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# The Student Success Program: From Pilot to Implementation

The Office of Institutional Research,  
George Brown College



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## Executive Summary

The Student Success Program (SSP) at George Brown College is designed to foster a supportive college environment for first-year students. The College committed to fund the SSP for a five-year period beginning in 2008-2009. As part of the SSP, a range of academic and non-academic activities are offered to first-year students in order to promote collaborative learning and peer interaction. Some of these activities take place in class, while others are offered outside of class. The SSP components are tailored to programs within individual centres or schools, so as to provide the types of activities best suited to assist first-year students in those areas.

This report discusses the evolution of the SSP in two George Brown programs across three academic years, 2008-2009 through 2010-2011. The two college programs chosen for this study are very different, both in terms of their student demographic profiles and their subject matter. A range of data sources were used for this study including academic records, student surveys and SSP evaluation surveys. Of interest was the possible effect of the SSP on academic performance, retention or student satisfaction. The analyses were conducted within each program and generally focused on cohort comparisons (pre- vs. post-implementation of the SSP) or on those activities that took place outside of class (allowing for participant vs. non-participant comparisons). With regard to academic performance, results did not show any consistent overall year-over-year patterns of change pre- vs. post-implementation, but did show that participation in SSP activities may have had a positive effect on GPA, particularly for students whose academic performance was toward the lower end of the grade distribution. The average GPA for students who participated in outside-class SSP activities tended to be higher than that of non-participants. Motivation, engagement, time demands or other factors may have had an influence on who participated in outside-class SSP activities; these factors may also influence GPA. That the magnitude of the GPA difference between participants and non-participants tended to be larger for students who may struggle academically is particularly intriguing. Although further study is needed, the College may note this finding when encouraging future students to become engaged in academic and non-academic program activities.

Beyond GPA, no evidence was found for effects of the SSP on retention, and results for student satisfaction were mixed: coincident with the 2008-2009 implementation of the SSP, student satisfaction scores decreased in one program and increased in the other. The magnitude of the difference (in either direction) was roughly maintained for the remaining duration of the study. Thus no clear conclusion can be drawn for student satisfaction. In sum, any positive effects of the SSP in these two demonstration programs appear to be relatively subtle. Of the various findings, the association of SSP participation with higher GPA for those students at greatest academic risk is of primary interest and may warrant further tracking with later cohorts.

As with most longitudinal studies of this type, conclusions are tempered by the potential for uncontrolled or confounding variables. The study design and findings highlight the challenges inherent in longitudinal studies of student intervention initiatives in college programming. For example, a strength of the SSP is its dynamic nature, which allows for program flexibility and year-over-year improvements based on student and staff feedback. However, this strength results in significant challenges for the research analyses and for any inferences drawn from the findings. Nonetheless, continual evaluation and assessment of the potential impact of student intervention programs on a range of outcome variables as shown within this report will inform decision-making at all levels. With this evidence-based focus, the evolution of interventions and other institutional approaches to student success will ultimately result in high-quality, effective programming and improved outcomes for students.

**Keywords:** *student success, student satisfaction, student retention, collaborative learning, program implementation, program evaluation*

## Project Background

The Student Success Program (SSP) was officially launched in fall 2008 after George Brown College committed to invest nearly \$1 million annually over a five year period (2008-2009 to 2012-2013). The SSP is a non-remedial initiative focusing on first-year students in efforts to promote collaborative learning, peer interaction and integrated learning in a supportive environment. The program was developed in 2007 by the Student Affairs Department after a series of pilot projects between 2003 and 2007.

The SSP includes an array of activities clustered under several pillars (early alert, ongoing orientation and academic competence) depending on the goal of the activity. Activities take place either in class or outside of class; those taking place outside of class can have either a primarily academic (e.g., learning strategy workshops) or non-academic (e.g., lunch with faculty) focus. Specific student activities vary across programs and from year to year, as feedback from students and staff is used to refine and improve activities developed for the next first-year student cohorts (see Appendix A for examples of SSP activities by year). The program staff includes a student success specialist who oversees the SSP in each academic program. The specialist works with the student success coordinator, participating faculty, peer leaders and peer liaisons to develop learning strategies and to ensure that students become aware of the assistance that is available to them and that they have early and continuing contact with staff.

The SSP is college-wide but the development and administration of associated activities are determined within individual centres and schools. This provides flexibility for various centres and schools to modify and improve the types of activities that would be best suited to assist first-year students in those areas. Thus the SSP is a dynamic program in which specific student activities differ across the college but have the common goal of improving the student experience.

This report discusses the evolution of the SSP in two George Brown College programs across three academic years, 2008-2009 through 2010-2011. A range of data sources were used for this study including academic records, student information surveys and multiple SSP evaluation surveys, which rate the awareness, participation and usefulness of each activity. Together, these data sources provide a comprehensive view of the SSP from a variety of perspectives. Throughout the study, focus groups and interviews with college stakeholders were conducted regularly in order to refine the student activities for future cohorts and address any administrative issues as they arose. Selected comments are presented in Appendix C. For the purposes of this report, research analyses focus primarily on the student data; ultimately, the goal of the program is to promote student success.

As detailed below, the two college programs chosen for this study were different in most respects, including program content and typical incoming student characteristics. However, the SSP objectives for both of the programs were similar and included improving academic performance (i.e., GPA), retention and student satisfaction. As the SSP initiatives and the structure and content of the college programs themselves were not static over the evaluation period, the analyses are performed within programs, comparing general student performance pre- and post-introduction of the SSP, as well as between SSP participants and non-participants.

## Methods and Results

### Program A

Program A is a two-year diploma program offered in the School of Social and Community Services. Since 2005, student enrolment has grown by 53 per cent and, over that time, the program has gone through major revisions of the curriculum, including changes in course sequence, changes in course length from seven to fourteen weeks, and/or complete course redesign. From an analysis perspective, these changes present challenges to the comparability of the student cohorts over time, and so the difficulties in isolating effects of the SSP need to be factored into any conclusions.

### Student Profile

Table 1 shows the basic demographic and academic characteristics of students in Program A in the years before (2005-2007) and after (2008-2010) full implementation of the SSP. The majority of students in this program are female, with a median age of approximately 20 years, and, typically, over 40 per cent rely on financial assistance (OSAP). About one-third of Program A students test at the pre-college level in English (Foundation). Most of these characteristics are quite stable year over year, with the exception of the proportion of students who by-passed (i.e., were not required to take) college-level English; this proportion has fluctuated from 9 per cent to 29 per cent across the years pre- and post-introduction of the SSP.

**Table 1. Program A, Student Profile**

	2005 a	2006 b	2007 c	2008 d	2009 e	2010 f
<b>Enrolment</b>	160	155	200	220	221	245
<b>Gender:</b>						
<b>Male, %</b>	15.6	15.6	20.1	21.8	15.4	22.4
<b>Female, %</b>	84.4	84.4	79.9	78.2	84.6	77.6
<b>Median age at registration</b>	20	22	20	20	20.5	21
<b>Received OSAP, %</b>	n/a	50.3	49.0	48.2	40.3	49.8
<b>Placement in English:</b>	bef	acdf	bef	bef	acd	abcd
<b>By-pass %</b>	9.1	23.8	9.8	13.5	25.1	29.2
<b>Regular %</b>	60.8	51.0	62.9	53.2	45.2	35.0
<b>Foundation, %</b>	30.1	25.2	27.3	33.3	29.7	35.8

Source: Banner information system; retrieved in fall of each year

Letters indicate statistical significance between cohorts ( $p < .05$ ). For example, the letters abcd in the column for 2010 indicate that the percent distribution of students across Placement in English categories in 2010 is significantly different from 2005, 2006, 2007 and 2008, but not 2009.

Further demographic data were collected via an SSP student survey administered to first-year students during their first semester. The survey response rate was similar in each of the evaluation years (2008, 2009, 2010) at approximately 70 per cent. As shown in Table 2, most variables were fairly consistent across years. A

notable exception was the percentage of students with prior postsecondary experience, with the number in 2008 more than 10 percentage points lower than in later years. As such, the 2008 cohort also had a lower rate of English by-pass compared to later years.

**Table 2. Additional Demographic Characteristics**

	2008	2009	2010
<b>Number of survey respondents<sup>1</sup></b>	148	154	176
<b>Status of those not born in Canada:</b>			
<b>Canadian citizen/permanent resident, %</b>	31.1	24.9	26.9
<b>International visa/refugee, other, %</b>	3.4	5.2	5.3
<b>English as first language, %</b>	70.3	73.3	72.5
<b>Marital status: single, %</b>	82.8	85.9	76.3
<b>With dependent children, %</b>	22.5	16.9	12.9
<b>First-generation students, %</b>	27.3	32.3	31.2
<b>Highest level of prior education:</b>			
<b>High school or less, %</b>	68.5	60.3	57.6
<b>At least some postsecondary, %</b>	30.8	42.9	41.9
<b>Worked for pay during fall term, %</b>	57.1	50.0	53.9
<b>Mean hours worked (per week)</b>	19.0	18.6	19.8
<b>Minimum # hours</b>	40	3	4
<b>Maximum # hours</b>		37	50

Source: Student Characteristics Survey

<sup>1</sup> Response totals vary by question.

