



Follow-up: The Vermont High School Class of 2012

Postsecondary Enrollment & Completion of Students Enrolled at a Two-Year School

Executive Summary

Today's workforce landscape is changing faster than ever. These changes are only being further accelerated by the COVID-19 crisis as communities face critical skill shortages in healthcare, advanced manufacturing, and other essential services. One way in which states are trying to address these challenges is by developing short-term, high-benefit training and education programs designed to provide students with in-demand skills, flexible pathways, and stackable credentials. Some programs are co-designed with local businesses and industries, making them ideal for growing new skills among a readily available pool of job applicants. These programs can help meet the educational and occupational aspirations of students as well as the workforce development needs of their communities and our state. In other words, they can supply a skilled workforce to drive continuing economic development, particularly in rural areas.

In Vermont, there are many options ranging from 12 community college sites, to regional career and technical centers to private, for-profit education and training providers throughout the state—all of which offer local access to training and education programs. This report supplies some baseline measures of a particular type of program—the two-year associate degree program—focusing on students from the High School Class of 2012 who attended postsecondary institutions that offer two-year degrees, whether in Vermont or elsewhere.¹ Many two-year programs offer a relatively affordable way to obtain skills desired by employers.

The current postsecondary climate highlights opportunities for institutions that offer two-year programs. There is often a counter-cyclical component regarding enrollment and economic recessions, particularly for adult students. Adults tend to enroll at community colleges and one-year programs in times of recession. These programs can offer short-term and/or low-residency programs that provide training to displaced workers as well as traditional-aged students who would prefer to remain closer to their home. However, there are also challenges—particularly when we focus on the young adult student cohort, the group of students who enroll in postsecondary education right after high school, which is the focus of this study. In the Northeast there is a shrinking pool of high school graduates, which impacts all postsecondary institutions in the area.

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¹For this cohort we are unable to include all types of education and training students pursued at this time.

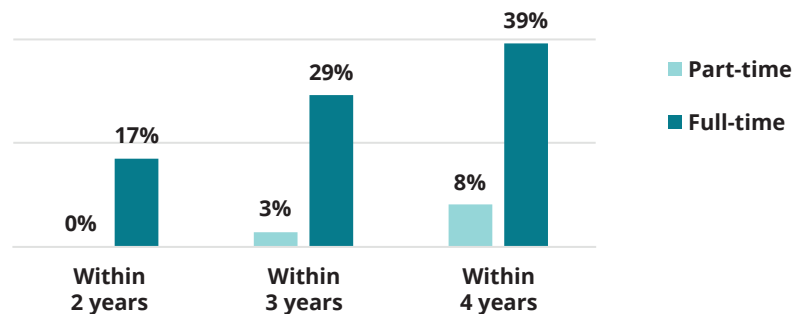
The number of high school graduates in the Northeast started to decline in 2010 and is projected to decline by 6% over the next decade (WICHE, 2016). In Vermont, the number of high school graduates is projected to decline even more, by 9% over the next decade. This may make it difficult for some institutions to attract the same number of recent high school graduates to enroll with them.

The purpose of this paper is to gain a better understanding of students' postsecondary experiences at two-year institutions with respect to enrollment intensity, persistence, transfer activity, and degree completion within four years of high school graduation. When appropriate we provide a comparison to students from the cohort who began at four-year institutions in the fall of 2012².

What did we learn from these findings? Of those students who enrolled in a two-year program in the fall of 2012, slightly more than half, 53%, enrolled full-time. The rest, 47%, enrolled part-time.

Among students who enrolled full-time in the fall of 2012 in a two-year program, 17% obtained an associate degree within two years (Figure 1). Within three years of high school graduation, 29% of those who enrolled full-time in the fall of 2012 had obtained a degree. By 2016, 33% had obtained an associate degree, while 6% had obtained a bachelor's degree. Among those who enrolled part-time in the fall of 2012, 3% percent obtained a degree within three years, while 8% had obtained a degree within four years.

Figure 1. Completion among students who enrolled in a two-year program, by starting enrollment intensity



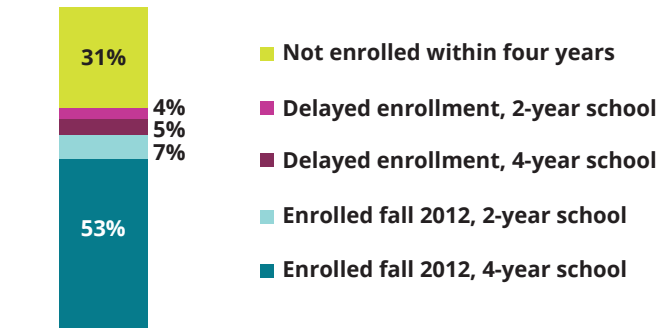
Students who started at a two-year institution immediately after high school make up a relatively small subset of the Class of 2012 (Figure 2)³. Research suggests (VSAC, unpublished) that rural youth may be less likely to move far away for fear of straining family connections and thereby limiting their educational opportunity. Associate degrees, as well as other short-term programs leading to certifications and

² VSAC's most recent report (published 2018) focused on the degree attainment of the Class of 2012 who continued their education full-time at a four-year school.

³ The data used in this report comes from two sources. Every two years, the Vermont Student Assistance Corporation (VSAC) conducts a nonrandom survey of Vermont high school seniors attending public and private high schools. In 2012, a total of 5,902 out of 6,958 seniors (85%) participated in the survey. Postsecondary enrollment data is based on the 5,853 usable records of the 5,902 participants that were submitted to the National Student Clearinghouse (NSC) and supplemented with information from VSAC's proprietary database for the Vermont State Grant Program. VSAC survey data and NSC enrollment and graduation data were merged and form the basis of the findings presented here (n=5,853).

nationally recognized credentials, can be completed at a low cost—at times even at no cost, when tied to a registered apprenticeship or with available student financial aid. As such, having well-structured short-term training and education programs (including associate degrees) within Vermont’s borders may have the added benefit of increasing the number of Vermonters who hold some form of credential.

Figure 2. Enrollment by school length and first enrollment



As the summary bullets below and full report will show, surveyed students who enrolled in a two-year program have their own successes and challenges, and in order to best serve them, policy and interventions need to be tailored to their unique needs. This report hopes to offer insights on where to begin.

- Summer melt is a significant challenge for students planning to start at a two-year school.** High school seniors who planned to enroll at a two-year school were three times more likely not to enroll by the fall compared to students who planned to enroll at a four-year school, 40% compared to 13%, respectively.
- Most students who enrolled at a two-year school stayed close to home.** Among students who chose a two-year program, 82% attended a Vermont institution. Among students who started full-time, 44% enrolled at Community College of Vermont (CCV), while 29% attended Vermont Technical College⁴ (VTC). Among those who started part-time, 92% enrolled at CCV.
- Students enrolled in a two-year program had a wide range of enrollment scenarios.** Among students who enrolled full-time in a two-year program, almost seven out of ten students transferred schools, enrolled less than full-time, or left school for at least a semester within the first two years⁵. This was more than twice the rate of students who started full-time at a four-year school. Among students who started part-time in a two-year program, eight out of ten students transferred schools or left school for at least a semester within the first two years.

⁴Vermont Technical College (VTC) is a public institution that offers both associate degrees and bachelor’s degrees. According to IPEDS, VTC awards more associate degrees than bachelor’s degrees. In this paper, data referring to students enrolled in a two-year program includes VTC students who were pursuing a two-year degree, while data referring to students enrolled in a two-year school does not include VTC students. Student responses from the Senior Survey were used to determine whether students at VTC were pursuing an associate degree or a bachelor’s degree. Additionally, students’ enrollment intensity was not provided to NSC by VTC. Student responses from the Senior Survey were used to determine students’ enrollment intensity.

