

Using the Evidence-Based Method to Identify Adequate Spending Levels for Vermont Schools

Prepared for the
Vermont Legislative Joint Fiscal Office

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Executive Summary

One of the critical questions facing school finance today is how much does it cost to provide the resources needed to implement education programs that will ensure all students have an equal and robust opportunity to meet their state's proficiency standards and be prepared for college and/or careers. This document, prepared as part of the Vermont School Finance Adequacy Study, uses the Evidence-Based (EB) model (Odden & Picus, 2014) to provide the state with an estimate of the cost of such a system.

The intent of this adequacy study for Vermont is to identify the costs of providing an array of educational goods and services that allows each school and school district to provide all students an equal opportunity to meet **the state's student performance standards**. Although a direct linkage between funding and student performance does not exist, the intent of an adequacy study is to identify a base per pupil spending level, together with extra resources for students from poverty or non-English speaking backgrounds and/or with disabilities, that are adequate to provide all students with robust opportunities to meet college and career ready standards.

Using data for school year 2014-15, the Vermont EB model estimates an adequate funding level of \$1.56 billion or some \$163.9 million (approximately 10%) less than Vermont school districts spent for PK-12 education that year.

There are likely several explanations for the substantial difference between what Vermont schools currently spend and the EB cost estimate. Before identifying the source of the cost differences, it is important to note that the EB model, although designed from the school level, applies a set of standard measures to the schools in Vermont. The EB model therefore can not accommodate all of the individual circumstances of individual schools, particular in a state where local taxpayers and educators have a great deal of control in determining education spending levels. Policy makers should proceed cautiously in attempting to achieve savings because the complexities of school finance may lead to unintended consequences.

The most likely explanations for the cost difference include the following:

- **Pupil Teacher Ratios are higher in the EB model.**
 - The EB model assumes somewhat larger pupil/teacher ratios than are generally employed in many Vermont's schools, even though we modified our recommended EB ratios to meet Vermont policy on number of pupil contacts at the high school level.
- **There are fewer resources for Special Education in the EB model.**

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- Vermont schools identify a higher percentage of students as needing special education (16%) than the figure utilized in the EB model of 12%, which is based on the national average.
 - The EB model provides resources that equate to 141 students per special education staff position while estimates of special education resources in Vermont districts are closer to 90 students per special education staff position. The extent to which the Vermont staffing structure is a result of the large number of small schools, or choices to provide more services to students in special education is not completely clear.
 - The EB model provides full state funding for children with severe disabilities estimated to be \$100 million but assumes a larger number of children are identified as having severe disabilities than are funded through the current special education funding formula.
 - The EB model provides limited resources for paraprofessional positions in special education. This is based on recent research suggesting students with the greatest needs should be served by skilled teachers to provide the extra services they require who struggle to learn to standards. Yet, in Vermont and throughout the country, districts frequently rely heavily on paraprofessional positions to provide special education services. The EB model aligns with this recent research and only includes paraprofessionals for a few students with severe and profound disabilities. (See the special education section p. 88).
 - The EB model provides approximately \$95 million for “extra help” resources to enable teachers to provide additional instructional assistance to students struggling to learn to standards before they are labeled a student with a disability and provided an Individualized Education Plan (IEP).
 - There is a growing demand for more physical and mental health services for children.
 - We address this in Chapter 4, noting that all four of our professional judgment panels identified the growing social and emotional needs of children as a major concern.
 - Consequently, the EB was modified to meet these increased needs of children by adding some additional staff, but not all that the professional judgment panels recommended.

