The new state of donation:

Three decades of household giving to charity

1978 – 2008

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The ESRC Centre for Charitable Giving and Philanthropy (CGAP) is the first academic centre in the UK dedicated to research on charitable giving and philanthropy. Three main research strands focus on individual and business giving, social redistribution and charitable activity, and the institutions of giving. CGAP is a consortium including the Universities of Strathclyde, Southampton and Kent, University of Edinburgh Business School, Cass Business School and NCVO. CGAP's coordinating 'hub' is based at Cass Business School. CGAP is funded by the ESRC, the Office for Civil Society, the Scottish Government and Carnegie UK Trust.

Contents

1 Introduction and overview

1.1 Background

Donations from individuals account for around one quarter[1] of the total income received by charities which fundraise in the UK. Up-to-date and comprehensive understanding of patterns and trends in individual giving is consequently of immense value to those charities whose survival depends on it. The need for insights into the factors which influence giving is heightened by the current climate of economic volatility and uncertainty.

More broadly, giving to charity is perceived as one of the significant ways in which people express their concern for others and get actively engaged in meeting community needs. For government and policy-makers, levels of individual giving are one indicator of involvement in building the Big Society, and of increasing importance as a source of support for voluntary and community organisations at a time when statutory funding is being cut back (Cabinet Office, 2010a, 2010b).

Against this background, this report presents a comprehensive analysis of the main trends in giving to charity over the last three decades using data from the government's Living Costs and Food survey[2]. The report is about giving among the general household population – it excludes major donors since they are not captured by the survey. The survey information on spending (including charitable giving) also covers a two-week period and consequently we are likely to under-report the proportion of people who ever give to charity in a year. The main strength of the survey, however, is that it gives reliable, consistent information on chartiable giving over a long period of time, allowing us to examine the main trends in giving, as well as detailed information on household member characteristics that can shed light on the drivers of change.

The period has seen marked social, technological, political and economic change, including evolving family and household structures (ONS, 2009), changes in government, the rapid rise of smart card and online financial transactions, the explosion of global communications and social media, and recently what many consider the deepest recession since World War 2.

[1] Total individual donations were £8 billion in 2009, out of total income of nearly £36 billion (National Council of Voluntary Organisations, 2010)

[2] The survey was originally called the Family Expenditure Survey (FES). In 2001, the FES was combined with the National Food Survey and renamed the Expenditure and Food Survey (EFS). In 2008 the EFS was included as a module within the larger-scale Integrated Household Survey under the name, "Living Costs and Food Survey". The definitions of the most of the variables have remained the same over time.

The key questions we address are:

- What proportion of households give to charity and how much do they give and how have participation and generosity changed over the period?
- What are the main economic and social factors that affect giving?
- What messages for future giving can be learned from a study of long-term trends and the factors which might influence them?

This report updates and builds on an earlier analysis of giving using the same data source over the period 1974-96 (Banks and Tanner, 1997). Its main finding was that participation in giving declined by fifteen percent between 1974 and 1996, while total amounts given increased slightly in real terms due to substantially higher amounts given by donor households. The decline in participation was driven largely by generational effects – younger households were less likely to give than older households; and less likely to give than the older households were when they were young.

1.2 Key findings and implications

Some clear trends emerge from this analysis of annual giving over three decades, which should inform practice, policy and research in charitable giving going forward.

The Millennium year marked a turning point in the proportion of households giving to charity

The latest evidence suggests that the long-term decline in the proportion of households giving to charity has been halted. The Millennium year marked the turning point. The proportion of households giving to charity during a two-week period fell from 32 per cent in 1978 to 25 per cent in 1999. Over the period 2000-2008, participation has averaged over 28 per cent with little evidence of any clear trend. Further analysis indicates that rising participation among younger age-groups may help to explain the change.

Donations have increased in real terms over the three decades

Average donations have increased over the last three decades. Looking at the whole population (i.e. including non-givers), they have more than doubled. Looking only at givers, they have gone up three-fold.

But, achieving a step change in giving could be challenging

While average donations have increased, the rise in giving over the past two decades has only broadly been in line in with GDP growth. As a share of their total spending, households today give 0.4 per cent – this is the same as it was in 1988.

Over the same period, there have been increases in the generosity of tax relief, big changes in the way people give to charity and the professionalization of charity fundraising. These changes may have prevented giving from falling, but there is little evidence that they have affected how much people give. The relative stability is both good and bad news for the sector. It means charities can rely on donors, even in times of recession (as we show below), but it also indicates the huge scale of the challenge in raising levels of charitable giving.

Giving is largely recession-proof

Over the last three decades, the value of giving has typically grown in times of economic growth, and has not fallen at the same rate as the economy during recessions. However, there are two caveats. First, our dataset does not extend to the end of the latest recession. Second, giving appeared more volatile in the current recession than in previous ones.

Charitable giving increasingly depends on elderly donors

The over-65s now account for 35 per cent of all donations, compared to 25 per cent in 1978. Participation and donations have grown among older age groups, contrasting with falling participation over the whole period among almost every other age-band. Higher giving among older age groups reflect particular generational factors, including values or beliefs.

Better-off donors also now account for an increasing share of total donations

Increases in both participation and donations among the richest ten percent of households over time have meant that they account for an increasing share of total donations – up from 16 per cent in 1978-82 to 22 per cent in 2003-2008. However, it remains the case that, focusing on givers; poorer households are much more generous in terms of the proportion of their total budgets given to charity. Giving comprises 3.6 per cent of total spending among the poorest 10 per cent of givers, compared to 1.1 per cent for the richest 10 per cent.

Household influences on giving are changing

Levels of expenditure and age are increasingly strongly and positively related to giving. The presence of women and of children in the household still have positive effects on giving amount and participation, but are reducing. The same is true of higher education. Those with mortgages are giving (relatively) less than they were. Explanations may lie in the increasing number of small, women-only, and single-parent households, the expansion of higher education, and the higher costs of mortgages, but the overall implication is that fundraising targeting and approaches may need to change.

1.3 Headline summaries of main results and trends

Participation in giving (section 3.1)

- The long-term decline in household participation in giving, from 32 per cent in 1978 to 25 per cent in 1999, ended in 2000. Since then, the participation rate has averaged over 28 per cent with little evidence of a clear trend. Participation rates have been more volatile since 2000.
- There is some national variation in these trends; the decline in participation in giving by households in Wales and Scotland has been steeper than by those in England (albeit from a higher base).

Amount given (section 3.2)

- There has been a real rise in the average weekly donation across 31 years, more than doubling in the population as a whole from £0.98 in 1978 to £2.34 in 2008[3].
- An increase in donors' giving compensated for falling participation rates. Amongst donors, the average donation nearly trebled from £3.05 in 1978 to £8.66 in 2008. Most of this growth occurred in the 1980s.
- There was a marked rise in donating at the time of the Asian Tsunami disaster, but its effects on the level of total donating were short-term.
- Giving is heavily skewed towards donors giving larger amounts: in 2003-2008, the top 50 per cent of households (ranked by donation size) accounted for 92 per cent of all giving. This has remained remarkably constant over the three decades.

[3] All figures are given in 2010 values

Generosity (section 3.3)

- Generosity among donors, which we measure by donations as a proportion of total spending, has increased over the period from an average of 0.9 per cent (1978-1982) to 1.6 per cent (2003-2008).
- Most of the increase took place in the 1980s: since 1990 donations have only risen in line with the general increase in total household spending.
- Looking at donations as a share of total spending for the whole population – i.e. including non-givers – the expenditure share has been fairly constant for the last twenty years. Charitable giving was 0.4 per cent of total household spending in 2008 and in 1988.

Method of giving (section 3.4)

- There has been a big growth in donating through 'pre-committed' methods, including direct debits, standing orders and deductions from pay: the proportion of households giving in this way almost doubled throughout the period (from 36 per cent in 1983 to 63 per cent in 2008), and the share of total donations given in this way grew two and a half times (from 18 per cent of total donations in 1983 to 46 per cent in 2008).

Giving and the economic cycle (section 3.5)

- Total giving is positively corelated with GDP growth, but this positive relationship is driven by boom times – in particular by the 1980s boom.
- Giving appears fairly recession-proof, and does not fall at the same rate as economic growth in times of recession, though it may have held up less well in the most recent recession.
- The economic cycle affects how much money people give but does not affect participation significantly.

The relationship between giving and households' standards of living (section 4.2)

- As would be expected, giving is skewed towards richer households. The top 50 per cent of households (ranked by expenditure) accounted for 64 per cent of the value of all giving in 2008.

- The share of donations by value given by the better-off has increased over the period. For example, the richest ten per cent of households accounted for 22 per cent of total donations in 2003-08, compared to 16 per cent in 1978-82.

- This is driven by rising participation and donations among the better off. Participation has risen among the richest 10 per cent of households (from 45 per cent in 1978-82 to 47 per cent in 2003-08), in contrast to a sizeable fall in participation among the poorest 10 per cent of households (down from 17 per cent in 1978-82 to 10 per cent in 2003-08).

- However, poorer households that donate tend to give a higher proportion of their expenditure than the better-off. The poorest 10 per cent of households that donated gave 3.6 per cent of their total spending in 2008, compared to 1.1 per cent among the richest 10 per cent.

The relationship between giving and age (section 4.3)

- Participation is now higher among the over-65s than it was among the same age group at the start of the period. For the over-75s, for example, participation increased from 27 per cent (1978-82) to 31 per cent (2003-08). This is in contrast to lower levels of giving now than at the start of the period among all younger age groups. The level of generosity has also grown faster amongst older people than among younger age groups.

- Rises in participation and donation size led to an increase in the share of total donations given by the over 65s which rose from 24 per cent in 1978-1982 to 35 per cent in 2003-2008.

- However, the decline in participation seen amongst younger age-groups between 1978 and 2002 appears to have been reversed in the period 2003-2008. The rise in participation among younger age groups may help to explain why the earlier long-term decline was halted.

The relationship between giving and other household characteristics (section 4.4)

Participation

- The strong positive link between overall household expenditure and likelihood of giving has become even stronger: the premium on a 10 per cent increase in expenditure grew from an average 1 per cent at the beginning of the period to 1.6 per cent at the end.

- The positive link between age and likelihood of giving has become stronger over time.

- The positive link between households with a higher proportion of adult women and likelihood of donating has not changed over time.
- Households with children are more likely to donate, but the increase in probability of donating fell from an average 7.3 per cent to 5.9 per cent in the middle of the period.
- Over the period the average effect of higher education is almost to double the amount given, but the premium fell from 113 per cent at the outset to an 81 per cent increase by the end.
- There is a strong link between being employed and likelihood of donating, but the link weakened over time, partly because there is less fall-off amongst the retired.
- At the beginning of the period, households in Scotland and Wales were more likely to donate than those in England. The difference between Scotland and England has now reduced somewhat, while households in Wales are now less likely to donate than those in England.

Amounts given

- The positive link between expenditure and amounts given grew stronger: a 10 per cent increase in expenditure saw the premium grow from 6.1 per cent more to 8.1 per cent.
- The positive link between age and amounts given has become stronger over time.
- The positive link between proportion of adult women and amount given has weakened.
- Home-owners give 48 per cent more than those who rent, but over the period the link between having a mortgage and giving more weakened, from a 38 per cent premium to 17 per cent.
- The link between employment and giving higher amounts remained the same over the 31 years, with unemployed donors giving 21 per cent less than those employed.
- Households in Scotland gave on average 46 per cent more than those in England and Wales over the 31 years, but over the period Scotland's lead fell from 69 per cent more to 25 per cent more.

2 Data

A key challenge in measuring levels of charitable giving accurately is that survey results both in the UK and the USA have proved sensitive to the particular survey methodologies used (for the USA see, for example, Wilhelm, 2007). In interpreting survey findings it is therefore important to be aware of the potential strengths and limitations of different surveys. This section contrasts the Living Costs and Food survey, on which the analysis of this report is based, with the main alternative data source, the annual surveys of individual giving carried out by the Charities Aid Foundation and the National Council for Voluntary Organisations (CAF/NCVO).

2.1 The Living Costs and Food Survey

This report analyses household-level data on charitable donations from the Living Costs and Food (LCF) survey over the period 1978 – 2008. The LCF survey is the UK's largest detailed survey of household expenditure and has existed since 1957, although much of the information of interest is available on a consistent basis since 1978. The LCF survey is the only survey to have collected household-level information on charitable donations on a consistent basis over such a long period, allowing us to analyse long-term trends in giving.

The survey samples nearly 6,500 households annually,[4] on a rolling basis over the year. Our final sample, which pools data from 31 waves of the survey,[5] includes information on 205,925 households. The size of the sample is another potential strength of the LCF, compared to other available datasets.

All individuals in participating households are asked to record all items of expenditure in a diary over a two-week period. The diary entries for individual goods are aggregated across household members for the two-week period and then averaged to give weekly spending amounts for the household. In addition, household members are interviewed about income sources and other types of regular, less frequent spending, such as direct debits and deductions from salaries. This information is then combined with the diary data to give total weekly household expenditure for

[4] The response rate is around 65% of the 10,000 approached.

[5] The LCF data are annual stand-alone cross-sections sampling different households each year. Details on the pooling procedure can be found in Appendix A.

over 300 goods and services, including gifts to charity. The survey also collects detailed information on household income and on the characteristics of household members.

In the LCF survey the following items are used to prompt individuals about their 'charitable gifts':

Animal charity, Big Issue, blind box, cancer league, candles (church), charity collection, carol singers, donation to charity, Gold Heart (charity), Marie Curie memorial foundation, missionary box, mothers' union collection, NSPCC, Oxfam, poppy (charity), Red Cross donation, rugby life line, Salvation Army, school fund, sponsor money, Sunday School collection[6]

Notably, this list does not include spending on goods that give (or may give) a return to the donor, for example, purchasing tickets for charity events, raffle tickets or spending in charity shops. This is an important source of difference with the annual surveys of individual giving commissioned by NCVO/CAF. (See below).

Following the design of the LCF survey, this report focuses on charitable giving at the household level.[7] This is appropriate to the extent that household resources and expenditure tend to be pooled, and individual spending decisions depend typically on the needs and preferences of all members of a household.

Table 2.1 gives a high level summary of charitable giving in Great Britain[8] based on LCF survey data in 2008, the latest year for which it is available. Just over one-quarter (27 per cent) of households donated to charity during the two-week survey period in 2008. 14.9 per cent of households gave by standing order or direct debit, compared to only 2.9 per cent by deductions from pay. 21.2 per cent of households made "spontaneous" donations which were captured in their diary spending items. Later, we explore how these proportions have changed over time.

[6] Living Costs and Food Survey, 2008, Volume D: Expenditure Codes. Big Issue, carol singers, NSPCC, Oxfam have been added to this list since the previous study by Banks and Tanner (1997).

[7] This follows the approach in previous studies, including Jones and Posnett (1991), Banks and Tanner (1997), Carroll et al. (2005), Reece (1979), Schervish and Havens (1997), Heller Clain and Zech (1999), Yen (2002), Wilhelm, (2007).

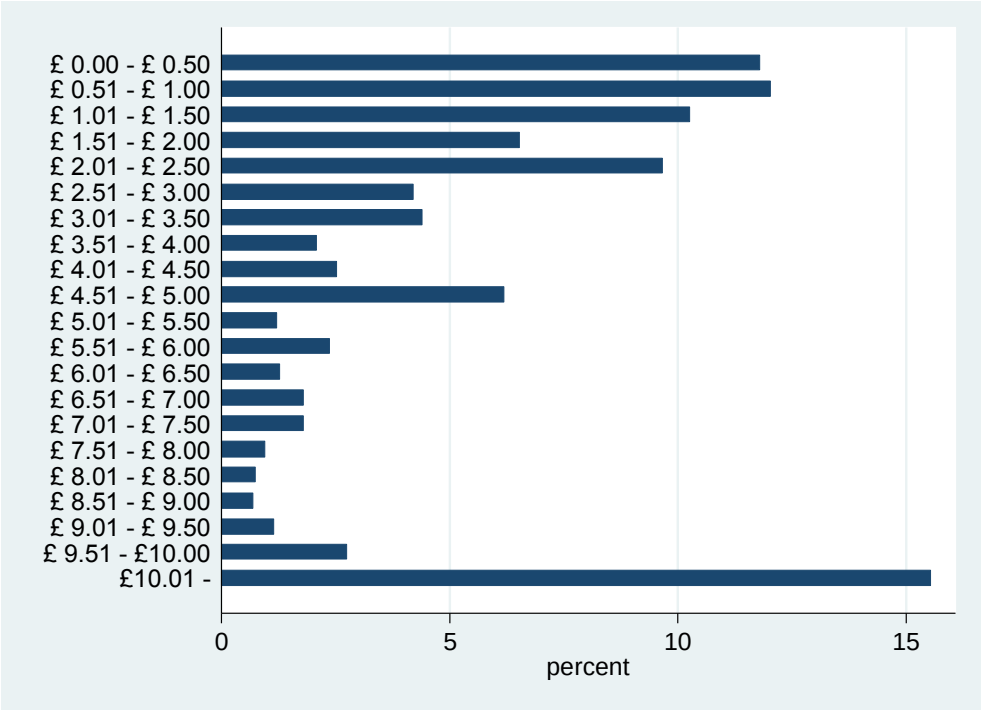
[8] Previous analysis of the LCF indicated that the giving data for Northern Ireland were very different from the rest of the United Kingdom (see CGAP, 2010). To avoid distorting the picture for the rest of the UK, this report is based on the data for Great Britain only.

