

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Egerton, Muriel; Mullan, Killian

Working Paper

An analysis and monetary valuation of formal and informal voluntary work by gender and educational attainment

ISER Working Paper Series, No. 2006-22

Provided in Cooperation with:

Institute for Social and Economic Research (ISER), University of Essex

Suggested Citation: Egerton, Muriel; Mullan, Killian (2006): An analysis and monetary valuation of formal and informal voluntary work by gender and educational attainment, ISER Working Paper Series, No. 2006-22, University of Essex, Institute for Social and Economic Research (ISER), Colchester

This Version is available at: https://hdl.handle.net/10419/91999

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





An analysis and monetary valuation of formal and informal voluntary work by gender and educational attainment

Muriel Egerton and Killian Mullan

ISER Working Paper 2006-22

Acknowledgement:

We wish to acknowledge funding for this research from the ESRC. Egerton: ESRC grant 'Time Use in Daily Life' (Principal investigator – J.I. Gershuny) and Mullan: ESRC studentship.

Readers wishing to cite this document are asked to use the following form of words:

Egerton, Muriel and Mullan, Killian (November 2006) 'An analysis and monetary valuation of formal and informal voluntary work by gender and educational attainment', ISER Working Paper 2006-22.

Colchester: University of Essex.

The on-line version of this working paper can be found at http://www.iser.essex.ac.uk/pubs/workpaps/

The Institute for Social and Economic Research (ISER) specialises in the production and analysis of longitudinal data. ISER incorporates

- MISOC (the ESRC Research Centre on Micro-social Change), an international centre for research into the lifecourse, and
- ULSC (the ESRC UK Longitudinal Studies Centre), a national resource centre to promote longitudinal surveys and longitudinal research.

The support of both the Economic and Social Research Council (ESRC) and the University of Essex is gratefully acknowledged. The work reported in this paper is part of the scientific programme of the Institute for Social and Economic Research.

Institute for Social and Economic Research, University of Essex, Wivenhoe Park,

Colchester. Essex CO4 3SQ UK

Telephone: +44 (0) 1206 872957 Fax: +44 (0) 1206 873151 E-mail: <u>iser@essex.ac.uk</u>

Website: http://www.iser.essex.ac.uk

© November 2006

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form, or by any means, mechanical, photocopying, recording or otherwise, without the prior permission of the Communications Manager, Institute for Social and Economic Research.

ABSTRACT

This paper is set in the context of macrosocial/macroeconomic theories of the organization of both paid and unpaid work. The specific topic investigated is engagement in unpaid voluntary work, an activity which is thought to be important for social cohesion. Research on the sources of social cohesion has focussed on organisational membership and voluntary organisation activity. There has been little investigation of informal helping of nonresident kin, friends or acquaintances, an activity which is not measured in most social surveys but is available from time use surveys. Previous research shows that the highly educated are more likely to engage in formal voluntary organisations and data from the UK 2000 HETUS survey confirm that the highly educated spend more time on formally organised voluntary work. However, the less qualified, particularly women, spend more time on extra-household unpaid helping activities. Since voluntary work is partly dependent on available time, these findings are modelled adjusting for time allocated to paid work, study, family and personal care. The findings remain statistically significant and it is hypothesised that social networks may play an important role in mobilising both formal and informal helping. Drawing on work carried out by the Office for National Statistics, a monetary value is placed on the both types of unpaid helping work. Although the average wage rates for voluntary work are greater than those for informal helping, the latter is greater in frequency and duration and therefore more economically valuable from a population perspective.

Keywords: Gender; social cohesion; education; unpaid work; Time Use data

NON-TECHNICAL SUMMARY

- This investigation is set against a background of theories of the social division of labour and concentrates particularly on unpaid voluntary work
- The UK 2000 Time Use Survey is used. Time Use data makes it possible to
 investigate informal helping of non-resident kin and non-kin as well as work
 through formal voluntary organisations. Time Use data makes it possible to
 adjust for other calls on respondents' time with considerable accuracy.
- It is known that the highly educated are more likely to join voluntary organisations. It is hypothesised that this is partly due to the migratory careers of the highly educated. Migration separates people from their family and community of origin. However, involvement in voluntary organisations may facilitate engagement in destination communities. Conversely, it is hypothesised that non-migrants (who tend to have lower educational qualifications) are more likely to do unpaid helping work through informal social contacts and networks. However there is potential confusion between educational qualifications and age; with older people holding lower qualifications, and between educational qualifications and employment status; with less qualified women being less likely to be in paid work. Therefore adjustments are made for these factors in OLS models of time spent in unpaid work through either formal or informal social contact.
- It was found that women were more likely to engage in voluntary work, with
 the better qualified engaging through organisations and the less qualified
 through informal contact. Retired people of both sexes did more voluntary
 work, either through organisations or informally.
- Using data from an ONS study of extended household accounts, a monetary value was placed on unpaid work. Although substantially underestimated due to the particular technique used, the value came to over £20 billion, more of which was contributed by women, older people and less educated people.

Introduction

This paper outlines the methodology and results from an investigation of unpaid voluntary work in United Kingdom, using the UK 2000 Time Use Survey. The background to the analysis is macro-social/macro-economic theories of the total human economy. Polanyi et al (1955) show that the market economy (i.e. the monetarised economy) does not capture the total human economy, that is all productive activity, supply/receipt of services, etc. Glucksmann (1995) argues for a conceptualization of work which takes into account the embedding of both paid and unpaid work in gendered institutions (the family, the firm, the trade union, the state) which change their definition and relationships over time. Gershuny (1989; 2000 Ch 8) shows that time can be used as a metric to frame all the production and consumption activities of a society, thus giving a portrait of all economic activity for a particular period for a particular society (see below for more detail). For present purposes, Time Use diaries have two important advantages, firstly it has been shown that time use diaries give more accurate estimates of time spent in particular activities such as paid work, television watching, etc. than questionnaire data (Robinson, 1999; Gershuny, 2000 Appendix 1; Williams, 2004). Secondly time diaries give an (almost) complete account of the day, thus showing the time allocated to competing activities, but also, of primary importance here, time diaries record relatively infrequent activities such as voluntary work, whether through an organization or through informal contact.