⁵As discussed later in the paper, a course load of 12 credits is considered full-time enrollment. However, to graduate within four semesters, 15 credits per semester is typically required.

- **Many students who enrolled full-time did not obtain a degree, even after enrolling for four consecutive semesters.** Among students who enrolled full-time in a two-year program and remained enrolled continuously for four semesters, 42% had not obtained a degree within four years. About the same percentage, 41%, had obtained an associate degree within four years. The rest, 17%, had obtained a bachelor's degree.
- **Students who remained enrolled continuously were more likely to obtain a degree.** Among students who enrolled full-time in the fall of 2012 in a two-year program and remained enrolled continuously (either full-time or less than full-time in subsequent semesters), 79% obtained a degree within four years. The four-year completion rate among those who left school and later re-enrolled was 15%.
- **Students who started full-time at a two-year Vermont institution were more likely to obtain a degree within four years of high school graduation.** Within four years of high school graduation, 52% of those who started at Vermont Technical College had obtained a degree, while 37% of those who started at the Community College of Vermont had obtained a degree. In contrast, 28% of those who started at a non-Vermont two-year institution had obtained a degree. Additionally, within four years of high school graduation, 11% of students who started at CCV, compared to 1% of students who had started at a non-Vermont two-year institution, had obtained a bachelor's degree.

Introduction: Vermont data compared to the nation

This report focuses on graduates from the Vermont High School Class of 2012 who enrolled in a two-year program in the fall of 2012. The enrollment rate of the Class of 2012 in the fall of 2012 was 60%: 53% enrolled at a four-year institution, while 7% enrolled at a two-year institution.

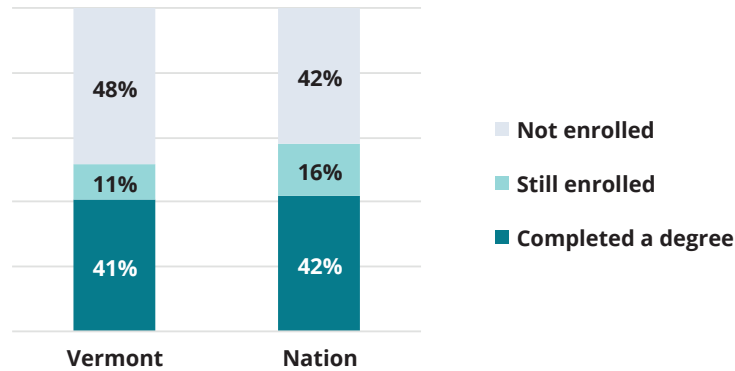
While the focus of this paper is degree completion within four years of high school graduation, we used the six-year completion for comparison to the national average, as this is the best comparison data available⁶. The six-year completion rate⁷ of all Vermont graduates from the Class of 2012 who started at a two-year institution, enrolled either full- or part-time, was one percentage point lower than the national average (41% compared to 42%, as shown in Figure 3). At the end of six years, Vermonters were more likely than the national average to have left school without the benefit of obtaining a degree (48% compared to 42%).

⁶ Some organizations publish completion rates that only consider the students' completion from the same school at which students started. These "same-school" completion rates do not consider degrees obtained by students if they transfer schools. The completion rates in this paper consider degrees obtained by students at any school: students' starting school or degrees obtained by students if they transferred to another institution.

⁷ Six-year completion rates are provided for comparison to national averages because this was the best comparison data available. For this comparison, data from the Vermont High School Class of 2012 was compared to the National Student Clearinghouse (NSC) data. NSC uses only degree-seeking students in their analysis. In this chart, we adopted their criteria: "Students who started at two-year institutions were excluded as non-degree-seeking students, if they failed to meet one of the following criteria: (1) one or more full-time enrollment before 8/11/2013; and (2) one or more three-quarter time status before 12/31/2013; and (3) two enrollment terms with half-time status before 12/31/2013." The Vermont data was limited only for the basis of this comparison. In all other portions of this paper, all students are considered in the analyses presented.

Figure 3. Six-year completion rate, Vermont Class of 2012 and nation⁸, degree-seeking students who started at a two-year public institution

Note: Completion includes degrees from starting institution or subsequent institutions.



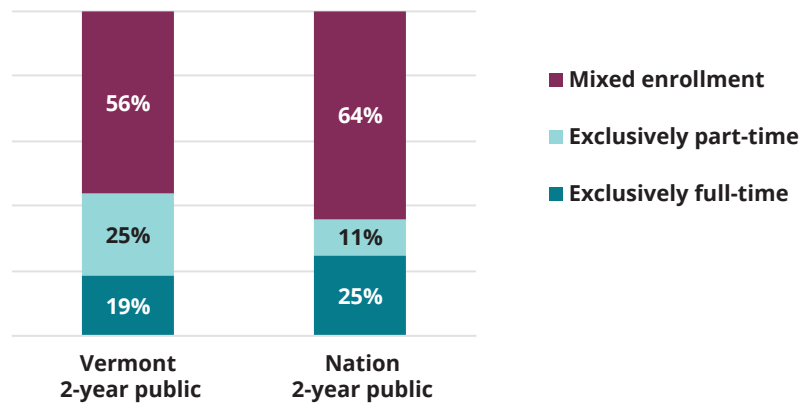
However, it is important to note that Vermonters who enrolled at a two-year public institution had different enrollment patterns than the national average (Figure 4). Compared to the national average, Vermonters were less likely to enroll exclusively full-time (19% compared to 25%). Vermonters were also more than twice as likely to enroll exclusively part-time (25% compared to 11%). This makes it difficult to compare completion rates of Vermonters to the national average, as students who enroll exclusively part-time would most likely take longer to complete a degree. Also, according to the National Student Clearinghouse data, students who enrolled exclusively part-time are less likely to obtain a degree than those who enroll exclusively full-time.

Additionally, the enrollment patterns of students at two-year schools were substantially different than the patterns of students at four-year schools⁹. Nationally, students at two-year schools were more likely to enroll part-time or a mixture of full-and part-time. They were also less likely to enroll exclusively full-time while they were enrolled.

⁸ Students who enrolled in the fall of 2012 in a two-year program at Vermont Technical College (VTC) are not included in this data because VTC offers four-year degrees and therefore are considered enrolled at a four-year institution by the national data comparison group. The completion data of students who enrolled at VTC are included in the four-year rate. In this paper, except for this figure, students who enrolled at VTC are separated by the type of degree they reported that they planned to pursue. Students who planned to obtain a two-year degree are included in the analysis of those seeking a two-year degree.

⁹ Although this paper focuses on students who enrolled at two-year institutions, periodically enrollment patterns of students who enrolled at four-year institutions are listed for comparative purposes.

Figure 4. Enrollment intensity by school type, Vermont and nation

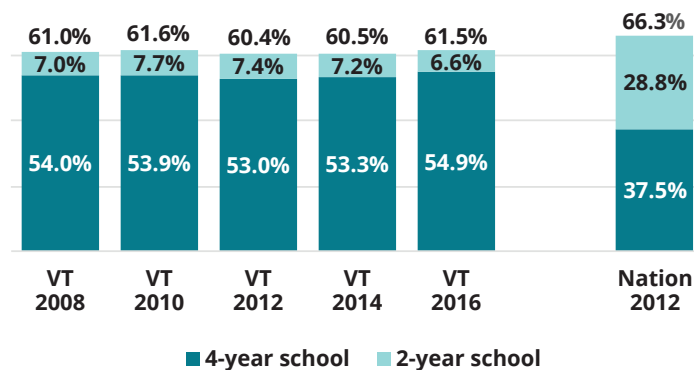


In Section A of this paper, we discuss the enrollment, persistence, and completion of students who started in a two-year program in the fall of 2012. In Section B, we discuss other aspects of students' enrollment at two-year schools: students who delayed postsecondary enrollment for a semester or more; those who transferred schools; and those who aspired to enroll but did not (also referred to as "summer melt"). We also provide an analysis of county-level enrollment data.

