Historic Environment Scotland
Results from second survey wave

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Historic Environment Scotland Survey results

Following the first survey implemented in 2015 and investigating the willingness of Scottish residents to pay for the preservation of several historic sites and building managed by Historic Scotland, a second survey has been implemented in 2016. The methodology used in the present survey is the same as the one used in the first survey. The idea here is to extend the case studies by including collections from RCAHMS, which has recently merged with HS to create Historic Environment Scotland. The majority of these collections are in storage and are slowly being digitised for broad public access. Otherwise they can only be accessed via a reading room in Edinburgh and have practically zero footfall. The cost of storage is quite high due to the environmental standard required, but at the moment there's very little evidence of benefits, other than preserving for future generations. The question is therefore to know whether the public is willing to pay for the preservation of the storage and preservation of these collections as well as for more accessible and renown sites or buildings.

The case studies included in the survey are:

- The Erskine Beveridge photographic collection
- Kay's curling stones factory
- Mavisbank House
- the Island of the Saints
- St Andrews Cathedral (as a control, as it was also one of the sites studied in the previous survey)
- Linlithgow Palace

We will first provide a brief description of the sample, then analyse the WTP results. Tables are presented in the appendices.

1/ General sample description

Each respondent was asked to state his/her willingness to pay for the conservation of two of the 6 sites. The two sites each respondent was asked to value were randomly paired. A total of 999 individuals responded to the survey, providing between 308 and 350 responses for each site (**Table 1**).

On average 67% of the respondents did not recognise the site presented on the picture, 19 % recognised it or had heard of it but had never visited it, and 12.5% recognised and had visited the site or viewed online the collection. These results are very similar to those obtained during the first survey. **Table 2** shows that St Andrews Cathedral is both the most recognised and visited site within the 6 sites included in the survey. The Erskine Beveridge photographic collection, Kay's curling stones factory, Mavisbank House and the Island of the Saints are unknown to about 80% of the respondents.

Tables 3 to 8 give the socio-demographic characteristics of the respondents. Compared to the sample surveyed in 2015, respondents differ in terms of tenure of their residence (fewer respondents renting privately and more outright owners in the present sample), population density of their place of residence (rural and urban residents are more represented in the present survey, and residents of conurbation less represented) and slightly in terms of social class (with more respondents belonging to class A, and fewer to class E in the present survey).

2/ Analysis of willingness to pay (WTP)

A total of 1840 stated WTP were collected through the survey (**Table 9**). The WTP bids were collected on payment cards presenting all the integer values from £0 to £10, with the possibility to state a WTP higher than £10 in an open-ended option. We will first focus our analysis of the zero bids (WTP = 0) and identify the protest bids amongst these. Then, we will present the analysis of the average willingness to pay, estimated after excluding the previously identified protest bids.

2.1/ Analysis of zero bids

2.1.1/ Differentiation of protest and true zero bids

Two types of respondents can state zero bids:

(i) Protest bidders, i.e. those who state a zero value when they actually value the good, perhaps due to a lack of credibility of the hypothetical market;

(ii) True zero bidders, i.e. those who actually give a null value to the project presented (protection of the historic building). This can be either because they gain no utility from the site, or because they are unable to afford to pay to protect it.

The answer to the follow-up question has been used to distinguish protest from true zero bids, using the following criteria (**Table 10**):

Table 10: follow-up zero bids	Freq.	Percent	Genuine / Protest
I am not concerned about the condition of this site	323	36.41	Genuine
I cannot afford to pay any more in taxes, even if that means the site will deteriorate	378	42.62	Genuine
I do not know / Cannot remember	28	3.16	Genuine
Other	158	17.81	Protest
Total	887	100	

Amongst the 887 zero bids, 158 are identified as protest bids (6.33% of the total number of stated WTP) and are dropped for the analysis of the average WTP. **Table 11** shows the partition of the protest and true zero bids amongst the sites.