Conceptual Framing

There is a large literature on civic activity, in the sense of participation in formally constituted social groups, as the underlying matrix of democracies. Civic engagement and social movements are of enduring interest to political scientists and sociologists. However, interest in ordinary social ties and networks, set within broad questions about social solidarity and social cohesion, has also come into the foreground (Lockwood, 1999; Hall, 1999; Putnam, 1993, 2000). Savage (2006) cites evidence of the importance of informal social ties for the formation of constituted voluntary and civic groups. The issues involved are very complex and we only outline the conceptual framework for the analyses here.

We concentrate on voluntary work, either through organisations or through personal acquaintance, as a signal of social engagement. It has been accepted that middle class people are more likely to engage in formal voluntary organisations (Nie et al, 1996). For the UK, Goldthorpe et al (1987) using the 1970/76 Oxford mobility study show that middle class

respondents are more involved in voluntary or organisational work, while working class respondents socialise more with family and neighbours. Goldthorpe et al suggest that this is partly a product of the career patterns of middle class people. These involved considerable spatial mobility, detaching middle class respondents from their family and community of origin. Joining formally constituted groups (and churches) is a way of meeting and forming relationships with people of similar interests and perhaps social position. Formally constituted groups have explicit objectives and rules, which can facilitate the incorporation of strangers, additionally they mobilise and co-ordinate activity, thus potentially developing trust and solidarity.

Social class overlaps with education and it is known that the more highly educated among the middle class are more likely to join civic organisations (Egerton, 2002a). A contemporary study (Ermisch, 2004) using data from the 1990s (the British Household Panel Study) shows that spatial distance is crucial to the type of assistance between parents and adult children, living in separate households. Those living close to each other, mainly poorer parent-child combinations, are more likely to give help in kind (childcare, nutrition, etc.). This supports the importance of spatial proximity to informal helping. Since less educated people are less likely to migrate in the course of their careers, this leads to the supposition that such people are likely to do more informal helping than the better-educated. Therefore, we hypothesise that less educated people will do more voluntary work through personal contact rather than organisations.

However, there are possible confounding factors: firstly, less educated people, particularly women, are less likely to be in the labour market and therefore have more time for informal helping and, secondly, older people are less likely to hold qualifications. However, they may also have more time resources, being retired, or in the case of middle-aged women, having left the labour market given the poor wages available to women who do not hold tertiary qualifications (Egerton and Parry, 2001). Therefore it is important to adjust for these factors when exploring this question.

Monetary valuation of formal and informal voluntary work

As Glucksmann (1995) points out, the boundaries between paid and unpaid work have changed over time and are fuzzy (Glucksmann, 2000). Technological change in domestic work, women's control of their fertility with greater participation in paid work, and state policy have influenced the organisation of total work. For policy reasons, as will be noted later, it is of interest to evaluate the economic contribution of voluntary work, and the clearest way to do this is by allocating a monetary value to this work. Techniques for valuing unpaid work (e.g. housework, childcare, voluntary work) have been developed both by feminist/welfare researchers and by National Statistical Offices. The primary concept is of the replacement cost of the unpaid work, if it had to be purchased within the market. Two main techniques are currently used, a wage-based technique, in which the work is valued at the wages which would be received by the unpaid worker – the 'input' method; and a price-based technique, in which the work is valued at the price which a consumer would have to pay for it – the 'output' method. For instance, in employing an agency cleaner, the price the purchaser pays reflects not only wages, but employers' overheads, employer contributions to NI, etc.(see Gershuny, 1989; 2000, Ch.8 for a fuller discussion).

There is no market equivalent for formal voluntary work, although there are market equivalents for caring work, therefore we use gross wages for consistency over all categories of voluntary work, i.e. the input method. It is also difficult to estimate the quality of voluntary work from survey data and this issue is ignored here. The wages rates are drawn from experimental household satellite accounts developed by ONS (Holloway et al, 2002). As noted above, wage rates underestimate the actual price of voluntary work.

In summary: the objectives of the research are twofold: to explore the time spent in formal and informal voluntary work by education level and to place a monetary value on this work.

Methods and data

Analyses: Modelling formal and informal voluntary work

Two OLS regressions were carried out with time spent in formal and informal voluntary work as the two response variables. The explanatory variable was education level,

¹ However, while the spatial hypothesis is plausible, Egerton (2002b) finds evidence of transmission from graduate parents of a propensity for civic engagement to their teenage children, suggesting that family transmission of this behaviour (or norms/strategies) is also at work, as Glucksmann's theory would suggest.

with time spent in paid work, study time, time spent in family care and time spent in personal care fitted to adjust for family or employment circumstances which influence the time resources available for voluntary work. Age and Age Squared were also fitted. This adjusts for educational expansion, reflected in an unequal distribution of qualifications by age, with the age square term adjusting for decreasing physical health among the oldest respondents. The sample included respondents aged up to 79, since respondents aged over 75 reported some voluntary work, less than that for respondents aged between 70 and 75, but more than some groups of younger respondents. It is important to note that the unit of analysis in these regressions is the diary day, not the individual. With relatively infrequent activities such as voluntary work, measurement by individuals is biased in that some respondents will be sampled on a day on which they did some voluntary work, while others, although they do voluntary work, will not be sampled on that day, yielding a score of 0. Tables of sample means by groups (i.e. education level) are accurate for each day, in that individual scores are averaged across the group. However, the estimates from the OLS regressions may be biased down by the short time sampling window. Therefore, this analysis can do no more than establish that the hypothesis is plausible. The estimates may be inaccurate, therefore only the direction of the estimate and its statistical significance is reported. Further research using more complex modelling techniques is currently in progress.

Valuing voluntary work

As noted earlier, the value of voluntary work was drawn from Holloway et al (2002). The main categories of work and their wage rates in the year 2000 are listed below (see appendix for more detail).

