CHARITY

IN THE TIME OF AUSTERITY:

IN SEARCH OF THE 'BIG SOCIETY'

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Abstract:

The years after the election of the UK's coalition government in 2010 saw a decline in central funding to local government and a fall in expenditure on a range of local services, including social services. These cuts were backed by a theory that individuals in the community would step in with voluntary action (the 'Big Society') to fill the void left by withdrawal of public support, a specific case of the argument that government activity crowds-out that of private individuals. This paper asks to what extent this vision materialised. Using a large panel survey of individuals linked to detailed local government income and spending data for the period from 2008/9 until 2016/7 we estimate the effect of local public services spending and central government funding on individual caring, voluntary and charitable behaviour. We find some evidence of an association between Local Authority (LA) expenditure cuts and increases in individual voluntary activity and charitable giving in the area. Using central government funding cuts as an exogenous source of variation in LA spending, however, we find no causal effects on any aspects of individual caring, voluntary or charitable action. Overall, we find little support for the proposition that cutting public sector spending increases individual philanthropic activities.

1. Introduction

The austerity period in the years after the 2009 recession and the election of the UK's coalition government in 2010 saw a marked decline in central to local government funding, with a fall in expenditure on a range of local services. Adult social services expenditures were particularly badly hit. Part of the incoming government's vision included that of a 'Big Society', a specific case of a more general ideology advocating a shift from government to local communities in the provision of social services, whereby individuals would step in with more voluntary action and charity to support those in need (Williams, Goodwin and Cloke, 2014). In this paper, we ask to what extent this vision materialised in subsequent years, estimating the effects of local public social services expenditure on individual caring and other voluntary behaviour, as levels of central government funding to local governments were cut. The analysis contributes to the broader question of whether public sector spending substitutes or complements voluntary sector activities and charitable giving (Andreoni, 2001; Andreoni and Payne, 2003), and the even older and broader macroeconomic debate about whether public sector spending crowds out private action (Buiter 1977). Our analysis is unique in answering these questions using panel data with information on individual actions, linked to detailed local level public accounting data.

The analysis is conducted using the UK Household Longitudinal Study, a large panel survey of individuals in households linked to detailed Local Authority (LA) income and spending data, covering the period between 2008/9 and 2016/7 (so including the entire austerity period). Using these data, we address a number of concerns over the direction of causality. Firstly, we control for time invariant local and national time-varying confounders using a standard two-way panel fixed effects regression design. In the most rigorous specification, we control for individual x LA and year fixed effects, such that all effects are estimated from changes in spending within LAs over the period. Another central concern is that both LA spending and voluntary activity are likely dependent on (unobserved) changing needs in the local community. To address this concern, we exploit the fact that funding allocations from central government to LAs are determined by formulae set before the current funding period. Thus, allocations from central government are largely decoupled from year-on-year changes in demand for services at LA

level. We exploit this fact in two ways. First, we estimate a reduced form regression, replacing actual LA expenditure with the amounts an LA received from the central government. Second, we employ an instrumental variable approach, instrumenting total LA services spending per capita with the main source of central government allocated income—the funding for Specific and Special Grants

We find that a considerable proportion (16-17%) of individuals report caring roles in and outside the household, nearly all towards family members and relatives. There was no general trend in the proportion carrying out these roles during our sample period. Other volunteering among adults remained stable too, while that of young people increased slightly. The proportion of adults donating to charity also increased. Panel data regression estimates of the effect of changes in LA spending suggest no association between spending and individual caring. There is some indication of an association between spending and individual volunteering activities and charitable giving, but subsequent analysis suggests this is not causal. Looking at the relationship between central government funding to LAs and all outcomes – caring, volunteering and charitable giving – suggests that these are largely impervious to changes in funding, with all estimates near zero. Overall, our results lend no support to the idea that public sector spending crowds out individual action or, conversely that cutting public spending induces individual voluntary behaviour. A corollary of this is that withdrawal of government support implies a withdrawal of support for many of those in need and that the 'Big Society' was not forthcoming in the UK over this period.

This paper ties into the broader literature on the links between public spending and charitable giving and the so called crowding out hypothesis.[1] This states that if givers are aware of state funding, they perceive charities less in need of donations and are less likely to engage in voluntary giving. Much of the crowding out literature to date has focused on charities and the link between public funding to charities and donations to charities. On the theoretical side, Becker (1974) argued that if public grant money is transferred to a charity, then this would see donations reduced by exactly that amount. This assumes that money from the state is a perfect substitute for private donations. Another reason why charitable giving may decline, is because charities may become less aggressive in fundraising after receiving government

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[1] The crowding out hypothesis is not confined to the question whether public funding crowds out charitable donations. It also applies for example to the insurance market. Cutler and Gruber (1996) in a seminal paper explored whether public health insurance crowds out private insurance.

grants (Andreoni and Payne, 2003). However, government grants could also lead to crowding in. This could happen when public grants are seen as a 'stamp of approval' or, alternatively, grant money is used as 'seed money' that allows charities to further expand their organisation.

On the empirical side, to date, little evidence supports the prediction of perfect crowding out. Most studies find evidence for partial crowding out (e.g., Andreoni and Payne, 2003), while others support the crowding in hypothesis (e.g., Khanna and Sandler, 2000; Boberg-Fazlić and Sharp, 2017). Identifying the causal effects of public funding on charitable giving is challenging due to the omitted variable problem and the possibility of reverse causation. Boberg-Fazlić and Sharp (2017) use historical data for England and exploit heterogeneity in welfare provision arising from the Old Poor Laws in England around 1800. Instrumenting for public spending at parish-level and employing first differences, the authors find a positive effect of parish-level spending on charitable giving. While these findings are intriguing, they may not be directly applicable to modern times and, in particular, to 21st century phases of austerity.

Andreoni and Payne (2011) shed some light on the underlying mechanisms. They find that public grants paid to charities crowd out donations but that this effect largely operates via charities reducing fundraising expenditures. Clifford *et al.* (2013) add a spatial focus. They document that third-sector organisations in England serving the personally or socially disadvantaged are most likely to be publicly funded and that these organisations are concentrated in deprived areas. This suggests that austerity-induced cuts to public funding may disproportionally affect deprived areas and that the crowding out vs. crowding in debate may have the most relevance for these areas.

