Encouraging Academic Excellence in Vermont: Review and Analysis of Scholarships, Accelerated Learning Programs, and Incentives to Stay In-state after Graduation

This report seeks to describe and analyze the costs and benefits of offering specific scholarships and credit for accelerated learning programs at state post-secondary education institutions. The report also describes scholarship programs and loan forgiveness programs that different states offer in order to encourage talented and successful students to reside in the state.

Programs and Policies at the University of Vermont

The University of Vermont offers many grants and scholarships based both on academic merit and financial need. This section describes and reviews the Green and Gold scholarship, a merit-based scholarship, and compares the scholarship program with similar programs in other states.

The University of Vermont’s Green and Gold Scholarship

The Green and Gold scholarship is a four-year renewable scholarship, “...awarded to the academically strongest rising high school senior from every Vermont public secondary school.”1

As shown in Table 1, from 2001 until 2010 on average 81 percent of Green and Gold scholarship nominees have gone on to apply for the scholarship. Graduation rates for First-Time-First-Year Green and Gold Scholars are shown in Table 2 below.

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Table 1: Green and Gold Scholarship Nominees, Applicants, and Enrollees

<table>
<thead>
<tr>
<th>Admit Term</th>
<th>Nominees</th>
<th>Applicants</th>
<th>% Applied</th>
<th>Enrolled</th>
<th>Enrollment Change</th>
<th>Applicant Yield</th>
<th>Nominee Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>69</td>
<td>45</td>
<td>65%</td>
<td>21</td>
<td>-4</td>
<td>47%</td>
<td>30%</td>
</tr>
<tr>
<td>2002</td>
<td>73</td>
<td>54</td>
<td>74%</td>
<td>25</td>
<td>-4</td>
<td>46%</td>
<td>34%</td>
</tr>
<tr>
<td>2003</td>
<td>68</td>
<td>54</td>
<td>79%</td>
<td>21</td>
<td>-4</td>
<td>39%</td>
<td>31%</td>
</tr>
<tr>
<td>2004</td>
<td>70</td>
<td>50</td>
<td>71%</td>
<td>19</td>
<td>-2</td>
<td>38%</td>
<td>27%</td>
</tr>
<tr>
<td>2005</td>
<td>70</td>
<td>58</td>
<td>83%</td>
<td>25</td>
<td>6</td>
<td>43%</td>
<td>36%</td>
</tr>
<tr>
<td>2006</td>
<td>69</td>
<td>57</td>
<td>83%</td>
<td>27</td>
<td>2</td>
<td>47%</td>
<td>39%</td>
</tr>
<tr>
<td>2007</td>
<td>69</td>
<td>59</td>
<td>86%</td>
<td>16</td>
<td>-11</td>
<td>27%</td>
<td>23%</td>
</tr>
<tr>
<td>2008</td>
<td>70</td>
<td>59</td>
<td>84%</td>
<td>30</td>
<td>14</td>
<td>51%</td>
<td>43%</td>
</tr>
<tr>
<td>2009</td>
<td>70</td>
<td>65</td>
<td>93%</td>
<td>33</td>
<td>3</td>
<td>51%</td>
<td>47%</td>
</tr>
<tr>
<td>2010</td>
<td>70</td>
<td>63</td>
<td>90%</td>
<td>11</td>
<td>-22</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>698</td>
<td>584</td>
<td>81%</td>
<td>228</td>
<td>-10</td>
<td>40%</td>
<td>33%</td>
</tr>
<tr>
<td>Average</td>
<td>70</td>
<td>56.40</td>
<td>81%</td>
<td>22.80</td>
<td>-1</td>
<td>40%</td>
<td>33%</td>
</tr>
<tr>
<td>St Dev.</td>
<td>5.79</td>
<td>6.7424%</td>
<td>5.66</td>
<td>7.4066</td>
<td>7.9794%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The University of Vermont

Table 2: Graduation Rates

<table>
<thead>
<tr>
<th>Year entering</th>
<th>4 Year Graduation Rate</th>
<th>5 Year Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>72.0%</td>
<td>84.0%</td>
</tr>
<tr>
<td>2003</td>
<td>85.7%</td>
<td>90.5%</td>
</tr>
<tr>
<td>2004</td>
<td>79.0%</td>
<td>84.2%</td>
</tr>
<tr>
<td>2005</td>
<td>61.5%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: The University of Vermont