Formal Voluntary work	Type of activity	Median Hourly wage rate
		$(\mathbf{\pounds})$
	Professional	14.85
	Personal & protective	6.55
	Clerical & secretarial	6.95
Informal Voluntary Work		
Live-in Nanny wage	Childcare	6.26
Care Assistant wage	Food management	5.56
	House management	
	Gardening/pets/repairs	
	Shopping	
Assistant Nurse wage	Physical care of adult	6.02

Source: Holloway et al (2002)

Data

The ONS HETUS Time Use Survey 2000 was used. This is a nationally representative household survey, carried out in the years 2000-2001. The survey consisted of a questionnaire administered by an interviewer and two diaries (with a short questionnaire appended), completed by respondents, one for a weekday and one for a weekend day. Of target addresses 61% agreed to be interviewed and within these households, 73% of residents returned useable diaries (n=20,000 approx), yielding an overall response rate of 45%. Child (aged 8 plus) as well as adult diaries were collected, however only adult diaries are used in the analysis. The sample was restricted to those aged between 21 and 79, with fulltime students and those with unclassified/foreign qualifications being excluded (about 4% of the sample in total). Diaries with more than 90 minutes missing were excluded. These restrictions yielded a weighted sample of approximately 6600 diaries for men and 7260 diaries for women. Two weights are supplied with the data, an individual level weight which corrects for non-response, weights out bad diaries, corrects for season of interview and adjusts the weekday and weekend diaries to reflect the real proportion of weekend days to weekdays. The second weight makes the same adjustments and grosses the sample numbers up to national population numbers. A further weight was constructed by the authors which estimated the proportion of voluntary work per individual which was of professional, clerical or personal services character, and pay rates were weighted accordingly (see below).

Variables:

Analysis variables were: Gender;

Education qualifications coded as follows:

Degree/higher degree and professional qualifications of degree level

Diploma/certificate (tertiary qualification below degree level)

Other sub-degree (Vocational qualifications above A-level but below degree)

A and AS Level GCE

Below AS level (O-level GCE/GCSE, CSE, Vocational qualifications below sub-

degree level)

None

Other and foreign qualifications (comprising 2.5% of the sample) were excluded as they are likely to be heterogeneous.

One to four-digit summary variables exist for the relevant categories of time use. These were used to adjust for time spent on personal care, employment, study and family care. The main categories for voluntary work and help are shown below (for more detail see Appendix). Two

and three digit codes were used to exclude religious activities from the formal voluntary activity category, as these activities do not count as unpaid work.

Formal activity

Unspecified voluntary work and meetings Voluntary work through an Organisation

Organisational work

Meetings

Informal activity Help to people outside the household

Food management Household upkeep Gardening& pets Repairs&DIY

Help with Work&Farming

Childcare Adult care

The individual categories were summed to produce total scores for formal and informal voluntary work.

Constructed weight

A weight for the probability that voluntary activity is of professional, clerical or personal&protective services type was constructed from questionnaire data. The relevant question was as follows:

Q26 - We are interested in voluntary work people may do, that is work for which they are not paid, except perhaps for expenses.

Have you done any voluntary work through a group or on behalf of an organisation in the last 4 weeks?

Data on the number of times and type of work was collected.

The responses were classified as:

Professional - Committee work, Advice and Representation

Clerical - Raising money, administrative and organising work

Personal services - Helping to raise money/organise, visiting, conservation, driving and

other services.²

² See Appendix

The weight was calculated as the proportion of each type of activity to the total of voluntary activity over the past four weeks per individual. 1.7% of respondents who reported formal voluntary work on the diary day reported no voluntary work in the previous 4 weeks. These respondents were excluded.

Since more than 5% of the sample had been excluded on various grounds, checks were carried out on representativeness of the analysis sample. The analysis sample is similar in age and gender composition to the unselected sample aged 21 to 79.

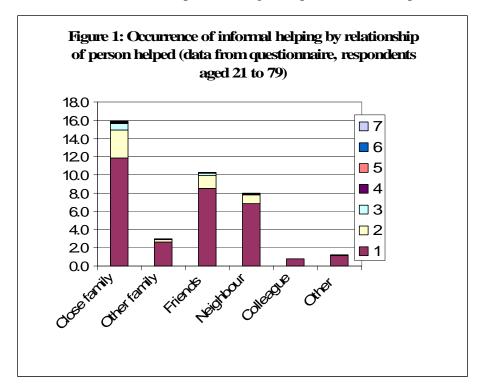
Results

Before reporting the main results some contextual statistics from the interview and diary questionnaire will be given.

Contextual data from questionnaire: Informal Help to Kin and non-kin

The diary data does not record whether the person helped was kin to the respondent or not. However, the questionnaire does record which people were helped during the previous four weeks, their relationship to the respondent, the type of help given and the duration of help. While, as noted above, recall data is not as accurate as contemporaneously recorded data, these statistics can give an indication of the spread of informal help. About 33% of the analysis sample had helped someone not living in their household during the previous four weeks. Women were more likely to have helped (36%) than men (30%). Just under 19% of the sample had helped a relative and just over 20% had helped a non-relative. Percentages do

not sum to 33% since a respondent might help more than one person or might help more than



once. Figure 1 shows the distribution of people helped. It can be seen that the people most frequently helped are immediate family (i.e. parents, children, siblings, grandparents) or friends and neighbours. Unsurprisingly, these groups are also the groups with more than one occurrence of helping. Although occurrences of helping are similar for kin and non-kin, durations of informal helping are longer for kin (see Table 1 below). This data is not as accurate as the diary data, for instance, full days of help were reported. In these instances the duration was recoded to 10 hours³. On average the duration of help to non-kin was about two thirds of that to kin. Non-kin help durations were relatively longer for men than for women.

³ This gives an indication of the complexity of defining informal helping work. A parent who stayed with an adult child who needed help because of, for instance, illness, might consider that a full day was spent in helping the child. Clearly the parent could not carry on their normal activities, however, during that time, the parent is likely to have slept, eaten, relaxed, etc. Because of the relative unreliability of the duration data, occurrences of help rather than durations are reported. Additionally, occurrence may be equally or more important than duration.

