



**The World Bank Listening to LAC (L2L) Pilot Project
Report on Attrition of Panel Participants in Peru and
Honduras**

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Background

The rapid and massive dissemination of mobile phones in the developing world is creating new opportunities for the discipline of survey research. Private sector organizations and academic institutions concerned with the study of public opinion have embarked on intensive experimentation in an attempt to reap the benefits of the faster and more convenient ways to engage survey respondents afforded by mobile technologies. Mobile phones allow researchers to survey respondents in “real time”, as relevant historical events are occurring, and to simultaneously capture responses in digital formats that can be seamlessly and readily integrated into data processing, visualization and analysis software, none of which could be easily accomplished by means of more traditional survey methods.

However, the survey research community still debates the methodological implications of using mobile phones for survey research. Among the focal points of such debate, has been the ability of mobile surveys to represent all geographic and demographic segments within a given country. While mobile phone penetration has increased dramatically in the developing world, researchers are still concerned with the ability of mobile sampling frames to represent rural areas. Also, since early adoption and mastery of high end technology is usually more prevalent among younger individuals, there is a possibility that mobile surveys fail to adequately represent more senior segments of the population.

The World Bank is interested in leveraging the mobile “Short Messaging Service” (SMS) technology as a means of direct communication with poor households in the developing world, in order to gather rapid feedback on the impact of economic crises and other historical events on the economy of such households. With this objective in mind, the World Bank has launched the “Listening to LAC” (L2L) pilot program; a research exercise aimed at testing the feasibility of the SMS technology as a data collection method for conducting quick turnaround, self-administered, longitudinal surveys among households in Peru and Honduras. In order to overcome or minimize the above mentioned problems with mobile phone surveys, the L2L study relies on probability-based household panels, recruited by means of door-to-door, face-to-face contacts, as part of a baseline survey conducted by trained interviewers using paper and pencil questionnaires.

However, the use of probability-based panels for gathering longitudinal data across geographic and demographic segments is not free from challenges. In fact, one of the most important hurdles panels face is the attrition of panelists over time; a problem that may disproportionately affect certain demographic groups, often causing the panel to lose its representativeness. The L2L pilot program administered surveys to household panels in Peru and Honduras for a period of six months. During this time, three different incentive schemes for retaining panelists were tested, and several attrition management mechanisms (i.e. phone and SMS reminders) were used to deal with non-responsive panelists. The panel was not replenished with new panelists at any time.

The following report examines the level of attrition of panelists in Peru and Honduras. The main focus is on Peru, because a detailed examination of attrition was the core objective of the L2L study in this country. Nevertheless, findings on attrition in Honduras are compared with those from Peru. The report also discusses the effectiveness of call backs to re-engage panelists that failed to participate in the first 4 waves of the survey, and provides insights into the motivations of Peruvian panelists to continue participating in similar projects in the future.

Attrition Analysis

The L2L pilot relied on a panel of 1,500 households in each country. These panels were recruited by means face-to-face surveys based on a nationally representative sample of households. At each selected household, interviewers asked to speak to the person recognized by the family as the head of the household. If the head of the households could not be located after two attempts, interviewers proceeded to interview informants aged 15 years or older who were permanent residents of the household. At the end of the survey, respondents were invited to participate in a panel to answer no more than two surveys per month (only one per month in the case of Peru) for a period of six months (four and a half months in the case of Honduras). Panelists were randomly assigned to one of three incentive schemes: a) no monetary incentive (only psychological motivation); b) cell phone credit amounting to one USD and; c) five USD worth of cell phone credit. Panelists assigned to groups receiving monetary incentives also received psychological motivation.

In Peru, 1,490 households surveyed agreed to join the panel and take part in six monthly surveys. Since 56 of them did not have a reliable cell phone signal in the area where they lived they were excluded and the final sample was 1,444 households. In Honduras 1,465 households agreed to participate.

In Peru, the panel was divided into three groups, with each group being exposed to only one methodology (SMS, IVR or CATI) through the course of the six months period. In Honduras, on the other hand, all panelists were exposed to all three methodologies in a random order of administration through the course of a four and a half months period. Honduran panelists responded up to four surveys per month.

