



A Study of the Use of Paraprofessionals to Deliver Special Education Services in Vermont Schools

Final Report Brief

A Study conducted in cooperation with the Vermont Agency of Education for the State of Vermont Legislative Joint Fiscal Office on behalf of the Vermont General Assembly.

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I. Introduction

The University of Massachusetts Donahue Institute (UMDI) Applied Research and Program Evaluation group was engaged to conduct a study of the use of paraprofessionals to provide special education services in Vermont public schools. The study, cosponsored by the Vermont Agency of Education (AoE) and the Vermont Legislative Joint Fiscal Office (JFO), was conducted from July 2014 through March 2015. It was intended to enhance public understanding of the role and impact of paraprofessionals, as well as of the conditions surrounding and influencing their use in the delivery of special education services in Vermont public schools.

The decision to commission this study was catalyzed by important, ongoing discussions within and between Vermont state government and the Vermont AoE regarding the need for quality and efficiency in the delivery of educational services. Interest in this subject was informed by knowledge that Vermont makes extensive use of paraprofessional educators. Paraprofessionals often play a prominent role in service to students with special education needs. In May 2014, UMDI responded to a competitive JFO request for proposals with a research plan focused on several specific questions of interest to the State. These questions framed the study design and focus.

As described in this brief, analysis of stakeholder data suggests that there is an emergent typology comprising patterns of use with regard to paraprofessional roles in the delivery of education to students with special needs. The intensity and nature of paraprofessional use does vary across locations and the factors that drive use are multiple and complex. Student achievement does show statistical association with paraprofessional use, but the phenomena of achievement and influence of poverty, among other factors, add complexity to findings. Similarly, patterns of paraprofessional use appear to be associated with behavioral outcomes, but reported data quality issues suggest great caution should be used in interpreting this analytic result. Beyond these core findings, inquiry revealed tremendous commitment to improving special education, not only through consideration of the role of paraprofessionals, but through a broader view of how the special education delivery system can best be structured to meet student needs.

This study contributes new knowledge collected through systematic procedures that illuminate statewide practices, attitudes, and beliefs. Findings are, perhaps, most appropriately viewed as preliminary analyses of outcomes associated with specific patterns of paraprofessional use. While this represents important progress, some questions remain only partly answered while other important questions were not part of the intended inquiry. For example, this study did not include an economic cost-benefit analysis component, which may be of great interest to many stakeholders. There is an understandable interest in such analysis, given resource constraints confronting the state. However, questions related to spending and cost efficiency were not in the scope of this investigation. Having identified emergent patterns of paraprofessional use, such a study may now be feasible. As illustrated by this study, however, such an effort will require careful planning and assessment of the quality and accessibility of relevant data.

Acknowledging both the strengths and limitations of this study, which attempted to answer very complex questions in an abbreviated time period, it is hoped that it will provide new clarity as to what is occurring in the field and why; and thereby aid policy and planning through better, if imperfect, information. Further, the preliminary findings presented in this study's outcomes analyses may already begin to inform thinking regarding what next steps will enable a more definitive answer to the essential question of how special education delivery can best be structured to support positive student outcomes, as well as of the ideal role of paraprofessionals within that broader system. If nothing else is clear, it is that both the state and many individual supervisory unions and schools are deeply engaged in this critical issue, working to develop best case scenarios for educational quality and efficiency.

The findings articulated in this brief draw on extensive analyses of a broad range of study data collected over a five-month period, as presented in the detailed methodology provided in the Final Evaluation Report, scheduled for release at the conclusion of this study. For the purpose of this report it is important for readers to be aware of the data sources that support study findings. These include: review of relevant policy documents and Vermont-focused research reports; initial informant interviews with AoE staff, JFO staff, and superintendents and special education administrators from five supervisory unions; site visit and phone interviews engaging a range of school and district/supervisory union personnel, as well as parents and some board members from four schools; extensive surveys sent to all Vermont public school superintendents, special education directors, principals, teachers, and paraprofessionals; and analyses of AoE-provided student achievement (NECAP) and behavioral incident data.

Statewide surveys were completed by 3,385 educators, with counts and response rate by educator type presented in Table 1 below.

Table 1. Statewide Survey Response		
Stakeholders	Completed	Response Rate
Superintendents	46	74%
Special Education Directors	45	75%
Principals	192	61%
Teachers	2,170	28%
Paraprofessionals	1,382	43%

II. Understanding Patterns of Paraprofessional Use

Findings in this section integrate quantitative analysis of closed-ended survey responses and qualitative analysis of interviews and open-ended survey responses. Overall, reports of paraprofessional use and decision factors that influence how paraprofessionals are used were consistent across groups of survey respondents (superintendents, special education directors, principals, teachers, and paraprofessionals). Viewed holistically, the data yield important findings for consideration by policy makers, education officials, and education practitioners.

How Paraprofessionals Contribute to the Delivery of Special Education Services

Roles and responsibilities: What do paraprofessionals do?

Paraprofessionals play a variety of roles in their school: managing materials, collecting data, providing one-to-one and general classroom support, monitoring IEPs and 504 plans, and providing direct instruction. Interview and survey data suggest that, in the context of one-to-one supports, paraprofessionals provide personal care, academic, and behavioral support. Paraprofessionals work with students with many different special needs, and they assume a wide range of responsibilities, including in some instances having primary responsibility for instructional planning, behavioral planning, and managing students' behavioral issues.

Certain roles and responsibilities described above may appear to extend beyond the expected purview of the paraprofessional. Indeed, some administrators remarked (in interviews and surveys) that paraprofessionals in their schools and districts/supervisory unions are *not* purposefully engaged in certain roles, such as providing direct instruction. Statewide, however, the data suggest that such practices are fairly widespread. For example, more than two-thirds of stakeholders report that paraprofessionals monitor IEPs, have primary responsibility for instructional planning and behavioral planning of IEP students, provide direct instruction to IEP students, and have primary responsibility for managing IEP students' behavioral issues. Slightly more than 80% of paraprofessionals reported that they are providing direct instruction at least some of the time to students with IEPs.

Overall, paraprofessionals themselves expressed ambivalence about the roles they play in their schools. While interviews and survey responses reveal a strong pattern of professional pride and job satisfaction, responses also suggest that they feel under-appreciated. Low rates of compensation, exclusion from IEP meetings and other opportunities to share expertise, and insufficient or irrelevant professional development were cited as factors that often diminish these educators' job satisfaction and comfort in their roles.

“As part of my job, I need to be able to learn and then teach a wide variety of content and work with some very challenging students. My direct supervisor is very supportive, but I feel that the administration views all of us para-educators as interchangeable and easily replaceable. I do not feel that my profession is at all valued even though we have many different strengths, work with students with behavioral and emotional problems, and provide them with access to their educations. Our pay certainly reflects that.”
(Paraprofessional)

Paraprofessional “density”: To what extent are paraprofessionals used in Vermont’s public schools?