Students were also asked near the end of each semester to rate their awareness of the various out-of-class SSP activities that had been offered that semester and to indicate whether they had participated. Awareness rates were relatively high for most SSP-related activities offered to Program A students, though the range across different activities was substantial (2010 cohort: 66% to 94%) (see Appendix B). A wide range of participation rates in outside-class activities was also observed (2010 cohort: 28% to 63%).

## OBJECTIVE A: IMPROVE ACADEMIC PERFORMANCE

Two methods of evaluating the possible effects of the SSP on academic performance were employed for each program. The first method compared grades across years to determine whether or not the SSP had an impact on the GPA of the SSP cohorts compared to the pre-SSP cohorts. This was done by comparing the mean GPA across years using Tukey's HSD.

A comparison of average fall GPA across years shows that grades have remained fairly constant, with the exception of 2010, when average GPA increased significantly compared to most other years (Table 3). The average winter GPA was also highest in 2010, while the average from 2005 was significantly lower than in all other years.



**Table 3. Academic Outcomes**

	2005 a	2006 b	2007 c	2008 d	2009 e	2010 f
<b>Mean fall GPA</b>	2.73 <sup>f</sup>	2.89	2.87 <sup>f</sup>	2.73 <sup>f</sup>	2.86 <sup>f</sup>	3.14 <sup>acde</sup>
<b>Standard deviation</b>	0.97	0.87	0.91	0.97	0.99	0.79
<b>Mean winter GPA</b>	2.47 <sup>bcdef</sup>	2.88 <sup>af</sup>	3.03 <sup>a</sup>	2.99 <sup>a</sup>	3.06 <sup>a</sup>	3.18 <sup>ab</sup>
<b>Standard deviation</b>	0.77	0.86	0.71	0.80	0.82	0.71

Source: Banner information system

Tukey's HSD was used to determine significance.

Superscript letters indicate statistically significant differences at the 5% level.

Figure 1 shows a further comparison of the distribution of grades by year using modified box plots. From the box plots, it is clear that while the mean fall GPA increased in 2010, the overall variability decreased. A comparison of the upper quartiles of fall GPA across years showed very little difference between them, indicating that the grades of top-performing students were fairly consistent across years. Conversely, a comparison of the lower quartiles of fall GPAs by year shows a substantial increase in the 2010 cohort over previous years. This result suggests that those students at the bottom of the grade distribution were performing better in 2010 compared to those in previous years. Similarly, a comparison of the upper quartiles of winter GPA by year shows that they were fairly uniform after 2005. However, again, the lower quartiles of winter GPA across years show that the 2010 cohort was performing better academically than previous cohorts.

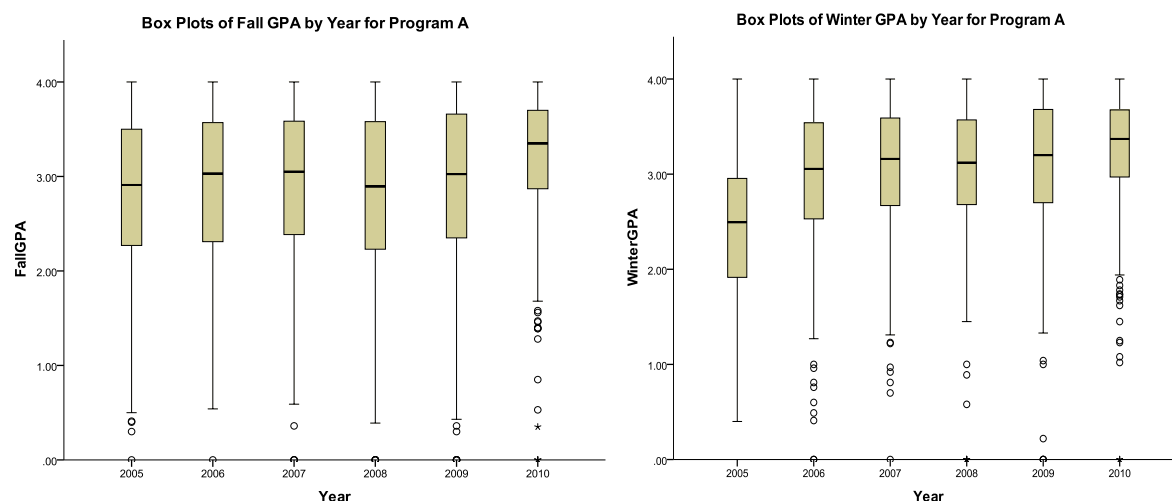
**Figure 1. Box Plots of GPA for Program A**

Figure Note: The box limits correspond to the 25<sup>th</sup> and 75<sup>th</sup> percentiles, while the middle line represents the 50<sup>th</sup> percentile (median). When there are no outliers, the whiskers represent the maximum and minimum of the data. When outliers are present (shown as circles), the whiskers represent 1.5 times the interquartile range.

In sum, students in the 2010 cohort displayed higher average GPAs than those of previous cohorts and, in particular, the lower end of the grade distribution was improved. This evidence suggests that the SSP may be positively influencing academic performance, though it remains likely that some or all of these effects may be related to curriculum changes over time (e.g., improved course content may increase student engagement and performance, curriculum changes may necessitate changes in grading procedures, etc.)

## SSP Participants vs. Non-participants

The second method compared the participants in SSP activities with non-participants. As noted previously, SSP activities could be broadly grouped according to those delivered in class or outside of class. All enrolled students who attend classes would be labelled as participants in the in-class activities and all would be exposed to the same materials. For outside-class activities, participants are defined as those who indicated via a student survey that they actually participated in at least one such activity. Thus these outside-class activities allow for a comparison between participants and non-participants within the same cohort.

Before comparing the grades and retention rates of these participants with non-participants, a demographic comparison was performed to determine whether there were any other known differences between the two groups beyond participation. This comparison focused on the outside-class, academically-oriented activities for the 2009 and 2010 cohorts. These cohorts are most appropriate for comparison; the 2008 cohort is excluded as academic competence activities were not introduced until the winter term and participation rates were lower than in other years. As shown in Table 4, there was little difference between participants and non-participants with respect to gender, placement in English and high school English grades, although participants did have a higher median age in both years, as compared to non-participants ( $p < .01$ ).

**Table 4. Comparison of Demographic Characteristics for Participants in Academic Outside-class Activities with Non-participants for Program A**

	2009		2010	
	Non-participant	Participant	Non-participant	Participant
<b>Sample size</b>	40	78	33	59
<b>Gender:</b>				
<b>Male, %</b>	17.50	16.67	18.18	23.73
<b>Female, %</b>	82.50	83.33	81.82	76.27
<b>Median age at registration</b>	20	22.5	20	24
<b>Placement in English:</b>				
<b>Foundation, %</b>	31.43	26.67	24.24	38.98
<b>Regular, %</b>	48.57	42.67	45.45	37.29
<b>By-pass, %</b>	20.00	30.67	30.30	23.73
<b>Mean HS English4C grade (N)</b>	74.45 (22)	75.61 (31)	78.58 (12)	77.13 (23)
<b>Mean HS English4U grade (N)</b>	65.73 (11)	71.06 (18)	71.41 (17)	72.69 (13)

A participant is defined as a student who attended at least one academic outside class SSP activity based on the evaluation survey conducted in the fall.

Quantile regression was used to compare the distribution of GPAs in fall and winter semesters for participants and non-participants in outside class SSP activities. Quantile regression was used here as it is more robust than ordinary least-squares regression in that it does not assume that the (residuals of the) data are normally distributed and it provides a more complete picture of covariate effects. Quantile regression fits lines through the quantiles (percentiles) rather than the mean. The quantiles represented in the analyses for this study are at the following percentiles: 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup> (median), 75<sup>th</sup> and 90<sup>th</sup>. Thus, quantile regression uses more of the

distribution, rather than just the mean, and, as such, provides a clearer indication of which students the SSP might be affecting (i.e., students at the lower end of the GPA distribution, average students, or students at the higher end of the GPA distribution).

For this analysis, two types of participation were considered: in academic outside-class activities and in non-academic outside-class activities. Participation was, of course, voluntary, so self-selection is inherent in these analyses. Participation, which was self-reported via surveys in both the fall and winter, was defined as attending at least one such activity, and was sorted into four variables for analysis: fall participation in academic outside-class activities, fall participation in non-academic outside-class activities, winter participation in academic outside-class activities, and winter participation in non-academic outside-class activities. The fall participation variables were used in the analysis of fall GPA and the winter participation variables were used in the analysis of winter GPA.

This model was adjusted for effects of academic ability (i.e., academic history) and year. Proxies for academic ability entered into the model were students' Grade 12 English grade (College (C) or University (U) preparation) and their placement in English (PEN) assessment. Also included in the model were indicator variables if a student took Grade 12 English C or U, as students normally do not take both courses. If students did take both, their college preparation course grade was used in the model. Other demographic variables were considered for the models but were not included as they were usually not significant and did not have the same predictive strength as the academic variables.

