

# **Next Generation Initiative: Career Education in Vermont**

# A Policy Brief for the Next Generation Commission

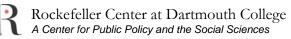
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#### **EXECUTIVE SUMMARY**

In Vermont, decreasing numbers of students are deciding to attend college in their home state, and extremely low numbers of students remain in Vermont for their adult lives.<sup>1</sup> This so-called "brain drain" of young Vermonters has particularly detrimental effects on the state's economy, as a young workforce is vital to economic growth.<sup>2</sup> In his 2006 State of the State Address, Vermont Governor Jim Douglas sought to address this issue by proposing the 15-year, \$175 million Promise Scholarship program. The initiative was designed to provide college scholarships to Vermont students in an effort to encourage them to remain in Vermont upon graduation. With the expectation that recipients will either remain in the state to begin their adult lives or pay back the scholarship as a loan, the program was intended to encourage more young people to start their lives in Vermont and engage as active citizens in the state well into the future.<sup>3</sup>

However, the Vermont General Assembly sought an alternative to the Governor's plan and in 2006 created the Next Generation Commission to develop the Next Generation Initiative, "a plan to encourage Vermonters to live and work in Vermont."<sup>4</sup> In creating the Initiative, the Commission has interpreted its charge very broadly, as its goal is to develop an extensive economic development plan. A major component of this plan will be broadening the scope of academic and technical training in Vermont to improve the likelihood of job acquisition and career success for Vermont residents. This includes a significant element devoted to secondary, post-secondary, and technical career education options. In addition, the Commission recognized that it may also be necessary to initiate career education programs with elementary school students. Citing the need for students to become engaged in and excited about potential careers from an early age, the Commission has requested this report on innovative elementary career counseling initiatives being implemented in other locales. Therefore, the report's purpose is to provide the Commission with background information and policy options for implementing career education programs for elementary and middle-school aged students.

This report identifies the potential benefit of career education, highlights the current state of career education programs in Vermont, and identifies programs in other states that could be used as models for developing a Vermont career education plan. Furthermore, this report explores various funding options available for these programs. Finally, the report proposes a collection of best practices for the Commission and the state to use in more effectively implementing career education for elementary and middle-school aged children.

# 1. NEED FOR CAREER EDUCATION

The Department of Education for the State of Vermont has affirmed the following as its official "vision":

The State Board of Education and the Department of Education shall sustain a vision of high skills, creative thinking and love of knowledge, and learning for every student while ensuring student achievement in a safe and healthy learning environment.<sup>5</sup>

Indeed, the Vermont educational system has numerous strengths, including consistently high scores on national assessment tests across socio-economic groups.<sup>6</sup> In addition, dropout rates are on a marked decline in all grade-levels. The high school "completion" or "graduation" rate has risen from 89 percent in FY 1995 to 94 percent in FY 2005.<sup>7</sup> Nevertheless, Vermont high school graduate enrollment in post-secondary education lags behind the national average.

According to *The National Center for Higher Education Management Systems* (NCHEMS), the number of Vermont high school graduates going directly to college dropped by 7.2 percent during the ten-year span from 1994 to 2004,. However, the NCHEMS also found, a concomitant rise in the number of high school students actually graduating: The number of graduates increased from 6,534 in 1994 to 8,470 in 2004.<sup>8</sup> Overall, a greater number of Vermont students are graduating high school, but a smaller percentage of these students are choosing to go on to college immediately.

Countless sociological and educational studies point to the importance of career education and counseling programs in ensuring a fluid transition for students from school to work/higher education. As will be discussed in the following section, many studies posit that one potential method to curb Vermont's growing trend against higher/technical education is instilling in young students a deeper understanding of the connection between education and real life occupations by stressing the applicability of school lessons to their future. Referred to as *career counseling*, curricula that incorporate this concept seek to inspire children from an early age to consider all available future possibilities and to bridge the gap that often exists in students' minds between academics and careers. A greater emphasis on career counseling in primary and secondary Vermont education could increase the value students place on education in the future. America's Career Resource Network contends that starting career education early allows a child to:

- "Discover the variety of jobs available to him or her;
- Connect what he or she is learning in school to real-world situations;
- Begin viewing himself or herself in an occupation; and
- Develop work-readiness skills such as working in teams, making decisions, solving problems and being a leader."<sup>9</sup>



Academic research also shows the importance of starting career education and development at an early age. It has been shown that students' job aspirations are actually set well before primary school and do not easily fluctuate in level of aspiration after the ages of 12 or 13.<sup>10</sup> Students' aspirations relate most strongly to two factors: those jobs that have a high degree of relative visibility to them and jobs that they realistically think they can get and hold.<sup>11</sup> Given Vermont's apparent "brain drain,"<sup>12</sup> it may be surmised that students may not see adequate or realistic options for employment within their localities or the state as a whole. Early career exploration and development could be used to help teach Vermont children that they can look within their own towns, counties, or state to find interesting, valuable, and viable career options.

#### 2. ELEMENTARY AND MIDDLE SCHOOL CAREER DEVELOPMENT

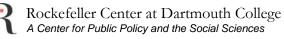
#### 2.1 Data on Career Education Programs

Recent research suggests there is a benefit to students from career education programs. Evans and Burck conducted a meta-analysis of 67 individual studies to provide national data for students in grade levels one through twelve. Of the 159,243 participants, 82,268 were educated with career development programs while 76,975 did not have career development as a component of the curriculum. Results showed statistically significant academic benefit from the inclusion of career development in the curriculum. This study provides evidence that Vermont may benefit from adding or expanding career development in schools. The study also categorized participants by the details of their curriculums and used the data to shed light on some of the important general factors of a successful program (success being a function of academic benefit in this case). Overall, the study showed intensive programs were most successful. Programs that spanned 151to-200 hours per nine-months or six-to-eight hours per week in an academic year were found to be the greatest help. For example, spending approximately 15 minutes per hour discussing, teaching, or exploring careers as they relate to the subject would be sufficient. The study also showed students improved the most when the career education was broken down by academic subject matter. This is due to the creation of a closer tie between vocational skills/job opportunities and their academic counterparts. Hence, the more students see the application of their academic achievements, the more likely they will be to apply themselves to their studies.<sup>13</sup>

#### 2.2 Career Development in Children

Sharf identified five steps in Super's model<sup>14</sup> of career development in children that are important to elementary and middle schools:

- 1. Exposure to key figures, or role models, is important in a child's development between the ages of 6 and 12.
- 2. The beginning of the struggle between internal and external control (meaning the time when children begin to look within themselves for



direction of action as opposed to solely following the commands of authority figures) is important because it the point at which a child starts to think independently and act on his or her own volition.

- 3. The presence of positive role models during this period can lead to the development of self-interests.
- 4. These interests may begin as hobbies or as fandom, but they can develop into future goals as the students gain time perspective.
- 5. Finally, a student begins to solidify their self-concept and "planfulness," a term Super uses to describe a student's ability to plan for the future.

Each of these steps has elements that can be applied in classrooms or within career counseling sessions in order to encourage children's development.<sup>15</sup> Thus, these are stages that, if taken into account in creating a career education program for Vermont, could be utilized to develop more productive future Vermonters.

#### 2.3 Cponents of Career Education

Current career counseling philosophy has created three categories of career education for elementary and middle school students. O'Brien and Dukstein indicate the three components as Career Exploration, Career Self-Awareness and Academic Applicability. The first component, Career Exploration, is an integral part of any career development system. It is important for children to experience a large diversity of opportunities that are possible in their future. Given the difference between every student's skills and interests, it is necessary for many options to be explored in order for each pupil to find ones that interest them. In light of Vermont's "brain drain," this component of career education is highly beneficial. Students may benefit from being shown the breadth of careers available to them within the state of Vermont. The second part of a comprehensive career education system is the promotion of "Career Self-Awareness." The O'Brien and Dukstein study also suggests that students begin identifying their personal interests and skills and considering how these can factor into career opportunities at an early age. Children can begin to discover more about their personal inclinations and develop their own personal goals through group and individual counseling sessions and individual projects. An elementary career counseling program, however, is the first step in what should be continued and further developed in higherlevel curriculum. The final component of a comprehensive elementary or middle school career development program involves relating career development to the students' academic curriculum. Research suggests that it is crucial for students to understand why they are in school and learning particular subjects.<sup>16</sup> This parallels the findings of the Evans and Burck study that it is beneficial to explain the importance of schooling and the applicability of academic subjects to students.<sup>17</sup>

