Non-contact and refusal among immigrants in Understanding Society

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1. Introduction

Nonresponse and attrition patterns for immigrant respondents are not well researched. In cross-sectional studies migrant status is usually not known, and in most panel studies sample sizes for migrants are too small for analysis.

This paper analyses factors associated with survey nonresponse of migrants to shed light on the mechanisms leading to attrition of migrants. It uses data from Understanding Society: the United Kingdom Household Longitudinal Study (UKHLS) which is the only survey in UK that has large enough sample size of migrants to allow this kind of analysis.

Existing evidence on migrants and non-response/attrition

Studies consistently find that migrants are more difficult to contact than the native population, even after controlling for other characteristics (e.g. in cross-sectional studies Feskens (2009) for non-Western foreigners; Deding et al (2008) for Iranians and Pakistani but not Turks in Denmark; in panel studies O'Muircheartaigh and Campanelli (1999) and Uhrig (2008) for sample members with language difficulties in the UK; Watson and Wooden (2004, 2009) for foreign born sample members, especially from non-English speaking countries in Australia).

With regard to refusal the evidence is mixed. Depending on the survey and the measure used studies find either no significant effect of migrant status on refusal propensity(O'Muircheartaigh & Campanelli, 1999; Uhrig, 2008), a positive effect for some migrant groups (e.g. (Watson & Wooden 2004; Deding et al, 1999) or a positive effect for all migrants (Watson & Wooden, 2009). This suggests that there is considerable heterogeneity within the migrant population with regard to their refusal behaviour (and the underlying reasons for refusal).

Two cross-sectional studies specifically analyse immigrants' response behaviour. Deding et al (2008) do not find differential patterns in the factors predicting non-contact/refusal between native Danish and migrant respondents. Feskens (2009) however finds that the effect of age and urbanicity on both contact and cooperation differs between non-Western respondents and other respondents.

Explaining migrants' decision to participate

Participating in a survey is a social behaviour and as such influenced by cultural norms, part of which migrants bring with them from their home countries (Johnson et al., 2002). Migrants' diverse cultural backgrounds have therefore to be acknowledged when analysing refusal behaviour.

Notwithstanding this, most concepts used in nonresponse theory can be reasonably assumed to apply for migrants, though the exact effects might differ to those of native respondents. Some migrant-specific characteristics could be hypothesised as related to refusal propensity. For example, according to the idea of social isolation (Groves and Couper, 1998) more recent migrants should be more likely to refuse than more established migrants because of a lack of integration into society.

2. Data and method

The analysis studies attrition in wave 2 using data from the first two waves of the UKHLS. The analysis sample is restricted to migrants aged 16 and over who gave a full interview at wave 1 and were eligible for interview at wave 2.

Migrants are defined as respondents who are foreign-born. The regression analysis is limited to England (covering 91.4% of migrants (unweighted)) because of the use of the Index of Multiple Deprivation which is only available for England. This yields a sample of 8,036 migrants. 52% of the

migrant respondents come from the General Population Sample, 49% from the Ethnic Minority Boost sample which oversamples ethnic minorities.[1]

Survey participation can be viewed as a two-step process consisting of establishing contact, and gaining cooperation once contact has been made (Groves and Couper, 1998). This is modelled with two binary logit models, which assumes the two processes are independent and errors not correlated (Steele and Durrant, 2011).

In the non-contact model the dependent variable is a dummy variable that equals when a wave 1 respondent eligible at wave 2 lives in a non-contacted household and 0 otherwise.

Refusal is modelled conditional on wave 2 contact. The dependent variable takes the value of 1 if the individual interview was refused and 0 if the respondent provided the individual interview. Non-interview not due to refusal (including language problems), cases of unknown eligibility and proxy interviews are excluded.

Models use wave 1 information[2] to explain the migrants' non-contact and refusal propensity, respectively. Equivalent models for the UK-born population are presented for comparison. The models are design-weighted using Stata's survey commands to account for the complex sample design.

The models were built by adding variables blockwise and retaining all those significant at the 5% level. For the non-contact model the steps are: migrant characteristics, address characteristics, socio-demographic factors, interview characteristics, housing tenure and residential mobility.