## Fall Academic SSP Activities

Table 5 outlines the effect of academic participation on fall GPA, after adjusting for year and prior academic ability. This information is also presented graphically in a box-and-whisker plot (Figure 2). For this plot, the GPA values on the y-axis are based on the fitted quantile regression model and the whiskers correspond to the 10<sup>th</sup> and 90<sup>th</sup> percentiles. From the table and plot, it can be seen that participation had a significant positive effect on fall GPA for three quantiles (and p-values for the other two quantiles, 0.25 and 0.90, were 0.055 and 0.051 respectively). For example, at the 0.10 quantile, participation improved GPA by 0.537 (more than half a letter grade), while at the 0.90 quantile, participants performed better than non-participants by only 0.079. Interestingly, and consistent with the overall analyses, participation had a stronger effect on the lower quantiles, indicating that students towards the bottom of the grade distribution may have the most to gain from participation.<sup>1</sup>

<sup>1</sup> A similar result was observed for effects of fall academic participation on winter GPA. This could suggest a potentially long-lasting effect of early SSP participation, although the long duration between fall participation and winter course grades and the possibility of self-selection bias preclude definitive relationships.

**Table 5. Quantile Regression Coefficients for Covariates of Fall GPA Including Participation in Academic Activities Outside Class in the 2009 and 2010 Academic Years (N=202)**

	Quantile				
	0.10	0.25	0.50	0.75	0.90
Intercept	2.406***	2.902***	3.196***	3.457***	3.667***
<b>Academic participant (Yes)</b>	<b>0.537***</b>	<b>0.269*</b>	<b>0.254**</b>	<b>0.173***</b>	<b>0.079*</b>
Year (2010)	0.268**	0.251**	0.246***	0.103***	0.074
High school English					
English4C (Yes)	-2.426	-1.753	-1.656**	-0.791	-0.279
English4U (Yes)	1.067	-0.384	-0.114	-0.196	-0.338
English4C					
(Yes):English4C_grade	0.023	0.016	0.016*	0.007	0.002
English4U(Yes):English4U_grade	-0.021*	-0.002	-0.003	0.001	0.003
PEN					
PEN (Regular)	0.117	0.218	0.190*	0.267***	0.224**
PEN (Bypass)	0.472	0.528***	0.459***	0.370***	0.254***

\* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

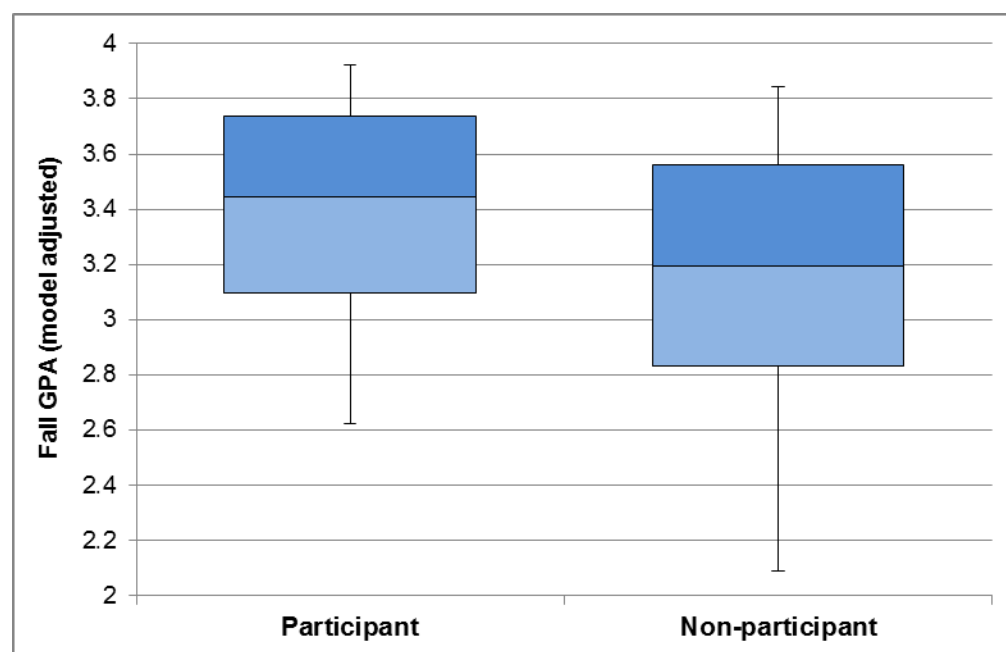
**Figure 2. Comparison of Fall GPA for Participants and Non-participants in Academic SSP Activities**

Figure Note: The box limits correspond to the 25<sup>th</sup> and 75<sup>th</sup> percentiles, while the middle line represents the 50<sup>th</sup> percentile (median). The whiskers correspond to the 10<sup>th</sup> and 90<sup>th</sup> percentiles.

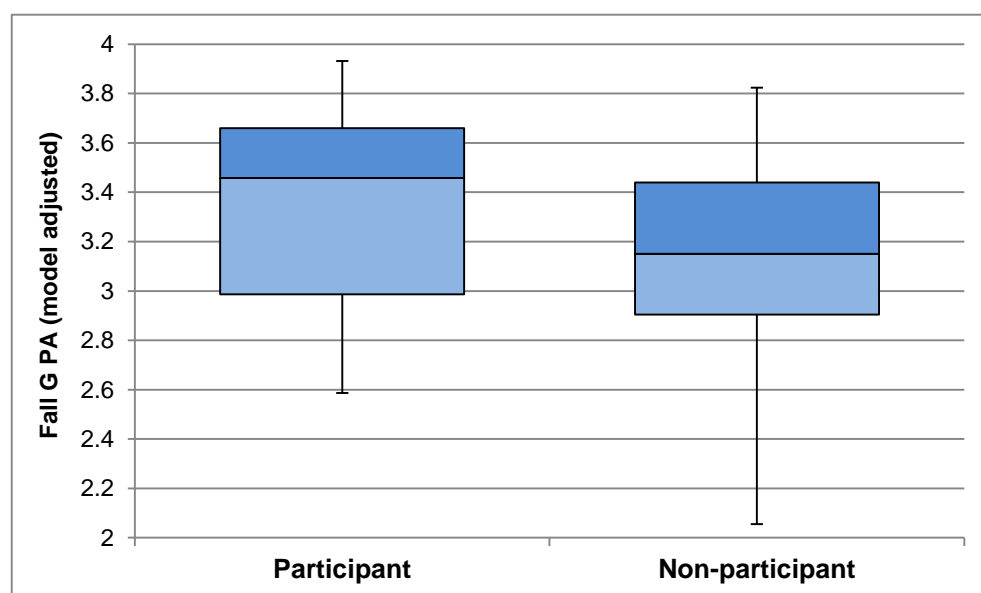
## Fall Non-academic SSP Activities

Details regarding the effect of participation in non-academic outside-class activities can be found in Table 6 and Figure 3. For a list of non-academic activities, see Appendix A. Again, participation had a positive effect on the distribution of fall GPA. This effect was significant at 5 per cent for all but the 0.25 quantile. Although the effects appear to be relatively consistent for academic and non-academic SSP activities, it should be noted that participation across activity types was not independent: approximately 75 per cent of students who participated in academic activities also participated in non-academic activities.

**Table 6. Quantile Regression Coefficients for Covariates of Fall GPA Including Participation in Non-academic Activities Outside Class in the 2009 and 2010 Academic Years (N=202)**

	Quantile				
	0.10	0.25	0.50	0.75	0.90
<b>Intercept</b>	2.426***	3.010***	3.331***	3.511***	3.676***
<b>Non-academic participant (Yes)</b>	<b>0.532***</b>	<b>0.082</b>	<b>0.307***</b>	<b>0.220***</b>	<b>0.107**</b>
<b>Year (2010)</b>	0.232	0.248**	0.074	0.068	0.037
<b>High school English</b>					
<b>English4C (Yes)</b>	-2.438	-2.089*	-2.112***	-1.280**	-0.084
<b>English4U (Yes)</b>	1.593	-0.712	-0.035	-0.277	-0.100
<b>English4C</b>					
<b>(Yes):English4C_grade</b>	0.023	0.020	0.022***	0.012*	-0.000
<b>English4U</b>					
<b>(Yes):English4U_grade</b>	-0.029*	0.002	-0.004	0.001	0.000
<b>PEN</b>					
<b>PEN (Regular)</b>	0.102	0.228	0.197**	0.202**	0.217***
<b>PEN (Bypass)</b>	0.682***	0.610***	0.361***	0.269***	0.217***

\* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

**Figure 3. Comparison of Fall GPA for Participants and Non-participants in Non-academic SSP Activities**

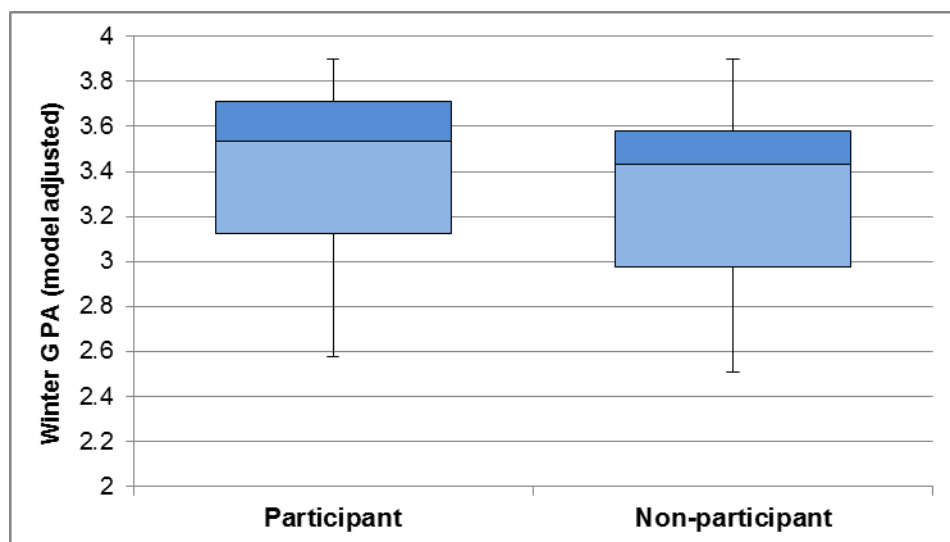
### Winter Academic SSP Activities

Similar analyses were performed for academic and non-academic SSP activities offered in the winter terms. Results for the effect of participation in outside-class academic activities on winter GPA can be found in Table 7 and Figure 4. As shown, participation had a positive effect on winter GPA, but this effect was only statistically significant for the 0.75 quantile. In addition, the magnitude of this effect was quite small, at slightly more than a tenth of a letter grade.