Table 2.1 also shows that the average (mean) weekly donation among households giving to charity was £8.66 in 2008.[9] As shown in Figure 2.1, the pattern of weekly giving in the LCF survey is quite skewed. Roughly 24 per cent per cent of those who donated to charity gave less than £1 while 16 per cent donated more than £10. The median donation among those who gave was £2.63.

Table 2.1: Summary of household donations in 2008

	per cent of households donating	Mean weekly amount (among donors)
Total giving	27.0%	£8.66
Spontaneous giving	21.2%	£5.83
Standing order or direct debit	14.9%	£7.13
Deductions from pay	2.9%	£3.62

Figure 2.1: Weekly donations per household, 2008



[9] All nominal figures have been adjusted to 2010 (third quarter) pounds using the quarterly GDP deflator except Figure 2.1 which remains in nominal prices to highlight incidences of round figure donations, and table 2.2, also nominal prices, for purposes of comparison with UK Giving 2009 figures.

Amounts given by direct debit/standing order were slightly larger than spontaneous donations. The typical amounts given through payroll giving schemes were smaller, however. This is consistent with other evidence on the small scale of donations through payroll giving schemes.[10]

It is important to note that these figures on amounts almost certainly understate both average donations across the whole population and the skewness of the distribution for the reason that the LCF survey does not sample major donors. The very biggest donation observed in the thirty years of data is £1,500 – clearly smaller than many major donations which are made in practice. The fact that the LCF survey fails to capture large donations should not be particularly surprising – major donors are relatively few in number and are unlikely to be included in a population-wide survey; large donations may also not be covered in the two-week survey period. This report is therefore about trends in giving among the general household population, excluding what is happening among the population of major donors.

2.2 The UK Giving surveys

The annual 'UK Giving' surveys provide the main alternative micro-dataset on giving to the LCF survey. Commissioned by CAF and NCVO, these consist of a module of questions on giving inserted in the ONS general population omnibus survey.[11] However, the data has been collected consistently in this way only since 2004, making it impossible to do any analysis of long-term trends in giving using it.

This survey differs to the LCF in a number of respects. First, in terms of sampling. It is an individual rather than a household survey; it has a smaller sample size (3,300 individuals compared to 6,500 households) and it is conducted at three points within the year compared with the rolling approach of the LCF.

Secondly, it differs in how it collects information on giving. Individuals are asked to recall how much they have donated to charitable causes over a specified reference period in the past rather than recording amounts in a diary on an ongoing basis; also the reference period is a month rather than the two-week period in the LCF survey. This is likely to lead to higher levels of giving being recorded

[10] See for example Potter and Scales (2008) who find that the typical monthly donation is less than £10.

[11] A survey of individual giving was initially commissioned by the Charities Aid Foundation (CAF) in 1987: it was taken over by NCVO from 1995-2001 when it was revised and carried out by NOP, and has been run jointly between NCVO/CAF from 2002 onwards when it was radically revised and carried out by the ONS. The most recent edition is UK Giving 2010.

in the UK Giving surveys compared with the LCF survey – since many individuals give on an infrequent basis, the longer reference period will capture more donors. Another reason is that asking for spending information through recall may cause individuals to include amounts that were actually made (just) outside the reference period.

Thirdly, in the coverage of charitable giving. The UK Giving survey question module has been designed specifically to collect information on charitable giving and includes a much wider range of questions on giving than the LCF survey, covering different types of giving and charity beneficiaries. This greater level of detail may help prompt people to record their charitable giving more reliably. Charitable giving in the UK Giving survey also includes purchases of charitable goods, which are excluded by LCF survey. This is also likely to lead to higher levels of recorded giving in the former than in the LCF survey. Like the LCF survey, however, the surveys of individual giving, as a general population survey, also fail to capture major donors.

Following these differences in sampling and question design, the estimates of giving in the two surveys differ, as shown in Table 2.2. The imputed four-weekly participation rate in the LCF survey is slightly lower than that in the surveys of individual giving, while the weekly-equivalent amount is slightly higher, although the differences are not very great. However, the main difference is that the figures from the LCF survey reflect total giving for a household, rather than for an individual.

Table 2.2: Comparing the LCF survey with UK Giving Survey

	LCF 2008* Household donations	UK Giving 2009 Individual donations
Mean average donation	£8.46 / week	£7.75 / week
Proportion giving	47%† in four weeks	54% in four weeks

Notes to table:
* UK including Northern Ireland, weighted estimates
† Imputed figure: proportion giving in four weeks = 1 – (proportion not giving in two weeks)^2
Source: CAF/NCVO (2010), modified

What this means is that the two-week participation rates based on the LCF survey almost certainly understate the proportion of households that ever gives to charity in a longer period and this needs to be borne in mind in looking at the numbers. However, the focus of this report is on changes in participation – and amounts given – over time and for this, the LCF survey data are likely to be fairly accurate. This is supported by recent research which has compared trends in giving across the two surveys using earlier versions of the individual giving surveys. One study concluded that when charitable purchases were excluded from the individual giving survey estimates, and LCF data

adjusted to a per person rather than per household figure, results for trends in giving between 1995 and 2000 were remarkably consistent between the surveys (Donations Foresight, 2002). An earlier study of the two surveys suggested that the results of both surveys indicated that between 1981 and 1992 total giving may have increased at a similar rate to the retail prices index, remaining broadly at the same level over this period (Lee et al, 1995).

We are therefore confident that the LCF survey can be used reliably to look at long-term trends in giving over time, Analysis of these data allow us to gain unique insights into what has happened to giving – and why – over the past three decades.

3 The main trends in household giving

This section describes the main trends in household giving over the past three decades – including the proportion of households who give, average donations, levels of generosity and methods of giving.

3.1 Participation over time

Figure 3.1: Proportion of households giving to charity, 1978-2008, in Great Britain

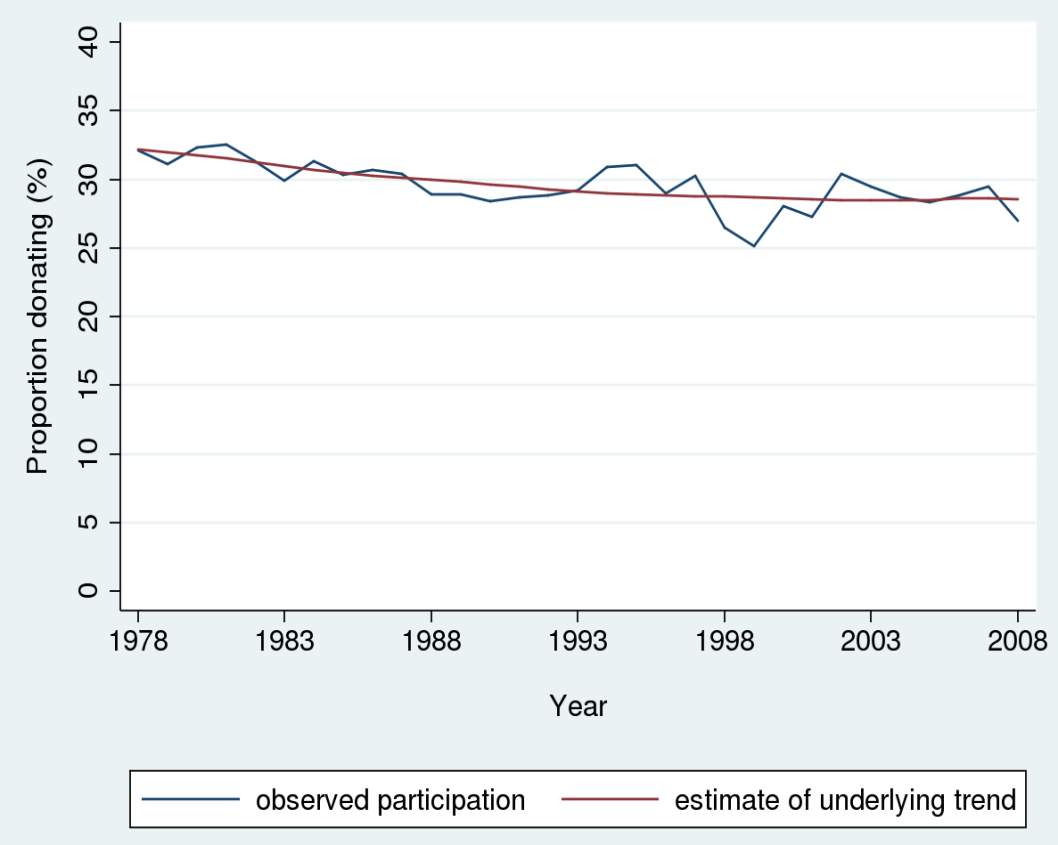


Figure 3.1 shows the proportion of households giving to charity in each year from 1978 to 2008. The blue line shows the observed participation rate, which varies year-to-year,[12] while the red line shows the smoothed estimate of the underlying trend in giving. The full figures, including for individual GB countries, are given in the appendix (Table A1). The key findings are that:

[12] Some of this variation is genuine; some is due to sampling variation. Appendix A (Table A1) provides confidence intervals which give an indication of sampling variation.

- There was a steady decline in participation between 1978 and 1999. The proportion of households giving to charity fell from 32 per cent in 1978 to 25 per cent in 1999; on average participation fell by 0.32 percentage points annually, equating to roughly 65,000 fewer households giving per year[13].

- However, the Millennium year appears to mark a turning point in participation. Since 2000, there has been a halt in the decline of the proportion of households giving to charity, shown by the underlying trend. The participation rate has averaged over 28 per cent since 2000.

- As has been documented elsewhere (Donations Foresight (2002)),[14] there were a number of specific Millennium appeals, such as the Children's Promise scheme;[15] there was also a significant reform to Gift Aid which meant that all donations made by tax-payers were in theory eligible for tax relief (abolishing the minimum eligibility threshold).

- Since 2000 participation also seems to have become more volatile. This is in spite of an increase in the use of "pre-committed" methods of giving (sometimes called 'planned giving'), including standing order, direct debit, payroll giving schemes and other direct deductions from pay.

- There is some national variation. The trends in England and Scotland reflect those for GB – 20 years of decline followed by 10 years of relatively little overall change in participation rates. Wales on the other hand experienced a decline from high participation of 35 per cent in 1978 to around 25 per cent in 2008.[16]

[13] Source: ONS. Government departments calculate the number of households in Great Britain as 20.18m in 1981 and 22.39m in 1991. The figure above uses 20.18m households from 1978 to 1990 and 22.39m for 1991 to 1999. It is therefore a very rough estimate and is likely to underestimate the number of households.

[14] Donations Foresight (2002), ibid. found that the size of charitable gifts per giving household in the 1999/2000 year was 17 per cent greater than what would have otherwise been predicted.

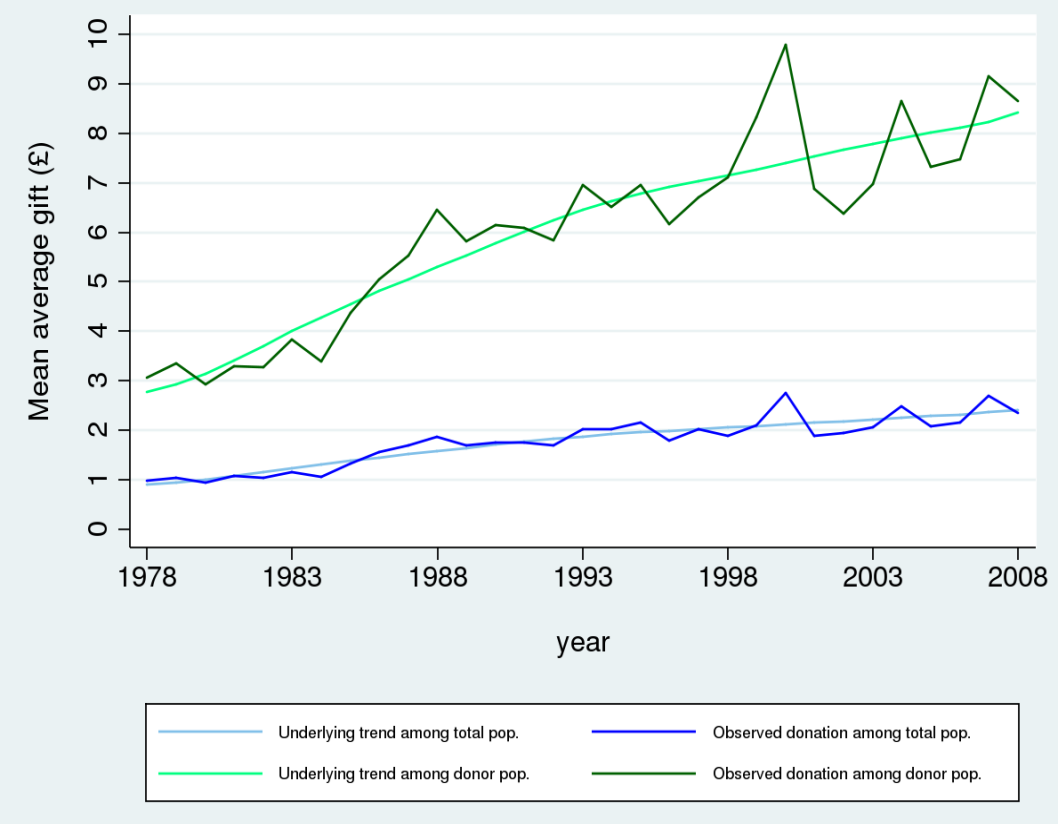
[15] A joint campaign by Marks and Spencer and New Millennium Experience Company in which people were encouraged to donate their final hour's earnings of 1999 to charity via their company's payroll or through individual giving.

[16] The estimates for Wales are based on rather small sample sizes of roughly 350 households per year, compared with 5,500 with England and 600 for Scotland.

3.2 Amounts given over time

Figure 3.2 shows average (mean) weekly donations over the period among the **total** population (in blue) and among the **donor** population (in green) respectively, together with the underlying trends. These figures are all in real terms (2010 prices). Tables A2 and A3 in the appendix provide the point estimates along with confidence intervals for Great Britain and also the figures for individual countries. [17]

Figure 3.2: Average weekly giving among the total population and donor population



Beginning with average donations among the total population, the key findings are that:

- Average (mean) donations across the whole population (i.e. including those who do not give) have risen in real terms from 98 pence per week per household in 1978 to £2.34 in 2008. In other words, average household donations have more than doubled in real terms over the three decades.

[17] In certain years there was larger variance in amounts donated which translates into rather wide confidence intervals of up to £5 for the donor population (95% probability).

- However, while the trend has been consistently positive over the whole 31-year period, a large part of the increase occurred during the 1980s. Growth in donations was particularly high during the economic boom in the late 80's; from 1984 to 1988, real donations nearly doubled from £1.06 to £1.87. The rate of increase has since slowed.

- In late 1999 and early 2000 there was a large spike in donations which we, and other studies such as Donations Foresight 2002,[18] attribute to the 'Millennium Effect.' As has already been noted, there were a number of specific Millennium appeals as well as a significant reform to Gift Aid. However, the Millennium effect was not sustained and average donations returned to their previous level in 2001. This again is consistent with other data.[19]

Looking at average donations among the donor population (in green in Figure 3.2), the key findings are:

- Among donors, average (mean) donation size has increased nearly three-fold in real terms from £3.05 in 1978 to £8.66 in 2008. This increase in donation size among donors explains why average donations across the whole population have continued to rise while the proportion of households giving has fallen.

- Again, when separating the countries that make up Great Britain, the overall pattern of a large increase in amounts given in the 1980's was very much driven by donor households in England and Scotland. In Wales, by contrast, where the average amount donated has always been lower than in England or Scotland, the average size of a donation increased most rapidly in between 1998 and 2008.

