Sociological Perspectives* 55(1): 17–42.

Epstein, J.L. and Dauber, S.L., (1991). School programs and teacher practices of parent involvement in inner-city elementary and middle schools. *The elementary school journal,* 91(3), pp.289-305.

Flanigan, C. (2007). Preparing preservice teachers to partner with parents and communities: An analysis of college of education faculty focus groups. *School Community Journal* 17(2): 89–109.

Goodall, J., (2017). *Narrowing the achievement gap*: Parental engagement with children's learning. Routledge.

Hastings, A. (2009). Poor neighbourhoods and poor services: Evidence on the 'rationing'of environmental service provision to deprived neighbourhoods. *Urban Studies,* 46(13), pp.2907-2927.

Hastings, A. and Matthews, P. (2015). Bourdieu and the Big Society: empowering the powerful in public service provision?. *Policy & Politics,* 43(4), pp.545-560.

Honingh, M., Bondarouk, E. and Brandsen, T. (2018). Co-production in primary schools: a systematic literature review. *International Review of Administrative Sciences*, p.0020852318769143.

Huntsinger, C.S., & Jose, P.E. (2009). Parental involvement in children's schooling: Different meanings in different cultures. *Early Childhood Research Quarterly,* p. 398-410.

Institute for Fiscal Studies (2017) *The short- and long-run impact of the national funding formula for schools in England.* IFS Briefing Note BN195, Nuffield Foundation.

IFS (Institute for Fiscal Studies) (2018). *Comparing school spending per pupil in Wales and England,* 12 July 2018

Künzel, S. (2012). The local dimension of active inclusion policy. *Journal of European Social Policy,* 22(1), pp.3-16.

Miller, S., Connolly, P., Odena, O. and Styles, B. (2009). *A Randomised Controlled Trial Evaluation of Business in the Community's Time to Read Pupil Mentoring Programme*, Centre for Effective Education, School of Education, Queen's University Belfast.

Mohan, J., (2015). Charity deserts and social justice: exploring variations in the distribution of charitable organisations and their resources in England. *New philanthropy and social justice: Debating the conceptual and policy discourse*, pp.191-215.

Morris, D. (2011). Building a big society: will charity's creeping reach generate a new paradigm for state schools? *Journal of Social Welfare and Family Law,* 33 (3): 209-226.

Musick, M. and Wilson, J. (2008). *Volunteers: A Social Profile*. Bloomington: Indiana University Press.

NAO (National Audit Office) (2018) *Converting Maintained Schools to Academies* (HC 720 Session 2017–2019). London: National Audit Office.

Ostrom, E. (1996). Crossing the great divide: coproduction, synergy, and development. *World development*, *24*(6), pp.1073-1087.

Ostrom, V. and Ostrom, E. (1997). '*Public goods and public choices*', in E. S. Savas (ed.) Alternatives for Delivering Public Services: Towards Improved Performance, boulder, CO: Westview press, pp.7-49

Parks, R. B., Baker, P. C., Kiser, L., Oakerson, R., Ostrom, E., Ostrom, V., Percy, S. L., Vandivort, M. B., Whitaker, G. P. and Wison, R. (1981). Consumers as Co-Producers of Public Services: Some Economic and Institutional Considerations, *Policy Studies Journal*. 9: 7 pp1001 – 11.

Payton, R., and Moody, M. (2008). Understanding philanthropy: *Its meaning and mission,* Bloomington: Indiana University Press.

Sicilia, M., Sancino, A., Nabatchi, T., & Guarini, E. (2019). Facilitating co-production in public services: management implications from a systematic literature review. *Public Money & Management,* 39(4), 233-240.

Steen, T., Brandsen, T. and Verschuere, B., (2018). The dark side of co-creation and co-production: seven evils, in Steen, T., Brandsen, T. and Verschuere, B., (eds) *Co-production and Co-creation,* Taylor and Francis.

Steiner, L. (2014). A family literacy intervention to support parents in children 's early literacy learning. *Reading Psychology* 35(8): 703–735.

Tõnurist, P. and Surva, L., (2017). Is volunteering always voluntary? Between compulsion and coercion in co-production. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *28*(1), pp.223-247.

Voorberg, W., Bekkers, V,. and Tummers, L. (2015). A systematic review of co-creation and co-production: Embarking on the social innovation journey. *Public Management Review*, *17*(9), pp.1333-1357.

Whitaker, G. (1980). 'Co-production: citizen participation in service delivery', *Public Administration Review,* 40: 240-6

Wood, L. and Olivier, T. (2011). Video production as a tool for raising educator awareness about collaborative teacher–parent partnerships. *Educational Research* 53(4): 399–414.

Widding, G. (2013). Practices in home–school cooperation: A gendered story? *Teaching Education* 24(2): 209–221.