Figure 1 displays the four-year graduation rate for first-time, first-year Green and Gold scholars who received credits from accelerated learning programs, those scholars who also entered with credit, and those who received neither the Green and Gold scholarship nor accelerated-learning credit. This figure indicates that those who receive credits have a consistently higher four-year graduation rate when compared to the population who received neither the Green and Gold scholarship nor credit, as these two lines run practically parallel to each other, with the line representing students with credit above. Those with a Green and Gold scholarship (entering with and without credit) have had a higher graduation rate than the other groups of students. While G&G scholarship students have a higher four year graduation rate than other students, we are unable to explain the fluctuation in graduation rates evident in the figure from year to year.

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2 See section below that discusses different Accelerated Learning Programs in which UVM offers academic credit.
Figure 1: First-time First-year (FTFY) Student Entering Fall Semester
Source: The University of Vermont

Scholarships at other Universities

Many states offer financial aid that is similar in nature to Vermont’s Green and Gold scholarship. Some are merit-based, and some are need-based. The scholarships that are need-based tend to be more effective in crossing racial/ethnic and socioeconomic boundaries, as the following examples illustrate. Some states also offer aid specifically designed to cross those boundaries in addition to both strictly need-based and merit-based aid.

California

California State University at Long Beach offers a similar program called the President’s Scholars program.

Recognized by the California Legislature, the program provides California high school seniors who are qualifying valedictorians from accredited high schools or National scholars (National Merit Finalists and Semifinalists, National Achievement and National Hispanic Recognition scholars) an opportunity to compete for an exceptional package that includes:

- Full payment of in-state tuition and general student fees
- Highest priority registration
- Paid housing in campus residence halls
• Sponsored meal plan (for National scholars only)
• Automatic acceptance to the University Honors Program
• Personalized academic advising
• Exclusive access to the President’s Scholars Center, including computer lab and study lounge
• Opportunity for international study abroad programs
• Special recognition at commencement with the President’s Scholar medallion
• Four-year degree completion option
• Campus student parking privileges
• Annual book allowance

From 1995 to 2009, there have been 973 students awarded the President’s Scholarships, 649 of which have graduated. This yields an average of 66.7% graduation rate over the years. This is right on par with the 67.8% graduation rate of first-time full-time freshmen entering school in 2002 for all California State Universities. However, averaging the graduation rates from the available 1995-2002 data yields an average of 64.1% for the state, putting the President’s Scholars above average for all CSU institutions.

Table 3: President’s Scholars Data (1995-2009)

<table>
<thead>
<tr>
<th>Accepted</th>
<th>Alumni (F/09)</th>
<th>Studying On Campus (F/09)</th>
<th>Transfer/Drop Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>973</td>
<td>649</td>
<td>271</td>
<td>53</td>
</tr>
</tbody>
</table>


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3 California State University at Long Beach. “President’s Scholars Program.” http://www.csulb.edu/divisions/students/presidents_scholars/ (accessed March 31, 2010).
5 This number is an average based on incomplete information. It takes into account students who have been awarded the scholarship in recent years and not had a chance to graduate. It is therefore an underestimate, assuming that some of the 271 scholars studying on campus will graduate eventually.
7 The 64.1% used for comparison is based on 6-year Graduation rates for First Time Full Time Freshman students for all CSU establishments, whereas the approximated graduation rate for CSULB President’s Scholars is not guaranteed to be 6-year graduation rates. The approximation includes President’s Scholars who entered in 1995 and graduated by 2009. It could therefore feasibly include Presidents scholars who graduated within 14 years.
Massachusetts

One of the major scholarships in Massachusetts, similar to the Green and Gold scholarship, is the John and Abigail Adams scholarship which provides a tuition waiver for eight semesters of undergraduate education at a Massachusetts state college or university. The scholarship covers tuition only; fees and room and board are not included. Massachusetts public high school students are eligible for the scholarship when they: score at the Advanced and Proficient levels on grade 10 MCAS tests in English Language Arts (ELA) and Mathematics. (A student must earn a score of Advanced on the ELA or Mathematics test and a score of Proficient or higher on the second test.); AND have a combined score that places them in the top 25% of the graduating class in their district. Eligibility for the scholarship is based on a student’s first attempt at taking the grade 10 tests in ELA and Mathematics. In order to receive the scholarship, students must be enrolled in a Massachusetts public high school in their senior year and will receive an award letter in the fall of their senior year.8

Accelerated Learning Programs

Research shows that, “Postsecondary success is predicated on both rigorous academic preparation and a clear understanding of the expectations in college.”9 Academic acceleration programs are one way of addressing the challenge of preparing students for postsecondary education. This section describes UVM’s policies in reference to gaining academic credit for these programs, and reviews the general strengths and weaknesses of the multiple accelerated learning programs, including the Advanced Placement (AP) and International Baccalaureate (IB) programs.

