Spring 2019

Addressing Critical Shortages: An Examination of Supports For Early Career Special Educators in Maine

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ADDRESSING CRITICAL SHORTAGES: AN EXAMINATION OF SUPPORTS

FOR EARLY CAREER SPECIAL EDUCATORS IN MAINE

By

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B.S. University of Southern Maine, 1992
M.S. University of Southern Maine, 2003
C.A.S. University of Southern Maine, 2009

A DISSERTATION

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

In Public Policy

University of Southern Maine
February, 2019

Advisory Committee:
   Catherine Fallona, Ph.D., Professor of Education
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An Abstract of the Dissertation Presented
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Alarming percentages of early career special educators, as many as 50%, leave education within five years (Edgar & Pair, 2005; Menlove, Garnes, & Salzberg, 2004; Plash & Piotrowski, 2006). These statistics are cause for grave concern. The purpose of this survey research study was to discover early career special educators' perceptions of the induction support they received.

The findings of this research study suggest: (a) the majority of early career special educators report a gap in key knowledge areas; (b) most participants perceive the induction components/activities provided as no more than somewhat effective; (c) only half of participants had the benefit of a special education mentor; (d) support provided by mentors, administrators, and staff were perceived as no more than somewhat effective; (e) emotional support was rated higher than instructional support; (f) mentor and administrator support was not correlated to teachers' intent to remain in special education; (g) inordinate amounts of time are expended to meet demands of increasingly complex roles; and (h) one-third of participants are undecided about their long-term commitment.

Given these findings, active steps need to be taken early to ensure that novice teachers have strong foundational knowledge. Attention must be given to increase equity of supports offered across districts. Critical accountability measures to monitor policy implementation have been absent, much like the "lack of rigorous evaluation" nationally (Smith, 2007). Increased training of mentors and administrators would provide greater support for early career teachers. Consideration must be given to include guaranteed planning time, financial acknowledgment for time worked, and novel approaches to case management responsibilities. Finally, other next steps include differentiated salary structures and early financial incentives, such as restructuring loan forgiveness.

The ever-present shortage of special education teachers crosses all demographics and regions of Maine. Policy re-writes that address the unique needs of special educators and regionalizing efforts to support their growth offer great promise. Although mandates are not popular in our locally-controlled state, a review of induction supports is sorely needed.

Acknowledgements

"Life is not easy for any of us. But what of that? We must have
perseverance and above all confidence in ourselves. We must
believe that we are gifted for something and that this thing must
be attained."

-Marie Curie

This body of research is the result of seemingly endless hours of relentless work and
persistence, through unanticipated challenges that presented themselves along the
journey. The circle of support around me to get here was always nearby. I could never
have imagined spending three years reading and writing so deeply about one topic.

To the professors in my program and to members of my committee, Dr. Jeff Beaudry and
Dr. Anita Stewart McCafferty, who supported my growth;

To my chair, Dr. Cathie Fallona, who read my work over and over, offered thoughtful
feedback in a timely way, answered every question I sent her way, and pressed me to
think more intensely;

To my friends, especially Kim O'Donnell, who took this journey with me and was the
greatest thinking partner I could imagine having throughout all of our coursework;

To my partner, Shawn, for his ongoing patience and quiet support during the many, long
hours I spent in front of my laptop;

To my children, Taylor and Logan, who have provided me with the impetus for always
wanting to strive for more: I hope that I have modeled the value of setting goals. Taylor,
how lucky students are to have such a caring special educator in you, and Logan, I know
you will find and grow your passion: follow your hearts!

And, above all, to my parents, Robert and Rachel: your strong work ethic and selfless
attitudes have taught me so much about how to be a person in the world; your ever-
present support of me and belief in education has not gone unrecognized…you have
made this all possible!

I would not have gotten to completion of this Ph.D. without any of you!

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CHAPTER 1: INTRODUCTION

Statement of Problem

Each year, a new cadre of teachers is hired across schools and districts in the United States. These new hires bring with them a range of experiences and backgrounds. Some might be considered traditionalists, having gone right from high school through the ranks of a four-year college program to earn their degree. Others may have had another major in college and are working to meet teacher certification requirements through an alternate pathway immediately following graduation. Still others are what would be called "career-changers", those professionals who decided mid-career that it was time to do something different.

Regardless of how they arrived, what pre-service experiences they may or may not have had, and whether or not they meet certification requirements, all of these newly hired teachers have a significant learning curve as they embark on their newly-found careers. On the list are things like acclimating to the culture of the school, becoming familiar with the curriculum, writing assessments, connecting with students and parents, working through classroom management issues...the list for new teachers can seem never-ending. How do early career educators find balance at attending to all of these competing needs? What kinds of supports do or should educational institutions provide its newest members during what can feel like a very tenuous time? A "trial by fire" approach, leaving a new teacher to the private practice of a classroom, will not go far in yielding the results that are expected.

What Is Known About Beginning Teachers Today?

Beginning teachers now make up the largest cohort of teachers in the United States. According to Ingersoll (2008), in 2008 teachers with five or less years' experience made up 25% of all employed teachers in the country, the largest percentage of new teachers ever on record. More concerning than the number of newbies is the current attrition rate for teachers. Study after study have recorded the alarming percentages of teachers who leave the field within the first five years (Billingsley, 2005; Darling-Hammond, 2000; Darling-Hammond & Sykes, 2003; Ingersoll, 2012). Darling-Hammond's work documented that 30-50% of teachers leave education in their first three years (Darling-Hammond, 2000). Another more current study showed that 40-50% of all new teachers leave the profession within the first five years on the job, marking a rate increase of one-third since the early 1990s (Ingersoll, 2012).

Maine statistics are not much different. In fact, recent work conducted by the Maine Education Policy Research Institute for the Maine State Legislature highlighted some shocking statistics about Maine teachers (Morris and Johnson, 2018). Of teachers who leave the profession, 15% have less than three years' experience. Currently, one in five Maine teachers have less than three years of experience. Their research also demonstrated a negative correlation between teacher experience and retention. In fact, the study found teacher experience to be the most influential factor in retention. To cite a key quote that makes a strong point, "Beginner teachers in Maine appear to be at higher risk of failing and leaving the profession altogether" when compared to any other group studied (Morris and Johnson, 2018, p.34). Not only do these findings call into question the usefulness of current induction policy, but they also appear to shed some negative foreshadowing for the future of education.

As of 2010, 52% of all educators in the United States were over 50 years old (Carroll & Foster, 2010). Also worth noting, schools assumed that teachers would continue to come to the profession and remain for their entire career, as has happened with previous generations, and that assumption hasn't come to fruition (Auguste, Kihn, & Miller, 2010). Today, unlike in past times, two-thirds of teacher attrition cannot be explained by retirements (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Results from the 2013 Teacher Follow Up Survey, an extension of the Schools and Staffing Survey conducted by the National Center for Educational Statistics, describe that as many as 55% of departing educators leave for reasons related to job satisfaction (Goldring, Taie, & Riddles, 2014).

At the same time attrition is taking place, teacher preparation program enrollment and graduation rates are steadily decreasing, as much as a 29% lower graduation rate and 35% drop in enrollment from 2009 to 2014 alone. These percentages translate to 240,000 fewer educators to fill open classroom positions (Sutcher et al, 2016). A 2016 national survey of college freshmen conducted by UCLA's Cooperative Institutional Research Program discovered that the number of students indicating they plan to major in education has reached its lowest point in 45 years. Only 4.2 percent of all surveyed freshmen intend to be education majors, as compared to 11 percent in 2000; 10 percent in 1990; and 11 percent in 1971. Added to this is the fact that as many as 50% of the teaching population, made up of baby boomers, could be retiring within the next decade; a potential crisis is clearly looming on the horizon for local school districts (NCTAF, 2010).

Special Educators: An Important Subgroup

It has been noted that early career special educators are leaving the field at the highest rates of all educator subgroups. The most tenuous time for special educators who consider leaving the field happens in the critical first five years (Gehrke & Murri, 2006; Ingersoll and Smith, 2003, McLeskey & Billingsley, 2008). Numerous studies point to as many as 50% of early career special educators departing within the first five years (Edgar & Pair, 2005; Menlove, Garnes, & Salzberg, 2004; Plash & Piotrowski, 2006). For example, according to one study, as many as 40% chose to leave the field after just three years, much more than the average 25.5% attrition rate of general educators (Billingsley, 2004; Luekens Lyter, & Fox, 2004).

The overall current rates for departing special educators is 12.3% each year versus a rate of 7.6% for general educators (Ingersoll & Merrill, 2010; Keigher & Cross, 2010; National Coalition on Personnel Shortages in Special Education and Related Services, 2015; National Commission on Teaching and America's Future, 2007). Teachers are less committed to choosing teaching as a life-time career now, unlike earlier times wherein they might dedicate 30 years or more.

Special Education has been long noted as a Teacher Shortage Area across the country, according to the United States Department of Education. In fact, in examining data of high needs areas for Maine spanning from 1990 to 2016 on the 2016 Teacher Shortage Area Nationwide Listing Comprehensive Compendium, I found that special education has consistently been deemed a teacher shortage area in the state of Maine every single year. The 2015-2016 American Association for Employment in Education's Supply and Demand Report concluded that, as of 2016, every special education field in K-12 education was ranked as having a "considerable" shortage (American Association

for Employment in Education, 2016). These massive shortages speak to the need to find out what training and support would increase the ability to recruit and maintain a cadre of effective special educators with a long-term commitment (Belknap & Taymans, 2015, Tait, 2008). This problem is exacerbated in particular schools even more than the average; 90% of high poverty schools report having difficulty attracting qualified special education teachers, as compared to 51% of all schools (National Coalition on Personnel Shortages in Special Education and Related Services, 2015).

Compounding the shortage issue and the problem with attrition for early career special educators is the reality that veteran special educators are retiring at rates that exceed those coming into the field, as stated in analyses from the Center on Personnel Studies in Education (Higher Education Consortium for Special Education, 2004; Muller & Burdette, 2007).

