Giving to Development:
Who Gives to Overseas Causes?

John Micklewright* and Sylke V. Schnepf[+]

* Southampton Statistical Sciences Research Institute (S3RI) and
School of Social Sciences, University of Southampton

[+] S3RI, University of Southampton

Abstract

Donations to overseas charities are an important source of funding for development assistance from rich industrialised countries. But little is known about the nature of these charitable donations. The literature on giving focuses on total donations to all causes and does not identify separately the pattern or the determinants of giving to any particular cause. We investigate giving to overseas causes using UK survey microdata that record individuals' donations to different types of charity. We analyse the association of giving to overseas and domestic causes and then explore the socio-economic correlates of giving – such as marital status, education and income – comparing the two types of charitable cause. We distinguish between the decision to give at all and the amounts that are given.

Note:

This is a preliminary draft of work in progress and some parts will be heavily revised. Readers are asked to check with the authors (jm4@soton.ac.uk and svs@soton.ac.uk) for a more recent version rather than citing the current one. When complete the paper will appear in the S3RI Working Paper (Applications and Policy) series available from http://www.s3ri.soton.ac.uk/publications/applications.php.

Acknowledgements

1. Introduction

Donations to charities working for overseas causes are an important source of funding of development assistance from rich industrialised countries. In the UK, charities focusing on overseas development and emergency relief that are among the top 500 fundraisers received nearly £1bn in donations and legacies in 2004-5. This is well short of the £4bn that is spent by the UK government in official development assistance (ODA) but the public appears to allot a greater importance to the charities' work.[1] Two-thirds of UK adults believe that international charities make a 'major contribution' to the reduction of poverty in developing countries while less than a fifth view the governments of rich countries in the same light (O'Brien 2004: 49).

Surprisingly, in view of their actual and perceived importance, relatively little is known about the pattern or determinants of charitable donations to development causes. There are large empirical and theoretical literatures on charitable giving but they focus on total donations, and do not identify separately donations by cause (Micklewright and Wright 2004).[2] The motives for giving to benefit human welfare in poor countries may differ in a variety of ways to giving to benefit domestic causes such as animal welfare, health or the arts (Atkinson 2007). If further charitable donations are to contribute to the funding of the Millennium Development Goals, we need to know more about their determinants. And we need to know whether and how giving to development differs from giving to other causes.

In this paper we investigate giving to overseas causes using UK survey microdata that do record individuals' donations to different types of charity – in contrast to sources used in almost all the existing literature on charitable donations. To our knowledge, we provide the first comparison of overseas and domestic giving with representative survey data for the UK. We aim to uncover stylised facts about giving to overseas development, showing ways in which overseas giving resembles giving to domestic causes and ways in which it differs.

Section 2 describes the data we use. These are drawn from several rounds of the ONS Omnibus Survey, which since 2004/5 has contained a module of questions

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[1] The totals are taken from Charities Aid Foundation (2006) and HM Treasury (2004). The Charities Aid Foundation figures refer to all 'voluntary income', including legacies and donations by trusts and companies. But the great bulk represents inter-vivos donations by private individuals.
[2] Donations to overseas charities represented only 18 percent of all donations to the top 500 fundraising charities in the UK in 2004/5.

on charitable giving sponsored by the Charities Aid Foundation (CAF) and the National Council for Voluntary Organisations (NCVO). Section 3 then documents how common is giving to development and the amounts given, contrasting the situation with giving to other causes. We investigate whether giving to overseas and domestic causes tend to go together and how the two sorts of giving are related to gender and marital status. Section 4 describes the relationship of giving to overseas and to domestic causes with personal income. Section 5 presents simple statistical models of the correlates of giving to development and giving to other causes, where extend the analysis to include factors such as age, family composition and education. The modelling strategy allows for the decision to donate to be determined in different ways from the amounts that are given.

2. Data on charitable giving by cause

Empirical research into the pattern and correlates of giving by cause has been hampered by a lack of survey data that identify the different causes to which donations are made. In the US, the long-running Michigan Panel Study of Income Dynamics has only recently begun to collect information on giving by cause (Backus 2006). In the UK, the annual ONS Expenditure and Food Survey has long collected data on charitable giving and these have been used to good effect (e.g. Banks and Tanner 1997, Pharoah and Tanner 1997). However, the survey data do not distinguish the types of charities to which the gifts are made.

Our research uses data from another ONS survey, the monthly Omnibus, that does collect information on donations by cause. Starting in 2004/5, CAF and NCVO have sponsored a module of questions in the survey three times a year (CAF and NCVO 2005, 2006). The Omnibus survey has a conventional multi-stage random probability design.[3] One adult (defined as age 16 or over) is selected at random in each sampled household (we apply weights that correct for the higher probability of being sampled in small households). Interviewing is face-to-face. The response rate is typically around 65 percent, which is reasonable by the standards of other major ONS

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[3] The sample is stratified by region and by several measures of socio-economic status: the proportion of households with no car, the proportion of households where the household reference person is in the top three socio-economic categories in the ONS classification, and the proportion of people who are aged over 65 years. In common with other ONS surveys, the sample frame is the Royal Mail's Postcode Address File. Each survey cluster (which are postal sectors) contains 30 households and we allow for this clustering in our estimates of standard errors in all parts of the analysis.

surveys. We pool the data for the six survey rounds in which the CAF/NCVO module was included in the survey in the April-March tax years 2004/5 and 2005/6: July (2004), June (2005), October and February (both tax years). After cleaning the data, this provides us with a sample of 9,050 individuals. The pooling is vital so as to have sufficient data with which to analyse donations to any particular charitable cause.[4]

Although the months in which the data are collected are reasonably evenly spread through the year, there may still be problems of seasonality that affect what we can say. Suppose that there were a regular seasonal dip in charitable giving following Christmas. This would be reflected in the donations recorded in the four weeks prior to the February round of the Omnibus survey, and, since the CAF/NCVO module is included in the survey only three times a year, the pooled data would be disproportionately affected by this dip. Comic Relief, a large charity that spends 60 percent of its income overseas, gathers most of its donations through a 'telethon' and associated events in March, once every two years.[5] Most of these donations will be missing from the data collected by the survey since the period concerned falls outside the survey months. And where donations to any charity are given by regular annual gifts (or membership subscriptions – see below) there will be the standard 'infrequency of purchase' problem suffered by budget surveys, with fewer donors recorded than would be the case if information on annual donations were collected.

The CAF/NCVO module probes charitable giving in detail, seeking information on the amounts given and the methods of giving for donations to each of a range of causes in the four weeks prior to interview. People are asked whether they have given to charity through any of nine methods listed on a showcard. For each method used, respondents are asked which of 15 possible causes they have given to, of which 'Overseas aid and disaster relief' is one. Then, for each cause given to by each method, respondents are asked how much they gave. The design of the module was carefully chosen to provide greater detail and higher quality data than in previous efforts by CAF and NCVO to collect survey data on charitable giving.[6]

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[4] INSERT on cleaning. The Omnibus sample size was reduced by about 30 percent in 2005 (CHECK MONTH) and we apply weights to the data to ensure that each month of data contributes equally to the pooled sample.

[5] See http://www.comicrelief.com/all-about-us/faq/

[6] The CAF and NCVO use of the Omnibus survey replaces the Individual Giving Survey (IGS), which latterly formed part of an NOP Omnibus. The IGS was based on a quota sample rather than a survey with a random probability design and had a less detailed module on donations (see Lee *et al*. 1995).