Based on statewide survey data, use of paraprofessionals is described in terms of density—the number of paraprofessionals in relation to the total number of students in a school: About 25% of schools are using less than 3.2 paras per 100 students (low paraprofessional use), and 25% of schools have more than 5.5 paras per 100 students (high paraprofessional use). The discussion below explores factors that influence administrators' decisions whether and how to use paraprofessionals. It is noted here that statistical

analyses suggest certain relationships between density of paraprofessional use and other factors. First, there are relationships between paraprofessional use and the size of the school and the socio-economic status of the student population: As the size of the school increases, so does the density of paraprofessionals, particularly those who deal with behavioral issues. This means that larger schools tend to have more paraprofessionals per student than do smaller schools. Likewise, as the poverty level¹ increases, the overall density of paraprofessionals increases.

There is also a relationship between density of paraprofessionals and school-wide behavior programs. As the reported consistency of implementation of school-wide behavior programs increases, paraprofessional use decreases. This relationship is not based merely on presence or absence of a program, but rather the consistency of implementation across the supervisory union. In the same way, schools that provide consistent supervision of paraprofessionals appear to use fewer paraprofessionals.

Factors that Influence Decisions regarding the Use of Paraprofessionals

The study reveals that a wide range of factors influence administrators' thinking and decision-making processes regarding whether, when, and how to engage paraprofessionals. These factors span the philosophical and conceptual, and the pragmatic and cultural.

The most appropriate support

Survey results show that the factor that most commonly influences administrators' decisions to use a paraprofessional is the belief that a paraprofessional is the appropriate support for the student in question. About half of administrators responding to the survey reported that this factor influences their decision to a large extent.

Again, a range of perspectives are embedded within the survey responses. In some schools, paraprofessionals are reportedly hired to meet specific aspects of a student's education plan and a process is implemented to ensure that the paraprofessional is indeed the most appropriate support. In this way, the process starts explicitly from the students' unique educational needs. In other schools, administrators and educators cite, for example, the emotional connection that a paraprofessional has with a student, sometimes as a result of years of working together; the paraprofessional's ability to repeat instructions and guide students through tasks as a result of having spent time in the same classroom and acquired knowledge of the curriculum; and the specific characteristics that individual paraprofessionals bring to the job, including certified teachers who, for various reasons, do not hold full teaching jobs.

Flexibility and expediency

Another influential factor driving the use of paraprofessionals is the reality that they offer flexible and expedient solutions to staffing and support needs. Administrators can deploy paraprofessionals to multiple purposes, their period of employment can vary, and paraprofessionals can provide an immediate response to temporary or unanticipated situations. Administrators explain the value of such a flexible and expedient solution in instances related to family mobility, unanticipated spikes in their special education population, and unexpected or long-term staff absences.

¹ For the purpose of this study, poverty was measured by the percentage of students eligible for free and reduced price lunch.

Responding to student behaviors

Overall, study participants perceive that behavioral incidents are on the rise across the state and that the seriousness of those behaviors is increasing. Paraprofessionals appear to be playing a key role in administrators' efforts to manage behavioral challenges. The study highlights a few influential decision factors related to paraprofessional use and behavioral challenges.

More than half of surveyed administrators reported that their school, district, or supervisory union serves a disproportionately large percentage of students with behavioral problems and that paraprofessionals contribute to a school environment conducive to learning. Further, analysis reveals that relationships exist in density of paraprofessional use, type of use, and cost considerations. Analysis shows that principals who perceive that they have a disproportionately large percentage of students with behavioral issues tend to engage more paraprofessionals and that those staff are more likely to have primary behavioral responsibility for students with IEPs. Cost considerations are also of greater concern in these schools, specifically associated with the perception that paraprofessionals cost less than special educators and that direct service is reimbursable within the special education grant funding formula. These findings suggest that perceptions of a high need for behavioral support oftentimes drive hiring and deployment decisions, emphasize a focus on cost, and shape the role paraprofessionals play in schools.

Conversely, when principals perceive that their school serves a disproportionately large percentage of students with behavioral issues, the consideration that special educators are the most qualified is less influential in their decision as to whether to hire a paraprofessional. In these instances, principals show concern for maintaining safety and an environment that is conducive to learning as a foundation for providing quality educational services.

Financial considerations, including the influence of Vermont's special education funding formula

The Vermont Special Education Formula provides funding for Vermont school districts for their K-12 special education eligible costs not covered by federal or other state funds. Under this formula, the cost of paraprofessionals' time allocated to direct service is reimbursable. Special educators' costs are similarly reimbursable—time spent providing direct service is reimbursable, but time allocated to case management, paperwork processing, and other duties typically carried out by special educators is not.

There does not appear to be consensus on the effects of current fiscal mechanisms for funding special education in Vermont. This study finds that the field is fairly evenly split in terms of the degree to which the reimbursement component of the special education formula influences decision making. In surveys, about half of the administrators reported that the following consideration at least to some extent influences their decision to hire a paraprofessional: "Direct service is reimbursable, making the paraprofessional the more cost effective option." Survey comments show that some principals feel constrained by budget limitations and that the paraprofessional is preferable, given reimbursement. One principal wrote, for example, "They are cheap! Reimbursement from the state makes them easier to use." It is interesting that site visit interviewees did not mention this factor in reflecting on their decision-making practices, although some interviewees did report having been advised by their colleagues to write the need for a paraprofessional into IEPs to ensure they are eligible for reimbursement.

De-linking concerns about reimbursement and overall concerns about cost, slightly less than half of the survey respondents reported that their decision to use a paraprofessional rather than a special educator is influenced at least to some extent by the following consideration: "Paraprofessionals' compensation is less than special education teachers,' making the paraprofessional the more cost-effective option."

"The laws require the delivery of services BUT do not state who needs to provide the service so it is more efficient to hire qualified paras."
(Administrator)

Parental advocacy

Slightly more than half of the survey respondents indicated that parents' advocacy for their children, including paraprofessional support, influences their decision to use a paraprofessional at least to some extent. Interviewees echoed this finding in about equal measure.

“Culture”: Longstanding traditions have normalized paraprofessional use

A strong theme to emerge from the study was that a long-held, widely shared set of beliefs and assumptions in Vermont about how best to serve students with special needs have converged to bring about and normalize “a culture of paraprofessionals.” Study participants described ingrained assumptions and expectations among administrators, educators, parents, and community members, such that the use of a paraprofessional has become an expected component of the special education delivery system.

In surveys, administrators who indicated that district or local policies or precedents influenced their decision to use a paraprofessional, at least to some extent, commonly referred to tradition and past practices as factors in the decision to use paraprofessionals in certain situations.

“It is past practice in the writing of an IEP to write in para instruction. This is a procedure, not a policy.” (Administrator)

Examples of practices that were implemented as part of a tradition include: the routine assignment of a paraprofessional to a particular grade level, the routine assignment of a paraprofessional to provide one-to-one support to students with behavioral challenges, assignment of paraprofessionals to classrooms with a certain number of IEP students, and the assignment of a paraprofessional in response to teacher requests. One administrator commented, for example, “There’s a culture of a classroom teacher expecting to have paraprofessionals when they’re serving students on IEPs.”

Some study participants described traditions grounded in a longstanding and deeply held commitment to including students with special needs in a mainstream setting. Inclusion is a deeply held cultural value in Vermont schools and communities, they report, and commitment to inclusion has, in their view, long influenced decisions to use paraprofessionals. In some settings, they report, the belief took hold that students with special needs—academic, behavioral, emotional, or personal care—could not be included in a classroom setting without the support of a paraprofessional. Survey respondents commonly cited LRE² and FAPE³, for example, as rationale for paraprofessional use. One administrator wrote, “We try and serve all children as much as possible in the regular classroom because it is the least restrictive environment.” Another commented, “For many IEP teams the use of paraprofessionals is often the only strategy considered and applied to meet individual student needs—behaviors in particular.”

