



Executive Summary

Foundations for Success:
[Early Implementation Report]



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**Foundations for Success:
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EXECUTIVE SUMMARY





Introduction

While many post-secondary institutions are recording increasing enrolment rates, this fact masks a common problem: the high number of students who drop out of their program of study. Research has clearly shown the many reasons why students drop out of college, but few initiatives identify these students before they actually leave and implement strategies to address the matter.

Foundations for Success, a pilot project sponsored by the Canada Millennium Scholarship Foundation (hereafter “the Foundation”) and launched in partnership with Confederation College, Mohawk College and Seneca College aims to test whether case manager-mediated access to a combination of academic support, career education, peer mentoring and financial incentives will increase the likelihood that students deemed at risk of dropping out of college will persist and successfully complete their studies.

The primary research questions for this project are:

- Do case manager-mediated support services lead to increased probability of completing a college program?
- Do financial incentives in combination with case manager-mediated support services increase the probability of completing a college program more than case manager-mediated services alone?

This *Early Implementation Report* provides a comprehensive overview of the first year of implementation for the *Foundations for Success* pilot project and documents the process through which this project was implemented. The report also includes a summary of the successes in randomly assigning students to treatment and program groups. The findings in the report are based on and supported by data gathered from many different sources, including, but not limited to, the following:

- site visits to colleges to ensure research and implementation consistency
- a literature review on retention in post-secondary education
- key informant interviews with case managers and project leads
- baseline data
- focus groups with students.

There are two key innovative features of *Foundations for Success*. The first is the identification of at-risk students by the use of a post-admissions language proficiency assessment and a self-assessment survey; students deemed to be at risk based on their results are redirected to existing support services. The second is a case management approach in which identified at-risk students receive one-on-one advising and are supported during a two-year period. Case management involves encouragement, acknowledgement of students' needs and challenges, and redirection to appropriate college services.

Barriers to Persistence

The issue of persistence in Ontario college programs is one of considerable concern: approximately 35 percent of students in Ontario colleges do not graduate from their program.¹ The following statistics, gathered from college recruitment records and from the *Pan-Canadian Study of First-Year College Students*, shed light on the factors leading to high attrition:²

- **Academic:** 47 percent of first-year students at Canadian colleges and institutes whose first language is English scored below the college level in English testing, and of those students who required math as a prerequisite, 60 percent scored below the required math level.
- **Financial:** 45 percent of first-year students at Canadian colleges and institutes had no money saved for their education, and 72 percent were concerned about having sufficient funding to complete their college education.
- **Support:** Roughly one-third of students reported that they were “first-generation students”—that is, the first in their family to pursue a post-secondary education.
- **Career development:** Half of all students reported spending less than eight hours on exploring job options after college training.

The *Foundations for Success* pilot project addresses these documented barriers to persistence and is modelled on a similar research project implemented at Seneca College in 2004 entitled Enhancing Student Success in Post-Secondary Education. While the Seneca College research showed promising results, the key limitation to that study was that case manager-facilitated access to support services was only offered to students in the first semester. *Foundations for Success* was created to build on the strategies implemented at Seneca College in 2004, to explore research questions that emerged from the earlier study and to further enhance retention research.



1 Based on Colleges Ontario's reporting (see [www.collegesontario.org/client/collegesontario/colleges_ontario_lp4w_lnd_webstation.nsf/resources/2007KPI/\\$file/2007_KPI_ENGLISH.pdf](http://www.collegesontario.org/client/collegesontario/colleges_ontario_lp4w_lnd_webstation.nsf/resources/2007KPI/$file/2007_KPI_ENGLISH.pdf)).

2 Dietsche, P. (2007). *Pan-Canadian Study of First-Year College Students: Report 1—Student Characteristics and the College Experience*. Gatineau, QC: Association of Canadian Community Colleges and Human Resources and Social Development Canada.

Selection of Participating Colleges

The main interventions in this pilot project were designed and field-tested during the aforementioned pilot study at Seneca College in 2004. As such, Seneca College played a key role in the design of *Foundations for Success*.

Foundations for Success is a random assignment demonstration project. The Foundation and Seneca College, along with external advisers, determined that a sample size of 2,700 participants would be large enough to identify

policy-relevant impacts on key project outcomes. This sample size required the recruitment of two additional sites to test the intervention.

The first step in the recruitment process was to identify appropriate colleges for the pilot study. Eleven colleges with a graduation rate below the Ontario provincial median were invited to submit an expression of interest to participate in *Foundations for Success*. A selection panel composed of representatives from the Foundation, Seneca College and two external evaluators reviewed the applications and short-listed potential demonstration sites. The selection panel subsequently chose Mohawk College and Confederation College as partners.