The literature discussed thus far focuses on third-sector organisations, and donations to them, as outcome measures. Only a couple of papers to our knowledge investigate the effects of government spending on individual voluntary activities, although their approaches to identification are tentative by modern standards. Day and Devlin (1996) link provincial level government expenditure data to a 1987 Survey of Volunteer Activity in Canada, and carry out some cross sectional regression analyses to explore the associations between government spending and volunteering. They find a mixed picture, with overall spending complementing (i.e. crowding in) volunteering, but some types of spending – notably social services spending – reducing volunteering (i.e. crowding it out). Although the empirical analysis consists

of a rich set of control variables, they have no other strategy for identifying the causal effects of expenditure. Bartells, Cozzi and Mantovan (2013) look at the question in a similar context as us, linking the British Household Panel Survey from 1991 to 2007 (a smaller precursor survey to the one we use) to UK government expenditure. They find that government spending and volunteering are positively correlated. However, they only have data on overall government expenditure for the United Kingdom, or for the four separate nations (England, Wales, Scotland, Northern Ireland). Given they cannot or do not include controls for time trends, it is not possible to distinguish the effects of spending on volunteering from the influence of unobserved common national or UK trends.

Our work is thus the first to look carefully at the link between local government spending and individual actions towards caring, volunteering and charitable giving, during a period of post-recession fiscal restraint when there were large and plausibly exogenous shocks to spending on all local public services. The work is relevant to policy on government spending and social support in a wide range of contexts.   .

Our paper is structured as follows. In Section 2 we discuss the underlying data and provide summary statistics. We outline our methodology and discuss details of our identification strategy in Section 3. In Section 4 we present our results. The final section concludes.

2. Data

The two main sources of data for our analysis are the confidential version of the UK Household Longitudinal Study (UKHLS, or 'Understanding Society') and the Chartered Institute of Public Finance (CIPFA) LA income and expenditure tables.[2] The UKHLS samples around 40,000 households and their constituent individuals in a sequence of waves, each spanning two years. It contains various separate surveys covering households, individuals, young people and other specific groups. We use data from the adult (16 or over) and youth (10-15) questionnaires of the UKHLS data for England and Wales at the

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[2] In contrast to the public use version of the UKHLS, the confidential version provides codes allowing us to geographically match the UKHLS with CIPFA data on LA-level income and spending.

individual level from 2008/9 (the survey inception) up to 2016/17, giving us over 60,000 adults and teenagers, observed for up to 8 years in the 'austerity' period. The UKHLS is unique in the UK in providing a panel with questions covering caring and (other) volunteering activities, although even here the information is quite limited. We draw on the few questions available.

In the adult survey, individuals are asked about their caring roles in the household with a yes/no question: "Is there anyone living with you who is sick, disabled or elderly whom you look after or give special help to (for example, a sick, disabled or elderly relative/husband/wife/friend etc.)?". A second question identifies the panel individuals who they look after within the household, although we do not use this information. Respondents are also asked "Do you provide some regular service or help for any sick, disabled or elderly person not living with you?" and the number of people cared for. The survey further asks whether that person is a parent/parent-in-law, grandparent, aunt/uncle, other relative, friend or neighbour or clients of a voluntary organisation. Finally, adult respondents are asked the number of hours spent caring in and out of the household. All these questions have been asked in every wave of the survey.

A second set of questions relates to volunteering other than caring. These questions are only asked in alternate waves of the survey, so provide us with a smaller sample. Adults are asked a yes/no question: "In the last 12 months, have you given any unpaid help or worked as a volunteer for any type of local, national or international organisation or charity?". Adults are also asked about the frequency of volunteering and the number of hours spent volunteering in the past 4 weeks.

In the youth self-completion questionnaire, respondents are asked about what they do in their free time, including the frequency with which they "[d]o voluntary or community work (including doing this as part of school)", with options ranging from "Most days" to "Never or almost never". We code any answer above "Once a year or less" as indicating volunteering at least once a year and treat this as a comparable with a "Yes" answer to the adult survey question on volunteering within the last 12 months. The sample in the youth survey is much smaller than the adult survey, so we combine the adult and youth samples into a single "Volunteering at least once per year" variable for both groups. Separate results are provided for the adults.

Lastly, we use information on donations to charities. The survey asks the question "In the last 12 months, have you donated any money to charities or other organisations?" – again only in alternate waves. There are additional questions on the amount donated and frequency of donations.

CIPFA provides a wealth of highly detailed data on LA expenditures and income sources. LAs are the governmental organisations responsible for local government expenditure, and the units at which the data are reported are a mixture of LA Districts and Counties. We draw on their Finance and General data tables for England and Wales[3] to assemble information on total local government expenditure on services, and expenditures in a range of categories. The categories of expenditure available to us are adult social, child social, education, highways, housing, cultural, environment, planning, police, fire services, courts, central administration, other and total. Given our focus on caring and other volunteering, we look mainly at the impacts of changes in social services and in total spending, grouping the other categories into a 'non-social' expenditure category. Local government expenditure is largely funded through income streams from central government, either raised from general taxation, or from local taxes that are passed to central government and then reallocated to LAs. Around 75-85% of LA spending is financed from central government. The bulk of the remainder is funded from local domestic property taxes (Council Tax), plus some small auxiliary streams from charges to service users.

The CIPFA data also provides information on the revenue streams from central government. The way local government is funded by central government is complex and subject to periodic changes. The core element of funding comes through what is called Aggregate External Finance (AEF), which has four components: 1) a range of Special and Specific Grants (SSG) for set purposes, which vary according to government initiatives and priorities; 2) a share of National Non-Domestic 'Rates' (NDR—i.e., business taxes), which are collected at the local level, passed on to the central government, but then redistributed back to LAs by the central government according to a formulae; 3) a Revenue Support Grant (RSG) which can be used for any purpose; and 4) a Police Grant to pay for police services. We consider the impact of changes in funding from the first three of these central government streams. We disregard the

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[3] It was not possible to construct consistent expenditure and income series for Scotland.

grants set aside for police services. The allocation of special and specific grants across LAs depends on the details of the purpose of the grants and the context of each LA in relation to those purposes. The mechanisms for the allocation of the RSG and redistributed NDR are complex, but follow formulae set by the central government. The system by which NDR were redistributed in England changed significantly over this period. Prior to 2013, a share of business rates was redistributed by central government back to LAs. From 2013 on, LAs were allowed to retain 50% of business rate revenue, and the rest was, as before, redistributed back to LAs according to a formula, but within the RSG. Full details are available from the Department for Communities and Local Government (2013).[4] Given the change in policy in 2013, we aggregate the RSG and NDR categories in each year periods to get a consistent series over the study period.

We link the UKHLS data to CIPFA data according to the place of the UKHLS respondents' residence, using Lower Layer Super Output Area (LSOA) geographical codes in the UKHLS. We also link respondents to the spending in neighbouring LAs to check for any role of spending in a wider local area.

Table 1 summarises the key variables in our analysis by year. Numbers of observations in each year vary by variable and are presented for some examples in Appendix Table 1.[5] The number of observations for the caring variables is larger than for the volunteering variables. This is because the questions on volunteering are only asked every other wave in the UKHLS.

