

Public Education as Economic Development

The Business and Social Case for Investing in Education

A Vermont Businesses for Social Responsibility policy paper



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Executive Summary

A strong education system is essential for a strong economy. There is no other government program that is as effective as the public education system in increasing personal wealth, decreasing poverty and crime, and supplying the future workforce with the skills and knowledge necessary to succeed.

Across the board, states that have made significant investments in education as a workforce development tool have higher median family incomes and higher employee productivity.¹ Investing in education not only attracts high-wage employers to a region, but it also has a longer-term effect of increasing state tax revenues through boosted wages and opportunities for workers. For example, a U.S. worker without a high school diploma on average earns about \$20,000 a year, about \$9,000 less than a worker who graduated high school. Workers with bachelor's degrees on average earn almost \$50,000 a year.² Increased worker earnings grow the tax base and, as a result, reduce pressure on tax rates.

A strong educational system strengthens Vermont businesses, by training a highly qualified workforce, with skills that match the needs of employers. This enables businesses to succeed and grow, a virtuous cycle leading to additional high quality jobs. There are 30.8 jobs created in Vermont for every \$1 million of investment in education.³

Outside of the direct workforce development benefits, there are a number of social and economic benefits to investing in public education as well. The national average cost to educate a student is \$12,643 a year and the average national cost to imprison someone for one year is \$28,323. If Vermont increased our male high school graduation rate by just 5%, the state would save \$10.5 million a year in crime-related costs.⁴ Education is an effective tool at breaking the cycle of poverty and reducing dependency on tax-funded social programs. For example, 43% of people without high school diplomas receive Medicaid benefits, compared with only 9% for those with four-year college degrees.⁵

Additionally, a well-educated workforce is also an engaged and active populace. Residents with high educational attainment are more likely to follow current affairs, vote in state and national elections, volunteer in the communities, and serve on the boards of local non-

¹ "A Well Educated Workforce is Key to State Prosperity," Economic Policy Institute, 2013.

² U.S. Census Data 2012 - Current Population Survey Annual Social and Economic Supplement.

³ "Prioritizing Approaches to Economic Development in New England: Skills, Infrastructure, and Tax Credits," by Jeffrey Thompson, Political Economy Research Institute, University of Massachusetts, 2010.

⁴ Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings, Alliance for Excellent Education, 2013.

⁵ "Education Pays: The Benefits of Higher Education for Individuals and Society," Sandy Baum, Jennifer Ma, Kathleen Payea, CollegeBoard, 2013.

<http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report.pdf>

profits and other organizations.⁶ Education instills a sense of higher purpose in individuals and promotes positive social and environmental values. Simply put, a good education creates good citizens and community members.

Recommended Changes in State Education Policy:

- Continue to expand pre-kindergarten and other child educational services across the state. Quality early childhood education is the best investment Vermont can make in building a strong future workforce and resilient communities. Vermont should investigate financing models to increase the quality, affordability, and availability of these services.
- Modify the school financing structure to focus more on ability to pay, rather than property values. Income sensitivity decreases the regressive nature of the state's education funding system, but wealthy Vermonters still pay a smaller portion of their income on education than lower and middle-class Vermonters.
- School consolidation can make Vermont's education system more efficient, modern, and successful, but arbitrary budget caps and other financial sticks only hurt the quality of the education at local schools and prohibit educators and administrators from making wise investments in education.
- End the moratorium on state school construction assistance. Many of Vermont's schools are antiquated and not conducive to the demands of a 21st Century learning environment. Our public school buildings need a massive influx of investment. Vermont should establish a statewide school construction fund to aid local school districts in renovation and new construction projects.
- Separate the funding of public education from the funding of human services in our schools. Delivering much-needed social services in schools makes sense for Vermont, but that service should be supported through General Fund tax sources, not the Education Fund.
- Establish a statewide teacher contract. Labor unions play a vital role in improving the wages and benefits, but too much time and resources are spent bargaining contracts on a district-by-district level. Statewide teacher contracts can minimize salary disparities between rich and poor communities and increase opportunities for both students and educators across Vermont.

⁶ "Education Pays: The Benefits of Higher Education for Individuals and Society," Sandy Baum and Jennifer Ma, CollegeBoard, 2007.
http://www.collegeboard.com/prod_downloads/about/news_info/trends/ed_pays_2007.pdf

The Current State of Vermont's Education System

Vermont's education system in the year 2016 is at a crossroads. The changing demographics of the Green Mountain State require our public education system to make dramatic changes in response to the new demands of emerging economies and the changing demographics of working Vermont families. The state is more urban today than ever before, with population growth occurring in and around Chittenden County and other economic hubs, and the population shrinking in the more rural communities in the state.⁷ The declining enrollment in Vermont's rural towns has led to excess capacity and a small student population in many school districts.