Section A: Students who started at a two-year institution in the fall of 2012

Our data indicate that 60% of the Class of 2012 enrolled in the fall of 2012 at a two- or four-year school, with 53% enrolling at a four-year school and 7% percent enrolling at a two-year school (Figure 5). This pattern has been consistent from 2008 through 2016. It is important to note that Vermonter's enrollment at two-year institutions is substantially different than the national average. Nationally, students are more likely to enroll at two-year institutions; 29% of high school seniors nationwide who enrolled immediately after high school in the fall of 2012 started at a two-year school, while 37% started at a four-year school (VSAC, 2015).

Figure 5. Immediate enrollment by school length, Vermont: fall 2008–fall 2016; nation: fall 2012



Compared to students who enrolled in a four-year program, Vermont students who enrolled in a two-year program were less likely to be academically prepared for college, as measured by completion of Algebra II while in high school and overall high school GPA. They were also less likely to feel that their parents wanted them to pursue education after high school. Compared to students who enrolled in a four-year program, students who enrolled in a two-year program were¹⁰:

- more likely to be first-generation students (68% versus 37%);
- less likely to have talked with their parents about their post-high school plans by the time they were in the 9th grade (43% compared to 60%);
- less likely to have completed Algebra II (81% versus 97%);
- less likely to have earned an overall high school GPA of A (14% versus 48%);
- less likely to have applied for financial aid while a senior in high school (49% compared to 60%); and
- more likely to report “major” concerns about their ability to pay for college (22% versus 15%).

Enrollment at a two-year institution: full-time versus part-time enrollment

Table 1 shows the differences among four groups from the High School Class of 2012 by their postsecondary enrollment in the fall of 2012: those who enrolled full-time in a two-year program; those who enrolled part-time in a two-year program; those who enrolled full-time in a four-year program; and those who did not enroll in the fall of 2012.

As already stated, students who enrolled in a two-year program (either full- or part-time) were less likely than those who enrolled in a four-year program to feel their parents wanted them to continue their education after high school. They were also less likely to have talked with their parents prior to the 9th grade about their post-high school plans, and less likely to have completed Algebra II.

Among students who enrolled in a two-year program in the fall of 2012, there were differences between those who enrolled full-time compared to those who enrolled part-time (Table 1). Those who enrolled full-time were more likely to:

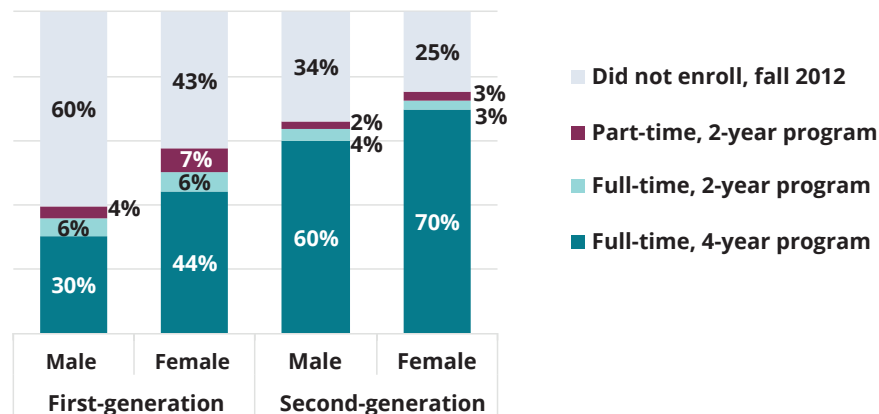
- feel their parents wanted them to continue their education immediately after high school (77% versus 67%);
- have talked to their parents about their post-high school plans by the time they started the 9th grade (49% versus 37%); and
- have completed Algebra II (87% versus 75%).

¹⁰ Chi-square results show a statistically significant difference in each of the factors listed.

Table 1. Student comparisons by fall 2012 enrollment

FACTOR	Fall 2012 Enrollment			
	Full-time, 2-year program	Part-time, 2-year program	Full-time, 4-year program	Did not enroll
Male	50%	37%	43%	55%
Female	50%	63%	57%	45%
First-generation	67%	69%	37%	61%
Second-generation	33%	31%	63%	39%
Parent's desire: education	77%	67%	82%	40%
Parent's desire: other	23%	33%	18%	60%
First talked to parents: by 9th grade	49%	37%	60%	44%
First talked to parents: after 9th grade	51%	63%	40%	56%
Took Algebra II	87%	75%	97%	73%
Did not take Algebra II	13%	25%	3%	27%

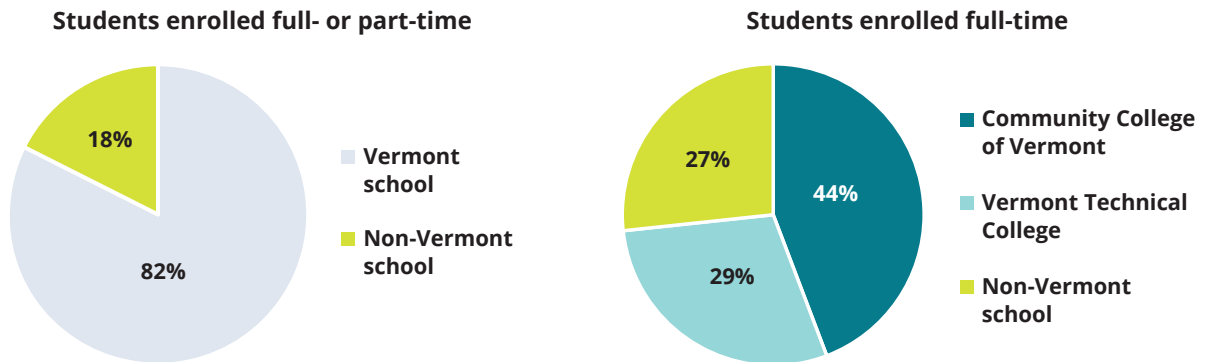
A slightly different way to look at the data is to compare post-high school activities by demographic characteristics of high school graduates. Figure 6 shows the Class of 2012 by gender and first-generation status. Among first-generation males, 60% did not enroll in the fall of 2012, while 10% enrolled either full- or part-time in a two-year program. Among first-generation females, 43% did not enroll in the fall of 2012, while 13% enrolled in a two-year program. Second-generation students were less likely to enroll in a two-year program than first-generation students; instead they tended to choose four-year programs. Second-generation females had the lowest percentage of students who did not enroll in the fall of 2012 (25%) and the highest percentage of students who enrolled full-time in a four-year program (70%).

Figure 6. Post-high school activity by gender and parents' education


Institution location

Eight out of ten students who enrolled in a two-year program attended a Vermont institution (Figure 7). Among students who enrolled full-time in a two-year program in the fall of 2012, most attended a Vermont institution: 44% attended the Community College of Vermont; and 29% attended the Vermont Technical College. The remainder (27%) attended an institution outside of Vermont.

Figure 7. Enrollment in a two-year program by school location, fall 2012



Students who enrolled part-time in two-year program in the fall of 2012 were most likely to attend a Vermont institution. Most (92%) attended the Community College of Vermont.

Institution selection

Students chose a college or university based on several criteria, such as location, affordability, and perceived academic reputation of the institution. There were differences between students who enrolled at two-year versus four-year institutions regarding the most important reasons that they chose the institution they attended.