Unique Needs and Pressures

Beyond the struggles facing typical beginning teachers are the unique needs presented by newly hired special educators. Aside from expected responsibilities that are inherent to all new teachers such as learning the curriculum and culture of their new schools, special educators need to learn how to balance their direct instructional responsibilities with all of the legal paperwork requirements that come with case managing students. Special educators, more than their general classroom peers, also need to learn how to interface with a variety of stakeholders (administrators, parents, support staff) to a much higher degree (Potemski et al., 2014). Many needs of beginning special educators are more germane to their field: locating appropriate materials for the unique needs of students, embedding support for students from other key team members like

social workers or behavior analysts, and even learning how to effectively supervise support staff that might be part of the program (Cancio, Albrecht, & Johns, 2014).

These varied and challenging factors weigh heavily in special educators' decisions to stay or go. Previous researchers have identified a number of factors that contribute to special educator attrition. These include pre-service preparation, role ambiguity, working conditions and collegial/administrative support, as well as job satisfaction (BIllingsley, 2004a; Gehrke & McCoy, 2007; Fish & Stephens, 2010). Paperwork overload, perceived lack of administrator support, or connection with colleagues, and limited resources can contribute to as many as 66% choosing to abandon their positions in special education and exit the profession (Futernick, 2007; Kaff, 2004; Prather-Jones, 2011). Connections with administrators specifically rises up for many as a primary concern; in a recent study of attrition, approximately 40% of 8,400 special educators who left positions directly stated that lack of support as their primary reason for leaving (Marvel, Lyter, Strizek, & Morton, 2006).

Similar trends hold true across both urban and rural communities. In Berry's nationwide study of both rural administrators and special education teachers, for example, administrators reported that, of their special educators who were leaving, 37% left for personal reasons, 8% because of paperwork demands, and 13% for better salary/benefits. One-third of the special education teachers interviewed in the same study indicated they would be leaving their current positions, 24% due to stress and lack of support, and 13% who wanted to go to a different school. (Berry, Petrin, Gravelle, & Farmer, 2011).

Given the situation at hand, it would seem that something different is needed to ensure that special educators come to and remain within the field, and additional research

may be indicated to increase understanding of how to retain people in these critical positions.

Costly to Ignore

As previously stated, the shortage of special educators is reaching crisis proportions. This is costly on a number of fronts. From a financial stand-point, recent research shows that replacement costs for teachers are about $18,000 per teacher who leaves (Darling-Hammond, Furger, Shields, & Sutcher, 2016). Comparably, others have stated that attrition can cost upwards of 30% of a departing employee's wages (Borman & Dowling, 2008). To put this in concrete terms, national estimates reveal that over seven billion dollars a year are spent in the process of replacing teachers (NCTAF, 2007). Imagine what could be done with these funds to improve outcomes for our students if these monies weren't needed to address attrition.

A cost-benefit analysis conducted in a mid-size California district by the New Teacher Center showed a positive return upwards of $8,500 per teacher after five years (Villar & Strong, 2007). These costs are tied into professional development focused on skills with specialized instructional programming and testing protocols. In addition, much of the groundwork connecting new special educators to local resources and initiating them in understanding local norms and culture also happens in the first years (Mathews, Rodgers, & Youngs, 2017). Early career educators need approximately three to seven years of experience to be at comparable levels of instructional capacity with veteran teachers (Alliance for Excellent Education, 2005).

Even greater than the financial costs incurred, the educational costs and impacts passed on to students can be more attention-getting. Each year in the United States, just under one million special education students receive inadequate instruction including:

services from untrained or uncertified staff, or lower to no service time than legally indicated in their individual education plans (Tyler & Brunner, 2014). Trends from the Schools and Staffing Survey estimate that 12% of those employed as special educators are not fully certified, and only 46% of special educators were college majors, as compared to 82% of general educators (Boe & Cook, 2006). As such, many schools are forced to hire under-qualified candidates in order to fill special education positions. One meta-analysis of Title 2 and IDEA data noted that the use of long-term substitutes is skyrocketing (Steinbrecher, 2013). Again, the effect on student achievement in these cases is costly (Feng & Sass, 2012).

Retaining teachers who increase in their capacity in the classroom over time translates into improved student learning outcomes. Student outcomes are greatly influenced by attrition (Darling-Hammond, 2006). In a study using the SPeNSE database, Fall and Billingsley (2011) sought to learn more about the working conditions of special education teachers in high-poverty districts. Their findings showed remarkable disparities in the high poverty schools, which experience among the highest attrition rates (Fall et al, 2011, Hunt & Carroll, 2003).

No matter one's area of focus, financially-centered or student-centered, there is strong documentation of the costs incurred due to the attrition of special education teachers. Given the current statistics, those who want to experience financial savings should be as interested in addressing this crisis as those who are committed purely to improving outcomes for students who struggle the most. Until something changes, we can only expect to expend millions and millions of dollars at the continued expense of students.

Purpose of the Study

The purpose of this research study was to understand the influence of various factors on the sustainability of early career special educators. This is especially critical now, given the very real shortage and crisis that schools across the country face in finding special educators to fill open positions. I will draw on findings from this study to inform policy-makers as they seek to revise induction policies for all teachers, but specifically to create special-education policy that addresses the growing critical shortages.

Research Questions

My research aimed to answer:

- What are Maine's special educators' perceptions of the induction support they received in their early years?

Sub-questions included:

- What are early career special educators' perceptions about the influence of induction programs as related to sustainability in their roles within special education?

- What are early career special educators' perceptions about the influence of environmental factors, such as school climate and collegial/administrative support, as related to sustainability in their roles within special education?

- What are early career special educators' perceptions about the influence of personal factors as related to sustainability in their roles within special education?

Significance of Study

There is currently a sizable void in the literature that speaks to reasons why special educators stay, and to the factors that have influenced such decisions. The proportional number of studies that do exist within the current body of literature have largely focused on overall induction supports and are quantitative in nature. Although useful in beginning to frame the issue of general teacher shortages, more specific analysis needs to be conducted to discover what influences have positively impacted special educators.

Attracting and retaining special education teachers is a very real problem in the state of Maine. Examining the NEO Portal website (MDOE Contact Search, 2018), I found that Maine employs 2,053 public school special education teachers. Of that number, 16% of them do not hold professional certification. Of that 16%, 7% hold two-year provisional certificates, 5% have three-year conditional certificates, less than 1% have one-year transitional or targeted needs certificates, and 2.2% have no kind of certification at all.

When one third of special educators participating in formal induction don't note it as having been helpful, a re-examination of the best way to support early career special educators is called for (Billingsley et al, 2014). By focusing on early career special educators' who have met success in continuing within the field, a repeatable and predictable set of supports can be identified. With that knowledge, policies can be re-examined by key influencers, such as legislators, Department of Education officials, and district personnel. Recommendations can reshape policies and ensure that they are written more specifically to address the massive shortages of special educators today. Existing public policies for special educators are limited, as they were designed to

support general education teachers. As such, they are not specifically aimed at needs of any specialty groups, such as special educators, despite their unique responsibilities within the larger field.

Listening to those who have outlasted the beginning tumultuous years in special education will garner critical insights, which may greatly influence the future of public policy decisions. There is a great opportunity to focus on current policy challenges, as well as opportunities to enhance the existing foundation that current policy provide.

CHAPTER 2: LITERATURE REVIEW

Through my research, I sought to examine understand the influence of various factors on the sustainability of early career special educators. Over the past thirty years, general induction programs have taken root and become common in many states for new educators entering the field. In spite of federal, state, and even district policies to retain new teachers, an increasingly significant problem still exists. In other words, despite the supports that have been mandated, new teachers continue to leave education at higher rates than expected or hoped. This is true in the field overall, but especially so within special education, wherein this group has consistently been a targeted needs population. In fact, in close examination of the 2016 Teacher Shortage Area Nationwide Listing Comprehensive Compendium, I found that special education has been deemed a teacher shortage area consistently every single year since 1990.

Within this chapter, I will share the work of other researchers and field experts in order to provide a comprehensive review of the seminal and relevant work related to the induction of new teachers, especially as it relates to special education. My literature review will consider how teachers come to the profession initially and how well prepared they were upon entering the profession. I will also examine research about various components of induction: mentoring, working conditions, professional development, and administrative/peer support. Finally, my review will evaluate the role that personal factors have on retention. This prior research provided a critical foundation for my work, and also formalized the need for further investigation. This is a problem that has not been solved; in fact, there is a persistent crisis at work within the field of special education across the United States.

Historical Factors

Pre-Service Recruitment and Preparation

Traditional Pathways. There is not a one-size-fits-all formula for training and preparing new teachers for their roles in schools. This is true for all teachers, not just those within special education. Currently, many U.S. teachers go through more traditional teacher preparation programs with a focus on the craft of teaching: educational theory, pedagogy, and early guided classroom experiences. Others choose a more alternative path, with a greater focus on content and a lesser focus on classroom experiences as preparation for teaching. The latter path has been growing over the past few decades as more vacancies have arisen within the field. According to data obtained by the National Center of Education Information, before 1980, 97% of new teachers came into the field from an undergraduate or graduate education program. By 2011, those numbers of traditionally certified teachers had dropped to 83%, with the remainder of new teachers coming from alternate certification college programs, school district programs, or other pathways, such as Teach for America, or Troops to Teachers (National Center of Education Information, 2011). This proliferation of alternate pathways has come about as a result of huge teacher shortages across all endorsement categories, but the problem is exaggerated even more within special education.

Alternate Pathways. By 2007, there were over 47 states with alternate programs to certify teachers across the United States (Walsh & Jacobs, 2007). Although the need for certified teachers with specific endorsements, like special education, is a nationwide dilemma, in some states, the need for credentialed teachers in general is even more excessive. Such is true in California, where by 2015, almost 50% of newly hired teachers were hired on waivers (Carver-Thomas & Darling Hammond, 2017).