**Table 7. Quantile Regression Coefficients for Covariates of Winter GPA Including Participation in Academic Activities Outside Class in the 2009 and 2010 Academic Years (N=214)**

	Quantile				
	0.10	0.25	0.50	0.75	0.90
Intercept	2.604***	2.979***	3.229***	3.443***	3.722***
Academic participant (Yes)	0.070	0.144	0.101*	0.127***	0.000
Year (2010)	-0.206	0.160	0.159***	0.042	0.040
High school English					
English4C (Yes)	0.121	-0.697*	-1.318***	-1.028	-0.070
English4U (Yes)	-1.171	-1.065	-0.513	0.324	0.217
English4C (Yes):English4C_grade	-0.009	0.001	0.012***	0.010	0.000
English4U (Yes):English4U_grade	0.006	0.009	0.003	-0.006	-0.003
PEN					
PEN (Regular)	0.686***	0.443**	0.443***	0.358***	0.208**
PEN (Bypass)	0.790***	0.587***	0.481***	0.427***	0.278***

\* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

**Figure 4. Comparison of Winter GPA for Participants and Non-participants in Academic SSP Activities**

### Winter Non-academic SSP Activities

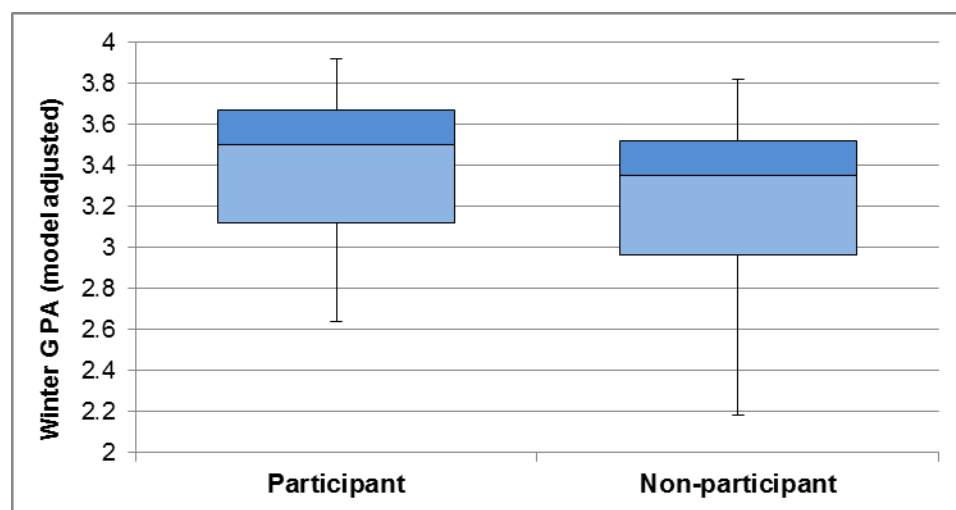
In examining the effect of participation in outside-class non-academic activities on winter GPA (Table 8 and Figure 5), participation was positively related to winter GPA. For this model, participation was significant at all quantiles except 0.25. The largest magnitude effect was observed at the 0.10 quantile, at almost half a letter grade (i.e., increase in GPA of .460). Although still positive, the effect of participation on the other quantiles was smaller, at less than one-fifth of a letter grade.

**Table 8. Quantile Regression Coefficients for Covariates of Winter GPA Including Participation in Non-academic Activities Outside Class in the 2009 and 2010 Academic Years (N=214)**

	0.10	0.25	Quantile 0.50	0.75	0.90
Intercept	2.540***	2.920***	3.182***	3.417***	3.665***
Non-academic participant (Yes)	0.460***	0.157	0.148**	0.151***	0.100***
Year (2010)	-0.321***	0.133	0.138**	0.082	0.030
High school English					
English4C (Yes)	-0.602	-0.462	-1.261***	-1.445**	0.118
English4U (Yes)	0.648	-0.561	-0.493	0.445	0.058
English4C					
(Yes):English4C_grade	0.001	-0.001	0.012***	0.015	-0.003
English4U(Yes):English4U_grade	-0.018*	0.001	0.003	-0.008	-0.001
PEN					
PEN (Regular)	0.480***	0.440***	0.392***	0.320***	0.205***
PEN (Bypass)	0.621***	0.570***	0.490***	0.452***	0.275***

\* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

**Figure 5. Comparison of Winter GPA for Participants and Non-participants in Non-academic SSP Activities**



In summary, participation in at least one outside-class SSP activity was found to be associated with higher average GPAs. This effect was typically larger for lower quantiles, indicating that students performing towards the bottom of the grade distribution may have the most to gain by participating in these SSP activities. In addition, this positive association was stronger in the fall term than in the winter term, suggesting that these activities may be most beneficial to students early in their program. However, these conclusions must be viewed in light of the self-selection for participation, which could reflect differing academic ability, motivation or interest. These cannot be totally eliminated as explanatory factors, although the regression models attempted to account for academic ability through the inclusion of high school English grades and placement in college English.

## OBJECTIVE B: IMPROVE FIRST-YEAR RETENTION/PERSISTENCE

Improving retention was identified as one of the objectives for implementing the SSP in this program. Retention was defined here by the number of students who either stayed in their original program from first to second semester or who switched to another George Brown College program.

Comparing retention from first to second semester (i.e., fall to winter) across years, it is notable that the rates often fluctuated significantly from one year to the next both pre- and post-implementation of the SSP. In fact, although the retention rate of the SSP 2010 cohort (91.43%) was not significantly different from the pre-SSP cohorts, the retention rates of the SSP 2008 and 2009 cohorts were significantly lower than several of the pre-SSP cohorts.



**Table 9. Retention**

Fall-to-Winter	Cohort Year					
	2005 a	2006 b	2007 c	2008 d	2009 e	2010 f
<b>Enrolment</b>	160	155	200	220	221	245
<b>Still registered/switched</b>	143 89.38%	146 <sup>de</sup> 94.19%	181 <sup>e</sup> 90.50%	191 <sup>b</sup> 86.82%	185 <sup>bcf</sup> 83.71%	224 <sup>e</sup> 91.43%
<b>Not registered</b>	17 10.63%	9 5.81%	19 9.50%	29 13.18%	36 16.29%	21 8.57%

Letters indicate statistically significant differences at the 5% level.

To investigate any possible effect of participation on retention, participants in academic and non-academic outside-class SSP activities were compared to their respective non-participants. In order to increase the power for this analysis, the 2009 and 2010 cohorts were combined. As shown in Tables 10 and 11, participation in outside-class SSP activities was not significantly related to retention.

**Table 10. Comparison of Retention of Participants in Outside-class Academic SSP Activities with Non-participants**

Fall-to-Winter		
	Academic Participant	Academic Non-participant
<b>Still registered/switched</b>	132 96.35%	69 94.52%
<b>Not registered</b>	5 3.65%	4 5.48%

P-value from Fisher's Exact test: 0.722

**Table 11. Comparison of Retention of Participants in Outside-class Non-academic SSP Activities with Non-participants**

Fall-to-Winter		
	Non-academic Participant	Non-academic Non-participant
<b>Still registered/switched</b>	134 96.40%	67 94.37%
<b>Not registered</b>	5 3.60%	4 5.63%

P-value from Fisher's Exact test: 0.491

Thus, taken together, the findings indicate no evidence that the SSP has impacted retention rates. It should be noted, however, that retention rates were very high in general for this program using this term-to-term measure of retention. Design limitations required this definition because using alternate measures of retention

(e.g., early-to-mid-first-semester) would not allow for a clear distinction between SSP participants and non-participants, given that various activities took place at different points in the semester.

## OBJECTIVE C: IMPROVE FIRST-YEAR STUDENT SATISFACTION

First-year student satisfaction was measured via the provincial Key Performance Indicator (KPI) Student Satisfaction Survey. This survey is administered annually to students in postsecondary college programs and includes a number of individual items that address satisfaction with various elements of the college experience. Unexpectedly, student satisfaction levels in Program A declined significantly in 2008-2009, the first year of the SSP. The magnitude of this decline was not reflected in the overall college KPI scores, so the reason underlying this decline was unclear. As shown in Table 12, scores rose somewhat in the following years, but did not reach pre-SSP implementation levels.

