Keeping in Touch with Project Participants between Surveys

A Mailing Experiment

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ABSTRACT

The present report reviews the results of a mailing experiment that took place within the *Future to Discover* (FTD) pilot project. A postcard and stickers were sent to a random group of project participants — mostly aged 15–17 — in the period between a contact call and a survey. The researchers hypothesized that, because of the additional mailing (the treatment), the response rates to the upcoming survey would increase. There was, however, no difference between the response rates of the treatment group that received the additional mailing and the control group. In the specific circumstances of the mailing experiment, sending project participants a postcard and stickers as a reminder of the upcoming survey and of their participation in the pilot project was not an efficient way to increase response rates.

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1. INTRODUCTION

In any longitudinal research project, one of the major problems researchers face is the risk of attrition of the initial sample. Attrition needs to be taken seriously as small losses from one year to the next are cumulative and can result in a substantial reduction of the sample size by the end of the research project. As a result, the final sample could not be representative of the population from which it was originally selected, and in random assignment experiments, more specifically, attrition can reduce the statistical power of the study. Moreover, if attrition is selective — for example, because more comparison group members are lost than program group members —, it can introduce a bias in the resulting impact estimates.

Different methods and approaches have been used to minimize attrition, such as sending reminders before a survey or giving incentives to respondents. Longitudinal studies often use a mix of methods to improve the chances of achieving high response rates. Cantor and Cunningham (2002) present a number of best practices for obtaining high response rates on telephone surveys. These best practices cover various activities from survey design to giving interviewers appropriate training and sending advance notification letters. As these methods are often used in combination, it is quite difficult to determine if one is more effective than another.

A number of papers on longitudinal research projects refer to the use of sending a letter or a brochure to keep in touch with project participants and remind them of their involvement in a study. For example, respondents to the British Household Panel survey were sent a letter in the period between surveys (Budowski & Scherpenzeel, 2005). This type of contact is attractive for its relatively low cost compared with other approaches such as contacting project participants by telephone or introducing a monetary incentive.

While there seems to be a consensus that mailings should be considered part of interviewers tool kit to limit sample attrition, the survey methodology literature counts relatively few studies rigorously evaluating the effect of this approach. To the authors' knowledge, the only such evaluation, Iredell et al. (2004), found that sending a postcard just before a survey is a cost-effective method of increasing response rates.[1]

The present report reviews the results of a mailing experiment that took place within the *Future to Discover* (FTD) pilot project (see Box 1[2]). The mailing experiment originated from a concern that contacts with FTD participants, especially those in the control group, were sparse. In the period between the baseline survey and the follow-up survey 30 months later, only one tracking call was planned at 18 months (see Table 1). While the researchers planned to give students a $20 incentive for completing the 30-month survey, there were still concerns that the lack of contact could lead to important sample attrition.

[1] Monetary incentives are more often the subject of evaluation (see Simmons and Wilmot (2004) for a review of the literature). Freeland and Furia (1999) tested if a reminder call to sample members of a mail survey would improve response rates. Their results showed that the response rate of those who received a telephone reminder was not better than the ones who did not.

[2] Readers can also refer to the Currie et al. (2007).

Table 1: *Future to Discover* Scheduled Surveys (Cohort 1, New Brunswick only)

	Timing	Month	Response Rate	Incentive
Recruitment: Baseline Survey (Grade 9)	May–June 2004	0	Not applicable	None
18–month Contact Call (Grade 11)	December 2005	18	98%**	None
Mailing (end of Grade 11)	**May 2006**	**24**	**Not applicable**	**None**
Follow-up Survey (Grade 12)	November 2006	30	88%***	$20

** The contact call allowed for proxy completion: parents and other knowledgeable household members could answer the questions to confirm the student's contact information.

*** This response rate is based on the initial number of FTD participants.

In the absence of firm knowledge about what works to improve survey response, and given that research projects operate within a limited budget, the researchers decided to test whether sending a postcard to project participants could help reduce sample attrition. The recruitment of FTD participants over two different years enabled researchers to test the mailing experiment on the initial cohort before implementing it for the remaining sample, if proven to be effective. Opting for an experimental approach was a cost-effective strategy: If the effect was positive, researchers would be in a position to recommend the adoption of the strategy for the entire pilot project; if the effect was non-existent or negative, only limited funds would have been used to test the strategy.