Perceptions on Effectiveness. Research to date speaks to problems that have been associated with some alternate preparation programs specifically, the rigor of programming included for new educators (Quigney, 2010; Cook & Boe, 2007). Within special education, there are risks placing our most struggling students with those who have had minimal training (Rosenberg, Boyer, Sindelar, and Misra, 2007). For example, in Green's qualitative study of special education teachers who entered teaching through different pre-service routes, only the teacher with a master's degree demonstrated the skill to select individual strategies to meet specific student needs, an approach that is at the heart of helping students with disabilities to move forward (Green, 2012).

Still others point out that teachers whose preparation programs immerse them in actual classroom practices and opportunities have increased chances of being effective teachers. In their 2008 work on general teacher preparation and student achievement, Boyd and his colleagues analyzed 31 traditional and alternative teacher preparation programs, widely surveyed first year teachers across New York City, and closely examined student performance. Their findings revealed that program activities which included curriculum study and early guided teaching experiences were more positively correlated with student performance in both ELA and math, compared to new teachers who did not have those components as part of their alternate pathway preparation (Boyd, Grossman, Langford, Loeb, & Wyckoff, 2008).

By contrast, other researchers identified multiple variables at work when judging the effectiveness of alternate preparation programs for all educators. They cautioned generalizing any one pathway as being more or less effective. Humphrey and Wechsler (2007) examined case studies of seven alternative programs and noted that, not only was

there great variability in the structure and design of each program, but great differences were also noted in the teacher candidates who were participating in each of them.

In addition to preparedness, I looked at available research on the retention of teachers whose point of entry is through an alternate pathway to education. For example, Henry, Bastian and Smith (2012) studied teachers in North Carolina public schools from 2004 to 2007. They found that traditional pathway teachers had retention rates of 80% and 68% after three and five years respectively, as compared to alternate pathway teachers who were at 65% and 50% for the same benchmarking times; Teach for America candidates came in at 30% for year three and under 10% by year five.

Other research has demonstrated much higher retention rates for alternatively certified teachers than Henry, et al. It would appear that the effectiveness of alternate pathway programs exists on a continuum. Ingersoll, Merrill, and May (2014) highlighted the wide variety of preparation program activities and coursework outcomes for new educators, regardless of program. Their results demonstrated consistently that those with increased opportunity for observation, practice, and feedback were more committed to staying beyond the first year. Feistritzer (2009) cited that, of general teachers who were certified via alternative pathways, 85-90% were still teaching after five years in California, Florida, Texas, and New Jersey versus 66% of teachers who were traditionally certified. More specifically within special education, Karge and McCabe's research (2013) profiled an intensive two-year alternative pathway program for special education interns who were teaching in schools while taking classes through California State University. The study showed that these special education teachers had a 96% retention rate after 10 years.

Ultimately, traditional and alternative preparation pathways are silently in conflict with each other and there is no consensus on how to best ensure that teachers will have the essential skills and knowledge to be successful in the classroom (Little, Bartlett, Mayer, and Ogawa, 2010). In reality, multiple pathways are necessary to meet current demands for teachers across the United States, and there can be great variability of success, regardless of the path.

Environmental Factors

Induction History

Teacher induction programs have been a considerable focus in education since the 1980's. During that time, teacher reform was becoming a hot topic, and the mentoring of new teachers in general was hailed as the foremost strategy to improve education and address issues around attrition (Feiman-Nemser, 1996).

Historically, schools in the United States have been largely isolating, following an "egg crate" model in which teachers are largely separate in their classroom practice (Moore-Johnson, 2012). Teachers have been independent practitioners until more recent times. By contrast, in other countries induction has a much more deliberate focus on establishing strong relationships and teaching practices. In China, for example, there are high expectations for extensive time to be spent on peer observations, group lesson planning, and participation in research groups for all new teachers. Similarly, support for new teachers in Switzerland includes belonging to practice groups that consist of new teachers from various schools who team together for the purpose of peer observation and evaluation (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009).

States have played a considerable role in the formation and use of formal induction policies to better support early career teachers, and over the thirty years since

that inception, that support has seemingly grown. In 1984, only eight states had legislated formal teacher induction programs (Smith, 2007). In 2004, the Council of Chief State School Officers noted in their report that twenty-one states required induction programs for beginning teachers, sixteen of which attached funding supports for programs. In comparison, by 2012 twenty-seven states mandated induction programming, and that grew to twenty-nine states by 2016 (Goldrick, 2016).

The American Federation of Teachers, a highly influential union organization, published their recommendations for model statutes around induction in 2001. Recommendations for best practice policy included requiring that:

- all new teachers participate, regardless of licensure
- programming last a minimum of 1 year
- mentors be highly skilled, paid, and matched appropriately
- beginning teachers have reduced class loads
- A summative review, based on practice, is tied into licensure

Induction Policies: Induction Program Standards & Evaluation

Although a much larger number of states have recognized the legal importance of requiring induction than its humble beginnings in the early 1980's, over 40% of states in 2016 continue to lack any state-directed policies to directly influence a school's decision to provide formalized support for new teachers. Of those who have policy in place, there can also be huge disparities in what is defined within those policies. The New Teacher Center, a national non-profit organization whose mission is to support the effectiveness of new teachers, has done considerable work in collecting this data. It is no secret that the use of policy defines and dictates the direction and depth of much of the work that happens in school districts, including teacher induction programs.

In an effort to influence what support for all new teachers looks like, one of the goals of The New Teacher Center (NTC) is to advocate for "Model Induction Policy Criteria": the key attributes for state policy. First and foremost is the recommendation for the adoption of formalized induction program standards to be embedded within induction policy to help set the vision, criteria and purpose of teacher induction programs. Across the U.S., twenty states now have formalized, mandated standards detailed within their policies, up 33% over 2012 (Goldrick, 2016). They also promote criteria in regard to mentors: their selection, the scope of the training they receive, and how they are assigned to new staff. Program delivery, the interaction between mentor and teacher, is another component. NTC recommends 1.25 to 2.5 hours per week of interaction between mentors and teachers, yet in practice only thirteen states currently have any reference to time requirements in their policies (Goldrick et al, 2012; Goldrick, 2016). Funding for induction programs is also a model component, as it is well-understood that it can be very difficult to meet unfunded mandates. Finally, accountability for programming completes the policy criteria recommendations set forth by NTC.

It has been argued that there is a "lack of rigorous evaluation" of policies related to induction (Smith, 2007). Attention to compliance and fidelity are critical in ensuring that new teachers are actually being given the support that policy dictates. The New Teacher Center conducted a Teaching and Learning Conditions Initiative study in 2010 and 2011 with a pool of 316,000 teachers. Between 7% and 30% either responded that they did not get a mentor assigned or that their mentors had not assisted with any shared planning or classroom observation time (Goldrick et al, 2012). Interestingly, of particular note, many of the surveyed teachers were from states with formalized induction policies.

In thinking beyond state policies, teacher self-reports about induction support have grown considerably over time. In 1990, about 51% of teachers in the United States reported participation in some kind of induction. By 2008, that number grew to 91% (Ingersoll, 2012). These data points would indicate that the majority of teachers are getting some kind of induction into the profession, although the quality and rigor of those experiences may have great variability, since attrition numbers within education are not decreasing.

The continuum in how induction is implemented is wide and may be limited to one-time orientations or traditional "buddy" systems for new teachers that exist to provide basic support. Conversely, other more comprehensive programs of induction have a wide range of supports in place. Of all the possible configurations, only three states – Connecticut, Delaware, and Iowa, currently have a "best practice" model in place, with components that include a multi-year program, direct influence into licensure, dedicated funding, attention to mentor quality and training, ongoing observation and release time, focused professional development, and participation in a peer network (Goldrick, 2016).

Induction Research Specific to Special Educators. Research focused on the effects of induction programs with specific attention geared towards special educators is rather limited to date. Induction programs that have yielded the greatest success in retaining special educators come from districts which are implementing special educator specific induction, such as in places like St. Louis, Missouri (Kamman & Long, 2010; Leko & Smith, 2010). In that model, which provides a two tier, five-year plan of support for newly hired special educators, retention rates rose from 74% in the beginning of the program in 1996 to 96% by 2008. Their program includes a specific focus for each of the

first three years (classroom supports, effective teaching, thoughtful teaching) and then moves to hone in on data-driven instruction in years four and five (Kamman & Long, 2010).

In a Project Forum survey, only 16 states indicated having specific induction planning for special educators, and of those, many said it was an outgrowth of the general state mentoring policy and only available for a small number of special educators each year, not a support provided for all new special educators within their states (Muller & Burdett, 2007).

In a meta-analysis of current research, Vittek noted the need for schools to begin to factor in the unique needs of special educators and to plan supports more specifically. One useful example is the time special educators take in the development of Individual Education Plans and related paperwork. Vittek's work noted a marked difference between the perceived roles a special educator imagined having prior to employment and what the work really looked like upon being in the position. Often many special educators, depending on their area of specialty, are disappointed when they experience that actual student instruction is not the main part of their work. His findings indicated that schools are doing enough to assist early career special educators and concluded that administrators and mentors needed support in knowing how to be more deliberate in helping special educators during the on-boarding process (Vittek, 2015).

Federal Policies for Teacher Induction. The No Child Left Behind Act of 2001 (NCLB) was signed into law by President George W. Bush in January, 2002. It was the most comprehensive education legislation passed into law since the Elementary and Secondary Education Act of 1965 (ESEA). Contained within Title II of NCLB were broad references in regard to teacher induction support, a first in any national legislation.

These included the awarding of close to $3.2 billion dollars annually to be utilized towards grant funding for states, districts, and higher education institutions to "increase academic achievement for students through strategies like improving teacher quality" (Sec. 2101).