3.3 Giving as a share of household expenditure

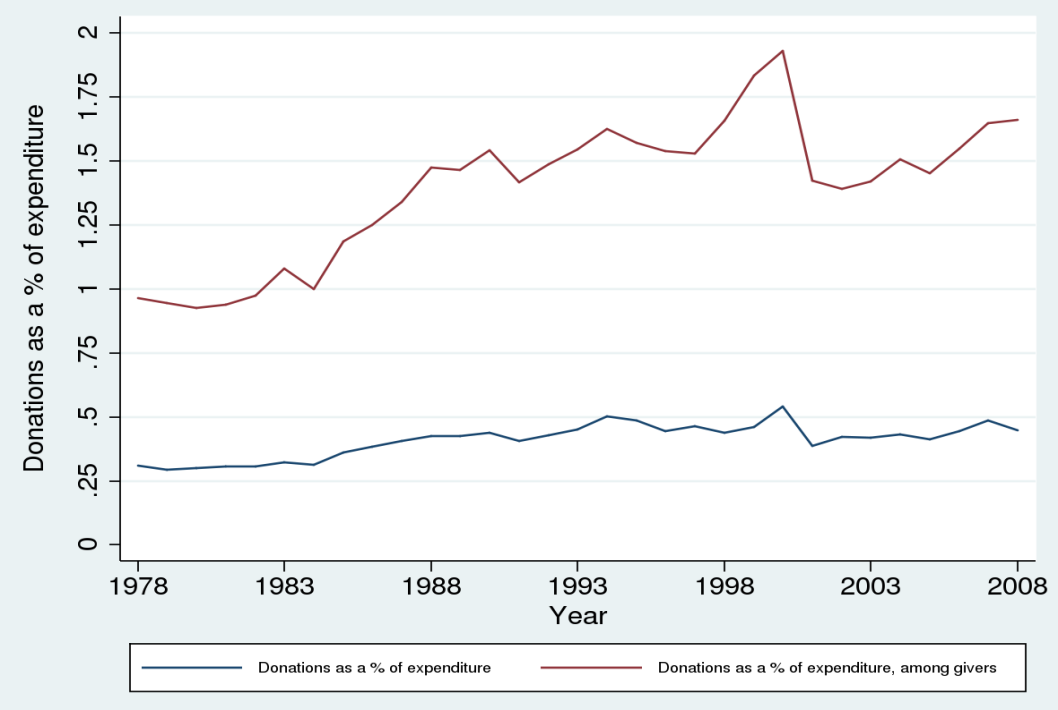
Here we look at trends in generosity, where generosity is defined as donations as a percentage of total household spending. Total spending provides a reliable measure of how well off households are since households will typically smooth their spending, while incomes may fluctuate over time,

[18] Donations Foresight (2002), ibid. found that the size of charitable gifts per giving household in the 1999/2000 year was 17 per cent greater than what would have otherwise been predicted.

[19] Pharoah, C (2003). Charity Trends 2003, CaritasData, London.

particularly for the self-employed (see Box 1 for a more detailed discussion). Figure 3.3 shows the average donations as a percentage of household spending, among the total population and among givers. As before, the annual numbers corresponding to Figure 3.3 are given in Table A3 in Appendix A. Table 3.1 summarizes levels of generosity for five-year intervals and also separately for the Millennium year.

Figure 3.3: Donations as a percentage of household expenditure



- There has been very little substantial change in donations as percentage of expenditure among the total population. The share of spending on donations was 0.4 per cent in 2008, compared to 0.3 per cent in 1978.

Table 3.1: Generosity: Donations as a percentage of household expenditure

Period	Donations as a % of expend among total pop.	Donations as a % of expend among givers
1978-82	0.3%	0.9%
1983-87	0.4%	1.2%
1988-92	0.4%	1.5%
1993-97	0.4%	1.5%
1998-02	0.4%	1.6%
2003-08	0.5%	1.6%
2000	0.5%	1.9%

- Looking just at donors, generosity rose from 0.9 per cent of spending over the period 1978-92 to 1.6 per cent over the period 2003-2008. However, most of this increase occurred during the 1980s. During the 1990s and 2000s, the rising level of donations seen in Figure 3.3 has broadly been in line with increases in total spending.

- The Millennium year was an exception. Generosity among donors increased to almost 2 per cent of spending, but this had fallen right back by 2001.

Box 1: Using expenditure instead of income to measure standards of living

The choice between income or expenditure as a measure of standard of living is well documented (see for example Goodman and Webb, 1994).

There are issues with using expenditure as a measure of a household's standard of living. It effectively assumes that the goods are consumed instantly after purchase while in practice, the household gets to consume a a car for as long as they keep it. Therefore current expenditure could overestimate a household's standard of living following any large item of spending on durable items. A related problem is the 'lumpiness of spending,' in the fact that expensive durable items are not bought every week hence measuring expenditure over a short period doesn't accurately reflect standards of living (although surveys such as the LCF survey do try to overcome these problems by asking about purchases of durables over a longer reference period).

However, incomes can also fluctuate substantially from one period to the next for a variety of reasons, including bonuses or temporary unemployment. Economic theories on permanent income and the life cycle hypothesis suggest that people tend to smooth their spending based on current and expected future income so that their consumption fluctuates less from one period to the next compared to income. For example, students borrow against their future income when at university. Likewise pensioners run down savings in retirement so their expenditure need not drop substantially when their income falls on retirement. In these cases looking at income would not accurately reflect the standard of living. Two other important examples where expenditure might be very different to income are the self employed and the temporarily unemployed. Among the self employed incomes are more likely to fluctuate from one period to the next than say public sector employees and their income is much harder to measure at any given point whereas their expenditure is more likely to be smoothed. The same argument applies for those that find themselves temporarily unemployed. Hence the self employed and temporarily unemployed will be over-represented at lower ends of the income distribution. Hence, especially when data is only available for a short period, for example a two week period in the LCF, then expenditure is perhaps a better measure of standard of living.

Finally, households at the lowest end of the distribution in terms of income have 'disproportionately high expenditure' (Brewer et al, 1996) implying that expenditure might be a better proxy for standard of living as opposed to income.

3.4 Method of giving

The way people give to charity has changed over the period and many more givers now have pre-committed donations. This is illustrated in Table 3.2 which shows the share of the donor population giving through direct debits, standing order and deductions from pay and also the share of total donations made through these methods. Again the corresponding yearly figures are available in the appendix.

Table 3.2: Charitable gifts by method of giving

Period	Proportion of givers who donate via DD, STDORD or DEDPAY	Share of donations made through DD,STDORD and DEDPAY
1983-87	35.5%	18.2%
1988-92	36.7%	20.5%
1993-97	35.3%	22.4%
1998-02	51.1%	34.3%
2003-08	63.0%	45.6%

Notes to table:
DD is Direct Debit donations, STDORD is Standing Order donations and DEDPAY is donations via deductions from pay
All three measures of pre-committed giving are only identified in the LCF survey from 1983

- The share of total donations by value made through pre-committed methods rose from 18.2 per cent in the first period to 45.6 per cent of total donations in the final period. The proportion of the donor population giving through pre-committed methods also increased between the first and the last periods from 35.5 per cent to 63 per cent.

- The change in the way people give mirrors a wider shift to payments by direct debit (three out of four GB adults had at least one Direct Debit commitment in 2007[20], for example). For charities, the changes to Gift Aid in 2000 may have provided an additional incentive to increase the proportion of their donors giving through direct debit. From 2000 they could claim basic rate relief on all donations as long as the donor was a taxpayer, agreed to Gift Aid and had paid sufficient tax, and the charity captured donor details. This prompted the rise of the £2 per month face-to-face street sign ups.

- Spontaneous donations are still very important, accounting for nearly half of all giving. Not all of this is cash; it reflects continuing use of cheques, particularly at fundraising events and

[20] Bacs Consumer Payments Survey (2008)

in response to mail appeals, and increasing donations made online and through other new media such as SMS text messages. The CAF Disaster Monitor found that the use of "new media" donation methods (online, text/SMS) specifically in response to disaster appeals increased from 7 per cent in Asia 2004, to 17 per cent in the 2009 Asia-Pacific appeal and 2010 Haiti disaster. [21]

3.5 Understanding the trends in giving

The last three decades have seen big changes in the proportion of households that give and in how much they give. Here, we explore to what extent these trends are affected by the external environment – specifically the economic cycle, government policy and major disaster appeals. Many factors may influence changes in giving simultaneously making it hard to disentangle the individual effects of, for example, a change in tax relief on donations, even with 31 years of LCF data. Nevertheless, our analysis gives at least some indication as to the effects of various factors on donations and how relationships might have changed over time.

3.5.1 The economic cycle

Following the recent recession, there has been considerable interest in how giving is affected by the economic cycle. This is something that we can hope to shed light on by analysing long-term trends in giving. The graph below (Figure 3.4) replicates average weekly donations (defined over all households) from Figure 3.2 but highlights (in red) years in which the UK was officially in recession in at least one quarter (where a recession is defined as two consecutive quarters of negative growth) and (in green) "slowdown" years where annual growth was 95 per cent or more below the average growth rate of the sample period. [22] Movements in overall giving are driven by trends both in participation and in amounts given among donor households. These are shown separately in Figure 3.5. In Appendix B we also report the results of regression analysis which assesses the extent to which movements in participation and in giving are significantly affected by the economic cycle.

[21] CAF Disaster Monitor 2010: http://www.cafonline.org/pdf/CAF_Disaster_Monitor_summary_2010.pdf

[22] This definition of a slowdown year follows 'Giving during recessions and economic slowdowns' (Center on Philanthropy at Indiana University). One way in which they define a slowdown year is if GDP growth is 80 percent or less than the 40-year average GDP change. We are using a smaller time frame with less variation in growth so we use 95 per cent of the three decade average growth rate.

Figure 3.4: Average charitable gifts among the total population over time

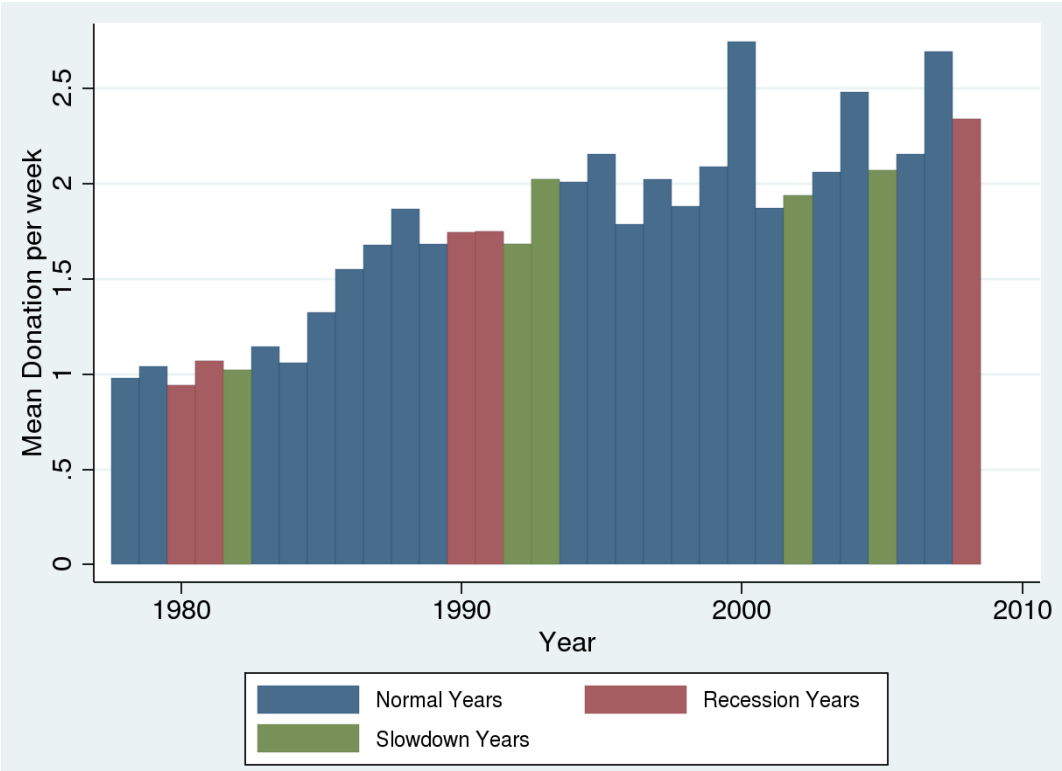
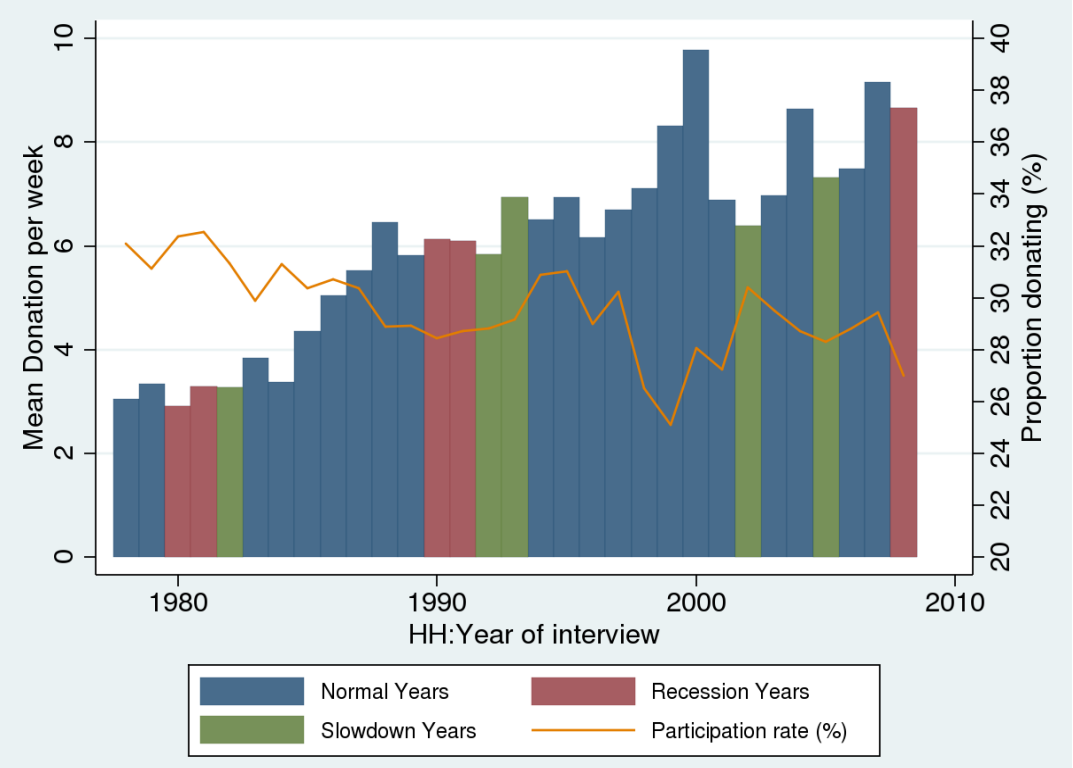


Figure 3.5: Average charitable gifts by donor households and participation rate



The graphical evidence suggests that the economic cycle has more of an effect on how much people give rather than on whether people give. The regression analysis confirms that GDP growth is positively and significantly correlated with total donations and donations among givers but is not significantly correlated with the participation rate.

The positive relationship between how much people give and GDP growth is driven by boom times – in particular by the 1980s boom. The growth in donations in the 1980s coincided with an economic boom; there is less evidence from Figures 3.4 and 3.5 of a similar growth in giving during the 1990's boom.

The evidence also suggests that giving has been fairly recession-proof. When growth has been negative – i.e. during periods of recession – there is little evidence that donations have fallen. In the regression analysis, recession has a small "positive" effect on donations once GDP growth has been taken into account – in other words, donations have been above the level that would be expected on the basis of GDP growth. However, there is some sign that donations held up slightly better in the recessionary periods of the 1980s and 1990s than they have done during the latest recession. Note that our data finish in 2008, quarter 4, before the end of this latest recession, which ended in 2009, quarter 3.

3.5.2 Government policy

Giving may also be affected by changes in government policy – particularly changes in tax relief – designed to encourage giving. The main changes over the period were the introduction of Gift Aid in 1990 which allowed individuals to get tax relief on one-off donations (albeit with a £600 minimum threshold) and the reform in 2000 which abolished the minimum threshold. Other changes in May 1992 and March 1993 reduced the threshold.

We can test for any effect of these changes by looking at whether they coincided with significant shifts in giving behaviour. As noted before, it is potentially hard to disentangle the effects of these changes from other time-varying factors, such as the economic cycle and, particularly, a wider Millennium effect, since there were a number of important charity campaigns in this year. With this caveat, however, we find evidence that the 2000 reform coincided with a significant increase in the proportion of households giving to charity, which appears to have been sustained beyond the Millennium year. The amount significantly increased during the Millennium year, but this was not sustained, making it hard to attribute it to the effect of a permanent change in policy.