At the same time, Vermont families have felt the impact of stagnant wage growth. The result has been a population that is less affluent than previous generations and with greater needs. Schools have by default become the gateway to much-needed social services that support children and families, causing additional budgetary pressures and responsibilities on school administration and staff. For example, school staff has reported that Vermont's growing problem with opiate addiction now impacts student achievement. Over time, the state's education budget has absorbed additional human services costs as school staff manage students with learning disabilities, behavioral problems, mental health issues, and family risk factors, such as homelessness and drug abuse.⁸ The impact of poverty and addiction on Vermont's education system cannot be understated. In addition, schools have taken on roles in supporting their students' nutrition and social support needs.

With a population of 620,000 people, Vermont is one of the smallest states in the country. It is also increasingly an older population; almost 40% of the state's population is over the age of 50 and an additional 20% are over the age of 60. This trend is growing and the U.S. Census Bureau estimates that almost 30% of the state's population will be 60 and older by 2030.⁹

The school infrastructure Vermont has in place, such as facilities, staffing, and governance structures, is a vestige of historical settlement patterns and in most instances designed for a different school population than we have today. The governance structure is byzantine and the quality of local school boards is uneven. Educational opportunities for Vermont students vary from school to school and from region to region.

Vermont also suffers from having a weak, underfunded Department of Education. State officials must prioritize obligations and goals, while ignoring others, due to limited financial resources. Meanwhile, school buildings are aging, antiquated and inappropriate for a 21st Century education. The Legislature suspended the school construction aid program in 2007, essentially eliminating state financial assistance for school renovation and construction.

⁷ "Anemic Population Growth a Problem for Vermont" by Art Woolf, Burlington Free Press, April 2015.

⁸ "Schools and doing more, and spending more" Jack Hoffman, Public Assets Institute <http://publicassets.org/blog/schools-are-doing-more-and-spending-more/>

⁹ Vermont Police Academy: State Profile, 2012 http://www.aoa.gov/AoA_Programs/HPW/Behavioral/docs2/Vermont%20Epi%20Profile%20Final.pdf

These trends have collided to create an educational system that has one of the lowest staff-to-student ratios in the country (less than 5 students for every school employee)¹⁰, one of the highest high school graduation rates (more than 90% of Vermont students complete high school)¹¹, and teacher and school staff salaries that are lower than the national average.¹²

There has also been a paradigm shift in educational delivery from teacher-centered instruction to student-centered learning. With this approach comes the need to provide individualized learning plans geared to the learning styles and interests of the student. This has profound impact on both programs and facilities, as students are engaged in a variety of non-traditional activities that include experiential learning, project based inquiry and small group work, often called 21st Century Learning.

The impact of this shift is enormous, and many schools lack the facilities to adequately support 21st Century Learning. The combination of these changing needs, a moratorium on school construction aid since 2007, and local school budget pressures, have resulted in a crisis in the condition of our school facilities across Vermont with many school districts failing to maintain their building adequately.

The skills necessary to compete successfully in the job market have changed as well. Vermont's schools were designed to teach for an industrial economy, but as the world shifts to an information and knowledge economy, different skills will be necessary for school curriculums.

Programs outside of K-12 public education have the greatest difficulty in meeting the goals of good quality, equitable compensation, and affordable access. Most early childhood care and education services operate in a very price-sensitive market financed primarily by fees from families and supplemented by public and private contributions. Many families cannot pay the full cost of quality care, and the ongoing commitment from public and private contributions is seldom guaranteed.

At the other end of the educational system, Vermont's colleges and universities are underfunded and the cost to attain post-secondary degrees is increasingly out of reach for Vermont families and students. Vermont has one of the country's highest ratios of education debt to income with more than 60% of students in the state graduating with an average of nearly \$29,000 in debt.¹³ The State of Vermont funds less than 10% of the operating budgets of the University of Vermont and the state colleges. At the same time, the State spends \$1.37 on incarceration for every \$1 it spends supporting universities and community colleges.¹⁴

¹⁰ "Student-Teacher Ratios Focus As House Education Committee Hones Bill," VtDigger.org, February 2015.