Table 1: Average duration (minutes) of informal help to kin and non-kin during the previous four weeks by gender and participation (sample aged 21-79)

		Complete	Complete Sample			Those w	ho helped	1
		Help to	Help to	Ratio		Help	Help	Ratio
		kin	non-kin	non-		to kin	to non-	non-
				kin/kin			kin	kin/kin
Men	Mean	102	98	0.96		495	377	0.76
	N	6654	6654			1798	1798	
Women	Mean	272	167	0.61		775	476	0.61
	N	7263	7263			2550	2550	
All	Mean	206	136	0.66		659	435	0.66
	N	13917	13917			4348	4348	

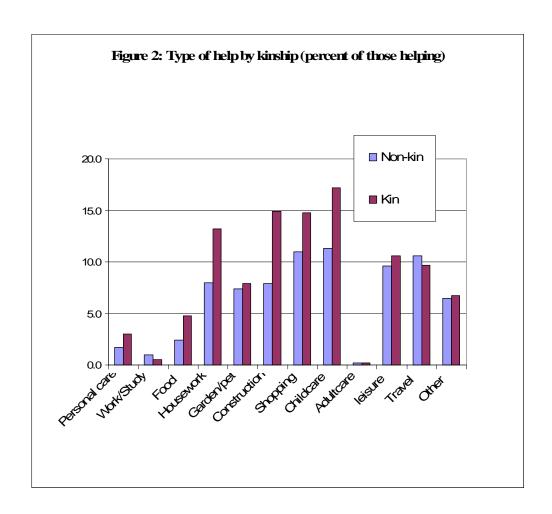
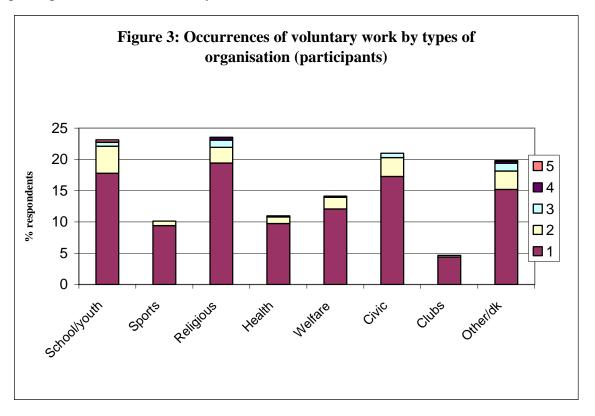


Figure 2 shows the types of help received by kinship. The highest proportions of people helping kin helped with normal household care tasks; food preparation, housework (including household management), construction (which includes household and vehicle

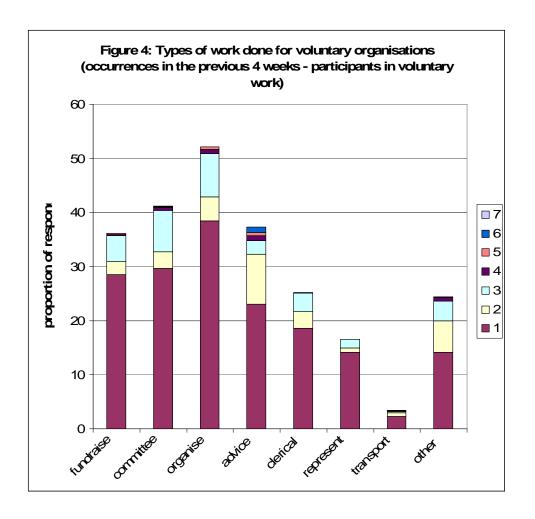
repairs, building, painting, etc.), shopping and childcare. These categories also include quite high proportions of people helping non-kin, presumably reflecting the need for help. The only categories of help in which slightly larger proportions of people help non-kin are work/study and travel (e.g. transporting and accompanying). Quite high proportions of people help non-kin with leisure activities (e.g. hobbies, sports, etc.) and gardening or pet care. Personal care includes help with toilet and may overlap with adult care.

Contextual data from questionnaire: Types of voluntary organisation and voluntary activity

The diary data does not record in detail the types of organisation worked for or the type of work done. Questionnaire data shows about 12 per cent of the sample having done some voluntary work in the previous four months. Figures 3 and 4 below show occurrences of voluntary work by the type of organisation and by the type of work done for those who participated in formal voluntary work.



The most frequent organisations were related to education and youth, religion (excluding religious observance) and civic organisations (Community groups, Women's Institute, Rotary, political parties). Figure 4 shows that the most frequent activity was organisational work, followed by committee work and fundraising.



Contextual information from the diary data – type of day and travel

We report some contextual information from the diary questionnaire before reporting the main results. Approximately, 21% of the people who did some formal or informal voluntary work described the day as unusual, as opposed to 16% of those who did no voluntary work. The volunteers differed from the non-volunteers in having more social events or knowing more people who were ill. The diary coding allocates travel or transport to the main helping activity (e.g. accompanying someone as help). However, travel to do informal or formal voluntary work is coded. Since travel to work is not counted as part of paid work, this time was not included in the following analyses. However, it was not trivial. Among volunteers, travel for formal voluntary work averaged 24 minutes, while travel for informal work averaged 17 minutes.

Formal and informal voluntary work by gender, age, education qualifications and economic activity

Of the selected sample, approximately 12% had given informal help and just over 3% some formal voluntary work on the diary day. Tables 2a and 2b below show daily minutes of voluntary work, averaged over the total sample. The overall averages show that women spend more time than men in informal voluntary work. Respondents with no qualifications or below A/AS-level GCE do more than graduates, although for men the low qualification group is close to the average. Informal helping among sub-degree men and women is above average, as it is for women with A-level GCE qualifications. Frequencies for these qualifications are low (see Appendix Table 1) with consequent large standard errors, given the time sampling strategy. However, these qualifications are also likely to be held by older, possibly retired, respondents.