As is evident from Table 1, there has been a sharp fall in total LA expenditure per person, and in adult social services expenditure per person over the sample period. This is to be expected, given that this was the period of 'austerity' introduced by the incoming coalition and Conservative governments after the 2008-9 UK recessions. Adult social services spending fell 18% from around £330 per person per year to around £270 per person per year in real terms. Total real spending fell even more dramatically from around £1900 to £1400 per person per year, a drop of 26%. Given the dependence of local government spending on the central government budget allocations, it is not surprising that this fell too,

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[4] After a series of name changes, this department is now called the Department for Levelling Up, Housing and Communities.
[5] Note, the UKHLS is organised into overlapping waves which span two years. The first year in our data (2009) has fewer observations due to no overlap with previous waves.

by 21% from £1400 to £1100 per person per year. LAs do have the ability to raise additional income by increasing Council Tax, but increases are capped at rates determined by central government.

Figure 1 shows how these spending changes played out geographically across England and Wales. The maps show no evident geographical trends in terms of the spending cuts over this period. Clearly some areas fared better than others, but there is no clear pattern favouring urban versus rural areas, or areas to the south versus the north, or areas close to London versus further away. The cuts look, at least superficially, quite randomly spatially distributed and affected LAs throughout England and Wales.

The data on caring and volunteering shows that around 8.5% of individuals have voluntary caring roles within the household and around 11-12% outside the household. Around 60% of those with caring roles spend more than 4 hours per week carrying them out. While spending has fallen, the proportions of respondents reporting these activities has remained stable over the period. Looking at volunteering, on average over the period, 17.6% of adults do some voluntary work, with a higher figure of 36% for young people (note – this figure includes voluntary work carried out at school, and teenagers are often expected to do a week of voluntary work as part of their schooling or may do so as part of citizenship schemes). Both adult and youth volunteering show some signs of increase over the period since 2009, though the change in combined adult and youth volunteering is very small. There is a small increase in charitable giving, from 67% to73% of adults donating in the past year.

The general stability of caring rates over the austerity period immediately suggests that the link between LA spending and caring is probably not that strong, though the increases in volunteering warrant further investigation. Of course unobserved factors could be pushing caring and volunteering up or down, while cuts in spending push in the other direction so these general trends are not informative about causality. In the next section we explain the regression methods we use to control for these unobserved factors.

3. Methods

Our first analysis involves linear fixed-effects regressions of indicators of individual caring and other voluntary activities on measures of LA spending on adult and child social services in the survey

respondent's LA of residence. The regressions are estimated on individual level data in a panel spanning eight years from 2008/9 to 2016/17. The basic format of these regressions is:

$$action_{ijt} = \beta' expenditure_{jt} + fixed\ effects_{ijt} + \gamma' controls_{ijt} + \varepsilon_{ijt} \qquad (1)$$

The dependent variable ($action_{ijt}$) is one of a range of variables describing individual i's participation in caregiving, voluntary activity or donation to charity. The vector $expenditure_{jt}$ is a set of variables representing the total or social services expenditure of the LA j in which person i resides in year t. We say more about our use of these expenditure variables below. Our main focus is on estimating β, interpreted as the causal effect of the funding on individuals' caring and charity.

The term $fixed\ effects_{ijt}$ represents a high dimensional set of fixed effects to absorb variation at the LA, year or individual level. We estimate specifications with different variants of this set of fixed effects. Firstly, we control for LA fixed effects, such that all variation in our expenditure variables is within-LA over time and we eliminate purely cross-sectional variation between LAs. In all specifications, we also control for year dummies to eliminate national unobserved time trends. This means we are estimating the effects of expenditure on individual caring and other volunteering from changes in spending over time within each LA, in so far as these changes differ from the national trends. Secondly, we exploit our micro data fully by controlling for individual x LA fixed effects such that estimation is based on changes in spending experienced by an individual within an LA (while still controlling for national time trends with year dummies). Note, not all individuals are observed in every wave of the survey, and new individuals enter (e.g. they become adults so enter the adult survey) or exit (e.g. they die or leave the country). The advantage therefore of using individual x LA rather than LA fixed effects is that this controls for any changes in the sample composition, which might be correlated with changes in public spending. The advantage of using individual x LA fixed effects rather than just individual fixed effects, is that the latter will estimate from between LA variation if individuals change their home LA from one year to the next.

Our specifications include, optionally, a range of control variables ($controls_{ijt}$). The UKHLS contains a vast array of potential control variables, and we select those that capture the main

socioeconomic attributes of individuals and households. At individual level we have fixed characteristics: dummy indicators for White British ethnicity, and male gender. Time varying individual characteristics are: age under 18, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75 and over; marital status single, married, divorce/separated, widowed, in civil partnership, or does not apply; employed or not employed; household income decile categories, individual's highest qualification is a university degree, other higher qualification, A-Levels and equivalent, GCSEs and equivalent, other qualification, no qualification, inapplicable (e.g. still at school). Time varying household composition variables are number of children under 15, number of young persons 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. The main aim of these control variables is to test the sensitivity of our estimated LA spending effects to their inclusion (note, in equation 1 we suppress the subscript for the household to which individual i belongs).

The variables representing LA total expenditure or expenditure on social services ($expenditure_{jt}$) are our explanatory variables of interest. More specifically, we look at the effects of total LA services spending, or on expenditure of adult social care, child social care and other services separately. Both voluntary activity and LA spending are likely to be dependent on changing needs in the local community, which we are unable to observe in the data. This implicit endogeneity of social spending in the caring and volunteering regressions will potentially bias our estimates towards finding a positive association between LA spending and voluntary activity – assuming rising needs in the community elicits a response from volunteers and the public sector. To address this concern, we turn to the allocations of funding made from central government, for a range of policy purposes. These allocations are determined by formulae set before the current funding period, which means the allocations are largely decoupled from year-on-year changes in demand for services at the LA level. When they do adjust, they do so with a considerable time lag.

As noted in the Data section, the main channels through which central government allocates money to LAs is through the RSG, redistributed NDR (or retained rates, after 2012), and SSG. RSG and NDR act as general sources of income, which the LA can spend on any service, whereas the SSG is a collection of grants provided for specific purposes. Unfortunately, our data does not provide the detail on these

different grants so we treat the SSG as a single source. Given the flexibility in the way the RSG and RNDR can be spent, changes in any of the central government allocations could feed through to changes in social services spending. As a first step to mitigate any endogeneity concerns regarding LA expenditure we therefore estimate 'reduced form' regressions in which we replace the endogenous LA expenditure variables in equation (1) with the amounts an LA receives from the central government through these income streams, which we treat as exogenous, conditional on the fixed effects and controls.