The Omnibus survey's restriction to one individual in each sampled household means that we cannot observe donations at the household level: respondents are asked about their own donations but not those of other household members. There is a potential problem of measurement of individual donations where married or co-habiting couples make decisions jointly about their charitable giving, funding their donations from their joint income. In this case, giving can be thought of as a public good within the household (Andreoni *et al*. 2003). An individual respondent may therefore lay claim to all the giving done by the couple. Although there would be no double-counting within surveyed households, since only one household member is interviewed, this situation would imply that aggregate amounts given are overestimated by the Omnibus survey. The survey does not collect any information on how couples make their decisions on donations, but we are able to distinguish separately the giving by people who are married or co-habiting and the giving by people who are single.

There are ambiguities in the concept of 'charitable giving' that must be addressed in any survey that collects data on donations (Lee *et al*. 1997). First, there is the issue of what constitutes a charity. Not all voluntary organisations are charities, including some that may be perceived by the public as being so. Several organisations with charitable aims decline to seek charitable status since they feel it would restrict their ability to campaign as a pressure group. Amnesty International is an example. Other organisations are formal charities despite not obviously existing to provide benefit that is charitable in the public perception. This is illustrated by the recent debate in the UK on the charitable status of private schools. The CAF/NCVO module in the Omnibus survey in effect allows the respondent to decide whether a gift was to a charity or not.

Second, there is the concept of a gift. Giving may take various forms, and one important method, the donation of time or 'volunteering', is not considered in this paper (nor is it covered in the Omnibus survey): we are concerned only with gifts of money. But even here there is room for different interpretations. Lee *et al*. draw attention to the status of membership subscriptions to charitable organisations (e.g. to the National Trust or the Royal Society for the Protection of Birds), ticket purchases in raffles on behalf of charities, and purchases at charitable shops (1997: 41). These are three of the nine methods covered by the CAF/NCVO module, which also includes fundraising events (e.g. purchases or entrance fees to jumble sales, fêtes and

charity dinners).[7] In each case the respondent is asked for the full amount paid or transferred, all of which is treated as a donation. The survey therefore casts its net wide, although data for donations by each method are separately recorded so the user can choose to focus on a sub-set.

The different charitable causes identified in the Omnibus survey are listed in Table 1. Several points about the definition of overseas donations need to be borne in mind.

First, the inclusion of disaster relief in 'Overseas', which is standard for such classifications, means that the data for giving in each Omnibus round will be affected by any recent large international emergencies. The Asian Tsunami at the end of 2004 is the most obvious case. This disaster occurred shortly before the Omnibus round in February 2005, and the CAF/NCVO module for that month was adjusted to include giving for Tsunami relief as a separate additional category of donations in the four weeks prior to interview. A further question was also included to cover all giving to the Tsunami appeal since the tidal wave struck on 26 December. The earthquake in Pakistan in early October 2005 is another example of a large emergency appeal, although in this case the CAF/NCVO module that month did not identify donations for the earthquake victims' relief as a separate cause.

Second, giving to overseas causes does not necessarily imply giving for the benefit of people in poor countries. For example, donations to charitable causes in Israel would presumably be included by Omnibus respondents under the 'Overseas' heading. However, in the UK, the great majority of overseas giving is in fact aimed at poor countries.[8] It is also the case that some charities have both domestic as well as overseas aims, and have significant programme expenditure in the UK. The Red Cross, which is explicitly mentioned in guidance to Omnibus interviewers as an example of an overseas charity, falls into this category.

Third, some respondents may report donations for development under another heading. Is a donation to Save the Children or to UNICEF one that benefits an overseas cause or one that benefits children? Do donations to the Catholic Agency for

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[7] The other five are cash, card/cheque, direct debit, payroll giving, and 'other'. Purchases at charity shops is included in 'buying', which also covers purchases through charity catalogues and buying the Big Issue. The values of gifts that an individual may have made to charity shops, jumble sales, or for charity raffles are explicitly excluded by the survey.

[8] For example, among the top 500 fundraising charities classified by CAF as 'overseas', only 5 percent of voluntary income is received by charities devoted to Jewish causes outside the UK, including those not focused on charitable work in Israel.

Overseas Development (CAFOD), to Christian Aid, or to Islamic Relief represent giving to development or giving to a religious organisation? The CAF classification of top 500 fundraising charities in *Charity Trends* treats all these as overseas charities. Our presumption is that respondents to the Omnibus survey will also do so, but it is difficult to rule out all such problems of classification in respondents' minds.

The core questionnaire included every month in the Omnibus survey collects a range of demographic and socio-economic information that we use to analyse the correlates of giving, including age, marital status, number of children, household composition, education, region, housing tenure, employment status, occupation and personal income. These individual and household characteristics are likely to be correlated with attitudes towards giving to different charitable causes, including overseas development and disaster relief. For one month in the pooled data set, July 2004, we have a substantial amount of direct information about respondents' attitudes towards development. The Omnibus survey in this month included a module of questions sponsored by the Department for International Development (DfID). This module collected information on respondents' attitudes towards poverty in developing countries and towards the roles of international charities, governments and international organisations in its reduction. (The data are the basis for the figures on public attitudes cited in the opening paragraph of the Introduction.)

3. Giving to overseas and domestic causes

Table 1 shows the percentages of persons in our pooled sample giving to each of the causes identified in the CAF/NCVO module, together with the mean and median amounts given.

1 in 10 persons gave to overseas aid and disaster relief in the four weeks prior to being interviewed. Only medical research, children/young people, and hospitals/hospices attract more donors. And only religious organisations have both higher mean and median amounts given. (The high mean for the arts is subject to large sampling error due to the small number of donors.) Overseas charities' position as a leading cause stems from both the high frequency of giving *and* the large average amounts donated relative to other causes – something not shown in aggregate statistics on the charitable sector. Both the frequency and the average are ahead of the

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figures for animal welfare, the cause sometimes cited in the popular press as the most popular target for charitable donations in the UK.

The distribution of overseas giving shows enormously strong positive skew – – the mean is far higher than the median. Many people give modestly, a small minority give much more generously. This is true for all other causes as well. If we exclude gifts that are smaller than £2, the percentage giving to overseas causes falls from 10.4 percent to 9.6 percent. (The figure for giving to any cause drops to 50.2 percent.) There are clear spikes in the distribution of gifts at certain integer values but the smoothed distributions of donations to both overseas causes and all other causes taken together are quite well approximated by the log-Normal.

We have not included donations to the Tsunami relief in the figures for overseas giving in Table 1. These donations were identified separately in the February 2005 survey round; nearly a fifth of respondents reported giving in the previous four weeks, and two-thirds reported a donation at any time since the Tsunami actually occurred.[9] The giving for Tsunami relief is of great interest, not least since it demonstrates that the majority of people will in fact give to overseas causes, albeit for an exceptional purpose. But exactly because of its exceptional nature we do not consider giving to the Tsunami appeal further in this paper. Nevertheless, it would be wrong to assume the Tsunami giving as completely separable. First, giving to other causes recorded in February 2005 may have been reduced as a consequence of donations to the Tsunami relief. Second, the experience of giving to the Tsunami appeal may have led some people to start making regular donations to overseas causes, or to give more often, or to give larger amounts.