# 3. RECENT HISTORY OF CAREER EDUCATION: SCHOOL-TO-WORK

In order to discuss the current state of career education in Vermont, it is important to understand a brief history of the existing programs. In response to high school drop-out rates and low college graduation rates, President Bill Clinton signed the Opportunities Act of 1994, which established a framework for the creation of statewide School-to-Work programs. These programs offered schools the opportunity to institute programs created to prepare students for their future career endeavors by establishing connections between their academic work and the workplace. The Act did not mandate a career-based education program, but instead provided the funds for states to develop their own programs as they saw fit. Examples of programs include teacher training, technology education, direct instruction of career information, and career interest inventories. Funds were provided as seed money for the programs over a five-year period.<sup>18</sup>

In Vermont, the School to Work programs included many models for career education, including applied learning, integrated curriculum, career exploration, job shadowing, work-based learning, and learning through internship.<sup>19</sup> While extensive implementation plans were created through 2000, the federal seed money was no longer available after this period, and the creation of detailed plans ceased. In 1996, however, the State of Vermont created twelve Regional Workforce Investment Boards (WIBs) (VT H429) to strengthen business by overseeing workforce education and training. Following the five year period during which the School to Work Initiative received seed funding, the Workforce Investment Boards were charged to "support school-to-work efforts through a youth council and integrate school-to-work, and welfare reform initiatives so that these initiatives are integrated into the workforce education and training system."<sup>20</sup> These boards received a marginal amount of state funding, but no funds are directed specifically toward K-12 efforts within this system. Various Chambers of Commerce are currently calling for increased funding for the WIBs.<sup>21</sup> While the School-to-Work program is no longer formally funded, there are examples of its ongoing existence in programs such as the VTrans partnership, which works with various schools to develop a "diverse range of school to work programs" for youth.<sup>22</sup> The VTrans program provides an example of a particularly effective and comprehensive partnership between schools and employers.

# 4. OVERVIEW OF VERMONT SCHOOLS

In determining applicable career counseling programs for Vermont youth, it is first necessary to understand the demographics and scale of the Vermont education system. There are a total of 526 schools in the state of Vermont, of which 391 are public schools and 135 are private schools. There are 325 elementary schools, 27 middle schools, and 88 high schools.<sup>23</sup> During the 2006-2007 academic year, Vermont reported a total statewide school enrollment of 95,481 students. As of February 26, 2007, the elementary school enrollment (grades one through four) for the 2006-2007 academic year was 25,601 students. The middle school enrollment (grades five through eight) for the same academic year was 27,646.<sup>24</sup> When compared with the Vermont school enrollment



figures from the last ten years (1998-2007) the average annual statewide enrollment growth rate (compounded annual growth rate) is -1.15 percent.<sup>25</sup>

# 5. CURRENT CAREER EDUCATION IN VERMONT

#### 5.1 School-to-Work

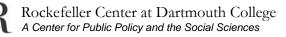
A number of career education programs have been and are currently being used at schools throughout Vermont. Vermont presently has several high school career counseling programs designed to clarify the connection between "learning and life." For example, Rutland High School requires all students to participate in its Year End Studies (Y.E.S.) plans, in which students engage in "half day and full day courses, seminars, field experiences, internships, community service and other teaching and learning opportunities."<sup>26</sup> Implemented under the aforementioned national "School-to-Work" program, the following are a few other examples of elementary and middle school career counseling initiatives in Vermont:

#### • The Newbury Elementary School/Cold Regions Research & Engineering Laboratory (NES/CRREL) Partnership

Newbury Elementary School teacher, Trudy Faden, received a "School-to-Work" grant to establish a partnership between the Newbury Elementary School and the Cold Regions Research and Engineering Laboratory. This partnership afforded students the opportunity to perform "hands-on" research projects and experiments, giving them full access to the guidance and resources of CRREL. One particular project known as "Ice Action on Riprap" provided students the opportunity to use the CRREL Test Basin where ice is grown to measure how much ice erosion could be prevented by placing various amounts of riprap (a substance composed of stones) along the basin banks. The following quote from the original grant application details the intended effects of the NES/CRREL partnership: "Future NES/CRREL Partnership projects will continue to offer real life learning opportunities for [the] students. These learning experiences are beneficial for all students as they use and practice skills that will assist them in becoming informed life long learners."<sup>27</sup>

#### • Irasburg Elementary Eighth Grade Career Challenge

The Irasburg Elementary Career Challenge is a program in which all eighth graders at Irasburg Elementary School are required to participate. Every fall, eighth graders take part in "career awareness and exploration activities" that educate students about possible career options and increase



students' career vocabulary and understanding of their individual interests. During these activities, a member of the Vermont Student Assistance Corporation (VSAC) visits the school and engages students in personal interest assessments. Additionally, the VSAC representative helps students map out high school courses that will "prepare them for post-secondary education." At the conclusion of these exercises, eighth graders select a career that they find most interesting. They research, job-shadow, and ultimately put on a collective career fair for the entire school, with the purpose of educating younger students about future career opportunities.<sup>28</sup>

#### • The Career Exploration Field Trip: Lunenburg School District

Student curriculums in the Lunenburg School District were designed to incorporate field trips to various local businesses into the students' academic studies. Eleven different destinations were selected, offering insight into diverse career options ranging from farming to meteorology. As delineated on the Vermont School-to-Work website, the aim of the Career Exploration Field Trip program was to develop student awareness of:

- the full range of workplace opportunities,
- the [expectations] for opportunities in that field in the future,
- the responsibilities of the jobs, and
- the paths that exist for getting to these positions.<sup>29</sup>

#### 5.2 Career Counseling Programs

Aside from these and other similar career education initiatives started under the Vermont "School-to-Work" program, few standardized programs that are targeted specifically for elementary and middle school youth exist in Vermont. Additionally, there are a number of job training programs aimed at Vermont high school students, including "Job Corps" and the "Vermont Youth Conservation Corps."<sup>30</sup>

Regarding Career Counseling, Vermont has recently developed a number of standards to be implemented throughout the state to address student career education needs. In February 2006, the Vermont Department of Education released its State Board of Education Manual of Rules and Practices for Vermont schools, which outlined several statewide school standards, some pertaining to student career counseling. The Vermont Department of Education now requires that all in-state students, grades K-12, have access to a school counselor, with the student-counselor ratio in elementary schools remaining at 400:1 or lower. In secondary schools, the ratio must not exceed 300 students per school counselor.<sup>31</sup> The report also states that "the school counseling program shall conduct programs that address students' academic, career, social and personal development."<sup>32</sup> In addition to counseling standards, Vermont requires career technical education programs



to train participants so that upon program completion they will be aware of and meet any "academic and industry standards" needed to be competitive.<sup>33</sup> This state requirement calls for teachers of technical courses to receive support and "professional development" in order to remain informed of the approaches and resources used in teaching students.<sup>34</sup> The Vermont Department of Education is also requiring every school to report student performance "at least annually" and to include an explanation of its efforts to provide each student with career counseling as well as "program information regarding education and apprenticeship program offerings at technical centers."<sup>35</sup>

#### 5.3 Other Initiatives

As of 2007, several Vermont counties along with their respective Chambers of Commerce and Workforce Investment Boards have agreed to expand their commitments to promoting education and workforce development. For example, Rutland County's 2007 "Public Policy Statement" mentions the importance of providing career planning for students as well as encouraging "business/school partnerships that promote curriculum development and training for all students, including those at risk and with disabilities."<sup>36</sup> (The term "at risk" refers to students with severe behavioral and academic problems). In Chittenden County, a separate list of recommendations emphasized the need for partnership between community businesses and the education system. Specifically, the Chittenden recommendations call for "an integrated partnership between the State Department of Education, the Agency of Commerce's Department of Economic Development and the Department of Labor."<sup>37</sup> Concerning elementary and secondary education for students in grade nine and earlier.<sup>38</sup> Likewise, internships, apprenticeships, and mentoring programs are scheduled to be expanded, and the county plans on issuing best practice guidelines for current mentoring/school-work partnership programs.<sup>39</sup>