Box 1: The FTD Pilot Project

Funded by the Canada Millennium Scholarship Foundation, the FTD pilot project is a large-scale, random assignment project taking place in New Brunswick and Manitoba. At the core of the pilot project is a test of whether providing enhanced career education and/or financial incentives to high school students will improve their access to post-secondary institutions. The Social Research Demonstration Corporation (SRDC) is evaluating the pilot project.

A first cohort of 1,967 Grade 9 students was recruited in May and June 2004 in New Brunswick only. At the time of recruitment, students and parents had to complete the baseline survey as well as sign an informed consent form that explained the research design for FTD. Volunteers who signed the consent form were then randomly assigned to one of three program groups —Explore Your Horizons (EYH), Learning Accounts (LA), and a combined EYH-LA group — or to the comparison group. The evaluation of these interventions in the subject of separate reports (see Currie et al., 2007).

When FTD participants signed the consent form, they were made aware that no matter which group they were assigned to, they would be invited to participate in surveys over the next few years. Project participants (or a family member) were reminded of the upcoming survey during the 18-month contact call and that those participants who completed each survey would receive a $20 incentive.

A second cohort from New Brunswick and a single cohort from Manitoba were recruited in 2005. For the purpose of the mailing experiment, however, only the first cohort of project participants from New Brunswick was used.

The present report is divided as follows: Section 2 covers the methodology of the mailing experiment, while Section 3 presents the outcome of random assignment. The results of the mailing experiment are presented in Section 4. The report concludes with a brief discussion offering some potential explanation for the results and their implications for the FTD pilot project.

2. METHODOLOGY

The primary objective of the mailing experiment was to see whether an additional mailing could have a positive impact on increasing response rates in the upcoming survey. A secondary objective was to determine if receiving the additional mailing would ease the job of interviewers as they attempted to complete the survey with project participants would be have been reminded of the upcoming survey. The present section describes the development and content of the mailing experiment and the random assignment process.

2.1. Designing the Mailing Experiment

A number of options were considered on the exact form and content of the mailing experiment, such as sending a newsletter, and different types of "freebies," such as fridge magnets. There were, however, some important factors to take into account when deciding on the type of "freebies" to send, the main ones being the cost of producing and mailing the items as well as the age of the project participants.

In order to minimize the postage cost, the content of the additional mailing was subject to weight and size restrictions, which prevented sending something bulky like a pen or a bracelet/wristband bearing the name of the pilot project. Given the age of the project participants — aged 17, on average, at the time that they received the letter —, the researchers decided that a large postcard would be more appropriate than a formal letter or newsletter on the pilot project. Stickers were chosen for their light weight, but also because they appeared to be more appropriate to teenagers than a fridge magnet. Their relatively low cost also meant that it was possible to send more than one. For this reason, three different versions were created. A scan of the postcard and the three stickers that were sent to participants in the treatment group are provided in Appendix A.

The text of the postcard had to be carefully drafted to avoid any threats to the validity of the main FTD pilot project. These could be introduced if the additional mailing inadvertently caused a change in behaviour that would differ between the program and comparison group members as assigned in the main pilot project. The content of the postcard and the choice of pictures for the postcard and the stickers went through a number of iterations before they were considered final.

The researchers also sought the input of five high school students in British Columbia who were the same age as FTD participants via a focus group. The students represented a sample of convenience, not likely to be representative of all FTD participants. Nonetheless, their comments were particularly useful, especially concerning the level of language used and the nature of the "freebie." In the draft of the text they reviewed, an informal tone had been chosen that the students did not find this language credible coming from a research organization. This finding led to a revision of the text, adopting a more formal tone. They also approved the choice of sending stickers rather than another item, such as a fridge magnet.