Also listed under State Applications in Section 2111 of NCLB were other mentions related to teacher mentoring. States receiving grant funds were charged with providing "a description of how the state educational agency will ensure that the professional development (including teacher mentoring) needs of teachers will be met using funds." Additionally, guidance was written into the legislation describing how funds should be utilized to provide teacher mentoring, team teaching, reduced class schedules, and intensive professional development. Finally, there was an expectation that states would be "operating a center that establishes and carries out programs to improve teacher recruitment and retention within the State," (Sect. 2111, NCLB Act).

The most recent rewrite of ESEA is titled the Every Student Succeeds Act (ESSA). Passed in 2015, Title II of this update adds in more specificity than the No Child Left Behind Act and puts into requirement the use of evidence-based practices as measures for use with mentoring and induction. Section 2101, Part A, states that formula grants are available to states for the purpose of new teacher induction and mentoring that will work to "improve classroom instruction and student learning and achievement… and increase the retention of effective teachers…" These specially earmarked funds, a sum close to 2.5 billion dollars each year, can be used for a number of activities, such as release time for mentoring, compensation to mentors, or professional development for new teachers. Section 2103 goes on further to note the need to "develop and implement initiatives to help recruit, hire, and retain effective teachers."

Maine Policies for Teacher Induction. Maine formalized its first policy in teacher induction on July 1, 1988, when Chapter 118 first became rule from the Maine Department of Education as required by Title 20-A MRSA §13011. This established standards for teacher support systems within districts and was intended to serve as a collaborative approach in supporting the development of practices for new educators, on the road to achieving professional certification.

In 2007, revisions were made to Chapter 118, updating the rule in many key areas. A swap was made from using the *Competencies Leading to Proficiency* to the new *Maine's Initial Teacher Certification Standards*. Much more specific mentor language was also added. This included a shift to one key mentor for each beginning educator instead of three support team members. It also mandated a requirement for mentors to attend state-approved training, as compared to having locally defined training for mentors as cited in the earlier rule. Components of the training include cognitive coaching, active listening and questioning techniques, developmental stages of teaching, observational data, mentor relationship development, and an examination of various leadership styles. Finally, the revisions made it possible for less experienced practitioners to be added to the list of potential mentors to expand who is eligible to serve to meet the growing list of newly hired educators entering the workforce in Maine.

The 2007 rewrite of Chapter 118 included this language: "Robust and regular engagement in the mutually supportive activity of improving practice is an integral part of what it means to be a teacher" (05-071, Ch 118, p.1). In exploring Chapter 118 more specifically, Section 2.3 (h) called for the provision of "support services within a professional learning community model with collegial mentorships and partnerships as the primary means of professional development, of achieving action plan goals" for

provisional teachers (p.6). In real terms, the mandate required that mentors would observe mentees, using the state's standards as a basis for their work, and meet directly with mentees, helping them to develop and implement a growth action plan. There was no specificity around the level or frequency of interactions, other than the mention of 3 formal observations that were required by mentors. Professional teaching certificates were contingent on successful plan completion and recommendation by a district's Professional Learning Communities Support System committee.

All of these regulations, however, have been modified and moved since Chapter 118 was repealed in July, 2018. Teacher mentoring regulations are now embedded within Chapter 180: Performance Evaluation and Professional Growth System, and provisional teaching certificates have been struck from the revisions to Chapter 115: The Credentialing of Education Personnel (Proposed Rules and Rule Changes, n.d.).

Under the current rule, all teachers new to a district, regardless of years of experience, will be assigned a peer mentor for at least one year. Mentors will provide a minimum of two observations, as well as "other opportunities for the new teacher to receive support and feedback" (05-071, Ch.180, p.10). There is no longer any training required for mentors; in fact, the only requirement is that they be professional certificate holders with effective evaluation ratings. There is also no requirement for a specific teacher action plan for beginning educators; instead the language referenced in the rule is for all new teachers to have "focused goals".

What continues to be unclear, both in policy language as well as implementation, is the process by which mentors are matched to new teachers. For example, given the demographics of the state of Maine, how likely is it that mentors are from the same building, or that they share the same discipline? How does "creating other

opportunities... for support and feedback" by mentors get defined in practice in terms of regularity? Do the policies, once put into action at the local level, provide the intended supports of the written policy and are they followed? This is highly unlikely, without the benefit of accountability measures written into the rule. It would appear that inequity of support will only continue to grow.

Induction: What About Its Value? Much research has been conducted around the examination of the value of induction activities for first year teachers. In 1990, only 4 of 10 U.S. teachers participated in induction, as compared to 8 of 10 new teachers in 2000 (Smith & Ingersoll, 2004). Since that time, efforts have very much focused on the usefulness of induction and its role in retention.

In an effort to discover how induction influenced teacher retention, Smith and Ingersoll (2004) analyzed the results of over 3,235 beginning teachers' input on the 1999-2000 Schools and Staffing Survey (SASS) and Teacher Follow-Up Survey (TFS), survey data collected by the National Center for Education Statistics (NCES). What they discovered was that an overwhelming majority, 92% of respondents, found induction helpful. They noted participation in a variety of activities at varying rates, including components such as seminars (62%), shared planning activities/collaboration (68%), supportive communication with administration (81%), and placement with deliberately matched mentors (48%). In addition, 29% reported having the assistance of a classroom aide, and 11% were given a reduced schedule during that first year as well. Even with all of these pieces in place, however, 14% of those same first year teachers left education altogether and another 15% of them moved to a different school. For teachers in special education, their rates of leaving the field were even greater after the first year: two and a half times higher than their general education counterparts. And for general teachers

working in high poverty schools, they left 50% more often than teachers in other schools. These last two findings merit further investigation.

Ingersoll and Kralik's meta-analysis (2004), sought to pinpoint areas for further study of the value of teacher induction. Only 10 of over 500 studies met their criteria they set forth: quantitative studies with evaluative mentoring outcomes that included a control group and an experimental group. All 10, however, reiterated the value of induction programs as having a positive impact on retention. One such example was a study by Cheng and Brown conducted in 1992, as cited in Ingersoll & Kralik (2004), in which they studied teachers in the Toronto Teachers Peer Support Program. For first year teachers, they concluded that 88% reported a positive first year when they had the benefit of a mentor, as compared to 53% of teachers who did not. Similarly 76% of teachers with mentors planned on staying in teaching, whereas only 60% of those without a mentor thought they would. Mentoring is a critical component within induction programming.

Mentoring

Does How Much Matter? As we begin to home in on mentoring as a specific induction practice, much research documents this specific activity as being critical to all beginning teachers' success. Kardos and Johnson's work (2010) surveyed 374 first- and second-year teachers in three states. Their research sought to tell more about the examination of thoughtful mentor-matching with like peers, as well as the kind of interactions that occur between mentors and beginning teachers. Noteworthy data that was reported included that only 41% of new teachers stated that they were observed by their mentors. Even worse, only 58% of overall respondents reported having three or more conversations with their mentor around issues of management, 58% for curriculum

or lesson design, and 56% for three or more interactions for instruction within the entire first year of teaching. It should be noted that three conversations over a full school year is a relatively low standard, and these percentages would be cause for grave concern. Rates for these conversations decreased even more when isolating out results for teachers working in high-poverty schools, wherein teachers reported 43%, 47%, and 47% on the same measures.

What about when mentors are full time, and not juggling mentorship roles with their own full-time roles as teachers? Does that increase outcomes for novice educators? Rockoff (2008) sought out to study this with his examination of the Department of Education program in New York City, wherein they partnered with the New Teacher Center of California on a $40 million project to fulfill the 2004 state law that had been enacted on mentoring. As part of his research design, Rockoff isolated hours of mentoring that took place, characteristics of mentors, and how mentors were evaluated by the teachers they served. 92% of mentors in the project were mentoring full-time, working with an average of sixteen mentees by the year's end. 77% of new teachers reported that their mentors were well-matched by subject area. Also of note, teachers reported benefitting the most when their mentors had worked in the same schools of their mentees previously: they were well-suited to share the nuances of how the school operated. The addition of common planning time also reportedly increased retention, and student scores in math and reading were higher when teachers got more time with their mentors. Ultimately 90% of the teachers in this program returned the next year, 80% of those to the same school to which they were originally placed.

A Focus on Professional and Emotional Supports. A more recent study by Israel, Kamman, McCray, and Sindelar (2014) set forth to identify mentoring supports for

beginning special education teachers. As part of this work, the researchers were interested in examining the relationship between professional and emotional supports available for special educators. The study, which consisted of sixteen new special educators and five mentors, was unique in that the mentors, who were lead teachers within the same schools, were also responsible for evaluating the new teachers. Mentors had received extensive training, having gone through a prescriptive ten-day program of professional development that focused on the Danielson teaching and evaluation model. Mentors' time with beginning teachers in the study was spent on for the most past on instructional support (24%), observations and feedback (23%), and instructional issues (18%). Emotional support as a stand-alone was reported to a much lower degree at 7%.

However, teacher interviews cited that they felt much of the emotional support they gained was embedded within the professional support that they were given. When new teachers were feeling like needs around areas such as learning strategies, goal setting, and paperwork were being met, that translated over to meeting emotional support as well and a feeling of stability. The structured process of the Danielson model provided an explicit framework for the mentors to frame feedback. Also of note, only three of the sixteen new teachers took issue with their mentors being their evaluators and expressed not being comfortable discussing needs knowing that they would eventually be scored by the same individuals.

Mentor Matching. Lozinak (2016) set out to do her action research on mentor-matching, after having worked in a district wherein previous new teachers had reported concerns about the pairing process being considered random and less than effective. Using beginning questionnaires, a selection committee met to pair mentors with mentees in a more deliberate way. At the end of the study, all new teachers felt positive about

their experience. The study was somewhat limited, as there is no way of discerning that it would not have been otherwise positive. Other outcomes came out in themes from exit interviews. Administrators noted that a team approach was useful instead of relying on single mentors, as well as their desire for more active involvement in the process. In a similar way, new hires really wanted their mentors to be on site, rather than in other buildings, and mentors wanted to help support people with similar content backgrounds.

