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**Report on Act 153 of the 2009 Adjourned Session
An Act Relating to Voluntary School District
Merger, Virtual Merger, Supervisory Union
Duties, and Including Secondary Students with
Disabilities in Senior Year Activities and
Ceremonies**

Report to the Senate and House Committees on Education:
Preliminary Results and Research Design
March 23, 2011

Submitted by:



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Report on Voluntary School District Merger Activity and Process (CY10)

Executive Summary

Introduction

Act 153 § 8 (c) On or before January 15, 2018, the James M. Jeffords Center and the department of education shall present a final report concerning the study required in subsection (b) of this section, including recommendations to the house and senate committees on education regarding what further actions, if any should be pursued to encourage or require merger by nonparticipating school districts, and shall provide interim reports in each January until that date.

This is the first report in the required series. The facts that Act 153 is recent and the processes encouraged by Act 153 require considerable planning mean that the data currently available for reporting are limited. In many places this report describes directions for future reporting.

Vermont's Act 153 stimulates voluntary mergers of school districts, specifies certain responsibilities for supervisory unions (SU), and addresses the inclusion of secondary students with disabilities in senior year activities and ceremonies. The Act (Sec. 8) calls on the University of Vermont's James M. Jeffords Center (Jeffords Center) to collaborate with the state Department of Education (SDE) and participating school districts to monitor and evaluate the voluntary merging of Vermont school districts.

This report fulfills the reporting requirement in two ways. First, we include the results of preliminary research findings that describe merger activities. Second, we propose to initiate a multi-year, multi-method study and to solicit the external funding necessary for carrying out the research. The overall goals for the proposed study through 2018 are to (a) document the process of school districts' consideration and adoption of voluntary mergers; and (b) measure and report on effects of mergers on educational cost and student achievement outcomes.

Preliminary Research

Department of Education Records

A database of contacts with school administrators was compiled by staff from the Department of Education and the Vermont School Boards Association. These records were reviewed to provide a listing of all supervisory unions known to be engaging in merger activities. Two supervisory unions have had their articles approved by the State Board, one of which has been approved by voters. There are at least 13 research studies underway or approved by vote, and ten more SUs are studying the creation of joint agreements.

Survey of Superintendents

In addition to the records of contact described above, the Department of Education implemented an online survey of all Superintendents between November 30 and December 22, 2010 concerning the status of merger discussions and votes. Fifty out of sixty superintendents

responded (83%). Thirteen Superintendents (26%) indicated that their boards wished to explore the merger of districts. An additional 14 Superintendents (28%) reported that their SU board was *not* interested, three of whom said that discussions were ongoing. All but three Superintendents reported (94%) that their boards had met to discuss mergers.

Conclusions

Based on the preliminary research, it is apparent that Act 153 has generated a substantial level of activity in its first year. Addison Northwest convened successful town meeting votes in each community; Chittenden East is preparing for a merger vote in June, 2011. Thirteen districts are engaged in studying RED creation and at least ten more are exploring SU joint agreements. Given the likelihood that additional merger activities will be initiated in the coming year, the continued study of the process will be critically important to ensure that SUs and districts can take fullest advantage of the early lessons learned. A second urgent priority in the coming year will be the establishment of baseline measures so that the long term effectiveness of the Act can be evaluated.

Research Plan

The Jeffords Center has financially supported the initiation and preliminary analyses of ACT 153 activities described herein. New sources of funding will be required to evaluate Act 153 through 2018. What follows in this full report is a research plan that forms the core of a proposal for external funding. In the absence of external funding the Jeffords Center will conduct a more limited analysis based on secondary data sources (current funding is assured only through June 2013).

Each of the “Findings” of Act 153 implies a specific research question or set of research questions. Our approach is guided by “realist evaluation” principles, which simply means that we seek to (a) identify and understand the key *mechanisms* by which Act 153 objectives will be achieved; (b) the variation of those mechanisms across different *contexts*; and (c) explain the *outcome patterns* in terms of the expected mechanisms and empirical observation.

Two tracks for planned research

In the event that external funding cannot be secured, we will implement a limited research plan that can be accomplished within the time frame and overall resource limitations of the Jeffords Center’s core funding. We will conduct a series of focus groups; identify and compile measures of educational opportunity, academic performance, and educational costs; and conduct a summative analysis of secondary measures to be reported in January, 2013.

In addition to this minimal plan, the Jeffords Center plans to submit an extensive proposal to the US Department of Education, Institute of Education Sciences (CFDA 84.305E-2). This plan substantially exceeds the preliminary budget sponsored by the Jeffords Center, but is designed to complete the evaluation activities specified in Act 153 at the highest possible standards.

We will use descriptive methods to evaluate the process by which districts consider the possibility of merging, how they come to a decision to merge or not, and the experiences of school leaders, educators and staff. Starting in 2011, we will conduct focus groups and surveys; exit polls for selected elections at district and town meetings; review administrative reports, and collect all available documentation of the merger process.

Between 2012 and 2017 we will carry out repeated administrations of surveys and focus groups, and compile case study descriptions of each merger that occurs. We will adapt a widely used framework of organizational change, the Concerns-Based Adoption Model (CBAM) to understand the trajectories of organizational change among merging districts and supervisory unions.

