

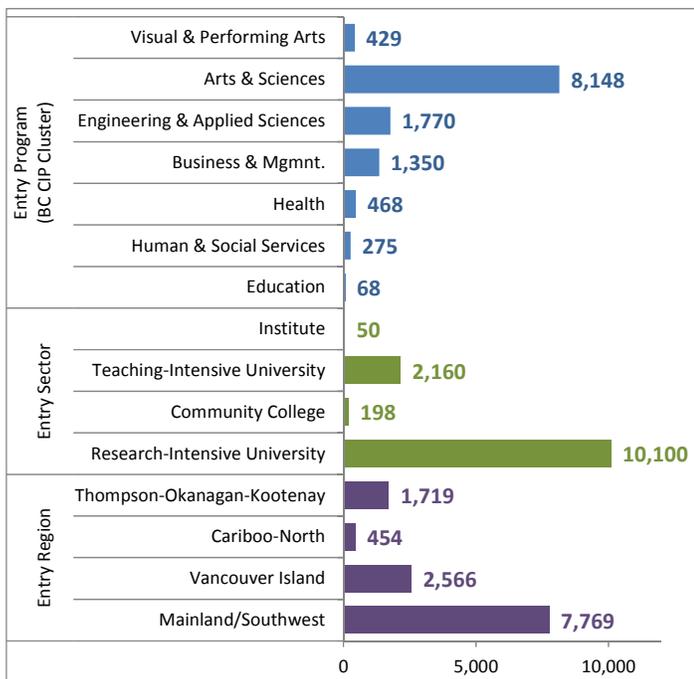
A Longitudinal Study of Entrants to Bachelor's Degree Programs in B.C.

The Student Transitions Project conducted a study of 12,508 students who entered bachelor's degree programs in B.C.'s public post-secondary institutions in Fall 2005. The education activities and outcomes of these students were followed over a period of 19 terms, or just over six years, ending in Fall 2011.

This longitudinal research study has the potential to explore many different avenues of academic success, but this first rollout of research findings focuses on three outcomes of bachelor's degree entrants, including credential completions, student mobility and student persistence. Where appropriate, the measures of success are summarized at four different levels of aggregation: province, region, sector and program.

This study focuses exclusively on those students who clearly **entered** a Bachelor's degree program, as provided in their student enrollment records. The STP acknowledges that a significant number of students who did not initially indicate or enrol in a Bachelor's degree program in Fall 2005, have subsequently completed one or are now seeking one. In fact, **nearly half (44%) of all 2010/11 Bachelor's degree completers did not initially enter a Bachelor's degree** when they first enrolled.

Figure 1: Entrants to Bachelor's Degree Programs in B.C. Public Postsecondary Institutions in Fall 2005 (N=12,508)



Entry Cohort

Total Entry Cohort: A total of 12,508 students initially entered a bachelor's program in Fall 2005 in a B.C. public post-secondary institution. The STP followed these students until Fall 2011. For more detailed information, see **Study Cohort** inset box on **page 2** and a breakdown of the entry cohort by region, sector and program is provided in **Figure 1**.

Region: Among the cohort of 12,508 bachelor's entrants 62% entered institutions in the Mainland/Southwest region and the remaining 38% initially enrolled in other regions of the province, including 21% Vancouver Island, 14% Thompson-Okanagan-Kootenay and 4% Cariboo-North.

Sector: The majority of the cohort initially entered a bachelor's program in a research-intensive university (81% or 10,100 students), while the remainder entered a teaching-intensive university (17% or 2,160 students), community college (2%, 198 students) or institute (50 students).

Program: Nearly two-thirds of the students who initially entered a bachelor's program in Fall 2005 enrolled in an Arts and Sciences program (65% or 8,148 students). Two other significant entry programs were Engineering and Applied Sciences (14% or 1,770 students) and Business and Management (11% or 1,350 students).