Postcards were personalized using the "Dear [student's first name]" salutation.[3] Personalization of a letter in the context of surveys has generally been found to be effective to increase response rates (for literature review on the issue, see Joinson and Reips). Postcards and stickers were put into an envelope on which the student's name and address as well as the research organization's (SRDC) return address appeared. The return address was to enable Canada Post to return the postcards of students that had moved, though no postcards were returned. To protect FTD participants' anonymity in terms of their involvement in the pilot project, the envelope did not specify the name of either the pilot project or the research organization.

Aside from confidentiality, not having the name of the pilot project on the envelope could serve as another purpose: Budowski and Scherpenzeel (2005) report that focus group participants were more prompt to open an envelope not mentioning the name of the survey or the research organization. Also, in the case of the FTD pilot project, the researchers wanted to increase the chances that recipients of the envelope would open it. Had the pilot project been mentioned by name, control group members could have thought the mailing was in error, while program group members used to receiving project information by mail could have put the envelope aside.

During the mailing experiment's development, the researchers hypothesized that, aside from having a possible positive impact on response rates, the postcard could ease interviewers' work of attempting to engage its recipients to take part in the survey. To validate this assumption, three questions were asked of the interviewers at the end of each 30-month survey interview. The researchers asked the interviewers, who were not informed who was in the treatment or control group for the mailing experiment, to evaluate each respondent's awareness of the FTD pilot project, each respondent's level of expectation of the survey, and each respondent's level of reluctance to participate in the survey based on how difficult or how easy it was for interviewers to convince students to respond to the survey.

2.2. Random Assignment of the Mailing Experiment

The mailing experiment took place within a larger random assignment, demonstration project. Care was taken to ensure that the mailing experiment did not threaten the design of the main FTD pilot project.

In New Brunswick, the pilot project is evaluated separately for the Francophone and Anglophone sectors and random assignment for the mailing experiment was performed separately for each linguistic sector. Within each linguistic sector, random assignment was stratified by FTD experimental group to ensure that the four experimental groups — EYH, LA, EYH-LA, and control — were equivalently represented among those who received the additional mailing and those who did not. If the mailing experiment had an impact (whether negative or positive) on response rates, the additional mailing could have led to biased results in the main experiment in a situation where, by chance, a larger proportion of one experimental group, compared to another, had received the additional mailing. Stratified random assignment ensured that the additional mailing was random with respect to original group assignments and, thus, avoided the risk of introducing such a bias. Within each FTD experimental group, project participants had a 50-per-cent chance of being assigned to the treatment group.

[3] Gender differentiation was made in the French text with the "Cher" and "Chère" salutations.

Given the content of the additional mailing — a postcard and stickers —, the risk of contamination — namely, the receipt of a treatment by control group members — was considered relatively low. Indeed, even if those in the control group not receiving the postcard had seen the stickers, there was no mention on them that this was related to a reminder to respond to a survey. No complaint calls or other communications from project participants were received by the research and survey organizations. Such complaints — for example, from those who did not receive stickers, but who learned that others received them — could have indicated possible contamination.

3. OUTCOMES OF RANDOM ASSIGNMENT

Random assignment should divide participants into treatment and control groups such a way that there are no systematic differences between the groups in terms of participant characteristics — observed or unobserved. Random assignment for the mailing experiment appears successfully to have produced treatment and control groups that were statistically similar in this way.

Table 2 shows the characteristics of the treatment — of those who received the additional mailing — and control groups. Given that the sample was stratified by FTD experimental groups, it is not surprising to see an almost identical distribution between experimental groups for each linguistic sector.

