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Andrew K. Korman

*University of New Hampshire, Durham*

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**Reducing Dropout Rates of New Hampshire High School Students by  
Increasing the Compelled Years of Attendance: An Analysis of Local  
Administrator Perceptions of and Responses to State Law 193:1**

By

Andrew K. Korman  
BS, University of New Hampshire 2006  
MAT, University of New Hampshire 2007

DISSERTATION

Submitted to the University of New Hampshire  
In Partial Fulfillment of  
the Requirements for the Degree of

Doctor of Philosophy  
in  
Education

September, 2020

This dissertation has been examined and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education by:

Dissertation Director, Todd DeMitchell, Ed. D.  
Professor Emeritus of Education & Justice Studies

Joseph Onosko, Ph D.  
Associate Professor of Education

Thomas Higginbotham, Ph D.  
Lecturer of Education

Douglas Gagnon, Ph D.  
Senior Researcher at Marzano Research

Mark Paige, J.D., Ph.D.  
Associate Professor Department of Public Policy  
University of Massachusetts at Dartmouth

On July 31, 2020

Signatures are on file with the University of New Hampshire Graduate School.

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Andrew Korman

## DEDICATION

This work is dedicated to my teachers and students, from whom I've learned much, from whom I have much more to learn.

## ACKNOWLEDGEMENTS

Ten minutes into the first day of the first class for the doctoral program, after the awkward introductions and research interests, Eleanor Abrams asked the group of eight new doctoral students, “How do you eat an elephant?”. Trying not to look stumped on our first day, we all offered our answers. After each answer, Eleanor would simply say “No”, and move on to the next person. After the final “No”, Eleanor offered the solution, “One bite at a time.” This introduction has served as my inspiration and motto throughout this challenging and rewarding process.

Along the way there have been many people who have offered their help and assistance with each bite of this elephant and I would be remised if I did not acknowledge how they contributed to this work. From the earliest day where I was thinking about the idea of doing research Liza Finkel provided encouragement and the push to apply to the program even though I was only a few years into my career as a teacher. Tim Churchard was an early supporter of my work and provided me with a sounding board and as well as a periodic reality check while always pushing me to look at the bigger picture. Other professors from the Education Department have inspired, influenced, and challenged me throughout the process and their imprint can be found throughout this work: Barbara Houston, Suzanne Graham, Bruce Mallory, and Virginia Garland.

As I worked throughout the entire program I would be remiss not to acknowledge the multitude of students, parents, and fellow educators I have encountered over the course of the years of this work. Each of the three districts I have worked for during my coursework have taught me a something unique about education.

My work in Maine helped create the foundation that every student can learn and every teacher should do their best to find any and all ways to meet the student where they are and help them progress. My time there helped solidify my core beliefs in education and helped me flourish from a novice educator to a confident, student-driven teacher. While only two years, my experience in Massachusetts showcased the importance of community and its impact on learning. By immersing myself in the community, I truly began to see the benefits of being accepted as “one of their own”. For this I am eternally grateful. To my time in New Hampshire where I am continuing to learn how to push students to achieve more, regardless of their backgrounds or economic status. The concept of an equitable education for all is something that is now at the forefront of my mind on a daily basis. These three different districts have been supportive of my work and for that, I am forever thankful.

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challenging my thinking. To my current co-workers who have helped me open myself up to a more holistic and emotionally intelligent way to teaching and learning.

The patience and persistence of Todd DeMitchell who, in his role as advisor and chair, always pushed for more clarity and continuity in the work helped make the final product better with each passing draft. The dedication and work of my committee, Tom Higginbotham, Joe Onosko, Mark Paige, and Doug Gagnon, to provide poignant and thought-provoking feedback.

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## ABSTRACT

In 2007 New Hampshire passed a law, RSA 193:1, that changed the compulsory age of education for all public school students from age 16 to age 18. The purpose of this research is to explore the effect of RSA 193:1 on dropout rates in New Hampshire's public high schools and to examine the perception of the high school principal in understanding the effect of the law and any differential effects of the law on students. Through an examination of five years of dropout data combined with a survey to current high school principals, findings indicate that there is strong support of the change from the principals. The dropout data revealed that the percentage of students on free/reduced lunch does moderately correlate to a school's overall dropout percentage. Through analysis of the survey, the principals denoted that they understood that both their staff and communities supported the change in compulsory age. Additionally, examination of district policy materials revealed that districts with higher dropout rates appear to have a more restrictive view of how, when, and where students can earn credit compared to districts with lower dropout rates. Continued examination suggested a stark divide in the precision of language, specifically as it relates to academic progress and support, between the high and low performing school districts.



## Chapter 1

### Introduction

*We also know that when students don't walk away from their education, more of them walk the stage to get their diploma. When students are not allowed to drop out, they do better. So tonight, I am proposing that every state -- every state -- requires that all students stay in high school until they graduate or turn 18.- President Barack Obama in his 2012 State of the Union Address*

Every June another academic year draws to a close and the sounds of Pomp and Circumstance fill the air at high schools across the nation. Graduates, dressed in their caps and gowns decorated with well wishes and accomplishments, pose for pictures with friends, family, and faculty members. The graduates give inspirational speeches to their peers about their potential for greatness, and generally enjoy themselves as they prepare to take the next step in their lives. Some will enter the armed services, others the work force, while still others will continue their education by attending various two or four year colleges or universities. Graduation day is often the last memory many students have of their prior four years of high school and is typically remembered as an exciting, joyous, and meaningful occasion.

Among all of these exuberant and festive ceremonies and celebrations, there is a darker, alarming side to high school graduation, those who do not graduate. Dropping out is a high stakes, national issue, with serious consequences for students, their families, school and school districts, and society (Reschly & Christenson, 2006). According to the National Center for Education Statistics (2010), each year some 1.3 million students fail to complete high school. They break this number down further to estimate that some 7,000 students each day leave the American public education system for a wide variety of reasons. For a sense of perspective, there is an estimated 3.4 million students who graduated from United States high schools at the

end of the 2011-2012 school year. According to the U.S. Department of Labor, nearly 90% of all well-paying jobs require post-secondary education or training (America's Dynamic Workforce, 2006, p. 26). The combination of these key facts is startling not only for the individual not completing high school but for the nation as a whole as it would reflect the loss of a workforce availability of workers on a large scale. While these are nationally reported, the dropout rate is not uniform across the nation. State laws, and local policies and programs have differing impacts on the local dropout rate and different approaches to this alarming challenge—America needs an educated workforce and individuals need pathways to a secure and productive future. One response to the challenge occurred in New Hampshire. This New England state implemented a major change to its compulsory education law as a means to address an unacceptable dropout level.

### **Statement of Problem**

In the early 2000's New Hampshire was not immune to the nationwide high school dropout phenomenon. The New Hampshire Department of Education reported that in 2001 just over 3,000 students dropped out of public schools within the state (New Hampshire, Department of Education, High School Dropout Rates 2000-2001, 2002). This figure, roughly 5.5% of the total high school population, coupled with a reported 4-year cumulative dropout rate of nearly 20% from the New Hampshire Department of Education, painted a bleak picture for the high school aged youth of New Hampshire at the turn of the century. Unfortunately, the state did not have any accessible data available prior to 2001, consequently, it is impossible to compare to prior decades but the negative trend noted in 2001 carried forward through the better part of the first decade of the new millennium. From 2001 through 2007, a total of 17,425 students had dropped out of New Hampshire schools resulting in a growing divide between the high schools

in the state having little to no dropouts and those whose drop out numbers remained high year after year. In an effort to combat this growing trend lawmakers, educational leaders, and policy makers began to tackle this complex, multi-dimensional problem.

As with any interconnected, complex societal problem, there are many policy options to address high dropout rates. The New Hampshire legislature chose to focus on the end of public education, completion of the high school. Their response to how to reduce the dropout rate was to keep the students in school longer. By looking at student completion of high school requirements through the lens of dropout rates, the legislators sidestepped the questions of the impact of curriculum, instruction, and educational supports. They did not address what happens inside the schools during those 12/13 years of education. Therefore, local school administrators were tasked with developing procedures and practices as well as curriculum and instruction consistent with the new state requirements.

#### *Dropout Distribution*

Through the examination of statewide drop out data, individual schools and districts could be examined with the hope of identifying commonalities or trends. This readily available data is collected annually by the New Hampshire Department of Education and is required of every public school by early October. With over eighty high schools within the state covering some nearly 60,000 students, there are several variables to consider when looking at what makes one particular school's dropout rate different from a seemingly similar (either by geographic location or enrollment) school.

One of these key variables is a school's percentage of low-income students. In order to ascertain this information, school district's percent of students on free and reduced lunch was utilized as an indicator. The use of eligibility for a free lunch as a proxy measure of

socioeconomic status continues to be fixture of education research (Harwell and LeBeau, 2010). This data point, similar to dropout rate, is regularly reported to the state by schools and readily available for a wider analysis. By diving into school district's SES levels through their free/reduced lunch rates, the research explored any connection between leaving high school without a diploma and a student's potential SES status. Finally, combining demographic information about school enrollment and SES, a fuller picture of potential interaction of various demographic variables can be examined and potential trends identified.

### *Principal Perceptions*

The principal, or building leader, is often identified as the individual ultimately responsible for all operations of the building. Given the nature of the job--with many from the community viewing the local high school as the flag ship institution for the entire local education system--the building principal's views on a major statewide school policy shift must be examined when evaluating policy effectiveness. Furthermore, this study will interview principals to learn of the policies and practices their respective schools implemented in response to RSA 193:1, including which components they would highlight and recommend.

There is a key assumption that the creation of any state mandated policy is that the building level administrator is in agreement with the policy approach and will work diligently to enact it to the best of their abilities. Laws, rules, and regulations issued within a hierarchical system will filter through the system to a point of implementation maintaining the policy requirements with a tight coupling between directive and outcomes. However, Karl Weick's (1976) seminal work on educational organizations points out, that a loosely coupled organization results in a loose coupling "between the intentions ([regulation]) and actions of organizational members" (p.4). A function of loosely coupled systems is that it "may be a good system for

localized adaptation” (p. 6). As part of a loosely coupled system, the high school principal, as a “street-level bureaucrat”, shapes policy, such as changes to compulsory education, through discretionary decisions making at the point of implementation (Lipsky, 1980).

While local educators will acknowledge the issue of too many student leaving school without a diploma they may disagree with the legislature that changing the compulsory age to leave school is the ideal solution. As street-level bureaucrats in a loosely coupled system, the local high school principal’s perception of how this change is impacting their school and how they are adjusting their approach to dropout-likely students is a key component to this research.

#### *School/District Policy*

Schools and districts are operated by people; teachers, guidance counselor, administrator, bus driver, etc.; but each and every one of them are governed by a district’s policy manual and the accompanying staff handbooks. Similarly, students rely on their student handbooks and/or their program of studies as guides and road maps to navigating their high school experience. These documents are the reference points for students, parents, and educators on a wide variety of issues and problems that may arise throughout the year. Given how important and influential they are, it is these documents that often get overlooked in favor of a more “on the ground” approach which are often referred to as school-level procedures. Procedures are generally the method by which a school operates within the confines of a particular policy. Regardless of procedure or policy, the operational state of a school needs to be accounted for when looking at its dropout rate. This information provides critical clues into what makes a particular school or district successful at graduating a high percentage of their students on time or one that is still struggling with the challenge of a high dropout rate. By examining high and low performing

schools policies and procedures, a convergence or divergence of successful approaches may emerge, ultimately, assisting our understanding of how to keep adolescents in school.

### **Statement of Purpose**

Laws, like RSA 193:1, are authoritative statements that mandate specific actions to achieve a public good/value—a better educated citizenry (Downey, 1988). To effectuate the increased compulsory education age (18 years of age) of New Hampshire’s students, school districts develop policies, which guide educators in adopting and implementing programs, regulations, and procedures. It is these programs, regulations, and procedures that were likely enacted as a result of RSA 193:1 that are at the heart of the change in state wide dropout data. Additionally, how school leaders view the utilization of these programs and procedures may shed light into how individual districts have transformed.

The purpose of this research is to explore the effect of RSA 193:1 on dropout rates in New Hampshire’s public high schools. Because high school principals are on the frontline of implementing this dropout law, their perceptions are important in understanding the effect of the law and any differential effects of the law on students. The policies and procedures these principals are entrusted with enacting need to be examined to explore commonalities between high and low performing schools.

### **Research Questions**

The following research questions will serve to focus and frame the research:

1. What is the distribution of dropout rates across all New Hampshire high schools since the passage of RSA 193:1?
2. What is the distribution of dropouts at all New Hampshire high schools by various selected demographic variables?

3. Do high school principals perceive RSA 193:1 and their respective local enactments of 193:1 as effective in reducing school dropouts?
4. Are school policy responses to RSA 193:1 more divergent or convergent?

### **Significance of the Research**

This research is important because RSA 193:1 has been a functioning law and enforced educational policy for the better part of a decade and, besides a few flashy headlines on the initial implementation, little work has been done to explore the lasting effects of the policy. While many, rightfully so, consider a district's superintendent the chief educational officer for the local system, it is often the building administrators that on the front lines of this work. To that point, Fowler (2000) states that the school principal is the individual primarily responsible for the policy implementation at the schoolhouse and can make or break successful implementation. By reaching out to these individuals directly and specifically comparing their thoughts and opinions; a full, boots-on-the-ground view of RSA 193:1 can be established and analyzed. Given the nature of their job with many from the community viewing the local high school as the flag ship institute for the entire local education system, the building principal's views on a major policy shift should be gathered and factored into any future examination of large scale, high school specific, policies. To date, there appears to be no research driven mechanism or avenue for these individuals to provide feedback to policymakers on a topic that is critical to meeting the purposes of public education – the proper education of its citizens.

Furthermore, this research provided an opportunity for policymakers in other states or municipalities to understand how building level administrators respond to policy mandates from their state government. By providing insight into how New Hampshire high school principals

view this mandate, it may provide some level of feedback or, perhaps, pause for other policymakers before they go forward with implementation of their mandate. The ability to provide others policymakers with feedback before implementation could be critical in going forward for successful implementation of their mandates. Ideally it will allow them to avoid similar pitfalls or issues that may potentially arise because lack of input from their on-the-ground policy implementers. By identifying common issues or concerns identified by the responding principals, it could increase the likelihood of greater success. It may also provide suggestions for district and school administrators to revise their current policies and practices.

### **Definition of Terms**

In an effort to make clear the terminologies used regularly throughout this project, the following definitions are provided:

*RSA 193:1*:- New Hampshire law governing compulsory age in education for student.

The opening of the law reads as follows “ **193:1 Duty of Parent; Compulsory Attendance by Pupil.** – I. A parent of any child at least 6 years of age and under 18 years of age shall cause such child to attend the public school to which the child is assigned in the child's resident district. Such child shall attend full time when such school is in session”

*Pre-2007 NH DOE Dropout*- any student who left school without a certificate or diploma

*Post 2007 NH DOE Early-Exit*- A definition composing three sub groups (Earned GED, Enrolled in College, and Dropped out). This data is reported as a cumulative rate.

*Cohort-Based Dropout Model*- An additional model used by the NH DOE starting in 2009-2010 to track students. This model assumes a four year completion rate for high school students and is calculated by the total number of students in must equal the total number out four years later. The difference produces a school’s dropout rate base on the cohort model.

*GED/HiSet*- Synonymous terms for the high school equivalency test that is often provided as an alternative to a traditional high school diploma.

### **Summary**

Earning a high school diploma has long lasting impacts on an individual's career and life paths. Creating school environments where students can excel and achieve the best, high quality education is the goal of every educator. High school building principals work with their staffs on a daily basis to ensure that all students have the opportunity to achieve a diploma and, in response to RSA 193:1, now have to work with students until their 18<sup>th</sup> birthday. As noted by Landis and Reschly (2011), simply raising the compulsory age of education does not in itself address the reason why students want to leave school prematurely or provide academic or behavioral support to help students meet expectations required to successfully complete high school. By working to gather and analyze district's plans and approaches, the research aims to find ways to expand upon Landis and Reschly's findings that simply raising compulsory age does not keep students involved in their schooling.

## Chapter 2

### Literature Review

This literature review examines compulsory education in American public education. In order to address the research question, this review organized compulsory into three sections: History of Compulsory Education, Current Dropout Research, and Dropout Prevention Plans. The overall purpose of the education system, from its original intent to its evolution over time, will be explored for a sense of how it has changed over time with specific emphasis being placed upon compulsory education. Additionally, the major works related to modern (1980 through present) drop out research will be reviewed to provide a historical view of the issue as well as how drop outs have evolved over the last four decades. The specific aim of the review is to demonstrate the complexity of identifying a likely dropout or “at-risk” youth and how these dropouts can impact our society both in a social and economic sense. Finally, the review will explore current research pertaining to dropout prevention plans. Particular emphasis will be placed upon themes of compulsory education as well as commonalities among the plans that addressed specific targeted issues. Any larger, overarching themes or particular successful elements of plans, programs, or policies that are currently being used in school districts that were struggling with excessive dropout rates and/or student retention, will be highlighted for potential future discussion or consideration.

#### **History of Compulsory Education**

Some of the earliest history of compulsory education in the United States dates back to some of its earliest European settlers. The New England Puritans would utilize education as a

key piece to their new and burgeoning society. In April of 1642 the Massachusetts General Court passed a law requiring children to be taught how to read and write. This early form of compulsory education by the Puritans was aimed at making sure that their children could read scripture as well as the laws of the Commonwealth. They believed that the success of the individual, as well as the overall success of their new colony, was dependent on an individual's ability to be literate enough to understand the Bible. Fearing that parents were not following through with their new legal obligation to have children learn to read and write, in 1647 the General Court enacted further legislation, referred to as the "Old Deluder Satan" Act, which would require all towns within the Commonwealth to establish and maintain public schools. Essentially this legislation compelled towns to create some type of centralized location for education of students but it did not go so far to say that the education offered in these schools would be open for all children or that the education would be free. This early delineation sets the stage for some of the issues that arises in the coming centuries around equal access, segregation, school funding, and free and appropriate public education. While these obstacles were unlikely to be at the forefront of the early Puritan's thoughts, the concept of how important education is to a high functioning and successful society clearly was. "Education of the public to support and achieve the goals of the government came to the new continent and would take root and flourish over the next 350 years to be a potent force in American society" (DeMitchell, 2000). The next steps to accomplish this lofty goal come in the 19<sup>th</sup> century in the form of the common school movement.

### **The Common School Movement**

Championed by one of the early pioneers in the American public education system, Horace Mann, the common school movement sought to create a more universal and more

compulsory system of education regardless of social or economic status of a family or individual. It is a system “where the rich and the poor meet together on equal terms, where high and low are taught in the same house, the same class, and out of the same book, and by the same teacher” (Baines and Foster, 2006, p. 221). Mann's commitment to common schools stemmed from his belief that political stability and social harmony depended on universal education (Wagoner & Haarlow, 2000). Horace Mann’s commitment to the common school was driven by his beliefs that schools should be open to all children, should be nonsectarian, and should be paid for and controlled by the government to ensure improvement in society and a retention of political stability (Groen, 2008). These deeply held beliefs are what guided Mann and other reformers of the common school movement to fight for public education across the growing country.

The concept of compulsory education, as we understand it today, was likely foreign to both the Puritans and the common school reformers. To this end, Massachusetts revised the compulsory education law in 1671, 1683, 1691, and 1701 suggesting that was not efficiently enforced (Katz, 1976). As late as the 1830’s schools were a collection of voluntary, primarily elementary, community-supported endeavors with little oversight or commonality in rules or regulations town to town. While Mann worked diligently, most notably during his twelve years as superintendent of education in Massachusetts (1837-1848) to promote free public education across the country, his focus was on equal access regardless of wealth or status, not on any type of accountability or the compulsory nature of education as we understand it today.