Examinations of Mentoring Policies and Effects on Practices. A useful analysis is a study conducted by Wasburn-Moses (2010). In this work, she set out to discover if differences existed between written state and district policy for mentoring new teachers, as compared to real time practices that actually went on in the workplace. She surveyed a random group of 232 general and special education teachers from two large urban districts in a midwestern state that had previously established state and district policies. She found that 86% of general education teachers stated mentors were available for them, as compared to only 64% of special educators who said mentors were available. Along the same lines, 41% of general education teachers said their mentors were compensated for their time, whereas only 15% of special educators reported their mentors receiving stipends. Other noteworthy outcomes with no differences between groups included that 42% of respondents cited mentor training was in place for teachers who were involved, and 49% said that deliberate attention to mentor-matching based on commonalities occurred, whereby beginning teachers would be placed with a mentor in the same content or grade. Also worth noting, 63% of respondents reported that their mentors engaged in direct classroom observations.

This work demonstrated, once again, that practice does not always follow policy. There were significant differences in mentor availability, at 76% overall, even though

state policy mandated it for all new teachers. In addition, this study highlighted a huge disparity between what was in place for general educators as compared to what was made available to special educators: mentors were less available and compensated less. Many fewer supports were in place for the latter group, raising questions as to why that might be happening and what could be done to remedy such situations from continuing to occur.

Another current body of work about induction policy implementation would be the work of DeCesare, Workman, and McClelland (2016), in which they utilized the 2013-2014 Educator Effectiveness Research Alliance Survey to examine general induction policy. One survey was given out to each school district in five states. In most cases, surveys were returned by central office staff. Of the 970 surveys returned, only 52% reported that mentors were expected to observe their mentees teaching within their district models. Stipends for mentors were provided in 54% of districts, and only 32% of mentors were required to attend any training. Common barriers included lack of funding for mentoring training, lack of time for mentoring to take place, and lack of funds for stipends to support the time it takes to provide valuable mentorship experiences for new staff.

Carver and Feiman-Nemser (2009) set out to compare policy against practice in their examination of three long-standing general teacher induction programs. They found, like many others in previous research, that mentoring is the most common and preferred way of providing teacher induction. Even among the long-standing programs they reviewed, however, they discovered that to have an induction policy in place is not sufficient guarantee of what might be made available for new teachers. Carver and Feiman-Nemser advocated for more specificity around the nature and length of support

given to new teachers and more explicitness around the scope of the work. In addition, they highlighted the need to educate mentors as much as the new teachers they would be responsible for overseeing. If mentors were to lead the way, they needed to learn skills in how to mentor effectively, which can be very different than how to be an effective teacher.

Workplace Conditions: What Counts?

Much has been studied to date about the day-to-day working conditions for special educators. Using the Study of Personnel Needs in Special Education (SPeNSE) database, Billingsley, Carlson, and Klein (2004) examined quantitative data on the most critical topics of concern for new special education teachers. Their work included 1,153 new teachers, with a mean of 2.8 years of teaching experience. At the time, many studies had been limited to qualitative case studies. After close examination of their data, the researchers reported that 61% of new teachers were getting formal mentoring, but one-third of those reported that the formal mentoring was not helpful to them. At the same time, 90% said they got informal assistance as needed from their colleagues, 89% of which found that to be moderately helpful or better. Of the teachers surveyed, 86% also reported support from administration. Overall, only 51% of survey respondents reported seeing themselves remaining in special education until retirement.

Stempien and Loeb (2002) conducted research in 8 suburban, predominantly white, middle class schools near Detroit. They sought to examine the demands of working conditions for general education teachers and teachers in special education. To compare differences in satisfaction, comparisons were made between teachers of general education students and special education teachers of students with an emotional/behavioral diagnosis. Questionnaire results demonstrated that special

educators rated themselves lower in job satisfaction rates, lower in the measure of enjoyment of work, and higher in disappointment in their positions. From this research, Stempien and Loeb advocated that administrators look for ways to reduce stress for their new special education teachers who have more face-to-face time with students, less time for instructional planning, and more legal paperwork responsibilities than their general education peers. This could be lessened, they argued, through deliberately limiting direct contact time with students, building in time for paperwork, and setting limits on caseload numbers.

In another report using the SPeNSE database, Fall and Billingsley (2011) sought to learn more about the working conditions of special education teachers in high-poverty districts. They compared early career special educators from low-poverty schools, mid-range poverty schools (21-39%), and high poverty schools. They gathered information about workloads, district and school supports, professional development, and induction. Their findings showed remarkable disparities between the low-poverty, mid-range-poverty and the high poverty schools. For example, high-poverty special educators revealed that administration offered less support, fewer materials were available to use with students, teachers were less frequently included in school-based decisions, and caseload numbers were higher and more diverse. At the same time, teachers in high poverty schools were less qualified.

There is no shortage of research related to school working conditions and the impact presented to teachers. Although only a few studies are highlighted here, together they represent a common theme: there is definite room for improvement when it comes to work environments in schools.

Role Complexity

Because special educators have a myriad of job responsibilities, this can create undue stress and dissonance for new educators. Despite early career special educators' strong desire to work with children, the evidence shows they quickly get overwhelmed in their new roles (Gersten, Keating, Yovanoff, & Harniss, 2001). In a 2006 survey in a midwestern state, Wasburn-Moses (2009) sought to compare pre-service special education teachers' perceptions with practicing special educators' perceptions of how much time was spent on various aspects of their roles. Although they were in agreement on time spent meeting student needs (27% for preservice, 25.6% for practicing), perceptions varied considerably on many key areas: paperwork (15.7% for preservice, 21.6% for practicing), behavior (11.8% vs 18.4%), and lack of support (18.5% vs. 8.8%).

Other differences worth noting include that 76% of preservice special educators in the survey expected to spend more than one hour a day co-teaching in general education classrooms as compared to only 35% of the practicing special education teachers who reported that was taking place. Eighty-nine percent of preservice teachers expected to spend at least one hour a day on pull-out instruction with students, versus 50% of practicing teachers who reported that happening (Wasburn-Moses, 2009). These numbers indicate that there is a wide difference in what teachers believe they will be doing and how their efforts will be focused before they get their first jobs, as compared to the reality of what actually happens once they are hired as special educators with complex roles and expectations

Professional Development

Professional development is critical to the success of all teachers, especially those who are beginning their careers. Research conducted by Burbank, Kauchak, and Bates

(2010) focused on the usefulness of professional book study groups as a model for engaging preservice and practicing teachers over one year. Outcomes here included that both groups found that the meetings and texts provided them with opportunities for increased teacher dialogue and reflection in more deliberate and focused ways. Logistical challenges came up in terms of planning agreed-upon times to meet, but overall participants felt they could find time to meet if schedules were organized correctly in advance. Direct participant feedback from this study also showed that, especially for those teachers who were early in their careers, linkages to opportunities to dialogue and collaborate with peers promoted continued individual professional growth.

A myriad of professional development requirements related to the Highly Qualified Teacher (HQT) provision came about after the passage of the No Child Left Behind Act of 2001. Did these provisions make an impact on professional development for new teachers? Therrien and Wasburn-Moses (2009) conducted surveys with both open and close-ended questions to those in higher education as well as K-12 education to find answers. Results demonstrated that there was a lot of ambiguity as to when pre-service teachers would meet these requirements, and in fact, higher education folks reportedly assumed that prospective districts would take on the responsibility to help their new teachers secure these legally-mandated skills.

School administrators, on the other hand, were having difficulty finding candidates who could meet the requirements of highly qualified status: more than 28% reported in the survey that they did not have enough highly qualified candidates for open positions. They also expressed a growing concern for the time being spent on hiring practices and policies. Whereas prior to NCLB they utilized time with new teachers to promote instructional practices, under the new policies, districts were finding themselves

focusing on professional development around the content specific courses and exams that teachers needed to achieve "HQT" status. This left little or no professional development time to get teachers ready for their classrooms. Special education directors echoed the concern for this shift in professional development at a time when so many new teachers need more pertinent areas of professional development. In fact, 53% of special education directors did not feel that new special educators were any more effective or competent as a result of meeting HQT standards.

Given the role complexity of many special educators, beginning teachers may not have the necessary background and training to be successful in their early roles as they bridge over from pre-service teachers to their first teaching positions. Recognizing the difficulties in retaining new teachers, Berry, Petrin, Gravelle, and Farmer (2011) wanted to discover what professional development needs were of utmost priority for new special educators in rural communities. Over three years they conducted phone interview surveys of rural teachers and administrators across 44 states. Of the 203 teachers they spoke with, 42% stated they would be ending their careers in special education within five years. Of these, 24% cited a lack of support as reasons for leaving, 25% stated they would seek out general education positions instead, and 13% desired to teach at a different level. One-third of respondents didn't feel qualified or prepared for the challenges that they had found themselves facing, and in fact, over 50% of administrators reported that they had hired teachers who did not meet highly qualified criteria, due to a shortage of applicants.

In further questioning, 22% of teachers were interested in learning how to better work with and supervise paraprofessionals, 22% desired professional development in the area of working more successfully with parents, and 13% wanted to grow their capacity

to understand specific areas of disabilities more than their pre-service experiences had allowed.

In another study conducted by Gehrke and McCoy (2007), the researchers found that, for the five special educators they followed, respondents looked to a variety of different sources for professional development. Their efforts extended far beyond the reach of their particular assigned mentor, who they found less effective since she was not located at the school. Even though she was a special educator on full time release to work with new teachers, the mentor was deemed less helpful since there was no guaranteed access on an informal, as needed basis.

Instead, the new special education teachers in the study sought out the support of key figures such as a building literacy specialist and a school psychologist as part of their network to obtain information about best practices to use in working with their students. The teachers in this study also demonstrated the ability to rely on themselves: to take initiative and seek out professional development within their district, or even to selectively search the Internet for ideas. These new special educators sought out and valued assistance in building effective teaching practices without limiting that to just one other person.