For panel management purposes, panelists who failed to respond for more than three waves in a row were deemed to have abandoned the panel. These panelists were, therefore, placed in a special group that was subject to a special treatment (i.e. calls and/ or SMS notifications) in an attempt to recover them.

In the remainder of this report, we define attrition rate as the proportion of panelists who failed to respond to any given survey wave, out of all panelists who agreed to participate upon recruitment. Attrition rate in this report has the same meaning as non-response rate and therefore both terms will be used interchangeably throughout the report.

After recruitment, all follow-up surveys were sent to all panelists every time, regardless of whether they had completed the previous surveys or not. Therefore, it is conceivable for the attrition rate in a certain wave to be slightly lower than the attrition rate of the previous wave. That is because panelists who failed to participate in a certain wave may have missed the call or invitation to participate, or simply did not have time to respond in that particular wave, but did respond in the following wave(s). Hence, we suggest the reader to focus on the final attrition rate (wave 6) as the net measure of attrition for this panel study.

Attrition in Peru

Overall Attrition in Peru

Two-thirds of recruited households in Peru failed to answer the first round of follow-up surveys. As Table A below shows, attrition slightly increased with each wave of the survey (between 1 and 3 percentage points per wave), reaching 75% in wave 6. Comparing the number of respondents who accepted to be part of the panel in the first face-to-face survey (n=1,444) with the number that actually participated in wave 6, a quarter of households (n=366) actually participated by fully completing the survey or answering some questions.

Table A – Overall Attrition in Peru

Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
67%	68%	69%	70%	72%	75%

Attrition by Demographics in Peru

The post-recruitment response rate was higher among urban, relatively affluent households and more educated panelists (see Table B on the following page). While 73% of lower income panelists (households 20% below or above the national poverty line) who completed the face-to-face interview and accepted to join the panel did not participate in the first wave of the survey, the non-response rate among more affluent households was 58%. Furthermore, the non-response rate among residents of urban areas was 57% from the initial face-to-face interview to wave 1, and 78% among residents of rural areas.

However, with each wave the gap between poor and more affluent households narrowed. When comparing those respondents who still participated in wave 6 with those who gave their approval to be contacted in the initial face-to-face interview, we see that the level of attrition among those with low household income was 76%, close to that of more affluent households with 73%.

The differences in the level of attrition between city dwellers and residents of rural areas also decreased with each wave. However, in wave 6 the level of attrition of residents of rural areas was still 10 percentage points higher than among city dwellers (80% vs. 70%, respectively).

Table B also shows that in Peru, respondents with lower education were less likely to participate in any of the 6 waves than were those with higher levels of education.

Female respondents were slightly more likely to participate in wave 1 than were male panelists (the level of attrition was 64% vs. 69%, respectively). However, this difference disappeared with consecutive survey rounds. Heads of household were less likely to participate in all waves of the survey than others (spouse, children, grandchildren etc.). This finding can probably be explained by the fact that head of households are usually older -- and perhaps busier and/or less familiar with new technologies -- than younger respondents. The mean age for heads of household was 45 years, and for others 33 years. The study shows that respondents older than 45 years were clearly less likely than younger respondents to participate in all waves of the study.

Table B – Attrition by Demographics in Peru

	Poorer HH's	More affluent HH's	Urban	Rural		
Wave 1	73%	58%	57%	78%		
Wave 2	72%	61%	60%	76%		
Wave 3	73%	65%	62%	77%		
Wave 4	71%	68%	64%	76%		
Wave 5	73%	71%	68%	77%		
Wave 6	76%	73%	70%	80%		
	Gender		Relationship with head of household			
	Male	Female	Head of household	Other		
Wave 1	69%	64%	72%	61%		
Wave 2	69%	66%	70%	65%		
Wave 3	69%	69%	72%	67%		
Wave 4	72%	68%	72%	66%		
Wave 5	74%	70%	76%	68%		
Wave 6	75%	74%	78%	71%		
	Age			Education		
	15-30 year-olds	30-45 year-olds	Older than 45 years	Lower education	Average education	Higher education
Wave 1	59%	67%	72%	80%	64%	56%
Wave 2	65%	66%	71%	75%	68%	57%
Wave 3	66%	68%	74%	79%	68%	61%
Wave 4	68%	67%	74%	77%	68%	63%
Wave 5	71%	70%	75%	78%	72%	65%
Wave 6	73%	72%	78%	81%	75%	67%