**Table 12. First-Year Student Satisfaction KPI, Percent Satisfied or Very Satisfied**

	Cohort Year				
	2006-07 a	2007-08 b	2008-09 c	2009-10 d	2010-11 e
<b>Overall KPI, %</b>	74.5%	81.3% <sup>ce</sup>	63.6% <sup>b</sup>	67.8%	66.1% <sup>b</sup>
<b>Sample size, N</b>	106	71	99	115	132
<b>Capstone questions:</b>					
<b>OVERALL, your program is giving you knowledge and skills that will be useful in your future career.</b>	92.5% <sup>ce</sup>	94.4% <sup>ce</sup>	81.8% <sup>ab</sup>	86.1%	82.6% <sup>ab</sup>
<b>The OVERALL quality of the learning experiences in this program.</b>	84.0% <sup>cde</sup>	85.9% <sup>cde</sup>	67.7% <sup>ab</sup>	70.4% <sup>ab</sup>	72.7% <sup>ab</sup>
<b>The OVERALL quality of the facilities/resources in the college</b>	56.6%	71.8%	50.5%	56.5%	52.3%
<b>The OVERALL quality of the services in the college</b>	65.1%	73.2%	54.5%	58.3%	56.8%

Superscript indicates a significant difference between the corresponding percentages at the 5% level.

As the overall KPI is calculated as the average across four capstone questions, the results for each capstone are also shown in Table 12. Changes in satisfaction levels with each of the capstone questions reflect the overall trend of a sharp decrease in 2008-2009 followed by a slight increase in 2009-2010 and 2010-2011. Additional items from the KPI survey showed similar patterns of results (Table 13), with the satisfaction score (satisfied + very satisfied ratings) falling after the introduction of the SSP.

**Table 13. “The Concern of People at This College for Your Success”**

	Cohort Year				
	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Satisfied/Very satisfied</b>	63.5%	54.9%	51.6%	48.3%	50.0%
<b>Sample size, N</b>	104	71	95	120	140

**“Your Overall College Experience”**

	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Satisfied/Very satisfied</b>	74.1%	77.8%	62.9%	62.0%	65.0%
<b>Sample size, N</b>	108	72	97	121	140

Although overall, no statistically significant differences were found in satisfaction across years for either item in Table 13 ( $p = 0.178$  and  $p = 0.072$  respectively), it is clear that student satisfaction as measured through the KPI survey has declined for this program. Further investigation will be required to isolate potential reasons for these changes.

## Program B

Program B is a three-year advanced diploma program offered in the School of Construction Management and Trades. Between 2005 and 2009, enrolment more than doubled from 73 to 164 students; however, in the following year, enrolment decreased by 50 students. This change was intentional and due to space constraints in order to accommodate a new program, but should be kept in mind when interpreting the results for this study. As admission decisions in 2010 were subject to this new enrolment cap, it was anticipated that the students might perform better academically in 2010 than in previous years.

### Student Profile

The student profile for this program is quite different from that of Program A in that the vast majority of Program B students were male, the median age was younger, and only one-quarter of students relied on financial assistance (OSAP; Table 14). The gender and age composition of Program B students did not change significantly between 2005 and 2010. Year over year, however, there were significant changes in the proportion of students who were placed in Foundation English and Foundation Math, reflecting differences in the academic preparation of these students.

**Table 14. Program B, Student Profile**

	2005 a	2006 b	2007 c	2008 d	2009 e	2010 f
<b>Enrolment</b>	73	92	122	162	164	114
<b>Gender:</b>						
<b>Male, %</b>	94.5	94.5	96.7	95.7	95.7	99.1
<b>Female, %</b>	5.5	5.5	3.3	4.3	4.3	0.9
<b>Median age at registration</b>	20	19	19	19	19	19
<b>Received OSAP, %</b>	n/a	25.0	25.4	19.1	25.0	28.1
<b>Placement in English:</b>	bf	adef	df	bc	b	abc
<b>By-pass, %</b>	15.5	3.4	10.8	9.0	11.8	4.9
<b>Regular, %</b>	56.3	71.9	62.5	47.4	50.0	46.1
<b>Foundation, %</b>	28.2	24.7	26.7	43.6	38.2	49.0
<b>Placement in Math:</b>	de	de	de	abcf	abcf	de
<b>By-pass, %</b>	4.4	0	0	0	2.7	1.9
<b>Regular, %</b>	64.7	58.9	61.3	43.3	39.9	61.2
<b>Foundation, %</b>	30.9	41.1	38.7	56.7	57.4	36.9

Source: Banner information system

Letters indicate significant differences between the corresponding years at the 5% level.

For placement in math, by-pass and regular were combined into one category for statistical tests due to the low number of students in the by-pass category.

Again, additional information was available through an SSP student survey conducted in first semester (Table 15), although, for this program, the response rate in 2010 was significantly higher than in previous years (55.6% in 2008, 59.1% in 2009, and 75.4% in 2010).

**Table 15. Additional Demographic Characteristics**

	2008	2009	2010
<b>Number of survey respondents</b>	90 <sup>1</sup>	97 <sup>1</sup>	86 <sup>1</sup>
<b>Status of those not born in Canada:</b>			
Canadian citizen/permanent resident, %	25.6	19.6	24.4
International visa student/refugee, other, %	3.5	3.1	5.8
<b>English as first language, %</b>	66.3	71.3	63.5
<b>Marital status: single, %</b>	93.1	79.8	85.4
<b>With dependent children, %</b>	6.8	11.4	7.4
<b>First-generation students, %</b>	26.9	23.7	25.9
<b>Highest level of prior education:</b>			
High school or less, %	70.0	69.8	68.3
At least some postsecondary, %	30.0	30.2	30.6
<b>Worked for pay during Fall term, %</b>	61.6	57.8	49.4
Mean hours worked	17.9	19.6	20.4
Minimum # hours	4	5	8
Maximum # hours	40	43	45

Source: Student Characteristics Survey

<sup>1</sup> Total responses vary by question.

The percentage of students reporting that they were aware of the various outside-class SSP activities also showed a wider range in this program. For example, depending on the activity, awareness rates varied from 41 per cent to 90 per cent for the 2010 cohort (see Appendix B). For the same cohort, there was also a wide range of participation rates (55% to 95%) in outside-class activities.

## OBJECTIVE A: IMPROVE ACADEMIC PERFORMANCE

Table 16 summarizes both the mean fall and winter GPAs by year. No consistent pattern of change was observed for GPA in either fall or winter. For example, based on Tukey's HSD, the mean fall GPAs in 2006 and 2010 were significantly higher than in most other years, while the mean winter GPA in 2008 was significantly lower than in all other years except 2007.

**Table 16. Academic Outcomes**

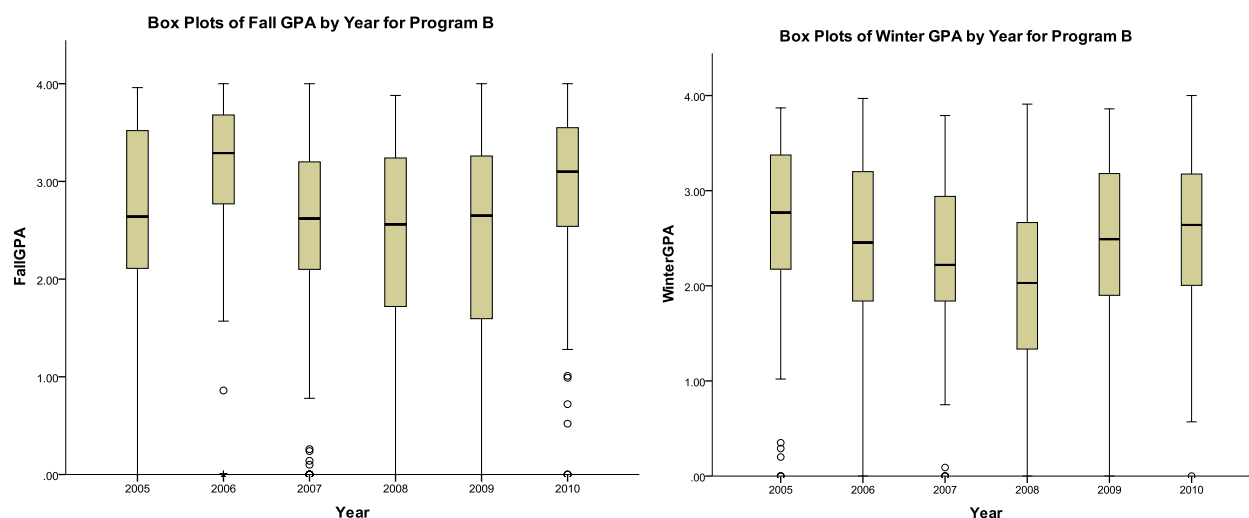
	2005 a	2006 b	2007 c	2008 d	2009 e	2010 f
<b>Mean Fall GPA</b>	2.57 <sup>b</sup>	3.09 <sup>acde</sup>	2.43 <sup>bf</sup>	2.33 <sup>bf</sup>	2.31 <sup>bf</sup>	2.89 <sup>cde</sup>
<b>Standard deviation</b>	1.12	0.89	1.04	1.12	1.25	0.88
<b>Mean Winter GPA</b>	2.58 <sup>d</sup>	2.37 <sup>d</sup>	2.29	1.97 <sup>abef</sup>	2.36 <sup>d</sup>	2.55 <sup>d</sup>
<b>Standard deviation</b>	1.06	1.04	0.83	0.98	1.02	0.79

Source: Banner information system

Superscript indicates a statistically significant difference at the 5% level.

Tukey's HSD was used to determine significance.