Students who enrolled in a two-year program reported the school's affordability and proximity to their home as the most important reasons for selecting the school they attended (Table 2), with these factors being slightly more important for part-time students as for full-time ones. In contrast, among students who enrolled full-time in a four-year program, only 19% cited one of these two reasons for selecting their school.

Instead, students who enrolled at four-year institutions said the most important reasons for selecting the school they attended were that they felt the school "had a good academic reputation" (23%) and that they "liked what they saw on a campus visit" (22%).

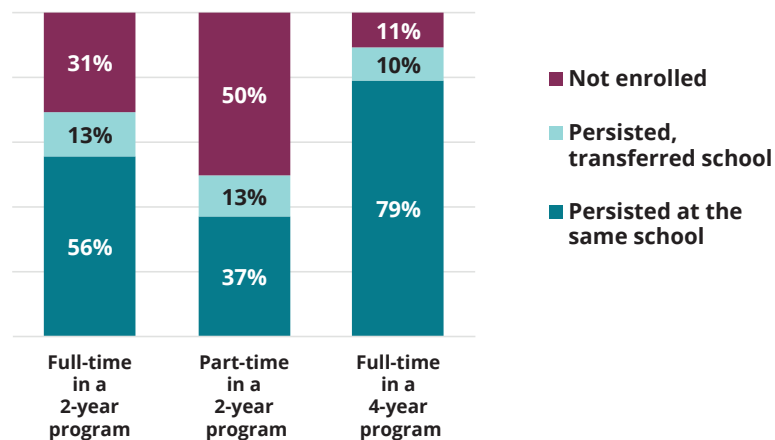
Table 2. Most important reason for enrolling at a particular postsecondary institution, by fall 2012 enrollment pattern

MOST IMPORTANT REASON FOR ENROLLING AT THIS PARTICULAR COLLEGE	Fall 2012 Enrollment					
	2-year, full-time		2-year, part-time		4-year, full-time	
	Rank	%	Rank	%	Rank	%
The cost of attending this college — it is affordable	1	26%	1	39%	3	13%
It is close to home	2	21%	2	19%	6	6%
A family member/friend advised me to go there	3	13%	3	11%	5	6%
It has a very good academic reputation	4	11%	6	5%	1	23%
Its graduates get good jobs	5	8%	8	3%	7	5%
I liked what I saw on a campus visit	6	6%	7	3%	2	22%
It offered me a desirable financial aid package	10	1%	9	2%	4	10%

Persistence

In this report, we define persistence as the percentage of students who, after enrolling in the fall of 2012, continued their education in the fall of 2013. Persistence varied by enrollment intensity (Figure 8). Among those who started full-time in a two-year program, the overall persistence rate was 69%: 56% persisted at the same school, while 13% transferred schools. Among those who started part-time in a two-year program, the overall persistence rate was 50%. Persistence was higher among students who started at a four-year program than among those who started at a two-year program.

Figure 8. Persistence (fall 2012 to fall 2013) by school length and enrollment intensity



Year-to-year enrollment

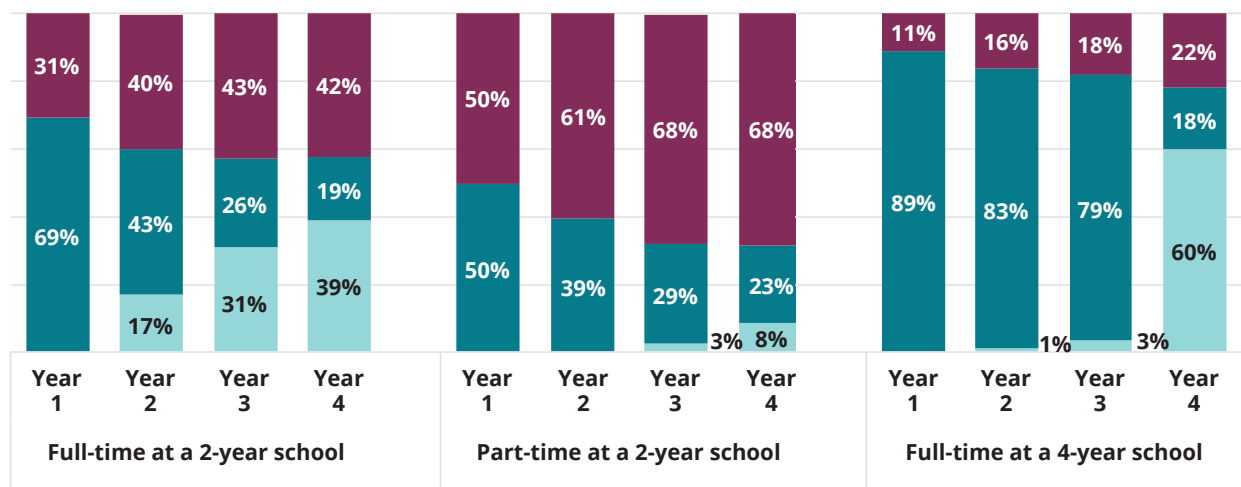
Students who enrolled full-time in a two-year program were more likely than students who enrolled part-time in a two-year program to enroll each of the subsequent years analyzed in this study (Figure 9). As already discussed, students who enrolled full-time in a four-year program were more likely to persist to a second year of postsecondary education than were those enrolled in a two-year program. They were also more likely to be enrolled after two years. After two years, 83% were still enrolled, while 16% had left school. Students who enrolled in a two-year program were more likely to have left school. Among students who enrolled full-time in a two-year program 40% had left school after two years. The percentage of students who had left school after two years was higher for those who enrolled part-time in a two-year program (61%).

Within two-years of high school graduation, 17% of students who started full-time in a two-year program had obtained a degree. This increased to 39% after four years. Four years after high school graduation 19% were still enrolled, while 42% were no longer enrolled.

Students who started part-time in a two-year program had the lowest completion rate among the groups studied. After four years, 8% had obtained a degree, while 23% were still enrolled. More than two-thirds, 68%, were no longer enrolled.

Students who enrolled full-time in a four-year program were more likely to obtain a degree within four years than students enrolled in a two-year program. Four years after high school graduation, 60% of students who started full-time at a four-year school had obtained a degree, while 18% were still enrolled.

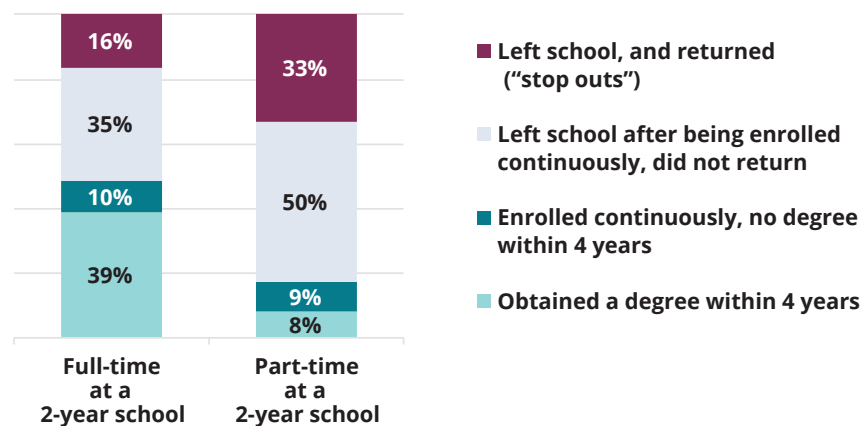
Figure 9. Enrollment each year with four-year outcomes



There was a wide range of enrollment scenarios among students in two-year programs. Within the first two years, seven out of ten of those students who started full-time in a two-year program had transferred schools, were enrolled less than full time, or had left school. Among students who started part-time in a two-year program, within the first two years, eight out of ten had transferred schools or left school for at least a semester.