As evidenced here, the available research on professional development as it relates to supporting early career special educators is sparse and not current, making this body of research even more critical at this time.

Administrative Support

The role of building administrators has a major influence on the lives of early career special educators. This is not new information. In their 1992 study of 887 special educators in the western United States, Gersten, Keating, Yovanoff, and Harniss (2001)

sought to discover which factors most influenced teacher retention through the use of a questionnaire that measured teacher perceptions. From a long list of possibilities, they concluded that "building level support from principals and teachers has strong direct and indirect effects on virtually all critical aspects of teachers' working conditions…" (p. 557). They went on to explain that, within their role as school leaders, administrators have the ability to directly influence other factors like professional development, school culture, and problem solving.

Kukla-Acevedo's research echoed these themes. In her examination of the Schools and Staffing Survey (SASS) of 1999-2000, she sought to isolate which workplace conditions most affected all teachers' decisions to leave education, move to different schools, or remain in their positions (Kukla-Acevedo, 2009). The purpose of her work was to help inform administrators in creating or modifying workplace conditions for all teachers, so as to retain higher numbers of teachers moving forward, regardless of their area of expertise. Her review, which included over 1,500 less-experienced teachers (less than 5 years of experience) and 1,900 more experienced teachers, reported key differences with early career teachers. Overall, they were twice as likely to change schools, and 1.5 times more likely to leave teaching altogether, as compared to more experienced teachers. When teachers felt an additional standard deviation of administrative support, the odds of them leaving a job decreased by 16.9%. Conversely, when administrative support dropped by one standard deviation, new teachers were found to leave three times more often.

Statistics on teacher attrition related to student behaviors showed that new teachers left teaching 16 times more when there was one standard deviation of increased student behaviors. Moving to other schools happened twice as often in cases of

pronounced student behaviors. Across all comparisons in her study, Kukla-Acevedo reported that first year teachers were more likely to leave based on all measures of workplace conditions. This is a critical finding on which principals have the ability to act and influence change.

Prather-Jones (2011) took an opposite approach in finding out why it is difficult to retain teachers, specifically within special education. Her work focused on experienced special education teachers for behaviorally or emotionally disturbed identified students and sought to discover why they had chosen to stay in their positions, unlike most other research which focused on reasons for leaving. Her method included face-to-face, semi-structured interviews with 13 teachers, and additional focus group time with some of them.

The special education teachers in the direct interviews expressed the need for consistent support from administrators and peers. All 13 discussed the importance for this in their specific discipline; one of the 13 who did not feel that support said that he would be seeking out a different position in another school for the following year. Teachers stated that their reasons for staying included the perceptions that administration respected and appreciated their work. Administrators reportedly supported these teachers by including them in decisions about student outcomes related to misconduct, and the administrators backed their teachers' decisions. Finally, a culture of collegial support was entrenched in the schools in which they worked.

The role of the administrator is consistent in survey after survey of teachers. In fact, many argue that building administrators have the strongest influence on all teachers, those new to the field as well as veterans, more so than any other working condition. Yet, the research is still limited in terms of the "what" administrators do more

specifically that influences new teachers to want to stay in a given school (Boyd, Grossman, Ing, Lankford, Loeb & Wyckoff, 2011).

Support from Colleagues

Research has also demonstrated that there is also much to be said about the value of collegial networks and the ability they can have in helping new special education teachers "learn on the job" (Gersten et al, 2001). Jones, Youngs, and Frank (2013) examined the results of the Michigan Indiana Early Career Teacher Study of teachers with one to three years of experience and sought to compare survey data from both general education teachers and special educators. In examination of the survey data, both groups demonstrated a strong relationship between perception of fit and commitment to their assignment; this is logical as it would be likely that any teachers who feel like they have a secure fit with those around them will be more committed to the work. On all other measures, correlations were only seen for ratings by special education teachers, not by general education teachers. Support from colleagues impacted the special educators' commitment to job assignments. A feeling of collective responsibility for students impacted special educators' commitment to the school. Because special educators have more uncertainty and complexity in their roles, the support they gather from others, along with a sense of shared responsibility for student success, go a long way in shaping their commitment to the work.

Similar results have been documented in other research, such as early career special educators' responses from the SPeNSE database (Billingsley, Carson, and Klein, 2004). Data demonstrated that colleagues were found to provide more instructional feedback than administrators. Additionally, special education teachers indicated an increased likelihood of remaining in their positions over time when they reported having

informal peer support. That "perception of fit" weighs into early career special educators' commitment, both to their school and to their positions (Jones et al, 2014).

Personal Factors

It is also widely recognized that teachers often leave their positions for personal reasons, although there is a gap in the literature as to the effect this has on early career teachers. In one recent national survey of administrators and special education teachers in rural districts, administrators reported that 37% of their special education teachers left for personal reasons (Berry, Petrin, Gravelle, and Farmer, 2012).

This is comparable to results yielded by Goldring, Taie and Riddles in their examination of general teacher data from the Teacher Follow-Up Survey (TFS) of 2012-2013 made available from the National Center for Educational Statistics. In examination of the statistics around personal life factors, they discovered that 38.4% of teachers leaving education reported doing so for personal reasons. Another 22.7% stated that because of personal reasons they were moving to other schools but staying within the field of education. The TFS defines personal life factors as 1- taking a job that is more conveniently located or a move in a teacher's residence, 2- other personal factors including health, pregnancy, child care, or caring for family, or 3- retirement (Goldring, Taie, & Riddles, 2014).

Connected to personal reasons is the reality that attrition may be an issue across multiple career pathways, not just education. According to a longitudinal study conducted by the United States Department of Labor (2017), people are not staying committed to a single job in the same way they may have in earlier times. For example, of people born between 1957 and 1964, the average male college graduate held 9 different jobs and the average female held 9.2 jobs between the ages of 25 and 50. These

numbers only provide further evidence as to why we need to pay attention to addressing this issue now.

Summary

The research is clear: educators continue to experience high rates of turnover, despite the areas of induction support that are mandated and provided for high numbers of new teachers (Berry et al, 2011; Billingsley et al, 2004; Smith & Ingersoll, 2004). Many factors influence new teachers' commitment to remain in education past those critical first years, and this appears to hold true even more so for those teachers who choose to become special educators (Gersten et al, 2001; Stempien & Loeb, 2002).

Careful attention must be paid to providing necessary support to encourage new special educators to remain in the field. Research found here points to the sphere of influence that building administrators have over many other moving parts of the process (Gersten et al, 2001; Kukla-Acevedo, 2009; Prather-Jones, 2011). Additionally, policy needs to be re-examined if it's agreed that beginning special educators are often not afforded the same supports as their general education peers as they enter the profession (Wasburn-Moses, 2010). My research will provide an updated examination of what early career special educators in Maine report is available for them and will work to suggest ways to be more deliberate in our efforts to address current needs.

CHAPTER 3: METHODOLOGY

The purpose of this research study was to understand the influence of various factors on the sustainability of early career special educators. Schools all across the country face a crisis in filling their open special education positions. Information derived from the present study will inform policy makers as they revise policies to support and retain early career special educators in teaching. My research aimed to answer the following research question:

- What are early career special educators' perceptions of the induction supports they received during their first few years of teaching?

Sub-questions included:

- What are early career special educators' perceptions about the influence of induction programming that was provided to them as related to sustainability in their roles within special education?

- What are early career special educators' perceptions about the influence of environmental factors, such as school climate and collegial/administrative support, as related to sustainability in their roles within special education?

- What are early career special educators' perceptions about the influence of personal factors as related to sustainability in their roles within special education?

Research Design

My research utilized a survey methods design using an online format. Online surveys have been demonstrated to be effective in collecting feedback from a closed population. Sue and Ritter, (2007) describe their value for groups that can be easily defined: they are economical, provide easy access to the group under study via email, and offer relevant subject matter that can pique the interest of potential respondents. In

addition, surveys reduce the potential bias that can come with interviewing. Web-based surveys are efficient and offer the opportunity for anonymity (Rudestam & Newton, 2015).

Research Sample

The 2,057 special educators employed across the state of Maine were the population surveyed. The special educators were identified using the NEO database from the Department of Education's website (MDOE Contact Search, 2018). I accessed information from the NEO database on all employed public special education teachers for each school district in the state of Maine, along with the grades they serve, professional contact information, and link to their certification information.

The NEO public database does not include specific information as to the number of years' experience of practicing educators, so it was necessary to cast a wide net to all special educators prior to being able to identify the target group of only those special education teachers working in the state of Maine who had between 3 years and 10 years of experience. I explicitly wanted to collect a wide base of data and responses from various regions of the state, while also collecting information from those who more readily could recall their early career experiences.

Survey Instrument

I developed the survey on SurveyMonkey, drawing in large part from segments of surveys that have been used in previous research. A few key questions were selected from the New Teacher Center's Teaching, Empowering, Leading and Learning (TELL) Survey (TELL Resource Library, 2018). The survey, developed by The New Teacher Center in 2008, collected information about teaching conditions towards the larger goal of school improvement planning and policy development. Although the focus is for all

teachers, the section on "New Teacher Support" had useful connections to the present study. Examples include the types of induction supports received, activities teachers engaged in with mentors, mentor matching efforts, and overall growth that was perceived as a result of supports provided.

The Brayfield Rothe Job Satisfaction Index (1951) as modified by Warner (1973), was also used in small part. This survey, in its original design, was developed to assess the morale of employees in the business/industrial sector. I selected questions that asked for generalized information regarding a special educator's job satisfaction.

I included a few key questions asking about the special educator's intention to leave their schools or education in general from a 2017 research study conducted by Conley and You (2017). Their work surveyed 2000 secondary special educators about what influenced them to remain in the field of special education. Conley and You's survey questions were neutrally designed, following a model purported by Mueller, Wallace, and Price (1992).