The box plots of fall GPAs across years in Figure 6 show that for 2010, both the upper quartile and the lower quartile of fall GPA increased when compared to the previous three years. This indicates that both the top-performing and lower-performing students in 2010 outperformed similar students from previous years. Of course, as this was the year of an enrolment decrease, this improvement could be due to the SSP or to selection, as admission decisions were based on a smaller number of seats. The box plots for winter GPAs vary more from year to year, with both the 2009 and 2010 cohorts having similar lower and upper quartile placement.

**Figure 6: Box Plots of GPA for Program B**

## Participants vs. Non-participants

Prior to comparing the grades and retention of participants and non-participants, a demographic comparison was conducted to determine whether there were any known differences between the groups. For these comparisons, a participant was defined as a student who attended at least one academic outside-class activity in the fall term. Data were available only for the 2009 and 2010 cohorts. Table 17 shows that the largest difference between participants and non-participants was for placement in College Math. The only statistically significant difference was found for placement in Foundation Math in 2010: the participant groups consisted of higher proportions of students in Foundation Math ( $p$ -value = 0.042). This may indicate that

participants were less prepared for college studies than non-participants and might have been expected to perform below non-participants if there had been no SSP.

**Table 17. Comparison of Demographic Characteristics for Participants in Fall Academic Outside-class Activities with Non-participants for Program B**

	2009		2010	
	Non-participant	Participant	Non-participant	Participant
<b>Sample size</b>	35	17	19	27
<b>Gender:</b>				
<b>Male, %</b>	100.00	88.24	100.00	96.30
<b>Female, %</b>	0.00	11.76	0.00	3.70
<b>Median age at registration</b>	19	21	19	19
<b>Placement in English:</b>				
<b>Foundation, %</b>	31.25	41.18	44.44	53.85
<b>Regular, %</b>	53.13	41.18	44.44	46.15
<b>By-pass, %</b>	15.63	17.65	11.11	0.00
<b>Placement in Math:</b>				
<b>Foundation, %</b>	40.00	47.06	16.67	50.00
<b>Regular, %</b>	56.67	47.06	83.33	46.15
<b>By-pass, %</b>	3.33	5.88	0.00	3.85
<b>Mean HS English4C grade (N)</b>	71.25 (20)	68.29 (7)	69.25 (8)	69.94 (17)
<b>Mean HS English4U grade (N)</b>	71.10 (10)	74.67 (6)	63.75 (4)	68.86 (7)

A participant is defined as a student who attended at least one academic outside-class SSP activity based on the evaluation survey conducted in the fall. Of the participant vs. non-participant comparisons shown in the table, only placement in Foundation Math in 2010 showed a statistically significant difference (p-value=0.042).

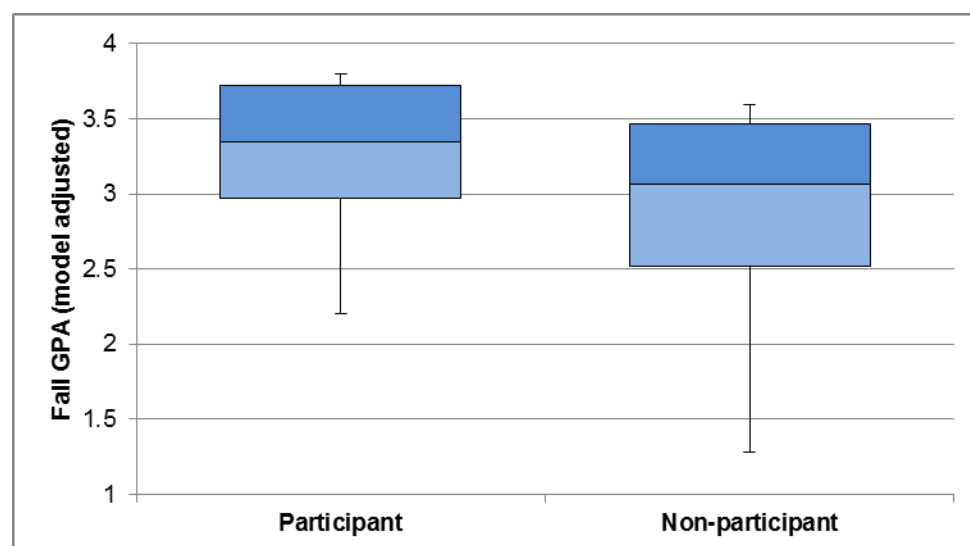
Again, quantile regression was performed to compare the distribution of fall and winter grades for participants and non-participants in outside-class SSP activities after adjusting for prior academic ability and year effects. This analysis focused on fall GPA for students in the 2009 and 2010 cohorts. As in other terms, either there were no academic outside-class activities offered or student participation was too low for analysis. Measures of prior academic ability were students' Grade 12 English grade (C or U), their placement in English (PEN) assessment and their placement in Math (PMA) assessment. For these models, regular and by-pass were combined into one category for both PEN and PMA as very few students who responded to the evaluation survey by-passed College English or Math. High school math grades were considered for the model, but they were removed as they were not significant after adjusting for the other variables.

Table 18 and Figure 7 show that participation in academic outside-class activities was positively associated with higher fall GPAs. This result is statistically significant for all five quantiles, but the positive effect was of a much higher magnitude at the lower quantiles, with almost a full letter grade improvement at the 0.10 quantile. As with the results for Program A, this result indicates that students at the bottom of the grade distribution may have the most to gain from participation in SSP activities.

**Table 18. Quantile Regression Coefficients for Covariates of Fall GPA Including Participation in Academic Activities Outside Class in the 2009 and 2010 Academic Years (N=91)**

	Quantile				
	0.10	0.25	0.50	0.75	0.90
Intercept	2.203***	2.934***	3.128***	3.344***	3.660***
<b>Academic participant (Yes)</b>	<b>0.925***</b>	<b>0.455**</b>	<b>0.282**</b>	<b>0.254**</b>	<b>0.203***</b>
Year (2010)	-0.123	0.030	0.053	0.085	-0.089**
High school English					
English4C (Yes)	-1.509	-1.933*	-0.956	0.410	1.170***
English4U (Yes)	-1.823	-2.724***	-2.085*	0.314	-0.181
English4C					
(Yes):English4C_grade	0.009	0.017	0.004	-0.012	-0.021***
English4U(Yes):English4U_grade	0.026	0.033***	0.025	-0.005	0.002
PEN (Reg/By-pass)	0.191	-0.045	0.224*	0.210**	0.096***
PMA (Reg/By-pass)	-0.112	0.341	0.320***	0.240	0.213***

\* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

**Figure 7. Comparison of Fall GPA for Participants and Non-participants in Academic SSP Activities**

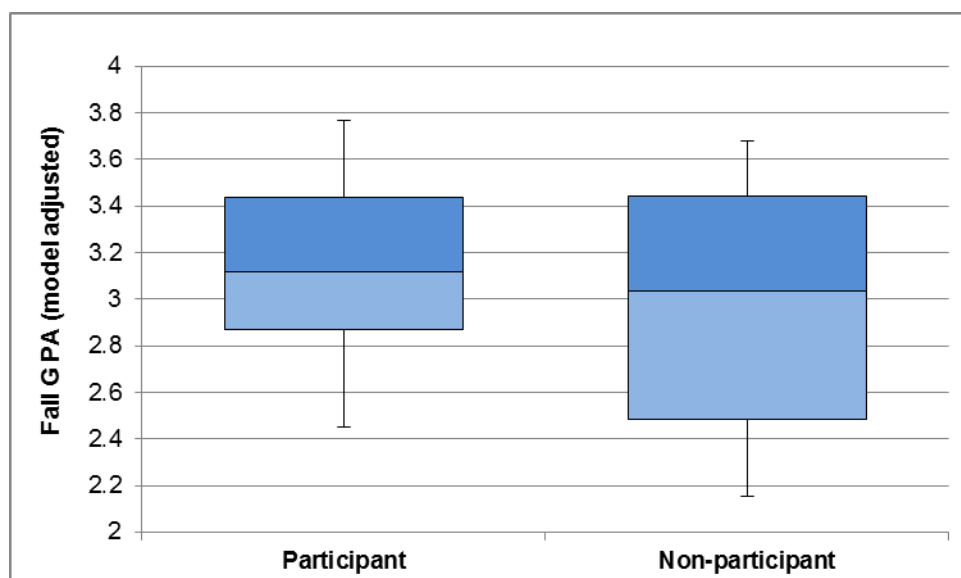
A similar analysis was performed using participation in non-academic outside-class activities (Table 19 and Figure 8). For this analysis, participation had a positive relationship with fall GPA but was not statistically significant.