A related set of beliefs held by some of these same educators and administrators is that the paraprofessional is the appropriate support for teachers. This is a belief—notable in the context of a deeply held commitment to inclusion—that paraprofessionals are critical to an effective inclusion classroom because classroom teachers face many demands, and the paraprofessional is an “extra set of eyes and ears,” helping, for example, to reach those students that a single classroom teacher may not be

² Least restrictive environment (LRE): requirement under the U.S. Individuals with Disabilities Education Act (IDEA), that a student who has a disability should have the opportunity to be educated with non-disabled peers, to the greatest extent appropriate. <http://idea.ed.gov/explore/view/p/root/statute,I.B.612,a.5>.

³ Free Appropriate Public Education (FAPE): an educational right of children with disabilities, guaranteed under the Rehabilitation Act of 1973 and the U.S. Individuals with Disabilities Education Act (IDEA) and ensuring that children are provided aids and services that are individualized to meet their needs. <https://www2.ed.gov/about/offices/list/ocr/docs/edlite-FAPES04.html>

able to reach in the space of a single class period and/or to manage behavioral issues so that students are able to remain in the classroom without disrupting their peers.

Overall, the study paints a picture of a set of beliefs and practices that have been in place for years—a culture in which assumptions that students and teachers would be supported by paraprofessionals have become increasingly ingrained over time. Some suggest that this set of beliefs and assumptions continue to influence decisions today, even as some educators and researchers call those beliefs into question.

Decisions not to use paraprofessionals

The factor that most commonly influences administrators not to use a paraprofessional is the belief that the quality of instruction is best assured by a special education teacher. Nearly half of survey respondents shared this belief to a large extent. Additional factors include the potential negative impact of paraprofessional use on teachers' "ownership" of their classroom and their students' social experience in school, parental advocacy (calls for the highest qualified teacher to serve their child), and local or district policies and special education laws that discourage the hiring and/or use of paraprofessionals.

Interest in Reducing Paraprofessional Use

Research suggests that longstanding practices related to paraprofessional use have been called into question on multiple grounds. Researchers have challenged the efficacy and even the ethics of some of the long-held practices⁴, and, in the public arena, widespread concerns are being raised over rising costs of education (and special education in particular) in Vermont. Some educational administrators reported that they feel pressure from the state to contain their spending and/or to reduce their reliance on paraprofessionals.

Overall, survey results show substantial interest in reducing paraprofessional use: most superintendents and special education directors surveyed indicated they would like to reduce the number of paraprofessionals in their supervisory union at least to some extent. Of those who did not want to reduce the number of paraprofessionals, some already have low paraprofessional density, while some have moderate or high paraprofessional density. For those with the highest density of paraprofessionals, the majority want to reduce them only to some extent, but not to a moderate or large extent. Interestingly, of those who already have a low density of paraprofessionals, nearly half are interested in reducing to a moderate extent. Principals' interest in reducing paraprofessional use was not quite as strong as superintendents' and special educators', but was still notable. About half of the principals surveyed indicated some interest in reducing the number of paraprofessionals in their schools.

Given trending interest in reducing paraprofessional use, and some perception of entrenched practices surrounding paraprofessional use, it is important to address the question, "What are the effects of paraprofessional use?" An analysis of the effects of paraprofessional use on academic and behavioral outcomes follows.

⁴ Giangreco, M. F. & Broer, S. M. (2005). Questionable Utilization of Paraprofessionals in Inclusive Schools: Are We Addressing Symptoms or Causes? *Focus on Autism and Other Developmental Disabilities*, 20(1), 10-26.

Giangreco, M. F., Yuan, S., McKenzie, B., Cameron, P., & Fialka, J. (2005). "Be Careful What You Wish for...": Five Reasons to Be Concerned About the Assignment of Individual Paraprofessionals. *Teaching Exceptional Children*, 37(5), 28-34.

III. Effects of Differing Approaches to Paraprofessional Use on Academic and Behavioral Outcome Measures

To determine the effect of paraprofessional use on academic and behavioral outcomes, UMDI researchers created a typology (specific to Vermont schools) of paraprofessional use, distinguishing a variety of ways in which paraprofessionals are used throughout the state. Researchers used cluster analysis to statistically construct this paraprofessional use typology. Three clusters were identified.

- Cluster 1 (Academic) has low overall paraprofessional density but with most of those paraprofessionals focused on academics (37% of schools).
- Cluster 2 (Balanced) is more moderate in terms of paraprofessional density with those paraprofessionals balanced across the range of academics, behavior, and personal care functions (34% of schools).
- Cluster 3 (Behavioral) has high overall paraprofessional density with a high density of behavioral-focused paraprofessionals (29% of schools).

Although not definitive, these clusters offer a way to understand the configuration of paraprofessional use statewide, and provide a lens for present and future analysis. In the analyses and discussion that follow, it should be noted that personal care paraprofessionals are a somewhat separate category. Students serviced by personal care paraprofessionals have very specific needs that are usually met most appropriately by paraprofessionals.

Analyses of academic and behavioral outcome measures for two years (SY 11-12 and SY 12-13) were conducted using the three cluster model as a lens. These applied the most current data available to the study. It is noted that the typology of paraprofessional use relied on survey data describing conditions in fall 2014. This temporal misalignment is a recognized limitation of the study, but one that could be resolved through repeated analysis using 2014-2015 school year outcomes data when those data become available.

Please note that student impact analyses reflect the achievement and behavior of all students, not just those with special needs. This reflects limitations of the data (small school-level sample size for student subgroups; lack of student-level academic and behavioral incident data); the reality that paraprofessional use and assignments to individual students is not known; and the time and resource constraints associated with the study.

Academic Outcomes

Analysis of academic outcome data relied to a large extent on SY 2012 NECAP data. SY 2013 data are not complete, due in part to SBAC testing, and may reflect bias in self-selection for the SBAC pilot. Included in the analysis were NECAP scores for all students in reading, mathematics, science, and writing at elementary, middle, and high school levels.

The strongest relationship between paraprofessional density and academic achievement scores is a negative impact in reading achievement. As the density of paraprofessional staff increases, reading achievement scores decrease, but poverty also plays an important role in performance. The effect is greatest at the elementary and middle school level. These data suggest that every paraprofessional added at elementary or middle school will reduce reading scores on the NECAP by one point.

It is essential to acknowledge that student outcomes are complex phenomena and paraprofessionals are only one component of the total education system. Statistical analysis can estimate the contribution that individual components make to an outcome measure such as a test score. While paraprofessionals

contribute a small amount toward a NECAP score, poverty (as measured by FRL—percent of students receiving free and reduced lunch) actually contributes somewhat more. Increasing either paraprofessional density or FRL is associated with lower reading scores at a school.

When disaggregated by cluster, schools in all clusters show lower academic achievement as the density of paraprofessionals increases; however, for schools with a majority of academically-focused paraprofessionals (Cluster 1), the decrease is not as great.