During the final year of the project (2017-2018) we will also conduct a summative analysis. We anticipate using an interrupted time series¹ approach to evaluate the effectiveness of the mergers that do take place in terms of educational costs, student achievement, and the perceptions of school leaders, educators and parents. We will compare measures of cost per pupil, total educational cost, and student achievement between districts that choose to merge and those that do not, using repeated-measures linear models to assess differential changes over time. In 2011 we will work with all stakeholders to fully specify these models, and to identify and compile all of the specific data elements that will be needed.

¹ Shadish WR, Cook TD, Campbell DT. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton-Mifflin.

Report on Voluntary School District Merger Activity and Process (2010)

Introduction

Vermont's Act 153 stimulates voluntary mergers of school districts, specifies certain responsibilities for supervisory unions, and addresses the inclusion of secondary students with disabilities in senior year activities and ceremonies. The Act became law on June 3, 2010, without the Governor's signature. The Act (Sec. 8) calls on the University of Vermont's James M. Jeffords Center (Jeffords Center) to collaborate with the state department of education (SDE) and participating school districts to monitor and evaluate the voluntary merging of Vermont school districts, including the following five specific activities:

1. Study data and comments from school districts and supervisory unions statewide that are discussing voluntary merger.
2. Study the results of local district elections to approve voluntary merger.
3. For mergers that occur, study:
 - a. Efficiencies realized in terms of real dollars and operations.
 - b. Changes in student learning opportunities and outcomes.
4. Produce annual interim reports due each January through 2017.
5. Produce a final report by January 15, 2018.

The purpose of this report is to address the aforementioned activities in two ways. First, we include the results of preliminary research to describe early merger activities, while searching for information that may be useful to districts at an earlier point in the process. Second, we propose to initiate a multi-year, multi-method study and to solicit the external funding necessary for carrying out the research. The overall goals for the research are to (a) document the process of school districts' consideration and adoption of voluntary mergers; and (b) measure and report on effects of mergers on educational cost and student achievement outcomes.

Act 153 required all SU boards to discuss whether they wish to consider district mergers on or before December 1, 2010. The Act defines two types of mergers. SU members or groups of districts can voluntarily merge to form a Regional Educational District (RED), and the state provides several incentives for doing so. These incentives include temporary reductions in residential property tax rates and up to \$20,000 to reimburse a RED merger study committee for legal and consulting fees necessary for the analysis and reporting. A district created by the RED merger process is eligible for a facilitation grant of five percent of the base education amount in 16 VSA § 4001(13) based on the combined enrollment of the participating districts on October 1 of the year in which the successful vote was taken or \$150,000, whichever is less. Any money received to offset expenses of the RED study committee is deducted from this amount. Also, the state will forgo reimbursement for state aid for school construction when schools belonging to a RED district are closed. Act 153 also includes "Virtual Merger" provisions to facilitate the merging of administrative services through SU Joint Agreements. These Joint Agreements are encouraged through the reimbursement of consulting services up to \$10,000 to offset the cost of required cost-benefit analyses and transitional costs, including legal and other consulting fees necessary for the supervisory unions to enter into agreements to provide services or perform duties pursuant to the provisions of 16 V.S.A. §§ 261a(b) and 267.

Part I. Preliminary Data Collection

Department of Education Records

A database of contacts with school administrators was compiled by staff from the Department of Education and the Vermont School Boards Association. These records were reviewed to provide a listing of all supervisory unions known to be engaging in merger activities through January, 2011. Although no communities have yet voted on proposed mergers, two supervisory unions have had their articles approved by the state board. There are a substantial number of research studies underway or approved by vote (estimated to be 15 total), and approximately ten SUs are engaged in preliminary research towards joint agreements. Four additional Supervisory Unions are engaged in research on possible consolidation and virtual mergers. The reports summarized in the following table represent activities known to the SDE, and the Vermont School Boards Association, and were reviewed at a recent meeting of the Vermont Superintendents' Association. However, there may be other activities that have not yet been recorded

Table 1. Status of Known Current Merger Activities (30 SU/SDs and 85 District Boards)

RED Articles Approved / Scheduled by State Board (2 SUs and 13 Boards)	
Addison Northwest [5 bds.]	Chittenden East [8bds.]
(approved March 1, 2011)	(vote scheduled for June 7, 2011)
Local Boards Voted to Undertake 706/RED Study (5 SUs and 23 Boards)	
Addison Central [8 bds.]	Fairfax and Fletcher [2 bds.]
Chittenden South [6 bds.]	Mountain Towns (Flood Brook) [4 bds.]
Lamoille South [3 bds.]	
Preliminary RED Research Under Way (8 SUs and 49 Boards)	
Caledonia North [8 bds.]	Orleans Southwest [6 bds.]
Bennington Rutland [7 bds.]	Orange Windsor [5 bds.]
Franklin Central [4 bds.]	Southwest Vermont & Arlington [6 bds.]
Orange Southwest [3 bds.]	Windham Central [10 bds.]
SU Joint Agreement (Voluntary Mergers) Study w/SU Board Votes (3 SUs)	
Rutland South/Rutland Windsor/Windsor Southwest	
SU Joint Agreement (Voluntary Mergers) Preliminary Research (7 SUs/1 SD)	
Blue Mountain and Caledonia Central	
Blue Mountain/Orange East/Rivendell	
Montpelier and Washington Central	
Washington Northeast	
Windsor Northwest (exploring SU options with Orange Windsor and Orange Southwest)	
Preliminary SU Research on Possible Consolidations and Virtual Mergers	