After dropping the 158 protest bids the sample includes 1682 observations on WTP, stated by 885 respondents.

2.1.2/ Analysis of protest bids

A probit regression was run in order to analyse the propensity of respondents to be protest bidders (**Table 12**). Protest bids do not seem to depend on the site or collection valued neither on the fact that respondents recognise or have visited the site or collection. The propensity of a protest bid increases if respondents belong to social class A or C1 rather than class E and if they are rural inhabitant rather than from a conurbation.

2.1.3/ Analysis of true zero bids

Just as with protest bids, true zero bids are analysed with a probit regression. The results of 4 probit models are presented in **Table 13**, each one introducing different explanatory variables. Just as in the first survey, **respondents who recognise the site or collection they are presented on the picture are less likely to state a zero willingness to pay to protect this site, but having actually visited the site has no significant impact**. In Probit4, we can actually see that when the variables capturing the effect of recognition and visit are not included in the analysis, St Andrews Cathedral and Linlithgow palace are significantly less likely to receive a null willingness to pay for their conservation than the Island of the Saint. Therefore, the lower number of zero bids for these sites can be explained by the fact that they are more frequently recognised by the respondents, and as we have seen, recognising the site reduces the propensity to state a null WTP. The EB Collection, the Kay's Factory, Mavisbank house and the Island of the Saints appear to have a similar (not significantly different) number of zero bids. The propensity of a true zero bid increases with age, if respondents have child and if they are urban rather than rural inhabitants. Surprisingly respondents who are not working are less likely to state a null WTP than respondents working full time. Finally, respondents belonging to higher income classes (A and B) are less likely to have a null WTP to protect historic sites and collections than lower income classes.

2.2/ Analysis of WTP, protest bids excluded

The following analysis is based on 1682 observations of WTP (**Table 14**), including 729 true zero bids. These 1682 observation come from the answers of 885 respondents. 622 of these respondents (70%) state systematically the same WTP for the 2 sites they are presented, while only 175 adjust their stated WTP depending on the site and 88 have a missing value for one of the 2 sites.

The average willingness to pay for preservation across all the 6 sites or collection is £2.12/year/site for 10 years, which is significantly lower than the average WTP obtained through the first survey (£2.79/year/site). Note that this refers to the "alternative future with no increase in funding" scenario presented for each site/collection. The site which received the lowest average WTP is the Kay's Factory with £1.73/year, while the site with the highest average WTP is Linlithgow palace with an average of £2.70/year. St Andrews Cathedral received an average WTP of £2.18/year which is not significantly different from the mean WTP obtained in the first survey (event though it seems lower at first sight as the mean WTP for the protection of St Andrews Cathedral was of £2.79 in the first survey, the difference is not significant).

Since these differences in mean WTP for the different sites and collections may reflect differences in respondent characteristics as well as differences in the utility of each site, we will need to analyse these differences parametrically. We first present the results of a series of models analysing the WTP on the whole (pooled) sample, and then analyse the 6 sites separately.

2.2.1/ WTP analysis: all sites pooled

A similar analysis to the one used for the first survey was implemented for the present survey. We started the analysis with Ordinary Least Square (OLS) regressions (**Table 15**). We then analysed the WTP results using Tobit models which should be more adapted to the distribution of the WTP data as these models take into account that WTP cannot have a negative value[1] (**Table 16**). We also incorporated random effects in a Generalized Least Square (GLS) regression in order to account for individual effects as each respondent assesses successively 2 different sites (**Table 17**). The Tobit models perform best, so we will focus our analysis on these.

Table 16 presents the results of 4 different Tobit models that all account for the correlation of variance between the 2 answers of a same respondent. Tobit 1 tests the effect of individual characteristics on WTP. Tobit 2 tests the site effect. And Tobit 3 tests both. Model 4 excludes the variables accounting for knowledge of the site (recognise / heard of) and visit in order to investigate how much of the difference in WTP observed between sites is due to knowledge and visit.