Analysis of mathematics, science, and writing achievement scores yielded no statistically significant differences between clusters. To the extent that paraprofessionals have an impact on mathematics achievement scores, it is at the elementary and middle school level where there is a slight decrease in NECAP scores as the density of paraprofessionals increases.

Behavior Outcomes

Analysis of behavior outcomes was conducted using AoE's statewide data on reported student disciplinary referrals at the SU/district level during SY 2012 and SY 2013. The analysis of behavior incident data must be interpreted very cautiously due to the acknowledged inconsistency of behavior incidence reporting across the state and the preliminary nature of these analyses.

Results suggest that a relationship exists between paraprofessional density and behavior incidents such that as the density of paraprofessionals increases, reported behavior incidents go down. Increased presence of paraprofessionals tends to decrease reportable incidents, although this relationship is not statistically significant ($p = .056$). Analyses of behavioral incidence data by each of the three clusters also reveal no statistically significant differences or prominent trends either.

UMDI researchers also sought to examine any possible influence of PBIS on behavior, as measured by student disciplinary referrals. Analyses show that schools that have implemented PBIS have fewer reported behavior incidents than schools that do not participate in PBIS. While not statistically significant, there is some evidence that as a PBIS school rises from each level to the next (Basic, Certificate of Recognition, Merit School, Exemplar School), the number of reported incidents decreases.

Student Outcomes Summary

The study suggests that a typology of paraprofessional use does in fact exist within Vermont public schools, defined by the density and role of paraprofessionals with regard to special education service delivery. This typology allows for examination of student outcomes in relation to school-level academic achievement and behavioral incident levels. As noted, several characteristics of the data limit confidence in outcomes study findings and continued study and improvements to available data are highly recommended. Acknowledging these limitations, these preliminary findings suggest that greater reliance on paraprofessional staffing may have negative association with NECAP reading achievement levels, particularly at the elementary and middle school levels. Analyses related to behavioral outcomes did not reveal statistically significant differences, with the exception being that fewer behavioral incidents are reported within PBIS schools.

IV. Broadening the focus: Reframing the question

Some administrators and educators have begun to challenge the long held assumptions and traditions driving paraprofessional use, not only on the basis of efficacy, but also on other, important grounds. While they welcome examination of existing models of paraprofessional use, they suggest a reframe that alludes to a broader shift. They suggest a re-casting of the driving question: Instead of asking “In what ways and to what extent are paraprofessionals being used, and with what effects?” they suggest “In what ways and with what effects are students with special needs being served in schools across Vermont?”⁵ These leaders suggest a closer look not only at the role of paraprofessionals but also at the broader special education delivery system, with an eye toward responsibility.

“Decreasing our reliance on paraprofessionals is far more about how we educate our kids in the system.”
(Administrator)

“To fix the para problem, you have to fix structures.”
(Superintendent)

The Responsibility Question: Who’s in Charge?

Educators and administrators who call for a re-casting of the question do so largely on the grounds that practices enacted under the traditional cultural norms described above *shifted responsibility for the special education student’s care, learning, and growth away from the professionals*. Instead, prevailing practice paved the way for paraprofessionals to become, in some instances, the adults who had “ownership” of the student’s experience. These paraprofessionals often became the adults who spent the most time with the special education student; they monitored that student’s progress and gradually assumed decision-making responsibilities relative to the student’s instruction and support.

Over time, some study participants reported that these practices—traditions—became further entrenched: parents became accustomed to having a paraprofessional written into an IEP, teachers came to expect “extra eyes and ears” in the classroom, and administrators relied on the expediency and relative cost effectiveness of the paraprofessional to juggle multiple challenges and maintain a commitment to including students in the mainstream classroom. Further, in the view of some study participants, schools experienced increasing challenges, such as a growing population of students with special needs, and/or a rise in behavioral incidents—and, in light of past practice, the taken-for-granted solution was to employ ever-more paraprofessionals and/or to allocate increasing responsibility to them.

The study’s results show evidence of these patterns— to varying degrees, paraprofessionals are asked to assume roles and responsibilities that may exceed their competencies and more properly be performed by professionals (e.g., providing direct instruction, assuming primary responsibility for planning). In this light, the findings of this study’s analysis of academic outcomes are understandable. The effects of paraprofessionals on students’ academic scores is small *but negative*, reflecting not only that paraprofessionals are but one small component of the education system, but also that *responsibility may be disproportionately assigned to the paraprofessional*. If students on IEPs are perceived to be the responsibility of paraprofessionals—rather than their classroom teachers—and paraprofessionals, who are in most cases significantly less prepared to teach, provide primary instruction for students, a small negative effect as a result is understandable. It appears that the students with the most complex needs are being served by the least qualified adults. Such an approach would explain why high paraprofessional density —although it accounts for only a small proportion of a NECAP score—has some association with lower academic performance.

In this regard, the study’s survey results suggest that at least to some extent and in some instances, regular education teachers appear to be further removed than might be desirable from the experience of and

⁵ Giangreco, M. F., Doyle, M. B., & Suter, J. C. (2012). Constructively Responding to Requests for Paraprofessionals: We keep asking the wrong questions. *Remedial and Special Education, 33*(6), 362–373.

responsibility for special education students and paraprofessionals' work with them. Analysis shows, for example, that larger schools tend to have more paraprofessionals, and that the more paraprofessionals there are, the less clearly those roles are defined. Additionally, survey results were notable in that the frequency of regular educators responding that they “don't know” how paraprofessionals are used was much greater than the same frequency for special education teachers.

A Cultural Change in Process: Shifting Responsibility Back to the Special Educator and Classroom Teacher

Through interviews, site visits, and surveys, the study has found evidence of conceptual and practical change in the field: some administrators and leaders are rethinking the allocation of responsibility for students with IEPs. The study found emerging practices across the state—practices that signal a shift in thinking about and approaches to serving students with special needs, including but not limited to the use of paraprofessionals.⁶ *In these instances, the pattern is to shift IEP responsibilities from paraprofessionals to professional educators.* Some educators described the shift as a “cultural shift,” upending ingrained patterns and traditions. One principal described, for example, a process of “breaking down the SPED/regular ed. bifurcation.”

Illustrative examples of these changes enacted at the site visit schools include: the adoption of a co-teaching model; reduction in paraprofessional staffing and increased hiring of educators (special educators, general educators, specialists); reduction in the number of paraprofessionals focused on behavior and hiring of Behavioral Interventionists; revised supervisory processes; and the development of processes and systems to more clearly identify and quantify individual students' special education needs, with an eye toward providing the most effective service as determined by each student's disability.⁷

Motivation for change

A variety of factors appear to have motivated schools and their districts/supervisory unions to institute such a shift, as described below.

- Faculty professional learning (in particular, in the areas of Response to Intervention and co-teaching) and/or faculty awareness of research findings, including studies conducted by Dr. Michael Giangreco on paraprofessional use in Vermont.⁸
- Increasing attention to student data, reportedly spurring recognition that students receiving services from a special educator demonstrated better progress than students who were served by a paraprofessional and/or an acknowledgment that recent efforts to shore up tiered interventions resulted in a decline in academic special education referrals.
- Perceived pressure from the state to move toward implementation of a multi-tiered system of instruction and/or to reduce special education funding and/or to reduce paraprofessional use.