This finding that changes in tax relief have little effect on how much people give accords with recent research which found that the majority of people tend not to respond to changes in tax incentives by adjusting the size of their donations (see Scharf and Smith, 2009). However, even if people do not change how much they give, charities will still benefit since they can reclaim basic rate tax relief on a much larger number of donations from taxpayers. The LCF survey captures donations out of net-of-tax income – which appear to be relatively unchanged by the reforms. It does not take account of the basic rate tax relief that the charity could reclaim following the reforms to Gift Aid, which would add to the charities' incomes. Another possible effect of government policy, as has already been discussed, was to give an incentive for charities to increase giving through regular, pre-committed methods which allowed them to identify donors as taxpayers.

3.5.3 Major disaster charity appeals

Another factor that may impact on donations is major charity appeals – particularly those following natural disasters. The scale of giving in response to specific appeals has been substantial – Table 3.3 summarizes the biggest four appeals over the period. Again it is potentially hard to isolate the effect of disaster appeals from other time-varying factors, but with this caveat in mind we find that some natural disasters – notably the Asian Tsunami and the Rwandan Genocide – coincided with significant changes in giving.

Table 3.3: Major disaster appeals

Disaster	Amount Raised through the Disasters Emergency Committee	Our Findings
ASIAN TSUNAMI 2004	£390 million directly to DEC. (Another £50 million to member agencies).	Coincided with a significant increase in donations and participation rate
ASIA QUAKE 2005	£59 million	No observed effect on the proportion giving or the amounts donated
KOSOVO CRISIS 1999	£53 million	No observed effect on the proportion giving or the amounts donated
RWANDA GENOCIDE 1994	£37 million	Coincided with a significant increase in participation

In Figure 3.5 there is a spike in donations in 2004 which coincides with the Asian Tsunami. Furthermore, the data broken down by month shows an unusually large spike in donations in December (the average donation was £19.43 for Great Britain in December 2004 compared with £6.83 in 2003 and £8.08 in December 2005). Regression analysis provides further evidence that the Asian Tsunami had a significant impact on cash donations and the participation rate, and hence on total donations. There is no evidence that people brought forward their giving and therefore gave less in the immediate period after the Tsunami.

In Figure 3.5, there is also an unexpectedly large increase, given that it was a 'slowdown year,' in participation[23] in 1994, coinciding with the Rwandan genocide. The regression analysis confirms that there was a significant increase in participation for the year and quarters when the genocide appeal was taking place.

In summary, we find evidence that some – but not all – disaster appeals coincided with increases in the proportion of households giving and in the amounts given. This is important in that it suggests that disaster giving does not completely crowd out other giving. However, there is also little evidence that giving in response to a disaster appeal causes any long-term change in people's giving behaviour. The effect of a disaster – if any – on total household giving is short-lived.

[23] Participation increases by 1.7% from 29.2% in 1993 to 30.9% in 1994. This stays at 31% in 1995 before falling back down to 29% in 1996. See Table A1 in Appendix A

4 The donor population

4.1 The distribution of donations

The distribution of donations among the household population is very skewed, even without taking account of donations from major donors. Table 4.1 shows this in more detail for the donor population. It shows the cumulative distribution of total donations by percentile of distribution. This means putting donors in order in terms of their donation size and seeing what proportion of total donations is accounted for by different percentiles of the donor distribution. For example, the table shows that the bottom 50 per cent of donors by donation size accounts for just 7.4 per cent of the value of total donations in the period 2003 to 2008. The top 10 per cent of donors, on the other hand, account for around 60 per cent of donations in all periods (again not taking account of major donors).

Table 4.1: Cumulative distributuion of donations by percentile of donor distibution

Donation Percentile	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2008
5	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
10	0.2%	0.2%	0.2%	0.3%	0.4%	0.5%
20	0.9%	0.9%	0.9%	1.0%	1.2%	1.3%
25	1.4%	1.4%	1.4%	1.6%	1.7%	2.0%
30	2.0%	2.1%	2.1%	2.1%	2.4%	2.8%
40	3.9%	4.0%	3.7%	3.9%	4.2%	4.6%
50	6.7%	6.7%	6.1%	6.3%	6.7%	7.4%
60	10.8%	10.6%	9.6%	10.0%	10.5%	11.2%
70	17.0%	16.2%	14.8%	15.3%	16.0%	16.8%
75	21.3%	20.0%	18.4%	18.9%	20.1%	20.4%
80	26.6%	25.0%	22.9%	23.7%	24.7%	25.1%
90	42.5%	39.8%	38.1%	38.5%	39.8%	39.2%
99	79.8%	77.1%	78.6%	75.4%	76.3%	74.8%
100	100 %	100%	100 %	100%	100%	100%
Donations Gini Coeff	0.71	0.72	0.73	0.73	0.72	0.71
Expenditure Gini Coeff	0.32	0.34	0.36	0.35	0.36	0.37
Income Gini Coeff	0.36	0.40	0.42	0.44	0.44	0.42

The fact that the distribution of donations is heavily skewed is fairly well-known. A similar pattern in donating has been reported in UK Giving 2010 which finds that eight per cent of donors in 2009/10

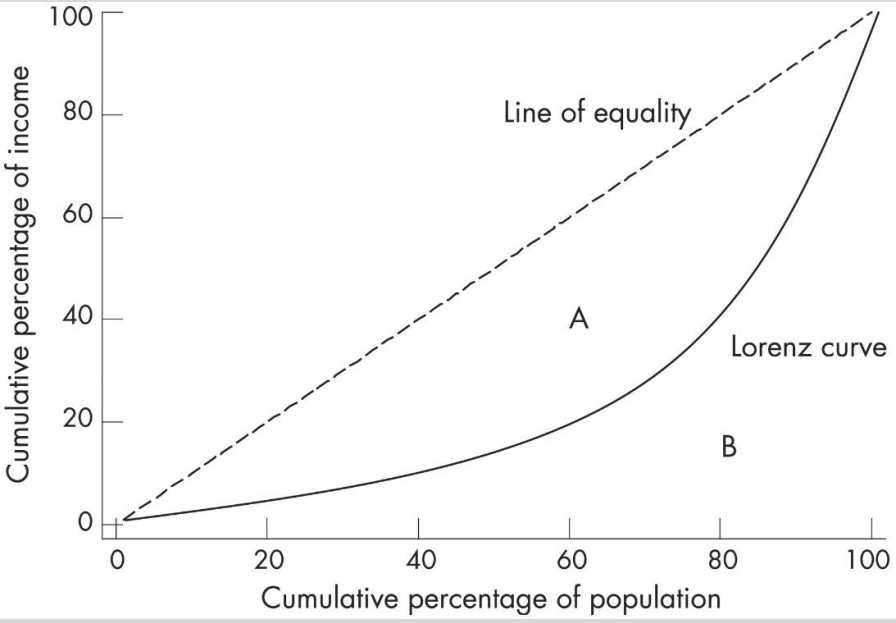
gave over £100 and this accounted for 47 per cent of total donations.[24] We provide new evidence that the degree to which donations are skewed in the general household population has remained remarkably constant over a long period of time – in spite of the shrinking donor base.

This can be seem most clearly by looking at the Gini Coefficient (shown in the bottom row of the table and explained in detail in Box 2), which provides a summary measure of the inequality in giving. This is exactly the same as it was at the beginning of the period (after increasing slightly in the middle of the period). This is in contrast to the systematic increases in income inequality.

Box 2: Gini coefficient

The Gini coefficient and the Lorenz curve on which it is based are are used to measure the degree of inequality of a distibution. Most commonly they are used to describe inequality in the income distribution. In our analysis we apply these methods to the distibution of donations.

The Lorenz curve lines people up in terms of income, or in our case donations, from lowest to highest and asks what proportion of the total income is earnt by say the bottom 10 per cent of income earners. The proportional 45 degree line therefore represents perfect equality; the bottom 20 per cent of the population in terms of income, earn 20 per cent of total income. The more concentrated the distribution among the high income earners of the population, then the higher the degree of inequality.



The Gini Coefficient is calculated as the ratio betwen the proportional 45 degree line and the Lorenz curve, G=A/(A+B). When G equal to one, one person owns all income and we have perfect inequality. When G is equal to zero, income is perfectly distributed among the population.

[24] National Council for Voluntary Organisations/ Charities Aid Foundation (2010). UK Giving 2010 An Overview of Charitable Giving in the UK, 2009/10. NCVO/ CAF

Within the overall picture of stability, however, there have been some changes that are worth noting. There has been an increase in the proportion of donations coming from the bottom of the distribution, although their contribution remains relatively small. There has also been an increase in the proportion of donations coming from the very top of the distribution – the top 1 per cent of donations accounted for 25 per cent of the total in 2003 – 2008, compared to 20 per cent in 1978 – 1982.

We can compare the Gini coefficient for donations with the same measure for expenditure. The donation gini is much larger than the expenditure gini, which tells us that the distribution of donations is much more unequal across the population than the distribution of expenditure.

4.2 The relationship between donations and household standards of living

We now look at another aspect of the distribution of donations – donations made by "rich" and "poor" households. For the reasons discussed earlier (Box 1) we define households' standard of living in terms of their expenditure rather than their income.

Table 4.2: Cumulative distributuion of donations by percentile of expenditure distibution

Expenditure Percentile	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2008
1	0.5%	0.4%	0.4%	0.4%	0.3%	0.4%
5	2.7%	2.4%	2.0%	2.3%	2.3%	2.6%
10	6.3%	5.7%	4.4%	5.4%	5.8%	5.7%
20	14.9%	13.5%	11.1%	12.3%	12.7%	12.3%
25	19.5%	18.0%	14.5%	15.8%	16.3%	16.0%
30	23.6%	22.0%	18.6%	19.6%	20.2%	19.9%
40	31.5%	29.3%	27.6%	27.2%	28.3%	27.9%
50	41.0%	36.6%	36.8%	35.5%	37.3%	36.1%
60	50.0%	46.4%	45.9%	44.5%	45.8%	44.7%
70	59.2%	55.6%	55.8%	53.2%	57.7%	53.7%
75	65.6%	60.0%	62.9%	58.6%	62.2%	58.1%
80	70.5%	66.4%	67.7%	64.6%	67.9%	63.9%
90	83.7%	80.5%	81.5%	77.0%	80.9%	78.3%
99	98.2%	96.5%	96.6%	95.5%	97.7%	95.4%
100	100%	100%	100%	100%	100%	100%
Donation Suits Index	0.14	0.19	0.20	0.23	0.19	0.22
Expenditure Gini Coeff	0.32	0.34	0.36	0.35	0.36	0.37
Income Gini Coeff	0.36	0.40	0.42	0.44	0.44	0.42

Table 4.2 shows how the proportion of total donations varies in terms of *expenditure percentiles* among the population of donors in Great Britain. This means putting donors in order in terms of their total spending and seeing what proportion of total donations is accounted for by different percentiles of the expenditure distribution. For example, the table shows that households in the bottom half of the expenditure distribution (i.e. the less well-off half of the population) accounted for 36.1 per cent of all donations over the period 2003-2008.

As in the case of the distribution of donations in the previous sub-section we can produce a summary statistic that captures the overall distribution of donations by expenditure. In this case, it is referred to as the Suits index (see Box 3). The summary statistics, reported in the final rows of Table 4.2, show that the distribution of donations across households in terms of their standard of living is much flatter than the distribution of their expenditure. However, the Suits index has risen over the period – from 0.14 in 1978-1982 to 0.22 in 2003-2008 – implying that more of total donations are now coming from the better off. The numbers in Table 4.2 show this in more detail. For example, the richest 25 per cent accounted for 42 per cent of total donations in 2003-2008 compared to 34 per cent of total donations in 1978-1982.

Table 4.3 sheds more light on the relationship between households' expenditure and their donations.

Panel a) summarizes donations as a percentage of spending, by expenditure decile, focusing on donors. It shows that poorer households who give are more generous in terms of donations as a percentage of expenditure. The poorest 10 per cent of donors gave 3.6 per cent of their total expenditure in 2008 compared to 1.2 and 1.1 per cent of those in the top two expenditure deciles. Generosity among the poorest donors has increased since the beginning of the period – from 2 per cent to 3.6 per cent in the poorest decile, and from 1.7 per cent to 3.5 per cent in the second expenditure decile between 1978 and 2008.

However, we also need to take account of the fact that better-off households are much more likely to give. This is also shown in Table 4.3 (Panel b). Among the poorest 10 per cent of households, just over one-in-ten gave to charity in 2008 (and this has fallen from 17 per cent in 1978), while among the richest 10 per cent of households, the figure is nearly one-in-two. Participation among the richest decile has increased since 1978 – the only group for which this is the case.

Taking account of both participation and amounts given, the expenditure share on donations in 2008 was fairly flat across households across the expenditure distribution (shown in Table 4.3, panel c).

The flat profile contrasts with the start of the period, when the rich gave less than the poor as a share of their total spending taking account of both participation and giving. This increase in participation rate and in generosity among the richest households explains the increase in their relative contribution (shown in Table 4.2).

Table 4.3: Patterns of giving, by expenditure decile, over time

Panel a) Donations as a percentage of total spending – givers

Expenditure Decile	1978	1988	1998	2008
1	2.0%	2.1%	2.5%	3.6%
2	1.7%	2.3%	3.1%	3.5%
3	1.1%	1.7%	2.9%	2.3%
4	1.3%	1.7%	2.3%	1.9%
5	0.7%	1.6%	1.6%	1.4%
6	1.1%	1.5%	1.4%	1.5%
7	0.9%	1.5%	1.2%	1.2%
8	0.6%	1.1%	1.3%	1.6%
9	0.7%	1.1%	1.3%	1.2%
10	0.5%	1.3%	0.9%	1.1%

Panel b) Percentage of households who give

Expenditure Decile	1978	1988	1998	2008
1	16.8%	11.2%	11.8%	10.7%
2	22.1%	17.5%	15.7%	16.2%
3	26.4%	21.9%	20.5%	20.5%
4	30.5%	23.7%	25.3%	23.8%
5	29.6%	26.2%	25.5%	25.5%
6	37.7%	31.2%	26.6%	21.0%
7	34.2%	34.1%	30.8%	33.2%
8	36.6%	38.1%	31.9%	32.6%
9	42.7%	43.2%	39.5%	40.1%
10	45.3%	43.0%	39.0%	47.2%

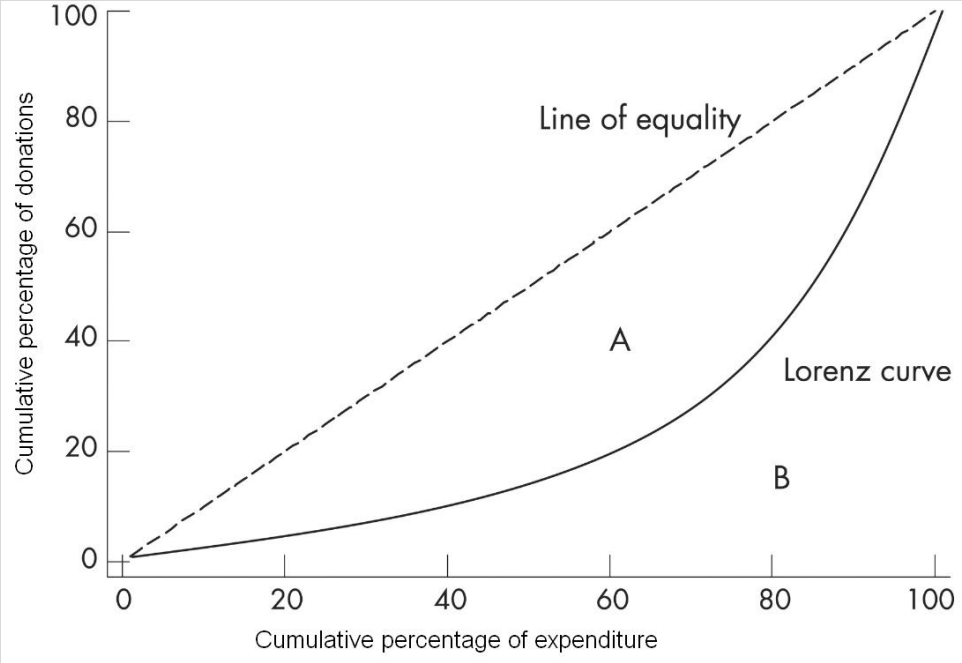
Panel c) Donations as a percentage of total spending – all households

Expenditure Decile	1978	1988	1998	2008
1	0.3%	0.2%	0.3%	0.4%
2	0.4%	0.4%	0.5%	0.6%
3	0.3%	0.4%	0.6%	0.5%
4	0.4%	0.4%	0.6%	0.5%
5	0.2%	0.4%	0.4%	0.4%
6	0.4%	0.5%	0.4%	0.3%
7	0.3%	0.5%	0.4%	0.4%
8	0.2%	0.4%	0.4%	0.5%
9	0.3%	0.5%	0.5%	0.5%
10	0.2%	0.6%	0.3%	0.5%

Box 3: The Suits Index

The Suits index is related to the Gini coefficient and the Lorenz curve. Whereas the Gini coefficient examines the distribution of one variable in relation to itself when the variable is sorted in ascending order, the Suits index is used to analyse how the distribution of one variable varies in relation to another variable. It is most commonly used when analysing the progressivity of taxes. It plots the cumulative percentage of the tax burden on the y-axis and the cumulative percentage of income on the x-axis. It shows the proportion of the of the tax burden paid by those from each expenditure percentile. In our case when looking at the distribution of donations with respect to expenditure, we analyse the cumulative percentage of donations and ask how much as a proportion of total donations people from each expenditure percentile donate to charity.