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Credential Completion Rate –

A Measure of Success for Bachelor's Entrants

Provincial Perspective: Among the 12,508 entrants to bachelor's degrees in B.C. public post-secondary institutions in Fall 2005, 69% (or 8,610 students) subsequently completed *any* credential by Fall 2011, at *any* B.C. public post-secondary institution, in just over six years. The four-, five- and six-year credential completion rates were 25%, 53%, and 67% respectively. Most of these credential completers (8,050 students) earned a bachelor's degree, such that 64% of the entry cohort (or 93% of the credential completers) completed a bachelor's degree by Fall 2011. See **Figures 2 and 3**.

The *Consortium for Student Retention Data Exchange* (CSRDE) is a collective of North American colleges and universities that share data and provide widely referenced student retention and credential completion benchmarks among peer member institutions. This group focuses on a more narrowly defined group of first time, full-time baccalaureate degree-seeking entrants and thus their credential completion rates are not directly comparable with this study. The STP does not yet collect student credit-load or full-time/part-time status, so identification of full-time versus part-time students is not currently possible.

It also is important to note that the bachelor's completion rates reported here are calculated exclusively on *entrants* to bachelor's degrees. The total number of completers and completion rates would likely be different if students who transferred or laddered to bachelor's programs from other institutions or programs had been included in the cohort.

Regional Perspective: Compared to a province-wide credential completion rate of 69% in just over six years, students who began a bachelor's degree program in the Mainland/Southwest region achieved the highest six-year completion rate (75%) at any institution in the B.C. public post-secondary system. These relatively high completion rates are largely influenced by the higher credential completion rates achieved by entrants to bachelor's programs in the two research-intensive universities in the region (80% for UBC and 69% for SFU versus 50% completion rate for bachelor's entrants to other Lower Mainland institutions).

Entrants to bachelor's degree programs in other regions achieved lower credential completion rates at any B.C. public post-secondary institution: Vancouver Island (63%), Cariboo-North (58%), and Thompson-Okanagan-Kootenay (54%). Given more time beyond initial entry, the credential completion rates for all bachelor's entrants in all regions will continue to increase.

Study Cohort—

New Students to Bachelor's Degree Programs:

The cohort for this study includes 12,508 new registrants to bachelor's degree programs at 22 B.C. public post-secondary institutions in Fall 2005. The education activities of these students were followed over 19 registration terms, or a period of just over six years, ending in Fall 2011.

The cohort **excludes:**

- a) Students without a Personal Education Number (PEN);
- b) Students enrolled in a graduate studies program in Fall 2005;
- c) Identifiable international exchange students;
- d) Students with any identifiable previous B.C. public post-secondary experience, such as:
 - students with prior registration records in any B.C. public post-secondary institution, determined from available data in the STP enrollment file (2002/03 to 2004/05);
 - students whose basis of admission as a new student was 'College Transfer'.

Students who might ultimately complete a bachelor's degree, but did not initially enrol in one, are excluded from this study cohort. These bachelor's students will be picked up in a future STP study of bachelor's *completers*.

Where to find more information:

A wealth of additional information is also available to post-secondary institutions seeking more detailed information on student transitions specific to their region or institution.

STP Highlights newsletters and reports are available on the public Student Transitions Project web site at:

http://www.aved.gov.bc.ca/student_transitions

Newsletter Prepared by Joanne Heslop,

Mobility of Bachelor's Entrants Who Completed a Credential

Provincial Perspective: The majority (95%) of the 8,610 credential completers who initially entered bachelor's degree programs in Fall 2005, completed in their entry region, with 93% in their entry sector, 89% in their entry institution and 78% in their entry program (see [Figures 2 and 3](#)). In other words, these credential completers who initially entered bachelor's programs typically remained in the region where they began, sometimes moving between sectors and more frequently moving between institutions. These mobility findings are consistent with STP's previous research on student mobility.

Number of Institutions Attended: Another measure of student mobility is the number of institutions students attended over the study period. On average students in this study attended an average of 1.5 institutions, with 36%

attending more than one institution over the six-year study period. Initial entrants to bachelor's programs at B.C. colleges attended more institutions, on average, than initial entrants to universities (1.8 vs. 1.5)

Regional Perspective: Credential completers who initially entered bachelor's programs in Mainland/Southwest institutions were the least mobile group of students when compared to bachelor's entrants in other regions of B.C. Mainland/Southwest students attended 1.4 institutions on average over the study period, and had the highest proportion completing in their entry region (99%), entry sector (95%), entry institution (93%), and entry program (80%), compared to bachelor's entrants in other regions who completed in the same region (88%), sector (87%), institution (81%) or program (74%) where they began.