Leading the nation once again, in 1852 Massachusetts passed a law that required parents to send their children to school for “ at least twelve weeks, if the public schools of such city or town so continue, six weeks of which shall be consecutive.” However, like similar attempts in the before it, this law was nearly unenforceable as there was no true centralized education

department that would theoretically hold individual schools, towns, or parents accountable.

Following in Massachusetts' footsteps, the District of Columbia (1864) and Vermont (1867) passed their own compulsory education laws. In the 1888-1889 U.S. Commissioners of Education report stated:

The principle of compulsory education is steadily gaining ground. Steps in advance are being taken here and there all the time. Since 1886 no less than sixteen states and territories have either enacted laws for the first time or have made their former laws more stringent. The arguments and discussions of thirty years or more have been gradually silencing opposition and public sentiment is slowly crystallizing in the direction of requiring by law all parents to provide a minimum of school instruction for their children. The tendency is unmistakable.

By 1918, all states had some type of enforceable compulsory education law but they were not uniform in their explanations of truancy, consequences for both parent and student, or even the number of years a student should be attending school. As pointed out by Katz (1976), compulsory school attendance laws varied widely in their specific provisions from one state to another, they did share one thing in common- their unenforceability. The main reason for this was two-fold, apathy by those charged with enforcing and the inconsistency of the practices state to state. As a result, there were laws in place but effectively being ignored through the late part of the 19th century.

### **The Rise of a New Century: Legal Challenges and Consolidation**

Starting in the 1900's, a more industrial approach to compulsory education was developed as states and schools began adopting more enforceable laws that directly targeted school attendance. This, coupled with the rise of regulations around child labor practices, essentially forced more students to go to school and remain there for longer periods of time. From a financial perspective, total expenditures were exploding as students were attending school more regularly. "In 1889-90, the total expenditures for elementary and secondary day

schools was slightly in excess of \$140 million. By 1929-30, that figure had jumped to more than \$1.84 billion”(Trattner, 1970, p.22). During a similar time period, the average number of days a student attended school rose from 86 to 143 and the mean age of a student leaving public education changed from 14 years and 5 months to 16 years and 3 months (Katz, 1976). The compulsory age for education in 1920 in thirty-one states of the forty-eight states was 16 and five (Idaho, Nevada, Ohio, Utah, and Oklahoma) required students to remain in school until age 18.

By the end of the 1930’s the foundation was set for our modern understanding of compulsory education. Laws were in place that outlined requirements; there were enforcement mechanisms with truant officers and legal consequences; the concept of school attendance as part of the educational process was becoming more and more established as cultural norms in an ever-growing and homogenizing America. As the country began to change from a predominately poorly educated, agricultural based society to a more urban and suburban industrial society the modern school system was the key to providing a smooth transition. By having students attend school regularly and for longer periods of time (years), society saw value in the final “product” their public education system was creating. “It was in this context that compulsory schooling laws would be both implemented and socially accepted by more and more people in the first three decades of the twentieth century” (Katz, 1976).

Since the 1930’s there have been several major legal challenges to state’s compulsory education laws. These challenges often fall into the realm of parental control and who is responsible for what is best for the child. One such key early U.S. Supreme Court case that challenged the compulsory education law was *Pierce v. Society of Sisters*. In this case the Society of Sisters challenged a 1922 Oregon state law, called the Ku Klux Klan Act, that mandated children ages 8 to 16 attend only public schools. The then governor, Walter Pierce

was named as the primary plaintiff along with the state attorney general and the local district attorney. The argument brought forth by the Sisters against the compulsory education law was that it restricted parent's choice as the law mandated all children attend state run schools. In their ruling, the Supreme Court sided with the Sisters citing the 14<sup>th</sup> Amendment as the state was restricting the choice, which they viewed as a "liberty" of the parents or guardians as to where their children could be best educated. The court found that Oregon's Compulsory Education Act exceeded the state's powers because it unreasonably interfered with the liberty of parents and guardians to direct the upbringing and education of their children under their control (DeMitchell and Onosko, 2012). In addition to being cited as 14<sup>th</sup> Amendment case, this ruling began to open the door for parents to make decisions, based on religious exceptions, about their child's education that are still being seen today. The ruling, however, did not give parents the right not to educate their child. Succinctly stated by DeMitchell and Onosko, "compulsory education and the authority to determine the curriculum were clearly left to the state" (2012, p. 607). The sometimes tumultuous relationship between public and private or parochial schools may likely be traced to this case as this decision has led to a "remarkably illiberal education policy wherein religious schools are not subjected to state accreditation but only to "minimal state and safety laws" (Appleby, 1989).

In another challenge to a state's compulsory education law, *Wisconsin v. Yoder* (1972) provides another example of a parent, or in this case, a religious community's right to choose the type of education best fits the needs of their children. In this 1972 case, Jonas Yoder was the father one of three 8<sup>th</sup> grade boys who stopped attending New Glaurus High School. They were brought to the local county court and each found guilty and fined \$5. The case was affirmed by the Wisconsin Supreme Court and appealed to the US Supreme Court by Reverend William

Lindholm who was representing the Amish community. He argued that due to the Amish belief that their way of life; largely viewed as simpler and agricultural in nature, as well as their religious belief system that excessive worldly possessions are unnecessary, an education passed 8<sup>th</sup> grade was not needed. The Court sided with Reverend Lindholm and found for Yoder on the grounds that the compulsory school laws would violate the Free Exercise Clause of the First Amendment. The Court, in essence, agreed that forcing the Amish youth to attend a traditional high school would be detrimental to their way of life, both physical and spiritually. While the decision for education post 8<sup>th</sup> grade within the Amish community is fairly universal, the ruling set the ground work for parents to advocate for alternative education settings for their students such as private schools, distance learning opportunities, or home schooling.

Regardless of challenges in the past, the compulsory education standard is well established in today's education system. Specifically to New Hampshire, the Duty of the Parent; Compulsory Attendance by Pupil (RSA193:1) statute clearly spells out the requirements for school attendance. The enrollment age (at least 6) through age 18 frame the child's educational timeline and direct the parent "to cause such child to attend the public school to which the child is assigned in the child's resident district." This statute is the cornerstone for compulsory education and school districts are responsible for implementing and enforcing its protocols. It is through the joint cooperation between parent and school, following the guidance of RSA 193:1, that New Hampshire aims to execute the compulsory education requirement for all of the students.

### **Current Dropout Research**

In 2017 the National Center for Education Statistics reported 2.1 million youth between age 16 and 24 were dropouts. They define the terms as youth in that age range that are not

currently enrolled in school and have not earned a high school credential, either a high school diploma or equivalency credential. For 2017, that calculated to a nationwide dropout rate of 5.4%. Many of these youths were likely identified as being “at-risk”. This term is ubiquitous in the literature around dropouts but is often challenging to pin down one, clear, universal definition. In order to understand how society is currently operating with this cornucopia of definitions, it is important that it is established exactly when, where, and how the term jumped into the main stream American education lexicon and how it has been morphing ever since. In order to accomplish this, an exploration of some of the major pieces of literature on the state and local levels as the topic must be explored.

One of the earliest definitions of the term “at-risk” that was found and is applicable to this setting was by Arthur Pearl in his 1972 book *The Atrocity of Education*. While the book, and its ominous title, pre-dates *A Nation at Risk* (1983) by more than a decade, it received little fanfare outside of the entrenched educational research community. Pearl creates a broad definition of at-risk refers to “any child who is unlikely to graduate, on schedule with both the skills and self-esteem necessary to exercise meaningful options in the area of work, leisure, culture, civic affairs, and inter/intra personal relationships” (Pearl, 1972, p. 28). This definition, like many others, is targeted specifically at students completing secondary schooling but Pearl takes it a step further and introduces a series of ‘quality of life’ qualifies into his definition. These qualifies imply that there is more to being successful, that is not at-risk, than simply progressing through school, receiving a diploma but a student needs to master what have been become so called ‘soft skills’ of society. The ability to have meaningful relationships with others on personal and professional levels as well as being able to positively contribute to cultural and political conversations are all encompassed within Pearl’s definition. An oft-mentioned concept

currently being discussed in education is the teaching, application, and use of critical thinking skills by students. Oddly similar to “at-risk”, many experts disagree as to exactly what “critical thinking skills” are and how to teach them. There is a growing belief, that, in general, critical thinking skills now seem detrimental to modern curriculum design, instruction, and student learning. Instead these skills should be linked to domain specific knowledge. To that end, it is broadly understood that some of these skills are the ability to think for one’s self and synthesize new information to solve unique problems, Pearl’s definition can clearly encompass the teaching these skills as a means to avoid being labeled as “at-risk”. Admittedly the definition is focused solely on academic achievement and there are other ways to define at-risk, but this definition could still be used in today’s current academic setting to assist in the identification of at-risk youths.

While Pearl deserves credit for specifically attempting to define the term at-risk, even if the final product is a bit nebulous, in 1992 the National Center for Educational Statistics released a statistical analysis report of a longitudinal study from 1988 of 8<sup>th</sup> grade students looking to add clarity to the discussion of at-risk youths. The report titled, *Characteristics of At-Risk Students in NELS (National Educational Longitudinal Study)*: 88, took a different approach and rather than attempting to formulate a single coherent definition like Pearl, worked to clearly identify and address the various characteristics of students who they deemed would likely become “at-risk”. This study looked at approximately 25,000 public and private school 8<sup>th</sup> grade students in 1988 and followed this cohort of students through their sophomore year (1990) when follow-up surveys and analysis were performed. The study was based on the operating belief that student were automatically considered “at-risk” of failure by analyzing seven key variables: 1) the basic demographic characteristics, 2) family and personal backgrounds, 3) the amount of parental

involvement in the student's education, 4) the student's academic history, 5) student's behavioral factors, 6) the teacher's perception of the student, and 7) the characteristics of the school. Their findings were insightful as they discovered the ability to identify and predict an at-risk student went far beyond a student's race/ethnicity, sex, or socioeconomic background. They found that by controlling for these factors, often considered the most 'reliable' of predictors, there were several other factors that were impacting a student's resilience to stay in school and/or avoid being considered at-risk. These findings included such things as the amount of time parents spent engaging with their student about school, the number of times a student transferred schools, whether or not a student was held back during their educational career (not just during the 8<sup>th</sup> to 10<sup>th</sup> grade years), and teachers who thought students were unengaged, passive, or disruptive were all found to contribute to a student's likelihood of being classified as at-risk and/or dropping out of school.

The findings of NELS: 88 helped open the door for numerous future researchers to look beyond the 'traditional' indicators of race, SES, and sex and demonstrated that there are far more factors involved in a child's life that are impacting their persistence at school. While NELS: 88 did not formally create a formal definition of what exactly an at-risk student is, it did shed a large amount of light on previously uninvestigated factors that will influence future generations and future definitions of at-risk.

Perhaps, but not surprisingly, as more and more policymakers, researcher, and educators became aware of the findings of NELS: 88 more studies were done with similar longitudinal data sets, additional factors beyond sex, race, and SES, began to crop up as potential indicators for at-risk student identification. Previously unexplored areas such as mother's education level, the student's perception of their schooling/teachers, and whether students, regardless of race,

attended a urban school with large minority populations were now being factored into the at-risk equation. As a result of all of these newly discovered factors, state departments of education and local school districts had to come up with new ways to define then identify and eventually support at-risk students. As a result of this states vary in their own definition of what an at-risk student means and how and when one can be classified as such.

For example, according to Iowa administrative code 281 12.2 (256) an at-risk student “means any identified student who needs additional support and who is not meeting or not expected to meet the established goals of the educational program (academic, personal/social, career/vocational). At-risk students include but are not limited to students in the following groups: homeless children and youth, dropouts, returning dropouts, and potential dropouts”. The code continues, “each school district have a valid and systematic procedure and criteria to identify at-risk students throughout the school district’s school age population”. With this statute, Iowa seems to be broadly defining what it, as a state, believes are the benchmarks of an at-risk student while simultaneously leaving the ultimate decision, in terms of key identifying criteria and procedure, up to the local school district. This individualize control, which is not unique to Iowa but can be fairly wide spread throughout many states, is one of the many factors that is complicating the ability of policymakers, researchers, and administrators to have one clear cut definition of what qualifies as student to be labeled as at-risk.

As suggested, Iowa is not alone in its creation of a definition that suits their states need as the South Carolina Department of Education created a commission tasked with creating resource materials for identifying and reducing the state’s high school dropout rate. Their definition is twofold:

A. A student at risk of dropping out of school is any student who, because of his or her individual needs, requires temporary or

ongoing intervention in order to achieve in school and to graduate with meaningful options for his or her future.

B. Students—depending on their degree of resiliency and connectedness to caring adults in the home, in the community, and/or at school—may respond differently to those things frequently cited as barriers, predictors, or indicators of being “at risk.” Therefore, educators and other responsible adults working with students should consider the whole child, who might have both short-term and long-term needs requiring intervention. (At-Risk Student Intervention Implementation Guide, 2007, p. 4)

Again, we see a broad definition that is directed towards any student who may drop out of secondary school for a wide range of reasons. Additionally, this South Carolina definition includes the need for parents to be involved, something that was identified within the findings of NELS: 88, as part of the process for students from being identified as at-risk. However, even within this two-part definition there is still considerable room and respect given to local control, be it teachers and/or parents, to have a large say in who and how classification occurs of at-risk youths.

In one final example, turning to Kansas we see a new definition of at-risk that is far more academic and financially driven. Kansas defines at-risk as “pupils who are eligible for free meals under the national school lunch act and who are enrolled in a district which maintains an approved at-risk pupil assistance plan” (KSA Ch. 72 Sec 64 3c) or is “predominantly a student who is not working on grade level in either reading or mathematics” (Kansas State Department of Education, At Risk Guideline, 2012, p. 2) as assessed by state standardized testing. The two pronged approach utilized by Kansas is one of the more statistically driven methods found to identify at-risk students. In order to qualify to be found eligible for free/reduced lunch a family has to provide a detailed summary of their finances. Coupling this financial piece with the

reliance on standardized test results, Kansas is clearly relying heavily on quantitative data sources to make their determination of at-risk youths.

While this is not an exhaustive selection of all the possible methods and manners in which schools, states, researchers, and policymakers classify a student as at-risk, this sample helps illustrate the wide range of available definitions that are currently being used. The focus of this study is specific to secondary education, if the scope was expanded, one would find that there are similarly varying definitions from the collegiate level, from the health and human services realm, as well as from the psychological service industry. Each domain has created a definition that is designed to best suit their unique needs in helping identify and support at-risk students. With all of the varying definitions and interpretations of the term, it is easy to see how confusion can quickly appear. Finally, to further confound an already convoluted issue, many of these domains overlap and work with each other as they work to provide combined services to youths. It would appear that, for the best interest of all involved, one definition of the term “at-risk” would be highly beneficial.

#### *Economic Impacts of Dropping Out*

Regardless of why a youth left school without a credential, there is a certain level of immediate and future economic impact that the youth will likely be experiencing. In a study of high school dropouts from Oregon, they found that “dropouts cost the state of Oregon \$173 million in tax revenue each year, and more than \$200 million in annual Medicaid costs” (House, 2010). The same study suggested that the average dropout, who did gain employment, would earn \$10,000 less per year than a high school graduate. Finding employment for a high school dropout can be a challenging process. Those who do not hold a high school diploma are less likely to be in the labor force (Sum & Harrington, 2003). Additionally, high school dropouts

spend much longer periods of time unemployed or not enrolled in some type of additional training program (Rumberger & Lamb, 2003). Suffice to say, the overall economic impact, both for the individual and the society, for a non-credentialed high school dropout is grim.

In addition to the direct financial impact to the individual, there are various societal impacts that often occur when an individual drops out of high school. Dropouts are more likely than high school graduates to experience health problems, engage in criminal activities, and become dependent on welfare and other government programs (Guagliardo, Huang, Hicks, & D'Angelo, 1998; Rumberger, 1995).

Recent estimates suggest that relative to high school graduates, the average U.S. student who drops out of high school costs taxpayers over \$292,000 due to lower tax revenues, higher cash and in-kind transfer costs, and costs associated with incarceration (Sum, Khatiwada, & McLaughlin, 2009). This issue can be compounded when incarceration rates of high school dropouts are examined. According to Sum et. al., eighty percent of the incarcerated population does not have a high school diploma. With the average cost of incarceration for one year is just over \$31,000 (Henrichson & Delaney 2012), it is not hard to see how the high school dropouts can have a significant impact on the overall economic stability of society.

### **Dropout Prevention Plans**

Dropping out of high school before earning any type of credential has serious short and long term impacts not only on the individual student but also has an impact on those educators and adults who have worked with them over educational career. There is a certain sense of “ownership” educators have over students and work diligently to ensure that every student can achieve to their maximum potential. Consequently, when a student does not complete their high school education, there can be a sense of failure for the educator and the system. To this end,

individual educators, schools, and districts work to develop various levels of intervention to work with students throughout their middle and high school years with the goal of encouraging school completion.

Sound educational policies are needed to ensure greater school engagement and retention of high-risk youth, particularly students with learning and behavioral difficulties (Rumberger, 1995; Sinclair, Christenson, Evelo, & Hurley, 1998). This is the population of students most likely to leave school without a credential, consequently, tailoring interventions, both programmatic and policy-based, is key keeping engagement high and educational progress on track. To assist with this daunting task, the first step would be to specifically gather data on why these students were leaving their schooling early. A 2000 study by the Oregon Department of Education surveyed recent dropouts and created a top-ten list ranked from most mentioned to least mentioned; (a) not enough credits to graduate, (b) lack of parental support for education, (c) dysfunctional home life, (d) working more than 15 hours a week, (e) substance abuse, (f) frequent discipline referrals, (g) could not adjust to the school setting--did not "fit in" (g) pregnant or student parent, (h) felt peer pressure not to achieve or to leave school, and (i) attended three or more high schools. These general themes helped shape the conversation for dropout prevention programs in Oregon at the turn the century but also mirrored the findings of various previous work on the subject. In 1993 Finn found that dropping out of school is a cumulative process, not an impulsive action and the reasons identified by the Oregon Department of Education are similar to the work of Carnahan (1994) and Nation et. al. (2003). A student's sense of alienation is preceded by unsuccessful school experiences, such as poor academic achievement, failing classes, grade retention, absenteeism, behavior and discipline problems, and transfers from one school to another (Ellias, 1998). The overall impact of these many mitigating

factors must all be considered, to the best extent possible, by policy-makers and educators when working collaboratively to address the complex problem of a dropout. Additionally, there may be local or child/group specific concerns that are unique to a particular school system or population that may be considered when developing a comprehensive approach to the dropout issue.

When examining the literature around current dropout prevention, Myint et al. (2012) found that dropout prevention opportunities could be broken down into three larger categories: universal, selected, and indicated interventions. Each of these overarching themes represent several different types of commonly used interventions/programs. Schools would likely use a combination of programs and approaches from multiple categories to address their needs. Furthermore, program's effectiveness may wane overtime and schools/districts would likely pivot to different approaches.

#### *Universal Interventions*

Universal interventions are programs, policies, or approaches that are for all students within a selected population. Examples of commonly used universal interventions include student advisory or mentor programs, increased focus on extracurricular enrollment/participation, and school-to-work programs for older high school students who it would be appropriate to phase into the workforce. Advisory programs are designed to closely monitor the academic achievement and social development of middle or high school students (Ayres, 1994). These programs typically pair a student with an adult within the building as a touchstone for the student throughout the day. In some instances, high schools assign a specific mentor or advisor to a student for the duration of their four-year in the building. Gatta et al., (1997) evaluated advisory programs implemented in two Chicago high schools with freshmen students and, although the evaluation did not specifically report effects on dropout rates, they

found that students (a) perceived a greater ability to resolve problems within the school setting, (b) were able to maintain a stable relationship, with an adult in the school environment, and (c) had a better understanding of their responsibility for school success and personal accomplishments (Martin, 2003).