Table 2 tries to shed some light on these issues by showing how giving varied across the different months covered by the sample. Overseas giving does not jump sharply upwards in the Omnibus data in the months following the Tsunami appeal. The frequencies of giving in June 2005 and February 2006 are effectively the same as in July 2004 and February 2005 respectively. The higher figures in October 2005 are likely to have been influenced by another exceptional event – the Pakistan earthquake appeal, which were not separately identified in the data.[10] There is no significant

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[9] The ONS Omnibus figure of 68 percent accords reasonably well with the 81 percent recorded in an NOP Omnibus quota sample of 1000 people conducted between 14-16 January 2005 (CAF 2005).
[10] The Disasters Emergency Committee, an umbrella grouping of the main development charities, raised £40 million for the Pakistan earthquake appeal by mid-November 2005. This compares with £300 million for the Tsunami appeal (Disaster Emergencies Committee 2005).

difference between the mean for 'domestic' donations (all causes other than overseas) in February 2005 and the mean for donations in the other months taken together. The frequency of domestic giving in February 2005 is effectively the same as in February 2006. These results provide some justification for our exclusion of Tsunami giving from the analysis that follows.

Table 3 shows the association between giving to overseas and domestic causes. Three-quarters of overseas donors also give to at least one domestic cause: the probability of giving to domestic causes, conditional on giving to overseas causes, is higher than the unconditional probability of domestic giving. Further analysis showed that overseas donors have a higher probability of giving to each and every one of the 14 domestic causes in the data than does the sample as a whole – the conditional probabilities are always higher than the unconditional probabilities. The differences in these probabilities are notably large for conservation and the environment, religious organisations, arts, and the homeless – in each case the overseas donors are over 2.5 times more likely to give than the average person. In addition, the amounts given to overseas causes are in each case positively correlated with the amounts given to the domestic causes (although the correlations are often quite low). We have a clear result: overseas donors tend to be people who are giving to domestic causes as well.[11]

But 9 in every 10 people do not make overseas donations. It is tempting to see Table 3 as confirming the old adage that 'charity begins at home'. Some 80 percent of all donors give only to domestic causes. Overseas giving appears as an 'add-on' for another 7 to 8 percent (who are often giving to several domestic causes). Giving to overseas development alone is uncommon. However, we can infer nothing from the data about the prioritising of different causes by those people who do make overseas donations. They may see overseas giving as an essential part of their altruism that comes first in their decision making, rather than giving to overseas causes after first having made their domestic donations. Their domestic giving may be 'added-on' to their overseas giving.

Although overseas giving is a clear minority activity (as is giving to any of the individual domestic causes), the evidence suggests that many of those who only make domestic donations, or who do not give to charity at all, are not indifferent to the

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[11] Half of them give to two or more domestic causes; by contrast as many as a half of domestic donors give to just one cause (not shown in the table).

plight of people in developing countries. We have already noted the very widespread response to the Tsunami appeal, although we have also argued this to be an exceptional event. Table 4 shows another piece of evidence, based on responses to a question in the DfID module in the June 2004 Omnibus survey. The question asked how concerned respondents were about levels of poverty in developing countries. Not surprisingly, the great majority of people giving to overseas causes reported that they were 'concerned' or 'very concerned'. But the same applies to the majority of most other people: 72 percent of those giving to domestic causes only and 63 percent of non-donors were in the same categories, although many fewer were 'very concerned' than among the overseas donors. This suggests that there is considerable potential for expansion of overseas giving.

Table 5 shows differences in the causes favoured between men and women and between married and cohabiting people and people who are single. (For brevity, we include cohabitees among 'married' in the rest of the paper; the notes to the table give other details of our classification.) More women give to overseas causes than do men but this is also true of most other causes. Only sports, the arts, and the residual 'other causes' category attract more men than women. For both sexes, slightly more married than single people report giving to each charitable cause (with the exception of giving to the homeless). This is consistent with the possibility described earlier that charitable giving is a public good within marriage, resulting in individuals living with a partner being more likely to report donations. (The impact of differences between married and single people in age and other factors is considered in Section 5.) But whether we look at single or married people, we still see more women giving than men. This suggests that gender differences in giving may not be overly muddied by the issue of decision making within marriage and the associated problem of the reporting of donations made by couples. The prima facie evidence seems clear – more women than men give to charity, including to overseas development.

Men may give less often both to overseas and to other causes, but do they make up for it by giving larger amounts? Taking all domestic causes together, the answer is 'yes': the mean monthly donation made by men who do give is £27.63, compared to £22.45 for women. This difference is sufficient to outweigh the impact of a lower number of men giving to domestic causes, so that the average donation per

head, including the zeros, is £0.47 higher for men.[12] But this is not true for overseas donations: female donors give somewhat *more* on average than male donors, £18.04 compared to £17.35. So women give more deeply as well as more often to overseas causes, resulting in their average donation per head being £0.49 higher than that for the men (a difference of 31 percent).

4. Income and charitable donations

The starting point for our investigation of the relationship of overseas giving with income is Banks and Tanner's (1997) analysis of donations to all causes in the Family Expenditure Survey (FES), the forerunner of the current Expenditure and Food Survey (EFS). Using 1993-4 data, Banks and Tanner showed that the share of total household expenditure that goes on charitable donations fell from about 2.5 percent for the bottom two decile groups of household income to less than one percent for the 8th and 9th groups, before rising slightly to just over one percent for the top group (Banks and Tanner 1997: 9). This pattern of a falling share of expenditure as income rises is consistent with donations being a necessity in economic terms: the poor give proportionately more in relation to their income than the rich and for any percentage increase in income there is a smaller percentage rise in donations. (We discuss later Banks and Tanner's results from models controlling for other influences on giving that are correlated with income.) Our aim is to see whether this pattern holds for overseas donations when they are considered separately, or whether overseas giving is in fact a luxury in economic terms, with the rich giving proportionately more than the poor. This could be seen as consistent with the notion that 'charity begins at home', people giving mainly to domestic causes at lower levels of income but adding-on more giving to overseas causes as their income rises.

In building on the existing results, we need to recognise that the Omnibus data on both giving and income differ markedly from what is available in the FES or EFS. The Omnibus survey records the individual giving of one person per household rather than household giving, although we have noted that in the case of couples the two measures might be the same due to the public good nature of donations. The survey also provides information only on individuals' *own* incomes, and not on the incomes

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[12] CAF and NCVO (2006: 12) draw attention to the gender differences for total donations, which are driven by the domestic giving figures.

of people they may live with. Hence we can relate individual giving to individual income, but not household giving to household income. Not only is there a question mark over the giving data for individuals who are married, but their reported individual income will not necessarily be a good indication of their access to resources from which to make donations. If couples pool their income, the partner with lower income will be able to fund more donations than can a single person with the same level of personal income. We may even see donations made by people with virtually no personal income of their own.

It is also the case that the Omnibus survey's data on income are much less detailed than those from the FES, where respondents are asked for exact amounts for each separate form of income. Omnibus respondents are asked to indicate which band of annual income from a list that they are shown contains their annual gross income from all sources. However, the list is detailed. There are 33 income bands in the 2004/5 data (including zero income) and 39 bands in 2005/6, the highest being £52,000 or more, which contains only 3 percent of people providing data on income. About 8 percent of people in our pooled sample declined to respond to the income question and they are excluded from the analysis of this section. The distribution of individual income in the Omnibus survey in fact corresponds reasonably well with those in both the EFS and the Family Resources Survey (FRS), although there is some indication that income is understated by women (Micklewright and Schnepf 2007). Using FRS data for 2004/5, we also show that many women with low personal income live in households with much higher income per adult. For example, among women with less than £2,500 of gross personal annual income – about 1 in 10 of all women – about a half are in households where income per adult is £10,000 or more; mean income per adult for all women in this income band actually exceeds that of other women with personal incomes beneath £10,000 per year. However, the analysis showed that individuals of either sex with high levels of personal income are almost always also in the top half of the distribution of household income income per adult. So high personal income does imply high household income.