#### 6. PROGRAMS IN OTHER STATES

Outside of Vermont, a myriad of unique career counseling programs and curriculums are being tested on the elementary and middle school level. States such as Florida, Pennsylvania, Nebraska, and New Jersey are experimenting with programs that Vermont may wish to consider.

• Florida – In March, 2006 the Florida legislature approved a bill that requires students to complete one "career and education planning" course during seventh or eighth grade.<sup>40</sup> The course will involve students familiarizing themselves with a state website designed to offer students insight into opportunities in higher education and help them determine personal career aspirations. The 2006 bill also stipulates that "each student is required to complete a 'personalized academic and career plan' — similar in concept to



the individual education plan (IEP) that has been used for students with special needs."<sup>41</sup>

- **Pennsylvania** The 2006-2007 budget proposed by Pennsylvania governor, Edward G. Rendell, designates \$3 million for improvements in career counseling in 25 to 40 school districts. School districts will receive funds through a competitive grant process to "develop comprehensive K-12 career counseling systems to assist students with college and career success – starting in middle school or even earlier."<sup>42</sup> Priority in grant distribution will be given to school districts with the highest concentration of students below the proficiency level in reading and math. Funds will be used to provide each student with a permanent mentor, to form partnerships between the school and local businesses, and to buy supplies for students.
- New Jersey A less rigid career counseling model is practiced in the state of New Jersey. There, a commission called the "Secretary's Commission on Achieving Necessary Skills (SCANS)" was chartered to identify skills essential to success in the increasingly competitive and demanding job market. The commission found that "productive use of resources, interpersonal skills, information, systems, and technology"<sup>43</sup> were vital skills for academic and workplace success and subsequently charged elementary and middle schools with integrating the practice and use of these skills into the core or "elective" curriculum.

Both the Florida and New Jersey career counseling programs have yet to be assessed for effectiveness. In Pennsylvania, the Commission on College and Career Success was created to develop an academic scheme that would "prepare all students for success after graduation regardless of whether they choose to attend college or enter straight into the workforce."<sup>44</sup> Ultimately, the Commission found that Governor Rendell's proposal for career education delineated the proper path for Pennsylvania education. In the Commission's report, it is recommended that Pennsylvania change its high school "graduation requirements so that anyone with a high school diploma would have a core skill set to make them more attractive candidates to employers and colleges." <sup>45</sup> Nonetheless, while the Commission is in support of the proposed Pennsylvania career education program, actual implementation of the policy has yet to take place. Thus, no assessment can be made of the program's effectiveness.

# 7. FUNDING SOURCES

#### 7.1 Federal

While federal funding sources are relatively abundant for secondary/technical career education programs, federal funding for career education for elementary and middle-school aged children is limited. One source of funding for middle and elementary school students was America's Career Resources Network (ACRN), which funded programs between FY 2002 and FY 2005.<sup>46</sup> ACRN established programs in each state, and the Vermont Career Resource Network provides career development information and resources to Vermont schools and students.<sup>47</sup> However, Network funding has ceased until reauthorization of the legislation.<sup>48</sup>

Outside of specific career education funding, there are a variety of national funding sources for more general school counseling programs, which could be used to support career counseling programs. The Elementary and Secondary School Counseling Program (ESSCP) is an example of one such program. A "discretionary grant" program, the ESSCP furnishes grants for school districts to support counseling programs.<sup>49</sup> Sources such as this could allow eligible Vermont school districts to adopt funded career education and counseling programs. Furthermore, the No Child Left Behind Act presents many opportunities for "service-learning," under which falls the area of career knowledge, and through which funding for career education could potentially be acquired.<sup>50</sup>

#### 7.2 Local Businesses

The lack of major federal funding sources for elementary/middle school programs may necessitate a more creative approach to funding career education initiatives in Vermont. One potential source for external funding is the local business community. Not only is this an important source of collaboration in career exploration and job shadowing programs, but it is also an important funding source due to businesses' ability to provide grants and donations to schools to fund career-based initiatives. The business community is a clear stakeholder in the career development of youth and, through funding, may be willing to make an even more valuable investment in the youth who form the future of the labor market sector.