Student Persistence – 23% of Entry Cohort are Still Registered Six Years Later

Provincial Perspective: From the initial Fall 2005 entry cohort of 12,508 Bachelor's entrants, 23% (or 2,834 students) were still registered six years later in any B.C. public post-secondary institution by Fall 2011. Roughly half of these continuing registrants had already completed a credential, but still continued to register in the B.C. system.

Of those 2,834 bachelor's entrants who were still enrolled somewhere in the B.C. public post-secondary system six years later, proportionately fewer remained in their entry region (82%), sector (67%), institution (53%) or program (42%), when compared to bachelor's entrants who completed a credential in their entry region, sector, institution or program (at 95%, 93%, 89% and 78% respectively). See [Figures 2 and 3](#).

Of the 3,898 students (31% of the entry cohort) who had not completed a credential by Fall 2011, roughly one-third (or 1,275) of these students were still enrolled in a B.C. public post-secondary institution. See [Figure 4](#).

The findings show that students who are still persisting toward their first or subsequent credential, six years after entry, are more mobile than those bachelor's entrants who completed a credential and chose not to register further. B.C.'s flexible transfer and mobility system offers numerous options for students wishing to switch to another institution or program suitable for their needs. Students may switch part-way through an initial program or after completion of a credential.

Student Transitions Project (STP):

The Student Transitions Project is British Columbia's collaborative research project that measures student success from the K-12 to post-secondary systems. This effective system-wide partnership, involving B.C.'s education and advanced education ministries and public post-secondary institutions, is tracking student success by reporting on student transition rates to post-secondary education, student mobility among post-secondary institutions, and post-secondary completion and retention rates. STP is managed by a steering committee with representation from the two education ministries, public institutions and the B.C. Council on Admissions and Transfer (BCCAT).

STP Steering Committee Members:

Robert Adamoski, Chair, STP Steering Committee and Associate Director, Admissions and Research, BCCAT.

Brian Beacham, Director, Institutional Research, Vancouver Community College.

Naomi Pope, Director, Research & Analysis, Post-Secondary Audit and Accountability Branch, Ministry of Advanced Education.

Charito Elderfield, Manager, Business Intelligence, Open Government & Community Partnerships Division, Ministry of Education.

Walter Sudmant, Director, Planning and Institutional Research, University of British Columbia.

Figure 2: Six-Year Outcomes of Fall 2005 Entrants to Bachelor’s Degree Programs in B.C. Public Postsecondary Institutions

Retention/Completion Status:	BC System	Entry Region				Entry Sector			
	All	Mainland/ Southwest	Vancouver Island	Cariboo- North	Thompson- Okanagan- Kootenay	Research- Intensive University	Community College	Teaching- Intensive University	Institute
Entry Cohort (100%)	12,508	7,769	2,566	454	1,719	10,100	198	2,160	50
Still Registered 6 Years Later:									
Total Registered in Fall 2011	2,834	1,838	548	116	332	2,397	18	415	4
In Entry Region	2,316	1,715	360	60	181	2,011	14	288	3
In Entry Sector	1,904	1,261	363	74	206	1,660	4	238	2
In Entry Institution	1,511	1,056	282	46	127	1,311	4	194	2
In Entry Program Cluster	1,193	779	244	51	119	1,024	8	159	2
6-Year Credential Completion:									
Credential Completer by Fall 2011	8,610	5,811	1,611	263	925	7,405	138	1,053	14
In Entry Region	8,222	5,748	1,486	210	778	7,128	130	950	14
In Entry Sector	7,977	5,533	1,436	203	805	7,013	78	872	14
In Entry Institution	7,676	5,406	1,371	173	726	6,747	73	843	13
In Entry Program Cluster	6,723	4,642	1,261	188	632	5,887	135	688	13
Bachelor’s Completer	8,050	5,582	1,464	234	770	7,096	129	814	11
Other Credential Completer	560	229	147	29	155	309	9	239	3
Student Mobility:									
# PSI’s Attended Over 6 Years: One	7,970	5,233	1,622	174	941	6,521	100	1,306	43
Two	3,419	1,951	716	175	577	2,717	55	643	4
Three	923	490	182	84	167	720	31	170	2
Four	157	81	35	14	27	116	9	31	1
Five	36	13	9	7	7	24	3	9	0
Six	3	1	2	0	0	2	0	1	0
Avg # PSI’s Attended Over 6 Years	1.5	1.4	1.5	1.9	1.6	1.5	1.8	1.5	1.2
Attended > 1 PSI Over 6 Years	36%	33%	37%	62%	45%	35%	49%	40%	14%