These plausibly exogenous income streams could, in principle, serve as instruments for LA social services expenditure in an instrumental variables/two stage least squares (IV/2SLS) regression, i.e., with a first stage regression of LA expenditure on the streams of funding from central government. Practical implementation of instrumental variables estimators in our case is, however, impeded by the fact that we have multiple service expenditure categories, three central government allocation variables (RSG, NDR and SSG) and no unique combination of instruments for each service expenditure category. This presents fundamental identification challenges if we are interested in the effects of, say, social spending specifically. We therefore limit our IV analysis to an investigation of the role of total LA services spending, instrumenting total LA services spending per capita with the main source of income and most powerful predictor of LA spending – the funding for SSGs.

4. Results

Results from the basic OLS regressions of individual caring and volunteering outcomes on LA service expenditure are shown in Table 2, for caring responsibilities, and Table 3, for volunteering and charitable donations. The top row shows results in which the explanatory variable is total LA spending per person per year (in £100s). The lower panel shows results with this split into its constituent components; adult social expenditure per person, child social expenditure per person, and a residual non-social category. Alternate columns estimate specifications without and then with a set of individual and household control variables. The first pair of columns for each outcome listed in the column headings controls for LA fixed effects. The next pair of columns controls for individual x LA fixed effects. All specifications include year dummies.

Looking at Table 2, it is immediately clear that these first results suggest that LA spending on social services, and overall has little impact on caring. The coefficients representing the changes for £100 per person per year increases in spending are close to zero. There are one or two significant coefficients, but these shrink and lose significance once we control for individual x LA fixed effects. The implied magnitudes of the effects are small. For example, the mean spend on adult social care in 2016/17 was £270 per person and the proportion caring for someone outside the household was 11%. Restoring adult social care spending back to its 2009/10 levels would entail an increase of around £65 per person. The coefficients in the more rigorous specifications (2)-(4) in Table 2 are around -0.002 for a £100 increase, implying that a £65 increase would reduce caring outside the household by 0.13 percentage points. It is true that this would imply quite large absolute numbers of additional carers, given the size of the adult population: nearly 60,000 additional carers based on an adult population of around 45 million. But given the tiny magnitude of the coefficients relative to the baseline (around 5 million carers and volunteers) and the complete lack of any statistical significance, it would be bold to make any claims of any real effects on caring on the basis of these total numbers.

Table 3 reports results for volunteering and charitable giving and is more interesting. Here we find significant effects on volunteering from total LA spending once we control for individual x LA fixed effects (columns 3, 4, 7, 8). Again, this is not a large number in relative terms. Based on the coefficient in column (4), a £100 increase in expenditure per person per year reduces volunteering by 0.3 percentage points, meaning that restoring central government funding by £360 per person per year to take it back from its 2016 to 2009 levels would reduce volunteering by around 1 percentage points on a baseline of 20% (equivalent to about 450,000 volunteers on a baseline of 9 million). The change would explain most if not all of the increase in volunteering during the austerity period. This coefficient is stable regardless of whether or not we include additional control variables. When we look at the breakdown by separate components of expenditure, the results are less informative. While all the coefficients in the specifications are negative, none are significant either individually or tested as a group (the p-values of the F-statistics for the joint test of significance are all high). Turning to charitable giving, we find a larger and more stable relationship between government spending and charitable donations – more public services spending in

all categories is associated with less charitable giving, regardless of specification. The results in columns (5) to (8) imply that a £100 per person increase in overall spending reduces the probability of making a charitable donation in the past year by about 0.8-0.9 percentage points (with a baseline in 2016 of 69%). Again, the fall in government spending could explain much of the increase in charitable giving over the period, though as we shall see next, there is little evidence for causality here.

As discussed in the Methods section, there might be some concern that LA spending on social care is endogenous to caring and volunteering, because both may respond to demand changes in the population. In Table 4 and Table 5 we look at the effects of central government allocations to the LA, the RSG, NDR and SSG. We assume that these are less closely coupled to social services demand, and therefore more plausibly exogenous to volunteering in the community. The structure of these tables is similar to Table 2 and Table 3, though with the central government budget streams as explanatory variables. The top row reports the results for a regression that combines the three budget streams into one. The lower panel separates out the SSG grant budget stream from the RSG and NDR. Again, looking across all the results in Table 4, the funding provided by central government appears to have little or no impact on caring behaviour. None of the coefficients are significant and all are tiny. As an example, take the top row of column 4, which suggests that a £100 increase in central government funding reduces individual caring by -0.07 percentage points, so restoring central government funding by £360 per person per year to take it back from its 2016 to 2009 levels would increase caring outside the household by around 0.25 percentage points (relative to a mean proportion of 11%). The results on volunteering and charitable giving reported in Table 5 are unsupportive of the finding of significant effects from total spending in Table 3. Individual activity is unrelated to the level of funding to LAs being provided from central government, implying that the negative coefficients in Table 3 are due to confounders influencing both the level of individual action and LA spending, or the response of LA spending to local volunteering and charitable activity.

We explored other refinements to our analysis. Firstly, the linkage of LA income and expenditures to individual behaviour based on LA of residence is clearly fairly crude, as individuals may volunteer or have caring responsibilities outside their residential LA. We checked whether this limitation is likely to matter,

by averaging the LA resources in the three nearest LAs to the individual's place of residence and by re-estimating the reduced form regressions reported in Table 4 and Table 5. These results, reported in Appendix Table 2, are broadly similar, with no evidence of any large or significant effects from central government income streams on either caring, volunteering or charitable activities. We also looked at the 'intensive margin' of hours spent caring and volunteering, and amounts donated, but found nothing here to add to what we learn from the results presented above.

Given the weakness of the results of the reduced form regressions of caring, volunteering or charitable giving on central government allocations to LAs, it would be foolish to expect many strong results from instrumental variables regressions which use these allocations as instruments for endogenous LA expenditures. Nevertheless, for completeness, we present IV results in Table 6, focussing on the main source of income - combined grants for specific and special purposes (SSG) – as the instrument. [6] The table shows the effect of total LA spending on caring and volunteering, while instrumenting total LA services spending per capita with SSG. The table presents specifications with LA or individual x LA fixed effects, with individual and household control variables.

Looking at the first stages in the second panel of Table 6, central government budget allocations for SSGs are clearly highly relevant in the first stage regressions, with high F-statistics well over 10 (the usual rough benchmark for relevance of the instruments in a 2SLS regression). The coefficients imply that around 80 to 90 pence out of every pound received in a year feed through to annual LA expenditure.

The use of SSG as an instrument is predicated on the (untestable) assumption that the changes in central grants were uncorrelated with unobserved factors affecting changes in individual caring, volunteering and charitable actions over this period. While we cannot test this assumption directly, Appendix Table 3, presents some regressions assessing whether the cuts over the 2009-2016 period were correlated with salient observable individual household characteristics, including levels of caring, volunteering and charity, measured up to the start of the period, 2010. There is little evidence here that they were. Places with higher proportions of highly qualified people (with degrees and above) experienced

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[6] Estimates using the combined central government expenditure as an instrument (RSG plus NDR plus SSG) produce similar results to those obtained using SSG alone.

significantly less severe cuts, but this is one significant coefficient from out of 18 tested.[7] The implication of these tests is that (i) the SSG variable is relevant and excludable as an instrument for LA expenditure in the caring, volunteering, and charitable giving regressions and (ii) the IV coefficients are more plausible as causal estimates of the effects of spending.