Graphically, if we make K equal to A+B and let B denote the area under the Lorenz curve, then the Suits index is defined as S = 1 - B/K. Along the 45 degree line each person pays the same amount of tax or donates the same amount as a proportion of income or spending.



The difference is that in the case of the Gini coefficient, G is always between 0 and 1 because when people are lined up in terms of income it is not possible that the bottom 20 per cent of income earners contribute more than 20 per cent of total income. Whereas, with the Suits index it is possible for the Lorenz curve to be above the 45 degree line because it reflects the progressivity of a variable, such as VAT. For example, if the bottom 50 per cent of the distribution of the x-axis variable, say income again, contributed more to the total of the y-axis variable than the top 50 per cent of income then the Lorenz curve would be above the proportional line and hence S would be below zero. The range therefore of S is between -1 and 1. However, when the Lorenz curve is below the proportional line then the Gini and Suits index are equivalent as S rearranged equals A/(A+B).

Both the Gini Coefficient and the Suits Index offer a method of presenting and analysing the distributions of any variables of interest and how these have changed over time. Tables 4.1, 4.2 and 4.4 display in a tabular format what the Suits Index and Gini Coefficient show.

4.3 The relationship between age and donations

Here, we examine patterns of giving by age. There are a number of dimensions to our analysis. We are interested in the age profile of giving at any point in time – comparing young and old within a particular year. We are also interested in looking at trends in giving within age groups – looking at how giving among the young or old has changed over time. We are also potentially interested in cohort or generational patterns in giving, i.e. comparing the giving of 50-year olds today with how much they gave when they were 30.[25]

Table 4.4, panel a) shows cross-sectional age profiles for participation for 12 different age bands, (starting at age 21[26]) over six different time periods. This allows us to analyse the age patterns in giving across all the dimensions. Reading down a column compares giving across different age bands within a time period. Reading across a row compares giving by the same age group over time. If we define cohorts by their date-of-birth in five-year bands, we can trace cohorts diagonally through the table as they age. For example, we can track giving among people in the 'baby boomer' cohort (highlighted in grey in the table), born in the early 1960's (1962-1966) whom we first observe when they are aged 21-25, through to the end of the period, when they are aged 41-45.

One of the key findings from the earlier state of donation report was that the overall fall in the proportion of households giving was driven in large part by a decline in giving among younger households. There is some evidence that this is being reversed. Looking at those aged 21 to 25, for example, the proportion giving was 21 per cent between 1978-82, just 13 per cent between 1998-2002, but was 16 per cent in 2003-08. The biggest increases in participation at the end of the period were among younger households – and this may help to explain why the decline in participation halted. This may provide some good news for the future.

Comparing giving among different age groups in the first and last periods, however, participation is lower in every age band except among the over 65s. Older age groups now have among the highest participation rates; in contrast to the start of the period when the proportion of people in their 70s who gave was much lower than the proportion of people in their 50s who gave. The evidence suggests that these changes may be driven by generational differences: the date-of-birth cohorts

[25] We confine our analysis to the age of the head of the household defined by the LCF survey. However, the patterns we find are very similar when we use the median age and the maximum age of those in the household

[26] The number of people below 21 in the created 1978-2008 dataset was only 0.8 per cent of the sample hence their patterns of giving were quite erratic

born in the 1920s (highlighted in blue) appear to be relatively generous compared to other cohorts before and after them.

Table 4.4: Patterns of giving, by age, over time

Panel a) Percentage of households that give

Age band	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2008
21-25	21.2%	17.2%	14.7%	13.7%	13.1%	16.1%
26-30	25.8%	21.6%	22.0%	21.9%	19.6%	20.9%
31-35	31.2%	30.2%	26.3%	26.6%	23.4%	25.1%
36-40	34.9%	34.4%	29.8%	30.0%	27.3%	28.7%
41-45	37.8%	38.1%	35.0%	33.3%	28.3%	28.6%
46-50	39.4%	37.8%	34.1%	35.7%	29.2%	31.3%
51-55	37.6%	38.6%	34.6%	36.9%	31.3%	30.7%
56-60	36.6%	35.9%	34.1%	35.0%	29.6%	31.6%
61-65	32.1%	31.6%	32.2%	32.5%	30.9%	30.8%
66-70	29.4%	29.4%	28.1%	32.3%	30.3%	31.1%
71-75	28.5%	26.4%	27.4%	32.1%	32.9%	31.1%
Over 75	26.6%	25.4%	27.5%	29.7%	30.4%	31.4%

Panel b) Average donations (givers)

Age band	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2008
21-25	£2.02	£3.40	£4.15	£2.87	£3.63	£3.88
26-30	£2.05	£4.60	£4.75	£4.19	£6.01	£8.40
31-35	£2.51	£3.91	£5.46	£5.27	£7.22	£5.62
36-40	£2.75	£4.11	£5.91	£6.83	£6.83	£5.76
41-45	£3.50	£3.80	£6.35	£6.14	£6.91	£7.07
46-50	£3.43	£4.24	£6.74	£7.03	£7.44	£6.98
51-55	£3.64	£5.17	£6.27	£6.92	£10.37	£7.26
56-60	£3.39	£4.51	£7.18	£8.52	£7.27	£8.54
61-65	£3.50	£5.13	£6.06	£8.87	£8.24	£9.30
66-70	£3.41	£4.94	£6.35	£7.50	£8.97	£11.24
71-75	£3.41	£4.67	£5.80	£6.11	£7.45	£10.86
Over 75	£3.81	£4.73	£6.20	£6.64	£7.60	£9.28

Panel c) Donations as a percentage of total spending (givers)

Age band	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2008
21-25	0.6%	1.0%	1.3%	0.7%	0.8%	0.7%
26-30	0.6%	1.3%	1.1%	0.8%	1.1%	0.9%
31-35	0.7%	0.9%	1.1%	1.0%	1.1%	0.8%
36-40	0.6%	0.8%	1.2%	1.2%	1.1%	0.9%
41-45	0.7%	0.8%	1.1%	1.0%	1.0%	0.9%
46-50	0.7%	0.8%	1.1%	1.1%	1.1%	0.9%
51-55	0.8%	1.0%	1.2%	1.2%	1.5%	1.0%
56-60	0.9%	1.0%	1.5%	1.7%	1.4%	1.3%
61-65	1.1%	1.4%	1.5%	1.9%	1.7%	1.8%
66-70	1.4%	1.6%	2.0%	2.0%	2.2%	2.1%
71-75	1.6%	1.9%	2.1%	2.4%	2.4%	2.6%
Over 75	2.0%	2.2%	2.7%	3.1%	3.2%	3.3%

There have also been changes in the age profiles of amounts given (shown in Table 4.4, panel b)) and in generosity (shown in Table 4.4, panel c). Across the whole period, older households have typically given more as a percentage of their total spending than younger households, but the gap has increased over time. By the end of the period, older people were substantially more generous compared to older people in the past (giving comprised 3.3 per cent of total spending in 2003-2008 compared to 2.0 per cent in 1978-1982), but also relatively more generous compared to middle-aged groups within the most recent period.

By contrast generosity among younger households (in their 20s and 30s) has decreased over the period. The average share of total spending accounted for donations has risen, but the increase has been small – from 0.6 per cent at the start of the period to 0.8 per cent in 2003-2008.

Bringing together information on participation rates and amounts given, Table 4.5 shows the percentage of total donations accounted for by each age band over time. This clearly shows that charities are becoming increasingly dependent on older donors. Those aged over 65 contributed 24 per cent to total donations between 1978 and 1982 compared to 34.5 per cent in between 2003 and 2008. The proportion of total donations provided by those aged 50 and below fell by 6.7 per cent to 37.2 per cent between the first and final period.

Table 4.5: Percentage of total donations accounted for by each age group

Age band	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2008
21-25	2.3%	2.5%	2.1%	1.0%	0.9%	1.1%
26-30	4.8%	6.5%	5.8%	4.3%	4.5%	5.3%
31-35	7.8%	8.1%	7.6%	7.3%	8.5%	5.4%
36-40	8.1%	10.2%	8.9%	9.6%	9.1%	7.3%
41-45	10.3%	9.1%	12.0%	9.0%	8.4%	9.3%
46-50	10.6%	9.1%	10.7%	12.1%	9.2%	8.8%
51-55	11.6%	11.2%	9.4%	9.8%	14.9%	8.6%
56-60	11.3%	9.6%	10.7%	11.1%	7.8%	10.4%
61-65	9.2%	10.7%	8.8%	10.4%	8.9%	9.5%
66-70	8.7%	8.2%	8.1%	8.6%	9.0%	10.4%
71-75	6.9%	6.4%	5.7%	6.8%	7.4%	9.2%
Over 75	8.4%	8.6%	10.1%	10.0%	11.4%	14.9%

Note: This table is similar to 4.1 and 4.2, but does not look at the cumulative distribution.

4.4 Donations and other household characteristics

Whether or not members of a household donate to charity and how much money they give depends not only on their age and their spending budgets but also on other factors such as who is living in the household, levels of wealth, education, employment status and the region where they are based.

In this section the defining characteristics of the household are considered and their relative effects on donor behaviour examined. It is thus possible to investigate for instance whether families with children living in the household are more or less likely to give to charity, and whether the presence of children is more strongly associated with charitable giving than, for example, the head of household's employment status. It is also possible to test whether national differences in giving patterns still hold or change after having taken budgets, age and other household characteristics into account.

The analysis allows for the fact that the same characteristics that are related to participation in donating may also be related to the amounts donated and that the relationships can be different.[27] For example, it is found that although retiree households are less likely to make a donation than those where the head of household is employed, among households making a donation, retiree households tend to give higher amounts.

In a first step, the general relationships between household characteristics and donating to charity are studied using data from all 31 years 1978 to 2008. The results are broadly consistent with Banks and Tanner (1997). In a second step, the relationships are compared over the three successive periods 1978-1987, 1988-1997 and 1998-2008 to look at changes over time. Specifically, the effects of the following characteristics on the household's tendency to donate are studied**:**

[27] The analysis is based on Banks and Tanner (1997) who follow Heckman (1979) in estimating a model that controls for potential selection bias of households recording donations in the survey. This approach differentiates between the decision of household members to donate to charity and their decision about how much to donate. The method requires that there be at least one variable that is included in the selection equation but not in the levels equation, i.e. there should be one or more factors that influence the propensity to give but not the amount given. In our model we have assumed that households where the HRP is sick or injured and not in employment have a different (lower) propensity to give than households where the HRP is employed due to differences in opportunities to donate, but that the amount they donate to charity does not differ for any given budget. Low et al. (2007, pp. 83-84) found that survey respondents not in work due to sickness were significantly less likely to make a donation than those in work. They also found that this group donated lower amounts, but that the differences in amounts donated between those in work and those not in work were not statistically significant.

Household budget, age, household size, gender, children, education, wealth, employment status **and *region.*** (Detailed definitions of each variable can be found in Appendix C).

The average estimates for each of these variables, as well as for average donation and proportion donating, across the 31-year period, are provided in Table 4.8. It covers the sample of all 205,915 households in Great Britain[28] as well as the sub-sample of 61,369 donor households.[29]

Table 4.6: Summary statistics

Variable	All households		Donor households	
	mean	s.e.	mean	s.e.
donor household	**29.6%**	0.001	**100%**	0
donations, weekly amount (2010 £)	**£1.44**	0.023	**£4.87**	0.075
equivalised household expenditure	**£216.58**	0.410	**£255.08**	0.834
HRP age (in years)	**50.82**	0.040	**52.22**	0.067
number of adults in the household	**1.87**	0.002	**2.01**	0.003
proportion of female adults	**54.3%**	0.001	**55.2%**	0.001
presence of children	**30.7%**	0.001	**32.2%**	0.002
HRP school-leaving certificate	**25.2%**	0.001	**30.9%**	0.002
HRP university	**11.9%**	0.001	**16.7%**	0.002
home owned outright	**25.2%**	0.001	**31.3%**	0.002
home mortgaged	**38.8%**	0.001	**45.7%**	0.002
HRP unemployed	**4.2%**	0.000	**2.1%**	0.001
HRP retired	**24.3%**	0.001	**24.7%**	0.002
HRP inactive on the employment market	**13.7%**	0.001	**8.7%**	0.001
HRP sick or injured	**4.7%**	0.000	**2.6%**	0.001
HRP self-employed	**8.0%**	0.001	**7.2%**	0.001
Wales	**5.2%**	0.000	**5.3%**	0.001
Scotland	**9.1%**	0.001	**10.3%**	0.001
2nd quarter	**24.8%**	0.001	**25.7%**	0.002
3rd quarter	**25.0%**	0.001	**23.6%**	0.002
4th quarter	**25.1%**	0.001	**26.7%**	0.002
Time *T2* (years 1988-1997)	**32.5%**	0.001	**32.3%**	0.002
Time *T3* (years 1998-2008)	**34.4%**	0.001	**32.7%**	0.002
Sample size *N*	205915		61369	

[28] Ten households comprising only children were dropped from the sample for this analysis.

[29] The averages are weighted to account for non-response bias and further differences between the sample and the population. The respective linearised standard errors (s.e.) are presented alongside.

Some relationships are already apparent when comparing the mean estimates for all households with those for the subsample of donor households. For example, donor households are on higher budgets than the population at large, they are older, wealthier and better educated.

However, in order to understand the real significance of each of these factors, it is important to consider the inter-relationships between them. For example, households with more education will also tend to be wealthier and on higher budgets. The following tables summarise the *partial* effects of each variable while accounting for all of the variables simultaneously. The first table presents the effects on participation and the second the effects on amounts given by donor households. Each table is structured such that the middle column contains results for the 31 years as a whole, while the right-hand column contains information on how the effects of each household characteristic on donor behaviour have changed over time.

The full table of coefficients can be found in Appendix C.

Table 4.7: Results for participation in giving (does the household give to charity?)

	General results over three decades 1978-2008	Changing patterns
budgets	There is a strong positive link between overall household expenditure and the probability of donating to charity.	This link became stronger over time. A ten percent increase in equivalised expenditure was associated with an increase in participation of 1 percentage point between 1978 and 1987, 1.2 percentage points between 1988 and 1997 and 1.6 percentage points between 1998 and 2008.
age	The probability of donating to charity is higher, the older the household. The probability difference is higher between younger age groups and lower between the older categories.	The positive age-participation relationship became stronger over time. The general results described are dominated by the data for 1978-1997. The probability differences were even greater between older age groups than between younger categories in the last period studied (1998-2008).
size	Households are more likely to donate to charity, the higher the number of adults in the household. An additional adult increases the probability of a gift by 4.5 percentage points.	The pattern weakened in the last period studied (1998-2008). The increase in probability for an additional adult was 5 percentage points between 1978 and 1997 but only 3.1 percentage points in the last period.
gender	Households with a higher proportion of female adults are significantly more likely to donate to charity. Households comprising two women and one man are 2.9 percentage points more likely to donate than households comprising two men and one woman.	This pattern did not change significantly over the 31 years studied.
children	Households with children are significantly more likely to donate to charity than those without. The presence of children increases the probability of a gift by 6.7 percentage points.	The pattern was strongest in the first period studied (1978-1987). The increase in probability for households with children then was 7.3 percentage points but it was only 5.9 percentage points in the last two periods (1988-2008).

education	Households with more education are more likely to donate to charity. The effect of sixth-form education is to raise the probability of a gift by 6.2 percentage points; a university education raises it by 12.6 percentage points relative to those who left school at the minimum age.	This pattern did not change significantly over the 31 years studied.
wealth	Households who own their own home outright are 10.9 percentage points more likely to donate than those who rent. Those on a mortgage lie in between, being 7.9 percentage points more likely to donate than those renting.	There was no significant change in participation for households on a mortgage, but outright ownership became a stronger predictor of donations in the later periods. Households with their own home were 9.3 percentage points more likely to donate in the first period but 11.6 and 11.9 percentage points more likely in the second and third periods, compared to those in rented accommodation.
employment	Households whose HRP is an employee are more likely to give to charity than those whose HRP is unemployed (-9.7 percentage points), retired (-3.8 percentage points), inactive (-7.5 percentage points) or self-employed (-9 percentage points).	While employee households remained the most likely to make a donation throughout the whole 31-year period, the differences in probability reduced particularly in the last period (1998-2008). Most notably, retiree households were only 1.1 percentage points less likely to donate in this period.
region	Households in Scotland and Wales are more likely to donate than those in England, by 7.3 and 1.8 percentage points, respectively.	There was significant change in these national differences over the 31 years studied. Scottish households were 10.9 percentage points more likely to donate than English households in the first period but only 4.0 percentage points more likely to donate in the last period. Those in Wales were 1.2 percentage points less likely to donate than those in England by the last period (1998-2008).