Identification of Risk Factors

Foundations for Success focuses on three factors linked to attrition from post-secondary education: demonstrated lack of language proficiency; uncertainty in program choice/career options; and inability to socially integrate into the college community. These factors were determined using students' results on Accuplacer® (for language proficiency) and the FastTrack™ survey (for career clarity and the ability to socially integrate into the college environment). Students who were at risk according to at least one of these three factors were eligible to participate in the pilot project.

Recruitment of Students

Students enrolled full time in selected two-year programs at Seneca College, Mohawk College or Confederation College were eligible for *Foundations for Success* if they were classified as "at risk" for one or more of the three factors mentioned previously. In addition to meeting this eligibility requirement, students recruited into the pilot project had to sign an informed consent form and complete two post-admissions assessment instruments.

Recruitment took place during the summer 2007 semester (Cohort 1) at all three colleges, with 1,710 students recruited. The inability to attain the anticipated sample size led to the recruitment of a second cohort among those eligible students starting a program of study in January 2008 at Mohawk College and Seneca College. Between December 2007 and January 2008, an additional 297 students were recruited. In June 2008, a decision was made to recruit a third cohort; additional information on this cohort will be available in future reports. Several challenges occurred during the recruitment process for Cohorts 1 and 2, including:

- **Contacting students:** Students were very difficult to contact. Case managers indicated that students often ignored their calls and emails, with some students asking not to be contacted. Students also provided incorrect or outdated contact information on college documents.
- **Ineligibility of prior attendees:** The project focused on students who were first-time attendees at one of the three colleges. Students who were returning to college for a second time were ineligible to participate, as they may already have been familiar with student support services on campus. In some colleges, the number of returning students could be as much as 25 percent.
- **Apathy:** Some students were not interested in reading or listening to information about the project. Others were not interested in receiving case manager support or a financial incentive for participating.
- **Mistrust:** Students were skeptical about the fact that there were no conditions attached to their consent and participation in the project. These concerns were revealed in the questions asked by students during the informed consent sessions.
- **Resistance to authority:** As documented by the project manager, participants felt that they would be free of parental and institutional scrutiny when entering college, but viewed case managers as assuming an unwanted parental role, reminding them to go to class, complete homework, etc.
- **Language:** Some students at Seneca College did not possess the language skills required to understand the informed consent process. Many students asked to take the documents home and have them translated.
- **Late recruitment:** The colleges were unable to recruit the target sample size by the initial recruitment deadline. Therefore, the recruitment period was extended by one month. Some students who were recruited later had difficulty meeting the 12-hour project time requirement before the end of the semester.

Description of the Participant Groups

Eligible students who consent to participate in *Foundations for Success* and who meet all of the project criteria are randomly assigned to one of the three groups described below:

- **Services Group:** Students are assigned to meet with a case manager and directed to complete 12 hours of approved activity related to their individual risk factor(s). If students complete the 12 hours of activity and obtain a 2.0 GPA over two consecutive semesters, the college provides them with a certificate of achievement. The students receive a transcript notation following four consecutive semesters of meeting these standards.
- **Services Plus Group:** As is the case for the Services Group, all participants are assigned a case manager and expected to complete 12 hours of activity related to their individual risk factor(s) and obtain a 2.0 GPA. In addition, students have to be eligible to continue in a full-time program the following semester. Students who meet these requirements receive a fellowship worth \$750 at the start of each new semester, as well as a certificate of achievement.
- **Control Group:** Students can access the regular services available on campus but are not assigned a case manager.

Description of Support Services/Interventions

Students placed in a remedial English/communication course based on post-admissions language assessment results are streamed to developmental courses. Case managers encourage students in the Services and Services Plus Groups to undertake one-on-one academic peer-tutoring and related academic support.

Answers given on the FastTrack™³ survey indicate whether students self-identify as someone who would benefit from a mentor and the degree of clarity they have vis-à-vis program selection and career options. If the questions are answered with any degree of doubt, the student is either assigned a mentor or directed to participate in career clarification activities.

The types of activities completed by students for *Foundations for Success* depend on the risk profile of the student, as determined during the recruitment phase following the completion of the Accuplacer® assessment and FastTrack™ survey. Students deemed at risk due to a lack of language proficiency are asked to complete a minimum of four hours of English/communication tutoring in Semester 1 or until they successfully complete remedial courses. Students demonstrating a lack of career clarity are asked to complete two career workshops during the first and second semesters, testing and a follow-up meeting with a career counsellor. Students deemed at risk due to an inability to integrate within the college community are assigned a mentor and expected to meet with this mentor for at least one hour during Semester 1.

The major components of the *Foundations for Success* project are summarized in the table below.