Looking at the second stage of the IV estimates, reported in the top panel of Table 6, the implied quantitative effects of the coefficients on total service expenditure are all small and broadly comparable to those in the OLS regressions. There is no sign of any significant effect of spending on caring or charitable donations; we see a marginally significant coefficient for the effect of spending on voluntary work, but this loses significance when we control for individual x LA fixed effects. The conclusion of the instrumental variables analysis, as from the reduced form analysis of Table 4 and Table 5, is thus that central government spending (and spending cuts) had no impact on individuals caring, voluntary activities or charitable donations.

The near-zero coefficients reported in our results so far could be masking underlying heterogeneity in the response of different demographic and socio-economic groups. To investigate this issue, we split our sample in various ways. We first look at gender, low/high income, young/old, and by whether the respondent lives in an area of high or low population density (income, age and density are split approximately by their medians). The results of this exercise for the 'reduced form' regressions of charitable and caring activity indicators on total central government funding are reported in Appendix Table 4. There is some evidence here of heterogeneity in response between the different groups. Central government funding to LAs seems to crowd out caring in the home for younger people, crowd out charitable giving in less dense areas, but crowd in caring in the home for poorer individuals. But these are just 3 significant coefficients out of 32 and there is no sign of any systematic difference across the groups for the various outcomes.

The strongest result is that a £100 per person cut in central government funding in less dense areas, would increase charitable giving by 0.87 percentage points, from a mean of 70% of individuals donating

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[7] Ideally, we would repeat these tests for pre-existing trends in the outcomes, but we lack sufficient years of data in the UKHLS to do this (and the precursor survey, the British Household Panel Survey, is too small to be useful).

in the last year. This does not strike us as a particularly large effect, or one that undermines the conclusion that there is little general response of charitable behaviour to government funding. Nevertheless, we investigated further by splitting the sample by other characteristics that might be related to population density. The results are in the lower panel of Appendix Table 4. First, we used a more specific rural/urban classification where 19% of the sample is classed as rural and 81% as urban. Again, we find that respondents in rural communities are responsive to government funding, now for both charitable donations and voluntary activities other than caring roles. One possibility is that this finding could reflect political allegiances, with support for the Conservative party - which drove forward the austerity agenda and Big Society ideology - typically stronger in rural areas. Yet, splitting the sample according to whether the respondents report being closer to the Conservative party than to other political parties, suggests political allegiance is not a factor. Another possibility is that rural communities simply have less social support from government. Splitting the sample by below/above median LA total social spending suggests this might be relevant: it is individuals in areas with below-median funding where charitable giving tends to be responsive to the level of funding from central government. While it is hard to pin down the exact reasons for the differences between the response in rural and urban communities, these findings provide some glimpse of a 'Big Society' in rural communities, where people step in to plug gaps in public support, though it is clear that the model does not generalise to urban populations or the population at large.

5. Conclusions

In this paper we explore the links between local public spending (cuts) on the one hand and individual caring, voluntary and charitable activities on the other. We do so by merging local public sector accounts and individual panel data for England and Wales. A core contribution of our research relative to the previous literature on the relationship between public sector subsidies and philanthropic social care, is our focus on individual actions, i.e. caring, volunteering and making charitable donations, rather than effects on the funding of charities or the third-sector more generally.

We exploit the negative shock to local public spending induced by the austerity period that followed the Great Financial Crisis. The cut back in essential social services was partly justified by a 'Big Society'

ideology, which postulated that public spending cuts would nudge individuals towards increasing their voluntary activities. Overall, our evidence provides no support for the 'Big Society' vision, nor for the crowding out of individual caring, volunteering or charitable activity by public service funding in general. Changes in caring, voluntary and charitable activity were uncorrelated with the substantive drops in local public funding during and after the austerity period. Our research speaks to the broader economic and political debate of whether public sector crowds out or crowds in private action. We find no substantive evidence to support the crowding out hypothesis with respect to individual voluntary behaviour. However, we also find no support for crowding in. To conclude, withdrawal of public sector funding related to social care implies an uncompensated withdrawal of services for those in need.

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Figures

Figure 1
Changes in Local Authority service spending and grant income between 2009 and 2016 (£100s per person at County or Local Authority level).
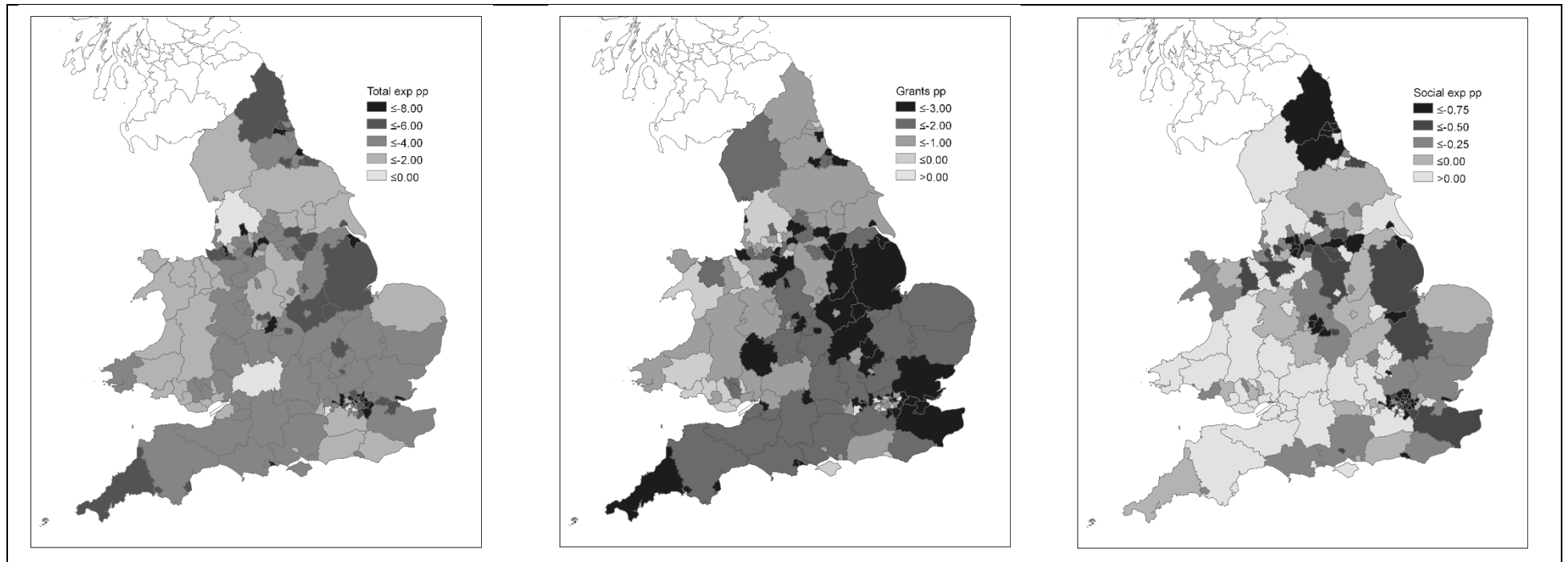
Tables

Table 1

Means of key variables by year. Expenditure and income in £100s per person, 2015 prices.