For the refusal model the steps are: migrant characteristics, socio-demographic factors, factors related to social engagement, interview characteristics. The final models are presented in terms of average marginal effects (see tables in appendix).

3. Characteristics of the analysis sample

a. Migrant population

The migrant population in the sample is very heterogeneous. Respondents of more recent arrival cohorts are typically younger, more educated and live more often in private rented, especially furnished, accommodation than those of older cohorts.

Immigrants are twice as likely as UK-born respondents to have moved between the first and the second wave (15% vs. 8%). There is large variation between arrival cohorts, with only 6% of those who have lived in the UK for more than 10 years having moved, but 36% of the newest arrivals (in the UK for up to 3 years).

b. Distribution of survey outcomes

Non-contact is much higher amongst migrants compared to the UK-born population (Table 1).The proportion of eligible wave 1 migrant respondents living in a non-contacted household in the next wave is more than twice that proportion for UK-born respondents (11.9% vs. 5.3%). Proportions of refusal to the individual interview once contacted are only slightly higher for migrants with 14.7% refusing the wave 2 interview, compared to 12.6% of UK-born respondents.

[1] Temporary Sample Members (= white respondents in EMB) are excluded as their might become ineligible due to changes in household.

[2] Apart from dwelling type measured at wave 2, and change of interview which indicates the change between wave 1 and wave 2.

Table 1 Interview outcome at wave 2, full wave 1 respondents eligible for interview at wave 2, living in England; design-weighted

	migrants	UK-born
respondents living in a non-contacted household	11.9%	5.3%
refusal to individual interview, conditional on contact	14.7%	12.6%

4. Results

a.Non-contact

In model 1 (table 2) the strongest predictors of living in a non-contact household are housing tenure, socio-demographic and economic characteristics related to at-home patterns and residential mobility, and factors of the interview situation in wave 1.

As expected, more recent migrants are harder to re-contact. The most recent cohort of migrants is 4.7% more likely to live in a non-contact household than migrants who came over 10 years ago.

Housing tenure is highly predictive of future moves and as such of a high risk of non-contact. Private renting migrants are 6.6% (unfurnished) to 10.3% (furnished) more likely to live in a non-contacted household than migrants who own their home. Old people and very young people (mainly still living with their parents) are less likely, migrants in their twenties are 6.7% more likely, to live in a non-contact household. Migrants in one-person households or households that are likely to be shared houses are 8.2% and 5.6% more likely than others to live in a non-contact household at wave 2, respectively.

Migrants who were difficult to contact in the first wave, live in households that were partially responding or did not provide stable contact details as well as migrants that showed poor cooperation in the first interview are all more likely to live in a non-contact household. Having a new interviewer for the second wave makes migrants 5.4% more likely to live in a non-contact household.

<u>Accounting for residential mobility</u>

Model 2 demonstrates that residential mobility is the main driver of non-contact. Whether the respondent moved house between waves is a confounder and also has a mediating role with respect to many of the variables and the effects of the first model are often more than halved, or even rendered statistically insignificant once this is accounted for.

A migrant's move status has a very large effect on the likelihood of non-contact, with movers around 50% more likely to live in a non-contact household compared to non-movers. Once accounting for this the effect of length of time spent in the UK is reduced in size and level of significance, indicating that the effect is mainly mediated by residential mobility. The same is true for housing tenure which is rendered statistically non-significant.

Other variables such as age are only reduced in size but still statistically significant, indicating that there age has an effect on likelihood of non-contact independent of increased residential mobility, e.g. due to different at-home patterns.

An alternative approach to deal with the confounding is to model non-movers separately (model 4). The changes in estimated marginal effects are similar to the changes due to adding move status in model 4.

<u>Comparison to UK-born respondents</u>

Model 3 presents the equivalent of model 2 for the UK-born population, and model 5 the equivalent for UK-born non-movers. There are some differences in effects on non-contact between the groups, for example age and household type play a bigger role for migrants than UK-borns. Also most wave 1 interview characteristics seem more important for migrants than natives.