Table 1: Major Components of Foundations for Success

Component	Rationale	Participation Requirement Semester 1	Participation Requirement Semester 2
Case Management	To enhance student interaction with campus personnel and to connect students to various on-campus services and extra-curricular activities	2 hours	2 hours
Tutoring	To enhance students' academic competence in areas such as reading and writing	4 hours	4 hours*
Career Clarification Workshops	To help students think about their future careers and begin to develop their own plan to reach the future they want	7 hours	4 hours
Mentoring	To establish peer relations and help with the transition into college	1 hour	As needed
Student Engagement Activities	To engage students in the college community	Consultation with case manager	Consultation with case manager

* Dependent on student completion of remedial courses. If students successfully complete remedial courses and enrol in a college-level English course, they are not required to participate in language tutoring.

³ FastTrack™ is a student tracking data system comprised of two surveys: the Partners in Education Inventory (PEI) and the Student Experience Survey (SEI).



Table 2: Sample Size

Group	Seneca		Mohawk		Confederation		Total
	Cohort 1	Cohort 2	Cohort 1	Cohort 2	Cohort 1	Cohort 2	Actual
Control	182	55	242	45	145	N/A	669
Services	182	55	238	43	148	N/A	666
Services Plus	184	56	242	43	148	N/A	673
Total	548	166	722	131	441	N/A	2,008

Consistency of Implementation

Based on field research conducted during the first year of the *Foundations for Success* project, the evaluation concluded that the process to recruit students, the method by which case manager meetings are facilitated, data collection and the delivery of the interventions have been implemented consistently across the colleges. The

tools to ensure consistency included training of staff (case managers, mentors, tutors and career clarification facilitators), creation of universal scripts used when contacting students, development and usage of common project documents and discussions highlighting the importance of consistency raised at weekly Implementation Committee meetings. The evaluation also concluded that the delivery of the interventions is being implemented as originally designed.



Random Assignment

Randomized experiments are recognized as the most effective tool for determining causal relationships between success strategies and outcomes. Randomization theoretically ensures that there are no systematic differences between the treatment groups before implementation of the strategy begins. As a result, any observed differences between the success strategy and control groups can be attributed to the strategy.

The random assignment of participants to the Services, Services Plus and Control Groups was conducted by R.A. Malatest & Associates Ltd., with advice provided by Abt Associates Inc. The assignment was administered and completed in blocks for each college, based on time of recruitment. The sample sizes by treatment group, cohort and participating college are presented in table 2.

The minimum detectable difference between the control and treatment groups (Control versus combined Services and Services Plus Groups) for the full sample of students is 5.8 percent (expressed as a percentage point difference between treatment and control groups using graduation rate as the dependent variable). The calculations assume one-tailed tests that use an alpha-level criterion of $p < 0.05$ and 80 percent power. The minimum detectable effects (MDEs) are expressed as a percentage point difference between treatment and control groups when the graduation rate for the control group is 50 percent.

Baseline Characteristics of Students

R.A. Malatest & Associates Ltd. used the responses on the FastTrack™ survey administered prior to the start of the semester to determine the baseline characteristics of the sample. The results of random assignment indicate that overall the demographic characteristics of individuals are similar across the control and treatment groups, with a small number of exceptions. This suggests that the random assignment resulted in the generation of experimental groups that share comparable baseline characteristics. There are a number of slight differences between the three treatment groups, specifically with respect to first language, age, student education, confidence in succeeding and frequency of missing classes in high school. As a result, these variables will be introduced as covariates in the regression models in order to improve the precision of treatment impact estimates.



Future Reports

During the course of the evaluation, R.A. Malatest & Associates Ltd. has been providing the Foundation with regular reports on the project's progress. Updates take the form of both written and verbal reports that summarize the activities completed to date and any issues that arise throughout the project.

In addition, R.A. Malatest & Associates Ltd. will complete two further analytical reports during the course of the evaluation:

- **Short- and Medium-Term Impacts Report:** This report will present both qualitative and quantitative information regarding the first year of implementation. The report will also capture information on outputs and immediate outcomes from *Foundations for Success*, including persistence rates from first to second year. It will present information on the results of the Year 1 survey (10 months after baseline), focus groups and site visits. It is anticipated that this report will be published in the spring of 2009.

- **Final Report:** This report will summarize the intermediate and final impacts of *Foundations for Success*. In particular, project participation data, administrative data, student surveys and other data obtained during the course of the evaluation will be linked in order to determine the impacts. The focus will be on answering the research questions presented in this report, including the effectiveness and efficiency of case manager-facilitated access to services in terms of improving the persistence rates of students deemed at risk of not completing their program of study. This report will also include a cost-benefit analysis of *Foundations for Success*. It is due to be published early in 2010.