The fact that respondents **recognise the site on the picture has a significant and positive effect on their WTP to protect it** and this effect is consistent across models 1 to 3. We see that in Tobit 4 that when we suppress the variable capturing the effect of recognition on WTP, the **EB collection, (and the Kay's Factory and Mavisbank house** as the coefficients for these are almost significant in the Tobit models and are significant in the OLS and random effect GLS models**) appear to have a significantly lower WTP than the Island of the Saints**. Consequently**, the lower WTP for these last sites is most likely to be due to the fact that individuals do not recognise them on the picture / have not heard of it**. Similarly, we see that **individuals are on average willing to pay more for the protection of Linlithgow palace than for the Island of the Saints**, most **likely because the palace is more frequently recognised**. St Andrews cathedral appears to have a lower WTP than the Island of the Saints, but only in Tobits 2 and 3. This means that **for a similar proportion of people recognising the site, individuals are willing to pay less on average for the protection of St Andrews Cathedral than for the protection of the Island of the Saints**. Though is compensated by the fact that **St Andrews Cathedral is more frequently recognised than the Island of the Saints**, leaving them with a **similar average stated WTP for their protection** (no significant difference according to Tobit 4). We can then conclude that the WTP of respondents for the protection of the sites and collections depends on (i) whether they recognise / have heard of the site on the picture or not and (ii) on their income (social class), whether they have child, live in urban areas and not working rather than working full time.

→ Respondents are willing to pay more to protect sites they have heard of, such as Linlithgow Palace and St Andrews Cathedral rather than leaving them with no further intervention from HES. The Island of the Saint is somehow an exception as, despite being rarely recognised, it receives a relatively high WTP on average for its preservation. Though, all of the sites receive a non-null WTP on average, which means that respondents care about the protection of all sites and collections even the less accessible and renown.

[1] Tobit models are also known as censored normal regression model. The idea is that the WTP would be normally distributed but part of the distribution is not observed (censored). In our case, this is because the WTP cannot be negative. Therefore, the WTP takes the value 0 as a minimum and then is a continuous random variable over strictly positive values (zero can be seen as a corner solution). The Tobit model estimates the parameters through maximum likelihood estimation.

2.2.2/ WTP analysis site by site

Finally, we treated each site independently. **Table 18** and **19** present the results of respectively OLS regressions and Tobit models. Again, we will focus on the results of the Tobit models. Note that sample sizes are much lower here than in the pooled model.

The main result is that for all sites and collections, respondents have a higher WTP for its protection if they recognise it or have heard of it. Again, having visited the site has no effect on their WTP.

Conclusions:

There is evidence here that people do care about the protection of HES sites, even if they do not visit them as the average WTP is higher than 0 for all sites and collections investigated in the survey. This is interesting, since the sites range from the "famous" to the "very obscure", and vary greatly in actual visitor numbers. The number of zero bids (zero WTP) received by a site can be explained by their level of recognition by respondents. Indeed the two most recognised sites (St Andrews Cathedral and Linlithgow palace) receive fewer zero bids than the most unknown ones (the EB collection, the Kay's Factory and Mavisbank house and the Island of the Saints).

Being able to recognise a site is also important to the magnitude of willingness to pay, as is socio-economic class (higher income households, on the whole, are willing to pay more), although this pattern varies across sites. Once we control for observable differences in respondent characteristics, we find that the differences in WTP across sites can be explained by the differences in the proportion of respondents recognising or having heard of them, so that a "famous site" such as Linlithgow palace has on average a higher support than unmown sites as the EB collection, the Kay's Factory and Mavisbank house. Exceptions are St Andrews Cathedral and the Island of the Saints. Indeed, St Andrews Cathedral, which is the most recognised and visited of the 6 sites (around 70% of respondents recognise and have eventually visited the site), receives a similar support as the Island of the Saints which is unknown to 80% of the respondents. In the end, the Island of the Saint receives a significantly higher support than the other sites and collections with similar reputation (the EB collection, Kay's Factory and Mavisbank house) while on the contrary St Andrews Cathedral receives a relatively low support for its level of recognition.