Extracurricular activities have long been a cornerstone of the American high school experience as they allow students to form connections with others, learn and practice skills outside the traditional four walls of the classroom, and explore their passions. Wang (2009) found that extracurricular participation was positive associated with success indicators, such as consistent attendance, academic achievement, and aspirations of continue education beyond high school. Student participation and engagement in extracurriculars is ultimately keeping them in school. Mahoney and Cairns (1997) found some extracurricular activities had a stronger impact on dropout rates than others. Engaging students in these high-impact extracurriculars will continue to improve student engagement and retention in the traditional classroom and support the student as they move towards graduation. Finally, Walters and Bowen (1997) found that peer group acceptance, which can be fostered through extracurricular activities, helps students avoid problem behaviors and improve academic performance, all of which leads to continued support and structure for a potentially struggling student, a likely at-risk student, or more plainly a likely dropout.

School-to-work programs, historically called vocational education (Voc. Ed.) but more recently more appropriately named career technical education (CTE), has been a historically identified area for dropout prevention since its inception. The Carl D. Perkins Vocational-Technical Education Act of 1998 (Perkins III), designed to encourage collaborative efforts between schools, businesses, and community agencies, will benefit a large number of students,

including students at-risk for dropout (Finch, 1999). Through collaboration with industry or community partners, CTE programs work to give students the skills necessary to enter into a particular skill or trade (computer coding, culinary, welding, automotive, licensed nursing assistant to name a few). While there are certain challenges schools face with implementation of some of these programs including high costs of materials and consumables, the time commitment for students to achieve an industry certificate balanced against their traditional graduation requirements, and ever decreasing federal funding, CTE programs offer a uniquely different approach to education for many students. These “hand’s on” programs can provide students with the skills necessary for a lifelong career and are often the course with which, dropout likely students exhibit the highest level of engagement and academic success.

#### *Selected Interventions*

Selected interventions are interventions targeted to students considered at-risk on the basis of general background factors, and indicated interventions for individuals clearly in danger of leaving school early (Martin, 2003). Previously discussed key factors that can contribute to a student being identified as at-risk include attendance and grades. Interventions that target these specific areas squarely fall within the category of selected intervention as they are designed to specifically target a known area of concern and actively work with the student and teachers to have it addressed. However simply being aware of these factors is not enough. If schools provide interventions that address the difficulties of students who are identified as having risk factors, a reduction in the dropout rate could be expected (Vitaro, Brendgen, & Tremblay, 1999).

A University of Chicago study, *Looking Forward to High School and College: Middle Grade Indicators of Readiness in Chicago Schools* (Allensworth, Gwynne, Moore, & De La Torre. 2017), Identified the transition from 8th grade to high school as critical indicators for

obtaining high school and college degrees. Students' attendance and overall GPA were found to be the best indicators on how well they will perform in high school. The researchers recommended that high school teachers should not wait until a student was failing ninth-grade classes to intervene. They could use eighth-grade GPA and attendance as indicators for setting coursework goals for identified students (p.3)

One of the emerging selective intervention approaches to dropout reduction is the concept of a "school within a school" or small learning community model. In this approach a targeted group of drop out likely youth are grouped together and provided additional support. These models can include a separate area of a building or, in some cases, an off-site location for learning. Weir (1996) speaks to this type of model in Multicultural Alternative Middle School Program for At-Risk Students (MLC), where staff are trained specifically for dealing with at-risk youths. Programing for the students is targeted and specific to their needs and is often supported by additional staff including paraprofessionals, counselors, or home to school liaisons. By working collaboratively with the student and supporting them, both inside and outside of the classroom, these types of intense, specific interventions have the potential to be successful and it is easy to see why more and more school districts are exploring these types of programmatic options with their most struggling students.

#### *Indicated Intervention*

Indicated interventions are often directed at one particular student for whom the universal and selected intentions did not have the desired effect. These students can continue to struggle with attendance, grades, and behavior. In response to this, one of the more common interventions is a functional behavioral assessment (FBA). While a student does not need to have a special education identification for an FBA approach to be used, the Individuals with

Disabilities Education Act (IDEA, 1997, 1999) addresses the use of functional behavioral assessment, which can be used to design positive behavior supports to reduce behavior or attendance problems (Drasgow, Yell, Bradley, & Shriner, 1999; Fox & Conroy, 2000; Gable & Hendrickson, 2000; Kearney & Tillotson, 1998; Sugai, Lewis-Palmer, & Hagan, 1998; Tobin & Martin, 2001) (cited by Martin, 2003). An FBA works with the team of teachers that interact with the student on a daily basis and helps develop a full picture of the unique needs and challenges that student may be facing. From their observation of the student in class and around the building take place, usually performed by the district's school psychologist. The combination of the observer's notes, reported information from the teacher, and information provided by the parent yield an end product that is often referred to as a behavior plan. This team-based approach to developing a highly individualized, positive support plan for the struggling student is designed to not only address the underlying academic issues but to positively redirect or refocus any negative behaviors. The overall goal is to have a student minimize negative behaviors while support and encouraging positive behaviors, including those directly related to academic success.

Just as there is often never one clear path or reason why a student may end up dropping out of school, indicated supports to address complex issues like dropping out reveal a wide variety of approaches. To this end, districts may use a "wrap around" approach to intervention with a struggling student. In this indicated intervention a community-based approach is used. Originally a plan for integrating community mental health and school services, the concept now includes other agencies and has been very effective in keeping students with multiple problems in school (Eber, 1996; Eber & Nelson, 1997). This approach is particularly helpful when the underlying issues around school extend into the home. By bringing together a group of

community service providers (i.e. mental and physical health professionals, local law enforcement, housing support, etc.), the team can holistically analyze the situation and each provide their unique perspective on ways to help not only the child, but often the family unit. This type of intervention, by its nature, is highly individualized and time consuming but can often provide a great deal of support to the student. While there are limitations to wrap around groups (i.e. districts in rural or low income areas or schools that have a large number of students needing individual support and limited community resources), they are often highly successful once the underlying issues are identified and mitigated.

#### *Compulsory Attendance as Intervention*

One of the leading reasons students drop out is school attendance. The Brookings Hamilton Project, *Reducing Chronic Absenteeism under the Every Student Succeeds Act*, notes that most states define chronic absenteeism as missing ten percent of the school days excused, unexcused or suspension (Bauer, Liu, Schanzenbach & Shambaugh, 2008, p. 10). Chronic absenteeism is consequential for achievement and educational outcomes; students lose instructional time resulting in lower achievement and it is a predictor of dropping out (p.7).

Bridgeland et. al (2007), state that 43% of students left school because they missed too many days and believed that they could not make up the missing days and work. This information is a follow up to their 2006 work, *The Silent Epidemic: Perspectives of a High School Dropout*, where they examined the many reasons students dropped out of school and made suggestions on how they felt it should be addressed. One of those suggestions to education and government officials was to examine policies around attendance and compulsory education. Research by Angrist and Alan (1991), support this notion with approximately one quarter of potential dropouts remain in school because of compulsory school laws. To better understand

how compulsory education is being used as a potential drop out intervention it is important to understand some of the early attempts by states and the federal government to grapple with school attendance.

For a historical perspective on the issue, most states enacted compulsory education laws between 1870 and 1910 with the age being 16 or 17. In the 1950s, most state school-funding policies were designed to encourage schools to recruit students and to sustain student enrollment with early school finance systems incorporated the concept of paying local schools on the basis of the number of pupils enrolled (Montecel and Cortez, 2004). Unfortunately, schools began to manipulate their attendance data in order to receive additional funds. In response a new system was developed, that is still part of many state reporting formats today, known as average daily attendance or average daily membership. The move to using average daily attendance was perhaps one of the early dropout-prevention procedures used to motivate schools to keep students attending school, though it was not necessarily perceived as a dropout-prevention strategy (Montecel and Cortez, 2004). It wasn't until the late 1980's that states began to regularly report dropout rates as a factor of their graduation rate. The inconsistencies between states, and in some cases, districts as to whom constituted a dropout and when produced a variety of accountability issues which eventually led to funding issues. As fewer and fewer students remained enrolled in school, funds were reallocated to more populous buildings. Montecel and Cortez (2004) argue that it is this funding change that ultimately changed the perspective of policy makers in the late 1980's and early 1990's to begin to formally address the issue.

The majority of compulsory attendance research is linked to socioeconomic issues associated with dropping out of high school. The obvious argument is the long term economic impact of leaving high school is far too great to not require students to remain in school for as

long as possible. While this is may not be a tradition immediate intervention like a caring teacher, a specialized learning environment, a support with issues at home; it is a long term approach to improving the student's economic outlook. If the current cohort of 20 year old dropouts is cut in half it would result in \$45 billion in added tax revenues and reduced public health, crime and welfare costs over the life of the cohort (Belfield and Levin, 2007).

While the financial benefits of a high school diploma are well documented, how we get students to that point of earning one, specifically by adjusting the age that they could leave school via a compulsory attendance law as a means of intervention has a dramatic impact on the student's overall success. Angrist and Krueger (1991), found that changes to educational law to include compulsory attendance played a significant role in preventing dropouts from occurring. However, Landis and Reschly (2011) found that changing the law without having more support or a multi-pronged approach to address the issue is not effective. To date, there are 17 states and the District of Columbia that have changed their compulsory attendance age to 18 (Bridgeland et al, 2007), but they are coupling their change with language within the statues around noncompliance and accountability for both parent and student but the school as well. This legislative approach is how states like Indiana and New Hampshire have worked to address their dropout crisis when then changed their compulsory age to 18.

### **Summary**

Beginning with some of the country's earliest European settlers, the Puritans, systems and laws were developed that compelled the offering of education to the citizenry. Perhaps not surprisingly, the concept and concern about students not completing their schooling has seemingly been around just as long. The high school dropout issue burst onto the national stage with the publication of the Nation at Risk but the problem of at-risk students not completing their

education existed long before 1983. Schools and communities have been working hard to keep youth engaged in their studies not only for the benefit of the individual student but because they were keenly aware of the positive society benefits a high school graduate can provide, both economically and socially. Having a more well-educated population leads to less social spending and an improved overall quality of life for everyone. By modifying how educators are interacting with non-engaged or otherwise occupied youth, we can find ways to design programs that meet their needs either at the group or individual level. Finally, by utilizing the notion of compulsory education, generally to age 18, we can ensure that students remain enrolled in school for as long as possible with the hope that some of the interventions take hold and the student re-engages with their learning and eventually earns a high school diploma.

## Chapter 3

### Methods

Laws, like RSA 193:1, are authoritative statements that mandate specific actions to achieve a public good— in this case, a better educated citizenry. To effectuate the increased compulsory education age (18 years of age) of New Hampshire’s students, school districts develop policies, which guide educators in adopting and implementing programs, regulations, and procedures (Downey, 1988). These policies, programs, regulations, and procedures are used on a daily basis throughout the classrooms of New Hampshire high schools to address the RSA 193:1 mandate by educators whom are under the direction and supervision of their building principal. It is the building principal that has ultimate authority and is the individual held accountable for the adherence to state laws and district policies within their school. This study explores principal’s perceptions of any impact RSA 193:1 may have on their school’s dropout rate. Furthermore, this study looked for trends among certain demographic indicators when comparing districts’ reported dropout data to the state department of education (NH DOE) over a five-year span.

This mixed-methods study employs a variety of approaches to analyze data gathered specific to each research question. The initial data review from the NH DOE provided insight into the first two research questions but a broader based cross-sectional survey was needed to collect specific data on high school principal’s perceptions of RSA 193:1. While the survey was focused on RSA 193:1 its design was purposeful in that it allowed the principal to offer broader based description of their schools and their programs and policies rather than narrow the focus to a particular approach or policy. According to Fraenkel and Wallen (2006), cross-sectional

surveys collection information from a particular population at a fixed time. Given the targeted population of high school principals in New Hampshire during a particular survey window, this design selection is appropriate. It is the combination of the more traditional data analysis and the survey component that work in tandem to address each aspect of the four major research questions.

### Research Questions

These are the four research questions for this study.

1. What is the distribution of dropout rates across all New Hampshire high schools since the passage of RSA 193:1?
2. What is the distribution of dropouts at all New Hampshire high schools by various selected demographic variables?
3. Do high school principals perceive RSA 193:1 and their respective local enactments of 193:1 as effective in reducing school dropouts?
4. Are school policy responses to RSA 193:1 more divergent or convergent?

While these are specific questions, they can be broken down into two larger groups. RQ 1. and 2.) Who is dropping out of high school in New Hampshire? And RQ 3. and 4.) What do high school principals think about the law, students leaving, and what are they doing about it?

### *Research Variables*

Information on dropout rates and the selected demographic variables was readily available from the NH DOE website as they compile individual high school end of year reports on dropouts. Additionally, schools report their annual free/reduced student data to the state in a similar format. This information was accessed and compiled for additional analysis. The survey

acted as a tool to gather information of principal's perception of RSA 193:1 and its impact on their school/community. Because of the importance of their role, the principal's perception on this piece of legislation is a key variable that is at the core of this study.

### **Participants**

The sample population for data analysis was all high schools in New Hampshire over a five-year span (2012-2016). The survey population was all high school principals in New Hampshire during the 2018-2019 school year. With the understanding that the 2018-2019 principal may not have been in that role or in their current building when RSA 193:1 was adopted, there is a question that creates an allowance for the principal to ask others for a historical perspective on the issue.

In addition to the school reported data, high school principals were digitally contacted through a series of district and state organizations to gather their input on the impacts of RSA 193:1. They were sent an initial email with an explanation of the research, consent materials, and a link to the survey. Principals were asked to complete the survey as soon as possible. Two additional follow-up/reminder emails were sent attaching similar information and that the survey was only to be completed once and was completely voluntary.

### **Measures**

The principal survey served as the primary data collection tool for principal input and was comprised of a series of questions targeted specifically on possible changes in their schools as a direct or indirect result of RSA 193:1. Survey questions are a mix of five-point Likert scale responses, dichotomous-choice yes/no responses, and providing the principals with an opportunity to provide their thoughts with an open-response/comments section. The open-ended

nature of the final survey questions allows principals to expand on their thoughts on how their schools are working with their students to comply with RSA 193:1. As noted by Landis and Reschly (2011), simply raising the compulsory age of education does not address the reason why students want to leave school prematurely or provide academic or behavioral support to help students meet expectations required to successfully complete high school. By gathering and analyzing district's plans and approaches, as well as input from building principals, the research aims to expand upon Landis and Reschly's findings that simply raising compulsory age does not keep students involved in their schooling while simultaneously finding the current best practices within high schools in New Hampshire.

Frankel and Wallen (2006) caution against the use of digital surveying as the response rate on this type of data collection can often be low. Given the population being surveyed was finite (current high school principals in New Hampshire), a lower response rate was anticipated. To address this, professional and personal outreach was performed to request a response from current principals. As a result, an overall response rate of forty-two percent was achieved over the six-week window that the survey was available.

### **Instrumentation**

The principal survey collects the principal's educational demographic information. The principals were asked their number of years as an educator, the number of years they have been serving as principal of their current school, as well as the approximate student enrollment. Additionally, they were asked to complete questions on school level demographics including school setting/location (in general terms of urban, suburban, small town or rural) and socioeconomic status. The full survey instrument can be found in Appendix B.

Two of the research questions were aimed at collecting key information from principals about their perception of RSA 193:1 and policy/program responses to the law. A series of three questions on five-point Likert scale that specifically target the principal's perception on the effectiveness of RSA 193:1 were developed. The questions asked principals to respond from their own perspective, their staff's views, and finally the community's view of the changes initiated by RSA 193:1. The staff and community questions are phrased around their level of support for the extended compulsory education law. The three questions were as follows:

*The extended compulsory education law is beneficial in moving my students to graduate on schedule with their peers.*

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*How strongly does your community support or oppose the extended compulsory education law?*

- Strongly support
- Somewhat support
- Neither support nor oppose
- Somewhat oppose
- Strongly oppose

*How strongly do teachers in your school support or oppose the extended compulsory education law?*

- Strongly support
- Somewhat support
- Neither support nor oppose
- Somewhat oppose
- Strongly oppose

Three questions specifically ask about the addition of support systems or additional programs as a response to the RSA 193:1. Principals were asked if they added support programs

or activities in response to the new legislation and if so, what were they as well as if they did not add supports, do they feel that they need them now. This open-ended question provided an opportunity for principals to discuss systemic or programmatic changes that took place in their buildings in response to RSA 193:1. Also, it allows the principal to suggest additional supports that they may want but do not currently have in place within their buildings. The question follows.

*My school added support systems/programs in response to the extended compulsory education law.*

- Yes  
 No  
 Don't Know

*If yes, please explain what the structure of the support program/system where developed and how/if they have evolved since their inception.*

*If no, do you need support systems for the extended compulsory education law?*  
 Yes  No

*If your school either adopted a support in response to the extended compulsory education law or if it did not, are there any supports that are not available that you would like to provide?*

- No  
 Yes. Please list below.

The final four questions of the survey instrument are open-ended and covers a wide range of topics. The principals are asked about data collection methods they use to assess the effectiveness of RSA 193:1 within their schools. The most likely answer was predicted to be high school completion or dropout rate, as a result, there is a follow up question about dropout rate that aims to have the principals expand upon their views of why their school's dropout rate may be changing. The question follows.

*If your school has experienced a decline in its dropout rate, to what do you attribute this decline?*

Principals were then queried about any potential unintended or negative consequences that arose from the changes implemented by RSA 193:1. If they felt that there were some negative outcomes as a result of the shift, their overall perception regardless of dropout data changes, would likely be skewed in the negative. Finally, because of the realistic possibility of turn over at the role of principal, the final question addresses any potential changes that may have happened before the current principals held their role. This type of information can often be gathered from long-tenured staff member and would likely help understand any institutional changes that took place prior to the current administration taking over but were still a result of RSA 193:1. Here is that question:

*If you were not employed in the role of principal of the change in compulsory education, are you aware of any changes that have taken place as a result of the change that may have been enacted before your employment began? If so, please list them.*

### **Data Analysis**

End of school year state reported information was accessed through the New Hampshire Department of Education website and compiled within spreadsheets. Five year mean averages were compiled for the participating schools for dropout data as well as free/reduced lunch information. Principal survey result data was compiled electronically within Qualtrics and analyzed within SPSS. A *t*-test was utilized to examine the relationship among variables. A *t*-test is a test of statistical significance that compares the mean difference between two samples of a population (Gray, 1987). In addition to *t*-test, an analysis of variance (ANOVA) and a chi square analysis were utilized to provide further insight of the survey results. A correlation test was performed to find any relationship between a school's socioeconomic status and their dropout rate. A chi square analysis is a test of statistical significance that identifies relationships

between discrete variables and an ANOVA examines multiple population to identify differences of variation (Weinberg, Schumaker & Oltman, 1981).

In order to analyze these open response questions, a new approach was required. The methodology developed by DeMitchell, Kossakoski, and Baldasaro (2008) in which the researcher coded each response and developed a series of codes and major themes grounded the analysis of each open response question. They write, “An iterative process of reviewing each response and its code was conducted. Categories of responses were developed and refined several times, finally distilling into themes.” (p. 1229). This iterative process was used in the analysis of the open response question and themes were distilled from the analysis.

It is through the combination of these combined school reported data, statistical test, and the creation of response themes from open ended questions that the research questions will be answered. It is important to recognize the combination of reported data points interacting with the reality of what is happening in schools that will provide a more robust understanding of how effective RSA 193:1 has been for students, teachers, and their communities through the eyes of building principals.

To work to specifically address RQ 4 on the convergence or divergence of school policy, a post hoc analysis was performed for the high schools that appeared within the top and bottom five for each drop out calculation methodology. In total there were seven different top performing schools and seven low performing schools when the metrics were combined and overlapping schools were only represented once. These fourteen schools provided the starting point for collection of district policies as well as school level documentation including student/parent handbooks as well as program of studies. Each school or district has their materials available on either their district website or the school specific site. Two of the

identified lower performing schools were within the same district (Manchester) and were governed by the same overarching policy manual but each school still had its own student handbook.