¹¹ "Public High School Graduation Rates, 2015" by the Institute of Education Sciences

¹² "Estimated average annual salary of teachers in public elementary and secondary schools, by state: Selected years, 1969-70 through 2012-13" by the Institute of Education Sciences

¹³ <http://www.sanders.senate.gov/newsroom/press-releases/as-student-debt-rises-in-vermont-sanders-presses-to-keep-interest-rate-from-doubling>

¹⁴ <http://www.sanders.senate.gov/newsroom/press-releases/us-prison-population-soars-vermont-spends-more-on-prisons-than-higher-education>

Recent legislation in Vermont is also rapidly changing the landscape of education. The following measures passed in 2013-15 are all in various stages of implementation:

- Act 46, signed into law in 2015, aims to reduce the number of school districts in the state through administrative consolidation, under the premise that larger school districts, with larger economies of scale, are better positioned to deploy resources in efficient ways. The law has carrots and sticks to encourage district mergers and has many supporters and detractors.
- Act 166, signed into law in 2014, aspires to create universal access to pre-kindergarten in Vermont, allowing for no fewer than 10 hours of publicly funded pre-k education for 35 weeks annually from prequalified programs offered by public and private providers.
- Act 77, signed into law in 2013, creates a requirement that school districts create personalized learning plans, flexible pathways to high school graduation (with the goal of having a 100% graduation rate by 2020), and enable students to earn college credits while finishing up high school requirements.

The Essential Components of a Quality Public Education System

The foremost goal of a quality public education system is to provide a relevant, rigorous and engaging educational experience for today's students. VBSR sees similarities between the triple-bottom line approach for business and the essential components of a quality public education system. A quality education should not just ready a student for the workforce, but also create informed and engaged citizens who value community and the environment. Cultivating a life-long love of learning and personal advancement is a worthy goal of education.

This approach is not without precedent. Famed education reformer John Dewey, who was born in Burlington more than 150 years ago, envisioned a cohesive system that connected education with business and classroom experiences with personal advancement. "Education is a social process; education is growth," he wrote. "Education is not preparation for life but is life itself."¹⁵

This triple-bottom line approach to education pursues the following outcomes:

- To prepare students for the needs of business and society, both today and the future, through multiple pathways to independence and financial self-sufficiency.
- To promote personal and social responsibility and to develop social skills and citizenship values.
- To foster critical thinking, inspire creativity and innovation, and cultivate a love for learning.

Achieving these outcomes requires the deployment of a range of local, state, and federal resources and the full implementation of personalized learning methods. Vermont's school system of the new century needs to cater to the full needs of the child. Students should have access to a robust menu of class options and educational opportunities to prepare them to

¹⁵ "Democracy and Education: An Introduction to the Philosophy of Education" by John Dewey, 1916.

participate in the economy and be stable, responsible, and creative adults in their communities.

Additionally, we see education as a community effort. Schools should be more than just places where our children are educated; these buildings need to become true community centers where minds are educated and hearts are won. Underused facility space can be used for adult education classes or other community activities¹⁶. Public schools should also explore incorporating the experience and knowledge of local experts, community leaders, and mentors to augment the educational experiences and boost community support and appreciation of our local schools.

Multiple Pathways to Education: Schools should provide students with options

Continued implementation of Act 77, which creates personalized learning plans for Vermont students, is essential to bridging the gap between the educational opportunities of students and the job skills needed in the economy. Personalized learning enables students to create a pathway centered on their own skills and interests for a career that will be rewarding to the student. At the same time, a personalized learning plan facilitates the development of the tools necessary to participate as a productive member of the workforce when the student leaves the educational system. Schools should support students in developing plans for their education and these plans can help foster stronger relationships between schools, the businesses, and the whole community through opportunities such as internships and other experiential-based learning.

Structure of a Quality Public Education System

Equity in the distribution of resources and opportunities is the foundation of a strong public education system. Students should not be at a disadvantage in their educational journeys based on regional or socio-economic variations. Our schools should be closely integrated with social service organizations and other community actors to meet the whole needs of the child, so that students come to school prepared and able to learn. High quality educational programs, from Pre-K education through higher education, and including outside the classroom learning opportunities such as academic internships in workplaces and apprenticeships, must be accessible to all families.

A quality public education system has a coherent organizational structure that fosters communication, trust and respect. It also deploys resources in a cost-effective manner and maintains clear accountability at all levels. Policy decisions are informed by data based education research and have defined proficiency goals and meaningful measurable outcomes. The environments that learning occurs in must also be healthy, productive, and environmentally friendly spaces that support learning. Universal access to broadband technology and modern software and hardware are also essential, especially for students from lower-income families that may not have access to these technologies at home.

Education also needs to be viewed as an integrated system that begins at birth and continues through to higher education, and includes experiential learning. In particular:

- **Early Childhood Education:** Decades of research clearly demonstrate that high-quality, developmentally appropriate early childhood programs produce short and

¹⁶ One example of this work is Access CVU in Hinesburg, Vt.

long-term positive effects on children's cognitive and social development. The science is clear: 80% of a child's brain is developed by age three and high quality early experiences make a difference in children's lifelong academic and social success¹⁷. Children who experience high-quality, stable child care engage in more complex play, demonstrate more secure attachments to adults and other children, and score higher on measures of thinking ability and language development. High-quality childcare can predict academic success, adjustment to school, and reduce behavioral problems for children in first grade. Studies demonstrate that children's success or failure during the first years of school often predicts the course of later schooling.