	2009	2010	2011	2012	2013	2014	2015	2016	Total
Caring and volunteering (indicator)									
Adult carer in household	0.079	0.082	0.081	0.082	0.085	0.084	0.085	0.085	0.083
Adult carer outside household	0.110	0.113	0.121	0.120	0.119	0.123	0.118	0.107	0.117
Carer spends more than 4 hrs	0.627	0.623	0.605	0.626	0.617	0.602	0.586	0.614	0.613
Adult volunteer in past 12 months	0.174	0.17	0.171	0.172	0.179	0.198	0.156	0.186	0.176
Young person volunteers	0.320	0.347	0.346	0.367	0.369	0.353	0.387	0.382	0.361
Adult or young person volunteers	0.186	0.184	0.186	0.187	0.195	0.209	0.170	0.201	0.190
Adult gave to charity in past year	0.669	0.649	0.659	0.668	0.692	0.737	0.724	0.691	0.685
LA service expenditure									
Adult social expend. per person	3.356	3.224	2.98	2.892	2.831	2.747	2.687	2.729	2.928
Child social expend. per person	1.463	1.441	1.314	1.325	1.346	1.515	1.567	1.565	1.434
Other expend. per person	14.397	13.948	11.272	10.809	10.624	10.044	9.928	9.562	11.314
Total expend. per person	19.216	18.613	15.566	15.026	14.801	14.306	14.182	13.856	15.676
Central government allocation									
Revenue support grant plus redistributed non-domestic rates	4.968	1.705	4.043	4.529	3.403	2.866	2.284	1.829	3.146
Special and specific grants in AEF	9.226	8.816	8.147	7.450	7.230	6.962	7.140	6.846	7.721
Combined central allocation	14.194	10.521	12.19	11.979	10.633	9.827	9.423	8.675	10.867

Table reports means (unweighted) from individual level data in UKHLS, matched to CIPFA Finance and General Actuals LA finance data. Total number of observations differs by variable. Adult caring variables approx. 280,000 individual x year obs.; Volunteering variables approx. 150,000 individual x year obs. Total number of individual x year obs. Approx. 400,000. See regression tables for estimation sample sizes.

Table 2

Estimates of effect of LA expenditure (£100s pp) on individual caring activity.

	Carer for someone outside household				Carer for someone within household			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total service	0.0000	0.0001	-0.0004	-0.0002	-0.0006	-0.0004	0.0003	0.0001
expenditure	(0.0008)	(0.0008)	(0.0008)	(0.0009)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
R-squared	0.007	0.04	0.523	0.523	0.009	0.063	0.671	0.674
Components								
Adult social	-0.0035	-0.0024	-0.0021	-0.0017	0.0046	0.0061*	0.004	0.0038
	(0.0034)	(0.0035)	(0.0037)	(0.0037)	(0.0033)	(0.0032)	(0.0034)	(0.0033)
Child social	-0.0003	-0.0002	-0.0042	-0.0039	0.003	0.0046	0.0044	0.004
	(0.0036)	(0.0035)	(0.0036)	(0.0036)	(0.0035)	(0.0032)	(0.0032)	(0.0032)
Other services	0.0004	0.0004	0.0003	0.0003	-0.0016*	-0.0018**	-0.0006	-0.0007
	(0.0011)	(0.0010)	(0.0011)	(0.0011)	(0.0009)	(0.0008)	(0.0008)	(0.0008)
Joint F p-value	0.768	0.905	0.567	0.666	0.075	0.01	0.193	0.216
R squared	0.007	0.04	0.523	0.523	0.009	0.063	0.671	0.674
Obs.	262450	262450	262450	262450	243457	243457	243457	243457
Control variables	No	Yes	No	Yes	No	Yes	No	Yes
Absorbed	LA	LA	ID x LA	ID x LA	LA	LA	ID x LA	ID x LA
Categories	172	172	60288	60288	172	172	56812	56812

Notes: Dependent variable is indicator that adult cares for handicapped or other person outside the household, or within the household. Standard errors in parentheses, clustered on LA. Significance *10%, **5%, ***1%. Components of central government funding are Revenue Support Grant (RSG), redistributed Non Domestic Rates (NDR), Special and Specific Grants within AEF (SSG) all in £100s per capita, 2015 prices. Regressions absorbing LA or individual x LA fixed effects. Control variables are dummies for: age (7 categories); marital status (5 categories); employed/non-employed; income (decile categories); highest qualification (6 categories); male; white British ethnicity; plus household number of children under 15, number of young person 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. All specifications include year dummies.

Table 3

Estimates of effect of LA service expenditure (£100s pp) on individual volunteering
and charitable donations.

	Adult or youth volunteer				Donated to charity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total service	-0.0013	-0.0012	-0.0027*	-0.0030*	-0.0082***	-0.0082***	-0.0077***	-0.0086***
expenditure	(0.0015)	(0.0013)	(0.0016)	(0.0016)	(0.0029)	(0.0029)	(0.0027)	(0.0029)
R-squared	0.009	0.063	0.671	0.674	0.023	0.119	0.668	0.669
Components								
Adult social	0.0052	0.0022	-0.0041	-0.0047	-0.0184**	-0.0202**	-0.0234**	-0.0270***
	(0.0056)	(0.0052)	(0.0063)	(0.0062)	(0.0093)	(0.0093)	(0.0100)	(0.0102)
Child social	0.0028	0.0004	-0.0075	-0.0078	-0.0211**	-0.0185*	-0.0264**	-0.0275**
	(0.0058)	(0.0054)	(0.0060)	(0.0059)	(0.0106)	(0.0102)	(0.0103)	(0.0107)
Other	-0.0023	-0.0016	-0.0021	-0.0023	-0.0058**	-0.0061**	-0.0045*	-0.0052**
	(0.0017)	(0.0015)	(0.0019)	(0.0018)	(0.0029)	(0.0030)	(0.0025)	(0.0026)
Joint F p-val.	0.417	0.688	0.565	0.539	0.025	0.030	0.014	0.022
R squared	0.012	0.071	0.661	0.662	0.023	0.119	0.668	0.669
Obs.	149578	149578	149578	149578	125392	125392	125392	125392
Control vars.	No	Yes	No	Yes	No	Yes	No	Yes
Absorbed	LA	LA	ID x LA	ID x LA	LA	LA	ID x LA	ID x LA
Categories	172	172	64400	64400	172	172	53236	53236