Once all documents were collected they were analyzed for information that specifically addresses the school/districts graduation guidelines, including credit requirements, general grading policies, any programs or policies specific to interventions for struggling students, and any language around alternative options for earning credit including what, if anything, was in place for students to recover credit/competencies that they have previously failed. While the language schools use in these various areas are not always identical, there is a certain sense of commonality when looking for specifics around credit or competency recovery protocols or alternatives to traditional credit. Once compiled, the common language and protocols of high performing schools were identified and compared to each other as well as the common language and protocols of low performing schools. By doing so, a determination on convergence or divergence of policy and procedure could be made in reference to RSA 193:1. By compiling and identifying how these various districts/schools address these key areas, a larger understanding of how they develop policy specific to keeping students in school and having them ultimately succeed in graduating, all part of RSA 193:1's purpose when changing the compulsory age for graduation.

## Chapter 4

### Results

The purpose of this research is to explore the effect of RSA 193:1 on dropout rates in New Hampshire's public high schools. Because high school principals are on the frontline of implementing this dropout law, their perceptions are important in understanding the impact of the law at the school site level on dropout rates and policies that were established to support the law.

The following research questions were used to direct this study:

1. What is the distribution of dropout rates across all New Hampshire high schools since the passage of RSA 193:1?
2. What is the distribution of dropouts at all New Hampshire high schools by various selected demographic variables?
3. Do high school principals perceive RSA 193:1 and their respective local enactments of 193:1 as effective in reducing school dropouts?
4. Are school policy responses to RSA 193:1 more divergent or convergent?

The methods for addressing each research question were discussed in Chapter 3. The data gathered for each question is discussed below.

#### **Research Question # 1: What is the distribution of dropout rates across all New Hampshire high schools since the passage of RSA 193:1?**

As previously discussed, RSA 193:1 Duty of Parent; Compulsory Attendance by Pupil was amended effective on August 28, 2007. Essentially, this statute was amended to extend the compulsory education of New Hampshire to age 18 from age 16 (RSA 193:1(I)). The greatest

impact of this compulsory education change will be at the high school level as the extension of the attendance age for students will primarily impact the high as student would now be retained for the additional two years. Consequently, this study focuses on the high school experience for students as a result of the change through programmatic and policy shifts as well as the perceptions of principals who are tasked with adapting their curricular program to address the goal of providing for more students to be on-time completers of their high school education.

This research started with the identification of the state's high schools, a list of all of the public high schools was accessed through the New Hampshire Department of Education (NH DOE) database. For ease of comparison, charter schools and schools that were not operational for the duration of the sample time period were not included in the analysis. The public academies and schools operating under joint maintenance agreements (Coe Brown Northwood Academy, Prospect Mountain, and Pinkerton Academy) were included in this analysis. Finally, one high school, Bud Carlson Academy, was excluded from the population of New Hampshire high schools as it was a statistical outlier in terms of enrollment, dropout rate, and free/reduced lunch rate. Bud Carlson Academy is associated with Spaulding High and is part of the Rochester district but is listed as a separate high school for reporting purposes. From the Rochester school department website (<https://www.rochesterschools.com/bca/index.html>), the mission of the Bud Carlson Academy, in partnership with our community, is to provide a quality education by recognizing and developing the talents of all students. To reconnect students to the school community and help students become more successful academically and socially. Given the highly individualized and alternative nature of the programs and curriculum utilized, as well as the type of non-traditional students they work with, it seemed inappropriate to be comparing

them to other larger, more main-stream traditional schools across the state. As a result, the final population includes eighty high schools.

Next, the five-year mean averages (2012-2016) for these selected high schools were compiled from district reported data to the NH DOE. In addition to demographics, data was compiled on enrollment, early exit percentage, and the cohort dropout rates for every high school in sample from the state. Additionally, free and reduced lunch prices percentages for each high school were compiled and averaged for use with other research questions.

### *Dropout Data Comparison*

In order to compare high schools, it is critical to understand how the dropout rate is reported by the state. Starting in the 2007-2008 school year the NH DOE introduced new terminology and altered their report format. As stated on their website, previously all student who left school without some type of diploma/certificate were labeled “dropouts”. This group is now identified as a new group labeled “Early-exit non-graduates”, from there this group is broken into three subcategories (Earned GED/HiSet, Enrolled in College, and Dropped out). Utilizing the larger grouping definitions of Early Exit non-graduate and the new subgroups within it, a drop out is now clearly defined as a student who left early and has not been identified as either receiving a GED/HiSet or enrolling in college. Beginning in the 2009-2010, the department continued to modify their definitions and methodology. In an attempt to align to a more nationally recognized model, the department began reporting dropouts in two formats; the early-exit non-graduate model as well as the New England Secondary School Consortium defined cohort rate as it parallels more directly with national definitions of graduate and dropout. The NH DOE stated that the “cohort model includes all students during the past four years who were expected to graduate (at the end of the school year).” Additionally, they state that they

believe that this “analysis is more accurate picture of students who were in New Hampshire schools during the past four years.” Neither model considered a student whom has enrolled in college or has earned a GED/Hiset, to be a dropout in computing their “final” dropout percentage. The final result of all of these changes is, in essence, schools report two sets of data, the cohort number of how a group of students persisted over four years, as well as the more traditional yearly report of how many students left their building without a traditional four-year diploma.

One of the issues that arose with these two reporting approaches is when a student leaves school prior to their cohort’s projected graduation year. For example, if a student leaves school without a GED plan or enrollment in a college during their third high school year (traditionally a junior) he/she would not be reported as a dropout in the cohort model until the next year but would be reported as an early-exit non-graduate as either earning a GED, Enrolling in College, or Dropping out depending on their circumstances. In an effort to account for these, and other similar types of circumstances, each high school reports an annual percentage and a four-year cumulative average for dropouts in for each of the methodologies (cohort and traditional). It is these four-year averages that are the data points, along with average five-year enrollment and average five-year free/reduced lunch percentages that were used to throughout the research.

### **Dropout Data**

The five-year early exit data provides a full picture of what percentage of students, regardless of grade level or entry point into the system, are leaving in a particular year. The mean five-year average was 5.9% with a median of 5.5% with a standard deviation of 4.3. Table 1 provides the extreme values for the five-year early exit rates.

**Table 1.****Five-Year Early Exit Average Extreme Values (*highest five early exits and five lowest early exits by school*)**

<b>Highest Five-Year Early Exit</b>	<b>School</b>	<b>Percentage of Students who are Early Exit</b>
1 <sup>st</sup>	Franklin High School	18.9
2 <sup>nd</sup>	Pittsfield High School	17.8
3 <sup>rd</sup>	Manchester School of Technology	15.5
4 <sup>th</sup>	Nute High School	15.2
5 <sup>th</sup>	Farmington Senior High School	15.1
<b>Lowest Five-Year Early Exit</b>		<b>Percentage of Students who are Early Exit</b>
1 <sup>st</sup>	Gorham High School	0.0
2 <sup>nd</sup>	Hanover High School	0.66
3 <sup>rd</sup>	Plymouth Regional High School	0.70
4 <sup>th</sup>	Kennett High School	0.73
5 <sup>th</sup>	Bedford High School	0.76

The other data point examined was the five-year average dropout rate as measured by the four-year cohort model. These data represent students who did not earn a high school diploma within the traditional four years of high school, enroll in a college course, or be awarded a GED/HiSet certificate at the end of the four years. The mean average was 3.9% with the median being 3.3%. The range of values was 12.6% with a standard deviation of 3%. Table 2 provides the extreme values for the five-year dropout rates.

**Table 2.**

**Five-Year Cohort Dropout Average Extreme Values (*highest five dropouts and five lowest dropouts by school*)**

<b>Highest Five-Year Cohort Dropout</b>	<b>School</b>	<b>Percentage of Students who Dropout</b>
<b>1<sup>st</sup></b>	Franklin High School	12.6
<b>2<sup>nd</sup></b>	Manchester Memorial High School	12.4
<b>3<sup>rd</sup></b>	Manchester School of Technology	11.5
<b>4<sup>th</sup></b>	Stevens High School	11.4
<b>5<sup>th</sup></b>	Pittsfield High School	9.6
<b>Lowest Five-Year Cohort Dropout</b>		<b>Percentage of Students who Dropout</b>
<b>1<sup>st</sup></b>	Gorham High School	0.0
<b>2<sup>nd</sup></b>	Windham High School	0.21
<b>3<sup>rd</sup></b>	Hollis-Brookline High School	0.28

4 <sup>th</sup>	Plymouth Regional High School	0.35
5 <sup>th</sup>	Kennett High School	0.37

---

Tables 1 and 2 show a wide range of early exit and cohort dropout data. The difference in means (5.9% and 3.9%) . There is overlap with six of the schools (Franklin, Pittsfield, Manchester School of Technology, Gorham, Plymouth, and Kennett) appearing on both lists. Regardless of measure, early exit or cohort dropout model, the two schools at the extreme values remain the same. With an average early exit percentage of 18.9% and an average dropout rate of 12.6%, Franklin High has had a consistent, multi-year/graduating class issue with having their students complete high school and earn a diploma. Conversely, Gorham High is reporting that they, over the same five year time span, have not had a single student fail to earn a diploma as both their early exit average and dropout average are at zero. Exploring further difference with various demographic variables may provide insight into why these two schools, whose students participate against each other in athletic contests, are so different.

**Research Question #2: What is the distribution of dropouts at all New Hampshire high schools by various selected demographic variables?**

This research question examines the two selected variables of socio-economic status and student enrollment and examines them alongside the early exit and cohort drop out data. Free/Reduced lunch percentages were utilized as an indicator of relative socio-economic status for each high school. Student enrollment data is reported annually to the state for federal reporting purposes. Both enrollment and free/reduced lunch data is readily available on the NH DOE website.

### *School Demographics*

The eighty schools varied greatly in each of the key variables; enrollment, average percentage of free/reduced lunch, five-year early exit, and dropout rates. Additionally, the county where the school was located was identified to give a sense of geographic place to the analysis. The mean five-year average enrollment for the sample of schools was 725 students with the median five-year average enrollment was 557 students. The largest school, by average enrollment, in the state is Pinkerton Academy with 3095 students. The smallest by average enrollment is Pittsburg High school with 40 students. Table 3 further explores the enrollment data while Table 4 provides a breakdown of the number of high schools in each county.

**Table 3.**

**Average Enrollment Extremes (*highest five enrollments and five lowest enrollments by school*)**

<b>Highest Average Enrollment</b>	<b>School</b>	<b>Enrollment</b>
1 <sup>st</sup>	Pinkerton Academy	3095*
2 <sup>nd</sup>	Nashua High School South	1833
3 <sup>rd</sup>	Manchester Memorial High School	1808
4 <sup>th</sup>	Nashua High School North	1718
5 <sup>th</sup>	Exeter High School	1711
<b>Lowest Average Enrollment</b>		
1 <sup>st</sup>	Pittsburg High School	40

2 <sup>nd</sup>	Lin-Wood Public High School	102
3 <sup>rd</sup>	Lisbon Regional High School	117
4 <sup>th</sup>	Colebrook Academy	124
5 <sup>th</sup>	Sunnapee Sr. High School	139

*\*Pinkerton Academy's enrollment qualifies as a statistical outlier*

**Table 4.**

**High Schools by County**

<b>County</b>	<b>Number of High Schools</b>	<b>Percentage of All High Schools in NH</b>
Belknap	6	7.5
Carroll	3	3.8
Cheshire	4	5.0
Coos	6	7.5
Grafton	10	12.5
Hillsborough	20	25.1
Merrimack	8	10.0
Rockingham	13	16.3
Stafford	6	7.5
Sullivan	4	5.0
<b>Total</b>	<b>80</b>	<b>100.0</b>

The free/reduced lunch rates were examined and found to have a mean five-year average value of 26.6% with a median value of 27.1%. The standard deviation is 13.8% with a wide range from the high of 54.8% down to the low of 3.6%. Table 5 illustrates the five high schools with the most extreme average values for free and reduced lunch percentages.

**Table 5.**

**Free/Reduced Lunch Average Values by High School**

<b>Highest Average F/R Rate</b>	<b>School</b>	<b>Percentage</b>
1st	Manchester West High School	54.8
2 <sup>nd</sup>	Franklin High School	53.6
3 <sup>rd</sup>	Laconia High School	50.0
4 <sup>th</sup>	Manchester School of Technology	49.0
5 <sup>th</sup>	Berlin Senior High School	45.6
<b>Lowest Average F/R Rate</b>		
1 <sup>st</sup>	Pittsburg High School	3.64
2 <sup>nd</sup>	Coe-Brown Northwood Academy	3.68
3 <sup>rd</sup>	Hanover High School	3.71
4 <sup>th</sup>	Hollis-Brookline High School	4.0
5 <sup>th</sup>	Souhegan Cooperative High School	5.4

*Correlations*

The next section reviews the correlation between the four-major demographic variables; enrollment, free/reduced lunch, early exit, and cohort dropout. These correlations provide insight into any potential interactions between the variables. Table 6 is a summary of simple correlations for these variables.

**Table 6.**  
**Summary of Simple Correlation for All Variables**

		<b>5 YR Ave SES</b>	<b>5 Yr Ave Early Exit</b>	<b>5 Yr Ave Enrollment</b>	<b>5 Year Ave Cohort Dropout Only</b>
<b>5 Year Ave SES</b>	<i>Pearson Correlation Sig. (2- Tailed)</i>	1	.568**	-.254*	.646**
			.000	.023	.000
<b>5 Year Ave Early Exit</b>	<i>Pearson Correlation Sig. (2- Tailed)</i>	.568**	1	.034	.908**
		.000		.765	.000
<b>5 Year Ave Enrollment</b>	<i>Pearson Correlation Sig. (2- Tailed)</i>	-.254*	.034	1	.056
		.023	.765		.619
<b>5 Year Ave Cohort Dropout Only</b>	<i>Pearson Correlation</i>	.646**	.908**	.056	1
	<i>Sig. (2- Tailed)</i>	.000	.000	.619	

\*\* Correlation is significant at the 0.01 level (2-tailed)  
\* Correlation is significant at the 0.05 level (2-tailed)

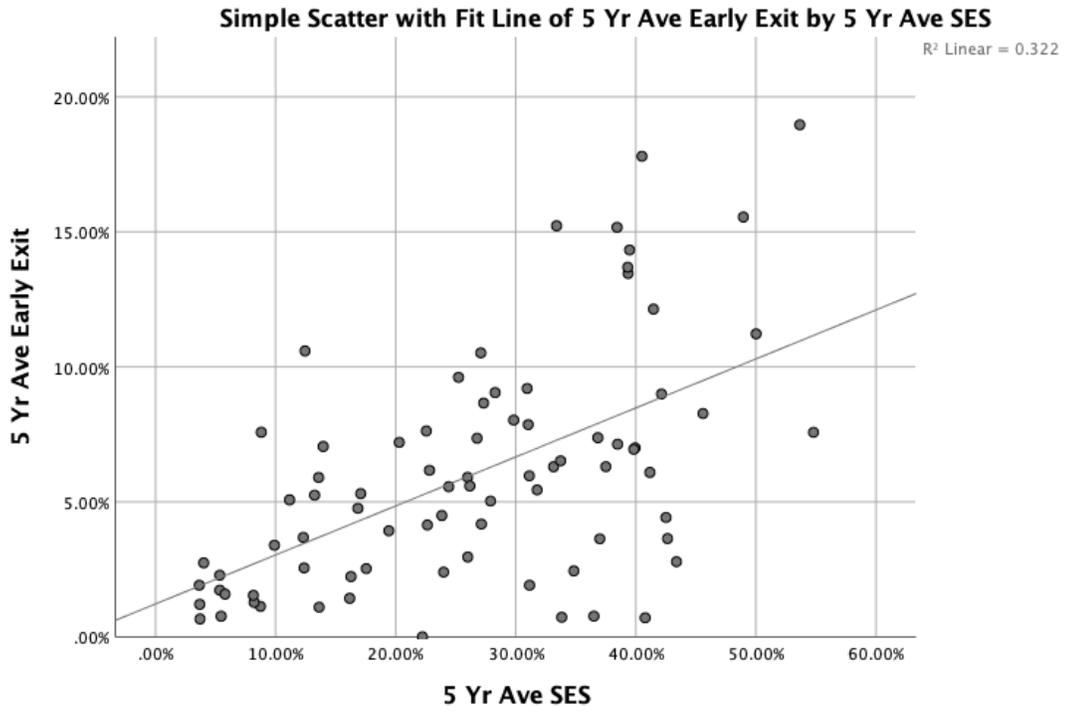
Five-year average SES has a moderately strong positive correlation at the .01 level to both the five-year early exit (.568) and five-year drop out only (.646) variables (Urdan, 2001: 0-2 weak, .2-.5 moderate, and above .5 strong). Additionally, SES has a weak/moderate negative

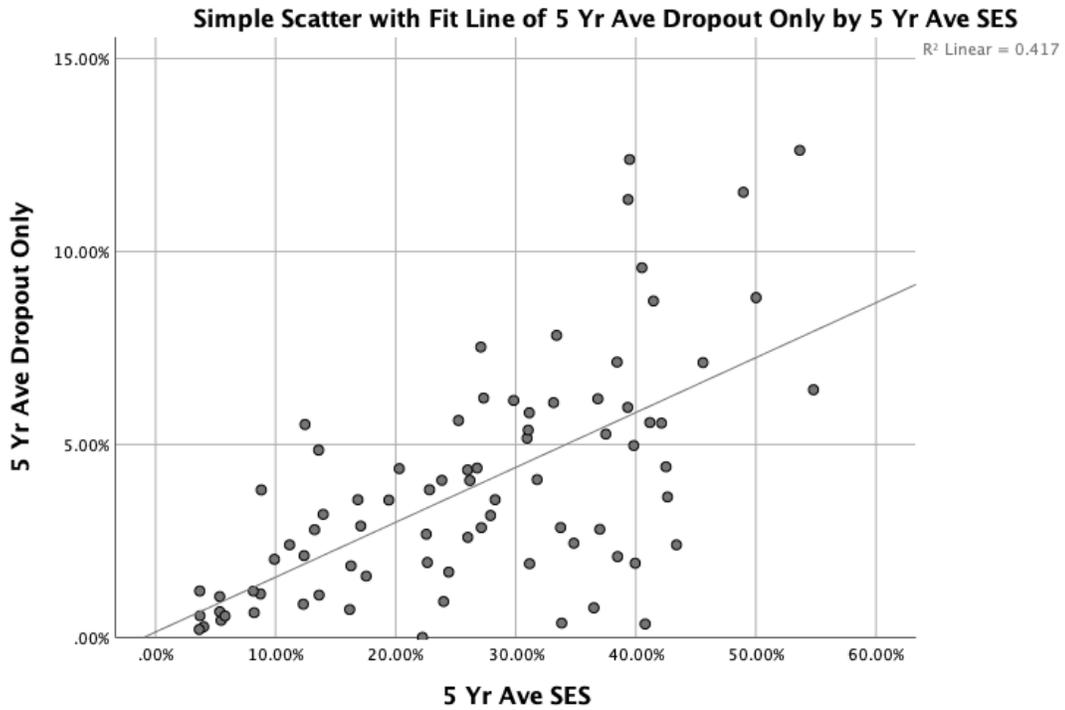
correlation (-.254) to the five-year average enrollment variable. This weak/moderate negative correlation can be interpreted to mean as school enrollment increases the impact of SES is decreasing. It is interesting to note that the weak/moderate negative correlation between SES and enrollment is the strongest correlation that enrollment has with either of the drop out variables, early exit and dropout (weak .034 and .056 respectively). Given the extremely small enrollments of some high schools in New Hampshire, one or two students on free/reduced lunch on any particular year has a high likelihood of impacting a school's overall average. In the larger schools, the potential for a small handful of students or perhaps a new family moving into the district, having an impact is mitigated by the overall large enrollment. Additionally, perhaps not surprisingly, the early exit and dropout variables are both strongly positively correlated with each other (.908) at the .01 level. Given they are measuring the same data in different formats, it is expected that they would both be highly positively correlated to each other.