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- **The EB model provides a large array of resources to help at risk and (English Language Learner) ELL students.**
 - These resources are estimated to cost approximately \$95 million and are intended to provide services to any student needing extra help to meet state standards
 - **More efficient organization of Supervisory Unions or Supervisory Districts.**
 - The EB model assumes that SU services are provided to all schools/districts in the SU as if it were operating as one school district, establishing economies of scale in central operations. The *Vermont School Finance Adequacy Model* also makes it possible to create alternative Supervisory Districts (SDs) to establish further economies from larger central organizations.
 - **The EB model assumes a full day Pre-K program located in a public elementary school and available to all children currently enrolled in Vermont school districts in Pre-K programs. It is not designed to support a voucher program to support choice in placement of students in Pre-K programs.** This is a substantially different and more expensive program than the current approach to Pre-K education that establishes voucher payments of \$3,000 to support Pre-K placements. Since many of these children are currently supported through voucher type payments to private providers that are capped at \$3,000, this is one area where the EB costs may exceed current expenditures.
 - **The EB model does not include instructional aides at any education level whereas most Vermont school districts employ substantial numbers of aides in their instructional programs.**
 - **The EB model appears to have fewer administrators than generally found in Vermont school districts.**
 - **There are likely other changes throughout the model with interactive effects that are driving the observed cost differences.**

It is important to note that the cost estimates contained in the EB model offer directions for future policy and resource allocation strategies and it may not be possible to recognize these potential savings in the short term. The estimates presented here arrive in the context of Act 46 and other efforts to consider unification of Supervisory Unions and school districts. The intent of this study is to complement the work of the Agency of Education and school district officials across the state.

We reached these fiscal findings by using a multi-step process that included the following activities and research efforts:

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- Describing the critical elements of the EB model that are linked to increased student learning and the research that supports its resource allocation strategies (chapter 2 of this report)
 - Analysis of the elements of the EB model and their applicability to PK-12 education in Vermont (chapter 3)
 - Adjustments to the base EB model based on current Vermont law and policy (chapter 3 of this report)
 - Further adjustments (as appropriate) to the base EB model from feedback provided by education stakeholders throughout the state (chapter 4)
 - Analysis of five improving schools to understand how educational resources are used in effective schools in Vermont and how that use compares to the EB model (Chapter 5)
 - A comparison of school finance adequacy approaches in other states (Chapter 6), and
 - A detailed model of school finance adequacy in Vermont estimating the EB model costs by district and Supervisory Union, and providing the capacity to simulate alternative Supervisory District boundaries as well as combining schools/districts into larger school units (Chapter 7 and the accompanying Excel based *Vermont School Finance Adequacy Model*)

Chapter 5 summarizes the findings from our five case studies of improving schools. These schools have been successful in moving the achievement needle forward over a period of several years and our goal was to understand what resource allocation and education strategies they are using. Many of the strategies we identified are already imbedded in the improvement model embedded in the EB approach. Moreover, we found that the resources available through the EB model are sufficient to implement the successful approaches identified in all five case study schools.

An important part of this study was to help Vermont understand the potential for cost savings if schools are reorganized – and to support much of the work in this direction that has been started under the auspices of Act 46. Although the cost findings summarized above are based on the current number of schools and SUs in the state, the *Vermont School Finance Adequacy Model* also makes it possible to simulate alternative Supervisory District organizational structures, and even makes it possible to unify individual schools or districts to observe theoretical cost savings.

We caution readers that several features of Vermont’s school funding system make comparisons of the EB model with current expenditures very difficult. The challenges in identifying and removing duplicated expenditures (i.e. districts “spend” money on tuition to other public schools that then report the same expenditures on behalf of the children

for whom the tuition was paid); the existence of small school grants and phantom students in the finance system and other factors make a perfect comparison impossible.

There are also several expenditure categories (most notably food services, student transportation and capital debt) that are not included in the EB model. These are included in the total cost of the EB system and the current expenditures for the existing structure. We also include \$72 million that represents the appropriation by the Vermont Legislature to pay for the retirement programs of certified staff in Vermont public schools.

Overall, it is not surprising that the EB model projects somewhat lower total costs for PK-12 education than current expenditures in Vermont. Education Week's Quality Counts (January 7, 2016) shows that Vermont has the highest per pupil expenditures among the 50 states, after adjusting for regional cost differences. Vermonters should be proud of the effort they make to provide education for the state's children.

This report is designed not to force reductions in expenditures, but rather to help the state identify the most efficient and effective ways to allocate the substantial educational resources the state now provides for public education.