Table 2: Characteristics of the Sample

	Francophone		Anglophone	
	Treatment (%)	Control (%)	Treatment (%)	Control (%)
Experimental Groups				
EYH	28	28.1	27.9	27.9
EYH-LA	16.1	16.1	16.8	16.8
LA	16.3	16.3	16.8	16.8
Control	39.6	39.4	38.5	38.5
Male	47.4	47.1	49.1	49.3
Female	52.6	52.9	50.9	50.7
17 or younger	89.1	88.3	86.2	85.6
18 or older	10.9	11.4	13.8	14.4
Family Income				
Less than 20K	19.3	16.1	20.2	22.8
20–40K	29.5	28	29.2	27.6
40–60K	22.2	29.2	24.5	22
60–80K	12.5	11.3	12.2	13.9
80K or more	16.6	15.5	14	13.7
Parent with Highest Level of Education				
Less than a high school diploma	16.7	17.4	11	10
High school diploma	22.5	21.3	29.5	27.7
College/apprenticeship/trade	46.3	44.7	46.6	48.3
University	14.5	16.6	12.9	14
Baseline high school grades				
90–100%	10.7	13.3	12.9	11.4
80–89%	33.5	31.5	31.6	32.2
70–79%	28.1	25.7	31.8	29.1
60–69%	18.3	17.6	15.2	18.7
55–59%	5.5	6.4	4.9	3.9
50–54%	2.4	2.4	1.8	1.7
Less than 50%	1.5	3.2	1.8	3.1
Sample size (1,967)	485	484	499	499

While there are some differences in proportions in a few instances, none of these proved to be significant, even at the 10-per-cent level (see Appendix B for a presentation of project participants, characteristics and the significance-test results for each linguistic sector).

4. RESULTS

Results of the mailing experiment are considered below. The first section assesses the impact of the additional mailing on response rates, the main outcome of interest. The second section examines interviewers' perceptions of respondents' awareness of the pilot project and willingness to participate in the survey.

4.1. Impact of the Additional Mailing on Response Rates

The main outcome of interest is the impact on project participants' response rates of having been sent a postcard. Tables 3a and 3b show that about 85 per cent of participants in the Anglophone sector and 92 per cent in the Francophone sector responded to the survey. They also reveal that response rates to the 30-month survey were unaffected by the additional mailing. The percentage of response rates for FTD participants who received a postcard in the Anglophone sector was 83.6 per cent, while it was 85.2 per cent for the control group. The same conclusion holds for the Francophone sector where the percentage of response rates for the treatment and control groups were 91.5 and 92.1 per cent, respectively. These differences are not significant. Moreover, there was no impact on the proportion of project participants that were away ("absent or untraceable") at the time of the survey or that refused to take part in the survey.

Table 3a: Impact Analyses of Response Rates (Anglophone Sample)

	Treatment (%)	Control (%)	Difference (Impact)	Standard Error
Issue of the survey				
Refuse or unreachable	10.8	10.6	0.2	2
Absent or untraceable	5.6	4.2	1.4	1.4
Interview completed	83.6	85.2	-1.6	2.3
Sample size (998)	499	499		

Table 3b: Impact Analyses of Response Rates (Francophone Sample)

	Treatment (%)	Control (%)	Difference (Impact)	Standard Error
Issue of the survey				
Refuse or unreachable	6.6	6.4	0.2	1.6
Absent or untraceable	1.9	1.4	0.4	0.8
Interview completed	91.5	92.1	-0.6	1.8
Sample size (969)	485	484		

4.2. Impact of the Additional Mailing on Students' Participation

Tables 4a and 4b present the impact of the additional mailing on students' participation as perceived by interviewers, for each linguistic sector and mailing experiment group.

For FTD participants in the Anglophone sector, interviewers determined that 17 per cent of those who received a postcard and 20.4 per cent of those who did not were not aware of the FTD pilot project. The proportions are a little higher in the Francophone sector with 22.7 and 25.2 per cent, respectively, though, the differences were not significant in both cases.

There were also small differences between control and treatment groups in the interviewers' evaluation of respondents' reluctance to participate in the survey, but none were statistically significant. Overall, the majority of respondents — over three quarters in any linguistic sector and treatment group — were reported not reluctant to participate in the survey.

The only significant difference appears in the Anglophone sample (see Table 4a) when looking at interviewers' response regarding their assessment of whether each respondent expected the survey. Half (50.5 per cent) of respondents who received the postcard were considered to expect the survey, while 56.1 per cent of the control group did so. This difference is significant only at the 10-per-cent level.