Battenkill Valley	Washington South
Rutland Windsor	Grand Isle

(Updated March 8, 2011)

Survey of Superintendents

The Department of Education implemented an online survey of all Superintendents between November 30, 2010 and January 10, 2011 concerning the status of merger discussions and votes. Superintendents were asked to respond on behalf of their supervisory unions to six questions about how districts and supervisory unions have or have not discussed possible mergers.² Of the 60 Superintendents, 50 responded to the survey (83%). In two cases multiple responses were received for a district (apparently by different staff members); these were combined so that each SU or district was counted only once. The survey questions asked for the dates on which supervisory union boards had met to discuss mergers, whether boards were interested in exploring district mergers, and whether district boards within supervisory union had discussions about mergers. Superintendents reporting that discussions had been held at the supervisory union level or at the district level were asked to provide open ended responses describing those discussions. Respondents could decline to answer any question. Percentages were based on the total number of superintendents in the survey, so the numbers of “yes” and “no” responses do not always add to 100%. Open-ended responses were qualitatively coded by an experienced graduate research fellow associated with the Jeffords Center.

Nine responses were from supervisory districts rather than supervisory unions. Since supervisory districts are each associated with with a single school district, their ability to participate in RED mergers is agreements with other supervisory districts or at least some districts in other supervisory unions. The percentage of supervisory unions expressing interest in mergers is, consequently, higher than the aggregation of supervisory union and supervisory district responses presented here.

A summary of the Superintendents’ responses to the survey questions follows below.

What is the relative interest in exploring mergers by Supervisory Unions and Districts?

Approximately one quarter of the Superintendents reported some interest by their respective boards in exploring mergers. The number of SUs in which boards appear interested in mergers is approximately equal to the number reporting no interest. Thirteen Superintendents (26%) indicated that their boards wished to explore the merger of districts. Of these, two (Colchester and Windsor Central) did not yet have entries in the previously described contact database. An additional 14 Superintendents (28%) reported that their SU board was *not* interested, three of

² The two key questions included (a) “Does the SU board wish to explore the merger of districts within the supervisory union or with one or more districts outside of the supervisory union, or both, under the terms of Act 153?”, with a checkbox for “Ongoing Discussions” in addition to “Yes and “No” responses; and (b) “Have any district boards in the supervisory union had discussions about possible mergers”, with options for “Yes” and “No”. Each of these questions was followed by an open ended response, “If Yes, briefly describe the discussion”.

whom said that discussions were ongoing (the other 23 Superintendents did not answer yes or no). All but three Superintendents reported (94%) that his or her board had met to discuss mergers, based on reported meeting dates.

With respect to discussions occurring among districts, 38 respondents (76%) reported that district boards have had discussions about possible mergers, while eight (16%) indicated they have not.

Table 2. Merger Activities Reported by Superintendents (50 of 60 responding)

	N	%
Discussion reported	47	94
Interest in exploring merger	13	26
Ongoing discussions	29	58
District board discussions reported	38	76

Open-ended Comments Concerning Merger Discussions: Supervisory Unions

The following table summarizes the open-ended comments concerning merger discussions by *supervisory union* boards. Out of these responses, themes emerged including the content of the discussions, interests/benefits in mergers, and concerns/barriers associated with mergers. More often the superintendents would report that discussions had occurred, but were not often detailed in what those discussions sounded like or included (5 responses).

Table 3. Comments on SU Merger Discussions

<i>Theme</i>	<i>Subtheme (frequency mentioned)</i>	<i>Example</i>
Discussion Content	Action steps/Planning (n = 10)	“SU board voted unanimously, and the local boards... each voted to apply for the study money from the DOE and to advance the work”
	Collaborative Options (n = 6)	“Discussed new areas for collaboration such as sped, transportation, maintenance, Title 1 targeted assistance, SU preschool, teacher contracts”
	Financial (n = 4)	“All boards know the financial picture and the realities of declining enrollment”
	Control (n = 4)	“There was not financial gain beyond initial tax breaks that raised the level of interest for local districts to give up further authority”
Interests/Benefits	Resources (n = 3)	“Board would like to continue to gather information about working together regarding supplies, bulk purchasing, food service, educational opportunities, collective bargaining, etc”

	Collaborative (n = 2)	“The board decided to engage in a Collaboration Study to explore possible ways of increasing student opportunities and finding efficiencies, both instructional and operational”
Concerns/Barriers	Financial (n = 2)	“Concerned with higher tax rate if we join another district”
	Control (n = 3)	“Boards do not have interest in giving up autonomy”
	Quality of Services (n = 2)	“Also had values discussion when considering the future of education in (supervisory union)”

Open-ended Comments Concerning Merger Discussions: District Boards

The following table summarizes the open-ended comments concerning merger discussions by *district* boards. Again, Superintendents generally responded in a very brief fashion to inquiries about how District Boards were engaged in merger discussions (8 responses only acknowledged the fact of discussion). Some noted the stage or phase of their discussion. Perhaps of greater interest is the identification of some barriers to further discussion, including the limited capacity of superintendents to identify savings or elucidate tax rate implications *after* the implementation of a merger. Some identify political concerns, namely the loss of decision making authority by the local boards.