Table 4.8: Results for amounts donated (how much does a donor household give to charity?)

	General results over three decades 1978-2008	Changing patterns
budgets	There is a strong positive link between overall household expenditure and amounts donated to charity.	This link became stronger over time. A 10% increase in equivalised expenditure was associated with an increase in amounts donated of 6.2% between 1978 and 1987, 7.0% between 1988 and 1997 and 8.1% between 1998 and 2008.
age	Amounts donated to charity are higher, the older the household. The difference is higher between younger age groups and lower between the older categories.	The positive age-participation relationship became stronger over time. The general results described are dominated by the data for 1978-1997. The differences in amounts were even greater between older age groups than between younger categories in the last period studied (1998-2008).
size	Donor households give more to charity, the higher the number of adults in the household. An additional adult increases the amount given by 12%.	This pattern remained broadly the same over the 31 years studied.
gender	Donor households with a higher proportion of female adults give significantly higher amounts to charity. Households comprising two women and one man give 13% more than households comprising two men and one woman.	This pattern weakened in the later periods studied. Between 1978 and 1987, households comprising two women and one man gave 17% more than households comprising two men and one woman. This difference reduced to 12% by the last period (1998-2008).
children	Donor households with children give significantly higher amounts to charity than those without. The presence of children increases the size of donations by 30%.	This pattern weakened significantly over the 31 years studied. The increase in amounts for households with children then was 40% but it was 31% in the second period (1988-1997) and only 15% in the last period (1988-2008).

education	Donor households with more education donate higher amounts to charity. The effect of sixth-form education is to increase the size of donations by 40%; a university education nearly doubles the gift (99% increase) relative to donations from those who left school at the minimum age.	This pattern was strongest in the first two periods studied. Between 1978 and 1997, the effect of sixth-form education was to increase the size of donations by 46%; a university education more than doubled the gift (113% increase) relative to donations from those who left school at the minimum age. The premium reduced to 28% (sixth form) and 81% (university) in the last period (1998-2008).
wealth	Donor households who own their own home outright give 48% higher amounts than those who rent. Those on a mortgage lie in between, giving 26% higher amounts to charity than those renting.	There was no significant change in the pattern of higher amounts donated by households owning their homes outright. But while households on a mortgage gave 38% more than those renting in the first period (1978-1987), the premium reduced to 22% in the second period (1988-1997) and to 17% in the third period (1998-2008).
employment	Donor households whose HRP is unemployed give 21% lower amounts to charity than those whose HRP is employed. Retiree households give 13% higher amounts than employee households. There is no statistically significant difference between amounts donated by employee households and those whose HRP is self-employed. Donor households whose HRP is inactive give 10% lower amounts than those where the HRP is employed.	These patterns for employment and amounts donated remained broadly the same over the 31 years studied.
region	Households in Scotland give 46% higher amounts than those in England. There is no statistically significant difference between the amounts donated by households in Wales and those in England.	There was significant change in these national differences over the 31 years studied. Scottish households gave 69% higher amounts than English households in the first period (1978-1987) but only 45% more in the middle (1988-1997) and 25% more in the last period (1998-2008). Those in Wales gave 18% higher amounts than those in England in the first period but 16% lower amounts by the last period.

5 Conclusions and Outlook

This is the first detailed research on UK giving and its determinants over such a long period. It has provided a clear picture of the key characteristics of giving in the UK, revealing that some are remarkably stable over time, while others are more subject to change. It is valuable to look both at the broad resilient trends as well as changes which, though often quite small, may be indicating the significant areas where donor behaviour is most sensitive to changes in the environment.

The results suggest that the long-term twenty-year decline in participation in giving found in a previous study has halted, and that the particularly steep downward trend in average participation rate amongst some of the youngest donors (20-25) showed signs of reversal in the last decade. This will be a welcome sign to those who believe that the future health of charities depends on the habits of giving amongst the young. This may not in fact be the case, and it is possible that both the interest in giving to charities and the leisure and resources to do so, develop later when families are grown up, careers established and mortgages paid off.

Certainly the results of the study showed that participation and donations have grown among older age groups, contrasting with falling participation among almost every other age-band. If this has been driven by the particular experiences, values and beliefs of this generation, then charities may find themselves in trouble in another decade or so. But if, alternatively, it has been driven by factors such as longevity, particularly amongst women (who have a positive influence on the likelihood of a donation), and the increasing wealth of property and share-owning generations, that would be quite a different story as these trends are likely to continue for some time. This is a topic which would merit further research.

The results showed a steadily increasing dependence on larger donations from the better-off. Yet richer givers still give much less as a share of their total spending than poorer givers. Encouraging richer donors to give more could be one way for charities to increase total donations. With this in mind, the gap in our information on patterns and trends on major giving, which is not captured fully in this study, is a particularly serious one. For example, we have little knowledge about whether income or wealth is more important in determining giving, though there is great policy interest in finding ways of releasing more of the assets of the wealthy during their lifetimes.

But increased major giving would not necessarily bring additional funding to all causes, or to the most needy. That is why it is also important to monitor patterns in causes supported (which was beyond the scope of this study), and to ensure that a broad base of donors is maintained, particularly in view of the generosity of the less well-off, who devote a higher share of their expenditure to giving.

In general, giving has only risen in line with economic growth. This, coupled with the finding that giving is relatively 'recession-proof', indicates that habits of giving may be unchanging and resilient. The relative resistance of habits of giving to environmental and other change is good news in so far as it provides charitable income with an element of protection and predictability: the bad news is the challenge it poses if we want to raise giving to an equally stable but much higher level. At the moment it is not clear what would persuade people to do this. It is a further area which needs much deeper exploration. For example, are donors deeply risk-averse?

Obviously the thirty years of the study have seen considerable change in the household structure of the population, in access to higher education, in patterns of employment, retirement, ethnicity and many other factors. The study offers some clues as to the effect of these on giving. For example, the average donation of people with mortgages fell in the last decade relative to other housing tenure groups, as did the influence of education and the presence of children on giving. Retired people are less likely to give than those in employment, but we have seen the value of donations increase amongst retirees who do give. What we don't know is why giving is affected in these ways. Are the kinds of people who have obtained mortgages over the last decade likely to give less money anyway? Is the effect of the presence of children on giving reducing because of the rising cost of their upbringing and education, or because of changing patterns in parenting and household structures?

Finally, the results show that while innovation in fundraising may be helping to maintain giving, it does not necessarily bring higher giving overall. While studies such as this provide greater insights into the determinants of giving, our understanding of the ways in which giving could become more deeply embedded in people's lives remains limited.

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Appendix A: Weighting, Tables and Graphs

Weighting Procedure

The LCF data are available as annual standalone cross-sections for the whole of the United Kingdom. Each cross-section contains a weighting variable that takes into account differences between the sample and the population arising due to issues of non-response and the under or over-sampling of particular groups. The weighting variable allows the data user to produce estimates of other variables that are less biased toward the particular sample and more representative of the population.

For this study, the cross-sections from 1978 to 2008 were pooled into a single dataset. Two issues arose during the pooling process. The first was that the weighting variable was particular to each cross-section and had not been designed for a pooled dataset. This meant that any analysis over the whole period using unadjusted weights would result in less precise estimates due to individual observations from smaller cross-sections carrying more weight than those from larger cross-sections. This issue was overcome by means of centring the weights,[30] which involved dividing the weight for each observation in a particular cross-section by the mean average of the weighting variable in that cross-section. As a result, the mean average of the new centred weight variable was equal to 1 in each cross-section, and each weighted observation in the pooled dataset was then more comparable. All analysis presented in this report is based on data weighted using centred weights unless otherwise stated.

The second issue was that there was significant overlap in the years 1993 and 2006 due to the datasets being based on fiscal rather than calendar years between 1993 and 2006. The last nine months of 1993 were covered both in the calendar-year cross-section for 1993 and in the fiscal-year cross-section for 1993-94. Similarly, the first three months of 2006 were contained both in the fiscal-year cross-section 2005-06 and the calendar-year cross-section 2006. Following a comparison of the overlaps that determined no statistically significant difference between data in the fiscal and calendar-year datasets, data from the last nine months of 1993 stemming from the 1993 calendar-year cross-section were removed, as were data from the first three months of 2006 from the 2006 calendar-year cross-section.

[30] The authors are grateful to Alan Marshall of the Cathie Marsh Centre for Census and Survey Research, University of Manchester, for his advice with the reweighting procedure.