Appendices

1/ Descriptive statistics of the sample

Table 1: Number of responses by site

Site	Freq.	Percent	Cum.
EB Collection	330	16.52	16.52
Kays Factory	342	17.12	33.63
Linlithgow Palace	322	16.12	49.75
Mavisbank House	308	15.42	65.17
Island of the Saints	346	17.32	82.48
St Andrews Cathedral	350	17.52	100
Total	1,998	100	

Table 2: Do you recognise this picture? And if so, have you visited it before today?

First line: freq. ; second line: %

	Site						
	EB Collection	Kays Factory	Linlithgow Palace	Mavisbank House	Island of the Saints	St Andrews Cathedral	Total
Do not know / Cannot remember	11	6	6	3	6	3	**35**
	3.33%	1.75%	1.86%	0.97%	1.73%	0.86%	**1.75%**
No - do not recognise/have not heard of and have not visited	287	267	149	256	275	98	**1,332**
	86.97%	78.07%	46.27%	83.12%	79.48%	28.00%	**66.67%**
Yes - recognise/heard of but have not visited	24	61	95	39	50	112	**381**
	7.27%	17.84%	29.50%	12.66%	14.45%	32.00%	**19.07%**
Yes - recognise/heard of and have visited	8	8	72	10	15	137	**250**
	2.42%	2.34%	22.36%	3.25%	4.34%	39.14%	**12.51%**
Total	330	342	322	308	346	350	**1,998**
	100%	100%	100%	100%	100%	100%	**100%**

Chi2 test:

Pearson chi2(15) 556.09 Pr = 0.000 --> site and knowledge not independently distributed

Table 3: Gender

Gender	Freq.	Percent	Cum.
Male	946	47.35	47.35
Female	1,052	52.65	100.00

Table 3b: Age

	Obs.	Mean	Std. Dev.	Min	Max
Age	1,998	51.03	19.73	16	91

Table 4: Working Status

Working Status	Freq.	Percent
Full time	580	29.03
Not working (including students)	460	23.02
Part time	268	13.41
Retired	690	34.53
Total	1,998	100

Table 5: Tenure

Tenure	Freq.	Percent	Cum.
Mortgage	506	25.48	25.48
Owned outright	1,130	56.90	82.38
Rent local authority	302	15.21	97.58
Rent private	48	2.42	100
Total	1,986	100	

Table 6a: Social class

Social class	Freq.	Percent	Cum.
A	68	3.40	3.40
B	372	18.62	22.02
C1	526	26.33	48.35
C2	408	20.42	68.77
D	286	14.31	83.08
E	338	16.92	100
Total	1,998	100.00	

Table 6b: Marital Status

Marital Status	Freq.	Percent	Cum.
Married\Living as Married	1,128	56.46	56.46
Not Married	866	43.34	99.80
Refused	4	0.20	100
Total	1,998	100	

Table 7: Population density

Population density	Freq.	Percent	Cum.
Conurbation	384	19.45	19.45
Rural	832	42.15	61.60
Urban	758	38.40	100
Total	1,974	100	

Table 8: Child (=1 if yes, 0 if not)

	Obs	Mean	Std. Dev.	Min	Max
child	1,998	0.25	0.43	0	1

2/ WTP treatments

Analysis of WTP = 0

/* Table 9: Number of wtp = 0 (protest AND true) */

site	wtp = 0	wtp > 0	Total wtp>=0	Missing	Total
EB Collection	158	136	294	36	330
Kays Factory	161	156	317	25	342
Linlithgow Palace	119	181	300	22	322
Mavisbank House	142	134	276	32	308
Island of the Saints	163	158	321	25	346
St Andrews Cathedral	144	188	332	18	350
Total	887	953	1,840	158	1,998