Attrition by Incentive Level in Peru

Economic incentives in the form of mobile phone credit for every completely answered survey did not seem to have a big effect on the post-recruitment response rate in Peru. However, as the panel exercise progressed, incentives had some effect on minimizing attrition. With each wave, the level of attrition increased for all 3 groups, with the biggest increase being registered among panelists who received no economic incentive at all. In wave 6, the level of attrition for this group was 80% compared to 73% among those who received 1 dollar worth of mobile phone credit and 71% of those who received 5 dollars' worth of mobile phone credit per completed survey. It should be noted that a considerably higher incentive (5 dollars) did not prove much more successful in reducing attrition than a smaller amount (1 dollar).

Table D - Attrition by Incentive Level in Peru

	No incentive	1 USD	5 USD
Wave 1	68%	66%	66%
Wave 2	70%	67%	66%
Wave 3	73%	68%	68%
Wave 4	72%	70%	67%
Wave 5	76%	71%	69%
Wave 6	80%	73%	71%

Attrition by Methodology in Peru

The Peruvian L2L study clearly produced a lower non-response rate for CATI when compared to IVR and SMS, as Table E (on the next page) shows. Comparing those households who agreed to take part in the panel with those that actually took part in wave 1, the level of attrition was the highest for IVR (80%), followed by SMS (70%). For CATI the level of attrition was 49%. Over the course of the 6 waves the level of attrition for SMS increased to 79% (initial face-to-face compared with wave 6) and to 61% for CATI, with attrition for IVR remaining stable (81%).

It should be noted that the L2L project deliberately sent out more invitations to take part via SMS (n=677), compared to IVR (n=383) and CATI (n=384). Since the level of attrition for SMS is relatively high compared to the CATI group, the higher n-size of the SMS group drives up the overall attrition of the panel.

Table E - Attrition by Methodology

	IVR	SMS	CATI
Wave 1	80%	70%	49%
Wave 2	75%	75%	47%
Wave 3	78%	76%	49%
Wave 4	78%	75%	52%
Wave 5	84%	76%	53%
Wave 6	81%	79%	61%

Moreover, IVR and SMS have the disadvantage of a certain proportion of respondents only answering some of the questions in any given survey; meaning that respondents completely skipped some questions¹. The proportion of respondents only answering the surveys partially was as high as 7% for some SMS rounds and 5% for certain IVR rounds (see Table F on the next page).

IVR and SMS are both self-administered methods, while CATI relies on an interviewer whose job is to ensure all questions are read, understood and answered by the respondents (recording even legitimate “Don’t Know” responses or “Refusals”). Therefore, the higher rate of incomplete surveys observed for IVR and SMS could have been caused by problems manipulating the technologies, lack of skill of respondents to self-administer the survey, or even lack of understanding of some questions (mostly for SMS, which relies on the respondent’s reading ability).

As table F shows, CATI respondents always answered all survey questions. They might have refused to answer a question or might have said that they didn’t know the answer, but the fact that CATI is technology administered by an interviewers helps a survey’s completion rate, as it ensures that the respondent devotes attention to all the questions, and that legitimate “Don’t knows” and “Refusals” are coded as such.

¹ Giving a “don’t know answer” or refusing to answer a question is not considered as a skip. If a respondent skips a question no data were obtained at all.