Table 4. Comments on District Merger Discussions

Theme	Subtheme	Example
Content and Planning	Further Exploration (n = 9)	“Process is ongoing and deliberative and includes district and SU boards”
	Voluntary Options (n = 4)	“... What possible cost savings things they could possibly consider rather than merge together as one”
	Becoming a RED (n = 3)	“All districts within the SU Board has discussed the possibility of forming a RED”
Resistance Creating Roadblocks	Financial (n = 5)	“... Hard to explain the benefit of this as the effects on an equalized tax rate, as well as the other incentives, is not exactly clear”
	Operational (n = 4)	“...What are the educational benefits?”
	Control (n = 3)	“They are concerned about giving up the Town Boards and their decision making authority”
Creating Momentum for Discussions	Alternatives/Flexibility in Voluntary Consolidation (n = 7)	“Maybe if one school offers a course and the other doesn't- allowing some students to attend, etc.”
	Further Exploration (n = 3)	“All district boards have voted to form a planning committee”
	Community Engagement (n = 3)	“All five districts have held at least one community forum”

Recommendations to Support Merger Discussions

A final question asked the superintendents to share any other thoughts they had regarding the mergers. Many of them offered recommendations for how to support further conversations and exploration concerning mergers. Recommendations included:

Table 5. Additional Recommendations

<i>Legislative changes</i>	<i>School Choice for high schools</i>
	Mandate SU’s becoming REDS
Support for understanding the process	Clearer understanding of the law
	Have facilitated meeting with DOE member present
	Central location that provides Q&A opportunities, step by step process information, updated statistics and research
	Streamline/simplify the process
Financial Incentives	For mergers
	For further study to determine next steps

The open-ended survey responses are informative but should be interpreted broadly. They varied in specificity and scope, and in some cases it appeared that superintendents may not have differentiated between the supervisory union and district levels when answering the two open-ended questions. For example, five respondents provided the same responses for both questions.

Conclusions

Based on the preliminary research, it is apparent that Act 153 has generated a substantial level of activity in its first year. Although only two mergers have progressed to a community vote, fourteen supervisory unions reported that studies had been approved or were underway. Ten others are exploring joint agreements. Given the likelihood that additional merger activities will be initiated in the coming year, the continued study of the process will be critically important to ensure that SUs and districts can take fullest advantage of the early lessons learned. A second urgent priority in the coming year will be the establishment of baseline measures so that the long term effectiveness of the Act can be evaluated.

Part II. Research Plan

No state funding has been allocated to support Jeffords Center research. Within its operating parameters, the Jeffords Center can sponsor research activities with its own funding and has done so to support the initiation and preliminary analyses of Act 153 activities presented in Part 1 of this report. The Jeffords Center was initiated by a 2007 grant from the U.S. Department of Education with a mission of support for policy development in the areas of education, health care, the environment and good government. Until its core grant expires in June, 2013, the Jeffords Center will at minimum contribute sufficient funds and staff time as available to allow the project to continue at a minimal level. However, a successful outcome will require supplemental funding from other sources (e.g. the Vermont Legislature, the Vermont and/or US Department of Education, nonprofit foundations and/or Federal agencies).

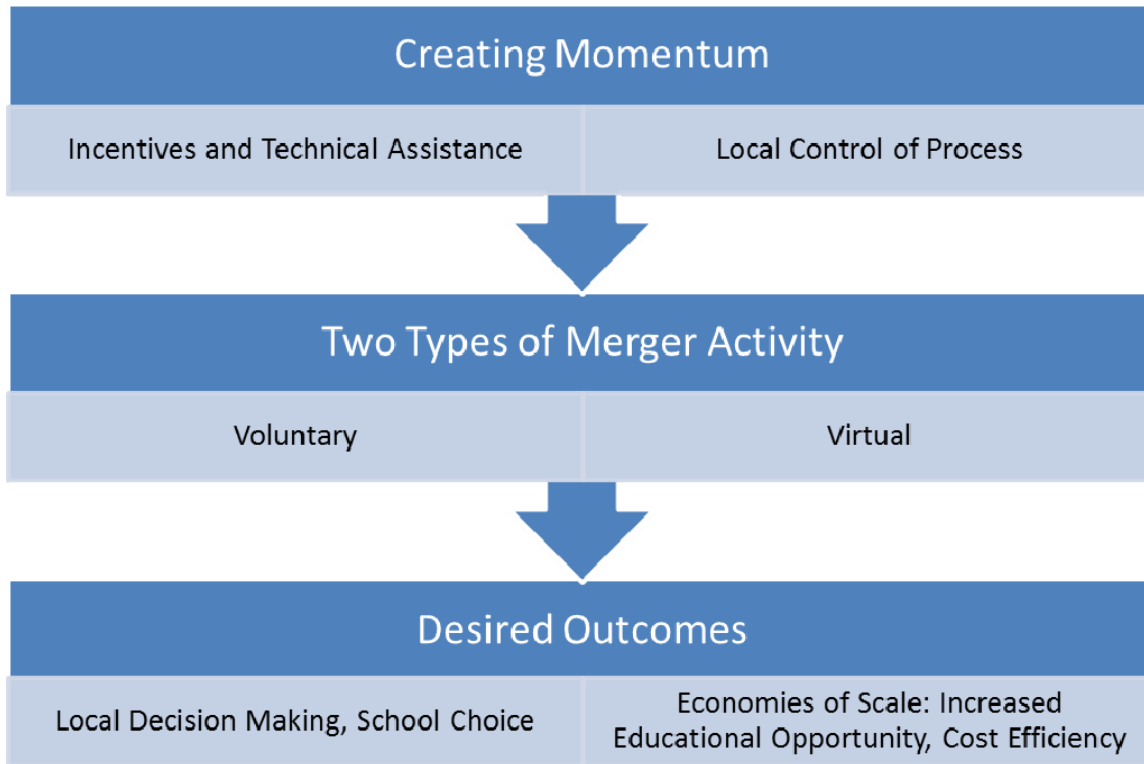
What follows in Part II is a research plan that is the core of a proposal for external funding, which the Jeffords Center plans to submit to the US Department of Education, Institute of Education Sciences (CFDA 84.305E-2). This plan substantially exceeds the preliminary budget sponsored by the Jeffords Center, but is designed to complete the evaluation activities specified in Act 153 consistent with the highest possible standards. Other sources, such as private foundations and state funding, will also be explored. In the absence of external funding the Jeffords Center will conduct a more limited analysis based on secondary data sources (current funding is assured only through June 2013).