Table 2a: Average daily minutes spent on informal voluntary work by qualification and

gender (weighted)

	Women		Men	
Qualification	Mean	s.e.	Mean	s.e.
None	18	1.15	11	0.91
Below A	13	1.15	8	0.93
A-level	9	2.31	6	1.73
Sub degree	13	1.98	15	3.03
Diploma&Teaching	9	1.64	12	5.28
Degree&Higher	5	1.07	5	0.76
All	14	0.64	9	0.54

Table 2b: Average daily minutes spent on formal voluntary work by qualification and

gender (weighted)

	Women		Men	
Qualification	Mean	s.e.	Mean	s.e.
None	4	0.49	4	0.49
Below A	3	0.55	2	0.44
A-level	10	3.07	4	1.81
Sub degree	6	1.22	6	1.32
Diploma&Teaching	5	1.60	5	2.29
Degree&Higher	7	1.25	5	0.78
All	5	0.35	4	0.30

The differences for formal voluntary work by gender are small, though women still do more. Average time spent on formal voluntary work is lower than on informal. However, both men and women graduates do more than the average and more than those with lower or no qualifications. Women with A/AS level GCEs do most, although the standard error is large and an age effect may also be in play here.

Figure 5 below shows the distribution of qualifications by age. It can be seen that over 70% of respondents aged 65 plus have no qualifications or may not know what qualifications they have⁴. Conversely the proportion of graduates is greater in younger age-groups.

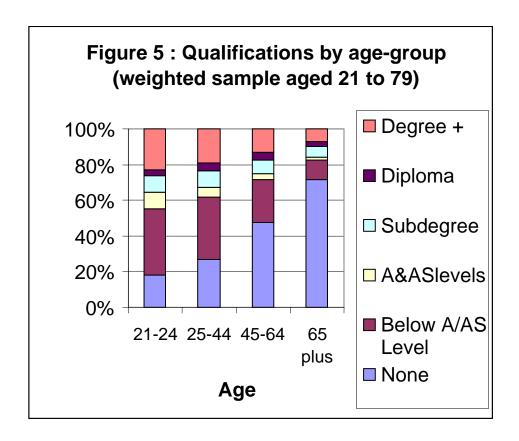
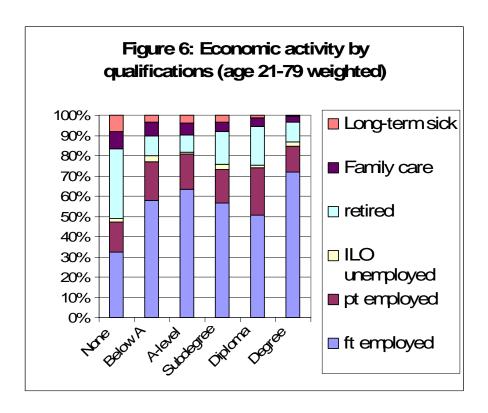
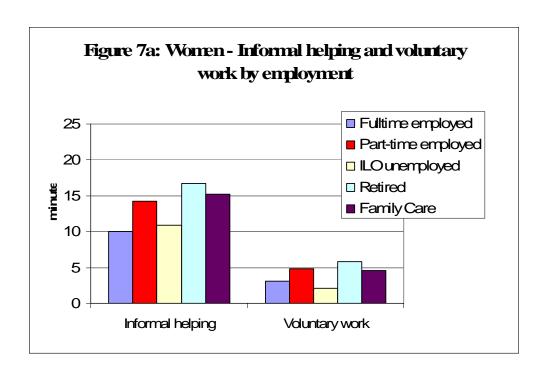


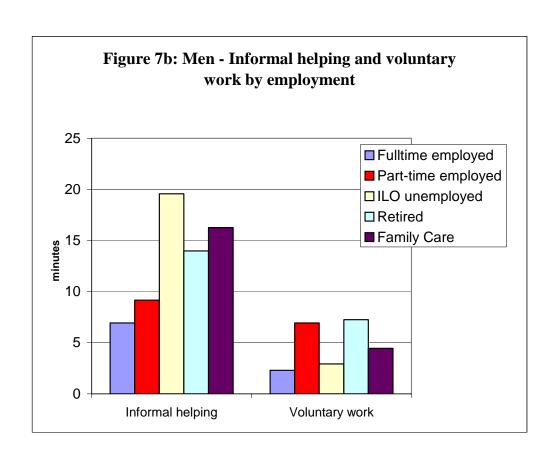
Figure 6 shows that retirement is highest among those with no qualifications, followed by respondents with sub-degree or diploma level qualifications. Part-time work is higher for diplomates, possibly reflecting women with nursing or teaching qualifications working part-time during family formation.

⁴ The Labour Force Survey team find that there is under-reporting of sub-degree qualifications among older respondents. For older respondents the qualifications may only have been relevant early in their careers.



As suggested earlier, economic activity affects available time for voluntary work and Figures 7a and 7b show average durations for voluntary work by economic activity.





It can be seen that retired women and men do most voluntary work, although for men, unemployment and family care are associated with the highest average minutes spent on

voluntary work per day, however, these groups are small among men, with large standard errors. Given these overlaps between qualifications, age and economic activity it is important to adjust for the demographic characteristics of the qualification structure.

Modelling Formal and Informal Voluntary Work

Heirarchical OLS regressions were carried out for both women and men with two dependent variables; time spent in formal and in informal voluntary work. The independent variables were: Time spent in personal care, employment, study and family care to control for available time; Age, which adjusts for demographic change in the qualification structure with Age squared, since voluntary work, after rising to a peak in the mid-sixties, drops off in late seventies; and Qualifications, coded as dummy variables. Variables were fitted in the order above in order to examine whether Qualifications explained any additional variance after available time and age had been fitted. As stated above, the parameter estimates may be biased downwards because of the short time frame sampled and the regressions serve primarily as statistical tests for the plausibility of the hypotheses. Table 3a shows that graduate women do less informal voluntary work and more formal voluntary work, having adjusted for age and available time.