/* Table 10: If you answered £0, why was this? */

	Freq.	Percent	Cum.
Do not know / Cannot remember	28	3.16%	3.16%
I am not concerned about the condition of this site	323	36.41%	39.57%
I cannot afford to pay any more in taxes, even if that means the site will deteriorate	378	42.62%	82.19%
Other	158	17.81%	100.00%
Total	**887**	**100.00%**	

Highlighted : True 0 Protest

/* Table 11: Number of protest 0 */

	True 0	Protest	Total 0	Total resp	True / tot resp	Protest / Tot resp
EB Collection	133	25	158	330	40.30%	7.58%
Kays Factory	132	29	161	342	38.60%	8.48%
Linlithgow Palace	93	26	119	322	28.88%	8.07%
Mavisbank House	121	21	142	308	39.29%	6.82%
Island of the Saints	133	30	163	346	38.44%	8.67%
St Andrews Cathedral	117	27	144	350	33.43%	7.71%
Total	729	158	887	1,998	36.49%	7.91%
		Dropped				

/* Table 12: Who are the protest bidders? */

Probit regression					Nb of obs	1834
					LR chi2(14)	57.77
					Prob > chi2	0.000
Log likelihood = -509.46					Pseudo R2	0.0537
protest	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
EB collection (ref Island of the Saints)	0.004	0.149	0.030	0.978	-0.288	0.296
Kays Factory (ref Island of the Saints)	0.019	0.144	0.130	0.896	-0.264	0.301
Linlithgow (ref Island of the Saints)	-0.021	0.153	-0.140	0.890	-0.320	0.278
Mavisbank (ref Island of the Saints)	-0.090	0.154	-0.590	0.558	-0.392	0.212
St Andrews (ref Island of the Saints)	-0.094	0.159	-0.590	0.553	-0.405	0.217
Recognise / heard of	0.034	0.118	0.290	0.775	-0.198	0.266
Visited	0.044	0.155	0.280	0.778	-0.260	0.347
Gender (1 if female)	-0.066	0.091	-0.730	0.468	-0.244	0.112
Child (1 if yes)	-0.122	0.118	-1.040	0.300	-0.354	0.109
Age (in years)	0.003	0.004	0.900	0.368	-0.004	0.011
Urban (ref rural)	0.100	0.092	1.090	0.277	-0.080	0.281
Conurbation (ref rural)	-0.484	0.149	-3.250	0.001	-0.777	-0.192
Class A (ref E)	0.502	0.240	2.090	0.036	0.032	0.973
Class B (ref E)	0.244	0.167	1.460	0.144	-0.083	0.570
Class C1 (ref E)	0.475	0.152	3.110	0.002	0.176	0.773
Class C2 (ref E)	0.086	0.171	0.500	0.617	-0.250	0.421
Class D (ref E)	-0.060	0.193	-0.310	0.758	-0.439	0.320
Not working (ref work full time)	-0.136	0.144	-0.940	0.345	-0.417	0.146
Work Part Time (ref work full time)	-0.057	0.155	-0.360	0.716	-0.361	0.248
Retired (ref work full time)	0.023	0.153	0.150	0.881	-0.278	0.324
Constant	-1.649	0.274	-6.010	0.000	-2.187	-1.112

Reference levels for categorical variables: *site reference level is the Island of the Saints; population density reference level is rural; social class reference level is Class E and finally, working status reference level is "work full time". Variable gender takes the value 1 if gender is female, 0 if male.*