Research Questions

The “Findings” (Sec. 1) of Act 153 describe the benefits expected by the legislature and the mechanisms by which those benefits will be achieved. Each finding implies a “theory” for which we need to ask two pairs of key questions: (a) Did the specified *procedures and activities* occur as planned, and if not, to what extent did they deviate from expectations?; and (b) Were the specified *expected outcomes and benefits* realized, and if so, to what extent, under what circumstances, and for whom? The following figure provides a simplified representation of the

expected process and outcomes to be evaluated with respect to Act 153 implementation by Vermont Supervisory Unions and Districts:

Figure 1. Elements to be evaluated.



Each component of the preceding figure implies a specific research question or set of research questions. These questions can be categorized in terms of both formative (process-based) and summative (outcome-based) components, which are summarized below. Our approach is guided by “realist evaluation” principles,³ which simply means that we seek to (a) identify and understand the key *mechanisms* by which Act 153 objectives will be achieved; (b) the variation of those mechanisms across different *contexts*; and (c) explain the *outcome patterns* in terms of the expected mechanisms and empirical observation. The following list represents the primary research questions that follow from the findings of Act 153:

Process-Based Research Questions

1. Were all components of Act 153 implemented as defined in the law?
2. How many and which SUs and districts implemented or discussed merger activities?
3. To what extent have school districts implemented contracts for resource sharing through “virtual mergers”?
4. In what ways did implementation differ from the terms and conditions of the Act?
5. To what extent did implementation of the act deviate from the specified conditions? What was the cause of the deviation?
6. Has achievement of planned outcomes been affected by any deviations or changes to the Act as originally specified?

³ Pawson, R & Tilley, N. (1997) *Realistic Evaluation*. Thousand Oaks, CA: Sage Publications.

Outcome-Based Research Questions

1. Have educational opportunities increased as a result of school district mergers?
2. Have school district mergers resulted in increased economies of scale?
3. Have costs for personnel assignment and resource management been reduced?
4. What is the relationship between merger activities and changes in educational costs at the local level as well as for the entire state?
5. To what extent has the Act resulted in changes in school governance?
6. How have voluntary and virtual merger activities affected local authority over schools?
7. Has Act 153 increased access to adequate evaluation metrics for schools and governing units?
8. To what extent have voters had the opportunity to affect local decisions about school governance?

Summary of Research Methods: Minimal Design

In the event that external funding cannot be secured, we will implement a limited research plan that can be accomplished within the time frame and overall resource limitations of the Jeffords Center’s core funding. All of these activities are included in the intended scope of research for which we are seeking funding, and are described more fully in the following section. Whether or not external funding is secured, the Jeffords Center is committed to carrying out the following activities through June 1, 2013:

Table 6. Activities for Minimal Research Design

<i>Year</i>	<i>Activity</i>
2010	Develop research plan
	Analysis of preliminary survey data
2011	Prepare and submit proposals for external funding
	Identify and compile measures of educational opportunity, academic performance, and educational costs.
	Conduct 3 focus groups with district personnel.
2012	Continued updating of identified measures; no primary data collection
2013	Summative analysis of secondary measures.

The focus group research (described below) will be conducted using existing Center funds. However, additional primary data collection activities such as surveys, exit polling or additional focus groups, and all activities occurring after June 1, 2013, will depend on our ability to secure external funding.

The summative analyses will include a complete description of what is known regarding merger activities and outcomes to date, but will necessarily be less extensive than the plan detailed below because of the limited number of time points available for analysis. Some statistical conclusions will still be possible regarding effects in the earliest districts to merge, but we may not be able in this case to provide definitive answers that can be generalized across the entire state.