The Omnibus data are sufficiently detailed for us to divide the sample into five income bands that correspond closely to quintile groups. Figure 1 shows how the percentage of people giving to overseas causes and to domestic causes varies across these five bands. In view of the nature of both the giving data and the income data, we show results separately for single and married persons and for men and women, a

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degree of disaggregation that stands in the way of a finer classification of income, e.g. the use of decile groups. (The quintiles refer to the distribution of income among the whole sample taken together, men and women, married and single people.)

For men, the frequency of giving changes in a similar way with income for both domestic and for overseas donations, and the pattern of change varies little with marital status. (The apparent difference in overseas and domestic giving among married men in the bottom quintile group is not statistically significant, the percentages being based on a sample of only 125 men.) The percentage of single men giving to domestic causes rises steadily by over 20 percentage points between the bottom fifth and the top fifth of the income distribution. By contrast, the frequency of giving to overseas causes rises by only 6 percentage points (nevertheless, still a doubling) and is essentially unchanged across the first three decile groups. In both cases it should be noted that the graph is showing results by income *groups* and not absolute *levels* of income. The apparent steady rise in domestic giving across income groups does not imply that the marginal propensity to give is constant across income levels. Indeed, it must be falling as income rises, since successive quintile group represent wider bands of income.

The picture for women is rather different. This is especially the case for single women. The rise in domestic giving across the income distribution is even more marked and much larger than for married women: a difference of 36 percentage points between bottom and top quintile groups. As for the men, the frequency of overseas giving rises only modestly with income and is again broadly constant in the bottom three groups. For neither sex therefore is there any indication of giving to overseas causes being more responsive to personal income than giving to domestic causes.

Figure 2 shows the changes in mean donations across the income distribution. The light coloured lines show the figures for overseas giving and as in Figure 1 the solid lines show the figures for married people. The figures are based just on those persons who do give and several of them are subject to very large sampling error: the means for overseas giving for married men in the bottom two groups are each based on less than ten persons and there are less than 150 single men in the sample across all income levels who make overseas donations. With this in mind, the figures for men are probably best described as showing a sharp rise in the mean donation in the top fifth of the income distribution for both overseas and domestic causes and smaller and more uneven rises in lower income groups. Among women, the apparent fall in the

overseas mean for married women from its highest value of over £30 per month in the bottom quintile group is striking (the figure is based on a sample of 81 persons), and the mean for domestic donations for this group only rises in the top fifth of the distribution. The means for single women show more systematic change, rising fairly steadily until sharper increases at the top of the distribution.

In general, Figures 1 and 2 show that single people with higher personal income give more often to both overseas and domestic causes and give larger amounts. The same seems to be true for married men but the pattern is less clear for married women, especially as far as the amounts given are concerned. The question remains as to whether people with higher personal income give *proportionately* more than other people, and in particular whether there is a difference in this respect between overseas and domestic giving.

Table 6 sheds light on this issue, focusing on whether the rich, as measured by those in the top fifth of the income distribution, are different from other people. The table shows the total donations made by people in the top fifth of the distribution (again defined over all persons) and people in the bottom four-fifths, as a percentage of their total income.[13] For married people, the shares are clearly lower in the top fifth for both causes, domestic and overseas. This is particularly notable for married women and especially for overseas giving. There is a very different pattern for single men: the top fifth of the income distribution has a domestic giving share that is slightly higher than the share for those with lower incomes and an overseas share that is the same. Single women also have giving shares for overseas that are essentially the same for the top fifth of the distribution and for the rest of the distribution, and domestic shares that differ little.

The pattern seems reasonably clear. As far as married people are concerned, the giving shares are lower in the top fifth of the distribution, and overseas giving is no different in this respect. Assessed in this very crude way (there are only two income groups and the decision to give and the amounts given are combined), giving appears as a clear necessity in economic terms – as in the Banks and Tanner study – and this is true of both overseas as well as domestic giving. But for single people there

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[13] In order to estimate the denominator in these calculations we assign people to the mid-point of their income band in the Omnibus survey. Persons in the top unbounded range are assigned the mean in this range for their sex recorded in the 2004-5 Family Resources Survey. Note that the shares are calculated for the groups as a whole: total donations for the group are expressed as a percentage of the group's total income.

is a greater responsiveness of giving to income, although the rich only give about the same share as other people. Overseas giving and domestic giving are again similar in this respect.

In comparing these results with those found by Banks and Tanner we need to remember that our data are different in several respects. First, our income measure refers to gross income, before deductions due to tax and National Insurance contributions. If the data were to measure net incomes, after deductions, the giving shares in Table 6 would be higher. Moreover, since people with higher incomes pay higher taxes as a proportion of their income, the figures would rise more for the top quintile group. In the case of single people, the change would most likely result in overseas giving appearing as a luxury in economic terms for both men and women, and the share for domestic giving for men appearing even higher for the top income group. Second, our data refer to personal giving and personal incomes, rather than the household totals analysed by Banks and Tanner. How would our figures for married people change if we could put them on a household basis so that we were looking at giving shares for domestic and overseas causes of the households of married people? If married people in the Omnibus survey already report their joint giving with their partner, treating it as a public good within the household, the switch to a household basis would lead the shares to fall – giving would no longer be double-counted in the numerator.[14] The differences in total incomes between the top fifth and bottom fifth of the distribution would probably narrow, on account of averaging within the household. This would lead the giving shares to fall less sharply between the bottom four-fifths and the top fifth of the distribution. But it is unlikely that there would be any differential impact for overseas and domestic giving.

5. Models of the probability of giving and amounts given

To this point we have investigated only a handful of the possible correlates of overseas giving – sex, marital status and income. In this section we extend the analysis to other factors, again with the principal aim of seeing whether overseas giving differs from domestic giving. We do so by estimating multiple regression models of the probability of giving and of the amounts given, keeping all domestic

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[14] Any double-counting at present comes through individuals in different households reporting household totals.

causes together as in Section 4. These models also allow us to see whether the association of giving with sex, marital status and income remains unchanged when we control for the other factors. For example, the apparent change of giving with income could merely reflect the fact that people with higher levels of education (who will tend to have higher incomes) give more – if more education per se raises the desire to give.

We choose to model the decision to give and the amounts given separately. This approach contrasts with use of the Tobit model, an alternative that has sometimes been employed in the existing empirical literature on charitable donations. The Tobit model has the unattractive property of constraining the decision to give and the amounts given to be determined by a single process.

Assume there are unobserved, continuous, latent variables Y_{io} and Y_{id} that explain the propensity for an individual i to give to overseas and domestic causes respectively:

$$Y_{io} = \alpha_o + \boldsymbol{\beta}_o.\mathbf{X}_{io} + \varepsilon_{io} \tag{1}$$

$$Y_{id} = \alpha_d + \boldsymbol{\beta}_d.\mathbf{X}_{id} + \varepsilon_{id} \tag{2}$$

We observe realizations of these variables, G_{io} and G_{id}, which take the value 1 if an individual gives to the cause concerned and zero otherwise. Assuming that the unobserved factors ε_{io} and ε_{id} are i.i.d error terms that follow the Normal distribution leads to two binary probit models. Estimating these models separately corresponds to the assumption that cov(ε_{io}, ε_{id})=0, whereas in practice we would expect that the unobserved factors determining donations to the two types of causes are indeed correlated. We have already seen in Table 3 that the outcome variables G_{io} and G_{id} are correlated – people who give to overseas causes are more likely to give to domestic causes than other people – and it would be very surprising if that correlation could be explained only through observable factors $\mathbf{X}_{io}$ and $\mathbf{X}_{id}$. Allowing for this correlation leads to a framework in which the two outcome variables are determined jointly with a bivariate probit model. However, in the case where $\mathbf{X}_{io} = \mathbf{X}_{id}$ there is no efficiency gain over the estimation of separate probit models. We therefore estimate simple binary probits in which $\mathbf{X}_{io} = \mathbf{X}_{id}$ but also report separately the estimate of corr(ε_{io}, ε_{id}) from a bivariate probit model.