Table 3a: Women - Informal and formal Voluntary activity by time use, age and qualifications

Variables	Informal		Formal	
Personal time	_ ***		- ***	
Employment time	_ ***		_ ***	
Study time	_ **		Ns	
Family care time	- ***		- ***	
RSQ	3.8%	***	1.5%	***
Age	+ ***		+ ***	
Age Squared	- ***		- **	
RSQ Change	0.8%	***	0.1%	*
Educational Level				
Ref Cat :Below A/AS-level				
None	Ns		Ns	
A/AS-level GCE	Ns		+ ***	
Subdegree	Ns		+ *	
Diploma	Ns		Ns	
Degree	- **		+ ***	
RSQ Change	0.2%	**	0.6%	***
ARsq	4.7%	***	2.1%	***
N	7194		7194	

Table 3b: Men: Informal and formal Voluntary activity by time use, age and

qualifications

Variables	Informal		Formal	
Personal time	_ ***		_ ***	
Employment time	_ ***		_ ***	
Study time	_ **		Ns	
Household time	_ ***		_ ***	
RSQ	3.1%	***	0.9%	***
Age	+ ***		+ **	
Age Squared	- **		- *	
RSQ Change	0.2%	**	0.4%	***
Educational Level				
Ref Cat :Below A/AS-level				
None	Ns		Ns	
A/AS-level GCE	Ns		Ns	
Subdegree	Ns		+ *	
Diploma	Ns		Ns	
Degree	- *		+ **	
RSQ Change	0.2%	*	0.2%	**
ARsq	3.4%	***	1.4%	***
N	6584		6584	

Similar effects are found for men, shown in Table 3b. The RSq change statistics show that in all regressions, qualifications account for a statistically significant amount of extra variance, having adjusted for age and available time. The small percentage of variance explained overall is due to measurement issues associated with the short time frame and stronger parameter estimates have been found using models which explicitly incorporate the time sampling dimension⁵. These results broadly confirm the expectation that the less qualified will do more informal and less formal helping. These analyses cannot confirm the hypothesis that the different social networks of more or less qualified people mobilise different types of voluntary work, however, they are consistent with it.

The monetary value of formal and informal voluntary work

⁵ These models are still being refined but are consistent with the results reported above

Table 4a below shows the average annual value for women of formal and informal voluntary work by qualifications by individual, i.e. the value for the group averaged over all people in the particular qualifications group. Table 4b shows the value for the whole group, grossed up to the population. Tables 5a and 5b repeat these estimates for men.

Table 4a: Women (aged 21 to 79)- Annual Value of voluntary and unpaid helping work

per person (£)

	Formal	Informal
Qualifications		
None	98.3	570.3
Below A	115.7	408.4
A-level	550.6	319.2
Sub degree	234.3	412.7
Diploma&Teaching	170.4	283.2
Degree&higher	310.0	166.1
Average of sample	162.7	438.8

Table 4b:Women (aged 21 to 79) - Annual Value (\pounds) of voluntary and informal helping

work by group (Individual value*Population size of group)

	Formal	Informal	Population N
Qualifications			
-	010 057 650	4.716.610.007	0.260.072
None	812,957,658	4,716,610,907	8,269,872
Below A	580,390,826	2,048,395,857	5,015,199
A-level	419,779,638	243,331,740	762,388
Sub degree	384,361,760	677,169,606	1,640,734
Diploma&Teaching	173,722,961	288,704,908	1,019,463
Degree&higher	729,757,984	390,848,282	2,353,792
All sample	3,100,970,827	8,365,061,300	19,061,449
All 1 21 70*	2 211 052 552	0.047.552.002	20.070.041
All aged 21-79*	3,211,952,552	9,047,553,082	20,870,941

^{*}includes students and those with excluded qualification data

Table 5a: Men (aged 21 to 79) - Annual Value of voluntary and unpaid helping work

per person (£)

	Formal	Informal
Qualifications		
None	97.8	365.2
Below A	97.2	311.2
A-level	96.2	217.4
Sub degree	264.8	525.2
Diploma&Teaching	221.2	457.7
Degree&higher	174.3	179.9
Average	127.9	324.1

Table 5b: Men (aged 21-79) — Annual value (£) of voluntary work per group

(Individual value*Population size of group)

	Formal	Informal	Population N
Qualifications			
None	665,814,628	2,487,211,801	6,810,062
Below A	469,066,918	1,502,050,119	4,826,761
A-level	76,649,777	173,295,250	797,144
Sub degree	367,296,111	728,511,001	1,387,033
Diploma&Teaching	90,901,356	188,050,243	410,887
Degree&Equiv	563,040,083	581,270,361	3,230,464
All Sample	2,232,768,874	5,660,388,774	17,462,350
All aged 21-79 *	2,417,720,576	6,587,089,012	19,569,486

^{*}includes students and those with excluded qualification data

It can be seen that, overall, informal voluntary work is more significant economically than formal voluntary work. As expected, there is a gradient by qualifications both at the individual and at the group level. The monetary value for women is higher than that for men, almost double at the population level. The economic significance, at over £20 billion per annum, is substantial, despite being underestimated. In summary, women and retired people do more formal and informal voluntary work. The less qualified do more informal, while the better-qualified do more formal voluntary work. The estimates are low, since they are based on gross wages, rather than market prices, but despite this the economic contribution of voluntary work is substantial.

Conclusions

A question raised by this paper is how much participation in voluntary work is dependent on non-participation (particularly women's non-participation) in the labour market. It is the case that non-employed people both have more time and may be more likely to be approached for help. This question has recently been debated by Wolf and Crompton (Wolf, 2006; Crompton, 2006)⁶. Both authors see labour market participation as crucial to women's equality. However, Crompton points out that more family friendly labour market policies in Scandinavian states are associated with increases in fertility combined with increased labour force participation by women. In general, these states are less unequal from an income as well as a gender perspective and they also report higher levels of trust (Green and Preston, 2001) and higher levels of both informal and formal helping activities (Eurostat, 2004). Therefore high levels of female labour market participation do not necessarily conflict with social engagement, provided that employment conditions are favourable. Both Glucksmann and Gershuny emphasize the importance of state policy, with Gershuny incorporating state activity explicitly into his model of the total economy. These issues will be discussed in more detail in a further paper.