Summary of Research Methods: Fully Funded Design

In the following section we summarize the complete methodology that will form the basis of proposals for external funding. If the proposals are successful and activities can be funded for the entire period (2010 – 2018), we will carry out the following research scope in its entirety. We anticipate that these elements will be modified based on the number of districts that pursue mergers, the availability of data, and the level of funding. As such, the research plan is designed to expand as needed, given an unknown number of mergers.

In the formative component, we will use descriptive methods to evaluate the process by which districts consider the possibility of merging, how they come to a decision to merge or not, and the experiences of educators and staff. Starting in CY 2011, we will conduct focus groups and surveys; exit polls for selected district elections; review administrative reports, and collect all available documentation of the merger process.

Between 2012 and 2017 we will carry out repeated administrations of surveys and focus groups, and compile case study descriptions of each merger that occurs. We will adapt the *Concerns-based Adoption Model* (CBAM⁴) to understand the trajectories of organizational change among merging districts and supervisory unions. In this framework, organizational change is described according to a predictable progression of stages, which can be assessed using well established methodologies

During the final year of the project (2017-2018) we will also conduct a summative analysis. We anticipate using an interrupted time series approach to evaluate the effectiveness of the mergers that do take place in terms of educational costs, student achievement, and the perceptions of educators and parents. We will compare measures of cost per pupil, total cost, and achievement between districts that choose to merge and those that do not, using repeated-measures linear models to assess differential changes over time. In CY 2011 we will work with all stakeholders to fully specify these models, and to identify and compile all of the specific data elements that will be needed.

Table 7. Formative and Summative Evaluation Methods

<i>Formative (process) measurement</i>	<i>Summative (outcome) measurement</i>
Records of departmental contacts, demographic profiles of SUs and Districts.	Academic performance measures (NECAP).
Surveys of district administrators and the general public.	Availability of curricula, services, and infrastructure (SQS).
Focus groups with school administrators ² .	Educational spending measures, e.g. average spending per equalized pupil.
District elections – exit polling and analysis of statewide results	Community level outcomes: property tax rates, housing prices, SES
Case Study Narratives	

⁴ Hall, G. & Hord, S. (2006). *Implementing Change: Patterns, Principles, and Potholes*. Boston: Person.

Initial Data Collection

In the upcoming year, the Jeffords Center will initiate several baseline research activities to further develop the preliminary research described above. We will:

1. Identify, compile, and report on measures of educational opportunity, academic performance, and educational costs.
2. Conduct repeated surveys of Superintendents and key staff.
3. Conduct 3 focus groups with district personnel.
4. Conduct exit polls of selected local elections.

Measuring changes in educational opportunity, academic performance, and costs

For each area of evaluation, we have identified the primary measures that will be used to answer these research questions. Appendix A presents a table showing a summary of the measures and data sources that will be needed. As noted above, we will meet with staff from the Department of Education, educational administrators, and other stakeholders (including but not limited to, the Vermont School Boards Association, Vermont Superintendents Association, Vermont Principals' Association and the Vermont National Education Association) to fully specify the measures and analytical models that will be needed to complete a comprehensive summative analysis of the costs and benefits of merger activities.

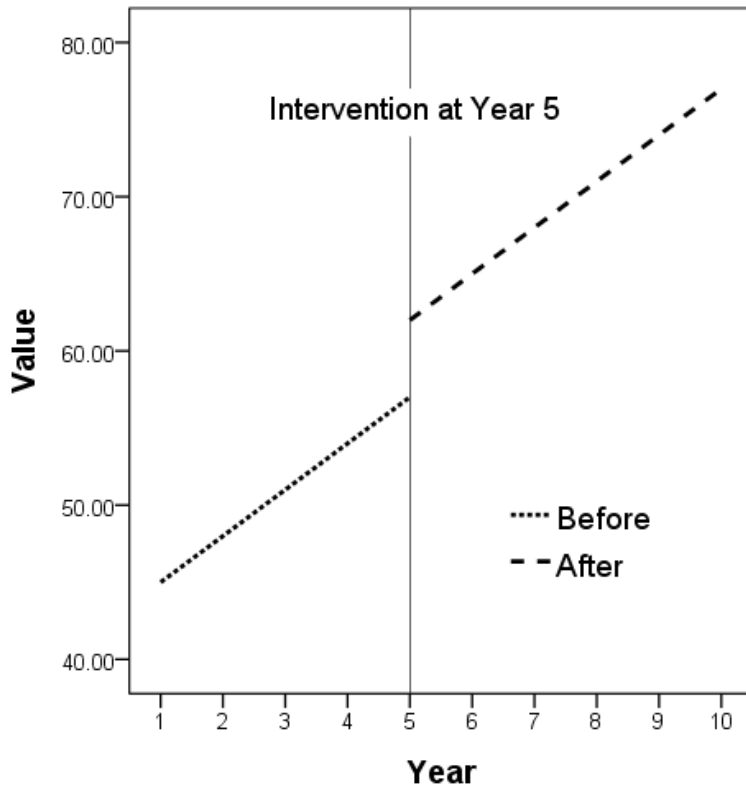
Our main analytical strategy will be to compute interrupted time series models^{5,6} comparing the values of outcome measures before and after an intervention by evaluating changes to the slope and intercept point of the best-fitting regression line at the point of intervention while controlling for the effects of other potential influences. A stylized example of the type of comparison evaluated in an interrupted time series model is shown in Figure 2 (following page).