The University of Vermont’s Policies Regarding Credit for Accelerated Learning Programs

UVM offers credit for college-credit taken in high school if it is “through a regionally accredited, degree-granting college or university and may be taught within a high school setting.” The University of Vermont grants credit for several accelerated learning programs. It grants credit to students who take Advanced Placement courses and score either a four or five in most subjects. Occasionally credit for a score of a three is also granted. Credit can also be granted to students who complete a higher level IB program with a score of 5 or higher.10

Advanced Placement Courses

Advanced Placement, a program that is designed and standardized by the College Board to provide upper-level classes to students pursuing advanced classes at the high school level, is a common strategy to encourage accelerated learning. College Board organizes this program that, “receive[s] recognition from more than 3,600 colleges and universities that annually receive AP Exam scores.”\(^1\) This number equates to over 90% of 4-year colleges in the U.S. that provide credit and/or participate in the program.\(^1\) If a high school wishes to participate in the program, it is required to appoint an AP Coordinator that will be responsible for developing and overseeing the program. After each student completes one or more of the AP courses offered by his or her school, he or she has the option to complete the AP exam in order to gain credit through their chosen post-secondary educational institution. The exams are graded on a scale of 1 to 5 with 1 not receiving a recommendation for credit and 5 being very well qualified to receive college credit. The institution that the student chooses to send his or her scores to then decides whether to grant credit to the student. Each university accepts the AP exam grades differently. For example, Middlebury College awards AP credits for students that earn a 4 or 5 in Biology and Political Science, yet academic credit for an economics course is only granted if the student earned a 5 on the AP exam.\(^1\) The University of Vermont is similar to Middlebury College in that it mostly awards credit for grades of 4 or higher, but the credits vary on the subject matter.\(^1\)

According to College Board, “45% of students who have taken one AP course and 61% of students who have taken two or more AP courses are completing their bachelor’s degrees in four years or less.”\(^1\) In one study, researchers analyzed the enrollment of Texas student’s in AP courses. The researchers found AP enrollment had increased, yet there was a growing disparity between the enrollments of white students and various minority groups, with a disproportional number of white students enrolling in AP courses.\(^5\) This trend is analogous to the national trend that has been supported by other studies.\(^1\)

Some major challenges for students who want to enroll in these programs are financial in nature: resources available to their high schools develop these programs may create obstacles, and the financial freedom to devote extra time to study for the more difficult courses may also

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stand in the way for some students. It is well documented that if a student has the opportunity to enroll in an AP course, it will assist the student in presenting a more competitive transcript.\textsuperscript{16} Moreover, if the student earns a sufficient score, he or she will earn college credit for a fraction of the cost. When discussing the financial benefit of enrolling in an AP course, it is important to remember who it is that has the ability to benefit. One study shows that a disproportionate percentage of participants in AP and IB courses tend to be:

Middle-class, white, achievement-oriented students with a long history of school success indicates that AP and IB courses [and that they] may be perpetuating a form of sorting and serving of talented students that excludes numerous groups of gifted student, including minority students, students from low-SES (socioeconomic status) backgrounds, gifted under-achievers, and second-language learners.\textsuperscript{17}

This trend decreases equity, and it is suggested that, “recognizing, responding to, and supporting talent in all populations of learners must begin at the very early years of schooling and continue throughout secondary school.”\textsuperscript{18}

The study includes recommendations about how to address this gap by:

Broadening recruiting practices for AP and IB...school personnel must inform students from a wide variety of backgrounds of the existence and benefits of taking these courses...recruiters for these programs need to actively seek students from sources beyond honors and gifted classes, looking for academic potential in addition to proven academic performance...recruiters should make efforts to educate families and community members who may not have previous exposure to AP and IB about the programs and their potential benefits...outreach efforts for families and community members in economically disadvantaged areas that rely on parents coming to school often have low success rates as parents often feel intimidated by or unwelcome in schools.\textsuperscript{19}