/* Table 13: Analysis of WTP = 0 (true 0) */

Probit regression: dependent variable 1 if wtp = 0, =0 if wtp > 0

	Probit 1	Probit 2	Probit 3	Probit 4
Recognise / heard of	-0.608***	-0.581***	-0.624***	
Visited	-0.087	-0.169	-0.122	
Gender (1 if female)	0.081		0.080	0.104
Child (1 if yes)	0.290***		0.295***	0.294***
Age (in years)	0.007***		0.007***	0.007***
Urban (ref rural)	0.264***		0.258***	0.243***
Conurbation (ref rural)	0.017		0.013	-0.017
Class A (ref E)	-0.616***		-0.610***	-0.667***
Class B (ref E)	-0.683***		-0.679***	-0.747***
Class C1 (ref E)	-0.122		-0.125	-0.158
Class C2 (ref E)	-0.083		-0.080	-0.120
Class D (ref E)	0.005		0.004	-0.011
Not working (ref work full time)	-0.261***		-0.265***	-0.253**
Work Part Time (ref work full time)	-0.176		-0.184*	-0.155
Retired (ref work full time)	0.052		0.059	0.008
EB collection (ref Island of the Saints)		0.028	0.044	0.108
Kays Factory (ref Island of the Saints)		0.010	0.022	0.008
Linlithgow (ref Island of the Saints)		-0.113	-0.103	-0.306***
Mavisbank (ref Island of the Saints)		0.023	0.036	0.056
St Andrews (ref Island of the Saints)		0.164	0.171	-0.189*
_cons	-0.315*	0.008	-0.331*	-0.389**
n	1676	1676	1676	1682
LL	-1048.84	-1101.08	-1045.84	-1084.66

Reference levels for categorical variables: *site reference level is the Island of the Saints; population density reference level is rural; social class reference level is Class E and finally, working status reference level is "work full time". Variable gender takes the value 1 if gender is female, 0 if male.*

Legend: * p<.1; ** p<.05; *** p<.01

Analysis of WTP (True zeros and > 0)

Table 14:		**Summary of wtp**					
Site	Freq.	Mean	Bootstrap St. Err.	Min	Max	[95% Conf.	Interval]
EB Collection	269	1.807	0.192	0	25	1.457	2.190
Kays Factory	288	1.726	0.164	0	20	1.405	2.046
Linlithgow Palac	274	2.704	0.267	0	52	2.248	3.328
Mavisbank House	255	1.847	0.186	0	25	1.510	2.216
Island of the Saints	291	2.399	0.268	0	52	1.935	2.983
St Andrews Cathedral	305	2.177	0.174	0	20	1.836	2.521
Total	1682	2.115	0.092	0	52	1.934	2.301

Total responses	1998	
Protest	158	dropped
Don't know	158	missing values
Total	1682	for analysis

/* Table 15: OLS All sites pooled */[2] legend: * p<.1; ** p<.05; *** p<.01

Variable	OLS1	OLS2	OLS3	OLS4
Recognise / heard of	1.391***	1.442***	1.539***	
Visited	0.035	0.149	0.186	
Gender (1 if female)	-0.395**		-0.364**	-0.426**
Child (1 if yes)	-0.415*		-0.439**	-0.452**
Age (in years)	-0.009		-0.009	-0.008
Urban (ref rural)	-0.487**		-0.471**	-0.437**
Conurbation (ref rural)	-0.042		-0.032	0.044
Class A (ref E)	1.016*		0.953*	1.079**
Class B (ref E)	0.631**		0.606*	0.787**
Class C1 (ref E)	0.133		0.125	0.196
Class C2 (ref E)	0.422		0.391	0.450
Class D (ref E)	0.082		0.080	0.094
Not working (ref work full time)	0.780***		0.790***	0.746***
Work Part Time (ref work full time)	0.605**		0.629**	0.566*
Retired (ref work full time)	-0.541*		-0.580*	-0.473
EB collection (ref Island of the Saints)		-0.441	-0.441	-0.592*
Kays Factory (ref Island of the Saints)		-0.688**	-0.653**	-0.632**
Linlithgow (ref Island of the Saints)		-0.189	-0.229	0.316
Mavisbank (ref Island of the Saints)		-0.505	-0.492	-0.541*
St Andrews (ref Island of the Saints)		-1.027***	-1.105***	-0.228
_cons	2.260***	2.116***	2.679***	2.871***
n	1676	1676	1676	1682
R2	0.065	0.0371	0.062	0.042