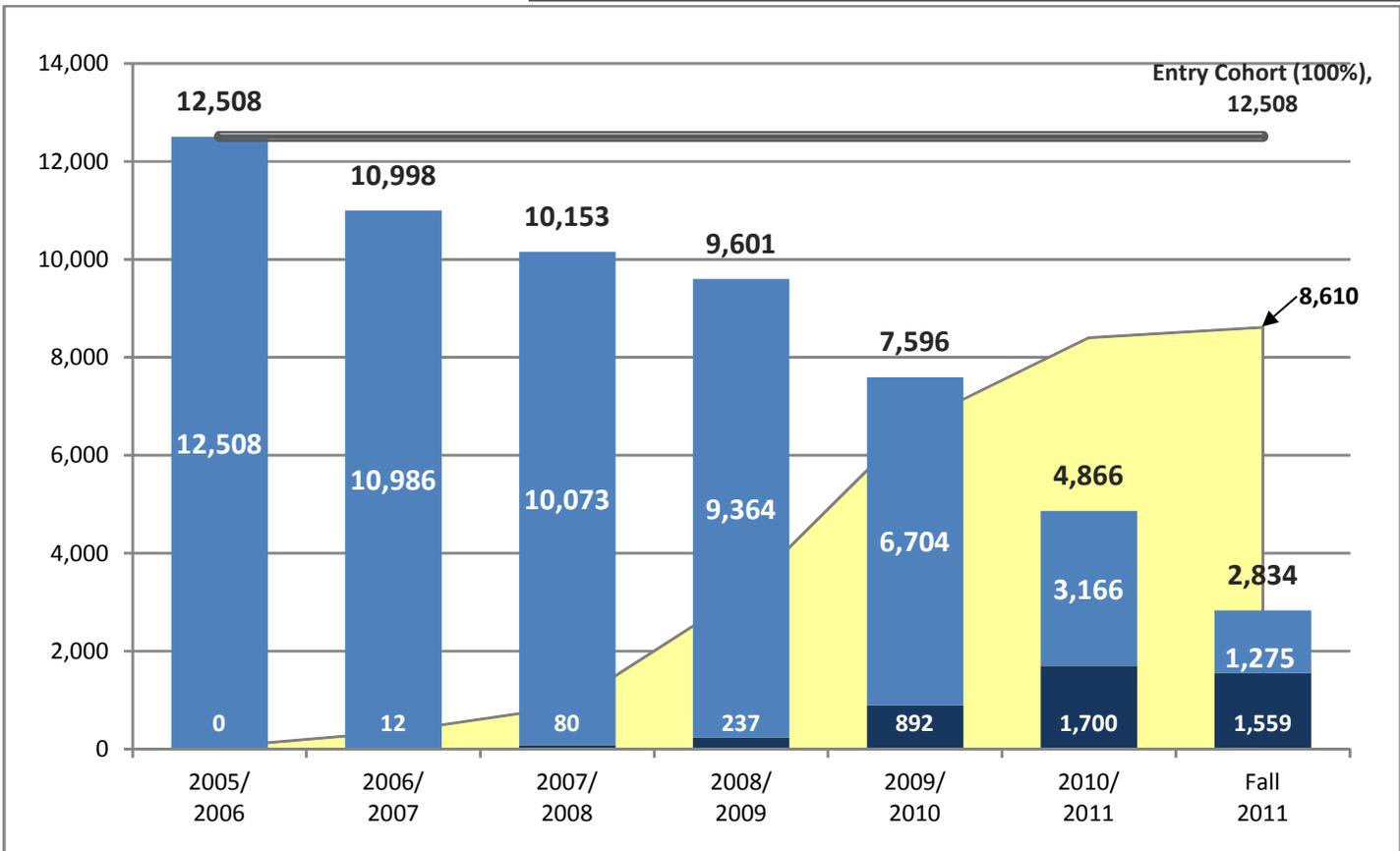
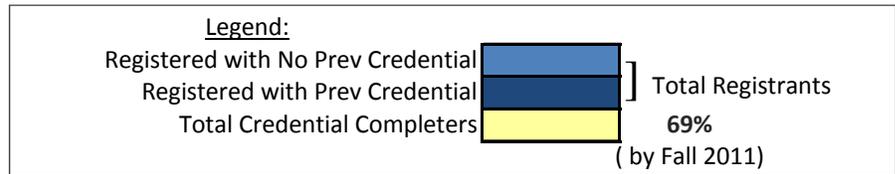
Figure 3: Six-Year Outcomes (%) of Fall 2005 Entrants to Bachelor’s Degree Programs in B.C. Public Postsecondary Institutions