Table F - Attrition by Methodology Details in Peru

		IVR	SMS	CATI
Wave 1	Answered all questions	15%	24%	51%
	Only answered some questions	4%	7%	0%
	No response	80%	70%	49%
Wave 2	Answered all questions	20%	20%	53%
	Only answered some questions	5%	5%	0%
	No response	75%	75%	47%
Wave 3	Answered all questions	17%	22%	51%
	Only answered some questions	4%	3%	0%
	No response	78%	76%	49%
Wave 4	Answered all questions	19%	18%	48%
	Only answered some questions	4%	7%	0%
	No response	77%	75%	52%
Wave 5	Answered all questions	14%	23%	47%
	Only answered some questions	2%	1%	0%
	No response	84%	76%	53%
Wave 6	Answered all questions	18%	18%	39%
	Only answered some questions	2%	3%	0%
	No response	80%	79%	61%

Comparison with Attrition in Honduras

One part of Honduran panelists (n=600) were exposed to all three survey methods studied. They were also surveyed on a more frequent basis and for a relatively shorter period of time (four and a half months vs. six months in Peru)². The surveys were administered in three time blocks, as follows:

Time One: this first administration took place between weeks 1 and 6 of the panel study. As part of “Time One”, each panelist was surveyed three times. Each time with the same exact questionnaire, but using a different survey method (SMS, CATI or IVR).

Time Two: this administration took place between weeks 12 and 16 of the panel study. As part of the “Time Two” block, each panelist was surveyed three times. Each time with the same exact questionnaire used in Time One, and with the same three methodologies presented in the same order as in Time One.

In-Between: During the period between Time One and Time Two (weeks 7 through 11), panelists received four SMS surveys with different questionnaires to the ones used in “Time One” and “Time Two”. However, for the purpose of this attrition analysis, only “Time One” and “Time Two” administrations are being considered.

The other part of the Honduran panel (n=900) was only interviewed by SMS after the initial face-to-face interview (see detailed table of the survey design used in Honduras on the next page, Table G). It will not be included in the following attrition analysis.

² While the Peru study was primarily concerned with response rate and attrition, the focus of the Honduras study was the evaluation of the stability of the measurements yielded by the different survey methods under study across time. Therefore, the panel study in Honduras was designed to gather identical measurements with each survey method in two periods of time in order to allow for a test-retest reliability analysis. The results of such analysis are discussed in a separate report.

Table G – Survey Design Overview Honduras

	Time 1											Time 2						
Group	Feb.13	Feb.20	Feb.27	Mar.5	Mar.12	Mar.19	Mar.26	Apr.2	Apr.9	Apr.16	Apr.23	Apr.30	May.7	May.14	May.21	May.28	June.4	
1	F2F1	SMS1	IVR1	CAT11			SMS2	SMS3-A	SMS3-B	SMS4		SMS1	IVR1	CAT11		SMS2	F2F1	
2		F2F1	CAT11	SMS1	IVR1		SMS2	SMS3-A	SMS3-B	SMS4			CAT11	SMS1	IVR1	SMS2	F2F1	
3			F2F1	IVR1	CAT11	SMS1	SMS2	SMS3-A	SMS3-B	SMS4			IVR1	SMS1	CAT11	SMS2	F2F1	
Extra 1	F2F1	SMS1					SMS2	SMS3-A	SMS3-B	SMS4			SMS1			SMS2		
Extra 2		F2F1	SMS1				SMS2	SMS3-A	SMS3-B	SMS4				SMS1		SMS2		
Extra 3			F2F1	SMS1			SMS2	SMS3-A	SMS3-B	SMS4					SMS1	SMS2		

* A household was invited to take part in a survey using each methodology at least twice during the study. The questionnaires for time 1 and time 2 were identical within and across methodologies.

* After the first face-to-face administration, each group was exposed to the remaining 3 methodologies according to a randomization scheme (3 rotations, one methodology per week)

* All households were interviewed face-to-face upon panel recruitment (and some at the very end of the study). Therefore, face-to-face could not be part of the random rotation scheme

* Any additional household that remained in the panel was only interviewed via SMS (Groups Extra 1, Extra 2 and Extra 3 above)

*The data collection process was carefully controlled to ensure that all the groups within the sample were representative of the population

Overall Attrition in Honduras

The initial attrition rate -- that is, the proportion of respondents who agreed to participate in the panel after the initial face-to-face survey but did not answer the first of the "Time One" round of surveys -- was considerably lower in Honduras than in Peru. While in Peru two-thirds (67%) of recruited households failed to answer the first round of follow-up surveys, in Honduras 4 in 10 (41%) of the recruited households did not participate in the first round of surveys (see Table H below).