References

Crompton, R. (2006) 'Wolf' *Prospect Magazine* Issue 122, May 2006 http://www.prospect-magazine.co.uk/article_details.php?id=7441

Egerton, Muriel and Parry, Gareth, (2001) 'Life-long debt: rates of return to mature study' *Higher Education Quarterly*, 55 (1) pp 4-27

Egerton, Muriel (2002a) 'Higher Education and Civic Engagement' *British Journal of Sociology*, 52(4) pp 603-620

Egerton, Muriel (2002b) 'Family Transmission of social capital: differences by social class and education' *Sociological Research Online*, 7(3)

Ermisch, J. F. (2004) *Parent and Adult-child Interactions: Empirical Evidence from Britain* Working Paper 2004-02, ISER, University of Essex, Colchester, UK

Eurostat (2004) European Union Public Opinion on Issues relating to Citizenship and Sense of Belonging Brussels:European Opinion Research Group http://europa.eu.int/public_opinion/index_en.htm

- Gershuny, J.I. (1989) 'Technical Change and the Work/Leisure Balance: A new system of socio-economic Accounts' in *Technology and Economic Progress*, ed Aubrey Silberston, London: MacMillan
- Gershuny, J. I. (2000) *Changing Times: Work and Leisure in Postindustrial Society* Oxford: Oxford University Press
- Glucksmann, M. A. (1995) 'Why 'Work'? Gender and the 'Total Social Organisation of Labour' *Gender, Work and Organisation* 2(2) pp 63-75
- Glucksmann, M. A. (2000) Cottons and Casuals: The Gendered Organisation of Work in Time and Space Durham: Sociologypress

_

⁶ Although both authors err in believing the middle class women are the main suppliers of social care activities.

- Goldthorpe, J.H. (with C. Llewellyn and C. Payne) 1987 *Social Mobility and Class Structure in Modern Britain* (2nd Edition), Oxford:OUP.
- Green, A. and Preston, J. (2002) 'Education and Social Cohesion: Re-Centring the Debate' Working Paper, Institute of Education, London University
- Hall, P 1999 'Social Capital in Britain', British Journal of Political Science, 29(3):417-61.
- Holloway, S., Short, S., Tamplin, S. (2002) *Household Satellite Account (Experimental Methodology*) 2000, London: ONS 2002
 - (http://www.statistics.gov.uk/hhsa/hhsa/downloads.html)
- Lockwood, D. 1999 'Civic integration and social cohesion' in Ian Gough and Gunnar Olofsson (eds) *Capitalism and Social Cohesion:Essays on Exclusion and integration*, London: MacMillan.
- Nie, N.H., Junn, J. and Stehlik-Barry, K. 1996 *Education and Democratic Citizenship* in *America*, Chicago: University of Chicago Press.
- Putnam, R.D., Leonardi, R., Nanetti, R.Y. 1993 *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton, NJ: Princeton University Press.
- Putnam, R.D. 2000 *Bowling Alone: the collapse and revival of American community*, New York: Simon and Schuster.
- Robinson, J. P. (1999) 'The Time-Diary Method: Structures and Uses' in Wendy E. Pentland, Andrew S. Harvey, M. Powell Lawton and Mary Ann McColl (eds) *Time Use Research in the Social Sciences* New York/London: Kluwer Academic/Plenum Publishers pp 245-258
- Savage, M. (2006) 'Rethinking the politics of social capital: challenging Tocquvillian perspectives' Working paper, Manchester University
- Williams, R. D. 'Investigating hours worked measurements: Examines the quality limitations of existing sources of hours worked data using data from the 2000 Time Use Survey' *Labour Market Trends*, 112(2) (http://www.statistics.gov.uk/cci/article.asp?ID=744)
- Wolf, A. (2006) 'Working Girls' *Prospect Magazine*, 121 April 2006 (http://www.propect-magazine.co.uk/article_details.php?id=7398)

Appendix

Appendix Table 1: Qualification level by gender - respondents aged between 21 and 79 - weighted

and unweighted (other and foreign qualifications excluded)

	Men		Women		All		Unweighted
	N	%	N	%	N	%	%
None	2595	39.0	3151	43.4	5746	41.3	40.3
Below A Level GCE	1839	27.6	1911	26.3	3750	26.9	28.1
A& AS level GCE	304	4.6	290	4.0	594	4.3	4.4
Subdegree	528	7.9	625	8.6	1154	8.3	8.6
Diploma&teaching	157	2.4	388	5.3	545	3.9	3.9
Degree&higher	1231	18.5	897	12.3	2128	15.3	14.6
	6654	100	7263	100	13917	100	100

Wage rates for Voluntary work

Value of Volunteering in the UK: 2000

_			£ million
Type of activity	Total hours volunteered	Median wage	Value
	(millions)	rate (£)	
Professional	328	14.85	4,876
Personal & protective	639	6.55	4,184
Clerical & secretarial	591	6.95	4,107
Total	1,558		13,167

Source: Wages - New Earning Survey Streamline A; Gross Hourly Wages for full time adults and HHSA estimate

Wage rates for Informal Helping

Net and weekly wages of live-in nannies: 2000

		${f t}$
Year	Net wage	Gross wage and National
		Insurance contributions
2000	179.00	219.00

Source: Gross wages from Nanny Tax Payroll Services,

Authors calculation :Gross weekly wages for live-in nannies plus 10% payment in kind @ 35 hours per week (see Holloway et al, p. 25)

Wage rates for informal adult care: 2000

Practical Help
Care assistant hourly rate (£)

Assistant Nurse Hourly rate (£)

5.56 6.02

Estimate based on the FRS 1999-00 Residential care rates: Laing & Buisson Care of Elderly People Market Survey 2001and NES assistant nurse and care assistant: New Earning Survey Streamline A - Gross Hourly Wages for full time adults

Source: Holloway, Short and Tamplin (2002) *Household Satellite Account (Experimental) Methodology* : Supplementary Tables

Activities and codes for voluntary work

4 VOLUNTEER WORK AND MEETINGS

400 Unspecified volunteer work and meetings

41 ORGANISATIONAL WORK

Definition

Working as a volunteer free of charge or for a minor fee.

410 Unspecified organisational work

411 Work for an organisation

Definition

Work done for an organisation, not directly for an individual.