Further examination of how average SES is related to students leaving school, regardless of metric (Early Exit or Cohort Dropout), via a scatter plot yields a positive trend line for both variables (Figure 1). With an R-squared value of .32 and an R-squared value of .41 is a moderate correlation and positive trend for the five-year average of SES and a student's likeliness to leave school. A simpler way to interpret the R-squared value is to multiply it by 100 to turn it into a percentage and use that percent to explain the variation in the data. In the case of Early Exit, the R-squared value can be interpreted to mean that 32.2% of the variation in the five-year early exit can be explained by the individual school's average SES. With respect to dropouts, 41.7% of the variation in dropout data can be explained by the five-year average SES.

**Figure 1.**

**Scatter plots with Fit Lines for Early Exit and Cohort Dropout vs SES**

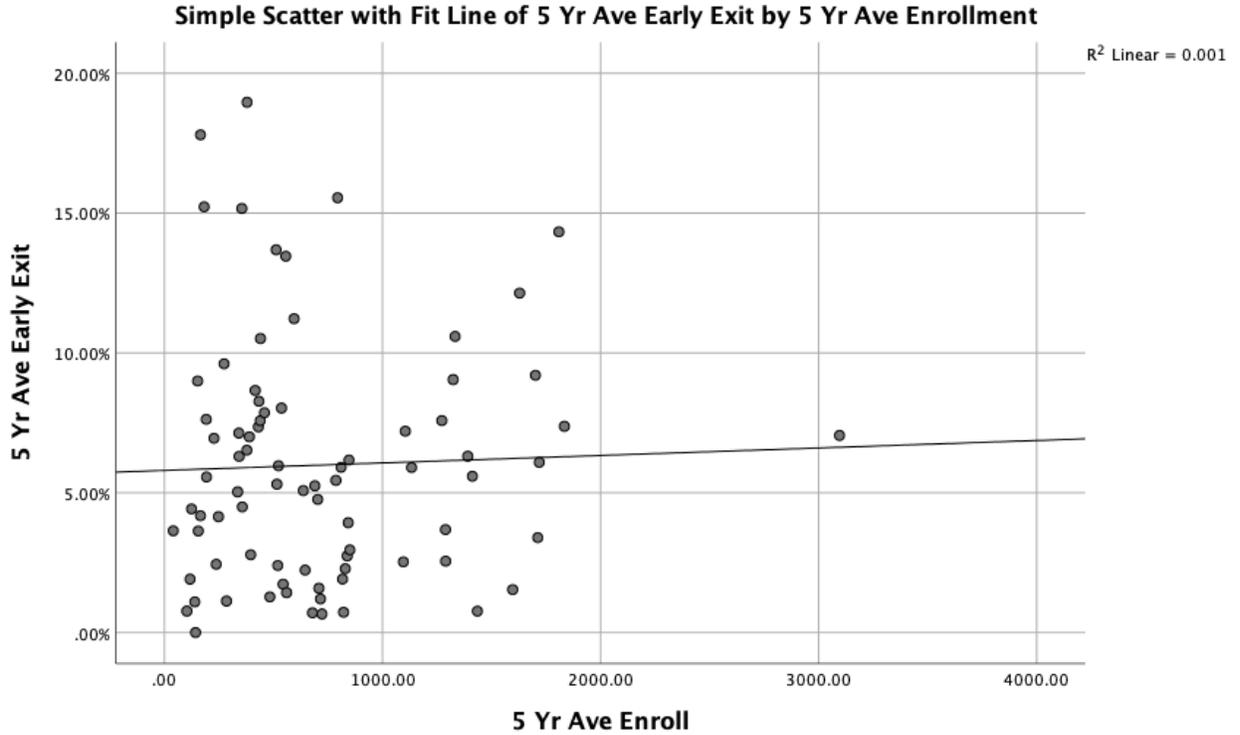


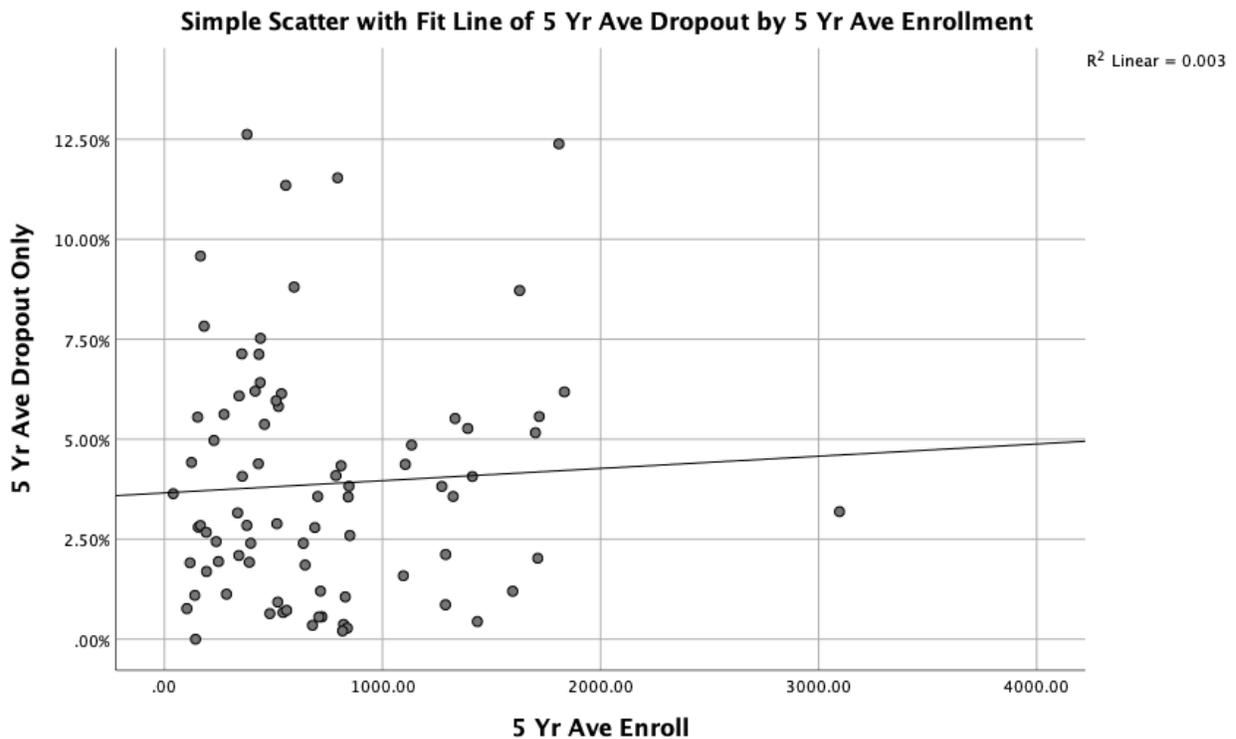


Continuing the examination on how the variables, early exit and cohort dropout, interact with student enrollment data the findings indicate there is virtually no impact from enrollment on either (Figure 2). With a nearly horizontal line of best fit and R-squared values below 0.0 for both early exit and dropout, it can be interpreted that school enrollment does not have a significant correlation with students leaving school before earning a diploma.

**Figure 2:**

**Scatter plots with Fit Lines for Early Exit and Cohort Dropout vs Enrollment**





The two variables that were examined, enrollment and SES, provided interesting outcomes. Enrollment plays almost no role in students leaving school by either metric, early exit or cohort dropout, but the large range of schools within New Hampshire, as it relates to total student enrollment, perhaps provides a caution to the belief that larger schools i.e. schools with more students, are more likely to have a larger percentage of students dropouts. These data simply does not support that belief. SES does provide some explanation as there are some moderate positive correlations between a school's SES rate and their dropout/early exit rates. In essences, it accounts for approximately a little more than a third of the variation in drop out data. Exploring what schools are doing, regardless of their enrollment, to work with their students in terms of programs, policies, and procedures may provide further insight into the variation in school dropout rates.

**Research Question # 3: Do high school principals perceive RSA 193:1 and their respective local enactments of 193:1 as effective in reducing school dropouts?**

This question seeks to answer how building principals interpret the effectiveness of RSA 193:1. Additionally, principals were given the opportunity to expand upon how their individual schools and communities are working to effectively implement 193:1. Principals were asked to explain the development of programs or policies specific to the change and how they, their staff, and their community believe these changes were impacting the overall success of their students to remain in school through high school graduation.

**Principals' Perceptions**

In addition to the school reported data, high school principals were digitally contacted through a series of district and state organizations to gather their input on the impact of RSA 193:1. They were sent an initial email with an explanation of the research, consent materials, and a link to the survey. Principals were asked to complete the survey as soon as possible. Two additional follow-up/reminder emails were sent attaching similar information and that the survey was only to be completed once and was completely voluntary.

*Responding School Demographics.* The following is a summary of the demographic information supplied by the responding principal to the survey specifically used to address research question #3 only. State wide demographic information on all high schools was reported earlier as part of research question #2.

The schools surveyed represented a wide range in terms of enrollment. The smallest school represented in principal survey had an enrollment of 55 students and the largest having 1650 students. The mean enrollment of the thirty-three schools was 643 students. Three-quarters of the schools had an enrollment greater than 420 students. According to the New

Hampshire Department of Education, for the 2018-2019 school year, the average high school enrollment across the state was 570 students. Two-thirds of all principals surveyed identified their school as being rural/small town. Data regarding principal perception on whether the school is perceived as high, medium, or lower wealth was corrupted and is not considered usable.

*Responding Principal Demographics.* Of the thirty-three principals that responded to the survey, fifteen or roughly 46% had twenty-five years of more of experience in the field of education. Another fifteen or roughly 46% had between ten and twenty-five years of experience and the remaining three, or the remaining 8%, had less than ten years of experience as an educator. Shifting to their current role as principal of their building, six or 18% have ten or more years of experience. Thirteen or 39% have between four and ten years of experience. Ten or 30% have between two and four years while the remaining four or 12% of the principals surveyed were in their first year on the job. Individual responses on years in education and years as principal have been collapsed into broader groupings for ease of comparison.

**Table 7.**

**Principal’s Total Years in Education**

<b>Years</b>	<b>Percentage</b>	<b>Number</b>
<b>3 or less</b>	9.0	3
<b>10-25</b>	45.5	15
<b>25 or more</b>	45.5	15

**Table 8.**

**Years as a Principal**

<b>Years</b>	<b>Percentage</b>	<b>Number</b>
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<b>1</b>	12.1	4
<b>2-4</b>	30.3	10
<b>4-10</b>	39.4	13
<b>10 or more</b>	18.1	6

The majority of the individuals (91%) who responded to the survey were experienced educators with 10 or more years as an educator, but still fairly new, less than four years of experience, to the role of high school building principal. The roughly 40% of respondents who have four years or less experience mirrors modern trends with the national average tenure of principals in their schools was four years as of 2016–17 (Levin and Bradly, 2019).

*Perceptions of RSA 193:1.* Through a series of questions designed to measure the perception of the effectiveness of RSA 193:1, principals were asked about three different stakeholder groups; the principal themselves, the teachers, and the community. These questions utilize a Likert scale to assess the information with frequency distributions conducted for all items.

The majority of the principals agree or strongly agree (combined 69.7%) that the change in the compulsory education law is beneficial to their students for keeping them on pace with their peers to graduate. However, nearly a quarter (24.2%) disagreed with their peers and believed that it was not beneficial in moving their students along to graduate on schedule with their peers. Principals were asked for their perception of their teachers support for the compulsory change. Principals reported that they believed 66.7% of their teachers supported or strongly supported the change in compulsory education law. Twenty one percent of principals reported that their staff was ambivalent about the change. Finally, 12.1% of principals

responded that their teachers did not support the measure in any form and reported that they felt their staff oppose the measure. Turning to the community perception, the principals reported that 48.5% of their community supports the change in the law. Six percent stated that their community opposed the change. The relatively large percent (45.5%) reported in the neutral category representing that their perception was that the community was neither oppose or supportive of RSA 193:1 and the remaining principals felt that their communities were neither in support or opposition to the change.

For these analyses, the five-point Likert style survey instrument is collapsed for greater ease of analysis. The instrument' range was a score of 1 is Strongly Disagree, 2 is Disagree, 3 is Neutral, 4 is Agree, and 5 is Strongly Agree.

**Table 9: Principal perception of RSA 193:1 keeping students on schedule with their peers**

<b>Mean (range=1-7)</b>	<b>SD</b>	<b>% Strongly Disagree &amp; Disagree</b>	<b>% Neutral</b>	<b>% Agree &amp; Strongly Agree &amp;</b>	<b>N</b>
4.8	1.5	24.2	6.1	69.7	33

**Principal perception of support from faculty for RSA 193:1**

<b>Mean (range=1-5)</b>	<b>SD</b>	<b>% Strongly Oppose &amp; Oppose</b>	<b>% Neutral</b>	<b>% Strong Support &amp; Support</b>	<b>N</b>
3.8	.94	12.1	21.2	66.7	33

### Principal perception of support from the community for RSA 193:1

Mean (range=1-5)	SD	% Strongly Oppose & Oppose	% Neutral	% Strong Support & Support	<i>N</i>
3.4	.61	6.1	45.5	48.5	33

In review, the majority of New Hampshire high school principals voiced a strong belief that RSA 193:1 is beneficial to their students and is helping them progress through high school and to graduate on time, with their peers. They also believe that their staff and community believe in the measure and support it at nearly at a rate of 70%. While it is the building principal who is ultimately responsible for the wellbeing and educational progress for the students, they need support from other adults with whom students interact. These other adults, be it classroom teachers or parents and community members, should all be of the same mindset when it comes to student success and progress towards their educational goals. This survey data suggest that the principals believe that both the teachers and community strongly support and are in alignment with the principal's view on the effectiveness and usefulness of 193:1 as a tool to aid in the progress all students to graduation.

#### **Additional Supports**

In an effort to ascertain what types of changes, if any, made within the school as a result of change in compulsory education, principals were asked a series of questions around support structures, programs, or other types of potential interventions that were the result of the shift. When asked directly about the addition of supports in response to the change, slightly more than half (54.5%) reported that they did not add any additional support. This slight majority was then asked if they needed any additional supports to specifically address the change in compulsory education and 60% responded that they did not need any additional supports. Finally, all principals were asked, regardless of their school's response, were there any supports that they

would like to provide but are not currently available. Principals were equally split on this issue with 53.3% reporting that there were known supports available that they would like to utilize.

Table 10 provides a collapsed summary of responses from the principals.

**Table 10.**

**Additional Supports**

<b>We added supports:</b>	<b>Yes</b>	<b>No</b>
	45.5%	54.5%
<b>We did not add supports; but is there a need</b>	<b>Yes</b>	<b>No</b>
	39.1%	60.9%
<b>We want to provide supports that are currently not available</b>	<b>Yes</b>	<b>No</b>
	53.3%	46.7%

In a follow-up to the question about adding additional supports, principals who answered in the affirmative were given the opportunity to list out what types of supports they were using or had used in the past as well as how they may have evolved over time. This follow-up question as well as the open-ended/short answer questions of the survey, was developed to allow the principals to expand upon and explain their views on the compulsory age change. Additionally, the questions allowed the principals to voice their own views on what, other than RSA 193:1, may be contributing to their school’s reduction in dropouts as well as sharing their thoughts on any unintended issues that may have arisen along the way as a result of RSA 193:1. The main

goal of these questions was to help further the understanding on the principal's perception of the overall effectiveness of RSA 193:1 of reducing the dropout rate.

### **Principal Responses to Open-Ended Questions**

In order to analyze these open response questions, a new approach was required. The methodology developed by DeMitchell, Kossakoski, and Baldasaro (2008) in which the researcher coded each response and developed a series of codes and major themes grounded the analysis of each open response question. They write, "An iterative process of reviewing each response and its code was conducted. Categories of responses were developed and refined several times, finally distilling into themes." (p. 1229). These open-ended/response style questions pose unique issues around their "one and done" nature and limit the ability to dig further or ask for further explanation. As pointed out by DeMitchell et. al. and Glasser, they limit the ability of the researcher to probe further and ask "what is happening here". As a result, we rely on the themes to guide our understanding and explore the principal's perception of RSA 193:1

#### **Responses:**

This is the first in a series response/short answer questions for the principals. Each question looks at a different aspect of the law and its potential impact on their schools. Responses for each question were analyzed and themes were developed from their answers. Themes are reported and discuss following the question.

*Question: My school added support systems/programs in response to the extended compulsory education law, if so, please list them.*

Fifteen principals indicated that they had added supports as a result of the compulsory change. The supports that the principals reported can be organized into two categories- early intervention and altering the diploma requirements. These two themes were split evenly by the respondents and were often coupled together. Their comments include descriptions of the intervention include: “Having our intervention teams via an RTI (*Response to Intervention*) model identify and work with kids we considered higher risk”; “Try to get supports in early grades (9/10) but struggle to keep engaged, so often result as special education referral”, “Weekly student support teams to meet to discuss issues with guidance and staff before they fall too far behind, identifying early and providing RTI supports helps keep them on track”. These comments came from six different principals but all of their schools that were larger (550+ students) and all self-identified by the principal as medium wealth and suburban or urban school districts. Because of the anonymity of the survey, it is impossible to link the responses and interventions to a specific school or a particular drop out data point, but the SES and geographic data could provide potential insight into how schools with certain reported characteristics are responding with interventions for their students.

Comments around the diploma requirements included “More diploma options are need”; “We utilizes [sic] the state 20 credit diploma for some of our kids”; “creative utilization of Adult Ed and HiSet (*formally known as the GED*) to get state diplomas”. These comments came from seven different principals whose enrollment varied from the highest reported enrollment figure, 1200 students, down to 350 students. Additionally, this reporting population encompassed a wider range of SES groupings including all three wealth levels (low, medium and high) as well a greater geographic diversity with principals reporting their districts as rural, small town, suburban, and urban. The approaches mentioned by these principals appear to more of

operational shifts. They are considering the creation of student-based teams or utilizing meetings via an RTI approach as an added support. It is unclear if these approaches were being used prior to the passing of RSA 193:1, however, the principals consider them as a support for the change. In addition to these operational shifts, there are some potential policy changes to their school's graduation requirements. Often schools have requirements that are greater than the state minimum and any potential change to allow a student to receive a state diploma as opposed to the school-sponsored diploma may have required some district-level policy changes. Finally, the reliance on HiSet for non-diploma options may have been utilized prior to RSA 193:1 but again, principals are feeling that it is an added support for the purpose of keeping students on track to graduate. It is unclear to what extent HiSet was being used prior to RSA 193:1 but it is not a new tool developed or implemented as a result of the change.

**Table 11. Principal Support and Interventions**

<b>School</b>	<b>Principal Support for RSA 193:1</b>	<b>Interventions</b>
1	Somewhat Agree	• Expand HiSet Opportunities
2	Somewhat Agree	• Expand Adult Education • Expand HiSet Opportunities
3	Somewhat Agree	• Expand HiSet Opportunities
4	Somewhat Agree	• Response to Intervention • Expand HiSet Opportunities
5	Somewhat Agree	• Response to Intervention • Expand HiSet Opportunities

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6	Somewhat Agree	• Response to Intervention
7	Agree	• Expand Adult Education • More Diploma Options
8	Agree	• 20 Credit Diploma
9	Agree	• More Diploma Options • 20 Credit Diploma
10	Agree	• Community Liaison • More Diploma Options
11	Agree	• Response to Intervention
12	Strongly Agree	• Expand Adult Education • More Diploma Options
13	Strongly Agree	• Expand Adult Education
14	Strongly Agree	• Response to Intervention Earlier
15	Strongly Agree	• Response to Intervention • More Diploma Options

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This is the first in a series of four open response/short answer questions for the principals. Each question looks at a different aspect of the law and its potential impact on their schools. Responses for each question were analyzed and themes/categories were developed from their answers. Themes are reported and discuss following the question.