Notes: Dependent variable in Columns 1-4 is indicator in that adult has volunteered in last year, or that young person records that they do voluntary or community work at least "once a year or less". Dependent variable in Columns 5-8 is indicator that adult donated to charity in the last year. Standard errors in parentheses, clustered on LA. Significance *10%, **5%, ***1%. Components of central government funding are Revenue Support Grant (RSG), redistributed Non Domestic Rates (NDR), Special and Specific Grants within AEF (SSG) all in £100s per capita, 2015 prices. Regressions absorbing LA or individual x LA fixed effects. Control variables are dummies for: age (7 categories); marital status (5 categories); employed/non-employed; income (decile categories); highest qualification (6 categories); male; white British ethnicity; plus household number of children under 15, number of young person 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. All specifications include year dummies.

Table 4
Estimates of effect of central government allocation (£100s pp) on individual caring activity.

	Carer for someone outside household				Carer for someone within household			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Combined central	-0.0003	-0.0004	-0.0008	-0.0007	-0.0006	-0.0006	0.0001	0.0000
	(0.0007)	(0.0006)	(0.0007)	(0.0007)	(0.0005)	(0.0006)	(0.0006)	(0.0006)
R squared	0.007	0.04	0.523	0.523	0.009	0.063	0.671	0.674
Components								
RSG/NDR	-0.0003	-0.0002	-0.0005	-0.0004	-0.0004	-0.0003	0.0000	-0.0001
	(0.0007)	(0.0007)	(0.0008)	(0.0008)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
SSG	-0.0003	-0.0008	-0.0016	-0.0015	-0.0009	-0.0013	0.0004	0.0003
	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0011)	(0.0011)	(0.0011)	(0.0011)
Joint F p-value	0.910	0.813	0.456	0.423	0.526	0.57	0.938	0.922
R squared	0.007	0.040	0.523	0.523	0.009	0.063	0.671	0.674
Obs.	262450	262450	262450	262450	243457	243457	243457	243457
Control variables	No	Yes	No	Yes	No	Yes	No	Yes
Absorbed	LA	LA	ID x LA	ID x LA	LA	LA	ID x LA	ID x LA
Categories	172	172	60288	60288	172	172	56812	56812

Notes: Standard errors in parentheses, clustered on LA. Significance *10%, **5%, ***1%. Components of central government funding are Revenue Support Grant (RSG), redistributed Non Domestic Rates (NDR), Special and Specific Grants within AEF (SSG) all in £100s per capita, 2015 prices. Regressions absorbing LA or individual x LA fixed effects. Control variables are dummies for: age (7 categories); marital status (5 categories); employed/non-employed; income (decile categories); highest qualification (6 categories); male; white British ethnicity; plus household number of children under 15, number of young person 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. All specifications include year dummies.

Table 5

Estimates of effect of central government allocation (£100s pp) on individual volunteering and charitable giving.

	Adult or youth volunteer				Donated to charity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Combined	-0.0003	-0.0005	-0.0004	-0.0003	0.0008	0.0005	-0.0008	-0.0006
	(0.0012)	(0.0011)	(0.0012)	(0.0012)	(0.0020)	(0.0018)	(0.0018)	(0.0018)
R squared	0.012	0.07	0.661	0.662	0.023	0.119	0.668	0.669
Components								
RSG/NDR	0.0013	0.0006	0.0006	0.0005	0.0016	0.0013	-0.0004	-0.0001
	(0.0012)	(0.0011)	(0.0013)	(0.0012)	(0.0023)	(0.0021)	(0.0022)	(0.0022)
SSG	-0.0044*	-0.0034	-0.0026	-0.0028	-0.0015	-0.0016	-0.0021	-0.0018
	(0.0023)	(0.0021)	(0.0020)	(0.0020)	(0.0032)	(0.0031)	(0.0029)	(0.0028)
Joint F p-val.	0.04	0.156	0.302	0.269	0.671	0.659	0.761	0.813
R squared	0.012	0.071	0.661	0.662	0.023	0.119	0.668	0.669
Obs.	149578	149578	149578	149578	125392	125392	125392	125392
Control variables	No	Yes	No	Yes	No	Yes	No	Yes
Absorbed	LA	LA	ID x LA	ID x LA	LA	LA	ID x LA	ID x LA
Categories	172	172	64400	64400	172	172	53236	53236

Notes: Dependent variable in Columns 1-4 is indicator in that adult has volunteered in last year, or that young person records that they do voluntary or community work at least "once a year or less". Dependent variable in Columns 5-8 is indicator that adult donated to charity in the last year. Standard errors in parentheses, clustered on LA. Significance *10%, **5%, ***1%. Components of central government funding are Revenue Support Grant (RSG), redistributed Non Domestic Rates (NDR), Special and Specific Grants within AEF (SSG) all in £100s per capita, 2015 prices. Regressions absorbing LA or individual x LA fixed effects. Control variables are dummies for: age (7 categories); marital status (5 categories); employed/non-employed; income (decile categories); highest qualification (6 categories); male; white British ethnicity; plus household number of children under 15, number of young person 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. All specifications include year dummies.

Table 6

IV estimates of effect of LA service spending (£100s pp) individual caring and volunteering; SSG as instrument.

	Caring outside household		Caring in household		Adult or youth volunteer		Donated to charity	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total service	-0.0008	-0.0016	-0.0013	0.0004	-0.0042*	-0.0034	-0.0023	-0.002
expenditure	(0.0014)	(0.0015)	(0.0012)	(0.0012)	(0.0023)	(0.0023)	(0.0035)	(0.0032)
First stage								
Central govt. SSG	0.8963***	0.8990***	0.8578***	0.8911***	0.8921***	0.8753***	0.8764***	0.8822***
	(0.0649)	(0.0648)	(0.0583)	(0.0602)	(0.0602)	(0.0559)	(0.0564)	(0.0555)
F statistic	190.466	192.496	216.622	218.825	219.898	245.271	241.415	252.503
Obs.	262450	262450	243457	243457	149578	149578	125392	125392
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Absorbed	LA	ID x LA	LA	ID x LA	LA	ID x LA	LA	ID x LA
Categories	172	60288	172	56812	172	64400	53236	53236

Notes: Dependent variable is indicator that adult cares for handicapped or other person outside the household (1-2), or within the household (3-4), or that adult or youth has volunteered in last year (5-6), or that adult donated to charity in the last year (7-8). Standard errors in parentheses, clustered on LA. Significance *10%, **5%, ***1%. Instrument is central government Special and Specific Grants within AEF (SSG). Expenditure and grants in £100s per capita, 2015 prices. Regressions absorbing LA or individual x LA fixed effects. Control variables are dummies for: age (7 categories); marital status (5 categories); employed/non-employed; income (decile categories); highest qualification (6 categories); male; white British ethnicity; plus household number of children under 15, number of young person 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. All specifications include year dummies.