Figure 10 highlights the challenges these students face to remaining enrolled. Among students who enrolled full-time in a two-year program, 35% were enrolled continuously then left school and did not return within the timeframe of this study (four years after high school graduation). An additional 16% left school for a semester or more and reenrolled (commonly referred to as “stopping out”). About half of the students who stopped out had left school and reenrolled more than once. Within this group of students who stopped out, about half were not enrolled at the end of this study, making the total percentage not enrolled within four years of high school graduation 42%.

Figure 10. Enrollment scenarios within four years of high school graduation

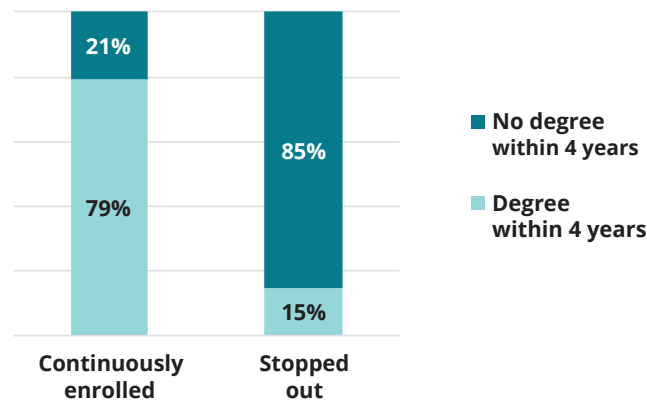


Among students who stopped out, most returned after a one- or two-semester break (Table 3). Among those who enrolled full-time in the fall of 2012, 48% stopped out for one semester while 31% stopped out for two semesters. Additionally, 46% stopped out more than once during the time period of this study. Students who enrolled part-time in the fall of 2012 were more likely than those who enrolled full-time to stop out multiple times during the time period of this study.

Table 3. Length and number of stop outs, by fall 2012 enrollment pattern

LENGTH AND NUMBER OF STOP OUTS	Full-time in a 2-year program	Part-time in a 2-year program
Length of first stop out		
1 semester	48%	63%
2 semesters	31%	8%
2 or more semesters	21%	29%
Number of stop outs within 4 years		
1 stop out	54%	41%
2 or more stop outs	46%	59%

Similar to our previous findings, students who remained continuously enrolled were more likely to obtain a degree within four years than those who stopped out. Among students who enrolled full-time in the fall of 2012 and remained enrolled continuously, 79% obtained a degree within four years (Figure 11). The four-year completion rate among students who stopped out was 15%.

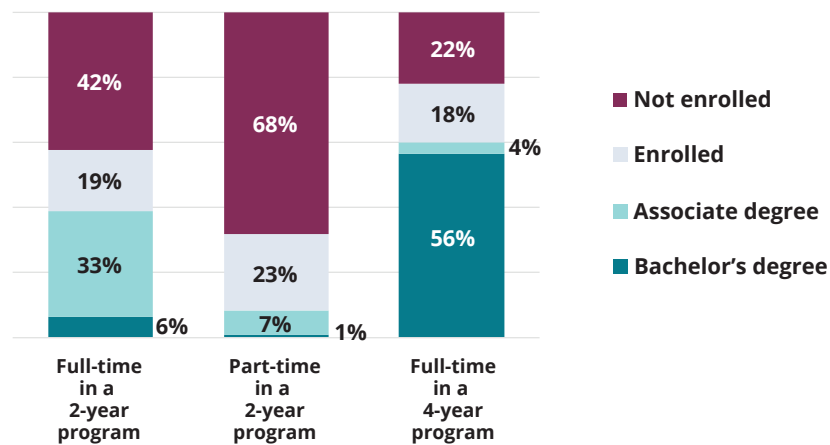
Figure 11. Completion within four years: continuous enrollment vs. stopping out (among those who started full-time at two-year school)


Completion within four years

Among those who enrolled full-time in a two-year program, 33% obtained an associate degree within four years, while 6% obtained a bachelor's degree within four years (Figure 12). Among those who enrolled part-time in a two-year program, 7% obtained an associate degree within four years, while 1% obtained a bachelor's degree within four years.

Students who enrolled full-time in a four-year program had the highest completion rates: 56% had obtained a bachelor's degree within four years, while 4% had obtained an associate degree.

Figure 12. Degree obtainment within four years of high school graduation

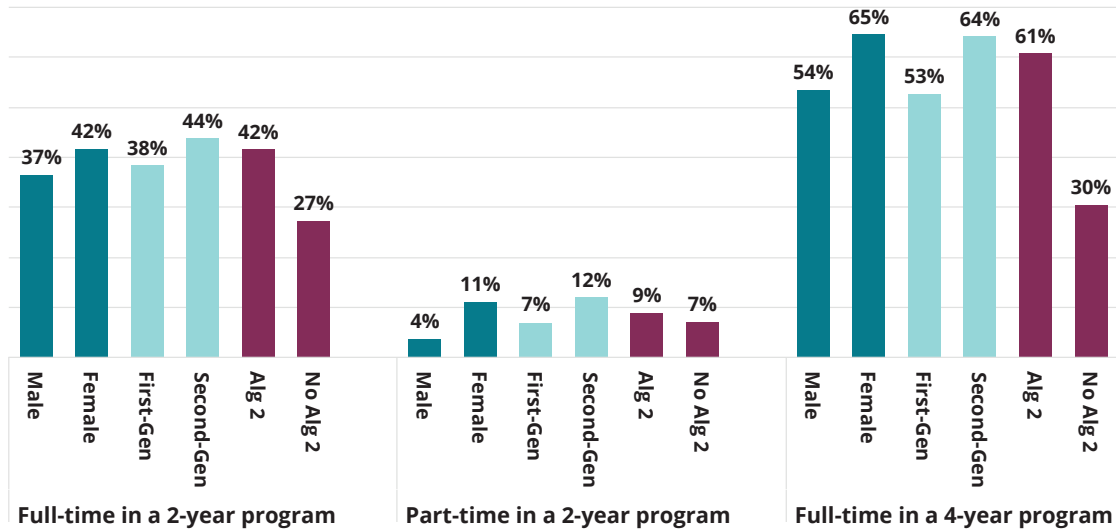


Among those who started full-time in a two-year program in the fall of 2012 and were still enrolled four years after high school graduation, 40% were enrolled at a two-year school. The remainder, 60%, were enrolled at a four-year school.

Completion rates varied by demographics and academic preparation (Figure 13). Within each category, females and second-generation¹¹ students were more likely to obtain a degree within four years. Students who had a higher level of academic preparation were also more likely to obtain a degree within four years. For example, among students who started full-time in a two-year program and completed Algebra II, 42% obtained a degree within four years. Among those who did not complete Algebra II, only 27% obtained a degree within four years.

¹¹ In this paper, students who reported that neither of their parents had attained a four-year degree are referred to as first-generation students, while those who reported that at least one of their parents had attained at least a four-year degree are referred to as second-generation students.