This weak result is puzzling as it suggests that those who received the postcard were less likely to expect the survey, and this outcome is the opposite of what the postcard was intended to do. Although not significant, there is a difference in the opposite direction for the Francophone sector as treatment group members were more likely to expect the survey than control group members. While it is hard to explain the difference between linguistic sectors, a possible explanation is that the question could have been interpreted differently by Anglophone and Francophone interviewers, though it should be noted that there was no debriefing with interviewers.

Table 4a: Interviewers' Perceptions of Respondents' Awareness (Anglophone Sample)

	Treatment (%)	Control (%)	Difference (Impact)	Standard Error
How aware was the student of the FTD pilot project?				
Student was not aware at all or not aware – score of 1 or 2	17	20.4	-3.4	2.5
Student was somewhat aware – score of 3	25.3	21.8	3.4	2.7
Student was aware – score of 4	17.6	17	0.6	2.4
Student was very aware – score of 5	23.2	25.9	-2.6	2.7
Interviewer don't know if student was aware of FTD	0.4	0	0.4	0.3
Student did not complete the survey	16.4	14.8	1.6	2.3
Was the student expecting the survey?				
Student was expecting the survey	50.5	56.1	-5.6	3.2
Student was not expecting the survey	8.2	7.6	0.6	1.7
Interviewer don't know if student was expecting the survey	24.8	21.4	3.4	2.7
Student did not complete the survey	16.4	14.8	1.6	2.3
How reluctant was the student to participate in the survey?				
Student was not reluctant at all	75.8	79.2	-3.4	2.6
Student was very reluctant – score of 2–5	7.8	6	1.8	1.6
Student did not complete the survey	16.4	14.8	1.6	2.3
Sample size (998)	499	499		

Table 4b: Interviewers' Perceptions of Respondents' Awareness (Francophone Sample)

	Treatment (%)	Control (%)	Difference (Impact)	Standard Error
How aware was the student of the FTD pilot project?				
Student was not aware at all or not aware – score of 1 or 2	22.7	25.2	-2.5	2.7
Student was somewhat aware – score of 3	25.4	25.6	-0.3	2.8
Student was aware – score of 4	21.6	17.8	3.9	2.6
Student was very aware – score of 5	21.9	23.6	-1.7	2.7
Student did not complete the survey	8.5	7.9	0.6	1.8
Was the student expecting the survey?				
Student was expecting the survey	76.7	73.6	3.1	2.8
Student was not expecting the survey	9.1	11.8	-2.7	2
Interviewer don't know if student was expecting the survey	5.8	6.8	-1	1.6
Student did not complete the survey	8.5	7.9	0.6	1.8
How reluctant was the student to participate in the survey?				
Student was not reluctant at all	77.9	79.1	-1.2	2.6
Student was very reluctant – score of 2–5	13.6	13	0.6	2.2
Student did not complete the survey	8.5	7.9	0.6	1.8
Sample size (969)	485	484		

5. DISCUSSION AND CONCLUSION

The results of the mailing experiment indicate that an additional mailing to all FTD participants did not improve response rates even marginally and would not represent an effective strategy to improve these students' participation in the 30-month survey. Moreover, it appears that the additional mailing did not improve the quality of interviewers' interactions with respondents. Without implicitly downplaying the lack of impact of the additional mailing, it is important to remember that this conclusion holds under the specific conditions of the mailing experiment. It is possible that, under other circumstances, a similar mailing could have had an impact.

While the mailing experiment did not detect any impact, the results should be placed in context by considering of, at least, the four following factors[4]:

1. The respondents' characteristics were very specific. The majority of FTD participants were students in their last year of high school. These students and, more precisely, their families might not have been very mobile. The 30-month survey could have been too early to detect an impact. Once students move out of their parents' homes, it is possible that they will contact the survey organization to provide new contact information. In other words, it can be hypothesized that the additional mailing has a longer-term impact that is beyond the scope of this paper, such as lowering future

[4] The reader should be wary that these points are speculative on the part of the authors. Nevertheless, these are interesting to consider for the purpose of discussion.

tracking costs. Still, it is doubtful that this is the case, though later analyses can test this hypothesis.