In estimating a single vector of parameters for the determinants of giving to each cause, $\boldsymbol{\beta}_o$ and $\boldsymbol{\beta}_d$, we are not attempting to put much structure on the decision process underlying the decision to give. Atkinson (2007) suggests that this decision may have a 'double-hurdle' structure, in which a first hurdle determines whether or not someone is a potential donor to the cause concerned, and a second hurdle which determines, conditional on someone being a potential donor, whether they actually give or not (together with the amounts given – see below). Education might be a factor in the first hurdle and income in the second. The idea here is that low income may prevent a potential donor giving, but high income will not bring forth donations from someone who is not amenable in the first place to development as a charitable cause. The information on attitudes to poverty in the developing world collected in the July 2004 round of the Omnibus survey, analysed in Table 4, could perhaps be used in the first hurdle. An alternative might be to analyse only overseas donations rather than both overseas and domestic giving, but to treat giving to domestic causes as an indicator of willingness to donate to charity in general. Domestic giving would then be a factor entering the first hurdle in a double-hurdle model of giving to overseas causes.

In analysing the amounts given, we estimate the following equations by OLS regression for the sub-samples of donors to overseas and domestic causes:

$$\log (\text{donations})_{io} = \gamma_o + \boldsymbol{\delta}_o.\mathbf{Z}_{io} + u_{io} \tag{3}$$

$$\log (\text{donations})_{id} = \gamma_d + \boldsymbol{\delta}_d.\mathbf{Z}_{id} + u_{id} \tag{4}$$

Again, alternatives exist. The correlation between u_{io} and u_{id} can be estimated by Seemingly Unrelated Regressions (SURE) but as with the decisions to give, there is no efficiency gain in doing so if we impose the restriction that $\mathbf{Z}_{io} = \mathbf{Z}_{id}$. The double-hurdle model proposed by Atkinson (2007) could incorporate the determination of the amounts given in the second hurdle. Another possibility is to estimate (1) and (3) jointly and (2) and (4) jointly, allowing (following the framework of Heckman 1979) for the sample-selection bias in the estimates of $\boldsymbol{\delta}_o$ and $\boldsymbol{\delta}_d$ that will arise if the unobservable influences determining the decision to give are correlated with the unobservable influences on the amounts given, i.e. if $\text{cov}(\varepsilon_{io}, u_{io}) \neq 0$ and $\text{cov}(\varepsilon_{id}, u_{id}) \neq 0$. However, this model would require us to specify at least one variable that

determines the decision to give but not the amounts given and it is not obvious what variable or variables can play this role.[15] We therefore estimate (3) and (4) by OLS, allowing for the impact of the sample design in the estimation of parameter standard errors, but we also report the correlation between u_{io} and u_{id} from a SURE model.

Table 7 reports the means of the explanatory variables we include in the probit and OLS models. At this stage of the research we include the same variables in all models ($\mathbf{X}_{io} = \mathbf{X}_{id} = \mathbf{Z}_{io} = \mathbf{Z}_{id}$). Table 8 reports the results of the probits and Table 9 the regressions.

We estimate the models separately for married and single people. However, we do not further disaggregate by sex although we refer on occasion to results of separate models for men and women. Likelihood ratio tests reject probit models that pool married and single people but fail to reject pooled models for men and women (we include a dummy variable for women in all models). For both married and single people we reject with ease the hypothesis that $\boldsymbol{\beta}_o = \boldsymbol{\beta}_d$. That is, we find firm evidence that the determinants of giving to overseas and to domestic causes do differ.[16]

The explanatory variables include measures of income, owner occupation as a proxy for wealth (the respondent must be the houseowner in sole or joint name, rather than e.g. an adult child living at home), occupation, education, having dependent children, age, ethnicity, living in Scotland, and interview in one or other of the February waves of the data. Inter alia, we test the following hypotheses:

- income has no impact on giving (ceteris paribus) either to overseas or domestic causes (H1);
- persons with higher education are more likely to give to overseas causes than to domestic causes (H2);
- the relationship of overseas giving with age differs from that for domestic giving (H3);
- the association of ethnic group with giving differs for overseas and domestic donations (H4).

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[15] Banks and Tanner (1997) use this sample-selection framework in their modeling of total donations to all causes. They use the interactions between the head of household's age and (a) household income and (b) his or her education as their identifying variables.

[16] The chi-squared test statistics are 69.3 for married people and 117.4 for single people, which may be compared with a critical value at the 0.1% level of 46.8 (20 degrees of freedom).

With the exception of age (and its square) all the variables are dummy variables. In the case of income, we include dummies for the same income quintiles as defined in Section 4 (the excluded category is the middle group) together with a dummy indicating that an individual declined to report his or her income. This is a rather crude use of the income information since it does not exploit much of the variation in the data, but preliminary investigation did not find much support for simple linear, quadratic or logarithmic specifications.

Table 8 reports the probit results in the form of estimated marginal effects evaluated at mean values of the explanatory variables. (Since the probit model is non-linear, the marginal effects are not constant.) That is, the table shows the marginal impact of a variable for someone with a set of observed characteristics corresponding to the mean values on each variable. (Since most of the variables are dummies, this person does not correspond to any single hypothetical individual.) For example, the marginal effect for the gender dummy in the overseas equation for married people shows that, holding other factors constant, a woman with mean characteristics is estimated as having a probability of giving to overseas causes that is 3.8 percentage point higher than the probability for a man.

We start with the results for the income dummies. In three of the four models it is striking that we fail to reject H1 that income has no (ceteris paribus) impact on the probability of giving. H1 is rejected only for domestic donations by single people, the group for whom the change in frequency of giving with income was clearest for both men and women in Figure 1. Note that the restricted model in the tests of H1 in each case retains the missing income dummy, which typically has quite a large and significant negative coefficient. People who decline to report their income tend to be people with a lower probability of giving to charity.

On the face of it, these results suggest that the apparent relationship of giving with income shown by Figure 1 is largely explained by other factors. However, we need to be cautious before making such a conclusion. There is the existing evidence of Banks and Tanner (1997) to consider. Their analysis of the probability of giving to all causes used a sample of some 70,000 households pooled from ten years of FES data, a far larger sample than the ones we use. They found household income (in natural log form) to be a very well determined explanatory factor (t-statistic equal to 26) in a probit model which, like ours, had other variables measuring occupation, education, and age. Their results imply an elasticity of the probability of giving with respect to

income of about 0.3 for a person who has characteristics implying a probability of 0.5 – so that for this person with a 50 percent probability of giving, a 10 percent rise in income would increase the estimated probability by 1.5 percentage points.[17] (Note that the elasticity is well below the value of 1.0 that divides necessities from luxuries.) In view of this, we need to consider explanations other than the apparent one implied by the failure to reject H1. We may have failed to adequately model the impact of income or, especially in the case of married women, personal income may not be the appropriate measure of access to income. And our wealth proxy, the owner occupation dummy, is significant in three of the four sets of results, with a marginal effect for domestic donations that is very similar to that found for all causes by Banks and Tanner (about 7 percentage points).

In evaluating H2, that higher education is associated more strongly with overseas giving than with domestic giving, we need to look at the whole pattern of estimated coefficients. If we just look at the coefficient for the higher education dummy, the results look similar for both types of cause. However, the degree, A-level and O-level (or GCSE) coefficients are all similar for domestic giving, both for married and single people. Those for overseas giving show more gradation. So, relative to those with only A-levels or O-levels, higher education appears to matter more for overseas than domestic giving. At face value, this suggest that an expansion of higher education that moved people's highest qualifications up from A-level to degree level would increase the probability of overseas giving but not domestic giving.