*Question: What is your overall impression of the impact of the effectiveness of the extended compulsory education law? What types of data do you use/collect to indicate how your students are doing in relation to the compulsory education law?*

This two-part question allows the principal to expand on their thoughts on the overall effectiveness of the legislation as well as offer insight into what types of metrics they use to measure progress within their school. Sixteen principals responded to at least one portion of the question. The responses are organized by the stem they responded to.

*Overall Impression of Impact.* The responses were organized into four categories: Positive Impact, Minimally Positive Impact, no Impact, Non-Specific Response. Each will be discussed below.

*Positive Impact (5 respondents):* Five respondents stated that the law has had a positive impact on dropout rates. A principal (500-400 students, added supports, & 3 years as a principal) wrote, “We take it seriously.” One principal (300-400 students, added supports, 4 years as a principal) asserted that the law “pushes students to get a diploma.” Another principal agreed with the statement that the law provides an opportunity to earn a high school diploma.

*Minimally Positive Impact (2 respondents):* The one of responding principals used terminology suggesting some help “it helped a bit” and one commented that “I’m not sure the law did much to keep kids in school other than tell schools they can’t let kids leave” (300-400 students, no supports added, two years as principal, rural school).

*No Impact (4 respondents):* One of the four principals stated that her/his school’s drop put rate continues to be one of the highest in the state (500-600 students, added supports, five years as principal rural). Another respondent considers the compulsory education law to be a “burden” (1,000-1,100 students, added supports, one year as principal, small town). Finally, responding

principals also used such terms to describe the impact of the as “minimal”, “no perceptible impact”, “not hugely impactful”.

*Non-Specific Responses (5 respondents):* Four of the responses discussed the importance of graduating. The remaining respondent wrote without further elaboration, “The law is fine but we have no means to regulate it.”

The majority of the principals responding to this question (N=9) reported that the change in the compulsory education law had some level of positive impact on their students. No principals reported a negative impact on the effectiveness of the change. Those responding with no impact or non-specific answers felt that the change was a “burden” and that it was another item that they were responsible for regulating on a daily basis.

*Data Collected and Analyzed on Drop-Outs.*

While some principals just listed one data set, most often graduation rates, several principals listed several different types of data that are used by the school. The largest number of principals (N=9) responding to this portion of the question stated that they use graduation rates. The next largest data source is drop-out/retention data. Both of these data sets are used to define the problem and are critical to tracking the problem. But they may not provide formative assessment data that allows the school to focus on specific factors that may influence retention. Of these types of data, there were two principals who use IEPs and singleton answers include grades, suspension, discipline referrals, and post-secondary acceptance.

The principals that responded to the first part of the question on effectiveness of the law, the majority felt that there was some type of positive impact. Principals who responded “No” reported that law was having a negative effect on their students. The most frequent response to

data analysis or collection was graduation rate but some principals reported other data sources, most notably IEPs and individual student grades and discipline information, as indicators.

*Question: If your school has experienced a decline in dropout rate, to what do you attribute this decline?*

Fifteen responses were received and divided in a two-step process. First, impact was ascertained (N=7). Second, the type of intervention that was used catalogued (N=8). The first category of impact included comments no impact, to limited impact, to stalled impact. One responding principal (600-700 students, small town, supports added, 2 years as principal) wrote, “Students who might have left school at 16/17 hung in there for a while and felt closer to graduation and stuck with it as a result.” This response is the exception to the more negative responses.

The second category is the type of interventions that were used to attain a more positive impact of the law. Given the limitations of the survey instrument it is not possible to ascertain if these positive interventions were present in the seven schools that had less perceived positive impact. Two types of interventions are identified from the analysis. One positive response on impact identifies, “The law and our response to it” but does not state what the response were.

*Alternative pathways to diploma.*

Principals are challenging the concept of earning a diploma as linear process. “We give students multiple opportunities to earn a diploma” says one respondent. Whether they mean multiple chances are course work or truly multiple attempts at multiple different types of diplomas is unclear for this particular school. Others contended that they have provided “targeted efforts to provide alternative pathways to graduation.” Finally, we again see the appearance of the HiSet and adult education as a means to help reduce dropout rate. One

principal's only response to the question was to simply list both of these programs as their answer.

*Engagement by faculty with students.*

This category had four responses. All noted the increased or hard work by the faculty connecting students. One principal wrote, “hard work by the staff, not a law” possibly underlining the concept that laws tell, but teachers do.

*Question: What, if any, unintended or negative consequences arose as a result of the change with the compulsory education law?*

Slightly less than half (44%) of the principals responded to this question to provide their insight into potential negative consequences within their schools. Of the fifteen responses, six (40%) reported that there were no negative or unintended consequences as a result of the change in compulsory education law. The remaining comments are organized into two negative consequences – discipline issues and negative parental interaction. A separate consequence that was noted by the responding principals is an unintended consequence but one identified above as a positive intervention – alternative settings for credit. These alternative settings for credit are not considered negative, but it is not entirely sure that they were not a perceived/intended outcome support system.

*Discipline Issues: Negative Outcomes*

Principals reported a spike in student discipline issues. There were “discipline issue(s) with kids who wanted to just leave and get to into work” and “we would battle with students on how and why the needed to go to school” said one principal. Other principals listed student behavior and a higher number of unengaged and apathetic students as new issues that they were

facing when the law was enacted. One principal cited an actual higher dropout rate saying they were related to pregnancies.

*Negative Parental Interaction: Negative Outcome*

Perhaps dovetailing into the negative sentiment about homeschooling, principals reported that parents “were apathetic towards learning” and were “becoming angry” when discussing their child’s education. One principal commented, “parents/guardians were homeschooling because they can’t keep their son or daughter in school and we were going after truancy.” Principals related the negative parent interaction back to their staff saying “it makes it harder for teacher with kids when their parents don’t want them to be in school”.

*Alternative Settings for Credit: Positive Outcomes*

One of the issues that came up several times, often as part of a statement about discipline, was the idea of a student leaving school to attain credit in a non-traditional setting. As mentioned in earlier questions, principals listed the HiSet/GED process as coming into play more frequently for students than in the past prior to RSA 193:1. Additionally, they spoke of earning credits via online programs (presumably programs like the Virtual Learning Academy Charter School VLACS, but it is not specifically mentioned). Others spoke of the process finding ways to be creative and create plans for struggling students was being negatively impacted. “Students waited until they were 18 to “drop out” without a formal or creative plan, as this option existed when the age was 16” and “there is a need for more alternative, creative, credit options” for students. Finally, there are some respondents who do specifically mention that students were leaving school to be homeschooled and that they do not believe the same high quality standards and instruction would be taking place in the homeschool environment due to what they refer to as “accountability issues”.

*Question: If you were not employed in the role of principal during the change in compulsory education, are you aware of any changes that have taken place as a result of the change that may have been enacted before your employment began? If so, please list them.*

Sixty-one percent (N=20) of principals responded to this final question about their employment as principal during the change in compulsory education. Those who indicated that they were employed as principal of their building at the time of the change commented in a generic sense that they modified their guidance structure with additional community based supports but, due to budget cuts, has since been scaled back. Additionally, they spoke to bringing adult education into their building, during evening/after school hours, to target struggling students. Those that were not employed commented that while they were teaching at the time, they were aware of the law change and that “we just knew that we had to work harder to connect with kids to ensure they stayed invested in school.”

### **Summary of Principal Survey Results**

Forty-two percent of New Hampshire high school principals surveyed responded to a series of questions about their background, their community, and their views on a change in compulsory education. The overwhelming majority of these principals had ten or more years of experience in education and half had four or more years as principal of their current building. They are leading schools that they have identified as having 500-1000 students and are primarily in rural or small towns with medium to low wealth. The majority of the principals reported that they have various levels of support for the compulsory change. Additionally, at a similar level, felt their staff and community supported the change. When asked about potential changes that their schools made in response to the passing of RSA 193:1, principals were split into two roughly equals groups, those that added supports and those that did not. The half that did add

supports cited examples of student response teams and the need for alternatives to a traditional diploma as examples.

Through the series of open-ended questions, principals expressed similar themes throughout all of the questions. The themes of alternatives to the traditional high school diploma, staff working closely with highest risk students, and the graduation rate statistic, as it relates to RSA193:1 and overall school effectiveness, is highly subjective.

**Research Question #4: Are school policy responses to RSA 193:1 more divergent or convergent?**

This question aims to find out how schools have responded, from a policy standpoint, to RSA 193:1. Given that most policy decisions are made at the district level, district policy manuals as well as school/student handbooks were examined to find any information related changes that could be attributed to RSA 193:1. The convergence or divergence of policy creation and/or implementation is examined with respect to the schools that appeared most frequently as having the highest and lowest dropout rates for the given study period. By performing a post hoc analysis of schools at the extremes of dropout data; trends in language use, policy structure, approach to implementation, and overall effectiveness may emerge.

*Schools with the Highest Graduation/Completion Rates*

The schools identified as consistently having the highest rates of graduation using both the cohort dropout model as well as the early exit model were Gorham, Plymouth Regional, and Kennett. Hanover and Bedford both appeared in the early exit data but not the cohort dropout data. Conversely, Windham and Hollis-Brookline appeared in the cohort dropout data but not the early exit data. It is these seven schools, Gorham, Plymouth, Kennett, Hanover, Bedford,

Windham, and Hollis-Brookline, that have been identified as consistently high performing schools as it relates to student's leaving their building before earning a diploma.

Further examination of these seven schools through an analysis of their handbooks (both student/parent and staff) the program of studies, as well as their district's various policy manuals reveals several commonality and trends. All seven schools have adopted the core of the New Hampshire School Board Associations suggested graduation policy language, including the same organizational approach of naming the policy (IKF), as the basis for their district's graduation policy. These districts clearly outline the policy in their district manual and make explicit reference to the policy or have copied the policy into their student handbooks or program of studies for students and parents.

In addition to the commonality of their graduation policy, the majority of the districts have explicit policies related to Extended Learning Opportunities (ELOs) and/or alternative methods to earning credit. Both approaches allow students to accrue credits, capped at either two per year by some districts (Hanover) or four for the students' high school career (Bedford). Within the ELO category, Gorham, Bedford, and Windham have programs built into their course of study for students that include community outreach or service learning components that allow students to earn credit towards graduation for community-based outreach. Another opportunity for students to earn credit that Windham and Plymouth utilize is the Running Start or Dual Enrollment opportunities from local colleges. These programs allow students to enroll in college courses and use those credits towards both their high school and college transcript. This type of "double dipping" is widely available in many New Hampshire school districts, but Windham and Plymouth specifically outline their procedure and highlight its usefulness to students to fulfill various credit requirements.

In addition to ELOs, several schools provide prescriptive credit recovery options for student who have previously failed a course. Gorham, Kennett, Hanover, and Hollis-Brookline specifically list a variety of online/computer-based courses (PLATO, VLACS, Odysseyware) and correspondence options (USNH, American School) for students to utilize to earn credit. Each school has a procedure in place for students to enroll in their credit recovery option and requires some type of teacher/guidance counselor/ or administrative oversight of the process. Finally, the traditional summer school model is available at most of these schools but many have minimum entry requirements such as limited behavioral issues, minimum final grades, or teacher recommendations into the summer programming.

In terms of total credit requirement, all seven schools require the state outlined minimum of 20 credits but vary in terms of total credits required. Hanover is at the state minimum of 20 credits but Gorham requires 27 credits to earn a diploma. While credits are generally viewed as the gatekeeper to the diploma, it is how students earn those credits is an important consideration when examining these successful schools. At the granular level, earning credits is about doing work, mastering competencies, passing assessments in courses that are being taught by a variety of staff that have a wide variety of expectations for their students. Historically this type of information is communicated to the student and parents via a syllabus but because of the overwhelming diversity of courses and teachers across all seven schools a more macro view of work completion and credit attainment was needed. To that end, their listed grading practices and procedures were examined across all seven schools.

Six of the seven schools have a detailed procedure listed in their program of studies, student handbook, and/or district policy manual related to academic interventions for students who are struggling in a course. These procedures are outlined with various levels of support and

responsibility for both the student and teacher but in some cases the administration and parent as well. Additionally, five schools (Gorham, Kennett, Hanover, Windham and Hollis-Brookline) have periods within their school day that are specifically designated for targeted interventions for struggling students. This type of intervention is generally recognized as a Tier II level steps in the Response to Intervention pathway that many school use. For these four schools to provide this level of staff and time commitment to all students is likely having an impact on student success in the classroom which will in turn lead to better grades and a higher likelihood of earning credit which eventually leads to receiving a diploma.

Several schools provide multiple opportunities to earn various types of diplomas. While all schools provide the opportunity for identified students to earn diplomas or some type certificates of attendance as is required by law, some go beyond that and offer different diploma to regular education students based upon credit requirements. Bedford offers six different types of diplomas for their graduates including an International Baccalaureate option for students who chose that course of study during their high school career. Hollis-Brookline offers two different diplomas to their graduates, a state approved 20-credit and a school district approved 23-credit option. Additionally, Plymouth offers their students their traditional 24-credit diploma but also has a program on campus that allows students to switch to an adult education diploma by transferring credits between the two programs seamlessly. Finally, all seven schools have a policy and procedure in place in both their policy manuals and student handbooks that allow students to leave school prior to matriculation if they have fulfilled a credit requirement and have parent approval, if the student is not 18.

In summary, these seven highly successful schools appear to have a convergence of policy and, more likely procedure, when it comes to aiding their students. They are explicit in

their expectations in their various documents about how struggling students will receive support, often during the school day with targeted and dedicate time, space, and staffing. Many of these schools have clearly outlined procedures for students and parents to follow with the student's teacher in terms of classwork expectations and intervention points for struggling students. They list various resources students can access to assist in earning credit and some provide in house opportunities for students to achieve credit they had previous failed. Finally, these schools offer a wide variety of diploma options to their students and a plethora of ways a student can earn credit for activities beyond the traditional four walls of the school. This type of flexibility could allow students to accrue credits quickly and potentially allow them to graduate early or move on to other course work that is more interesting to the student, which likely results in increased scholastic engagement.

#### *Schools with the Lowest Graduation/Completion Rates*

Franklin, Pittsfield, and the Manchester School of Technology (MST), were three schools identified by both the dropout model and early-exit model as consistently performing poorly in terms of having students attain a diploma. Additionally, Manchester's Memorial High and Stevens High were poor performers for the dropout model while Nute and Farmington were poor performers for the early-exit model. These seven schools; Franklin, Pittsfield, MST, Memorial, Stevens, Nute, and Farmington, have been identified as consistently had the highest levels of students leaving their building before they earn a diploma. Following a similar analytical procedure as was used with the high performing schools, these low performing schools' handbooks, district policy manuals, and program of studies were examined to identify convergence or divergence of policy.

In contrast to the seven high performing schools adoption of the New Hampshire School Board Associations suggested graduation policy and naming convention (IKF), the seven schools with the lowest graduation/completion rates vary widely in terms of their district and school's graduation policies. Franklin, Pittsfield, and Nute all subscribe to the IKF recommended policy but each alter the number of suggested credits to go above the state suggested minimum of twenty. The two Manchester schools (MST and Memorial) as well as Farmington and Stevens have graduation policies that are unique to their districts and do not have similar language to IKF. These policies spell out various local restrictions, such as community service requirements, minimum passing scores on standardized tests, or student presentations, that all must be met, in addition to their varied credit requirements, before a student is eligible for graduation. The range of required credits for these schools varies from a low of 20 for the Manchester schools to a maximum of 27 at Stevens. Each school has language in their student/parent handbook and/or their program of studies that speaks to the process of applying for early graduation but can often have explicit deadlines for application for the process or require a student who wishes to participate in the formal graduation ceremony to remain with their cohort.

Several schools have alternative credit pathways, most notably through ELO's, but there are restrictions on what those ELO credit can be used towards and inconsistency in how these schools view ELOs within the framework of achieving credits. Franklin, Memorial, MST, and Farmington list ELO opportunities within their literature as alternatives to traditional credits but each school has some type of restriction. For example, Farmington will only allow ELO's to count towards elective credit and cannot be used to replace a failed core subject. Conversely, Pittsfield lists ELOs as a key component to their credit recovery process. In addition to ELOs as a means to earn credit in a non-traditional format, several of the schools (Franklin, Stevens,

Pittsfield, Nute, and Farmington) all utilize various level of competency education for their course work and allow for students to make up some/or all portions of courses competencies that students may have failed. Similar to the high achieving schools, these schools utilize VLACS and Odysseyware to assist in the recovery of competencies. However, some schools, most notable Farmington, Nute, and Franklin, have restrictions on student ability to earn full credit back. As an example, at Nute if a student fails a course by more than 10 points they are ineligible for any type of credit/competency recovery and must re-enroll in the course. These types of rules or caveats on credit recovery options appear to be more prevalent and restrictive in the lowest performing schools.

More often with low performing schools, there is an increased emphasis on standards and competencies within their school literature. Several schools appear to have fully adopted the competency-based system of grading and have grade scales with categories of proficient, emerging, or not yet proficient as opposed to the traditional A through F grade scale. While this research is not investigating competency-based education, it is interesting to note that several low performing schools appear to have embraced that pedagogy.

Both Manchester schools, as well as Farmington, and Stevens have procedures listed out in their student handbooks about how students can be “dual enrolled” within the traditional high school setting and their adult education/HiSet programs. The programs appear to be on campus and the language suggests students can transfer credits between the traditional classroom over to a HiSet program at age 16. While having an on-site HiSet preparatory program may be helpful to students who are struggling, it is also likely contributing to the school’s early exit data. Additionally, many of these schools lack designated intervention time within the school day for students and teachers to meet to work on academic material. Pittsfield has a specific FLEX

block period that is for targeted intervention/extension but no other school has a set period of time to meet. Finally, there is far less direction or expectation within the schools' literature on how struggling students can seek support as compared to the literature in high performing schools. Many of these low performing schools simply list things like VLACS or Running Start/Dual Enrollment opportunities within their program of studies but do not provide any direction or description of the programs or how to access them. The combination of lack of knowledge of these types of credit earning opportunities along with the restrictions being placed on how students can earn credit through alternative means may likely be impacting these schools' overall graduation rates.

To summarize the findings of these schools, there appears to be a divergence in policy in comparison to their peers with higher graduation/completion rates as it relates to a response to RSA 193:1. These schools with low rates of graduation/completion appear to have a more restrictive view on how, when, and where students can earn credit. Additionally, there is not a commitment of time/staffing during the day to meet with students to specifically work on core academic issues as compared to their higher performing schools. Finally, there is a lack of explicit direction or instruction to students and parents about alternative credit opportunities that may be available to them, such as VLACS or Dual Enrollment/Running Start, as compared to their peers at higher performing school districts.

## Chapter 5

### Discussion

The decision by students to leave high school before completing the requirements needed for awarding a diploma has far lasting impacts not only for the individual but society in general. The socioeconomic impacts of high school drop outs are felt not only by the individual, in terms of limited job and life style opportunities, but by the community they inhabit in terms of additional social support services. A straightforward way to prevent students from leaving education without a secondary diploma is by increasing the compulsory education age (Cabus and Witte, 2010). New Hampshire adopted this policy strategy with the passage of RSA 193:1. This policy response to increasing graduation rate appears to assert that providing additional time to complete the required course of study allows students flexibility and opportunity to graduate. Another construction is that the additional time required to stay in high school to graduation will force students to buckle down and study. An alternative outcome is that the extended time without implementation of additional supports will not appreciatively improve graduation rates.

The overarching purpose of this research project is to explore the effect of RSA 193:1, a change to the compulsory education law in New Hampshire, and its perceived impact on dropout rates across the state. High school principals are at the forefront of this change as they ultimately are responsible for the educational wellbeing of all of the students within their buildings. To that end, this study explores how schools, educators, and more specifically, high school building principals, reacted to RSA 193:1. The information and insight they have provided is critical to understanding the change, how schools and districts have responded to it, and how schools and

districts struggling with high dropout rates can alter their practices to best meet their unique student needs. One clear objective of this study is to identify strategies, either by policy implementation or programmatic change, that are described by high school principals as effective in helping curb the dropout rate while still adhering to the of increased compulsory age mandated by RSA 193:1. Additionally, another objective of the research is to determine if the responses from school districts identified as high or low performing, from a policy and procedure standpoint, is one of convergence or divergence. Are the high performing schools all making the same decisions related to student retention and lowering their dropout rate? Is there a theme in how low performing schools approach student retention? The guiding question throughout all of the research is: what are New Hampshire high school principals doing to keep students in school longer with the hope of having them earn their high school diploma?