2. Respondents were all offered an incentive of $20 when they accepted to answer the 30-month survey. This amount of money could have been a sufficient incentive to ensure good response rates with 17-year-old high school students, and this hypothesis would be consistent with the literature on monetary incentives. In general, monetary incentives are shown to be an effective to increase response rates: In their review of the literature, Simons and Wilmot (2004) conclude that even small amounts of money can have a more significant effect on response rates than non-monetary incentives. In other words, the additional mailing might possibly have had an impact on response rates in the absence of the incentives.
3. It is possible that sending the postcard six months before the survey was too far ahead of the intended survey contact to produce an impact.
4. In the majority of cases, the same interviewers undertook both the 18-month contact call and the 30-month survey. As suggested by Cantor and Cunningham (2002), a relationship established between interviewers and respondents could be enough to ensure good response rates, with or without an additional mailing.

Although the additional mailing had no effect on response rates, the mailing experiment was a methodological success. At a relatively low cost, it was possible to test whether a mailing between survey waves was an efficient strategy for increasing response rates.

Two important conclusions can be drawn from this mailing experiment. First, there was a practical implication of the mailing experiment for the pilot project and, possibly, for other projects of this kind: To protect and enhance response rates in the FTD pilot project for subsequent surveys, the researchers should rely on strategies other than a mailing between survey waves. Second, at a general level, the random assignment design of the mailing experiment has isolated any specific impact and found it to be effectively zero. Had all FTD participants received the postcard, it would have been impossible to determine whether or not the high response rates would have occurred even in the absence of the additional mailing. In other words, this relatively simple mailing experiment demonstrates the importance of having a valid counterfactual in any evaluation.

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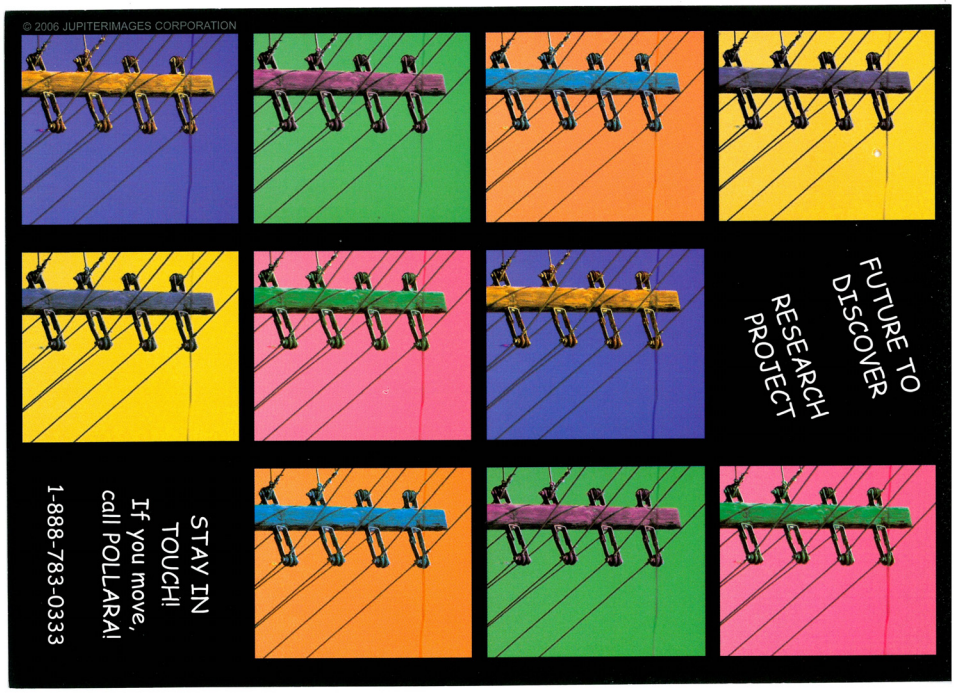
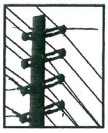
APPENDIX A

Scan of Postcard



May 2006



It has already been two years since you agreed to take part in a unique research project called "Future to Discover." Did you know that over 5,000 students are participating in the project? Thanks for your support!