Figure A1: Proportion of households giving to charity, 1978-2008, in England

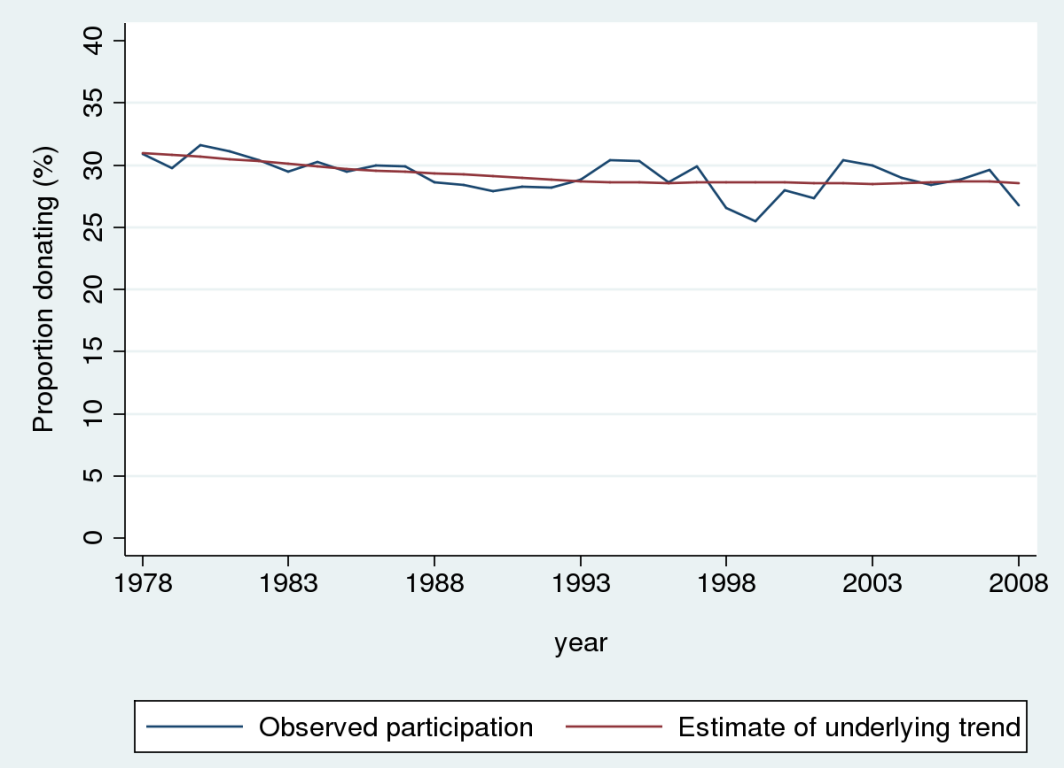

Figure A2: Proportion of households giving to charity, 1978-2008, in Wales

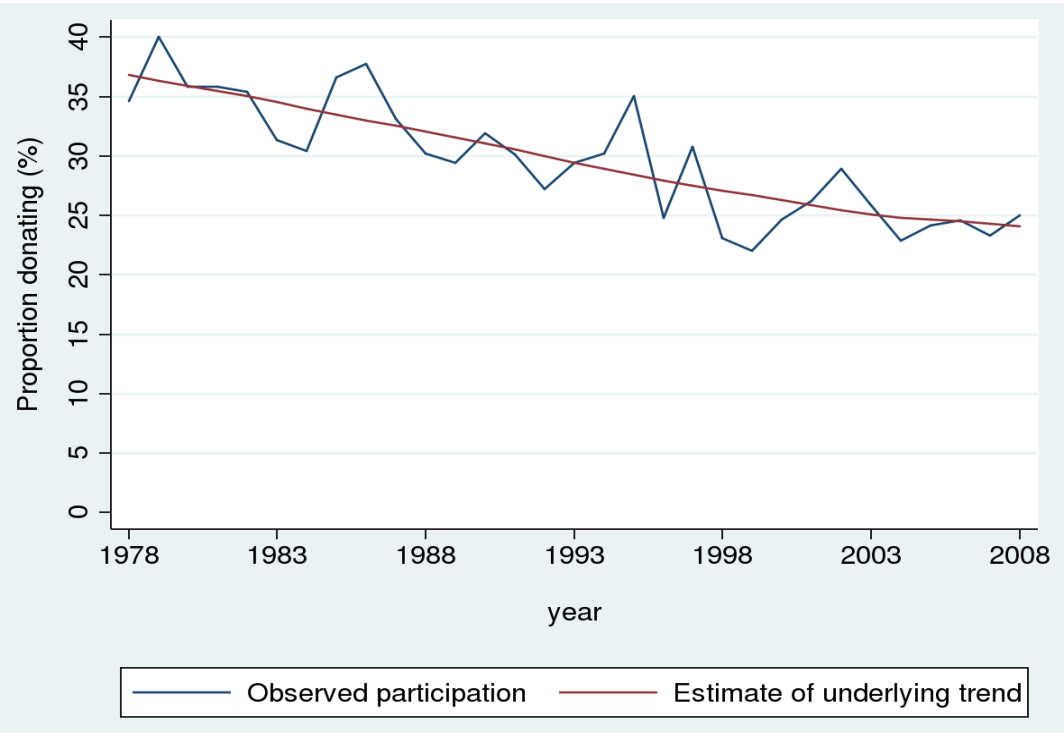

Figure A3: Proportion of households giving to charity, 1978-2008, in Scotland

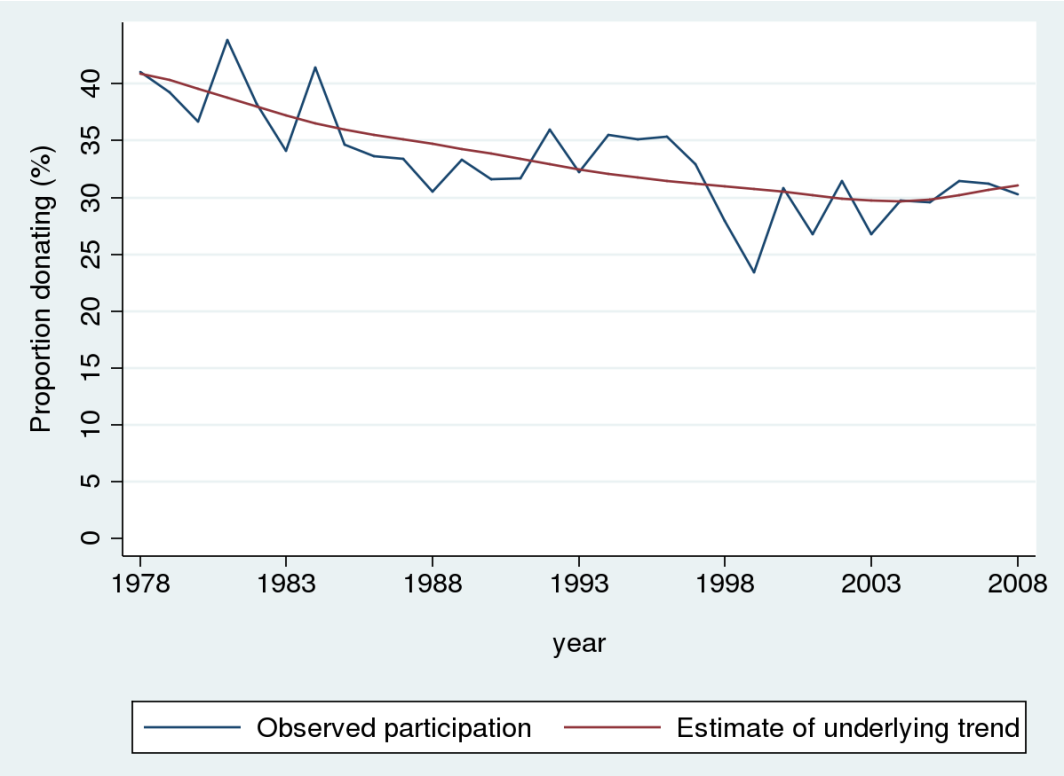

Table A1: Proportion of households giving to charity

Year	Great Britain	95% Confidence Interval from	to	England	Wales	Scotland
1978	32.1%	31.0%	33.2%	30.9%	34.7%	41.0%
1979	31.1%	30.0%	32.3%	29.7%	40.0%	39.2%
1980	32.3%	31.2%	33.5%	31.6%	35.8%	36.7%
1981	32.5%	31.5%	33.6%	31.1%	35.8%	43.8%
1982	31.3%	30.3%	32.4%	30.4%	35.4%	38.2%
1983	29.9%	28.8%	31.0%	29.5%	31.4%	34.1%
1984	31.3%	30.2%	32.4%	30.3%	30.4%	41.4%
1985	30.4%	29.3%	31.5%	29.5%	36.6%	34.7%
1986	30.7%	29.6%	31.8%	29.9%	37.8%	33.6%
1987	30.4%	29.3%	31.4%	29.9%	33.1%	33.4%
1988	28.9%	27.8%	30.0%	28.6%	30.2%	30.5%
1989	28.9%	27.9%	30.0%	28.4%	29.4%	33.4%
1990	28.4%	27.4%	29.5%	27.9%	31.9%	31.6%
1991	28.7%	27.6%	29.8%	28.3%	30.1%	31.7%
1992	28.8%	27.8%	29.9%	28.2%	27.2%	35.9%
1993	29.2%	28.1%	30.3%	28.8%	29.4%	32.2%
1994	30.9%	29.8%	32.0%	30.4%	30.2%	35.5%
1995	31.0%	29.9%	32.1%	30.3%	35.1%	35.1%
1996	29.0%	27.9%	30.1%	28.6%	24.8%	35.3%
1997	30.2%	29.1%	31.4%	29.9%	30.8%	32.9%
1998	26.5%	25.4%	27.6%	26.6%	23.1%	27.9%
1999	25.1%	24.1%	26.2%	25.5%	22.0%	23.4%
2000	28.1%	26.9%	29.2%	28.0%	24.7%	30.9%
2001	27.2%	26.2%	28.3%	27.4%	26.2%	26.7%
2002	30.4%	29.3%	31.6%	30.4%	28.9%	31.4%
2003	29.5%	28.4%	30.7%	30.0%	25.8%	26.7%
2004	28.7%	27.6%	29.9%	29.0%	22.9%	29.8%
2005	28.3%	27.2%	29.5%	28.4%	24.1%	29.6%
2006	28.8%	27.7%	30.0%	28.8%	24.6%	31.4%
2007	29.5%	28.2%	30.7%	29.6%	23.3%	31.2%
2008	27.0%	25.8%	28.3%	26.8%	25.0%	30.2%

Figure A4: Mean average gift by donor households in England

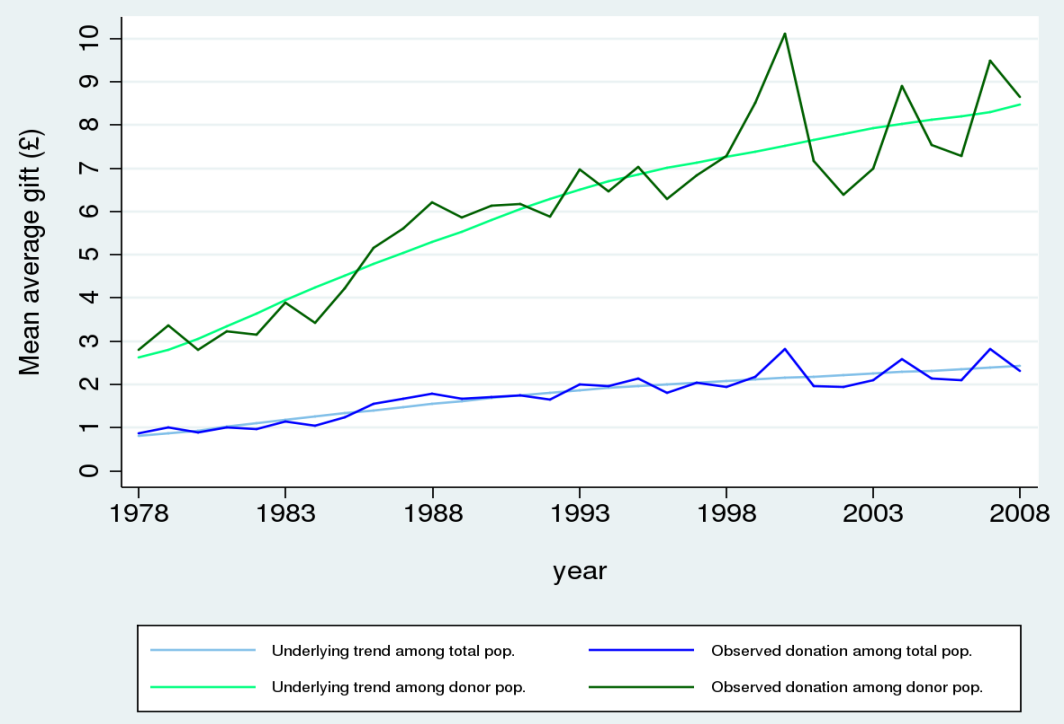

Figure A5: Mean average gift by donor households in Wales

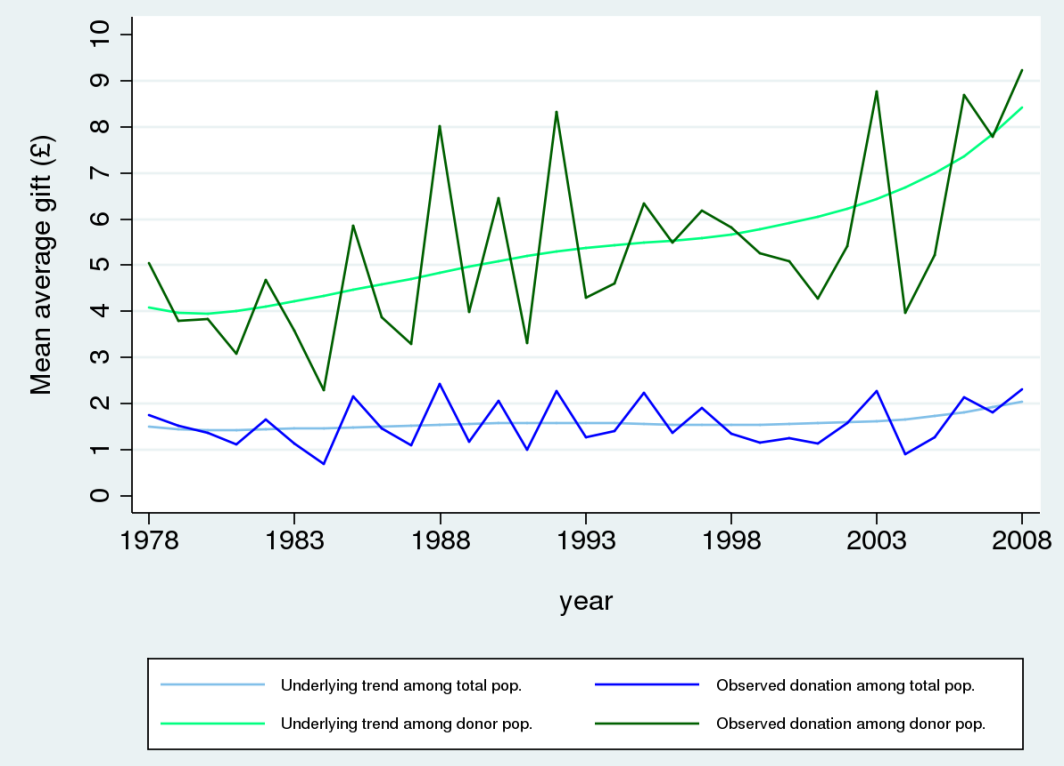

Figure A6: Mean average gift by donor households in Scotland

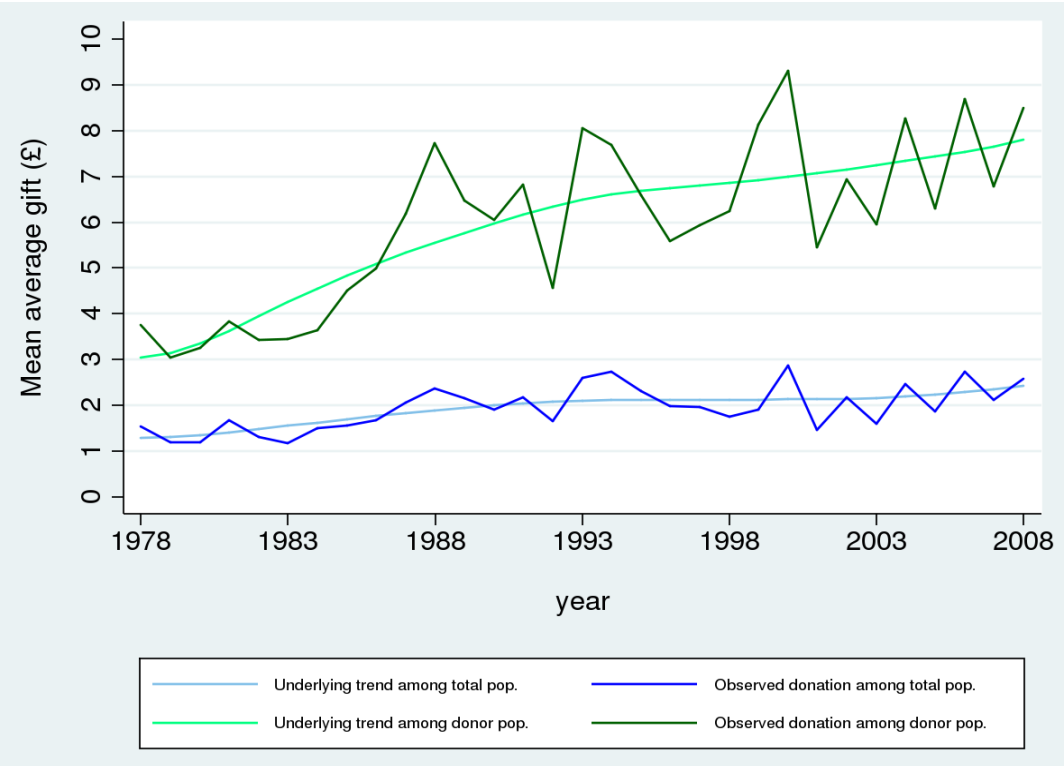

Table A2: Mean average gift by donor households

Year	Mean for GB	GB 95% Confidence Interval from	to	Median for GB	England	Wales	Scotland
1978	3.05	2.73	3.37	1.06	2.81	5.05	3.76
1979	3.35	2.82	3.88	1.03	3.36	3.79	3.04
1980	2.92	2.64	3.19	0.97	2.80	3.82	3.25
1981	3.29	2.97	3.60	1.15	3.22	3.08	3.82
1982	3.27	2.93	3.60	1.18	3.15	4.68	3.42
1983	3.84	3.29	4.39	1.29	3.89	3.57	3.44
1984	3.38	3.03	3.73	1.22	3.42	2.28	3.63
1985	4.36	3.86	4.86	1.35	4.23	5.87	4.50
1986	5.05	4.40	5.70	1.35	5.16	3.87	4.98
1987	5.53	4.90	6.17	1.60	5.61	3.28	6.18
1988	6.46	5.39	7.54	1.54	6.22	8.01	7.73
1989	5.82	5.13	6.51	1.84	5.85	3.99	6.48
1990	6.14	5.50	6.78	1.74	6.13	6.45	6.05
1991	6.10	5.42	6.77	1.68	6.18	3.30	6.83
1992	5.84	5.20	6.48	1.57	5.88	8.32	4.57
1993	6.95	5.47	8.42	1.75	6.97	4.30	8.05
1994	6.51	5.70	7.32	1.87	6.47	4.61	7.69
1995	6.95	5.96	7.93	2.05	7.03	6.33	6.58
1996	6.17	5.55	6.79	2.09	6.28	5.49	5.59
1997	6.70	5.63	7.76	2.06	6.83	6.18	5.93
1998	7.11	6.25	7.97	2.02	7.28	5.81	6.24
1999	8.32	6.69	9.95	2.49	8.51	5.25	8.12
2000	9.79	8.18	11.39	2.83	10.11	5.08	9.31
2001	6.88	5.99	7.78	2.53	7.17	4.28	5.45
2002	6.38	5.71	7.05	2.45	6.38	5.42	6.93
2003	6.98	6.23	7.74	2.41	6.99	8.77	5.95
2004	8.65	5.95	11.35	2.36	8.91	3.97	8.26
2005	7.31	6.47	8.16	2.64	7.53	5.22	6.31
2006	7.48	6.65	8.32	2.59	7.29	8.70	8.70
2007	9.15	6.78	11.52	2.68	9.49	7.78	6.79
2008	8.66	7.38	9.93	2.63	8.64	9.22	8.50

Table A2: Mean average gift among the total population

Year	Great Britain	GB 95% Confidence Interval from	to	England	Wales	Scotland
1978	0.98	0.87	1.09	0.87	1.75	1.54
1979	1.04	0.87	1.21	1.00	1.52	1.19
1980	0.94	0.85	1.04	0.89	1.37	1.19
1981	1.07	0.96	1.18	1.00	1.10	1.68
1982	1.02	0.91	1.14	0.96	1.66	1.31
1983	1.15	0.98	1.32	1.15	1.12	1.17
1984	1.06	0.94	1.17	1.04	0.70	1.51
1985	1.32	1.17	1.48	1.25	2.15	1.56
1986	1.55	1.34	1.76	1.54	1.46	1.68
1987	1.68	1.48	1.88	1.68	1.09	2.06
1988	1.87	1.55	2.19	1.78	2.42	2.36
1989	1.68	1.48	1.89	1.66	1.17	2.16
1990	1.75	1.55	1.94	1.71	2.06	1.91
1991	1.75	1.55	1.96	1.75	1.00	2.16
1992	1.68	1.49	1.88	1.65	2.27	1.64
1993	2.03	1.59	2.46	2.01	1.26	2.60
1994	2.01	1.75	2.27	1.97	1.39	2.73
1995	2.15	1.84	2.47	2.13	2.22	2.31
1996	1.79	1.60	1.98	1.80	1.36	1.97
1997	2.02	1.69	2.36	2.04	1.90	1.95
1998	1.88	1.64	2.13	1.93	1.34	1.74
1999	2.09	1.67	2.51	2.17	1.16	1.90
2000	2.75	2.28	3.21	2.83	1.25	2.87
2001	1.88	1.62	2.13	1.96	1.12	1.46
2002	1.94	1.72	2.16	1.94	1.57	2.18
2003	2.06	1.82	2.30	2.10	2.27	1.59
2004	2.48	1.70	3.27	2.58	0.91	2.46
2005	2.07	1.82	2.33	2.14	1.26	1.87
2006	2.16	1.90	2.41	2.10	2.14	2.73
2007	2.70	1.99	3.40	2.81	1.81	2.12
2008	2.34	1.98	2.70	2.31	2.30	2.57

Table A3: Average weekly donation as a proportion of expenditure among givers and among the total population and method of giving for Great Britain

Year	Donations as a % of expend among givers	Donations as a % of expend among total pop.	Proportion of givers who donate via DD, STDORD or DEDPAY	Share of and DEDPAY of total donations
1978	1.0%	0.3%		
1979	0.9%	0.3%		
1980	0.9%	0.3%		
1981	0.9%	0.3%		
1982	1.0%	0.3%		
1983	1.1%	0.3%	31.4%	17.0%
1984	1.0%	0.3%	32.9%	17.5%
1985	1.2%	0.4%	36.9%	18.9%
1986	1.2%	0.4%	36.0%	17.4%
1987	1.3%	0.4%	39.6%	19.7%
1988	1.5%	0.4%	39.1%	22.3%
1989	1.5%	0.4%	35.3%	18.6%
1990	1.5%	0.4%	39.3%	20.7%
1991	1.4%	0.4%	37.8%	22.9%
1992	1.5%	0.4%	32.4%	17.9%
1993	1.5%	0.5%	36.6%	23.3%
1994	1.6%	0.5%	29.1%	17.7%
1995	1.6%	0.5%	37.6%	23.5%
1996	1.5%	0.4%	37.3%	23.9%
1997	1.5%	0.5%	36.3%	24.0%
1998	1.7%	0.4%	42.9%	29.2%
1999	1.8%	0.5%	47.7%	31.6%
2000	1.9%	0.5%	51.2%	27.6%
2001	1.4%	0.4%	52.6%	37.4%
2002	1.4%	0.4%	59.0%	47.8%
2003	1.4%	0.4%	60.8%	47.5%
2004	1.5%	0.4%	61.6%	36.6%
2005	1.5%	0.4%	61.4%	44.9%
2006	1.5%	0.4%	65.9%	52.1%
2007	1.6%	0.5%	65.2%	43.3%
2008	1.7%	0.4%	63.1%	50.6%