There seems clear support in favour of H3. Age and its square are significant for domestic giving and imply that the probability of giving peaks at about 65 for married people and 55 for single people. But they are insignificant for overseas giving.[18]

Finally, there is again some support for H4, concerning ethnicity, although it is not very strong. The excluded group are whites (and a very small group of people of mixed race). The dummies for blacks, Asians and people of other ethnic backgrounds

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[17] Banks and Tanner (1997: 40) report a probit coefficient of log income of 0.374. We multiply by 1.7 to translate this into a roughly equivalent coefficient for a logit, which has a convenient closed form. We then multiply by 1-p, where p is the probability of giving, to obtain the formula for an elasticity for a variable in natural logs. Evaluating at p=0.5 gives a figure of 0.32.

[18] The quadratic pattern we have imposed on the relationship is in line with the descriptive analysis of the data for total donations, not distinguishing the different causes, in CAF and NCVO (2006, Table 4). The CAF and NCVO analysis notes an earlier age peak in the data for 200/6.

(e.g. Chinese) all have negative coefficients for domestic giving, although these are often not significant. By contrast, the black and Asian dummies in the overseas equations have positive coefficients, although they are all insignificant. Larger sample sizes of ethnic minorities are needed to detect any differences with precision.

All these results refer to observed characteristics. When we estimate the bivariate probit model we obtain an estimate of the correlation of the unobservable determinants of the propensities to give to overseas and domestic causes. This correlation is 0.30 for married people and 0.22 for single people (and is well determined in both cases). Hence unobservable characteristics are positively correlated as we expected, but these correlations are quite low.

Turning now to the models to explain the positive amounts given, we first comment again on the correlation of the unobservable factors, estimated with a SURE model. These are again positive but again not that large: 0.35 for married people and 0.34 for single people. Table 9 shows the estimated parameters for the observable factors. Since the dependent variable is in natural log form, the expression $\exp(\delta)$ shows the proportional change in donations associated with the characteristic in question that is implied by the estimate of any parameter δ. It should be borne in mind that these equations are estimated on samples that are substantially smaller than those for the probability of giving. The sample size for the overseas donations model is only 533 observations for married people and 411 for single people. It is not surprising therefore to find fewer significant coefficients.

The following notes summarise the results:
- the gender dummy is insignificant at the 5 percent level in all equations;
- the impact of income is rather unclear, as in Figure 2; (Banks and Tanner's results for total durations imply an elasticity equal to about 1.0);
- the variable for owner occupation is insignificant in contrast to the probits;
- the pattern of giving with education, in terms of the contrast between overseas and domestic giving, resembles that in the probits;
- the same is true of age, again significant for domestic giving (with maxima at much earlier ages, 28 for married people and 42 for singles) and insignificant for overseas giving;
- married Asian people appear to give substantially more on average to domestic causes than other married people (about 60 per cent more) and vastly more to overseas causes (about 3.5 times as much); these results need further probing,

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including in respect of the breakdown by ethnicity within the overall Asian heading and the timing of the giving in relation to the 2004 Pakistan earthquake.

6. Conclusions

What have we learned about overseas donations in this paper?

- Overseas development and emergency relief is among the leading causes due both to a relatively high frequency of giving compared to many other causes (1 in 10 persons) *and* high average amounts given by donors.

- The distributions of giving to overseas and to other causes exhibit very high positive skew, with mean values far higher than median values.

- Women give more often *and* more deeply to development than men.

- Overseas donors tend to be people who are giving to domestic causes as well.

- About two-thirds of people who do not make overseas donations nevertheless say they are concerned about poverty in developing countries, This suggests a large untapped potential set of donors. The very widespread giving to the Tsunami relief may suggest the same.

- The share of personal income given to charity tends to be lower for richer people, although this is less true for single people for whom personal income is a better measure of access to resources. Overseas giving and domestic giving are similar in this respect.

- Holding other factors constant, education, age and possibly ethnicity have different associations with giving to overseas causes and giving to domestic causes.

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Table 1: Frequency of giving in the four weeks prior to interview and mean and median amounts per donor by cause

	% giving	Mean £s	Median £s	n. of donors
Medical research	21.5	11.26	5.00	1918
Children or young people	14.0	12.70	5.00	1256
Hospitals or hospices	13.8	12.92	5.00	1259
Overseas aid and disaster relief	10.4	17.76	9.00	948
Animal welfare	7.8	9.35	5.00	762
Disabled people	7.2	11.12	5.00	659
Religious organizations	6.6	35.33	12.00	609
Other	6.2	11.64	4.00	566
Homeless people	5.1	6.37	3.00	475
Schools, colleges, universities etc	4.7	11.98	5.00	401
Elderly people	4.3	8.32	5.00	407
Physical and mental health care	3.9	9.58	5.00	370
Conservation, environment, heritage	2.7	16.73	6.00	248
Sports and recreation	1.7	11.49	5.00	141
Arts	0.5	23.90	5.00	47
All	55.4	26.75	10.00	5032

Notes: Religious organizations include churches, mosques, and synagogues. Disabled people include the blind and the deaf. 'Other' include rescue services, human rights, benevolent funds, and refugees. Homeless people include housing and refuge shelters in the UK. Schools, colleges, universities include other education.

Table 2: Frequency of overseas and domestic giving and amounts given by donors by survey round

	Overseas donor %	Overseas donor mean (£s)	Domestic donor %	Domestic donor mean (£s)
Jul 2004	11.5	17.09	52.9	20.15
Oct 2004	7.0	15.13	48.6	24.58
Feb 2005	9.0	20.09	51.7	23.95
Jun 2005	11.7	15.14	54.2	25.39
Oct 2005	14.8	22.93	59.3	27.59
Feb 2006	8.7	13.09	49.6	25.68

Note: the figures for the domestic means show the means of donations made to all domestic causes calculated across all persons making any domestic donations.

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Table 3: The association between overseas and domestic giving

Domestic donor %	Overseas donor %		
	No	Yes	Total
No	44.6	2.7	47.3
Yes	45.0	7.7	52.7
Total	89.6	10.4	100.0

Note: the table classifies the pooled sample into domestic and overseas donors and shows cell percentages.

Table 4: Attitudes to poverty in developing counties and charitable giving, July 2004

Degree of concern	Overseas donors (%)	Domestic donors (%)	Not a donor (%)	Total (%)
very concerned	41.7	26.0	23.7	26.9
fairly concerned	47.6	45.5	40.0	43.4
no strong feelings on	7.9	19.9	23.1	19.9
not very concerned	2.5	5.9	8.2	6.5
not at all concerned	0.3	2.8	5.0	3.4
Total	100.0	100.0	100.0	100.0
Sample size	194	741	705	1640

Note: the table shows responses to the question 'Which item on this card best describes how you feel about levels of poverty in developing countries?'. Domestic donors are defined here to give only to domestic causes, while overseas donors include those also giving to domestic causes.