- **Higher Education:** A post-secondary education is essential for many of the growing fields in Vermont and there is a direct link between educational attainment and higher job salaries. Higher education is also an economic driver in Vermont, employing more than 11,000 people and generating an estimated \$2.9 billion in economic activity.¹⁸ A quality education system should appropriately fund our State's colleges and universities and reduce the costs of accessing higher education.
- **Experiential Learning.** Training programs, apprenticeships, internships and mentorships are effective at bridging the final gap between post-secondary education and the job market. Students and recent graduates get real-world business experience through these opportunities and the business benefits from the new skills and knowledge the student brings to the workplace. Young people who find a job in Vermont soon after graduation are more likely to remain in the state, a potential antidote to the state's aging demographics. This integrated system of education and business ensures will increase communication between the two sectors and address potential gaps in knowledge and learning before it impacts the economy.

Financing Quality Public Education

How to adequately and fairly fund Vermont's education system is one of the most difficult and divisive public policy questions facing the State.

Thirty-four of the State's 246 towns voted against proposed school budgets at Town Meeting in 2014, the highest number since 2003.¹⁹ Voters and politicians often cite the growing burden of property taxes as the reason for the rejection of school budgets. Reliance of this funding system also places municipal and school system priorities in conflict for a limited pool of funding.

Vermont's Blue Ribbon Tax Structure Commission's 2011 report described the state's property tax-based education funding system as "unique and complex" and the product of political compromises, not tax analysis or strategy. The Commission concluded that there

¹⁷ "Regional gray matter growth, sexual dimorphism, and cerebral asymmetry in the neonatal brain," JH Gilmore, U.S. National Library of Medicine, National Institutes of Health, 2007. <http://www.ncbi.nlm.nih.gov/pubmed/17287499>

¹⁸ <http://www.vermont-colleges.org/Documents/CHEFUnity.pdf>

¹⁹ <http://vtdigger.org/2014/03/05/voters-reject-largest-number-school-budgets-since-2003/>

are “no miracle cures” for the tension and that the state would need to ask itself “hard questions.”²⁰

Local property taxes contributed \$265.4 million toward the state’s \$1 billion school budget in 2005; in 2013, that figure was \$389.4 million toward the \$1.3 billion school budget. During this same time, state general funds transfers to the education fund have been reduced and revenue from other education funding sources such as the Vermont Lottery and a portion of the state sales tax have been static.

But despite the rhetoric around the growth of school budgets, Vermont spending on public education since the 1990s has actually remained flat as a percentage of the state economy.²¹ Student enrollment has also been reduced over those years, however schools face additional budget pressures related to rising health care costs (which do routinely increase at rates faster than the economy) and the deployment of social services in school buildings, such as expanded lunch and nutrition programs.

Property taxes are no longer an adequate method of funding Vermont’s schools. Just as the school’s infrastructure needs to move beyond the archaic settlement patterns of Vermont’s earliest residents, so does the primary local funding source.

Property taxes are regressive and the burden of paying for local schools through this source largely falls on lower-to-middle class Vermonters. For example, a family making \$125,000 a year would pay about 3% of their total income in homestead school taxes; a family making more than \$1 million each year pays about 0.5% of total income in school taxes.²²

Many Vermont families already pay for local schools on the basis of income. More than 60% of Vermont families are taxed based on their ability to pay, rather than the assessed value of their property through the state’s income sensitivity provision. A continued reliance on local property taxes as the chief funding source for schools will result in more proposed budgets defeated at Town Meeting, more anxiety over rising school taxes, and education decisions that are based on limited pools of money, not the needs of the children.

VBSR’s “Tax and Fiscal Policy Statement” calls for a tax system that is fair, simple, transparent, accountable, sustainable, and competitive.²³ Relying heavily on property taxes to fund schools fails these goals.

Conclusion

A quality public education system is a critical investment that yields tangible economic and social benefits. To get the best return on our investment, we need to invest sufficiently in a system that effectively engages students and enables and prepares them to participate the 21st century society and economy, that is cost-effective and facilitates student learning, and whose outcomes can be assessed in a meaningful way. In an environment of limited state

²⁰ Blue Ribbon Tax Structure Commission Final Report, January 2011. http://www.leg.state.vt.us/jfo/blue_ribbon_tax.aspx

²¹ “Vermont Education Spending: The Facts” Public Assets Institute, 2010

²² Vermont Department of Taxes data

²³ http://vbsr.org/public_policy/position_papers/tax_and_fiscal_policy_statement/

resources for economic development, investing in public education is a strategy that has multiple benefits to our business climate and communities

VBSR members should support/become involved in the public education system by:

- Offering mentoring and paid internship opportunities to students.
- Sponsoring projects and learning opportunities in schools or collaborating with schools on learning in the community opportunities.
- Providing resources for use in the classroom.

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