These analyses will be more complex in actual practice, as not all measures will be available at all time points, the point of intervention will be different in each case, and effects will not occur immediately but rather will unfold over varying periods of time. The major potential threats to this type of model include limited availability of reliable measures, complete data for the outcomes to be modeled and the occurrence of historical events which may be unrelated to the purposes or mechanisms of the policy. Additionally, such analyses can be challenging when there are too few units of analysis to support the regression models' assumptions. For these reasons we plan to secure consulting assistance from a nationally recognized expert on the analysis of interrupted time series models in school mergers.

⁵ Shadish WR, Cook TD, Campbell DT. (2002)..

⁶ Duncombe, W. & Yinger, J. (2007). Does School district consolidation cut costs? *Education Finance and Policy*, 2 (4), 341 – 375.,

Figure 2. Interrupted Time Series Model.



The quantitative evaluation of the explicitly hypothesized effects of Act 153 will provide the most definitive statement possible about what has and has not been achieved during the research period. For this reason the identification and compilation of the needed measurements will be among the most critical activities to be conducted. A successful analysis will depend on a sustained effort by the Department of Education, supervisory unions and other stakeholders to continue the extraordinary and effective cooperation that has marked the initial stages of this project.

Focus group research

The results of the preliminary survey show that a deeper understanding of the reactions of districts to Act 153 is needed in order to help encourage future merger activities while maximizing the likelihood of success for those already in progress. The central research questions for this component will be: *How are districts responding to Act 153? What are the factors that are either aiding or hindering a district's pursuit of governance reform?*

School organizations, like other organizations, may or may not respond in a similar fashion to state policy depending on a range of factors including the incentive structure for implementation or change, the social system of their organization, local political support, their interpretation of

the policy itself, and even their attention to more diffuse, symbolic criteria. In this research component, we will address these issues with reference to theories of diffusion of innovation and of organizational change^{7,8}.

We will group school districts into one of three categories: early adapters, fence sitters, and uninterested in governance reform. A sample of districts from each of these categories will be invited to participate in a three hour focus group. These focus groups will be comprised of about 3 superintendents, 3 district business managers, and 3 school board chairs. The size of each focus group should be about nine. Focus group participants will encompass representatives from across the state to ensure geographic diversity. The goal of this phase of the research will be to formulate a sense of the general perceptions that each of these kinds of groups has toward governance reform as well as particular factors that are influencing or hindering the pursuit of governance reform in those districts that are represented.

The first group will be composed of *Early Adapters*—personnel from districts that are actively pursuing governance reform. Questions to be addressed include, but are not limited to the following:

1. To what extent was governance reform a part of your district's planning prior to Act 153?
2. To what extent did Act 153 serve as a trigger for pursuing this reform?
3. Describe how the conversation about governance reform went in your district. What was the tone and substance of the conversation?
4. Many other districts have opted to not pursue governance reform at this time. What factors in your own districts contributed to your decision to pursue this?
5. What tensions or conflicts have surfaced for your district as you pursue this reform agenda?
6. What kind of external supports are you getting, and what kind of external supports do you need?

The second group will be composed of *Fence Sitters*—personnel from districts personnel that have considered governance reform, but have not actively pursued a reform agenda yet. Questions to be addressed include, but are not limited to the following:

1. To what extent was governance reform part of your district's planning prior to Act 153?
2. Describe how the conversation about governance reform went in your district. What was the tone and substance of the conversation?
3. What external supports and/or other external factors are needed before your district is prepared to actively pursue a governance reform agenda?
4. What incentives could the state offer to advance a reform agenda in your district?

⁷ Pemberton, H. E. (1936). The Curve of Culture Diffusion Rate. *American Sociological Review*, 1 (4): 547-556.

⁸ Strang, D. & Meyer, J.W. (1993). Institutional Conditions for Diffusion. *Theory and Society*, 22: 487-511.

5. How is “virtual merger” of services into the SU being handled?

The third group will be comprised of personnel from *Uninterested Respondents* that have rejected the idea of governance reform. Questions to be addressed include, but are not limited to the following:

1. Describe how the conversation about governance reform went in your district. What was the tone and substance of the conversation?
2. What are the chief concerns in your district about governance reform?
3. What are the reasons that your district is giving to keep the status quo?
4. How is “virtual merger” of services into the SU being handled?
5. Do you anticipate that this process will reengage your constituencies in a conversation about governance reform?

Transcripts from each focus group will be created and coded following a robust inter-coder reliability protocol. Results will be compiled in a separate report.

Survey of superintendents and district staff

As with the focus groups, we believe that the preliminary survey results indicate a need for more comprehensive information concerning the merger process as it unfolds in supervisory unions. Drawing on the results of the focus group research, we will develop a longer, structured questionnaire for superintendents, business managers, and officials at the district level. In future years the survey will be extended to school principals, teachers, and parents if sufficient resources can be identified. Answers to the core questions to be asked in the survey will be compiled in parallel to the process of identifying quantitative measures for summative analysis, and the same stakeholder groups will be consulted. Factors to be assessed include:

1. Current status of any merger activities
2. Quality of past and current discussions by supervisory union staff, district staff, and the general public at different stages of the merger process
3. Stages of concern based on the CBAM model (terms will be adapted to better fit the context of the voluntary merger process):
 - a) Non-use
 - b) Orientation
 - c) Preparation
 - d) Mechanical Use
 - e) Routine Use
 - f) Refinement
 - g) Integration
 - h) Renewal
4. Facilitators and roadblocks in the merger process
5. Effects of merging on local control of schools
6. Perceptions of cost efficiencies
7. Effects on educational opportunities and performance.