Table 5: Frequency of giving by cause, marital status and sex

	Married		Single	
	Men (%)	Women (%)	Men (%)	Women (%)
Medical research	19.2	25.6	16.6	21.9
Children or young people	12.1	17.5	10.5	13.6
Hospitals or hospices	13.1	17.5	7.9	13.2
Overseas aid and disaster relief	9.5	12.4	8.5	10.2
Animal welfare	6.4	9.3	5.2	9.2
Disabled people	6.3	8.7	5.8	7.2
Religious organizations	7.4	7.5	3.4	6.5
Other	7.2	6.0	6.0	5.0
Homeless people	4.1	5.3	4.9	6.3
Schools, colleges, universities	4.4	6.5	3.0	3.3
Elderly people	4.0	5.3	3.0	4.3
Physical and mental health care	3.7	4.4	3.0	4.1
Conservation, environment and heritage	2.9	3.1	2.0	2.5
Sports and recreation	2.5	1.7	1.5	0.6
Arts	0.6	0.5	0.6	0.4
All	50.9	59.8	47.5	59.1

Notes: see Table 1. Married includes co-habiting persons; single includes married people living apart.

Table 6: Donations to domestic and overseas causes as a percentage of gross personal income

Income group	Married men	Married women	Single men	Single women	All
Domestic:					
Bottom 80%	0.94	2.00	0.77	1.13	1.29
Top 20 %	0.67	0.80	0.82	0.91	0.73
Overseas:					
Bottom 80%	0.12	0.38	0.09	0.14	0.20
Top 20 %	0.08	0.10	0.09	0.15	0.09

Note: see text for calculations.

Table 7: Means of variables included in probit and OLS regression models

Variable	Mean
Overseas donor	0.104
Domestic donor	0.527
Married	0.643
Women	0.540
Income quintile 1	0.191
Income quintile 2	0.158
Income quintile 3	0.207
Income quintile 4	0.169
Income quintile 5	0.191
Income missing	0.085
Owner occupier	0.626
Manager/Professional	0.322
Degree	0.242
A-level	0.093
O-level	0.322
Other educ qual	0.048
Dependent child	0.250
Age / 10	4.753
Age^2 / 100	25.976
Black	0.047
Asian	0.035
Other ethnicity	0.019
Scotland	0.079
February wave	0.333

Table 8: Probit results (marginal effects)

	Married		Single	
	Overseas	Domestic	Overseas	Domestic
Woman	0.038	0.109	0.022	0.119
	(0.009)***	(0.016)***	(0.010)**	(0.019)***
Income quintile 1	0.012	-0.031	0.015	-0.129
	(0.015)	(0.026)	(0.016)	(0.033)***
Income quintile 2	-0.006	-0.033	-0.001	-0.073
	(0.017)	(0.027)	(0.015)	(0.025)***
Income quintile 4	0.022	0.015	0.032	-0.007
	(0.016)	(0.022)	(0.018)*	(0.037)
Income quintile 5	0.002	-0.028	0.019	0.051
	(0.015)	(0.027)	(0.018)	(0.042)
Income missing	-0.041	-0.109	0.015	-0.156
	(0.013)***	(0.033)***	(0.021)	(0.033)***
Owner occupier	0.031	0.070	0.002	0.075
	(0.011)***	(0.021)***	(0.012)	(0.022)***
Manager/Professional	0.030	0.075	0.027	0.012
	(0.012)***	(0.017)***	(0.012)**	(0.027)
Degree	0.113	0.122	0.102	0.102
	(0.020)***	(0.024)***	(0.024)***	(0.034)***
A- level	0.033	0.125	0.068	0.129
	(0.026)	(0.032)***	(0.026)***	(0.040)***
O-level	0.017	0.096	0.029	0.125
	(0.016)	(0.021)***	(0.016)*	(0.026)***
Other educ qual	0.038	0.072	0.006	-0.009
	(0.027)	(0.040)*	(0.029)	(0.045)
Dependent child	0.026	0.033	-0.004	0.008
	(0.012)**	(0.019)*	(0.015)	(0.032)
Age / 10	-0.007	0.077	0.020	0.088
	(0.019)	(0.031)**	(0.013)	(0.026)***
Age^2 / 100	0.002	-0.006	-0.002	-0.008
	(0.002)	(0.003)**	(0.001)	(0.002)***
Black	0.038	-0.046	0.016	-0.077
	(0.029)	(0.038)	(0.020)	(0.038)**
Asian	0.022	-0.153	0.059	-0.034
	(0.028)	(0.041)***	(0.049)	(0.070)
Other ethnicity	-0.017	-0.045	-0.048	-0.131
	(0.028)	(0.064)	(0.018)***	(0.063)**
Scotland	0.030	0.041	-0.001	0.067
	(0.019)	(0.031)	(0.017)	(0.034)**
February wave	-0.025	-0.036	-0.024	-0.024
	(0.009)***	(0.017)**	(0.010)**	(0.018)
Observations	4922	4922	4115	4115
pseudo r^2	0.06	0.03	0.05	0.05
log pseudo llhd	-1598.26	-3268.14	-1225.41	-2699.48

Note: Clustering taken into account, stratification not. Results report marginal effects.
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 9: OLS regression results

|	Married		Single	
	Overseas	Domestic	Overseas	Domestic
Woman	-0.004	0.120	0.118	-0.003
	(0.125)	(0.063)*	(0.118)	(0.077)
Income quintile 1	0.192	-0.139	-0.327	0.022
	(0.180)	(0.081)*	(0.217)	(0.120)
Income quintile 2	-0.056	-0.125	-0.346	-0.193
	(0.194)	(0.094)	(0.183)*	(0.085)**
Income quintile 4	0.207	-0.217	-0.095	-0.053
	(0.145)	(0.086)**	(0.198)	(0.092)
Income quintile 5	0.419	0.074	0.401	0.297
	(0.156)***	(0.089)	(0.248)	(0.115)***
Income missing	-0.036	-0.380	0.177	-0.034
	(0.276)	(0.115)***	(0.212)	(0.127)
Owner occupier	0.055	0.085	-0.076	0.079
	(0.159)	(0.075)	(0.161)	(0.076)
Manager/Professional	-0.015	0.242	0.152	0.305
	(0.121)	(0.063)***	(0.161)	(0.084)***
Degree	0.587	0.719	0.502	0.459
	(0.191)***	(0.095)***	(0.220)**	(0.105)***
A- level	0.557	0.443	0.350	0.623
	(0.310)*	(0.109)***	(0.237)	(0.125)***
O-level	0.261	0.301	0.147	0.208
	(0.175)	(0.079)***	(0.194)	(0.090)**
Other educ qual	0.785	0.299	-0.286	0.222
	(0.302)***	(0.124)**	(0.271)	(0.149)
Dependent child	0.150	0.155	-0.405	0.297
	(0.119)	(0.065)**	(0.213)*	(0.130)**
Age / 10	0.073	0.501	0.298	0.297
	(0.226)	(0.123)***	(0.165)*	(0.086)***
Age2 / 100	0.006	-0.036	-0.019	-0.014
	(0.022)	(0.012)***	(0.015)	(0.008)*
Black	-0.078	0.179	0.120	0.369
	(0.238)	(0.164)	(0.223)	(0.153)**
Asian	1.307	0.456	0.307	-0.061
	(0.337)***	(0.187)**	(0.249)	(0.252)
Other ethnicity	0.145	0.271	-0.095	0.409
	(0.265)	(0.178)	(0.336)	(0.348)
Scotland	-0.044	-0.001	-0.123	-0.410
	(0.177)	(0.121)	(0.152)	(0.125)***
February wave	-0.011	-0.093	-0.364	0.148
	(0.104)	(0.057)	(0.147)**	(0.078)*
Constant	0.953	0.232	0.833	0.617
	(0.553)*	(0.328)	(0.481)*	(0.217)***
Observations	533	2729	411	2059
r^2	0.14	0.09	0.22	0.14

Note: SEs adjust for clustering and stratification. Dependent variable is natural log of amount given. * significant at 10%; ** significant at 5%; *** significant at 1%