Work for groups and associations, as well as work for school and kindergarten, and neighbourhood groups etc.

Work as a committee member.

Administrative work.

Preparing activities, work for events.

Baking etc. for the organisation, working in the canteen.

Repairs and other odd jobs for the organisation.

Voluntary fire brigade.

Bookkeeping for clubs.

Giving information, distributing leaflets.

Activities connected with collecting money for the organisation.

Note: If volunteer work is done directly for the individual (e.g. delivering meals etc.) then it is included in 412 Volunteer work through an organisation.

Examples

Board meeting

Checked an order list for the bandy team

Collected material for a board meeting

Computer work for the hockey club

Counted and delivered ordered clothes (for the riding club)

Distribution of meeting notices

Election night activities

Environmental care and animal protection

Fetched/sold Bingo lottery tickets

Preparing for the council meeting

Recruitment of sponsors

Sorted clothes (sale for the riding club)

Sorted correspondence of the club

Working with the organisation's newsletter

412 Volunteer work through an organisation

Definition

Work is directed to people via an organisation, volunteer work. Care of elderly and disabled via an organisation.

Delivering meals. Teacher or course instructor.

Coach, referee etc. in sports and gymnastics.

Leader of a youth group, e.g. scout leader.

Work in a childcare group.

Leading or organising self-help group.

Note: Informal help to private households is included in 42 Informal help to

other households and is coded according to the actual activity.

Examples

Activities as member of religious helping groups: hospital visitation, feeding the poor,

support

groups, etc.

Coached handball team

Coaching sports

Donating of blood

Helped at the refugee centre

Helping with organised activities in the baths and clearing up the bathing-place

Leading religious youth group

Meeting with the youth section

Road maintenance in a voluntary group

419 Other specified organisational work

42 INFORMAL HELP TO OTHER HOUSEHOLDS

Definition

Direct help given by the respondent to another household, and not arranged by an organisation

Note: Should be coded as secondary activity if the activity is done for the respondent's own household at the same time.

420 Unspecified informal help

Examples

Helping a neighbour

Helping a relative

421 Food management as help

Definition

Help to another household with cooking, baking, preserving, dishwashing, and other activities that are included in **31**.

Examples

Baked for my old parents

Helped the hostess with the cooking

Washed dishes during the visit

422 Household upkeep as help

Definition

Help to another household with indoor and outdoor cleaning, laundry and ironing, and other activities that are included in 32 and 33

Examples

Helped with removal

Watered indoor flowers at the neighbour's

423 Gardening and pet care as help

Definition

Help to another household with walking the dog, gardening, and other activities that are included in **34**.

Examples

Feeding a neighbours dog

Moving the lawn for the old mother

424 Construction and repairs as help

Definition

Help to another household with constructing a house, repairing a car, and other activities that are included in 35.

Examples

Helped with repairing the roof of the neighbour's

Made a toy for the grand children

425 Shopping and services as help

Definition

Help to another household with activities that are included in 36.

Examples

With mother to doctor

With neighbour to buy a car

426 Help in employment and farming

Definition

Unpaid help provided by the respondent to a person of another household with that person's paid work, or to another household with farming activities.

Examples

Help with milking, tending cattle/cows/calves

Helped on my uncle's farm

Helped my sister to clean the office

427 Childcare as help

Definition

Help to another household with activities that are included in 38.

Examples

Unpaid childminding

4270 Unspecified child care as help

4271 Physical care and supervision of a child as help

Definition

Help to another household with activities that are included in 381

4272 Teaching the child as help

Definition

Help to another household with activities that are included in 382

4273 Reading, playing & talking to the child as help

Definition

Help to another household with activities that are included in 383

4274 Accompanying the child as help

Definition

Help to another household with activities that are included in 384

4279 Other specified child as help

Definition

Help to another household with activities that are included in 389

428 Help to an adult of another household

Definition

Adult assistance and care, and other activities that are included in 39.

Examples

Assistance offered by lending money

Giving mental support to a friend

Visiting an old people's home, hospital etc.

4280 Unspecified help to an adult member of another household

4281 Physical care & supervision of an adult as help

Definition

Help to another household with activities that are included in 3911

4284 Accompanying an adult as help

Definition

Help to another household with activities that are included in 3914

4289 Other specified help to an adult member of another household

Definition

Help to another household with activities that are included in 3919

429 Other specified informal help

Definition

Help to another household with activities that are included in 33 Making and care for textiles, and in 37 Household management, and also with other specified activities that are not included in 421-428.

43 PARTICIPATORY ACTIVITIES

Definition

Attending meetings free of charge or for a minor fee.

430 Unspecified participatory activities

431 Meetings

Definition

Attending meetings and other organisational activities when not in a position of trust. Concerns all kind of meetings etc. arranged by social, political, scout and other organisations, informal clubs and groups.

Note: Parent's meeting is included in **384 Accompanying child**.

Examples

Helped Organise program in a Scout camp

Parent-teacher meetings (without the child)

Political party meeting

Excluded from voluntary work variable 432 Religious activities

Definition

Visiting church, synagogue, mosque or other temple.

Participating in religious ceremonies like wedding ceremonies, funerals.

Religious practise, praying, reading holy books, religious ceremonies, also at home.

Listening to religious service (also on TV, radio and video; media as secondary activity).

Note: The wedding party after the ceremony is included in **513 Feasts**.

Note: Singing in church in a choir is included in **712 Performing arts**.

Examples

Attended mass

Attending Sunday school, confirmation class

Listening to recordings of religious ceremonies

Participating in ceremonies of baptism, confirmation, first communion

Religious meeting

Religious practice carried out in a small group

Studying the bible with family

439 Other specified participatory activities

Examples

Voting

Witness in court

From Questionnaire Q26a - f

Types of voluntary activity

Activities classed as professional

Committee member Giving advice, information or counselling Representing people

Activities classified as clerical

Raising or handling money Organising an event Secretarial, administration or clerical work

Activities classified as personal and protective

Visiting people
Helping to raise money
Helping to organise an event
Conservation
Providing transport
Other direct services