While for migrants the effect of housing tenure seems to be completely mediated by residential mobility this is not the case for UK-borns where it is still statistically significant in the presence of move status. Move status has a smaller effect on UK-born respondents though still very large (30-34%).

b. Refusal

The length of time migrants have spent in the UK is negatively related to refusal propensity (Migrants model in table 3). The most recent migrants are 5.5% less likely to refuse than the oldest arrival cohort. This is contrary to what one would expect following ideas of social isolation that would imply the more recently migrants have arrived the less integrated they are and hence the more likely to refuse. This could be explained by migrants' self-selection on other characteristics such as openness which might outweigh any effects of lack of integration.

The cultural background as measured by ethnic-religious group membership is not statistically significant in the full model. However when wave 1 interview characteristics are not accounted for there is, as expected, considerable variation between cultural groups (model not shown).

Political interest can be seen as an indicator of social engagement. Migrants very interested in politics are 4.4% less likely to refuse than those with no interest, which is a larger effect than for the UK-born population. Receiving benefits makes migrants 3.7%-5.6% less likely to refuse compared to those who do not receive benefits. UK-born respondents do not show such an effect, possibly because they see benefit receipt as a right that does not oblige them to anything in return. Indicators of social isolation such as young children in the household and a neighbourhood integration index were tested but not statistically significant.

Interview characteristics variables have the strongest effect on migrants' refusal propensity. Poor cooperation or commitment to the survey as measured by the respondent being suspicious and being part of a partially responding household both predict refusal with marginal effects of 8.7% and 7.2%, respectively. Migrants who have a new interviewer at the second wave are 10.8% more likely to refuse. All interview characteristics have a slightly less strong effect on migrants compared to the native population.

5. Discussion

Residential mobility is the biggest hurdle to successful re-interview at wave 2. In the process leading to continued survey participation of migrants, the step of gaining contact has much bigger importance for retaining migrant respondents in the sample than gaining cooperation. The fact that non-contact of migrants is mainly due to residential mobility also suggests that cumulative effects over time will exceed normal levels of sample attrition, especially for recent migrants.

There is more work needed to address several issues in the current models. In the non-contact model there is potentially reverse causality, especially between experiencing a change of interviewer and residential mobility. Although model 2 includes an interaction between move status and change of interviewer this cannot account for the interdependency of the two variables.

Given the importance of the previous wave's interview characteristics in predicting non-contact amongst migrants it seems reasonable to suspect that some non-contact cases are in fact hidden refusals. This would imply that the non-contact and refusal process are not independent of each other as assumed in the current approach of modeling the two outcomes independently.

Lastly, the current models do not allow for a formal comparison of effects between the migrant and native population. For this, a pooled model that is fully interacted with migrant status would be required. Alternatively, a multiple group analysis could be used (cf. Feskens, 2009).