[2] **Reference levels for categorical variables**: *site reference level is the Island of the Saints; population density reference level is rural; social class reference level is Class E and finally, working status reference level is "work full time". Variable gender takes the value 1 if gender is female, 0 if male.*

/* Table 16: Tobit All sites pooled */[3] legend: * p<.1; ** p<.05; *** p<.01

Variable	Tobit 1	Tobit 2	Tobit 3	Tobit 4
Recognise / heard of	2.708***	2.736***	2.926***	
Visited	0.126	0.413	0.377	
Gender (1 if female)	-0.648*		-0.623	-0.722*
Child (1 if yes)	-0.966**		-1.005**	-1.053**
Age (in years)	-0.023		-0.022	-0.022
Urban (ref rural)	-1.108***		-1.072**	-1.013**
Conurbation (ref rural)	-0.089		-0.067	0.040
Class A (ref E)	2.161*		2.088*	2.378**
Class B (ref E)	1.957***		1.903***	2.230***
Class C1 (ref E)	0.370		0.360	0.497
Class C2 (ref E)	0.739		0.703	0.768
Class D (ref E)	0.042		0.028	0.052
Not working (ref work full time)	1.389**		1.411**	1.322**
Work Part Time (ref work full time)	1.059		1.112	0.974
Retired (ref work full time)	-0.850		-0.916	-0.664
EB collection (ref Island of the Saints)		-0.592	-0.649	-0.971*
Kays Factory (ref Island of the Saints)		-0.835*	-0.778	-0.754
Linlithgow (ref Island of the Saints)		-0.080	-0.155	0.898*
Mavisbank (ref Island of the Saints)		-0.641	-0.657	-0.772
St Andrews (ref Island of the Saints)		-1.537***	-1.675***	0.072
_cons	0.581	-0.084	1.132	1.541
Sigma / _cons	5.280***	5.397***	5.249***	5.377***
N	1676	1676	1676	1682
Left censored obs. (wtp=0)	725	725	725	729
Uncensored obs.	951	951	951	953

[3] **Reference levels for categorical variables**: *site reference level is the Island of the Saints; population density reference level is rural; social class reference level is Class E and finally, working status reference level is "work full time". Variable gender takes the value 1 if gender is female, 0 if male.*

/* Table 17: Random effects GLS regression; All sites pooled */

	xtreg1	xtreg2	xtreg3	Xtreg4
Recognise / heard of	0.896***	0.956***	0.950***	
Visited	0.051	0.041	0.064	
Gender (1 if female)		-0.438*	-0.418*	-0.456**
Child (1 if yes)		-0.454	-0.461*	-0.470*
Age (in years)		-0.010	-0.010	-0.010
Urban (ref rural)		-0.429*	-0.405*	-0.382
Conurbation (ref rural)		0.007	0.033	0.073
Class A (ref E)		1.052	0.982	1.073
Class B (ref E)		0.708*	0.712*	0.813**
Class C1 (ref E)		0.135	0.140	0.185
Class C2 (ref E)		0.426	0.406	0.427
Class D (ref E)		0.071	0.048	0.053
Not working (ref work full time)		0.741**	0.744**	0.704**
Work Part Time (ref work full time)		0.677*	0.690*	0.646*
Retired (ref work full time)		-0.486	-0.510	-0.435
EB collection (ref Island of the Saints)	-0.333		-0.339	-0.368
Kays Factory (ref Island of the Saints)	-0.687***		-0.680***	-0.621***
Linlithgow (ref Island of the Saints)	0.090		0.065	0.427*
Mavisbank (ref Island of the Saints)	-0.732***		-0.728***	-0.734***
St Andrews (ref Island of the Saints)	-0.597**		-0.643***	-0.092
_cons	2.190***	2.412***	2.770***	2.876***