As evidence, the Vermont business community has recently demonstrated its support for career education through workforce development to address the demographic workforce issues cited in this report. In early 2007, a collaborative position statement by the Lake Champlain Region's Chamber of Commerce, Workforce Investment Board and Good Jobs in a Clean Environment Board, specifically supports improved school to work and similar career development programs for K-12 students. Despite this, "WIBs are currently under-resourced and need additional financial support in order to fulfill their missions of coordinating workforce development initiatives" (see section 3).<sup>51</sup> The statement proposes that the state consider a new form of WIB resource collaboration,



which would enable the boards to better serve their purpose.<sup>52</sup> Similar reports have been made regarding workforce development support inclusive of career development initiatives by other regions, such as the Rutland region.<sup>53</sup>

Options for business involvement in career education initiatives are numerous. Michigan provides a clear example of the many ways in which schools can collaborate with local businesses to form meaningful partnerships.

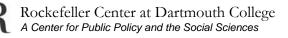
- Curriculum development partnerships
- Work-based learning: tours, mentoring, job shadowing
- School visits
- Equipment donation
- Offer teacher/counselor internships
- Recruit other businesses to form partnerships with schools <sup>54</sup>

An example of a particularly positive business involvement model can be seen in the Vermont partnership between CRREL and Newbury Elementary School highlighted above. This partnership involves tours, job shadowing, and interactive science demonstrations, which as discussed in earlier sections, are particularly effective methods of career education.<sup>55</sup> CRREL developed these programs with the teachers and students, thereby forming important curriculum development partnerships. It also relies on regular evaluation of the programs to ensure their appropriateness and effectiveness.<sup>56</sup>

# 8. POLICY OPTIONS FOR VERMONT

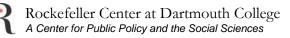
The best practices for implementing statewide career education for elementary and middle-school aged students in Vermont can be represented by a multi-tiered approach, involving both the local business community and the Workforce Investment Boards at the regional level. The state should consider expanding current state standards for school counseling and technical career education to include a more detailed and comprehensive program specific to broad career education in K-12 education. The following items make up an overview of the components necessary for a comprehensive career development program.

- Career Development Curriculum with emphasis on Career Exploration, Career Self-Awareness and Academic Applicability.<sup>57</sup>
- Career Exploration through programs such as the Lunenburg School District Career Field Trips and the creation of interactive online career/industry tours<sup>58</sup> can be a very beneficial part of a career development curriculum.<sup>59</sup>
  - It is important to note that while virtual tours and movies are helpful, personal interaction is important in developing key figures for children.<sup>60</sup>



Trips like the ones at the Lunenburg School allow the students to interact with people who enjoy their jobs, and students can view such workers as role models. Bringing role models into class is also a great way to allow students to see successful and happy Vermonters and to learn about their jobs. Sharf states that the existence of role models is the first step in the process towards creating goals and planning towards those goals. He also indicates that in rural areas, students do not have as expansive a knowledge base surrounding potential careers because of the population density.<sup>61</sup> For this reason, bringing in or finding positive role models from local employers is very important for Vermonters attempting to increase student retention after graduation.