Finally, a wide variety of survey items were borrowed from a previous researcher's work (Morrison, 2010). Morrison's research, aimed at the retention of beginning special education teachers, included a random nationwide sampling of almost 500 special educators.

My survey drew some questions from each of the formerly described surveys, as well as including a few novel questions that aligned with my framework. Utilizing other surveys as a basis for my research strengthened the validity and reliability of my questions. In addition, using other survey questions allowed for the potential opportunity to draw comparisons between the results obtained in 2018 for Maine respondents to the results that were previously obtained by past researchers in other settings. My survey

was presented in an online questionnaire format, with many questions utilizing a Likert-type 1-5 scale ranging from strongly disagree to strongly agree. Survey categories included:

- Demographic information
- Historical information, with an emphasis on pre-service education preparation
- Environmental information, with a focus on induction activities, as well as formal and informal support systems (mentors, staff, and administration)
- Personal information, including job satisfaction, economics, family influences, and other career options

To further understand the perspectives of early career special educators and drill into the lived experience of participants a bit further, I also included an open response section in the survey. The inclusion of open-ended elements afforded me the opportunity to get a wide-angle view of the experiences of early career special education teachers across the state, while at the same time getting a glimpse into personal feedback from the individual comments that were collected at the close of the survey.

Survey Procedures

On June 3, 2018, the survey, "An Examination of Supports for Novice Special Educators in Maine" was sent to all special educators in the State. Of the 2,057 special educators surveyed, sixty surveys, or 3%, were returned for having undeliverable addresses; 1,567 participants, or 76.2%, opened the survey initially.

The survey sent on June 3, 2018 received 422 responses. A reminder email with the survey attachment was sent on June 11, which generated another 220 responses, for a total of 642 original participants. Of the 642, only 231 participants or 36% had between three and ten years' experience. Other participants were eliminated after the

demographics section of the survey, and the answers to the first eight questions for those 411 participants were deemed unusable.

Because responses to all 34 survey questions were not required by the research design, some of the remaining 231 participants did not answer every one of questions. All 231 participants' answers are included in my analysis; none of the 231 were deleted, consistent with the pairwise deletion method. This method was an appropriate match for the survey design and allowed for maximum use of the available data. Using a list-wise design would have removed all cases with missing data, i.e. those who did not answer every question of the survey. Pairwise deletion is recommended within both correlational and descriptive analysis (Pairwise vs. Listwise, 2016).

Adequacy of Survey

To determine what percentage the 231 participants with 3 to 10 years' experience, who completed the survey, represent in Maine's special educator teaching population, I utilized unpublished aggregate data provided from the Maine Education Policy Research Institute (A. Johnson, personal communication, November, 2018). This data listed the aggregate number of special education teachers in each SAU with 3 to 10 years' experience. With this information, I cross-checked the total list of SAUs (public and private) against the list of public school districts that were included in the survey. I ascertained that there were 627 potential respondents. Therefore, I am confident that the 231 special education teachers who participated in the survey represent 37% of all special education teachers with 3 to 10 years of experience in the state of Maine for the year 2017-2018. There are limited studies of response rates for online surveys; Sue and Ritter (2007) describe 30% as an approximate expected return. I conducted calculations to test the validity of the data set of 231 against the 627 potential respondents, as a way to

ensure that there was a statistically significant sample size. Using a sample size calculator, I ascertained that with a potential population of 621 and a confidence level of 95%, I would need 240 participants to achieve a +/-5% margin of error ("Margin of Error", n.d.). Given that there are 231 participants, my survey data are valid just a bit higher than 5%, with a +/-5.16% margin of error.

I carried out a reliability analysis on the major questions with scale items (questions 10, 19, 21, 25, 26, 30) to ensure that they were measuring the same construct. Cronbach's alpha results showed that all the questions reached adequate reliability; in fact, five of the questions had high Cronbach alpha scores. Question 10, with six items focused on pre-service experiences, had an alpha of $\alpha = 0.78$. Question 19, with 9 induction items, had an alpha of $\alpha = 0.91$. Question 21, with 8 items about topics of communication with mentors, had an alpha of $\alpha = 0.91$. Question 25 with 8 items measuring mentor effectiveness had an alpha of $\alpha = 0.93$. Question 26 with 10 items on administrator support had an alpha of $\alpha = 0.95$. Finally Question 30 with three items on colleague support had an alpha of $\alpha = 0.88$.

Survey Analysis

Framework for Analysis

The framework for analysis comes from Brownell and Smith (1993) and Heineke, Mazza, Tichnor and Wagner (2013). Brownell and Smith (1993) looked at the issue of teacher attrition through four distinct lenses: the microsystem of the classroom, the mesosystem of the school, the exo-system of the district and community, and the macrosystem of the larger culture. Heineke, Mazza, and Tichnor-Wagner's (2014) research on retention and attrition rates for Teach for America candidates used Brownell and Smith's framework in a similar way. Heineke, et al., categorized reasons for leaving, lingering, moving, or lasting into a variety of subcategories. Although my work is focused specifically on special education, thinking about the reasons that educators stay from this model's lenses could have significant value in framing my results as well.

Borrowing from these previous researchers' lenses afforded me the opportunity to examine the variety of contributing and interrelated factors as they fit in a larger educational context. Figure 1 depicts these variables in a broader view. As my literature review documents, historical, environmental and personal factors are the main categories special educators consider when deciding to leave or remain in their positions. In particular, the conceptualization of historical, environmental, and personal factors provided me with a schema from which to organize my research.

Adapted from Brownell & Smith (1993) and
Heineke, Mazza, Tichnor, and Wagner (2013).
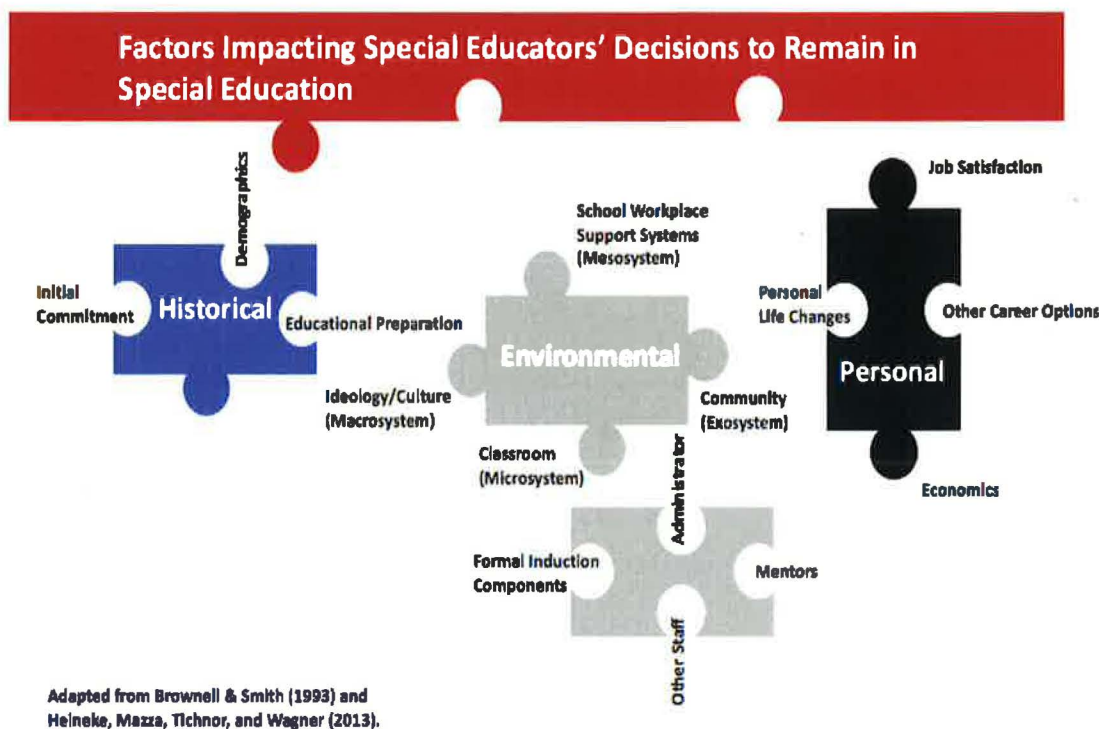
Figure 1. Factors impacting special educators' decisions to remain in special education.
This figure illustrates a conceptual schema for historical, environmental and personal
factors influencing special educators' retention.

Analysis of Results

Because the survey was given in a web-based format, the results were
automatically tabulated and put into graphical and visual formats. The data was
downloaded into a CSV file and imported into the Statistical Package for Social Sciences
(SPSS) software for both descriptive and correlational analysis and interpretation.
Survey data was analyzed using multiple measures. I utilized descriptive statistics such
as graphs, measures of central tendency, measures of variability and frequency counts for
demographic information. I applied descriptive statistics with means and standard
deviations to survey items with Likert response scales. I utilized statistical descriptive
analysis of the Yes/No portions of the survey instrument to quantify responses.

Spearman's rho correlation analyses were conducted to determine correlations between participants' plans to remain in special education and mentor and administrator effectiveness ratings. Survey items were grouped together by category and organized to correspond with my conceptual framework.

I included a final question in my survey: "Is there anything else about your experience as a novice special educator that hasn't been asked here that you think we should know about?" These responses (n=101) were carefully coded and organized by theme, using an analysis protocol consistent with interviewing, to distinguish how they fit within the themes of my conceptual framework. Through inductive data analysis I discovered the meaning in the narratives. The themes I identified assisted me in answering my overarching research questions.

Risks, Protection, and Confidentiality

The risks involved in participating in this research were minimal. They posed no more risk than what might be encountered in everyday life. The survey, as designed, was completely anonymous. No names of individuals, schools, districts, or regions were collected, used, or conveyed through any portion of this research. Identifying characteristics of individual responses were also kept secure. No identifying characteristics of an individual's school or specific school personnel were collected or conveyed. All raw data was kept in a secure file using Box Cloud storage by the principal investigator through the University of Southern Maine and was only made accessible to the researcher and dissertation committee.