“We realized that the most deficit children were working with the least trained staff.”
(Principal)

⁶ For example, three of four site visit schools—and all four of the supervisory unions visited—are in the process of revamping their special education work. The study's sample of schools was selected according to multiple criteria but “engagement in a change process” was not one of them.

⁷ In some schools these processes included a step requiring that any request for a paraprofessional be accompanied by a rationale or justification.

⁸ Suter, J.C., & Giangreco, M. F. (2009). Numbers that count: Exploring special education and paraprofessional service delivery in inclusion-oriented schools. *Journal of Special Education*, 43(2), 81-93. DOI: 10.1177/0022466907313353

- Recognition that some traditional uses of paraprofessionals—and unclearly defined roles for special educators—have led to processes that fell far short of their inclusion goal.⁹
- Arrival of new staff, sometimes from other states, or sectors other than education, offering fresh perspectives, including acknowledgment of a higher than expected density of paraprofessionals.
- Recognition that little motivation was provided for students to exit out of special education and/or concerns about student dependency on long-term supports.
- Recognition that roles for both professionals and paraprofessionals were not clearly defined and/or recognition that paraprofessionals were providing a wide range of supports and that supervisory relationships were unclear.

Principles and strategies for change

While the specific elements of school change processes may differ from school to school, a few cross-cutting principles are apparent: a) responsibility for student progress is shared among administrators, general educators, and special educators; b) the role of paraprofessionals, if that role exists, is to implement specific strategies under close supervision of a professional; and c) student progress, including students who are served by paraprofessionals, needs to be monitored closely so that the effectiveness of interventions can be adequately assessed and modified as needed. A brief look at **three key strategies** that schools have used to operationalize those principles follows.

- ✓ Putting specific student needs at the center of the decision-making process: From “support” to “service” and from an emphasis on the *student* to an emphasis on the *disability*

Overall, educators and administrators in the schools that are reportedly pursuing change advocate building capacity at all levels of the professional cadre and developing effective tiered systems of student support. One key to this systems-building is to put specific student needs at the center of the decision-making process and to craft paraprofessionals’ roles in response to identified student needs.

In one system, for example, the shift included a closer look at the service that would best improve each student’s experience, considering how each student’s experience would be affected by specific disabilities. In this instance, the special education director distinguished between providing a *service* and providing a *support*— a re-framing of many typical conversations about how to serve students with special needs. Previously, paraprofessionals were more typically provided as a *support* to students, so that they could participate in and/or be successful in general education settings.

“We’re moving away from a situation in which a paraprofessional goes into a science class, listens to the lesson and then accommodates or helps the student finish the task. That is not specialized instruction. If the student has a writing disability, uses a stylus or a graphic organizer the paraprofessional would go in and provide that service. Or if a student has an executive function disorder, then the special educator might be using a strategy to help the student initiate, sustain and complete a task, and the paraprofessional may be in there, using that strategy.” (Special education director)

The director quoted above is leading staff through a process of identifying needed services and differentiating between them, beginning with the reminder that to qualify for special education services, students need specially designed instruction “and that *that* is the responsibility of any service in the IEP.” In this context, any service provided by a paraprofessional needs to be related to the instruction the special education teacher is providing and linked to a disability. Similarly, across these schools, interviews with special educators and administrators suggested a shift from decisions based on the

⁹ One special educator commented, for example, “Sometimes the IEP says ‘in the classroom’ but actually it’s a SPED teacher or a paraprofessional in the back of the classroom with a group! That’s not inclusion!”

personal characteristics of individual students toward decisions based on categories of disability and response.

- ✓ Moving away from overreliance on paraprofessionals and toward the development of multi-tiered systems of support

In the attempt to move away from what they perceive as an overreliance on paraprofessionals, some leaders have begun to build a system of inter-related roles. They have begun to define the roles of professionals (principals, special educators and classroom teachers) and paraprofessionals and typically conclude that a paraprofessional role is appropriate only under specific conditions. This shift has implications for the roles of the classroom teacher, special educator, and principal.

Overall, these leaders articulated a vision designed to maximize the professional expertise of each member of the educational delivery system. In this vision, each professional plays a well-defined role within a system, and the relationships between roles are clear. More specifically, their vision could be described as follows:

- Classroom teachers would possess a substantial repertoire of skills enabling them to differentiate instruction and would employ those skills routinely in order to make their instruction accessible to a wide range of students.
- Special educators would collaborate with classroom teachers to further specialize instruction, and to continue to build the classroom teachers' skill sets.
- Special educators and classroom teachers would, through varying degrees of collaboration, assess student needs and develop appropriate plans, maximizing the classroom teacher's expertise in content areas and the special educator's expertise in disabilities.
- Principals and other administrators would be well versed in special education issues (laws, service models, terminology, current research and other professional literature) and would draw on that knowledge to manage operations so that staff expertise is used and shared, and resources are employed in the best interest of students.

One system casts the classroom teacher as the *content expert* and the special educator as the *expert on the disability*. Through these processes, teachers assume ever-greater responsibility for students. One special education director explained:

The teacher should be very intentional. It's a kind of learned pattern in our system—paraprofessionals came in, were hired, and some teachers were relieved of the responsibility to be teaching all of their kids.... So for a teacher to say to a paraprofessional, "Here's my assignment; modify it," shows that *that* teacher has not thought about *that* child's needs and how and why the assignment should be modified. It's not arbitrary. We shouldn't be handing assignments to paraprofessionals who, frankly, don't know. Teachers should be intentional about what they're doing, and why, and how it will maximize the learning of all their kids.... Paraprofessionals should not be making instructional decisions... The special educator and the teacher, they're the experts, they're the ones who have the knowledge and the training, and they should be the ones deciding.

- ✓ Principals and other building-level administrators: special education expertise counts.

Leaders who possess a background in special education were reportedly better equipped to engage in these issues and make well-informed decisions, and some schools benefitted from such expertise. Across the sites, leaders of a number of schools and supervisory unions that effected change in paraprofessional staffing rates brought this background to the role. Their expertise contributed in a number of ways.

Some administrators who share this background suggest that their familiarity with special education laws equips them to engage in informed discussions about possible interpretations of the law. They believe that they are better able to make use of the district/supervisory union special educators and to provide a full consideration of options for students and their families. Also, they find that being able to discern and dismiss inappropriate options is a valuable skill.

Reflections on the change process

While the work of the schools referenced here is clearly in-progress, educators' brief reflections on the work to date offer a few preliminary indicators of the effects of change they believe is apparent.

“Fewer bodies, more expertise”: Across the set of schools that have already reduced paraprofessional staffing rates, leaders and educators reported that, while the process could be challenging, expertise was the key component in re-thinking the paraprofessional's role within a system of tiered supports. Overall, the conclusion for these individuals is that while paraprofessionals may possess important skills, they have not been trained as classroom teachers or special educators.¹⁰ Consistently, these schools valued the exposure to professionals that their students would now have.