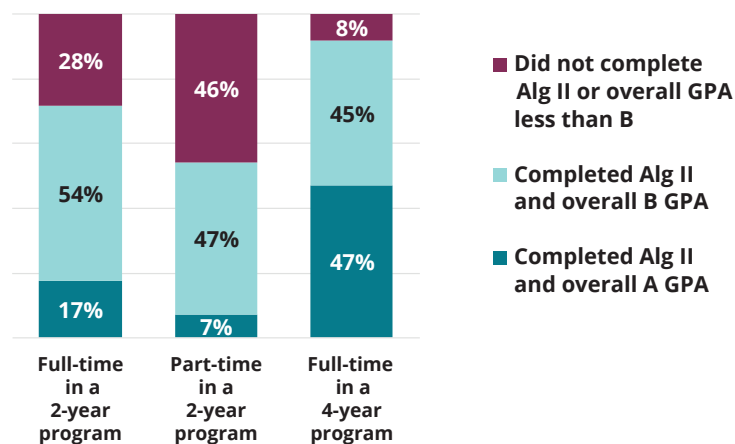
Figure 13. Completion rates by gender, parents' education, and academic preparation



Academic preparation

Students who enrolled in a two-year program were less likely to have completed Algebra II and have an overall high school GPA of A (Figure 14) than were students who enrolled in a four-year program. Almost half (47%) of students who enrolled full-time in a four-year program reported that they completed Algebra II and had an overall high school GPA of A, compared to 17% of students who enrolled full-time in a two-year program and 7% of students who enrolled part-time in a two-year program.

Figure 14. Academic preparation by program length and enrollment intensity



The proportion of students who completed Algebra II and reported an overall high school GPA of B varied from 45% to 54% among the three groups studied. Among these similarly prepared students, those who started part-time in a two-year program were the least likely to obtain a degree within four years (9%; see Table 4). Among students who enrolled full-time in a two-year school, 41% had obtained a degree within four years; 37% had obtained an associate degree, while 4% had obtained a bachelor's degree. Students who started full-time in a four-year program were the most likely to obtain a degree within four-years¹².

Table 4. Four-year outcomes of students who completed Algebra II and had an overall B GPA

FOUR-YEAR OUTCOME	Program length and intensity		
	Full-time in a 2-year program	Part-time in a 2-year program	Full-time in a 4-year program
Bachelor's degree	4%	0%	46%
Associate degree	37%	9%	4%
Total	41%	9%	50%

Completion by institution

Figure 15 shows the completion rates within four years among those who enrolled at Vermont Technical College, Community College of Vermont, and all other schools (comprised of students at various institutions outside of Vermont).

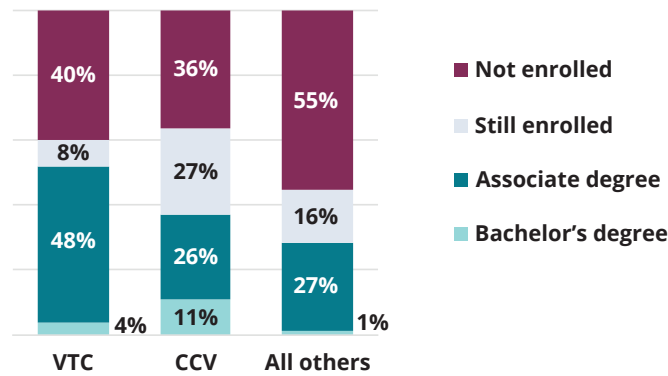
Students who started at Vermont Technical College had the highest completion rate. Within four years, 48% had obtained an associate degree and 4% had obtained a bachelor's degree.

There were interesting differences between the two remaining groups—the students who started at the Community College of Vermont (CCV) compared to the students who started at all other two-year institutions. About the same percentage had obtained an associate degree within four years (26% and 27% respectively). However, students who started at CCV were more likely to have obtained a bachelor's degree within four years (11% compared to 1%). The higher bachelor's degree completion rate among students who started at CCV may be due to the transfer agreements, also known as articulation agreements, that CCV has with several other schools. These agreements ensure credits earned at CCV are accepted at other institutions when students transfer schools.

After four years, students who started at the Community College of Vermont were also much more likely to still be enrolled (27% compared to 16%). They were also less likely to have left postsecondary education without a degree (36% compared to 55%).

¹² Chi-square results show a statistically significant difference between groups with respect to four-year outcomes.

Figure 15. Four-year outcome of those who enrolled full-time, by institution¹³



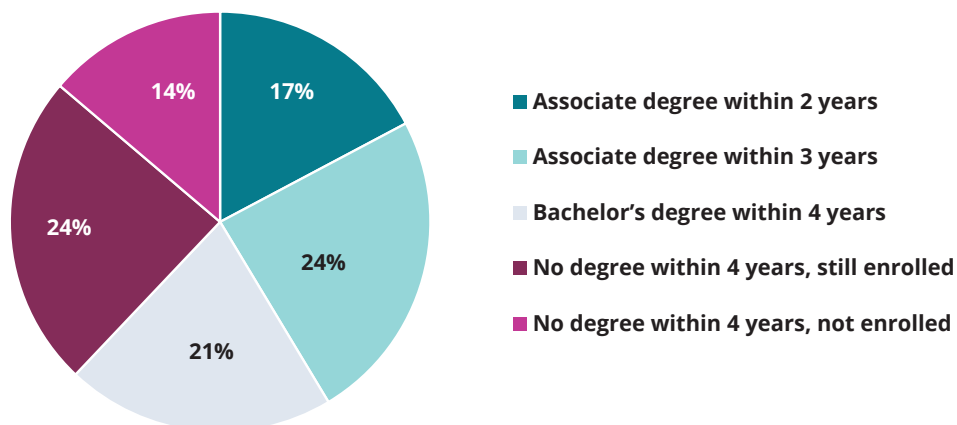
Continuously enrolled students

Among students who started full-time in a two-year program, one-third remained enrolled continuously full-time for four consecutive semesters. Within this subgroup of continuously enrolled students, 71% remained enrolled at their original school, while 29% had transferred schools.

Among students enrolled continuously full-time for four consecutive semesters¹⁴, 17% had obtained an associate degree within two years, and an additional 24% had obtained an associate degree within three years, while 21% obtained a bachelor's degree within four years (Figure 16).

Figure 16. Time to degree for those who enrolled full-time continuously for four semesters (includes students who transferred schools)

Note: This graph represents only students who enrolled full-time for four consecutive semesters.



¹³ There are fewer than 125 students in each group.

¹⁴ Full-time enrollment is at least 12 credits a semester. Therefore, it is possible to enroll full-time for four consecutive semesters and not have accumulated enough credits to obtain an associate degree. Typically, 60 credits are required to attain an associate degree, which would require 15 credits for four semesters. Additionally, VTC did not provide enrollment intensity. Therefore, this figure does not include data on those students.

Among students who started part-time in a two-year program, almost one-third enrolled for four consecutive semesters, some exclusively part-time, while others also enrolled full-time for a semester or more. However, most of these students (79%) had not obtained a degree within four years.

Section B: Special topics

Students' planned school compared to their actual school

Some students changed their postsecondary education plans after high school graduation. Students who enrolled in a two-year program were more likely to have had different plans while they were a senior in high school than students who enrolled in a four-year program.

For example, 96% of high school seniors who enrolled full-time in a four-year program reported that they planned, while in high school, to enroll at a four-year school (Table 5).

In contrast, about one in five students who enrolled full-time in a two-year program planned, as a senior, to enroll in a four-year program. Among students who enrolled part-time in a two-year program, 27% planned, as a senior in high school, to enroll in a four-year program, while 17% reported that they did not plan to enroll at all in postsecondary education in the fall of 2012.