Educators, AP and IB coordinators, and school administrators should make an effort to be proactive in recruiting from a broad range of gifted students, encourage participation, and make the benefits of these programs known to a wider range of decision-makers. However, the importance of appropriate and adaptable teacher training and curriculum development is also


\textsuperscript{17} Hertberg-Davis, Holly and Carolyn M. Callahan. “A Narrow Escape: Gifted Students’ Perceptions of Advanced Placement and International Baccalaureate Programs.” \textit{Gifted Child Quarterly} 52 (2008): 210-211. \url{http://gcq.sagepub.com/cgi/content/abstract/52/3/199} (accessed on May 3, 2010).


\textsuperscript{19} Holly Hertberg-Davis and Carolyn M. Callahan, "A Narrow Escape: Gifted Students' Perceptions of Advanced Placement and International Baccalaureate Programs." \textit{Gifted Child Quarterly} 52 (2008): 210-211.
put forward. “The most strenuous efforts to recruit a more diverse population of students into AP and IB programs are meaningless if the curriculum, instruction, and learning environments offered in these courses are not appropriately differentiated for individual students’ needs,” and programs should be developed so they provide “adequate scaffolding for struggling students, opportunities for growth for the most advanced students, and multiple pathways to learning for all learners” to “[ensure] that the environments within these courses are hospitable to and supportive of the success for a broad range of gifted learners.”

Incentives to Stay In-State after Graduation

Scholarships and loan forgiveness programs in different states are used as incentives to keep students in the state after graduation. This section highlights some of the strategies different states across the nation employ in order to keep successful students in the state after graduation to improve the quality of the local labor force. Each section contains the language the programs use to describe themselves.

Vermont

“VT State Nursing Incentive Program is a state-funded loan forgiveness program that was designed to address a critical and alarming shortage of nurses in the state, especially in rural, or medically underserved, areas. Students enrolled in an LPN or RN program may receive tuition forgiveness in exchange for their nursing skills at an approved state facility or area following graduation.”

“The Freeman Foundation Educational Loan Repayment Program for Physicians is funded by a gift from the Freeman Foundation to the UVM College of Medicine, and by local communities. It is administered by the University of Vermont, College of Medicine Area Health Education Centers (AHEC) Program. The purpose of the program is to ensure a stable and adequate supply of physicians to meet the health care needs of Vermonters.”

Massachusetts

“The Tomorrow's Teachers Scholarship Program awards scholarships to academically talented high school graduates who are pursuing teaching. Students must be enrolled in a four-year college or university program in Massachusetts and willing to exchange tuition for teaching in the state public school system. Interested students should check the current availability of this program.”

New Hampshire

“New Hampshire high school juniors and seniors have the option to participate in a career prep program called Exploring the Art of Teaching. Students who participate are being offered incentives to pursue teaching as a career, particularly within the state. Students who participate qualify for consideration in the Future Educators Academy Scholarship. Students enrolling in a state teaching program, either two-year or four-year, may earn between $5000 and $10,000 towards tuition under the condition that they teach in the New Hampshire public school system.”

California

“The basic APLE program assumes up to $11,000 in educational loans in association with four consecutive years of full-time teaching in a designated teacher shortage field in an eligible California K-12 public school. APLE participants who teach in mathematics, science, or special education may receive both the basic $11,000 and up to $1,000 of additional loan assumption during each of four years. Another $1,000 of benefits may be received in each of the four years by individuals teaching mathematics, science or special education in a school ranked in the lowest 20 percentile of the State’s API, resulting in a maximum of $19,000 in loan assumption benefits. The APLE program will assume educational loans that were incurred to meet the costs associated with obtaining a baccalaureate degree or an initial teaching credential through (a) one or more of the primary federal student loan programs or (b) institutional educational loans.”

Conclusion

This report provides information on achieving academic excellence in the state of Vermont by encouraging high school students to take AP or IB classes to potentially gain college credit and by promoting recent college graduates to remain instate by offering loan forgiveness or

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scholarship programs. This document includes information from other states to help the state of Vermont develop its own program.

Prepared in response to a request from Representative Gilbert by Anna Isaacson, Daniel Holland, and Ian Altendorfer under the supervision of Professor Anthony Gierzynski, February 4, 2011.

Disclaimer: This report has been compiled by undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the report does not reflect the official policy of the University of Vermont.