“We had very highly trained paraprofessionals. They did all the teacher PD, they were skilled at running records but the fact of the matter is that they were not classroom teachers ... And now, we have fewer bodies but more expertise.” (Principal)

Cultural change taking hold: In some of the schools and supervisory unions under consideration, administrators report some indications that a cultural change has begun to take hold, as measured by at least one indicator—fewer teacher requests for paraprofessionals. One principal stated:

Teachers used to ask for a paraprofessional. Now they don't ask. They know that we're not going to give them a paraprofessional because of the number of IEPs in their classroom. It's a case by case decision....and we're going to look at the IEP services needed.... Paraprofessionals get placed according to student need, not teacher need.

Paraprofessional views on staff reductions: While not an explicit element of the study inquiry, two aspects of the schools' process to reduce the number of paraprofessionals were noted across the schools: the significant loss of individual paraprofessionals—including some who had long histories in their schools—was felt at the personal and professional levels; and a decline in job satisfaction among those paraprofessionals who remained. Overall, remaining paraprofessionals indicated that they had less responsibility for instructional planning and delivery after the shift, and that loss negatively influenced their perceptions of value and professional self-worth on the job.

¹⁰ It is important to note that there are in fact some paraprofessionals who hold teaching credentials who for various reasons no longer serve as teachers.

V. The Student Behavior Challenge: Varying Approaches and Trade-offs

Through interviews, site visits and surveys, the study reveals a statewide perception that behavioral incidences are on the rise in schools and that the seriousness of those incidents is increasing. Educators and administrators report that disruptive behaviors are becoming prevalent in classrooms and that safety concerns sometimes influence their decision-making. While a thorough examination of behavioral challenges and solutions is beyond the scope of this study, study participants did offer some reflection on the range of issues and strategies in place within their systems. A brief review follows.

A range of responses to the challenge are apparent, each having some implication for the use of paraprofessionals as well as the roles of other members of the school community. One approach is to employ adults to work one-to-one with students who experience behavioral challenges, typically paraprofessionals or Behavior Interventionists. Perceived benefits of the individual approach include the maintenance of a safe environment and inclusion of students in mainstream classes, while disadvantages include concerns about fostering dependence, a potential negative influence on students' social experience, and possible impacts on student learning. Some educators suggest that the individual approach to behavior management is emblematic of traditional practices discussed above, through which responsibility for the special education student was disproportionately allocated to a paraprofessional.

Paraprofessional Support

In some instances, paraprofessionals are engaged to support individual students, perhaps planning and implementing behavior plans or relying on their familiarity with individual students to fend off disruptive behaviors and maintain an environment conducive to learning. Some schools have recently offered professional development for paraprofessionals in de-escalation techniques, and while limited, reports from the field were overall positive.

“When a student presents challenging behaviors and needs, it is easy for a team to say that the child needs para educator support or a 1:1 and the Board must follow the law to approve this additional staff member. Many teachers and administrators have worked in very few schools so they have limited perspectives on the types of strategies that would help make a difference.”
(Superintendent)

Behavior Interventionists

In Vermont, the Behavior Interventionist (BI) is a contractual position between schools/districts and external agencies. BIs possess specific expertise in behavioral supports and may provide one-to-one assistance to students. Overall, knowledge about and perceptions of the BI role appear to vary from school to school. One disparity across schools relates to perceptions of how BIs actually implement their work. Some educators find that BIs do limit their interventions to behavioral support of one student, while others report that BIs may, at least occasionally, engage with small groups of students. Additionally, some BIs may offer academic support to students. The degree to which BIs are integrated into the school appears to vary. Some special educators include BIs in routine meetings and other educators appear to have only very limited, if any, interaction with BIs.

Some educators question whether BIs are simply a new form of paraprofessional, although funded differently and providing different support (behavior but generally not academic support). Others express appreciation for the deep and specific expertise that BIs bring to the work, and contend that their support has helped challenged students successfully reintegrate into a general education setting. One school's leadership reported that preliminary analysis suggests that the costs of engaging these contractual employees were justified vis-à-vis the savings in outplacement assignments, as out-of-district placement costs were reduced by engaging multiple BIs to help students reenter the public school setting.

School-wide Programs

Another approach is to employ school-wide behavior intervention and support programs such as Vermont Positive Behavior Interventions and Supports (PBIS). As described on the initiative's web site (<http://pbisvermont.org/>), PBIS is a state-wide effort to help school teams form a proactive, school-wide, systems approach to improving social and academic competence for all students. Other programs focused on school culture and climate are also reportedly in use across the state, including but not limited to Responsive Classroom (<http://www.responsiveclassroom.org>), school-specific positive motivation and rewards systems, and restorative justice models. While the study did not focus specifically on the implementation, benefits, and constraints of these programmatic approaches, relationships with behavioral incidents and paraprofessional density were observed, as discussed in this briefing. Most schools use multiple strategies, employing paraprofessionals and/or BIs alongside school-wide behavioral programming.

Social-emotional Supports to Students and Families

Another approach to limiting the prevalence of behavioral incidents acknowledges family and community issues that may be at the root of student behavior. Increases in economic stressors, mental health, substance abuse, violence and other social issues are cited as contributors to patterns of student behavior. Some schools have worked to integrate community health services into their programming, engaging mental health and other agencies to provide one-to-one supports to students. Overall, however, administrators cited obstacles to addressing family and community issues, including an insufficient supply of providers and cultural barriers to accessing services. They note a paucity of social service providers, especially in rural areas, and also recognize that families may be reluctant to use available services.

The study identified one subset of educators who suggest that while behavioral issues may stem from students' exposure to family and community stressors, these students experiencing trauma (or with a history of trauma) present a very specific set of needs—trauma-related and/or specific emotional distress. They suggest that strictly behavioral interventions are not appropriate for this group of students, and some encourage their administrators to expand programming and/or otherwise redirect resources to better serve students and families experiencing trauma. They suggest that strategies such as BIs and school-wide behavior programs do not align well with trauma-related issues, even if those issues play out in the form of negative behaviors.

“Our mental health system and inter-agency partners are underfunded (mental health agencies). Therefore, schools in Vermont end up paying for out-of-district placements and Behavior Interventionists to support students in schools. The [number of] students diagnosed with significant trauma and mental illness is rising and leads to the EBD diagnosis and assignment of the 1:1's etc. It really is at a crisis point with underfunding for MH and DCF workers over capacity to manage their caseloads. Education pays the price for the decline in the social and family factors that students come to school carrying.”

(Special education director)

Other Creative, Local Solutions

School-specific responses to the behavior issue are likely being developed across the state, incorporating elements of the approaches discussed above or reflecting individual systems' originality and creativity. For example, in one site visit location, a special education director adopted a somewhat atypical approach to a safety related challenge: a paraprofessional job position was created that includes bus-riding duties. The administrator realized that the district was incurring high costs to reimburse parents who were driving their students to alternative placements. The administrator was concerned, however, that safety could not be ensured if those students were simply redirected to ride a bus. Through the revised paraprofessional strategy, the administrator reports having achieved two purposes: sending a message that the safety of all students matters, and achieving cost reductions.

V. Barriers to Change or Progress

The study identified a number of change processes in effect across the state, reflecting research-based and more grassroots approaches to delivering high quality, cost effective special education services, including the use of paraprofessionals. Study participants identified, however, factors that impeded implementation of these alternative approaches.

The study has suggested that longstanding traditions of paraprofessional use, reflecting taken-for-granted beliefs and assumptions, may constitute the strongest and farthest reaching barrier to changing culture and practices related to special education. A series of inter-related next steps are suggested in the next section that, cumulatively, may contribute to ongoing efforts to shift cultural expectations and practices. Additionally, more specific barriers are presented below.