Table 5. Planned school length compared to actual enrollment

PLANNED SCHOOL	Actual enrollment, fall 2012: School length and intensity		
	2-year, full-time	2-year, part-time	4-year, full-time
Did not plan to enroll	5%	17%	1%
Less than 2-year	8%	5%	1%
2-year	38%	20%	1%
2-year, transfer to 4-year	28%	31%	1%
4-year	21%	27%	96%

Summer melt

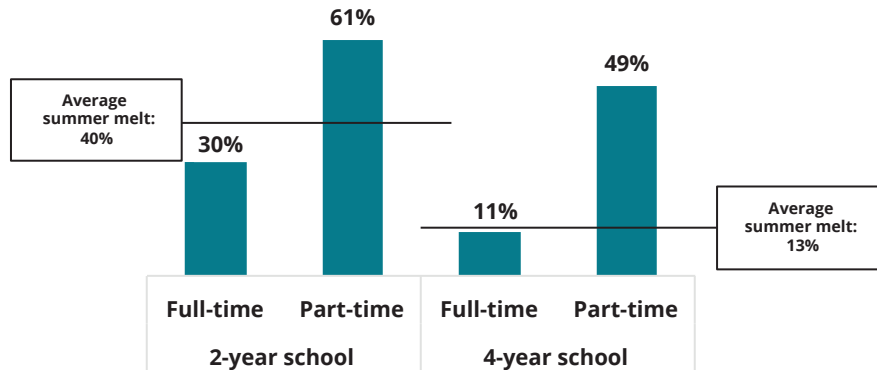
Not every senior who planned to enroll did enroll. Many high school seniors change their plans during the summer following high school graduation. National estimates of this phenomenon, commonly referred to as summer melt, range from 8% to 40%.

For the Vermont Class of 2012, 16% of students who planned to enroll in the fall of 2012 did not. Students who planned, as a senior in high school, to enroll at a two-year school or enroll on a part-time basis were less likely to enroll in the fall of 2012. Among students who planned to enroll at a two-year school, 40% did not enroll in the fall of 2012, compared to 13% of student who planned to enroll at a four-year school (Figure 17).

Among students who planned to enroll part-time, 58% did not enroll in the fall of 2012, compared to 13% who planned to enroll full-time. Figure 14 shows the results of the combination of these two factors: Students who planned enroll part-time at a two-year school had the highest summer melt rate (61%), while students who planned to enroll full-time at a four-year school had the lowest (11%).

It is important to remember that in Vermont more students planned to attend a four-year school than a two-year school: about 3,500 planned to attend a four-year school, while about 600 planned to attend a two-year school. In absolute numbers, there was a larger number of students that melted among those who planned to attend a four-year school (about 425 students) than among those who planned to attend a two-year school (about 225 students). Combining both groups, those who planned to attend either a two- or four-year school, there were more than 650 students, total, who planned to enroll but did not. Of these, more than 300 planned to attend a Vermont school.

Figure 17. Summer melt by school length and enrollment intensity



Additionally, among two-year summer melt students, most did not enroll within the timeframe of this study. Almost three-quarters of students who planned to enroll at a two-year school but did not, had not enrolled within four years of high school graduation.

Students were more likely to experience summer melt were those who were less academically prepared, who felt that their parents did not want them to continue their education after high school, who planned to enroll less than full-time, who planned to work full-time, or who reported major concerns about their ability to pay for college (Table 6). A combination of any of these factors increased the likelihood of experiencing summer melt. For example, among those who planned to enroll at a two year school, 70% of students melted who 1) planned to enroll less than full-time in the fall of 2012 and 2) felt their parents wanted them to work after high school rather than continue their education.

Table 6. Factors associated with summer melt, by planned school length

FACTORS	Summer melt among those who planned to enroll at a:	
	2-year school	4-year school
Gender		
Male	36%	17%*
Female	43%	12%
First-generation status		
First-generation	41%	14%
Second-generation	39%	14%
Completion of Algebra II		
Completed Algebra II	36%*	13%*
Did not complete Algebra II	53%	32%
Overall high school GPA		
A or B overall high school GPA	36%*	13%*
C or D overall high school GPA	51%	28%
Students' perception of what their parents wanted them to do after high school graduation		
Continue their education after high school	36%*	13%*
Something other than education (work, military)	51%	29%
Planned enrollment intensity		
Full-time	30%*	13%*
Less than full-time	61%	48%
Plans to work while attending college		
Full-time	58%*	21%*
Less than half-time	35%	13%
Concerns about paying for college		
Major concerns	48%*	18%
Some concerns or no concerns	37%	13%

*Statistically significant

Transfer activity

Among students who started at a four-year school in the fall of 2012, 9% transferred to a two-year school within four years. Most, 61%, transferred within two years of high school graduation. Among these students who transferred to a two-year school by the end of their second year (AY2014) almost one-quarter (24%) had obtained either a two- or four-year degree within four-years.

Among students who started at a two-year school, 30% transferred from a two-year school to a four-year school. Those who started full-time at a two-year school were more likely to transfer to a four-year school than those who started part-time (37% compared to 25%). Among students who started at a two-year school and transferred to a four-year school, 21% obtained an associate degree within four years, while 13% obtained a bachelor's degree within four years.

Delayed continuers

A total of 9% of the Class of 2012 delayed enrollment for a semester or more, 5% eventually enrolling at a four-year school and 4% eventually enrolling at a two-year school. The majority of those who delayed enrollment started within one year of high school graduation.

As already stated, for students who started at a two-year school immediately after high school, 53% enrolled full-time while 47% enrolled part-time. The enrollment intensity was substantially different for students who delayed enrollment for a semester or more. Most of the students who delayed enrollment (almost 70%) enrolled half-time or less-than half-time.

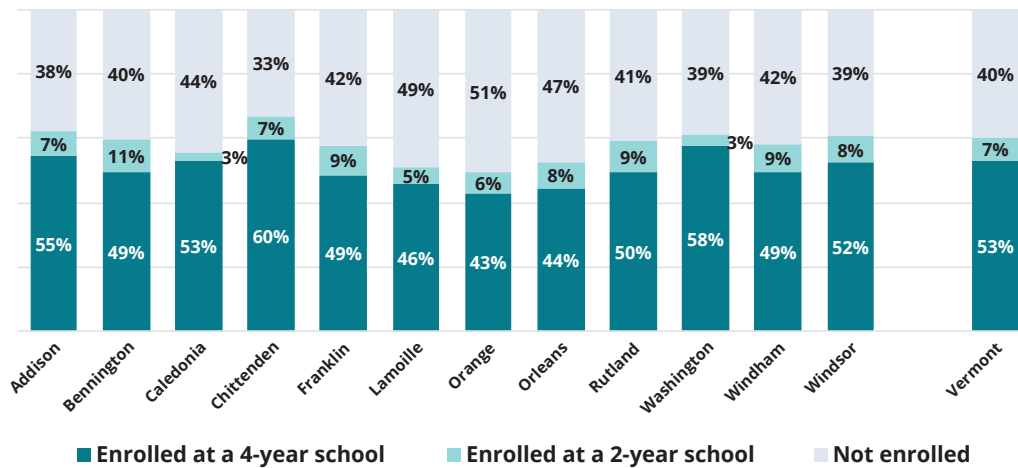
Among students who did not enroll in the fall of 2012 but enrolled at a two-year school within a year of high school graduation, 12% had obtained a degree within four years of high school graduation¹⁵, 27% were still enrolled, and 61% were no longer enrolled.

County-level data

Statewide, 7% percent of the Class of 2012 enrolled in the fall of 2012 at a two-year school. Bennington, Franklin, Rutland, and Windham Counties had the highest percentage of students who enrolled at a two-year school, while Caledonia and Washington Counties had the lowest (Figure 18). Orange and Lamoille counties had the lowest overall postsecondary enrollment rates (49% and 51% respectively). Chittenden county had the highest overall postsecondary enrollment rate at 67%.

¹⁵ This group started their postsecondary education journey in the spring or fall of 2013. Therefore, the time period of the measurement of completion is within three or three and a half years.