/* Site by site */

Table 18: OLS site by site

Variable	EB Collection	Kay's Factory	Linlithgow	Mavisbank	St Andrews	Island of the Saints
Recognise / heard of	2.223***	1.025**	1.313**	0.934	1.978***	2.459***
Visited	-3.263**	-0.047	1.090	0.015	0.487	-2.141
Gender (1 if female)	0.292	-0.531	-0.406	-1.109***	-0.342	-0.316
Child (1 if yes)	-0.190	-0.792*	-1.217*	-0.156	-0.075	-0.411
Age (in years)	0.011	-0.007	-0.007	-0.025	-0.019	0.010
Urban (ref rural)	-0.364	-0.701*	0.026	-0.211	-0.235	-1.050*
Conurbation (ref rural)	0.372	-0.120	0.998	-0.185	-0.427	-0.156
Class A (ref E)	-0.073	-0.063	-0.652	0.094	2.590**	2.543*
Class B (ref E)	0.674	0.698	0.682	-0.093	-0.152	1.868*
Class C1 (ref E)	0.341	0.046	-0.881	-0.636	0.081	1.518*
Class C2 (ref E)	0.495	1.341**	0.895	-0.439	-0.308	0.776
Class D (ref E)	-0.258	0.339	0.044	-0.957	-0.087	1.223
Not working (ref work full time)	1.088*	0.486	2.271***	0.654	-0.389	1.089
Work Part Time (ref work full time)	1.007	1.098*	0.317	-0.051	0.589	0.692
Retired (ref work full time)	-0.774	-0.151	-0.285	-0.274	-0.731	-1.685*
_cons	0.720	2.071**	1.936	4.016***	2.148**	1.270

legend: * p<.1; ** p<.05; *** p<.01

Table 19: Tobit site by site

Variable	EB Collection	Kay's Factory	Linlithgow	Mavisbank	St Andrews	Island of the Saints
Recognise / heard of	3.766***	1.773**	2.380***	1.835**	3.921***	4.473***
Visited	-4.073	0.536	1.538	-1.103	0.598	-2.246
Gender (1 if female)	0.766	-1.142*	-0.616	-1.665**	-0.811	-0.102
Child (1 if yes)	-0.747	-1.647**	-1.927**	-1.121	-0.048	-0.793
Age (in years)	0.033	-0.024	-0.025	-0.051*	-0.025	-0.004
Urban (ref rural)	-1.372*	-1.596**	-0.058	-0.148	-0.458	-2.738***
Conurbation (ref rural)	0.774	-0.437	1.298	-0.440	-0.344	-0.196
Class A (ref E)	1.066	0.956	-0.424	0.359	3.732**	4.828**
Class B (ref E)	2.476**	1.418	2.418*	0.571	0.550	4.539***
Class C1 (ref E)	0.864	0.091	-0.890	-0.742	0.611	2.139
Class C2 (ref E)	0.657	1.775*	1.924	-0.590	-0.074	1.413
Class D (ref E)	-1.206	0.392	0.427	-1.477	-0.251	2.046
Not working (ref work full time)	2.418**	0.568	3.171***	1.171	-0.285	2.013
Work Part Time (ref work full time)	2.696**	1.744*	0.867	-0.882	1.236	0.707
Retired (ref work full time)	-2.133	-0.094	-0.001	-0.946	-1.052	-2.507
_cons	-3.009	1.710	-0.115	4.063**	-0.312	-1.344
Sigma / _cons	4.993***	4.258***	5.715***	4.558***	3.941***	6.687***

Reference levels for categorical variables: *population density reference level is rural; social class reference level is Class E and finally, working status reference level is "work full time". Variable gender takes the value 1 if gender is female, 0 if male.*