The gap between the initial and final attrition -- that is, the additional number of panelists that dropped out of the panel between the first follow-up survey and the end of the study -- was similar in both countries. While in Peru the final attrition was eight percentage points higher than the initial attrition rate (67% vs. 75%), in Honduras it was nine percentage points higher (41% vs. 50%).

These results show that the Honduran panel not only proved more successful in achieving a higher post-recruitment participation rate, it was also more effective in retaining its panelists.

Table H – Overall Comparison of Attrition in Peru and Honduras

	Peru	Honduras
From F2F to Time One/ (Week 1 for Honduras)	67%	41%
F2F to End of Panel Study	75%	50%

There are several plausible explanations as to why the Honduran panel performed better than the Peruvian one in terms of panelist response and retention:

- a) Honduras is a smaller and more geographically homogenous country than Peru. Therefore, transportation of paper surveys to the central processing center was more expeditious, allowing for a shorter time gap between panelist recruitment and administration of the first follow-up surveys. In fact, the average time elapsed between recruitment and the first survey in Honduras was 7 days, while in Peru it was 15 days. So, it is likely that some Peruvian panelist forgot about the survey and disregarded the invitations to participate in the successive survey waves.
- b) Gallup's field operations partner in Honduras (CID-Gallup) is a very well-known and trusted firm in that country -- much more so than Directo, the Peruvian fieldwork partner, is in Peru. Therefore, it is possible that panelists in Honduras felt more confident responding to the follow-up surveys than their Peruvian counterparts.
- c) Panelists in Honduras were surveyed more frequently and for a shorter period of time (four and a half months vs. six months in Peru) than their Peruvian counterparts. They were also surveyed through different means (IVR, SMS and CATI). Therefore, it is possible that they became more aware and expectant of the follow-up surveys. This could partially explain the lower final attrition of Honduran panelists. To be sure, it cannot account for the higher response rate to the first follow-up surveys we saw in Honduras.
- d) Fieldwork in Peru took place in December, while in Honduras it happened in February and March. December is not an ideal month to conduct surveys in Peru, because people are

especially busy due to Christmas celebrations and some might be traveling to visit relatives or friends.

Attrition by Methodology in Honduras

As Tables I and J below reveal, all three survey modes showed lower levels of initial and final attrition in Honduras when compared with the Peruvian figures. In both countries, CATI surveys generated the lowest attrition in “Time One” and “Time Two”, followed by SMS and IVR. However, in the case of Honduras “Time Two” attrition levels increased quite significantly for CATI while remaining stable for SMS and IVR. Still, attrition for CATI was much lower than for the other two methodologies throughout the whole study in both countries, especially in Honduras.

Table I – Initial Attrition/Non-Response by Methodology (Peru vs. Honduras)

Initial F2F to Wave 1/ (Week 1 for Honduras)	Peru	Honduras
IVR	80%	60%
SMS	70%	55%
CATI	49%	12%
Overall	67%	41%

Table J – Final Attrition/Non-Response by Methodology (Peru vs. Honduras)

Initial F2F to End of Panel Study	Peru	Honduras
IVR	81%	62%
SMS	79%	60%
CATI	61%	28%
Overall	75%	50%

Attrition by Level of Urbanization in Honduras

Panelists from urban areas in Honduras were more likely to participate in Time One than those from rural areas (the respective non-response rates were 35% and 45%). However, this difference was not observed in Time Two (see Table K). In contrast, in Peru this gap still existed at the end of the study (70% vs. 80%, respectively).

Table K - Attrition by Level of Urbanization in Honduras

	Level of Urbanization	
	Urban	Rural
Wave 1 (weeks 1-6)	35%	45%
Wave 2 (weeks 12-16)	49%	50%

Callbacks to respondents who did not participate in the first four waves in Peru

After wave 4 was completed in Peru, those recruits who originally agreed to join the panel but who did not take part in any of the first 4 waves were contacted by phone using CATI technology in order to enquire why they had not answered the surveys. As Table L shows, out of the 633 numbers called, 149 panelists answered the call; 101 out of these 149 agreed to take part in the last two rounds of the survey.