The Vermont Special Education Funding Formula

Some educators and administrators have found that the policy of reimbursing paraprofessionals' direct service time influences decisions to engage paraprofessionals as a "first option" for special education service delivery. In a context of limited resources, reimbursable time can be viewed as a valuable asset. Schools and districts that are moving toward a multi-tiered system of supports, however, may experience the reimbursement practice as a barrier to their change process. Commonplace paraprofessional-reliant staffing patterns are reinforced if the shift to a special educator or other professional staff member is associated with increased local responsibility for cost.

More broadly, some administrators have remarked that the reimbursement policy actually disincentivizes innovative thinking and consideration of alternative special education models. For example, one special education director with experience outside of Vermont remarked that working to a reimbursement policy was much different than working to a set budget line. The director observed that Vermont's policy can in some cases constrain innovation and consideration of such specific strategies as vertical groupings and skills-based groups. Another administrator commented that an overreliance on paraprofessionals in order to contain costs actually demonstrates a "penny wise and pound foolish" orientation, if paraprofessional use is not the best option in terms of educational quality and eventual longer-term savings (e.g., by exiting students out of special education).

"Vermont special education funding restrictions prevent flexibility in creating MTSS for shared provision of services to students on IEPs."
(Principal)

Lack of Social Service Agencies, Service Coordination

Social-emotional issues are widely understood to manifest as problematic student behavior and academic underperformance. Vermont schools are implementing a variety of strategies to address the social-emotional needs of their students, including collaboration with community partners with specialized expertise, such as mental health and counseling agencies, and the Department of Children and Families. While some schools have established successful collaborations of this nature, others face constraints that present formidable barriers to accessing this expertise. These include: a paucity of service providers, particularly in rural communities; prohibitive costs of partners' services; limited time that providers can spend in schools; and challenges to effective coordination of services.

"Lack of community resources is one of the key issues, many of our students who require support struggle with trauma and issues at home." (Special education director)

"It is extremely difficult to get other agencies to work with us, to take the lead or even to provide services that they have committed to providing (such as mental health and support for families)."
(Administrator)

Limited Capacity to Implement Effective Tiered Systems of Instruction; Insufficient Knowledge of Alternative Models

The study found evidence that educators and administrators across the state are actively pursuing plans and strategies to continually improve the quality and efficiency of their special education delivery systems. There is interest in shifting from traditional practices including, in some cases, the use of paraprofessionals to fulfill roles and responsibilities that may extend beyond their expected capacity. The study revealed as well a widespread interest in more fully developing educators' and administrators' skills, knowledge, and awareness in order to build effective multi-tiered systems of support. Efforts to develop capacity at all levels of the school, district, and supervisory union level would support momentum underway across the state and enhance the continued development of a strong and successful system to serve all of Vermont's students to the highest standards of effectiveness and efficiency.

Resistance to Change

This report, sharing the voices of respondents to the study's interview and survey processes, presents evidence of changes that are beginning to gain momentum in some schools and districts/supervisory unions. There is some movement to reconsider, in a focused way, how educational systems can best evolve to meet the needs of students with special needs. Consideration of the best and most appropriate roles for paraprofessional educators is an important component of this conversation, for both educational and economic reasons.

This study brief characterizes the ongoing discussion of change in special education service delivery as a "cultural shift"—borrowing language used by some study participants. This language serves to underscore the challenges to innovation and change. Beyond apparent economic issues and deliberations on whether change of this sort is justified is the reality that many schools rely heavily on the contributions of paraprofessionals to deliver special education (and other) services. A variety of interests will place great value on the current arrangement, while others may be skeptical of its efficacy. What must be understood is that existing conditions relative to the use of paraprofessionals to deliver special education services represent well-established expectations, which may in and of themselves be resistant to change, other factors notwithstanding.

VI. Next Steps in Advancing this Work

The state's dual concern regarding the quality and efficiency of educational service delivery is both understandable and vitally important. This study represents an essential first step in addressing those concerns. Its findings substantively advance what is known and understood relative to the role of paraprofessionals in the delivery of services to students with special needs in Vermont public schools. Further, the study begins the very complex and data-dependent process of assessing the implications of differing patterns of paraprofessional use on student achievement and behavior; leaving the reader with findings that should be interpreted with great caution. Finally, the study introduces into the policy and professional debates questions that extend beyond the role of paraprofessionals.

Exploring the viewpoints of multiple stakeholders, the study reveals varying perspectives on how to serve students with special needs across the state. In this regard, the state is situated at an important juncture, as rich and passionate conversations about the roles of administrators, general educators, special educators, paraprofessionals and others appear to be taking place within schools and supervisory offices. These conversations—and the exciting innovative practices that accompany them, in some cases—highlight important opportunities to reflect on and further expand the capacity of the educational system to maximize the contributions of the state's teaching and leadership cadre, so that together they can continue to advance Vermont's longstanding commitment to provide quality educational services to all.

It is the authors' hope that the study will provide insight and direction to policymakers and education officials not only through what is learned about the varied roles in which paraprofessionals are asked to serve, but also in relation to the need for continued research related to student impacts and recommended enhancements to data systems to support that research, as well as ongoing educational system management. As such, better data will also lead to better informed management at the state and local level. Further, the authors hope that the study lends support to processes related to Vermont's evolving vision of special education service delivery and emerging implications for capacity building. Accordingly, this section highlights some of the policy implications and next steps derived from the study findings presented in this brief. Please note that this section is presumed to be less than exhaustive, as the range of implications and potential next steps is undoubtedly broad and subject to the viewpoints of many constituencies.

Invest in strengthening the capacity of schools to deliver appropriate and cost-efficient educational services to all of Vermont's students

The study has suggested that important conversations are underway in schools and districts across the state. To varying degrees, these conversations revolve around vision, purpose, and strategies related to the design and delivery of services for special education students, as well as implications for broader student, school, and community populations. It appears to be a context in which educators and administrators are open to growth and continuing improvement at all levels of the educational delivery system.

➤ Advance statewide dialogue to broaden understanding of the issue and engage communities in seeking best case solutions

One strategy to harness the apparent interest in the issues under consideration would be for the Agency to facilitate a public dialogue, involving educators and educational administrators, parents, and community members, as well as complementary community partners. Building on the disparate conversations occurring in schools and central offices across the state, a series of forums, perhaps using the findings from the present study as a basis for discussion, could yield important insights to guide policy, program planning, and practice.

➤ **Strengthen teacher and administrator capacity to design and implement effective approaches to serving students with special needs**

The study identified a number of areas in which calls to increase school and district capacity were heard. Specifically, it identifies an apparent shift away from a strong reliance on paraprofessionals and toward a broader range of inclusion strategies but some administrators suggest that the shift has not been accompanied by requisite capacity-building efforts. In this light, it would be beneficial for the Agency to articulate and roll out a statewide professional development plan for educators or perhaps mentoring network for administrators to enhance skills, knowledge and awareness. Objectives could include building classroom teachers' confidence and capacity to educate all students (e.g., skills and knowledge in differentiating instruction and accommodating differences); and enhancing educators' and administrators' knowledge and understanding of alternative models for serving students with special needs.