The survey questionnaire will be carefully pretested and professionally designed in order to maximize response. Subject to availability of funds, monetary incentives will be offered as a token of appreciation for respondents' limited time.

Exit polling

Undergraduate students participating in the Vermont Legislative Research Service will participate under the direction of Dr. Anthony Gierzynski, Associate Professor of Political Science. VLRS students will conduct exit polls in selected communities in which mergers are decided by ballot at district and town meetings, and will prepare brief reports of results for the benefit of legislators. Should there be a sufficient number of community votes, we will also analyze statewide results.

Ongoing Data collection, 2012-2017

Survey and focus group activity will continue for the entire study period. These activities are provided only in summary form, as we expect the focus of specific activities to be adjusted as we continue to develop our research proposal in the coming months.

Two activities will be completed on a recurring but irregular basis, depending on current merger activity:

1. We will conduct additional focus groups with staff of newly created REDS.
2. We will conduct exit polling in districts and supervisory unions where new mergers are on the ballots.

Two activities will be completed on a biennial basis, starting in 2013 and continuing in 2015 and 2018:

1. The survey of superintendents will be repeated for all supervisory unions.
2. We will commission survey research on public attitudes and opinions in collaboration with the UVM Center for Rural Studies (CRS). This work may take the form of questions added to the annual CRS "Vermont Poll".

The final two activities will be conducted annually:

1. We will compile and update narrative case study descriptions of all merging districts. These studies will be based partly on the other data collection procedures, and partly based on semi-formal interviews to be conducted with key administrative staff members and stakeholders. We will employ a "Goal Attainment Scaling" (GAS) method⁹ on an annual basis to evaluate progress towards goals specified in the initial study reports submitted to the Department of Education prior to the creation of each RED. In GAS, a common framework for evaluation is developed around progress towards the individualized goals of a diverse set of individuals or organizations.

⁹ Kiresuk, T.J. & Sherman, R.E. (1968). Goal Attainment Scaling: A General Method for Evaluating Comprehensive Community Mental Health Programs. *Community Mental Health Journal*, 4(6): 443 – 453.

2. All summative outcome measures will be updated from Department of Education records.

Final summative report

The final year of the project will be dedicated to the final summative analysis and reporting, so there will be no data collection activities. Several meetings will be held with stakeholder groups to verify the data and conclusions of the summary analysis prior to the release of the final report to the Legislature.

Appendices

- A. Findings and Measures

Appendix A: Preliminary List of Measures for Act 153 Findings

<i>Finding (Sec. 1)</i>	<i>Process Measures</i>	<i>Outcome Measures</i>
1A. Voluntary mergers will support increased educational opportunity for all students	Documentation of merger activities. Case study narratives	Results of School Quality Standards (SQS) reports and Commissioner’s recommendations. Student-to-teacher ratio.
1B. Voluntary mergers will support increased economies of scale.	Documentation of merger activities. Case study narratives	Numbers of students, teachers and staff within administrative units. Average spending per equalized pupil.
1C. Voluntary mergers will support increased cost efficiencies available in personnel assignment and the management of resources	Documentation of changes to personnel assignment and resource management staffing within administrative units.	Administrator-to-teacher ratio. Student-to-administrator ratio. Spending per administrator and total administrative spending.
2. Providing incentives, technical assistance, and statutory changes to encourage mergers will allow governance changes while preserving authority of voters to make local decisions.	Documentation of incentives and other assistance provided. Analysis of statutory changes. Case study narratives.	Demonstrated governance changes and documentation of decisions decided directly or indirectly by local elections. Case study narratives.
3A. Voluntary mergers will assist schools and education governing units to obtain meaningful evaluation metrics.	Documentation of merger activities. Case study narratives.	Availability of data for comparing local, national, and international student performance, exposure to opportunities, and education costs. Case study narratives.
3B. Voluntary mergers will provide voters opportunities to make local decisions regarding school choice and other enrollment options.	Documentation of merger activities. Survey and focus group studies of voter perceptions regarding school choice. Case study narratives.	Documentation of decisions decided directly or indirectly by local elections.
3C. School choice is recognized as a significant part of the Vermont elementary and secondary school system.	Occurrence of initiatives and activities with the stated intention of furthering school choice in Vermont.	Availability of school choice in all schools and administrative units.
4. Encouraging education units to enter into contracts to share resources through “virtual mergers” will help to reduce costs, improve educational outcomes, and eliminate barriers to increased efficiency.	Number of contracts negotiated and implemented within administrative units and statewide. Case study narratives.	Spending per pupil, teacher, and administrator. Educational outcomes measured by NECAP scores. Reports of efficiency barriers identified by SQS reports and through surveys of school administrators.