References

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Appendix

Table 2 Non-contact models

			1	2	3	4	5
						Non-movers only	
Living in non-contacted household			Migrants	Migrants(II)	UK-born	Migrants	UK-born
Mig-rant chars	Time spent in UK	7-10 yrs	0.036*	0.020+		0.003	
	(ref: >10yrs)	4-6 yrs	0.018	-0.001		-0.002	
		0-3 yrs	0.047**	0.022+		-0.002	
Address characteristics	IMD[1] rank	2nd quintile	0.004	-0.001	0.000	-0.006	-0.001
	(ref: 1st quintile =	3rd quintile	-0.017	-0.025*	-0.002	-0.024**	-0.000
	most deprived)	4th quintile	-0.020	-0.013	-0.008+	-0.023*	-0.007*
		5th quintile	-0.030	-0.030+	-0.009+	-0.025**	-0.008*
	London		-0.030*	-0.004	0.005	0.003	0.000
	Dwelling type (w2)	semi/terraced	0.002	0.002	0.004	-0.016	0.001
	(ref: detached)	Flat*	0.030	0.009	0.004	-0.015	0.000
		other	0.061	-0.016	-0.003		
Socio-demographic/ - economic characteristics	Age group	aged 16-19	-0.016	-0.047**	0.007	-0.025**	0.003
	(ref: 40-59 yrs)	aged 20-29	0.067**	0.026*	0.009*	0.016	0.012**
		aged 30-39	0.019	-0.003	0.003	-0.011+	0.003
		aged 60-69	-0.027	-0.015	-0.018**	-0.011	-0.008**
		aged 70+	-0.041*	-0.036+	-0.024**	-0.013+	-0.010**
	Being unemployed		0.027	0.009	0.009*	0.013	0.001
	One person household		0.082**	0.053**	0.025**	0.026*	0.026**
	2+ adults but no couple in hh		0.056**	0.023+	-0.001	0.010	0.002
	At least 1 in hh receives benefits[2]		-0.022+	-0.014	-0.001	-0.010+	0.002
	Household income in top 25%		-0.024+	-0.006	-0.007+	0.009	-0.004
Interview situation	# calls until first contact in w1		0.005**	0.004**	0.001**	0.000	0.001**
	At least 1 stable contact for hh		-0.024*	-0.028**	-0.020**	-0.009	-0.003
	Change of interviewer		0.054**	0.021*	0.031**	0.029**	0.023**
	Cooperation at w1 fair or worse		0.046*	0.049*	0.021**	0.031*	-0.001
	Partially responding hh in w1		0.055**	0.036**	0.019**	0.015*	0.017**
Mobility I	Tenure	LA rented	0.025+	0.003	0.011*	-0.006	-0.000
	(ref: owned)	Priv. unfurnish.	0.066**	-0.011	0.013**	0.005	0.003
		Priv. furnished	0.103**	-0.011	0.023**	-0.007	0.004
		other	0.054+	-0.035+	0.004	-0.017+	-0.008
Mobility II	Move status[3]	Whole hh move		0.481**	0.338**		
	(ref: no move)	Split hh mover		0.469**	0.304**		
		unclear		0.527**	0.333**		
		N	6,954	6,954	29,754	5,821	26,940

[1] Index of Multiple Deprivation.

[2] Benefits measure excludes state pension and child benefits.

[3] Model 2 includes interactions between London and move status, and between change of interviewer and move status.

Average marginal effects. Design-weighted, linearized standard errors. ** p<0.01, * p<0.05, + p<0.1

Table 3 Refusal models

	Refusal (conditional on contact)		Migrants	UK-born
Migrant characteristics	Time spent in UK	7-10 yrs	-0.005	
	(ref: >10yrs)	4-6 yrs	-0.044*	
		0-3 yrs	-0.054**	
	Ethnic-religious background[1]	Caribbean	-0.022	-0.009
	(ref: white Christian)	Asian Christian	-0.036+	-0.000
		African	0.037+	0.031
		Arab Muslim	0.072+	-0.024
		Indian Muslim	0.010	0.017
		Pakistani	0.042+	-0.014
		Bangladeshi	0.048+	-0.019
		Hindu	0.002	0.026
		Sikh	0.074+	0.026
		Chinese/Buddhist	0.014	0.032
		other	0.026	-0.011+
	English	no difficulties	0.004	
	(ref: first language)	difficulties	0.015	
		no English	0.108+	
Socio-demographic/-economic characteristics	Gender[1]	Female	-0.012	-0.012**
	Age (ref: aged 40-59)	aged 16-19	-0.061**	0.044**
		aged 20-29	0.003	0.036**
		aged 30-39	-0.010	-0.001
		aged 60-69	-0.001	-0.004
		aged 70+	-0.004	0.034**
	Educational level	GCSE	-0.004	-0.012+
	(ref: no qualification)	A-level	-0.025	-0.033**
		degree	-0.025	-0.047**
		Hh income in bottom 25%	0.047**	0.004
		London	0.038**	0.004
Social engagement / civic duty	Political interest	not very	-0.023	-0.014*
	(ref: none)	fairly	-0.022	-0.020**
		very	-0.044*	-0.022*
	Benefit receipt	1 type	-0.037**	0.004
	(ref: none)	2+ types	-0.056**	0.001
Interview		Partially responding hh at w1	0.072**	0.084**
		Respondent suspicious	0.087**	0.086**
		Change of interviewer	0.108**	0.125**
		N	6,261	34,771

[1] Includes an interaction between female and ethnic-cultural group

Average marginal effects. Design-weighted, linearized standard errors. ** p<0.01, * p<0.05, + p<0.1