Out of the 101 panelists that agreed to participate in the last two rounds of the program, 41 belonged to the IVR group and 60 to the SMS group.

Table L – Contact Information

	Frequency	Percent
Voice mail	330	52%
Effective/ The panelist responded	149	24%
No response	70	11%
The phone was off	24	4%
Busy	17	3%
Call later	15	2%
Number did not exist	11	2%
Other	6	1%
Suspended	5	1%
No signal/signal problems	3	0%
Wrong number	2	0%
Out of service	1	0%
TOTAL	633	100%

Table M on the next page presents the most important reasons explaining why panelists had not responded to SMS or IVR surveys. Eighty-one respondents gave such reasons.³ Out of these 81 panelists about a quarter (or 21 people) reported some kind of reluctance to use a self-administered method (preferred to be called). About 80% (or 16 people) of these panelists belonged to the SMS group. Again, it should be noted that the original SMS sample for Peru was much larger than the samples for IVR and CATI.

Furthermore, a quarter of panelists (or 20 people out of 81) giving reasons for not participating said they would like to be contacted at different times. Finally, roughly 2 in 10 of panelists (or 18 people) simply changed their minds and did not want to participate anymore (some of them said they were too busy).

³ Please note that these were open-ended questions.

Table M – Most Important Reasons for Not Participating in 4 Waves

Could you tell me the reasons why you could NOT answer ANY of the questions we sent you?	Frequency	Valid percent
Reluctance to use self-administered methods/Prefers to be called	21	26%
Prefers to be contacted at different times	20	25%
Does not want to participate anymore	18	22%
New cell phone number	6	7%
Problems with phone signal	4	5%
Not at home/Traveling	4	5%
Other reasons	8	10%
Total	81	100%

Although 101 panelists agreed that they would take part in the last two rounds of the survey, only a handful actually did so. Eleven panelists participated in wave 5 (3 by SMS and 8 by IVR) and 8 in wave 6 (4 by IVR and 4 by SMS).

Reasons for not participating in any of the 6 waves in Peru

Panelists in Peru who did not participate in any of the 6 waves were asked for the reasons why they had not done so, despite their agreement to participate in the initial face-to-face interview. Respondents were allowed to give several answers to this open-ended question and 412 mentions were recorded. As Table N on the next page reveals, out of these 412 mentions, 15% indicated lacking phone signal and 13% reported lack of time. Another 13% of mentions were problems with receiving the surveys, while 12% of mentions referred to the loss or theft of the cell phone.

Another important reason volunteered was “not knowing how to answer the questions (11% of mentions), followed by problems in understanding the questions (9%) and the damage of the cell phone (8%). Also, some respondents thought that they were charged when answering the survey (7% of mentions).

Table N – Reasons for Not Responding Among Panelists Not Participating in Any of the Six Waves

Q12: Could you tell me the reasons why you could NOT answer ANY of the questions we sent you?	Frequency	Valid Percent
Did not have phone signal	62	15%
Did not have time/was busy	54	13%
Did not receive the surveys	52	13%
Does not have this cell phone anymore (loss/theft)	51	12%
Did not know how to answer	44	11%
Did not understand the questions	38	9%
Cellphone was damaged	34	8%
Was charged when answering the survey	29	7%
Other reason	17	4%
Did not want to answer	15	4%
Had problems with electricity/cellphone could not be charged	8	2%
Answered all the surveys received/does not believe to have skipped some	4	1%
Questions seemed all the same	3	1%
Don't know	1	0%
Total	412	100%

Participation in Future Studies in Peru

Among those who had participated in all monthly surveys (n=169) 95% said that they would participate in a project like this in the future. Of those who responded some monthly surveys (n=260) 73% indicated their willingness to participate in the future. The corresponding proportion among panelists who had not taken part in any of the monthly surveys (n=271) was 51%.

Motivations to Participate in Future Studies

Besides the re-contact telephone surveys, Gallup conducted face to face closing surveys among 700 panelists. As part of this survey, panelists were asked what would motivate them to keep on participating in a project like this in the future. Here again, panelists were allowed to give several answers to this question, and 525 mentions were recorded.