Retention/Completion Status (% of Entry Cohort):	BC System	Entry Region				Entry Sector			
	All	Mainland/ Southwest	Vancouver Island	Cariboo- North	Thompson- Okanagan- Kootenay	Research- Intensive University	Community College	Teaching- Intensive University	Institute
Entry Cohort (100%)	12,508	7,769	2,566	454	1,719	10,100	198	2,160	50
Still Registered 6 Years Later:									
Total Registered in Fall 2011	23%	24%	21%	26%	19%	24%	9%	19%	8%
In Entry Region	19%	22%	14%	13%	11%	20%	7%	13%	6%
In Entry Sector	15%	16%	14%	16%	12%	16%	2%	11%	4%
In Entry Institution	12%	14%	11%	10%	7%	13%	2%	9%	4%
In Entry Program Cluster	10%	10%	10%	11%	7%	10%	4%	7%	4%
6-Year Credential Completion:									
Credential Completer by Fall 2011	69%	75%	63%	58%	54%	73%	70%	49%	28%
In Entry Region	66%	74%	58%	46%	45%	71%	66%	44%	28%
In Entry Sector	64%	71%	56%	45%	47%	69%	39%	40%	28%
In Entry Institution	61%	70%	53%	38%	42%	67%	37%	39%	26%
In Entry Program Cluster	54%	60%	49%	41%	37%	58%	68%	32%	26%
Bachelor’s Completer	64%	72%	57%	52%	45%	70%	65%	38%	22%
Other Credential Completer	4%	3%	6%	6%	9%	3%	5%	11%	6%
Student Mobility:									
# PSI’s Attended Over 6 Years: One	64%	67%	63%	38%	55%	65%	51%	60%	86%
Two	27%	25%	28%	39%	34%	27%	28%	30%	8%
Three	7%	6%	7%	19%	10%	7%	16%	8%	4%
Four+	2%	1%	2%	5%	2%	1%	6%	2%	2%
Avg # PSI’s Attended Over 6 Years	1.5	1.4	1.5	1.9	1.6	1.5	1.8	1.5	1.2
Attended > 1 PSI Over 6 Years	36%	33%	37%	62%	45%	35%	49%	40%	14%

Registration and Completion Status Over Time

From the initial cohort of 12,508 bachelor’s degree entrants, **Figure 4** shows the gradually declining number of students who registered in each academic year as the number of credential completers increases over time. Even after completing a credential, many students continue to register in the B.C. public post-secondary system.