- Programs that allow students to begin to refine their interests and their Career Self-Awareness can be an important factor in deriving academic benefits from career education.<sup>62</sup> The Irasburg Elementary Eighth Grade Career Challenge is an example of a program that could be classified as building Career Self-Awareness and enabling Career Exploration. This Program also has the advantage of connecting students with local employers, which ties career aspirations to academic achievement.<sup>63</sup>
  - A program like the Career Challenge is a good way to challenge students to both find interests as well as to begin turning their interests into goals for the future. Once students have a goal and begin to understand the timeline of that goal, they can start the process of planning how to achieve that goal. This is where academic gains are most palpable.<sup>64</sup>
- Collaboration with local business community:
  - Business partnerships such as the NES/CRREL can help students to see the connection between their classroom learning and a real-world industry.<sup>65</sup>
  - As highlighted in Section 7.2, business collaborations can be established in many ways. Some clear examples include partnerships for curriculum development, job shadowing, mentoring and tours, donations, and school visits. Businesses also have the ability to influence other businesses to engage in similar partnerships<sup>66</sup>
- Workforce Investment Boards
  - In 1996, under the auspices of the Human Resource Investment Council, twelve Workforce Investment Boards were created in Vermont. The membership of these boards includes leaders of large and small local businesses, secondary and post-secondary educational institutions,



chambers of commerce and economic development boards, in addition to public and governmental agencies.<sup>67</sup>

The twelve Workforce Investment Boards (WIBs) in Vermont are responsible for overseeing the continuation of the School to Work programs implemented between 1994 and 2000. As this is a major mechanism by which career education is administered in Vermont, significant options exist within the structure of the Boards for greater management of the career education programs in their respective regions. The WIBS are also stakeholders in the career development of today's youth, which explains the reason for their interest in serious career education development. With greater funding, the WIBs would have the potential to significantly influence the school-business community partnerships called for in this report.<sup>68</sup>

In sum, through collaboration with businesses and employment of successful career development curriculums as highlighted above, Vermont has significant opportunity to enhance its career education initiatives.

# 9. CONCLUSION

Vermont is currently facing increasing "brain-drain,"<sup>69</sup> as many students are leaving Vermont to attend college and begin their lives elsewhere. This phenomenon presents significant future challenges to the economic sector in Vermont, and the Next Generation Commission was created in early 2006 to address this problem through the development of a creative, multi-faceted approach, including, scholarship programs, workforce training, and technical and career education.<sup>70</sup> One of the many ways in which the Commission seeks to help solve this problem is to address it at the base level by working to inspire and educate young students about potential careers options in Vermont. Through innovative curricula and creative partnerships with the business community, meaningful options for career development education abound. While this is just one of the many options being considered by the Next Generation Commission, it may play a significant role in the creation of a comprehensive program.

**Disclaimer:** All material presented in this report represents the work of the individuals in the Policy Research Shop and does not represent the official views or policies of Dartmouth College.

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<sup>10</sup> Raby, Leo and Walford, Geoffrey. "Job Status Aspirations and Their Determinants for Middle and Lower Stream Pupils in an Urban, Multi-Racial Comprehensive School." *British Educational Research Journal*, Vol. 7, No. 2. (1981), pp. 173-181. http://links.jstor.org/sici?sici=0141-1926%281981%297%3A2%3C173%3AJSAATD%3E2.0.CO%3B2-K

<sup>11</sup> ibid.

<sup>12</sup> Federal Reserve Bank of Minneapolis. "Plugging the Brain Drain." http://www.minneapolisfed.org/pubs/fedgaz/03-01/cover.cfm

<sup>13</sup> Evans, J.H. and Burck, Harman. "The Effects of Career Education Interventions on Academic Achievement: A Meta-Analysis." *Journal of Counseling & Development* Vol. 71 Issue 1 (1992), pp. 63-68. http://search.ebscohost.com/login.aspx?direct=true&db=epref&AN=JCD.GA.FC.EVANS.ECEIAA

<sup>14</sup> D. Super is a theorist who concluded that insight into the future career paths of individuals could derived from not only genetic and geographical factors, but from psychological and socio-economic ones as well (Sharf, p. 147).

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<sup>19</sup> State of Vermont. "Vermont School to Work Program." 2002. <u>http://www.state.vt.us/stw/</u>

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<sup>&</sup>lt;sup>2</sup> Federal Reserve Bank of Minneapolis. "Plugging the Brain Drain."