DD is Direct Debit donations, STDORD is Standing Order donations and DEDPAY is donations via deductions from pay

Appendix B: Regression results

Desciption of the variables

- Logaveragedonations is the log of average donations among the entire population
- Logamount is the log of average donations among the populations of givers.
- Logdiaryamount is the log of the total diary expenditure donations (spontaneous giving) among the population of givers
- Logdonor is the log of the average participation rate in terms of year and quarter
- Growth is the growth rate of quarterly real GDP compared with the same quarter in the previous year.
- Recession is a dummy which is 1 in the years that the UK economy was officially in a recession (2 consecutive quarters of negative growth) and 0 otherwise.
- Time is a linear trend
- timesq is a non linear trend.
- The gift aid variables aim to capture changes in tax relief on charitable donations.
- Giftaid90 = 1 after April 1990 when giftaid was first established (tax relief threshold was originally set at £600)
- Giftaid92 = 1 after May 1992 when the gift aid tax relief threshold was reduced to £400
- Giftaid92 = 1 after March 1993 when the gift aid tax relief threshold was reduced to £200
- Giftaid00 = 1 after April 2000 when the gift aid threshold was abolished altogether
- Millennium = 1 during 2000
- The disaster variable = 1 for two quarters around any large natural disaster for which over £10m was raised through the DEC. These include Darfur (2007), ASIA Quake (2005), NIGER (2005), TSUNAMI (2004), SUDAN (2004), MOZAMBIQUE (2000), KOSOVO (1999), CENTRAL AMERICA (1998), SUDAN (1998), RWANDA (1994) and AFRICA IN CRISIS (1992)
- ASIAquake05 is for the Asian earthquake in October 2006. £59m was raised in the UK (source: DEC). The dummy = 1 in quarter 4 in 2005 and quarter 1 in 2006
- TSUNAMI04 is for Asian tsunami in December 2004. £390m was raised in the UK through the DEC. The dummy = 1 in quarter 4 in 2004 and quarter 1 in 2005
- postTSUNAMI is a dummy that is 1 in quarters 2 and 3 of 2005. It attempts to capture whether there was a fall in donations in the second half of 2005 as people brought forward their giving to donate to the Tsunami victims.
- KOSOVO99 = 1 in quarters 2 to 3 in 1999
- RWANDA94 = 1 in quarters 2 to 4 in 1994
- LIVEAID is a dummy for the LIVEAID concert in 1985 = 1 quarters 2 and 3 in 1985. The concert took place on 13th July 1985 and raised a global total of £30 million.

Table B1: Trends in giving in Great Britain in relation to economic trends (weighted)

	(1) logaveragedonations	(2) logamount	(3) logdiaryamount	(4) donor
growth	0.026*	0.031**	0.048**	-0.005
	(0.015)	(0.014)	(0.020)	(0.005)
recession	0.083	0.104	0.160*	-0.022
	(0.073)	(0.067)	(0.094)	(0.026)
time	0.018***	0.020***	0.022***	-0.002**
	(0.003)	(0.003)	(0.004)	(0.001)
timesq	-0.000**	-0.000***	-0.000***	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
giftaid90	-0.015	-0.019	0.021	0.004
	(0.102)	(0.095)	(0.132)	(0.036)
giftaid92	0.062	0.028	0.006	0.034
	(0.140)	(0.130)	(0.181)	(0.050)
giftaid93	-0.175	-0.183	-0.167	0.008
	(0.122)	(0.113)	(0.157)	(0.043)
giftaid00	-0.106	-0.173**	-0.371***	0.067**
	(0.088)	(0.081)	(0.113)	(0.031)
millennium	0.228***	0.247***	0.449***	-0.018
	(0.083)	(0.077)	(0.107)	(0.029)
disaster	-0.074	-0.036	0.003	-0.038**
	(0.053)	(0.049)	(0.069)	(0.019)
TSUNAMI04	0.274**	0.165	0.351**	0.109**
	(0.131)	(0.121)	(0.169)	(0.046)
postTSUNAMI04	0.121	0.165	0.300	-0.044
	(0.144)	(0.133)	(0.186)	(0.051)
ASIAquake05	-0.087	-0.131	-0.275	0.044
	(0.145)	(0.134)	(0.187)	(0.051)
KOSOVO99	0.083	0.200	0.301*	-0.117**
	(0.137)	(0.127)	(0.177)	(0.049)
RWANDA94	0.183	0.052	-0.032	0.131***
	(0.120)	(0.111)	(0.155)	(0.043)
LIVEAID	-0.047	-0.058	-0.005	0.011
	(0.124)	(0.115)	(0.160)	(0.044)
Quarter 1	-0.104**	0.001	0.045	-0.105***
	(0.045)	(0.041)	(0.058)	(0.016)
Quarter 2	-0.086*	-0.056	-0.044	-0.029*
	(0.045)	(0.042)	(0.058)	(0.016)
Quarter 3	-0.154***	-0.042	-0.025	-0.111***
	(0.045)	(0.041)	(0.058)	(0.016)
_cons	-0.274***	0.771***	0.669***	-1.045***
	(0.079)	(0.073)	(0.101)	(0.028)
N	120	120	120	120

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

Appendix C: Household Characteristics

Description of the variables

Household budget (*log of equivalised household expenditure*).

There are economies of scale in household consumption so, for example, a household of three people will not need to spend three times as much as a single-person household on housing, food and gas/electricity. We therefore apply an equivalised measure[31] of the household budget which assigns a needs value of 1 to the first adult, 0.5 to each additional adult and 0.3 to each child. Thus a family of two adults and two children is assumed to consume 2.1 times that of an adult living alone. Our equivalised expenditure variable is equal to total weekly spending divided by the sum of each household member's needs value. We then take the log of this in order to calculate effects in relative terms, i.e. to see the y% effect on the amount donated of an x% change in the equivalised budget.

Age (*age* and *age squared*).

We use the age of the household reference person (HRP) to proxy for the age of the household. We include the variables *age*, measured in decades, as well as the square of *age* to allow for a nonlinear (concave or convex) pattern in the effect of age on donor behaviour.

Size (*number of adults in the household*).

While we already account for size indirectly through the equivalised budget variable, the number of people in the household might also have a direct effect on donor behaviour, for example more people could give rise to more opportunities to donate. We use the number of adults to proxy for size and determine the effect of children separately.

Gender (*proportion of female adults*).

It is has been found that women are more likely to donate to charity than men and that they can have a positive influence on household decisions to donate too (Piper and Schnepf, 2008; Yörük,

[31] We apply the OECD-modified equivalence scale proposed by Hagenars et al. (1994).

2010). We divide the number of female adults by the total number of adults in the household (proportion of female adults) to measure how lower or higher female presence affects giving.

Children (*presence of children*).

This is an indicator variable that takes the value 1 if there are children living in the household and 0 otherwise.

Education (*school-leaving certificate* and *university*).

We combine information on the age at which the HRP completed formal education with the date of birth of the HRP to deduce whether the HRP a) attained a school-leaving certificate comparable to A-levels in England and/or b) attended university (in addition to a school-leaving certificate). Our model incorporates two indicator variables reflecting these cases; the reference group comprises households where the HRP completed formal education at a lower age.

Wealth (*home owned outright* and *home mortgaged*).

We use information on housing tenure to proxy for the wealth of households, considering two indicator variables, one for outright ownership of the home (wealthiest category) and the other for those households financing their homes through a mortgage (second wealthiest category).

Employment status (*unemployed*, *retired*, *inactive on the employment market*, *self-employed*).

Whether and how members of the household participate in the employment market is captured in a series of indicator variables for the employment status of the HRP. The reference group is made up of those households where the HRP is an employee.

Region (*Wales* and *Scotland*).

Our study covers Great Britain and we consider differences between the reference region of England and the countries of Wales and Scotland.

Season (*quarter* variables).

The time of year may affect giving behaviour and we measure this using indicator variables for each quarter, where households surveyed in the first quarter make up the reference group.

Time (*period* variables and interactions).

Using the indicator variables *T2* and *T3*, we consider household donor behaviour observed over the periods 1988 to 1997 and 1998 to 2008 in relation to the reference period of 1978 to 1987. This captures the general trend over time. We then interact these variables with each of the other covariates in order to measure whether and how the effects of household characteristics on charitable giving change between 1978 and 2008.

The correlation between the error terms of the selection and level equations (ρ) is significantly different from zero, which indicates that the estimated effects of the variables on the level of donations would be biased if we did not use information on the effects these same variables have on the decision to donate. The Heckman method inputs this information into the estimation of amounts donated as a supplementary explanatory variable λ (the inverse Mills ratio), thus reducing selection bias in our coefficient estimates for the main explanatory variables.

Table C1: Heckman selection model for households in Great Britain (Maximum Likelihood estimation, weighted data)

	Specification 1					Specification 2				
	Pr[*donor* = 1] = g(*Z*)			ln(*donations*) = f(*X*)		Pr[*donor* = 1] = g(*Z*)			ln(*donations*) = f(*X*)	
explanatory variables X, Z	coeff.	s.e.	m.e.	coeff.	s.e.	coeff.	s.e.	m.e.	coeff.	s.e.
log of *equivalised household expenditure*	0.377***	0.006	**0.126**	**0.707*** **	0.016	0.294***	0.012	**0.098**	**0.621*** **	0.025
HRP age (in decades)	0.203***	0.013	**0.068**	**0.257*** **	0.027	0.319***	0.021	**0.106**	**0.471*** **	0.046
HRP age squared	-0.008***	0.001	**-0.003**	-0.002	0.003	-0.020***	0.002	**-0.007**	**-0.020*** **	0.005
number of adults in the household	0.134***	0.004	**0.045**	**0.124*** **	0.010	0.149***	0.007	**0.050**	**0.105*** **	0.016
proportion of female adults	0.260***	0.012	**0.087**	**0.396*** **	0.027	0.256***	0.022	**0.085**	**0.509*** **	0.051
presence of children	0.193***	0.008	**0.066**	**0.295*** **	0.017	0.214***	0.013	**0.073**	**0.401*** **	0.028
HRP school-leaving certificate	0.182***	0.007	**0.062**	**0.396*** **	0.015	0.179***	0.012	**0.061**	**0.460*** **	0.025
HRP university	0.353***	0.010	**0.126**	**0.990*** **	0.021	0.367***	0.020	**0.131**	**1.125*** **	0.040
home owned outright	0.314***	0.009	**0.109**	**0.475*** **	0.020	0.268***	0.015	**0.093**	**0.502*** **	0.031
home mortgaged	0.233***	0.009	**0.079**	**0.260*** **	0.019	0.242***	0.014	**0.082**	**0.378*** **	0.030
HRP unemployed	-0.322***	0.018	**-0.097**	**-0.206*** **	0.043	-0.419***	0.028	**-0.122**	**-0.174*** **	0.064
HRP retired	-0.117***	0.012	**-0.038**	**0.134*** **	0.024	-0.194***	0.020	**-0.063**	**0.162*** **	0.041
HRP inactive on the employment market	-0.238***	0.013	**-0.075**	**-0.102*** **	0.025	-0.241***	0.021	**-0.076**	-0.063	0.042
HRP self-employed	-0.293***	0.012	**-0.090**	0.038	0.025	-0.364***	0.021	**-0.109**	**0.113** **	0.045
Wales	0.053***	0.014	**0.018**	0.022	0.028	0.150***	0.023	**0.052**	**0.177*** **	0.046
Scotland	0.208***	0.010	**0.073**	**0.462*** **	0.020	0.306***	0.018	**0.109**	**0.690*** **	0.034
2nd quarter	0.045***	0.009	**0.015**	-0.002	0.018	0.045***	0.009	**0.015**	0.001	0.018
3rd quarter	-0.045***	0.009	**-0.015**	**-0.083*** **	0.018	-0.046***	0.009	**-0.015**	**-0.082*** **	0.018
4th quarter	0.057***	0.009	**0.019**	0.021	0.018	0.058***	0.009	**0.020**	0.022	0.018
T2^	-0.111***	0.008	**-0.037**	**0.241*** **	0.016	-0.294***	0.108	**-0.095**	**0.540** **	0.233
T3^	-0.279***	0.008	**-0.091**	**0.276*** **	0.017	-0.547***	0.110	**-0.172**	**0.684*** **	0.231
T2 x ln(*expenditure*)						0.064***	0.016	**0.021**	**0.079** **	0.034
T3 x ln(*expenditure*)						0.171***	0.016	**0.057**	**0.188*** **	0.033
T2 x *HRP age*						-0.086***	0.030	**-0.029**	**-0.200*** **	0.065
T3 x *HRP age*						-0.266***	0.032	**-0.089**	**-0.406*** **	0.066
T2 x *HRP age squared*						0.010***	0.003	**0.003**	**0.016*** **	0.006
T3 x *HRP age squared*						0.027***	0.003	**0.009**	**0.037*** **	0.006
T2 x *number of adults*						0.003	0.011	0.001	**0.053** **	0.023
T3 x *number of adults*						-0.057***	0.011	**-0.019**	0.024	0.022
T2 x *proportion of females*						-0.014	0.029	-0.005	**-0.144** **	0.068
T3 x *proportion of females*						0.023	0.029	0.008	**-0.160** **	0.064
T2 x *presence of children*						-0.042**	0.019	**-0.014**	**-0.089** **	0.039

T3 x *presence of children*						-0.041**	0.019	**-0.014**	**-0.253*** **	0.039
T2 x *HRP school-leaving certificate*						0.006	0.017	0.002	-0.024	0.035
T3 x *HRP school-leaving certificate*						-0.003	0.018	-0.001	**-0.183*** **	0.035
T2 x *HRP university*						0.01	0.027	0.003	-0.020	0.052
T3 x *HRP university*						-0.039	0.026	-0.013	**-0.318*** **	0.049
T2 x *home owned outright*						0.068***	0.022	**0.023**	-0.073	0.045
T3 x *home owned outright*						0.076***	0.022	**0.026**	-0.030	0.045
T2 x *home mortgaged*						0.023	0.021	0.008	**-0.159*** **	0.045
T3 x *home mortgaged*						-0.015	0.021	-0.005	**-0.210*** **	0.044
T2 x *HRP unemployed*						0.069*	0.041	**0.023**	**-0.185** *	0.096
T3 x *HRP unemployed*						0.283***	0.050	**0.102**	0.133	0.109
T2 x *HRP retired*						0.047	0.029	0.016	-0.030	0.058
T3 x *HRP retired*						0.151***	0.030	**0.052**	**-0.099** *	0.058
T2 x *HRP inactive*						-0.004	0.031	-0.001	-0.052	0.060
T3 x *HRP inactive*						0.063*	0.033	**0.021**	-0.071	0.060
T2 x *HRP self-employed*						0.038	0.028	0.013	-0.095	0.060
T3 x *HRP self-employed*						0.173***	0.030	**0.060**	**-0.146** **	0.060
T2 x *Wales*						-0.097***	0.033	**-0.032**	**-0.161** **	0.067
T3 x *Wales*						-0.205***	0.033	**-0.064**	**-0.336*** **	0.068
T2 x *Scotland*						-0.076***	0.026	**-0.025**	**-0.237*** **	0.048
T3 x *Scotland*						-0.222***	0.026	**-0.069**	**-0.447*** **	0.048
HRP sick or injured	-0.093***	0.019	**-0.030**			-0.130***	0.034	**-0.042**		
T2 x *HRP sick or injured*						0.024	0.047	0.008		
T3 x *HRP sick or injured*						0.058	0.048	0.020		
Constant	-3.885***	0.044		-7.130***	0.154	-3.716***	0.076		-7.461***	0.201
Pr[*donor* = 1 | *Z* = *ż*]			0.276					0.275		
ρ				**0.634*** **	0.015				**0.645*** **	0.015
σ				**1.655*** **	0.017				**1.662*** **	0.017
inverse Mills ratio (λ)				**1.049*** **	0.035				**1.072*** **	0.035
Observations *N*		205915					205915			

notes: *** p<0.01, ** p<0.05, * p<0.1
^T2 = years 1988-1997; T3 = years 1998-2008 (reference period 1978-1987)
coeff. = coefficient; s.e. = linearised standard error; m.e. = marginal effect.