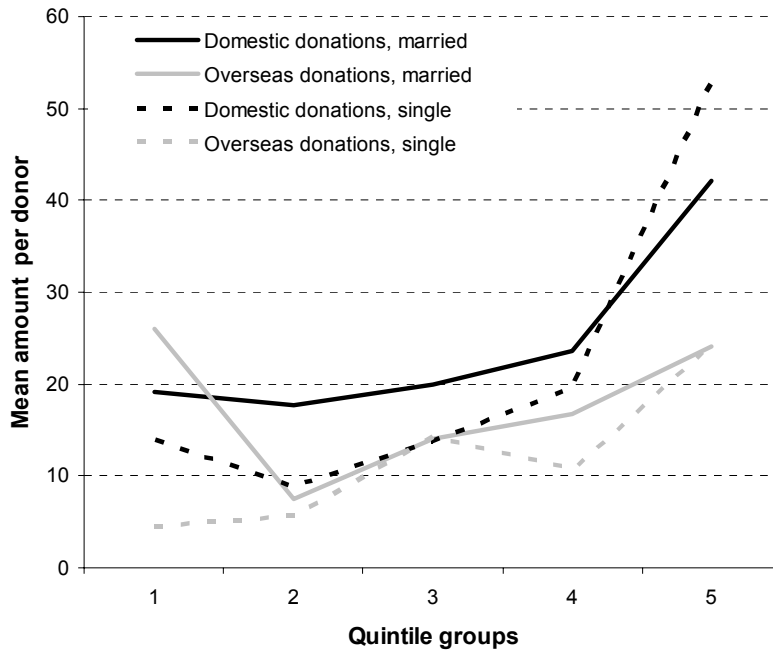**Figure 1: Frequency of giving by cause and income quintile group (%)**
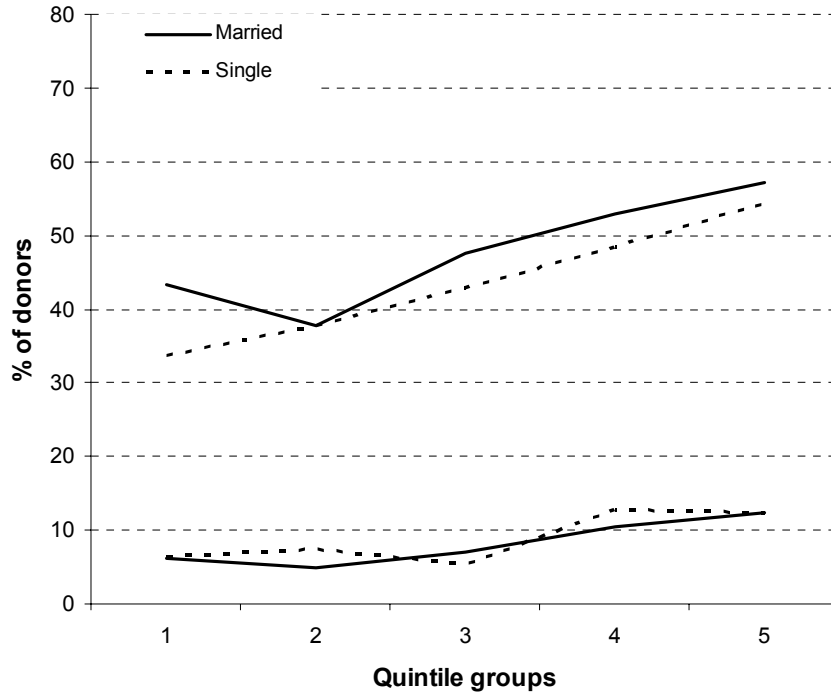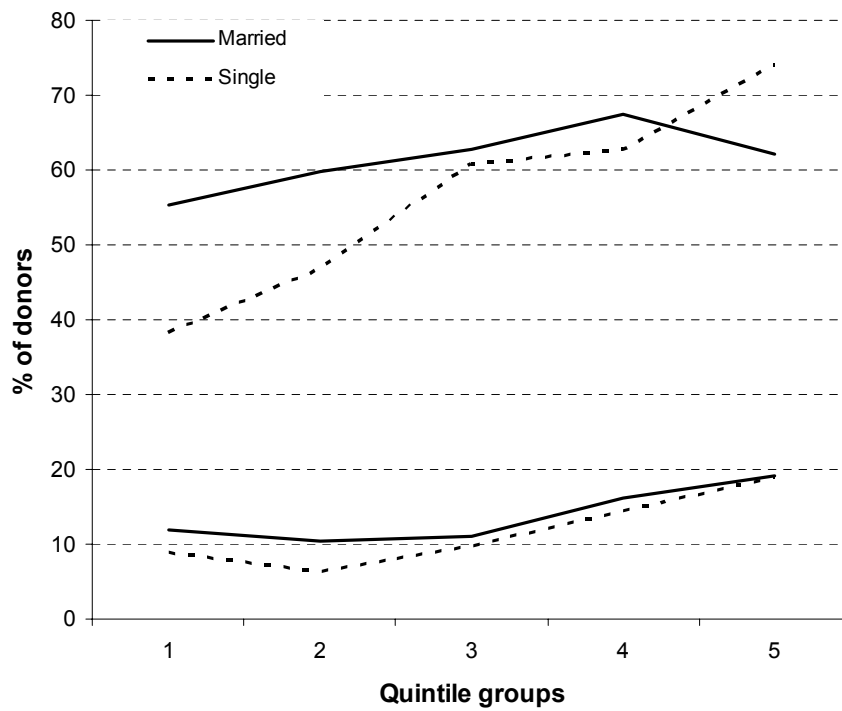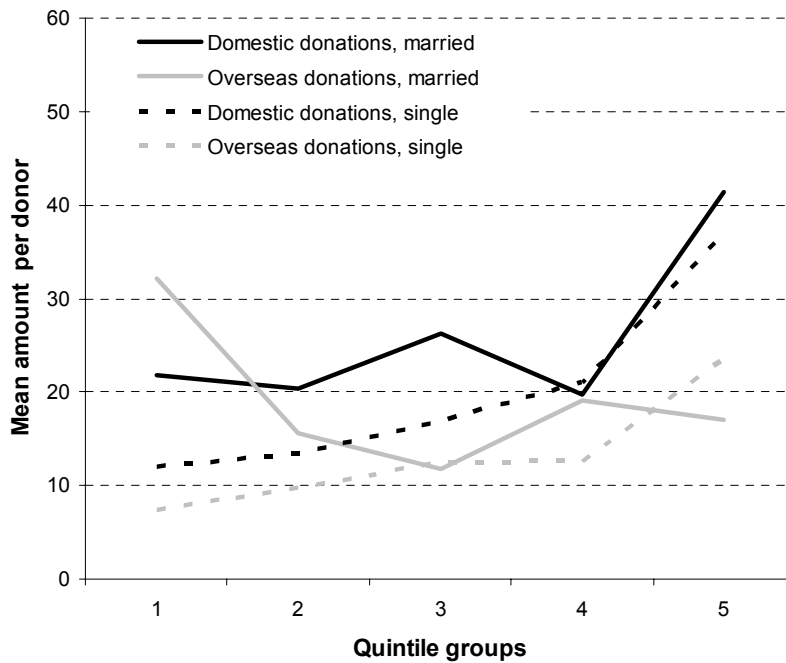
Men

Women

Note: the quintile groups refer to the distribution of gross personal income for all persons in the sample.

Figure 2: Mean amounts given to overseas and domestic causes by income quintile group

Men

Women

Note: the quintile groups refer to the distribution of gross personal income for all persons in the sample.