Appendix tables

Appendix Table 1
Numbers of individual observations per year for selected variables.

	Any caring	Adult or youth volunteers	Total LA expenditure
2009	23578	6023	34353
2010	43138	25654	62039
2011	37781	20028	53531
2012	39913	23195	55655
2013	38520	19891	52918
2014	34020	19226	46323
2015	32859	18717	50129
2016	30116	18227	42358

Appendix Table 2

Reduced form estimates of effect central government allocation (£100s pp) to nearest 3 neighbour LAs.

	Caring outside household		Caring in household		Adult or youth volunteer		Donated to charity	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Components								
RSG/NDR	-0.0013	-0.0007	0.0009	-0.0004	-0.0006	-0.0001	-0.0026	-0.0001
	(0.0008)	(0.0009)	(0.0009)	(0.0006)	(0.0011)	(0.0015)	(0.0021)	(0.0024)
SSG	-0.0032*	-0.0029	0.0002	0.0001	-0.0084***	-0.0015	-0.0061**	-0.0002
	(0.0017)	(0.0020)	(0.0017)	(0.0016)	(0.0023)	(0.0029)	(0.0030)	(0.0041)
Joint F p-val.	0.07	0.243	0.565	0.81	0.001	0.869	0.076	0.998
R squared	0.041	0.524	0.063	0.674	0.071	0.663	0.119	0.669
Obs.	260141	260141	241414	241414	148558	148558	124535	124535
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Absorbed	LA	ID x LA	LA	ID x LA	LA	ID x LA	LA	ID x LA
Categories	172	59974	172	56517	172	64030	172	52930

Notes: Dependent variable is indicator that adult cares for handicapped or other person outside the household (1-2), or within the household (3-4), or that adult or youth has volunteered in last year (5-6), or that adult donated to charity in the last year (7-8). Standard errors in parentheses, clustered on LA. Significance *10%, **5%, ***1%. Components of central government funding are Revenue Support Grant (RSG), redistributed Non Domestic Rates (NDR), Special and Specific Grants within AEF (SSG) all in £100s per capita, 2015 prices. Regressions absorbing LA or individual x LA fixed effects. Control variables are dummies for: age (7 categories); marital status (5 categories); employed/non-employed; income (decile categories); highest qualification (6 categories); male; white British ethnicity; plus household number of children under 15, number of young person 15-17; number of adults 18 and over; number of persons of state pension age; number of persons 75 years and older. All specifications include year dummies.

Appendix Table 3

Regressions of LA mean individual and household characteristics (2008-2010) on changes in central grants to LAs (2009-2016).

	Coefficient	Standard error	R-squared
Average Age	0.3067	(0.2864)	0.011
Monthly net income	2.5571	(20.2904)	0.000
Proportion married	0.0009	(0.0038)	0.001
Proportion employed	-0.0018	(0.0023)	0.003
Proportion degree qualified	0.008	(0.0029)	0.038
Proportion with no qualifications	-0.0015	(0.0021)	0.003
Numb. of children in household	-0.0337	(0.0162)	0.029
Numb of adults in household	-0.0105	(0.0150)	0.010
Numb of pensioners in household	0.0031	(0.0067)	0.002
Numb over 75 in household	0.0013	(0.0021)	0.003
Proportion male	-0.0014	(0.0013)	0.009
Proportion white British	0.0196	(0.0231)	0.009
Proportion urban	-0.0054	(0.0115)	0.001
Proportion homeowner	0.0064	(0.0097)	0.004
Proportion caring outside household	0.001	(0.0023)	0.002
Proportion caring within household	-0.0009	(0.0015)	0.002
Proportion volunteering	0.0033	(0.0024)	0.008
Proportion giving to charity	0.0084	(0.0061)	0.013

Notes: Each row is a separate cross-sectional area-level regression; robust standard errors reported; number of observations is 172.

Appendix Table 4

Reduced form estimates of effect central government allocation (£100s pp) split by various groups.

	(1) Caring inside	(2) Caring outside	(3) Volunteering	(4) Donating
Female	-0.0012	0.0001	-0.0009	-0.0018
	(0.0008)	(0.0006)	(0.0015)	(0.0020)
Male	-0.0001	0.0000	0.0002	0.0011
	(0.0009)	(0.0007)	(0.0016)	(0.0022)
Poor	0.0000	0.0013*	-0.0013	0.0027
	(0.0008)	(0.0008)	(0.0014)	(0.0026)
Rich	-0.0011	-0.0010	0.0000	-0.0037
	(0.0011)	(0.0009)	(0.0019)	(0.0030)
Young (under 45, 58%)	-0.0018**	0.0009	-0.0007	0.0001
	(0.0008)	(0.0006)	(0.0019)	(0.0026)
Old (45 over, 42%)	0.0001	-0.0003	-0.001	-0.0009
	(0.0010)	(0.0008)	(0.0015)	(0.0019)
Less dense	0.0002	-0.0008	-0.0019	-0.0087***
	(0.0015)	(0.0012)	(0.0020)	(0.0032)
Dense	-0.0011	0.0002	-0.0017	0.0026
	(0.0009)	(0.0008)	(0.0018)	(0.0029)
Rural (19%)	-0.0023	-0.0006	-0.0072**	-0.0079**
	(0.0020)	(0.0015)	(0.0032)	(0.0038)
Urban (81%)	-0.0007	0.0001	0.0009	0.0001
	(0.0008)	(0.0006)	(0.0013)	(0.0019)
Non-Conservative (62%)	-0.0004	-0.0001	0.0025	0.0035
	(0.0012)	(0.0010)	(0.0023)	(0.0026)
Conservative (38%)	0.0004	-0.0008	0.0007	-0.0009
	(0.0020)	(0.0012)	(0.0037)	(0.0038)
Low social spend	-0.0017	0.0007	-0.0012	-0.0075**
	(0.0016)	(0.0013)	(0.0028)	(0.0036)
High social spend	-0.0009	0.0004	-0.0013	0.0029
	(0.0008)	(0.0007)	(0.0015)	(0.0025)

Notes: Table reports regression coefficients and standard errors for the specification with control variables and individual x LAD fixed effects in Table 4 and Table 5 on samples split by the row heading. Significance *10%, **5%, ***1%. Each coefficient/standard error pair is a separate regression. Each group is an approximate 50% split by income, age and local area (LAD or county) population density and social spending. Other group percentages shown in row label. Total samples size for respondents expressing closeness to one political party is around 121500.