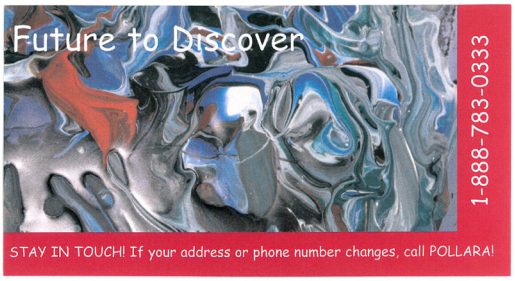
Here's what's next. In the fall of 2006, make sure to answer the phone — an interviewer from POLLARA will be calling you to ask you some questions on how you're doing. The interview will last about 25 minutes for which **we'll give you $20**.

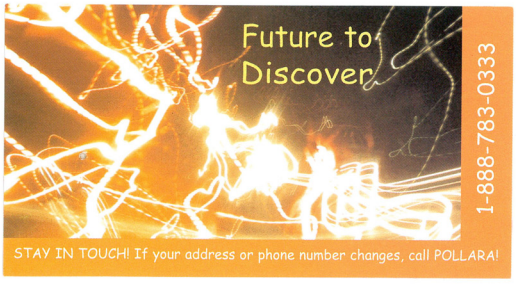
It's important we keep in touch. So remember, if your mailing address or phone number changes, give POLLARA a call at 1-888-783-0333. This phone number is on the enclosed stickers. Stick them wherever you want, like on a binder or notebook, so you can keep the number handy.

Have a great summer and talk to you soon!

The Future to Discover research project team

Scan of stickers





APPENDIX B

Table B1: Characteristic of Project Participants and the Success of Random Assignment (Anglophone Sample)

	Experimental	Control	Difference (Impact)	Standard Error
Student Characteristics				
Male (%)	49,1	49,3	-0,2	3,2
Age (years)	17,1	17,1	0	0
80%+ Average this Year (%)	44,5	43,6	0,9	3,2
Experimental Groups				
EYH (%)	27,9	27,9	0	2,6
EYH-LA (%)	16,8	16,8	0	3,1
LA (%)	16,8	16,8	0	3,1
Control (%)	38,5	38,5	0	2,6
Parent with Highest Level of Education				
Less than a high school diploma (%)	11	10	1	1,9
High school diploma (%)	29,5	27,7	1,8	2,9
College/apprenticeship/trade (%)	46,5	48,3	-1,8	3,2
University (%)	12,8	14	-1,2	2,2
Family income in previous year ($)	47 618	47 400	219	2 379
Sample size (998)	499	499		

Source: Calculations from parent and student baseline survey data.

Notes: Two-tailed t-tests were applied to differences in characteristics between the program and control groups.
Statistical significance levels are indicated as: * = 10 per cent; ** = 5 per cent; *** = 1 per cent.
Rounding could cause slight discrepancies in sums and differences.

Table B1: Characteristic of Project Participants and the Success of Random Assignment (Francophone Sample)

	Experimental	Control	Difference (Impact)	Standard Error
Student Characteristics				
Male (%)	47,4	47,1	0,3	3,2
Age (years)	17	17,1	0	0
80%+ Average this Year (%)	44,1	44,8	-0,6	3,3
Experimental Groups				
EYH (%)	28	28,1	-0,1	2,9
EYH-LA (%)	16,1	16,1	0	2,4
LA (%)	16,3	16,3	0	2,4
Control (%)	39,6	39,5	0,1	3,1
Parent with Highest Level of Education				
Less than a high school diploma (%)	16,7	17,4	-0,7	2,4
High school diploma (%)	22,5	21,3	1,2	2,7
College/apprenticeship/trade (%)	46,2	44,6	1,6	3,2
University (%)	14,4	16,5	-2,1	2,3
Family income in previous year ($)	48 095	48 045	50	2 135
Sample size (969)	485	484		

Source: Calculations from parent and student baseline survey data.

Notes: Two-tailed t-tests were applied to differences in characteristics between the program and control groups.
Statistical significance levels are indicated as: * = 10 per cent; ** = 5 per cent; *** = 1 per cent.
Rounding could cause slight discrepancies in sums and differences.