Figure 4:
Registration and Completion Status of
Fall 2005 Bachelor’s Degree Entrants



Registration Status:	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	Fall 2011	% of Entry Cohort
Entry Cohort (100%)	12,508	12,508	12,508	12,508	12,508	12,508	12,508	100%
Credential Completer (69%)	45	347	867	3,142	6,658	8,400	8,610	69%
Non-Completer (31%)	12,463	12,161	11,641	9,366	5,850	4,108	3,898	31%
Registered (23%)	12,508	10,998	10,153	9,601	7,596	4,866	2,834	23%
Reg'd with Prev Credential (12%)	0	12	80	237	892	1,700	1,559	12%
- Bachelor's Degree (11%)	0	0	33	90	720	1,566	1,420	11%
- Other Credential (1%)	0	12	47	147	172	134	139	1%
Reg'd, No Prev Credential (10%)	12,508	10,986	10,073	9,364	6,704	3,166	1,275	10%
Not Registered (77%)	0	1,510	2,355	2,907	4,912	7,642	9,674	77%
No Reg with Prev Credential (55%)	0	33	267	630	2,250	4,958	6,841	55%
- Bachelor's Degree (53%)	25	248	557	2,622	5,418	6,275	6,630	53%
- Other Credential (3%)	20	87	230	283	348	425	421	3%
No Reg, No Prev Credential (23%)	0	1,477	2,088	2,277	2,662	2,684	2,833	23%

Note: Authorized users on the STP SharePoint site may create numerous other visual displays similar to Figure 4 for specific institutions, sectors and regions to aid their understanding of completion and retention of bachelor’s entrants.

Rationale for Further Study — Comparing Bachelor's Entrants to Bachelor's Completers:

This STP study uses a *forward-looking* approach to tracking a cohort of bachelor's entrants, but this has its limitations. A future STP study will use a *backward-looking* approach to study bachelor's completers. How do these two cohorts differ in size and composition and how might these different approaches impact the findings?

Cohort Size: In Fall 2005, a total of 12,508 students entered Bachelor's degree programs in B.C. public post-secondary institutions. This is a significantly smaller cohort than a recent population of 20,840 bachelor's degree completers in academic year 2010/11. Why? The bachelor's completion cohort captures a full academic year of credential completers (rather than a single term), but of greater significance is the fact that fewer than half (44%) of the 2010/11 bachelor's completers did not initially enter a bachelor's degree program. Consequently, the education pathways of these two groups are likely quite different.

Cohort Composition: Recent degree expansion in the B.C. public post-secondary system has had an impact on the distribution of credential completers across regions and sectors. Regionally, 62% of Fall 2005 bachelor's students initially entered Lower Mainland institutions, compared to 66% of 2010/11 bachelor's completers. In terms of sector composition, 81% of the bachelor's entrants began their studies at a research-intensive university in Fall 2005, 17% at a teaching-intensive university and 2% at a college or institute. Due to increased degree completion opportunities at colleges and institutes, a growing proportion of bachelor's completers finished at colleges and institutes in 2011/11, with 75% completing at RIUs, 18% at TIUs and 7% at colleges/institutes.

The bachelor's entry cohort and bachelor's completion cohort are two distinct and partially overlapping populations of "bachelor's degree students", but these two groups likely followed different education pathways and achieved different education outcomes.

The forward-looking study of bachelor's *entrants* described in this newsletter offers only one longitudinal perspective of bachelor's degree students. The STP will soon pursue another longitudinal study of bachelor's students using a backward-looking approach from a recent cohort of bachelor's *completers* in order to identify their education outcomes and pathways.

Conclusion and Next Steps

The results of this study show that students who enter a bachelor's degree program in B.C. achieve relatively high credential completion rates (69%) in just over six years.

Of those bachelor's entrants who did complete a credential, the vast majority (93%) achieved the credential they initially entered – a bachelor's degree. Of those who did not complete a credential yet, many are still on track to attain one.

These Bachelor's entrants are mobile students who often switched programs, institutions, sectors or regions in order to achieve their goal. B.C.'s flexible student transfer and mobility system supports the success of these students.

As previously noted, nearly half of all 2010/11 bachelor's degree completers did not initially enter a bachelor's degree program when they first enrolled.

To further supplement our understanding of the long-run success of B.C. students, the STP will soon conduct another study to examine the mobility of all Bachelor's **completers** along their various education pathways, looking backward from time of exit to time of entry.

The STP has done some preliminary work to better understand the different study approaches (see **Rationale for Further Study** on this page). This early exploration suggests that differences in the education pathways of bachelor's entrants and bachelor's completers will likely result in different but complementary research findings.