Figure 18. Enrollment by county, fall 2012¹⁶



Discussion and Conclusion

This report focuses on Vermont high school graduates from the Class of 2012 who enrolled in the fall of 2012 in a two-year degree program.

High school experiences: We found differences between students who enrolled in a two-year program compared to those who enrolled in a four-year program. Compared to students who enrolled in a four-year program, students who enrolled in a two-year program were less likely to be academically prepared for college, as measured by completion of Algebra II and overall high school GPA.

Regarding parental education and influence, we found that students who enrolled in a two-year program were less likely to have parents who had obtained a bachelor's degree than students who enrolled in a four-year program. Students who enrolled in a two-year program were also less likely to feel that their parents wanted them to continue their education after high school. Additionally, they were less likely to have had conversations with their parents about post-high school plans before they started high school.

Summer melt: The percentage of high school seniors who planned to attend college but did not merits additional research. In this study, we found that 40% of high school seniors who planned to enroll at a two-year school did not enroll. Among those who planned to enroll at a two-year a school and did not, almost three-quarters had not enrolled within four years of high school graduation. While this represents an opportunity cost for individuals in terms of lower earnings, it also represents an opportunity cost for our state, for Vermont businesses searching for skilled employees, and for Vermont postsecondary institutions seeking to bolster declining enrollments.

¹⁶ Two counties, Essex and Grand Isle, are not listed due to small sample sizes.

Including students who planned to enroll at either a two- or a four-year school, there were more than 650 Vermont high school seniors who planned to enroll but did not. Among these, more than 300 planned to attend a Vermont school.

Enrollment: We found that Vermonters were about four times less likely to enroll at a two-year institution than their national counterparts (7% compared to 29%)¹⁷. Among those who enrolled at two-year institutions, Vermonters were less likely to enroll exclusively full-time for consecutive semesters than were their national counterparts.

Students who enrolled in a two-year program were more likely to attend a school in Vermont than students who enrolled in a four-year program. Among students who enrolled in a two-year program, 82% attended a Vermont institution compared to 46% of students who enrolled in a four-year program.

We found a wide range of enrollment scenarios among students enrolled in a two-year program. Among those enrolled full-time in the fall of 2012, within the first two years almost seven out of ten transferred schools, enrolled less than full-time for at least a semester, or left school for a semester or more. Among those who enrolled part-time in the fall of 2012, almost eight out of ten transferred schools or left school for a semester or more within the first two years.

Students who remained enrolled continuously were more likely to obtain a degree within four years than those who left school and re-enrolled after a break of a semester or more (also referred to as stopping out). Among students who enrolled full-time in the fall of 2012 and remained enrolled continuously, 79% obtained a degree within four years. Among those who stopped out, the four-year completion rate was 15%.

Among students who enrolled full-time in a two-year program 19% stopped out within four years, that is, they left school for a semester or more and later reenrolled. One-third of students who enrolled part-time in a two-year program stopped out. About half of the students who stopped out had done so multiple times. This may indicate that additional supports are required to help these students remain continuously enrolled. Additional research is required to identify factors that prohibit these students from remaining continuously enrolled and suggest strategies that would help these students obtain a degree.

While many students who enrolled in a two-year program transferred schools, it is important to understand that some students transfer schools as part of a purposeful plan. More than one-third of students who started at a community college transferred to a four-year institution within four years. Some students planned to obtain a bachelor's degree by starting their educational journey at a community college, and some developed this plan while still in high school. However, the majority of students who utilized this strategy developed it after they left high school, meaning that a substantial percentage of students' postsecondary education plans evolve over time. It would be helpful to better understand the reasons students' plans changed.

¹⁷ The trend seems to be regional: in comparison to the national average New England, as a whole, confers the fewest associate degrees per 10,000 young adults and the most bachelor's degrees per 10,000 young adults (Georgetown University Center on Education and the Workforce, 2020).

Completion: Among Vermonters who started full-time in a two-year program, 39% had obtained a degree within four years. Students who started at Vermont Technical College (VTC) had the highest completion rate (52%). The four-year completion rate among students who started at the Community College of Vermont (CCV) was 37%, while the four-year completion rate among students who enrolled in a non-Vermont two-year program was 28%.

Students who started at CCV were more likely to obtain a bachelor's degree within four years than those who started at a non-Vermont two-year college. Our data show that 11% of students who started full-time at CCV obtained a bachelor's degree within four years, compared to 1% of students who started at a non-Vermont two-year college. Among students who started at CCV and obtained a bachelor's degree, 83% had obtained their degree from an institution with whom CCV has an articulation agreement. These articulation agreements, also known as transfer agreements or pathway agreements, help students ensure that the credits earned at CCV are transferred efficiently to other schools, saving them time and resources toward completion of their degree. This is likely a factor in the higher bachelor's degree completion rate among students who started at CCV.

Similar to our report on the completion of students who enrolled in the fall of 2012 in a four-year program (VSAC, 2018a), we found that completion rates varied significantly by students' gender, parents' education level, academic preparation while in high school, and parental influence on students' post-high school plans. For example, females were more likely to obtain a degree within four years than males; second-generation students were more likely to obtain a degree within four years than first-generation students; and students who had completed Algebra II while in high school were more likely to obtain a degree within four years than students who had not completed Algebra II.

Similar to national data (NSC, 2018) we found that completion rates were lower for students who enrolled at a two-year institution compared to those who enrolled at a four-year institution.

Innovations to support student success: Given all these factors, it seems clear that students who enroll at two-year schools require additional support. There are some programs that show good success in providing support to students:

- The City University of New York (CUNY) Accelerated Study in Associate Program (ASAP). This program is designed to help students earn associate degrees by providing a wide range of financial, academic, and personal services.
- Opening Doors Demonstration. The Opening Doors program applies financial incentives, instructional reform, and enhanced student services with the goal of improving outcomes for community college students.
- Giving Undergraduates Important Direction in their Education (GUIDE) through the support of Vermont State GEARUP (VSGU). While not uniquely for community college students, the goal of the GUIDE program is to support students as they transition from high school through their first year of post-secondary education. This program is administered by VSAC in Vermont (VSAC, 2018b).

Community College of Vermont's (CCV) initiatives are of particular interest because many Vermonters enroll in its two-year programs—among survey respondents who enrolled in a two-year program, two-thirds enrolled at CCV. Some of the initiatives that CCV has implemented to help students reach their educational goals include options that allow student to accelerate their program completion, such

as Prior Learning Assessment, Competency Pathways, and accelerated terms. CCV also offers nested credentials which allow students to obtain various job-related skills as they work toward their degree. Finally, CCV has created a Coordinator of Student Advising position, to support student success with respect to retention and graduation.

These types of programs focus on administering more intensive services to students enrolled in two-year programs. Programs specific to students enrolled in two-year programs are important because students who enroll in two-year programs were less likely to be academically prepared for college than students who enroll in four-year programs. They were also more likely to be first-generation students and less likely to feel that their parents wanted them to pursue education after high school. Additionally, they were more likely to leave postsecondary education without the benefit of a degree. These initiatives not only help meet the educational and occupational aspirations of students, they can help fill the workforce development needs of their communities and our state. Considering the current crisis, these programs can supply a skilled workforce to stimulate economic development, particularly in rural areas.

This paper is the latest in a series published by VSAC to inform our stakeholders of the successes and challenges of the Vermont High School Class of 2012 so that we can collectively develop strategies to increase overall degree completion. Previous publications discussed the aspiration and postsecondary enrollment of the Class of 2012. The most recent publication in this series discussed the degree completion within four years among students who started at a four-year school. The next publication in this series will focus on the degree completion of the Vermont High School Class of 2012 within six years of high school graduation.

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