Additionally, the study suggests continued efforts to build school- and district-level capacity to support the shift to emerging models, including:

- Defining the roles of special educators, classroom teachers and paraprofessionals
- Determining best available school conditions that will enable these educators to collaborate effectively
- Examining implications for special educator and teacher staffing levels
- Transition planning across levels of service
- Knowledge and skill-building to support effective alternative models such as co-teaching

Develop and pursue an ongoing research agenda to inform future policy and practice

This study constituted a first step in developing a statewide view of the role and use of paraprofessionals to deliver special education services; beliefs, attitudes, and other factors driving those practices; and outcomes. Using the study's analytic strategies, further tracking of student and school progress over time, including examination of the factors that support and constrain success, would contribute to a growing understanding of special education service delivery strategies that do and do not work to serve all students effectively and efficiently. There are many research strategies available to build on and extend current knowledge; a few possible approaches are presented below.

➤ **Ongoing monitoring of staffing patterns and student outcomes, building on the baseline data presented in this report**

The study offered a first investigation into plausible relationships between various models of paraprofessional use and student-level academic and behavior outcomes. Continued monitoring of these relationships would allow for the identification of trends and patterns over time and could surface important lessons about the conditions surrounding paraprofessional use that are associated with improvement in academic achievement and behavioral incidents. Research options could include re-administration of the research tools and analytic strategies developed for use in this study or the development of revised or more targeted strategies to respond to specific information needs.

➤ **Systematic examination of innovations underway across the state, and the effectiveness of those innovations**

The study revealed a number of innovative approaches to designing and delivering special education services and systems across the state, including thoughtful consideration of the role and utilization of paraprofessionals. Findings suggest that these innovations may be occurring in relative isolation; educators and administrators across districts/SUs appear not to be sharing experiences and learning from

one another. Systematic examination of these innovations and dissemination of their results could yield lessons critical to a statewide knowledge base: moving from anecdote to more robust knowledge, systematic inquiry could identify promising practices to be disseminated more broadly and could surface key challenges that continue to warrant collective problem-solving. Examples could include schools' innovative approaches to staff utilization (co-teaching and other models of special educator-general educator collaboration), promoting cultural shifts (promoting widespread ownership of and responsibility for students with special needs), and innovative approaches to understanding and managing behavioral challenges.

➤ **Impacts of Vermont's special education funding formula on district and school behavior**

Vermont's financing system is acknowledged to be unique and complex. This study and others have pointed to a few financing mechanisms that may adversely affect schools' ability to implement best practices and/or to attempt to modify their current practices. However, change should not be pursued without deeper investigation into how changes to the system would interact with and affect other financial systems. Future study options could build on the knowledge generated in this and other studies and further review the challenges of the current system from the perspective of administrators and statewide officials (e.g., AoE, JFO). Additionally, more in-depth examination of schools/districts/supervisory unions that have crafted promising alternative strategies within the constraints of the system may yield important lessons that would benefit systems and their students statewide.

➤ **Multi-state inquiry into selected elements of special education delivery systems**

While beyond the scope and resources of the present study, stakeholders expressed continuing interest in examining and learning lessons from other states that use paraprofessionals in similar and different ways. This would likely begin with a review of available literature/studies, and include targeted engagement with a subset of possible comparison states with the goal of assembling evidence regarding demonstrated effective practice in relation to the role of paraprofessionals in special education service delivery.

➤ **Responsibilities, costs and effectiveness of Behavior Interventionists**

The Behavior Interventionist (BI) is a relatively new position in Vermont—a behavior specialist who is a contractual employee of an external organization (often a mental health agency) to provide one-to-one support in schools. A number of districts in the study reported use of BIs and it appears that they are providing a range of services under varying conditions. Given the perceived rise in the number and seriousness of behavior incidents across the state, and the growing adoption of the BI solution, clear understanding of the differences and similarities between these individuals' roles is important.

Knowledge of BIs' current job descriptions or scopes of work, the costs of their services, their qualifications (training, professional development, certifications), supervision, and working relationships within schools would contribute to better understanding of the kinds and quality of services they provide and effects of those services. This information could help administrators and policy makers to distinguish the role of the BI from the role of paraprofessionals who focus on behavior, and to identify the relative merits of using BIs in place of paraprofessionals or special educators to manage challenging student behaviors.

➤ **Continue to strengthen policy development and evaluation processes through coordinated research activities**

This study constitutes one important step in a policy development and evaluation process. Vermont legislators are currently weighing important policy issues relative to statewide educational delivery systems, financing options, and constituent support. Continued study of this subject, if funded

legislatively, would benefit from continued and enhanced collaboration between the legislature and the Agency of Education. This would help to foster consensus regarding the goals of the study, clarify what data are available to support the study, and support development of a timeline for research that aligns both with the legislative process and the educational calendar, including data collection timelines. Inclusion of individuals familiar with the design and conduct of applied research would be of benefit to the process.

Improve the scope, quality and accessibility of data to support educational system management and priority research projects

One of the limitations of the current study is the reliability of data that reports behavior incidents. Concerns about the consistency and accuracy of behavioral data were articulated at the onset of the study, and Agency of Education representatives have quite openly acknowledged that efforts to strengthen certain aspects of the state's data systems are ongoing, while others have not yet been addressed. Given these shared concerns, it is recommended that the state continue to invest in the systems (human and technological) required to ensure effective and reliable reporting, with the acknowledgment that there may certainly be resource implications. More concretely, a few possible next steps are suggested below.

➤ **Quality and access of behavior data**

One of the limitations of the current study is the reliability of data that report disciplinary referrals. AoE representatives and PBIS staff have acknowledged concerns about the consistency and reliability of school-level reports. Schools participating in PBIS receive operational definitions for each type of incident, as well as some guidance regarding when and how to report. Clarifying expectations and shoring up data collection procedures will improve the quality of data to be used in future research.

Additionally, behavioral data are not collected at the school level across the state, and especially in light of perceived trends toward increasing behavioral incidents, the collection of school-level behavioral data would be warranted. School-level behavioral data are critical to analyses further exploring the kinds and extent of behaviors prevalent across the state. Future studies would likely be able to generate more potent analyses if school-level data were available.

➤ **Data on the level of services being delivered to students on Individual Education Programs (IEPs)**

The collection of multi-tiered systems of support (MTSS) data on each student with special needs would assist in analysis of performance. Students in higher Response to Intervention (RtI) tiers would demonstrate greater need, for example, and therefore require different instructional accommodations than students in lower tiers. Knowing the tier in which a student was served would help create more accurate models of performance by introducing a potentially moderating variable. It is acknowledged that small sample sizes could complicate this reporting, but the study suggests that strategies to disaggregate data by kinds and level of disability and services provided would be warranted. An ability to examine outcomes at the student-level is central to gaining more definitive answers to important policy questions.

➤ **School-level personnel records (job titles/categories)**

The Agency currently maintains personnel records at the district- or supervisory union-level. In the context of this study, researchers relied on principals' reports of school staffing counts by type. The availability of school-level educator data would greatly enhance the Agency's ability to assess school-level staffing patterns as well as for researchers to answer more fine level questions and account for a broader range of factors in analyses of the relationship between staffing and student outcomes.