**Table 19. Quantile Regression Coefficients for Covariates of Fall GPA Including Participation in Non-academic Activities Outside Class in the 2009 and 2010 Academic Years (N=91)**

	Quantile				
	0.10	0.25	0.50	0.75	0.90
<b>Intercept</b>	1.700***	2.649***	3.158***	3.469***	3.778***
<b>Non-academic participant (Yes)</b>	<b>0.301</b>	<b>0.384</b>	<b>0.085</b>	<b>-0.005</b>	<b>0.089</b>
<b>Year (2010)</b>	0.408	0.002	0.185*	0.112	-0.099
<b>High school English</b>					
<b>English4C (Yes)</b>	-1.536	-1.270	-1.064	0.786	0.762***
<b>English4U (Yes)</b>	-5.928**	-3.840*	-1.981*	-1.586	-0.612**
<b>English4C</b>					
<b>(Yes):English4C_grade</b>	0.016	0.013	0.006	-0.016	-0.014***
<b>English4U(Yes):English4U_grade</b>	0.082**	0.055*	0.025	0.023	0.010**
<b>PEN (Reg/Bypass)</b>	0.322	0.026	0.167	0.095	-0.040
<b>PMA (Reg/Bypass)</b>	0.529***	0.199	0.326***	0.230**	0.172***

\* significant at 10% level, \*\* significant at 5% level, \*\*\* significant at 1% level

**Figure 8. Comparison of Fall GPA for Participants and Non-participants in Non-academic SSP Activities**

In summary, participation in academic outside-class activities was found to be significantly related to higher fall GPAs, particularly for those students performing at the lower quantiles of the distribution. However, participation in non-academic outside class activities was not significantly associated with fall GPA.

## OBJECTIVE B: IMPROVE FIRST-YEAR RETENTION

Improving retention was identified as one of the objectives for implementing the SSP in this program, with retention defined by students who stayed in their original program or who switched to another George Brown College program (first to second semester).

By cohort year, retention rates increased by five percentage points in 2010 over the previous two years, although this increase was not statistically significant. The only statistically significant result was for the 2006 cohort, whose retention rate was significantly higher than all other years (Table 20).

**Table 20. Retention**

Fall-to-Winter	Cohort Year					
	2005 a	2006 b	2007 c	2008 d	2009 e	2010 f
<b>Enrolment</b>	73	92	122	162	164	114
<b>Still registered/switched</b>	60 <sup>b</sup> 82.19%	88 <sup>acdef</sup> 95.65%	107 <sup>b</sup> 87.70%	131 <sup>b</sup> 80.86%	131 <sup>b</sup> 79.88%	97 <sup>b</sup> 85.09%
<b>Not registered</b>	13 17.81%	4 4.35%	15 12.30%	31 19.14%	33 20.12%	17 14.91%

Superscript indicates a significant difference at a 5% level.

As in the analyses for Program A, to investigate the possible effect of participation on retention, the 2009 and 2010 cohorts were combined and academic and non-academic participants were compared with their respective non-participants. For both comparisons, outside-class SSP participation was not significantly related to retention (Tables 21 and 22). Although there was no statistical evidence that SSP participation impacted retention, overall retention rates were already very high for both groups.

**Table 21. Comparison of Retention of Participants in Outside-class Academic SSP Activities with Non-participants**

Fall-to-Winter		
	Academic Participant	Academic Non-participant
<b>Still registered/switched</b>	44 100.00%	50 92.59%
<b>Not registered</b>	0 0.00%	4 7.41%

P-value from Fisher's exact test: 0.125

**Table 22**  
**Comparison of Retention of Participants in Outside-class Non-academic SSP Activities with Non-participants**

<b>Fall-to-Winter</b>		
	<b>Non-academic Participant</b>	<b>Non-academic Non-participant</b>
<b>Still Registered/ Switched</b>	49 96.08%	45 95.74%
<b>Not Registered</b>	2 3.92%	2 4.26%

P-value from Fisher's exact test: 1.000

## OBJECTIVE C: IMPROVE FIRST-YEAR STUDENT SATISFACTION

In the case of Program B, the year in which the SSP was introduced showed a significant increase in student satisfaction levels compared to the previous year. The Student Satisfaction KPI score in 2008-2009, at 84 per cent, was significantly higher than the average KPI score in 2007-2008 of 70 per cent ( $p = 0.030$ ). Overall, though not always significantly different from pre-implementation years, satisfaction remained at this relatively higher level through 2010-2011 (Table 23). This general pattern is also reflected in the scores for the individual capstone questions, all of which increased in 2008-2009.

**Table 23**  
**First-Year Student Satisfaction Key Performance Indicator, Percent Satisfied/Very Satisfied**

	<b>Cohort Year</b>				
	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>Overall KPI, %</b>	a 71.9%	b 70.2% <sup>c</sup>	c 84.0% <sup>b</sup>	d 82.7%	e 83.3%
<b>Sample size, N</b>	56	62	86	71	33
<b>Capstone question</b>					
<b>OVERALL, your program is giving you knowledge and skills that will be useful in your future career.</b>	85.7%	82.3%	93.0%	93.0%	97.0%
<b>The OVERALL quality of the learning experiences in this program.</b>	78.6%	72.6% <sup>cd</sup>	89.5% <sup>b</sup>	88.7% <sup>b</sup>	87.9%
<b>The OVERALL quality of the facilities/resources in the college</b>	60.7% <sup>c</sup>	62.9% <sup>c</sup>	81.4% <sup>ab</sup>	71.8%	78.8%
<b>The OVERALL quality of the services in the college</b>	62.5%	62.9%	72.1%	77.5%	69.7%

Superscript indicates a significant difference between the corresponding averages at the 5% level.

Examples of related survey items are shown in Table 24. After increasing significantly with the introduction of the SSP in 2008, the proportion of students who reported being satisfied/very satisfied with "the concern of people at the college for your success" declined in the following years. For overall college experience, no statistically significant differences were found in satisfaction across years ( $p = 0.078$ ), but satisfaction rates have increased since the implementation of the SSP.

**Table 24. "The Concern of People at This College for Your Success"**

	Cohort Year				
	2006-07 a	2007-08 b	2008-09 c	2009-10 d	2010-11 e
<b>Satisfied, very satisfied</b>	47.3% <sup>cd</sup>	50.8% <sup>c</sup>	74.1% <sup>ab</sup>	66.7% <sup>a</sup>	55.9%
<b>Sample Size, N</b>	55	65	85	69	34

Superscript indicates a significant difference between the corresponding proportions at the 5% level.

**"Your Overall College Experience"**

	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Satisfied, very satisfied</b>	64.3%	69.7%	81.2%	78.6%	84.8%
<b>Sample Size, N</b>	56	66	85	70	33

## Conclusion

This report summarizes the major findings from a multi-year study of the effectiveness of the college-wide Student Success Program on first-year academic performance, retention and satisfaction. Although many college programs were involved with SSP initiatives, a two-program subset was evaluated in greater detail for this report. Results show that participation in SSP activities may have a positive effect on academic performance, particularly for students whose academic performance is toward the lower end of the grade distribution. This is an intriguing finding, as the SSP was not initially designed as a remedial initiative. Given that the SSP may possibly have stronger effects for those students who need the most assistance, the college may note this finding when encouraging future students to become engaged in academic and non-academic program activities.

The findings in this report also highlight the challenges inherent in longitudinal studies of intervention initiatives in college programming. From a research design perspective, all non-experimental variables should remain as constant as possible over the duration of the study. From a practical perspective, college programs undergo regular review and modification, and student and staff feedback on intervention strategies serves to improve such strategies going forward. Thus, although the dynamic nature of the process provides challenges for the analyses and for the inferences drawn from the findings, it has the advantage of allowing exploration of these factors within a practical context.

Many of these design challenges were outlined recently in a comprehensive review published by HEQCO (Wiggers and Arnold, 2011). Based on analyses of other student success intervention projects in Ontario, the authors highlighted the relatively sparse experimental effects of single interventions and the difficulties in targeting intervention programs to those students with the greatest potential need for them. General recommendations included the combining of multiple intervention elements and a more inclusive, even compulsory, implementation. These approaches were demonstrated in the present study, in that students had multiple opportunities to participate in the SSP, both in class and outside of class. The outside-class activities

were either academic or non-academic and were a critical design element in that they provided opportunities to compare participants and non-participants. Although further study is needed, the results indicate that participation in these activities may indeed be most beneficial to students who might be considered at greatest risk academically.

The strong commitment of faculty and staff to student success has been noted across Ontario research studies on these initiatives. This commitment is evident at George Brown College as well. Student success is the fundamental responsibility of postsecondary institutions and was the driving force behind the development and implementation of the SSP. Such institution-wide efforts to improve student outcomes clearly require the full support and ongoing collaboration of the entire educational community.

## Appendix A

**Table I. Example List of SSP Activities Offered in 2009-2010 and 2010-2011 for Program A<sup>2</sup>**

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*Ongoing Orientation:*

Peer liaisons (in-class)

Google group

*Lunch and Learn Events:*

Intensifying your placement search

Pizza lunch & chat with faculty

Preparing for 2<sup>nd</sup> year of the Program

*Quick Tip Workshops:*

Secrets for success: custom-fitted learning strategies

Exploring options: placement hunt & university info

Open house: chat with second-year students

Multiple-choice strategies (in-class)

Structured study groups presentation (in-class)

*Academic Competence:*

*Peer Learning Groups:*

Final test review

Getting started on the course assignment

Course test prep

Course test prep

Course test prep

Exploring the course essay

Course test prep

Course test prep

Course test prep

Course test prep

Course test prep

Preparing for the quiz

Assignment support

*Early Alert:*

Early alert referrals

Check-in e-mails

Outside class – Academic: custom-fitted learning strategies and test/quiz/assignment preparation sessions

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<sup>2</sup> Information about 2008 is excluded from the analyses as academic competence activities were not introduced until the winter term, and 2008 saw lower participation rates than other years.

Outside class – Non-academic: Google group, placement hunt & university transfer info, intensifying your placement session  
Search, Pizza Party (and Panel Discussion) with Faculty (& Peer Leaders), Chat with Second Year Students and student success e-mail series.