### **Review of Findings**

There are four research questions that serve as the foundation of this research. These questions are:

1. What is the distribution of dropout rates across all New Hampshire high schools since the passage of RSA 193:1?
2. What is the distribution of dropouts at all New Hampshire high schools by various selected demographic variables?
3. Do high school principals perceive RSA 193:1 and their respective local enactments of 193:1 as effective in reducing school dropouts?
4. Are school policy responses to RSA 193:1 more divergent or convergent?

A review of the research findings related to each question follows.

*Research Question #1- What is the distribution of dropout rates across all New Hampshire high schools since the passage of RSA 193:1?*

**Drop Out Rates Statewide: Two Metrics.** Over the five-year period (2012-2016) that was examined in this study, the dropout rate in New Hampshire public high schools was reported by two different metrics with different calculation methodologies, early exit and the cohort dropout model. The early exit average methodology produced a five-year mean average of 5.9% while the cohort dropout model yielded a five-year mean average of 3.9%. The standard deviation for the early exit average (4.3) was larger than the cohort dropout model (3.0), which can be interpreted to mean the values within from the early exit data are farther away from the mean average than the cohort. Perhaps more simply, the early exit data is producing data points for schools that are more diverse, further from the average of nearly 6%, and show a wider range of the dropout rates for school across the state than the cohort drop out model. As a result, the individual schools that are on the extremes (high dropout rates and low dropout rates) for the early exit metric yield a wider range, nearly 20%, as compared to the cohort dropout model that is closer to 12%. The variance in the data for the same school in the same year attributed to the two different methods, can lead to confusion and misunderstandings if not carefully explained and clarified.

**Specific School Data.** While the statewide data is relatively close, regardless of the calculation method, individual schools show a wide variance. For the time period of this study, Franklin High School consistently ranked as the school with the highest dropout rate on both measures. However, the early exit rate for Franklin (18.9%) was significantly higher than their cohort rate (12.6%). This nearly 6% difference is significant given that Franklin has a steady enrollment of less than 400 students. While the greater Franklin community and the

administrators and teachers within the high school are presumably unhappy with the designation and working hard to address the issue, the difference in reported data between the two different approaches yields a troubling result when funding, employment, and policy decisions are likely to be made on the data.

Conversely, Gorham High School has a five-year average on both metrics of zero. Quite simply, Gorham High School is reporting that over a five year time period they have not had a student leave their school early or drop out. While a zero dropout rate is always an admirable target for districts, it is generally understood to be an unattainable goal. This is not the case in Gorham. Given their demographics and geographic location, it seems nearly improbable that over five years they had graduated every student, on-time, with a diploma that has entered their building but the data is suggesting that is precisely what has been happening in this small, rural community an hour from the Canadian border. While there very well may be some impressive work taking place at Gorham High, it seems improbable that they have had at least one student leave early or drop out and the report of zero could have more to do with how the data is being reported to the DOE. Further examination of their practices may appear relevant in research question four on policy specific to dropouts.

The two metrics do align on several high and low graduation rate schools across the state. Besides Franklin, Pittsfield and Manchester School of Technology appear on both lists as consistently low performing (high dropout rates) over the course of this study. In addition to Gorham, Plymouth and Kennett appear on both lists as consistently high performing (low dropout rates) over the course of this study. All six of these schools' approaches to dealing with their dropout problem will be explored further when discussing policy approaches that they have

adopted as it potentially relates to their overall success or failure to keep students enrolled in school.

*Research Question #2- What is the distribution of dropouts at all New Hampshire high schools by various selected demographic variables?*

Enrollment and free/reduced lunch rates were the two major variables examined.

Free/reduced lunch rates served as a proxy indicator for underlying socioeconomic factors and was a data point that was readily available from the NH DOE. Enrollments at high schools across the state vary widely from the largest, Pinkerton Academy averaging over 3,000 students, to the very small, Pittsburg averaging just 40 students, but the state's mean average was 557 students. By in large, New Hampshire schools are spread throughout the state with each county having schools on either end of the enrollment spread. The major urban centers within the state, Nashua and Manchester, are predictably represented within the larger schools in the state as each city has high schools, Nashua South and Nashua North as well as Manchester Memorial are on the list for largest average five-year enrollment.

When comparing enrollment to free/reduced lunch percentage, there are several urban schools that have a high percentage of their population on free/reduced lunch. Manchester West and Manchester School of Technology are both at or above 50% of their student population on free/reduced lunch. Perhaps not surprisingly, some of the more affluent areas of the state have significantly lower rates of free reduced lunch including Hanover High School, home to Dartmouth College, and Souhegan Cooperative, an affluent regional school district comprised of bedroom communities to Nashua and northern Massachusetts. Pittsburg with its historically small population is an anomaly as it doubles as both the smallest average enrollment and the lowest free/reduced lunch percentage of only 3.6%. This roughly translates to slightly more than

one child in the building being on free/reduced lunch on average over the five-year span 2012-2016. This is may be due to several factors potentially including the size of the community working to help insulate and support those who are struggling or perhaps the intense social stigma that comes with reaching out for assistance within a small community. Regardless of the reason, Pittsburg High School helps springboard the conversation about sometimes presumed intersection of school size (enrollment) and socioeconomic issues (free/reduced lunch) and dropping out of high school.

When all factors are examined together; enrollment, free/reduced lunch rates, and dropouts by both early exit and cohort dropout metrics, several conclusions can be drawn. The -.254 weak negative correlation between the free/reduced lunch rate and the size of the school is the only correlation that any variables has with enrollment. While parents and students may prefer certain sized schools, the data suggests that, as it relates to dropouts in New Hampshire, it does not matter how big or small a particular high school is as the data suggest that dropping out of high school is distributed across the states wide range of schools. Due to the weak size of the correlation, it is reasonable that other non-enrollment factors are impacting the school's dropout rate. The fact that the correlation is negative can be interpreted to mean an actual inverse relationship between enrollment and the drop out metrics. More plainly, the negative nature of this relationship means that, again at a weak level, as enrollment increases the dropout metrics simultaneously decrease and conversely, smaller enrollments are weakly correlated with a larger percentage of dropouts. The student leaving the smaller high school has a greater statistical impact due to the smaller enrollment than a student at a larger school. In any event, these data indicate that a large school enrollment does not have an increased likelihood of larger percentage of dropouts.

Free/reduced lunch is, however, positively related at the .05 level (.568 for early exit and .646 for the cohort model) to both dropout metrics independent of enrollment. This means that the number of students who are in the building on free/reduced lunch is having a moderately strong positive correlation to the overall dropout percentage as measured by both early exit and the cohort model. These free/reduced students account for a significant amount of the variation in their school's dropout rates. With nearly a third for the early exit and over 40% for the cohort model data being able to be accounted for by the schools free/reduced lunch population. Focusing throughout targeted tracking of progress on grades, as identified by the literature, of students who qualify for free/reduced lunch may provide an early warning indication that additional supports are needed for these students.

*Research Question #3- Do high school principals perceive RSA 193:1 and their respective local enactments of 193:1 as effective in reducing school dropouts?*

A principal's perception of the change in compulsory education law is critical to understanding how schools were enacting to the change and how those changes were being implemented at the building. Of the thirty-three principals that responded to the survey, the majority had been in education for at least ten years (91%) and had been a principal for at least four years (69.7%). Four of the respondents (12%) were in their first year in the position of principal.

**Perceived Support for the Legislation.** These individuals reported, at a rate of 69.1%, that they agreed or strongly agreed that RSA 193:1 was keeping students on schedule to graduate with their peers. Additionally, 66.7% of the principals stated that their staff supported the legislative change mandated attendance to age 18.. While 48.5% believed that their community supported or strongly supported RSA 193:1. These findings suggest that the responding

principals believe they have a strong sense of support from not only their staff but there is a nearly even split in perceived support from the communities. Teacher buy-in on major initiatives, even ones that are legislatively mandated, is essential for success. These principals clearly believe that, as building leaders, they have the needed that level of support.

Furthermore, the principals were split on whether or not they added supports specific to addressing compulsory change. Those that did not offer supports are now reporting (39%) that they would like to add supports. The initial change may not have seemed like a major undertaking, but these reporting principals may now believe that some types of additional supports are needed. Perhaps, this assessment was arrived at after witnessing how the changes have directly impacted their buildings. Finally, with over half reporting that they want to provide supports that are not available, there is a growing sense of need and support by the principals for assistance with struggling students.

**Types of Supports: Open-Ended Questions.** A series of open-ended questions allowed the principals to share their thoughts on how RSA 193:1 has impacted their students, staff, and community. By purposefully leaving the questions responses open to comment, the aim was to allow principals to provide specific information about their responses rather than forcing them into a pre-identified category or grouping. The full principal survey can be found in Appendix B.

**Structure of Support Systems.** Principals were given the opportunity to provide examples of support that they, in collaboration with their staff, had provided to their students. Fifteen principals responded with various supports, found in Table 11, and are fairly extensive but there are some common interventions that appeared regularly. The expansion of the HiSet and adult education opportunities for struggling students is interesting in that neither typically

lead to a high school diploma but rather their own certification which is often viewed as less academically challenging. As a result, students who wish to continue their education at post-secondary institutes often need to demonstrate competency beyond that of a traditional high school graduate. In addition to these alternative pathways, several principals listed alternative diploma criteria as an intervention. Further exploration of this topic found school districts that have different credit requirements attached to different levels of diploma that are open to most students. Examples of schools fitting this category include Farmington High School, Bedford High School, and Stevens High School as all three schools offer multiple options for students to choose from for their diploma, each with varying credit requirements. Several principals stated they reverted back to the state approved 20-credit diploma as a form of intervention. Regardless of approach, altering the graduation requirements or directing struggling students to an alternative program like HiSet or adult education, rather than the traditional high school diploma was a commonly reported step taken by school districts. Some did report the use of some form of Response To Intervention (RTI) where teams of teachers, administrators, counselors, and other concerned connected adults collaborated to develop interventions targeting specific students or small groups of students. These interventions were interwoven with the principal's open response on the overall effectiveness of RSA 193:1. Several citing RTI as the model they were using as a result of RSA 193:1 to aid student moving towards graduation.

**Beliefs on Effectiveness.** Principals were given the opportunity to reflect on their overall impressions of the effectiveness of RSA 193:1 as it related to their experience in their building with students, staff, and their individual communities. Sixteen principals shared their thoughts and the majority felt that legislation was having some type of positive impact. The theme that emerged from their responses was around the importance of student's continuing to engage in

their learning and, as one principal put it “push towards” their diploma. Intertwined with these responses were examples of interventions being used, most notable the RTI model previously discussed, as an outcome from the change in compulsory education. While four principals responded that RSA 193:1 having no or minimal impact or chose to generate a non-specific response, none of the respondents believed that legislation is having a negative impact on their students. The lack of negative comments coupled with high positive response rate of support for the RSA 193:1 in keeping students on track with their peers to graduate, strongly suggests New Hampshire high school principals believe RSA 193:1 is having a positive impact on students.

**Engagement.** Principals that reported a change in their dropout rate attributed it to faculty engaging with at-risk students as well as the previously discussed change to the graduation requirements. The notion that students often need an alternative setting to be successful (i.e. HiSet or adult education) or a more direct, positive relationship with an adult in the building were perceived as primary reasons for changes in the dropout rate as opposed to simply the change in compulsory age of education. Principal’s identified a strong connection with a caring adult as a meaningful intervention, that results in a net change in overall graduation rate as one of the most important factors in influencing student success persistent to graduation.

**Negative Impacts of Change.** With any change within the education setting, there may be some type of unintended and unanticipated negative consequences. Given the change in compulsory education was a rather large change (potentially adding two more years of education to student’s educational careers), principals were asked to provide their comments on what they observed from their students and staff as potential negative consequences. While 40% of the responding principals reported no negative consequences those that did report negative outcomes were broken into two larger categories; an increase in behavioral issues and negative parent

interactions. The increase in negative student behavior may have been predictable given that prior to RSA 193:1 students were leaving school at age 16 but now those same students are required to remain until 18. Their plans were thwarted by the legislation and some were evidently not happy about that change. Simply adding two more years to any students educational experience increases the likelihood for any type of behavioral incident just based on more time within the building and an obvious increase in interaction with others. Furthermore, the group of students that this law is impacting the most, those who may have been anticipating or even hoping to leave school at age 16, are likely identified as at-risk and school averse. More plainly, principals found themselves now interacting with students who had believed that they would be done with high school were now suddenly required by law to attend for an additional two years. Predictably, at-risk students now being required to remain in school rebelled and principals responded to the inquiry about unintended consequences, that behavior issues increased.

Beyond the student interactions, the principal responses indicate that they had an increase in negative parent interaction. This is an interesting finding. Principals, by the nature of their jobs, interact with parents on all matters involving a child's education and, as the ultimate authority in their building, these types of interaction can quite often be contentious. The fact that the responding principals believe that these types of negative interactions rose after RSA 193:1 could likely be interpreted to mean a new or different level of negative interaction above and beyond what the principals believe is "normal" within their daily lives. Given the quotes provided, these conversations included the topic of truancy, which, in New Hampshire, involves some type of legal involvement from the courts. Not surprisingly, once parents heard this the tenor of the conversation shifted and predictably became negative and potentially hostile. The

fact that the principal's reported an increase in both negative student behavior and negative parent interaction is not unexpected or surprising, but rather speaks to the population RSA 193:1 was aiming to impact. Those students who were disengaged in school by struggling to keep up with course work and earn credits. The legislation targeted these students, and by association their parents and families, as a means to remain in school and stay engaged in the learning process. While some may have predicted that interrupted plans for graduation/leaving school would result in some conflict with parents and students over a potential two year additional stay in high school , the research found that it also added to the principal's stress through the additional number of parental challenging encounters related to the new law. It is expected that there will be some conflict over the implementation of new requirements (Fullan, 1993). A follow up study could ascertain the type of conflict and the resolution strategies that the principals employed.

**Collaboration.** The one unanticipated positive piece that the principals reported was the opening up of new avenues for students and staff to work collaboratively to find ways to meet each student's unique needs. As reported earlier, the principals believed that their staff would begin to work with these 16-18 year old students who had historically struggled in school to build an individualized education plans\* to build a path to graduation for these students. These conversations and plans can be powerful for both struggling student and teachers as they can serve as a plan for graduation. Conversely, the other positive outcome principals reported, the exploration of alternative credit options through home-schooling, can also serve as a meaningful conversation for the student, parents, and schools as an alternative to the traditional setting of school. The lack of conventional oversight can be a philosophical hurdle for the educators, more

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\* In this context an individualized education plan does not imply a special education identification. Rather a student's specific plan to work towards graduation regardless of educational classification, general or identified.

specifically the superintendent who ultimately gets the notification, but it is well within the parent's purview. Regardless of personal belief, the homeschool option is available for all students prior to RSA 193:1 and remains one to this day for all New Hampshire families.

**Prior Established Programs.** Principals were asked to address any changes as a result of RSA 193:1 that may have taken place prior to their employment. The goal was to give credence to any programs implemented prior to the principal's arrival. Of the 61% that responded to the question, those that were employed during the change (and are still currently employed), reported a change to their school's support structure via their guidance, counseling, or outreach staff as well as adding additional supports for outreach services. Principals did report that these added services were later cut due to budget constraints; they affirmed the change in internal structure as a means to address the compulsory change. These types of changes to internal structures and additions to services dovetails with other suggestions about increasing outreach, providing support to struggling students, such as an increased focus on interventions through the RTI process, as well as the implementation of adult education programs, that were previously listed as additional supports by the principals. Those who were not employed at the time of the implementation of RSA 193:1 suggested a need to continue to find ways for staff to find meaningful connections with struggling students. The idea that staff working directly with struggling students is a continued theme by principals as a means to engage and empower these struggling students to achieve the goal of a high school diploma.

*Research Question #4- Are school policy responses to RSA 193:1 more divergent of convergent?*

Comparing high performing (low dropout rate) and poor performing (high dropout rate) district policy manuals, student handbooks, and programs of study reveal a stark difference in

how these schools were, on paper at least, addressing the issue of dropout rates. While almost all schools, borrowed heavily from the New Hampshire Association of School Boards sample policy on graduation and credit, the various policies, procedures, and programs outlined in their literature varied greatly. While it should be noted that schools often have policies and procedures in place on documents like programs of study and handbooks it is up to the administrators and teachers to be aware of them and implement them as they are written. Or more basically, just because a policy or procedure is “on the books” it does not always ensure that it is followed. Followed by staff and students or not, there is clear a divide between the high performing school’s materials and the low performing school’s documents. These documents outline school-based procedures for factors such as late work and credit recovery options, all of which have a direct impact on a student’s ability earn a diploma and graduate. While not the aim of this research, it may be hypothesized that the high achieving schools with their clearly spelled out policies and procedures are more likely to be following their protocols.

The primary difference when examining the high performing and low performing school’s materials is how in-depth and precise the language used in high performing schools is as compared to their low achieving counterparts. Schools like Gorham and Kennett go to great lengths to write out procedures within their student handbooks for late or missing work. Additionally, they have roles and responsibilities assigned to various individuals (guidance counselor, teacher, student, parent, administrator) at various stages of noncompliance or engagement. This is juxtaposed with schools like Franklin and Manchester School of Technology where make up work language is vague and grading policies appear to be overly punitive. Neither Franklin nor Manchester School of Technology allow student to remediate

missing work or failed courses beyond a 70%. This type of ceiling on work remediation may be contributing to student lack of engagement that may eventually lead to dropping out.

On the theme of remediation, five high performing schools have dedicated time during the day, X- period at Hannover for example, where all students are provided an opportunity to work with teachers or mentors to meet their academic or socioemotional needs. Many schools are adopting school-wide intervention blocks to organize deliver of interventions (Hall, 2008). This time appears to be held sacred and designed for all students to have the opportunity during the school day to engage with adults around their unique needs. The scheduling of these intervention blocks is envisioned as a promising option for increasing the efficiency, effectiveness, and fielding of daily intervention delivery (Harlacher, Walker & Sandford, 2010). Again, the protocols and procedures around this time are often clearly spelled out in high performing schools materials as compared to other low performing schools. Some low performing schools do have an intervention period but the language describing its use is vague and generic/boiler plate.

The simple fact that time is provided during the normal course of the 8:00AM-3:00PM school day as opposed to only offered after school may likely be a deterrent for struggling students who need it most but are least likely to take advantage of the offering, especially after the end of the school day when other activities (driver's education, sports, extracurriculars, part time employment, family responsibilities just to name a few) likely compete for the time. The insertion of the intervention into the regularly scheduled student day allows for participation of all students without the competition for after school time. It also places the program more centrally in the school's programs as opposed to something that is extra. This adds weight to the importance of the program and its goals.

Another common thread of interventions among the high performing schools is the flexibility in terms of credit earning opportunities they offer to their students. These schools have procedures in place that allow students to earn credit, both towards “core” course as well as elective options, through the use of extended learning opportunities (ELOs), as well as various online platforms such as the Virtual Learning Academy Charter School (VLACS) and Odesseyware. Often these programs are used solely for remediation but several of the high performing schools include them as alternative ways for students to meet credit requirements for graduation. This added layer of flexibility in program design by high performing schools, supported by their documentation, is a potential critical piece for struggling learners.