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<sup>24</sup> Elementary/Secondary Public School Enrollment: 2006-2007 School Year, http://education.vermont.gov/new/excel/data/enrollment/enrollment\_07 table 01.xls <sup>25</sup> Elementary/Secondary Public School Enrollment: 2006-2007 School Year, http://education.vermont.gov/new/excel/data/enrollment/enrollment\_07\_table\_06.xls<sup>26</sup> Vermont School-to-Work Best Practice: Year End Studies Plans, http://www.state.vt.us/stw/stwbpmlorutlandyes.html <sup>27</sup> Vermont School-to-Work: Exemplary Programs, <u>http://www.state.vt.us/stw/4starnewbury.html</u> <sup>28</sup> Vermont School-to-Work Best Practice: Eighth Grade Career Challenge, http://www.state.vt.us/stw/stwbpcapstoneirasburg.html <sup>29</sup> Vermont School-to-Work: Career Exploration, http://www.state.vt.us/stw/stwbpcareerexlunenburg.html <sup>30</sup> Department of Labor, State of Vermont: For Youth, http://www.labor.vermont.gov/InfoCenter/Youth/tabid/130/Default.aspx http://education.vermont.gov/new/pdfdoc/board/rules/2000.pdf, p. 10 <sup>32</sup>http://education.vermont.gov/new/pdfdoc/board/rules/2000.pdf, p. 10 <sup>33</sup> Programs and Services: Career & Technical Education, http://education.vermont.gov/new/html/pgm\_teched.html <sup>34</sup> Programs and Services: Career & Technical Education, http://education.vermont.gov/new/html/pgm\_teched.html http://education.vermont.gov/new/pdfdoc/board/rules/2000.pdf, p. 6-7 <sup>36</sup> 2007 Public Policy Statement: Education and Workforce Development, http://www.rutlandvermont.com/rrcc/2007PublicPolicyStatement.pdf <sup>37</sup> The Greater Burlington Region of Vermont: Position Statement: Workforce Development, http://www.vermont.org/government/07work-devel.html The Greater Burlington Region of Vermont: Position Statement: Workforce Development, http://www.vermont.org/government/07work-devel.html <sup>39</sup> The Greater Burlington Region of Vermont: Position Statement: Workforce Development, http://www.vermont.org/government/07work-devel.html <sup>40</sup> District Administration; Jul2006, Vol. 42 Issue 7, p29-29, 1/2p http://web.ebscohost.com/ehost/pdf?vid=27&hid=8&sid=8e4af365-e518-49h2-9ed2-8d16ec852a91%40SRCSM2 <sup>41</sup> "Florida's HB 7087: Career Prep for All Middle School Students." Education Reporter: the Newspaper of Education Rights. http://www.eagleforum.org/educate/2006/may06/HB7087.html <sup>42</sup> High School Reform/Career Counseling: Pennsylvania, http://www.governor.state.pa.us/governor/lib/governor/highschool pointsfag.pdf <sup>43</sup> State of NJ Dept. of Education: Core Curriculum Content Standards, http://www.state.nj.us/njded/cccs/s9\_career.htm 44 PAPowerPort: Governor Redell Congratulates Commission for Bold Education Proposal, http://www.state.pa.us/papower/cwp/view.asp?Q=459812&A=11 <sup>45</sup> PAPowerPort: Governor Redell Congratulates Commission for Bold Education Proposal, http://www.state.pa.us/papower/cwp/view.asp?Q=459812&A=11 <sup>46</sup> Department of Education. "America's Career Resource Network." http://www.ed.gov/programs/acrn/resources.html ACRN. "Vermont Career Resource Network" <u>http://www.acrnetwork.org/state\_profile.aspx?State=VT</u> <sup>48</sup> Department of Education. "Applicant Info." <u>http://www.ed.gov/programs/acrn/applicant.html</u> <sup>49</sup> National Association of Social Workers. "Elementary and Secondary School Counseling Program (ESSCP). February 19, 2003. http://www.socialworkers.org/advocacy/updates/2003/021903.asp <sup>50</sup> Billig, S., and Brown, S. *Opportunities for Service Learning in the No Child Left Behind Act of 2001.* http://www.dpi.state.wi.us/esea/doc/service-learning%20article.doc. <sup>51</sup> The Greater Burlington Region of Vermont Chamber of Commerce. *Position Statement: Workforce* Development. 2007. http://www.vermont.org/government/07work-devel.html

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