As table O shows, the single most frequently mentioned motivation to participate in the future was an economic incentive either in monetary form, cell phone credit or a gift (20% of mentions). However, when adding up all the answers related in some way to the “project’s mission”, the motivation that this project will improve people’s lives in the long-term seems to be significantly more important for panelists than one-time monetary incentives. These obviously include the 14% of mentions of people hoped that the project improved people’s or their own living standards and the 13% who would be motivated if they could report about socio-economic reality of people’s lives.

However, it seems that many other frequently named motivations are related as well to this hope for better future lives. For instance, some panelists would be encouraged to participate if their opinion was heard (8% of mentions), others wished to be asked questions that would be more targeted towards the panelists' lives (6%) and some said they would be motivated if the study's result were published (5%).

Table O - Top 10 Motivations to Take Part in the Future Panel Surveys (Peru)

Q5A, Q11A, Q13A: And what would motivate you the most to keep on participating in a project like this in the future? I would be motivated if I...	Frequency	Valid percent
Received monetary incentive/ credit/ gift	105	20%
Project improves people's or their own living standards	75	14%
Could report about socio-economic reality of people's lives	69	13%
My opinion would be heard	42	8%
The questions asked more about my life	34	6%
Results were published	28	5%
Project would be this World Bank study	27	5%
Survey questions were simplified, instructions clarified	24	5%
Received higher cell phone credit	21	4%
Received frequent updates about project	13	2%
Other motivations	87	17%
Total	525	100%

Moreover, some panelists stated that they would like to take part in future surveys if they were a continuation of this World Bank study (5% of mentions). Others would be motivated if questions were simpler and instructions clearer (5%), cell phone credit gifts were higher (4%) and more frequent updates about the project were given (2%).

Desired Changes to Ensure Motivation to Participate in Future

All 700 panelists taking part in the final face-to-face survey in Peru were also asked how the L2L project should be modified in order to motivate them to participate in the future, resulting in 186 mentions of proposed changes. It should be noted that this was an open-ended question and that panelists were allowed to give several answers. As Table P shows, a quarter (25%) of mentions indicated that nothing should be changed.

The second most frequently named issue (18%) was the desire to change the survey method. Most of these panelists wanted to be surveyed in person (25 out of 34 panelists who would like to see a change of survey methods). Eight out of these 34 panelists belonged to the IVR group, 11 to the CATI group and 15 to the SMS group. Again, it should be noted that the original SMS sample for Peru was much larger than the samples for IVR and CATI.

Another important motivation that would encourage people to participate in future surveys were monetary or cell phone credit incentives for each participation (10% of mentions). In addition,

some said that higher or better incentives would motivate them (4% of mentions). All other motivations were mentioned by only a handful of panelists.

Table P - Top 10 Desired Changes to Ensure Motivation to Participate in Future

Q5B, 11B, 13B: What should we modify to this project to motivate you to keep on participating?	Frequency	Valid percent
Nothing/Don't want or can't participate anyways	46	25%
Use different survey method	34	18%
Continue giving incentives for each participation	19	10%
Call at more convenient times	13	7%
Less, less repetitive, easier or other questions	11	6%
Better explain study/questions/phone	10	5%
Give better/higher incentives	8	4%
Better explain goals of study	7	4%
Give me a cell phone for this study	6	3%
Fulfill promise to top up credit	6	3%
Other changes	26	14%
Total	186	100%

Discussion

The mobile panel supporting the L2L pilot program in Peru and Honduras faced the attrition challenges that are typical of the studies of its kind, plus some challenges that can be attributed to the nature of the data collection methods used.

Among the challenges that are typical of panel studies, perhaps the most critical one is earning the trust and commitment of panelists to respond to the first survey after recruitment. As this study shows, most attrition occurs between recruitment and first re-contact. Once, panelists respond to the first survey, attrition is just marginal and frequent contact and economic incentives seem to be important for minimizing it.