While the low performing schools do offer language around some of these alternative credit-earning opportunities, it is on whole, far more restrictive for students. Programs like Running Start, which pairs high school students with local community colleges so they could earn college credit while still in high school for a very nominal fee (usually under \$150), are mentioned in low performing school’s program of studies but the steps necessary to access the course are missing. Given that several of the lower performing schools are also high free/reduced lunch participating schools, additional language and guidance would likely be needed to help students and families access these exceptional post-secondary opportunities and it is simply missing from the majority of their literature.

### **Conclusion**

Dropping out of high school has lifelong implications that are not often readily apparent to a struggling teen considering it as an option. In order to address this growing concern, New Hampshire introduced RSA 193:1, which changed the compulsory age for education from 16 to 18. As a result of the change, initial reports were the dropout rate had dropped precipitously but

this study aims to see how RSA 193:1, through the eyes of high school principals, is impacting education in the Granite State. How they have reacted within their buildings and community, in terms of policy and procedure changes, may be key to understanding why school's dropout rates have changed but that change has not been uniform or consistent.

The dropout rate across the state for the time of this study, 2012-2016, as measured by the two major metrics, early exit and cohort dropout, remained relatively low, 5.9% and 3.9% respectively. Difference in rates can be attributed to the methodology used to calculate each but regardless of approach, there are still some schools doing significantly better than others across the state. The worst performing schools (highest dropout rates) encompass the entire spectrum of schools within the state. The small rural high schools, like Nute and Pittsburg, struggled to keep students enrolled as well as the larger, more urban schools such as Manchester School of Technology and Manchester Memorial. However, the top performing schools (lowest dropout rates) also encompassed the very rural like Gorham with its astonishingly low zero percent student loss over five year to the larger more economically advantaged districts like Hanover.

Schools, regardless of enrollment, have students who do not complete their requirement and dropped out. One key indicator that is moderately positively correlated to student's dropping out is the percent of students on free/reduced lunch. Districts that have a significant population of students on free/reduced lunch may be more susceptible to having students dropout but it is not the sole indicator. The dropout issue is impacting all communities within the state and teachers and administrators are working hard to address the issue within their buildings.

While principals' generally sense that RSA 193:1 is a positive force within their schools and believe their staff and community support it, they are reporting that they have worked to create various forms of intervention and support over the years to help ensure as many students

as possible remain engaged and committed to their schooling and diplomas. Targeted RTI programs, altering credit requirements for graduation, providing adult education courses, and offering HiSet testing opportunities are some of the more common approaches principals have introduced to help the struggling learners in their buildings. The belief is that some combination of these interventions will help impact their individual dropout rates and allow more students the opportunity to earn their diploma.

Examination of these high and low performing school's various policy manuals, student handbooks, and program of studies illustrated a vast difference in approach to the issue, in their descriptions of their specific programs, by both groups. The higher performing schools, as a group, provided specific and targeted measures to address struggling students from missing assignments to outlining procedures on alternative credit opportunities. This approach is likely benefiting students and parents as well as staff. The lower performing schools may have listed similar programs or approaches but provided little context in terms of role responsibly or follow up with students on how to access the various material. Additionally, the low performing schools appeared to be more rigid in their expectations of students earning credit in alterative (not brick in mortar, in building, classrooms) settings. The combination of these factors may likely be hindering a student whom is already struggling and may be an insurmountable barrier for many.

### **Implications**

The results of this work help provide insight into the views of those who are on the ground in schools implementing a legislative mandate. Principals are clearly trying to do their best to meet their students' needs and do believe that they have the support of their staff and communities to accomplish their work. They speak of their work with obvious passion and

energy that provides a sense of pride and empowerment for local educators working with the incredibly complex issues surrounding dropping out of high school. Their work, with their staff, developing meaningful and timely school-based policies is essential to addressing their distinctive issues. Successful policy implementation depends on the principal's ability, authority, and motivation to make both strategic learning decisions and needed staff changes (Fowler, 2009). Through their responses and programmatic changes, these principals have the motivation for change but change is also dependent on their commitment to the issue. As with any occupation, other issues arise and can produce constraints on time, energy, and finances specific to addressing the dropout issue. Principals must remain steadfast in their approach to working with their staff and community in order to provide the best learning opportunities available for all of their students to access.

With regard to policy findings, schools should work to address their various policy/procedure documents as a means to address dropout issues. However, it does present an obvious contradiction when this research suggests schools be more open and flexible in terms of what types of credit opportunities they offer to student while simultaneously being more prescriptive in terms of their procedures around struggling or not engaged students. The balance to see is one of flexibility of options and expectations. The obvious dichotomy presents a series of logistical and pedagogical issues for many educators that would be challenging to resolve or even find some type of manageable middle ground that works for a particular school's student population.

### **Recommendations**

All too often school leaders are looking for a program or policy that aims to “solve” complex and multifaceted issues. Dropping out of high school is often the result of numerous,

often small and seemingly inconsequential decisions by the student, family, school or perhaps combination of all three, and believing that one overarching program or policy would solve it is fool hearty and misguided. Rather, as this study suggests, it is the accumulation of hard work by numerous individuals that coalesce to form a patchwork of strategies and approaches that aim to meet the needs of as many students as possible as often as possible, again all hoping to prevent the student from leaving school without a diploma.

Beginning with the policy and procedure review of the high and low performing schools, the vast difference in how the policies and procedures are written, and presumably utilized within the building, is an area of grave concern. This work suggests that schools working to address their dropout rate would be wise to create a balance in terms of when/where/how students can earn credit with emphasis on non-traditional (outside of classroom, online, work study, ELO) opportunities that could provide flexibility and opportunities to struggling students that a traditional brick and mortar setting simply cannot. By allowing students to demonstrate knowledge and learning in new and novel settings, schools are opening the possibility for struggling students to demonstrate required competencies or learning targets in new ways that they may not have had access to prior to the potential change. Additionally, schools should create fairly direct and prescriptive protocols around procedures such as late work, missing assignments, exam make-ups/remediation of grades, as to spell out whom is responsible for what level of engagement and work at each point. This progressive type of system of accountability puts the onus on the student first but does not leave them to their own devices if they are struggling to progress through the task. Finally, schools should be cognizant of the ever-growing list of after school or outside of the school day responsibilities students have, most especially low-income students. As such, schools should work to find dedicated time during the day when

students can have access to their teachers for remediation and support. This additional support, coupled with the previously suggested outline for work completion, will likely help keep students on track with course work and more likely to earn credit as they progress towards their diplomas.

The data suggested positive correlation between free/reduced lunch population and dropping out. This particularly vulnerable group of students should be part of any type of structural or procedural change within the school. While SES status has long been studied and often cited as impacting many modern issues in education, it is not the sole factor in whether or not a student drops out of high school. The interaction between conditions such as home life, parent's level of educational attainment, or standardized test scores, to name just a few can work in concert all to contribute to a student dropping out of high school. The study does not suggest targeting specific programs to that group but rather suggests any shifts in instructional approach or school-wide procedures would likely be beneficial to all students, regardless of socioeconomic status. A focus on students who are eligible for free and reduced lunch risks identifying and stigmatizing those students. A focus, as discussed below, on other indicators as a means of identification may reduce the likelihood of harming these students.

Most comments by principals suggest that the identification of students who exhibit behaviors associated with an increased chance of dropping out is essentially ad hoc relying on the individual actions of teachers. While the research (Allensworth et al. 2014) on dropouts points to 8<sup>th</sup> grade students GPA and attendance as early indicators of dropping out of high school, this research did not find any evidence of high school programs that included early, system identification of potential dropouts through data gathering and data analysis of the indicators of potential. An institutionalized approach to identification as opposed to an ad hoc

approach to identification provides a data-driven approach to the issue of reducing dropouts through a targeted approach. This also may allow the development of an institutionalized approach aimed at specific risk factors.

For example, (Allensworth et al, 2014, Corrin et. al, 2016, and Baltimore Education Research Consortium, 2011) found a connection between chronic student attendance issues and 8<sup>th</sup> grade GPA and students attaining a diploma. By having a uniform and consistent method for tracking student attendance as well as clear and progressive system of response to chronic absences<sup>1</sup>, schools may be able to intervene with struggling students earlier and reverse a downward slide. Whether a school adopts an attendance policy for the entire student body or it falls to an individual classroom teacher, students need to be in school to receive a high quality education as the primary location for education is still the traditional classroom.

In addition to an attendance policy that is consistent, school should use a systemic approach to creating policies and associated protocols and procedures for identification of at-risk students. This study indicated that far too often the identification of students who are struggling is left to individual teachers. This “teacher intuition” approach is not something that is equitable, repeatable, or consistent teacher to teacher within the same school with little hope that it could be replicated across different districts. By developing guidelines, perhaps based on things like attendance, grades, and behaviors; schools could take a large step forward to ensure that all students are accessing the supports that are available in a consistent and uniform manner. Leaving a struggling student to their own to find the services they need or hoping that an overtaxed staff member notices when a student’s grade or attendance begins to slip is an

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<sup>1</sup> The Brookings Hamilton Project, *Reducing Chronic Absenteeism under the Every Student Succeeds Act*, notes that most states define chronic absenteeism as missing 10 percent of the school day for excused, unexcused, and suspensions. Chronic absenteeism is consequential for achievement and educational outcomes; student lose instructional time resulting in lower achievement and it is predictor of dropping out

ineffective approach to providing high quality education. A systemic, institutional-wide approach to identifying at-risk students and intervening quickly and consistently may provide the support struggling students need to be successful as they progress towards graduation.

Finally, it is imperative that the bodies governing schools, at the state level through legislation and/or Department of Education regulations or the local level through board policy, give authority and support to the high school principals to work tirelessly with their staff to address the needs of their students. Principals stated they were working with their staff to address their own local needs as a result of the change in compulsory education. There is a sense that those closest to the student know them best and will continue to work hard to meet their needs. The connection principals reported between struggling student and staff is something that is unique to that student/teacher interaction and not something that can be mandated or legislated from away. It is important that in this challenging work of dropout prevention that the moment between student and educator not be interfered with by a misguided but well-intentioned legislative body.

### **Limitations**

The research was conducted with New Hampshire principals during the 2018-2019 school year and only can reflect those respondents during that particular year. Given the relative uniqueness of the surveyed population it may be challenging to generalize any of the results to another state or region of the country or even perhaps another year within New Hampshire. The study would be better suited to identify commonalities that could be highlighted for future research opportunities. Additionally, charter schools and private/religious based schools were excluded from this study and any type of generalizations to that particular population. The policy sample was restricted to the top/bottom five performing school districts by both the cohort and early exit measure so further extrapolation of all high school's within the state is suggested if

a larger scale policy decision is being considered. Finally, public high schools that were not fully operational for the duration of the study length (2012-2016) were excluded from this analysis.

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## APPENDICES

## Appendix A: RSA 193:1

### School Attendance

#### Section 193:1

##### **193:1 Duty of Parent; Compulsory Attendance by Pupil. –**

I. A parent of any child at least 6 years of age and under 18 years of age shall cause such child to attend the public school to which the child is assigned in the child's resident district. Such child shall attend full time when such school is in session unless:

(a) The child is attending a New Hampshire public school outside the district to which the child is assigned or an approved New Hampshire private school for the same time;

(b) The child is receiving home education pursuant to RSA 193-A and is therefore exempt from this requirement;

(c) The relevant school district superintendent has excused a child from attendance because the child is physically or mentally unable to attend school, or has been temporarily excused upon the request of the parent for purposes agreed upon by the school authorities and the parent. Such excused absences shall not be permitted if they cause a serious adverse effect upon the student's educational progress. Students excused for such temporary absences may be claimed as full-time pupils for purposes of calculating state aid under RSA 186-C:18 and adequate education grants under RSA 198:41;

(d) The child is attending a public or private school located in another state which has been approved by the state education agency of the state in which the school is located, or is attending a nonsectarian private school located in New Hampshire that is approved as a school tuition program by the school board pursuant to RSA 193:3, VII;

(e) The pupil has been exempted from attendance pursuant to RSA 193:5;

(f) The pupil has successfully completed all requirements for graduation and the school district is prepared to issue a diploma or the pupil has successfully achieved the equivalent of a high school diploma by either:

(1) Obtaining a high school equivalency certificate; or

(2) Documenting the completion of a home school program at the high school level by submitting a certificate or letter to the department of education;

(g) The pupil has been accepted into an accredited postsecondary education program; or

(h) The pupil obtains a waiver from the superintendent, which shall only be granted upon proof that the pupil is 16 years of age or older and has an alternative learning plan for obtaining either a high school diploma or its equivalent.

(1) Alternative learning plans shall include age-appropriate academic rigor and the flexibility to incorporate the pupil's interests and manner of learning. These plans may include, but are not limited to, such components or combination of components of extended learning opportunities as independent study, private instruction, performing groups, internships, community service, apprenticeships, and on-line courses.

(2) Alternative learning plans shall be developed, and amended if necessary, in consultation with the pupil, a school guidance counselor, the school principal and at least one parent or guardian of the pupil, and submitted to the school district superintendent for approval.

(3) If the superintendent does not approve the alternative learning plan, the parent or guardian of the pupil may appeal such decision to the local school board. A parent or guardian may appeal

the decision of the local school board to the state board of education consistent with the provisions of RSA 21-N:11, III.

II. A child who reaches the sixth birthday after September 30 shall not be required to attend school under the provisions of this section until the following school year.

III. In this section, "parent" means a parent, guardian, or person having legal custody of a child.

IV. [Repealed].

**Source.** 1903, 13:1. 1911, 139:1. 1917, 52:1. 1919, 84:1. 1921, 85, III:1. PL 118:1. RL 137:1. 1949, 92:1. 1953, 223:1. RSA 193:1. 1985, 47:1. 1990, 279:1. 1994, 121:1. 1996, 157:1. 1997, 183:1. 1999, 17:42; 39:1. 2005, 257:15. 2007, 242:5; 270:3; 350:1; 350:2. 2008, 173:11. 2013, 215:1. 2017, 182:2, eff. Aug. 28, 2017.

## Appendix B: High School Principal Survey

### Principal Survey

Years as an Educator

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Years as Principal of your current school:

---

Approximate Student Enrollment

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My school is in a community that is considered ( include all that apply):

High Wealth

Medium Wealth

Low Wealth

Urban

Suburban

Small Town

Rural

\* If you need assistance identifying your community as high, medium, or low wealth please consider that according to the US Census Bureau the average household income in New Hampshire in 2017 was \$86,696.

\*If you need assistance in identifying your community as urban, suburban, small town, or rural; please consider page 1 of the following ([https://www.ers.usda.gov/webdocs/DataFiles/53180/25584\\_NH.pdf?v=0](https://www.ers.usda.gov/webdocs/DataFiles/53180/25584_NH.pdf?v=0)) as it may assist with your classification.

In 2009, New Hampshire changed the compulsory age for students to attend school from age 16 to age 18 (RSA193:1). The law was widely touted as a successful measure to combat students who were previously dropping out of school but there has been little research into principal's perception of this change. As the leader of your high school, the following questions are designed to elicit your thoughts on this change and how you, your staff, and your district are responding to the shift in age requirement.

The extended compulsory education law is beneficial in moving my students to graduate on schedule with their peers.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Disagree
- Strongly disagree

My school added support systems/programs in response to the extended compulsory education law.

- Yes
- No
- Don't know

If yes, please explain what the structure of the support program/system where developed as well as how/if they have evolved since their inception.

---

If no, do you need supports systems for the extended compulsory education law?

- Yes
- No

If your school either adopted a support in response to the extended compulsory education law or if it did not, are there any supports that are not available that you would like to provide?

- No
- Yes

If yes, please list out supports.

---

How strongly do teachers in your school support or oppose the extended compulsory education law?

- Strongly Support
- Somewhat Support
- Neither Support or Oppose
- Somewhat Oppose
- Strongly Oppose

How strongly does your community support or oppose the extended compulsory education law?

- Strongly Support
- Somewhat Support
- Neither Support or Oppose
- Somewhat Oppose
- Strong Oppose

What is your overall impression of the impact of the effectiveness of the extended compulsory education law? What types of data do you use/collect to indicate how your students are doing in relation to the compulsory education law?

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If your school has experienced a decline in its dropout rate, to what do you attribute this decline?

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What, if any, unintended or negative consequences arose as a result of the change with the compulsory education law?

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If you were not employed in the role of principal of the change in compulsory education, are you aware of any changes that have taken place as a result of the change that may have been enacted before your employment began? If so, please list them.

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## Appendix C: List of NH High Schools

Academy for Science and Design Charter	Fall Mountain Regional High School	Kearsarge Regional High School
Alvirne High School	Farmington Senior High School	Keene High School
Bedford High School	Franklin High School	Kennett High School
Belmont High School	Gilford High School	Kingswood Regional High School
Berlin Senior High School	Goffstown High School	Laconia High School
Bow High School	Gorham High School	Lebanon High School
Bud Carlson Academy	Granite State Arts Academy Charter School	Ledyard Charter School
Campbell High School	Great Bay Charter School (H)	Lin-Wood Public School (High)
Cocheco Academy for the Arts	Groveton High School	Lisbon Regional School (High)
Coe-Brown Northwood Academy	Hanover High School	Littleton High School
Colebrook Academy	Hillsboro-Deering High School	Londonderry Senior High School
Conant High School	Hinsdale High School	Making Community Connections Charter School
Concord High School	Hollis-Brookline High School	Making Community Connections Charter School - Monadnock
Conval Regional High School	Hopkinton High School	Manchester Central High School
CSI Charter School	Inter-Lakes High School	Manchester Memorial High School
Dover Senior High School	John Stark Regional High School	
Epping High School		
Exeter High School		

Manchester School of Technology	North Country Charter Academy	Somersworth High School
Manchester West High School	Nute High School	Souhegan Coop High School
Mascenic Regional High School	Oyster River High School	Spaulding High School
Mascoma Valley Regional High School	PACE Career Academy Charter School	Stevens High School
Merrimack High School	Pelham High School	Sunapee Sr. High School
Merrimack Valley High School	Pembroke Academy	The Founders Academy Charter School
Milford High School	Pinkerton Academy	Timberlane Regional High School
Monadnock Regional High School	Pittsburg High School	Virtual Learning Academy
Moultonborough Academy	Pittsfield High School	White Mountains Regional High School
Nashua High School North	Plymouth Regional High School	Wilton-Lyndeboro Senior High School
Nashua High School South	Portsmouth High School	Windham High School
Newfound Regional High School	Profile Senior High School	Winnacunnet High School
Newmarket Jr.-Sr. High School	Prospect Mountain High School	Winnisquam Regional High School
Newport Middle High School	Raymond High School	Woodsville High School
Next Charter School	Salem High School	
	Sanborn Regional High School	

## Appendix D: IRB Approval

14-Dec-2018

Korman, Andrew Education, Morrill Hall

## University of New Hampshire

Research Integrity Services, Service Building 51 College Road, Durham, NH 03824-3585 Fax: 603-862-3564

**IRB #:** 7048

**Study:** Difference in Dropout Rate: A Comparative Analysis of Principal Perceptions and Responses after the Passage of RSA 193:1

**Approval Date:** 13-Dec-2018

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study as Exempt as described in Title 45, Code of Federal Regulations (CFR), Part 46, Subsection 101(b). Approval is granted to conduct your study as described in your protocol.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, Responsibilities of Directors of Research Studies Involving Human Subjects. (This document is also available at <http://unh.edu/research/irb-application-resources>.) Please read this document carefully before commencing your work involving human subjects.

Note: IRB approval is separate from UNH Purchasing approval of any proposed methods of paying study participants. Before making any payments to study participants, researchers should consult with their BSC or UNH Purchasing to ensure they are complying with institutional requirements. If such institutional requirements are not consistent with the confidentiality or anonymity assurances in the IRB-approved protocol and consent documents, the researcher may need to request a modification from the IRB.

Upon completion of your study, please complete the enclosed Exempt Study Final Report form and return it to this office along with a report of your findings.

If you have questions or concerns about your study or this approval, please feel free to contact Melissa McGee at 603-862-2005 or [melissa.mcgee@unh.edu](mailto:melissa.mcgee@unh.edu). Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,

Julie F. Simpson Director