**Table II: Example List of SSP Activities Offered in 2009-2010 and 2010-2011 for Program B**

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*Ongoing Orientation:*

Peer Liaisons (in-class)

*Lunch and Learn Events:*

Food 4 Thought

Personality Spectrum, Thinking Preferences &  
Time Planner (in-class)

*Academic Competence:*

*Peer Learning Groups:*

Course 1

Course 2

Course 3

Course 4

Course 5

Course 6

Monitored probation

Team-based learning I (in-class)

Team-based learning II (in-class)

*Early Alert:*

Check-in

Early alert referrals

*Other:*

Classroom contract (in-class)

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Outside class – Academic: peer learning groups

Outside class – Non-academic: Food 4 Thought sessions

## Appendix B

### Program A<sup>3</sup>

**Table I – Fall 2009 (students surveyed =118)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Google group	90	52	53
Structured study group presentation	85	64	45
Multiple choice strategies presentation	84	75	54
Course 1 test prep	94	66	75
Course 2 test prep (Oct.)	94	55	71
Getting started on the Course 2 essay	77	42	66
Course 3 test prep	88	51	72
Pizza party with faculty	86	32	87
Course 4 test prep	92	55	79
Course 2 test prep (Dec.)	90	48	73
Course 5 test prep	90	48	80

<sup>3</sup> These tables are based on student responses to SSP surveys. As a result, activity titles used are those most easily recognized by students.



**Table II – Winter 2010 (students surveyed = 138)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Google group	91	38	47
Test preps:			
Course 6	92	39	43
Course 7	90	30	58
Course 8	87	31	59

**Table III – Fall 2010 (students surveyed = 92)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Google group	82	63	57
Student success e-mail series	92	75	63
Secret for success: custom-fitted learning strategies	72	47	41
Acing Course 1: Test prep	91	55	53
Exploring options: placement hunt & university transfer info	66	59	67
Course 2 assignment support	66	46	54
Pizza party and panel discussion with faculty	66	46	78
Exploring the Course 1 essay	70	32	63
Open house: chat with second-year students	67	28	59
Preparing for the Course 3 quiz	87	41	55
Preparing for the Course 4 quiz	94	41	62

**Table IV – Winter 2011 (students surveyed = 84)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Google group	89	50	65
Intensifying your placement search	70	31	54
Preparing for Course 5 test	92	39	77
Preparing for Course 6 test	90	35	70
Pizza party and panel discussion with faculty & peer leaders	86	32	74

**Program B<sup>4</sup>****Table V – Fall 2009 (students surveyed = 52)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Classroom contract	85	98	47
Green sheets (personality spectrum)	54	81	19
Food 4 Thought (September)	42	55	**
Team-based learning	96	84	59
Peer learning groups:			
Course 1	58	33	**
Course 2	54	29	**
Course 3	62	38	**
Course 4	54	36	**
Food 4 Thought (November)	31	**	**

<sup>4</sup> These tables are based on student responses to SSP surveys. As a result, activity titles used are those most easily recognized by students.

**Table VI – Winter 2010 (students surveyed = 42)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Food 4 Thought	55	45	**
Team-based learning:			
Green sheets	88	95	27
Classroom contract	95	95	31
Sugar cube assignment	100	95	39
Strengths quest	98	93	47
Presentation skills	93	97	50
Peer learning groups:			
Course 5	61	54	58
Course 6	76	60	76
Course 7	51	57	73
Course 8	59	61	77

**Table VII – Fall 2010 (students surveyed = 46)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Green sheets (personality spectrum: thinker, giver, etc.)	95	79	43
Food 4 Thought (September, brown bag lunch)	82	94	53
Food 4 Thought (November, pizza)	89	95	63
Team-based learning (with student success coordinator)	93	95	76
Peer learning groups:			
Course 1	77	55	65
Course 2	90	69	88

**Table VII – Winter 2011 (students surveyed = 72)**

Activities	Aware	Participated	Rated Useful/ Extremely Useful
	%	%	%
Team-based learning:			
Green sheets	94	91	31
Classroom contract	94	99	47
Sugar cube group assignment	100	100	50
Presentation skills	93	82	53
Food 4 Thought	41	65	53

## Appendix C

The following comments are examples collected from interviews and focus groups with students and faculty/administrators over the course of this project. The number of individuals included each year was relatively small, and participants tended to be positive in their views. The sample is included here to show the type of feedback received and how these comments were often used in modifying the SSP activities for the next cohort.

### 2009-2010 Student Quotes

*"I feel that it brings motivation, because once you get involved, you kind of want to keep going, you actually want to succeed, because the Student Success Program provides help, so it makes you feel that you are not by yourself, that you are part of a community of learners."*

*"We have only have six classes for [course name], it is really helpful that you can actually go to the session, they can help you go through the section; memorize the text, the key information that will be on the test."*

*"Especially since you have so many courses, at one point we were taking six courses and preparing for five exams in one week. Your thoughts at that point are "How do I get through?"*

*"The challenges I have faced so far are when the students expect us to tell them what is on the test or do not take part in our activities and just expect the peer leaders to give them the answers."*

*"Peer leading is great in a way which allows students to not feel ashamed of asking simple questions that help guide them in class."*

*"I definitely had more people to talk to in the hallways, which is great. It brings a totally sense of community into the hallways of George Brown."*

### 2009-2010 Faculty and Administrator Quotes

*"People are quite pleased because there are really good peer leaders – they feel that there is real benefit to them."*

*"You cannot help but notice these kinds of things [flyers and posters] every 50 or 100 feet, you know what I mean? Literally, they are either in front of the classrooms, the doorway to the classrooms, or in most of the offices that we pass by. So yes, I think it is being [promoted] pretty well."*

*"I remembered the classroom contract, so I sent [my students] a message on Web CT which is our blackboard system. And I [posted]: "For those of you who do not know, there is this contract; for those of you who do know, you know about the contract and I will be enforcing a discipline rule. Anyone who is disruptive will have one warning then they will be asked to leave and that is all." They were so good the next week. Nobody replied to the message but everybody clearly had gotten the message and they understood and they were reminded of their responsibilities."*

*"I think that is one of the biggest weaknesses of the program is that I do not feel that I personally know enough or as much as I would like [to] be effective, and I had heard bits and pieces here and there to know that it is a college-wide initiative; [what I know] is kind of limited; [and what] I have heard about the inner workings of it is through the faculty and the Student Success Specialist."*

*“... the faculty in the department is not like other faculty. It is so spread out you do not really get to see who is involved and who is not. So we do not know who is part of this whole team... Just in passing I know that one of the other profs is involved... A lot of us are split up in different offices so we do not know or necessarily talk about, you know, students all the time either...”*

*“I think it is really important that we – for the sake of the student as well as the teachers – are focused on the ability of the student to succeed and that we ensure that a student knows all these things are in place...”*

*“I think they tend to respond better to that knowing that somebody's there to help and somebody does care. They're not just a number in a college or a school or whatever the case may be.”*

*“I hear from students where the Student Success Program in some way is a turning point or a lifeline that has really changed their whole experience...”*

### **2010-2011 Student Quotes**

*“This is not the first time I have been back in school. I realized the challenges that were ahead of me and I knew that I had to work harder because I don't always get things the first time. When help was offered to me (referring to the SSP), I took it and I got what I needed.”*

*“I like how the staff and SSP they are very determined to help us achieve our goal, which is obviously graduating and becoming the person we want to be. I didn't think GBC was like that, [because] my [high school] was not like that. I saw emails coming in, and it was very welcoming. There was no motivation in my [high school] at all. When I came here and I was pushed to do better I loved it.”*

### **2010-2011 Faculty and Administrator Quotes**

*“The selection of some really great students as peer leaders has led to some really great workshops. I've attended some of the workshops and they were motivating, very inspiring and very creative.”*

*“Students are much more confident when they write tests or when they write assignments. I think the relationships between the peer leaders and the first-year students have been very powerful. It's the relationship that's the most powerful thing.”*

*“I've been very inspired by this particular group of peer leaders. It's given me renewed faith in our students just to see the quality of what these peer leaders have been able to do.”*

*“I think it's [SSP is] embedded in the program now and it's an important part of the program.”*

*“Now that I've been exposed to the SSP I would probably continue using components of it in my classes. I think it's important.”*

*“The peer leaders are doing a great job but there's just no time to do anything face to face.”*

*“Because we have so many students and so many sections it's very difficult to find time sometimes for student success stuff.”*

*“Students were talking about the SSP like it was part of their curriculum. I think it brought students together; it was inclusive. Everybody was welcome.”*

*“I think [with the SSP] students feel much more supported. We have a wide range of students in our program. From what I've seen it's had a pretty strong impact, especially on a lot of our weaker students.”*

*"My impression is that the students are much more confident when they write tests or assignments. I think the relationships between peer leaders and the first-year students have been very powerful."*

*"I think it has an impact in the sense that I have seen my students' grades go up. I know the faculty are very supportive of it and it's been nothing but beneficial. I think that they would like to see it continue."*

*"I think the impact is noticeable. I definitely see improvement with the students from the first week to the last week."*

*"I think it absolutely makes a difference and that it has the potential to make more of a difference as we begin to refine it as we go along."*

*"I think the SSP is structured to be successful. The degree of success lies in the students' understanding of the importance of it. That's really where refining comes in and how we decide to deliver it."*



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