In terms of minimizing panelist non-response between recruitment and first re-contact, the following aspects seem to be critical, although their relative importance remains unknown (as measuring it was not part of the objectives of the study):

- The time elapsed between recruitment and first re-contact. As discussed in this report, logistic difficulties related to timely transportation of paper questionnaires in Peru affected the timeliness of re-contacts, causing a higher non-response than in Honduras, where re-contacting took significantly less time.
- Awareness and credibility of the entity conducting the study. Gallup's field partner in Honduras is a much better known firm than its Peruvian counterpart is in Peru. This presumably helped build credibility for the study among Honduran panelists, thus resulting in a lower non-response rate.

- As discussed, the economic incentives did not seem to have led to a higher response rate in first re-contact surveys (although they did help containing attrition thereafter). Therefore, psychological incentives (i.e. a clear communication of the study's mission) seem to be most important to that end. This is supported by the fact that Peruvian panelists expressing willingness to participate in similar studies in the future mentioned some aspect of the project's mission as their primary motivation to do so.

The results of this study also suggest that attrition levels were affected by factors inherent to the data collection methods used. Among these findings are:

- Higher attrition rates among older, less educated, less affluent panelists. It is possible that these panelists are less familiar or comfortable with using high-tech devices such as mobile phones, and presumably lack the skills required to operate certain cellular phone functions. This could be reflected in the fact that, among non-responsive panelists interviewed after wave 4 in Peru, 11% said they did not know how to answer the surveys.
- Higher attrition among panelists living in rural areas. Besides the fact that rural areas tend to concentrate less educated and less affluent populations, panelists from these areas are likely to have faced more problems receiving the survey calls/ invitations due to more restricted cellular phone coverage.
- Higher attrition rate and lower survey completion rate among panelists who were exposed to self-administered methods (IVR and SMS). The absence of an interviewer seems to have affected the response to the first re-contact survey, as the groups exposed to the CATI methodology showed a lower non-response. This seems to be reinforced by the finding that, of those Peruvian panelists surveyed about their lack of response to the panel, 26% said they prefer to be interviewed by a person.

The above mentioned problems seem to be more severe in the case of IVR, which has the additional inconvenience that survey calls are lost for good when not answered immediately (as opposed to SMS which retains the message in the device's inbox allowing for a later response).

Also, panelists responding the surveys via IVR or SMS showed a higher propensity to leave questions unanswered than did respondents answering via CATI, which suggests interviewers are important for ensuring that respondents give consideration to all the survey questions.

Conclusion

Besides the attrition related challenges commonly attributed to panel studies, the mobile data collection methods tested as part of the L2L pilot program pose their own additional attrition challenges. The main challenge was higher levels of attrition among older, less educated and less affluent residents in rural areas, due to their relative lack of familiarity with using mobile devices.

This problem becomes more severe when the mobile phone method is a self-administered one, such as SMS or IVR, with the latter showing the poorest performance of the three methods tested.

Despite being an undesired effect, the mobile panel's loss of statistical representativeness as a results of a disproportionately higher attrition among older, poorer and less educated panelists, does not seem to invalidate it as a viable method for nationally representative studies such as L2L. That is to say, that such disproportion can be effectively addressed by increasing the panel size and applying a post-stratification (weighting) scheme. (For details on weighting schemes, please refer to our Baseline Face-to-Face Surveys in Honduras and Peru Methodological Report).

Furthermore, additional attrition containment mechanisms could be put in place, based on the lessons learned from the L2L pilot. Particular attention should be given to the time elapsed between panel recruitment and the first re-contact surveys. To that effect, available technology - such as mobile device survey software capable of capturing and transmitting data via cell phone or wireless internet connection-, could be used to shorten the time between recruitment and first contact.

The SMS technology outperforms IVR in terms of attrition containment but is outperformed by CATI. Therefore, if SMS was to be implemented as a primary data collection method, it would be advisable to supplement it with a team of phone operators who would assist panelists who need to troubleshoot technical issues. These operators would also provide the “human touch” that some panelists seem to need in order to participate and complete surveys.

Due to the mounting evidence –supported by this study- indicating that survey respondents tend to support surveys (and survey-like crowdsourcing tasks) that are meaningful to them, the mission of L2L should be very clearly emphasized when recruiting panelists for future phases of this program.