Limitations/Delimitations

In consideration of the delimitations of this research, I restricted my survey data analysis to those respondents who indicated they had between three and ten years of

special education experience. This allowed me to collect information from those who have remained in special education beyond their first years, while still focusing on those special educators who were still within the range of early career experiences.

The limitations of my research are specific to special educators within the state of Maine, given the sample. Additionally, potential limitations exist in relation to the number of respondents that actively chose to participate in this quantitative survey, as compared to the larger population of special educators in Maine. I may also have experienced limited access to participants, if the contact information provided in NEO was not up to date or accurate at the time of retrieval on March 1, 2018. My analysis of data collected specifically from the open-ended questions within the survey was limited to those individuals who volunteered to give narrative feedback. There are limitations to the generalizability of the results garnered from the commentary, given the small sample under which the work was organized.

Why work so diligently to examine supports and ensure that policies that contribute to the development, implementation and monitoring of early career special educators are in place? The answer is simple: all teachers deserve their best chance at meeting success. Making solid supports available for teachers will ultimately translate to potentially significant positive impact on the learning for our students.

CHAPTER 4: FINDINGS

Through survey research, I examined the factors that influenced the sustainability of Maine special educators with 3 to 10 years of experience. Results of my research study are included in this chapter. First, is a description of the survey characteristics and demographics of the survey participants. I analyze the data about the impact that historical, environmental, and personal factors have had in the influence of early career special educators' attrition and retention.

Survey Characteristics

Demographics

In the first section of the survey, I gathered basic demographic information about the participants. Information collected, as listed in *Table 1: Demographics of Sample*, included gender, years in special education, and the number of schools where they had been employed. I also collected data about the participants' schools: socio-economic status, Title 1 demarcation, size of school, and relative location.

For this portion of the survey, all 231 participants answered every question. 81.4% identified as female, 17.7% identified as male and 0.9% identified as unspecified. For years teaching special education, 60.1% of participants had 3 (24.2%), 4 (18.2%,), or 5 (17.7%) years' experience.. At the time of the survey, 41.1% had taught in one school, 36.4% had taught in two schools, and 17.7% had taught in three schools. Those who had worked in more than three schools only made up 7.3% of the survey sample.

When asked about the socio-economic status of their schools, the majority of participants (61.5%) identified their school as predominantly economically disadvantaged while only 2.2% identified their schools as upper class. The majority of participants (64.5%) identified their school as a Title I school. Slightly less than half of

the participants at 40.7% taught in schools with between 250 and 500 students.

Finally, 63.2% of participants identified themselves as working in communities that they considered to be rural.

Table 1: Demographics of Sample

Participant Demographics	*n* of responses (n=231)	% of responses

Gender
  Female
  Male
  Unspecified
	188
	41
	2
		81.4
		17.7
		0.9

Years in Special Education
  3
  4
  5
  6
  7
  8
  9
10
	56
	42
	41
	23
	14
	18
	17
	20
		24.2
		18.2
		17.7
		10.0
		6.1
		7.8
		7.4
		8.7

# of Schools worked in 	
  1
  2
  3
  4
  5
  6
  7
	95
	84
	35
	11
	2
	2
	2
		41.1
		36.4
		15.2
		4.8
		0.9
		0.9
		0.9

School SES
  Predom.econ disadvantaged
  Predom. middle class
  Predom. upper class
  A blend of the above
	142
	22
	5
	62
		61.5
		9.5
		2.2
		26.8

Title 1 school
  Yes
  No
  I don't know
	149
	51
	31
		64.5
		22.1
		13.4

Size of school
  Small <250
  Average 250-500
  Large >500
	74
	94
	63
		32
		40.7
		27.3

Location of school
  Urban
  Suburban
  Rural
	42
	43
	146
		18.2
		18.6
		63.2

To learn more about the early career special educators who responded to the survey, I collected data about their specific school and grade level settings, day-to-day assignments, and identified disability areas of their students. Of the 224 teachers who provided information about the grade levels they served, I found a fairly even distribution of grade levels represented, as indicated in *Table 2: Grade Levels of Students Served During the First 2 Years.*

Table 2: Grade Levels of Students Served During the First 2 Years

Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
Number (n=224)	80	87	95	99	104	98	78	74	72	83	78	73	72

Less than 1% of participants indicated that they worked with one individual grade; 71% of early career special educators indicated they worked with multiple grades, and 28% of participants indicated that their work spanned both elementary (K-5) and secondary (6-12) levels.

For the settings in which services were provided, *Table 3: Teachers' Instructional Settings* gives the distribution of the 222 listed responses. As the table demonstrates, 40% of participants reported teaching strictly in a self-contained program, whereas 32% served students in a resource setting. Only 2% of participants, taught solely in a co-teaching/inclusion environment. 25%, of the early career special educators who responded were charged with working in a variety of settings, including self-contained programs, resource, and co-teaching classrooms.

Table 3: Teachers' Instructional Settings

Setting	*n=222*	%
Self-Contained	89	40
Resource room	71	32
Co-Teaching	5	2
A combination of the above	57	25

Participants' responses to questions about planning time reveal that 46% did not have any preparation periods (planning time) as part of their workday; 36% said they had one planning period a day. A total of 18% of participants reported having 2 or more planning periods each day. See *Table 4: Number of Daily Preparations.*

Table 4: Number of Daily Preparations

Daily Planning Periods	*n=226*	%
1 preparation per day	81	36
2 preparations per day	20	9
More than 2 preparations	20	9
Generally no preparation time in the day	102	46

Participants also provided information about the number of different classrooms in which they worked during a typical day; results are displayed in *Table 5: The Number of Different Classrooms Taught in a Typical Day.* 57% of participants reported working in one classroom throughout the day, 21% worked in two classrooms, and 21% worked in three or more classrooms.

Table 5: The Number of Different Classrooms Taught in a Typical Day

Classroom Assignments	*n=226*	%
1 classroom	128	57
2 classrooms	46	21
3 classrooms	19	9
More than 3 classrooms	30	14

I asked participants to report the number of schools to which they were assigned. Only 6% of participants reported being placed in multiple schools, as noted in Table 6: Participants Assigned to Serve More Than One School in First Two Years.

Table 6: Participants Assigned to Serve More Than One School in First Two Years

Number of Schools	n =227	%
More than one school	13	6
One school only	211	94

Finally, participants were asked to provide information about the types of disabilities of the students with whom they worked. As displayed in *Table 7: Types of Disabilities Served During First 2 Years*, early career special educators reported working with a broad array of disabled students. The most prevalent reported disability areas included autism at 89% , other health impaired at 85% , emotional disturbance at 82%, and specific learning disability at 80%.

Table 7: Types of Disabilities Served During First 2 Years

Disability	n =227	%
Autism	201	89
Blindness	10	4
Deafness	14	6
Emotional disturbance	186	82
Hearing Impairment	30	13
Intellectual disability	150	66
Multiple disabilities	183	81
Orthopedic impairment	31	14
Other health impairment	194	85
Specific learning disability	182	80
Speech/language impairment	152	67
Traumatic brain injury	55	24
Visual impairment	34	15

The map in *Figure 2*. Participant Locations, denotes the locations of 51 of the 231 survey participants. This information was obtained from those participants who indicated an interest in taking part in potential follow-up interviews in a second survey link. Even with this limited information (22% of participants' locations), it can be noted that there was a broad response from across the state. The upper quadrant of the state was much less represented, as would be expected given that fewer school districts are located there, in comparison to central and southern Maine.
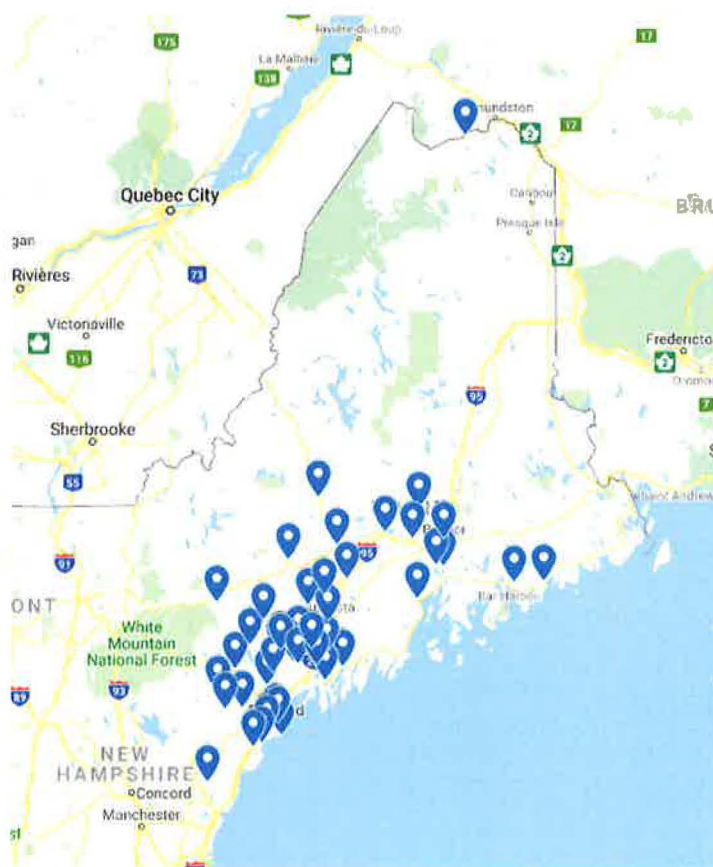
Figure 2. Participant Locations. This map denotes where 51 of the participants were from, derived from a second survey link that asked about interest in follow-up interviews.

Quantitative Survey Results

Formalized Induction Components

The first question I examined in this research study was related to the level of perceived support that formalized induction program components provided for early career special educators. Of particular focus here were those specific components that were part of formal planning from the district or state policy level. These included planned professional development activities and the assignment and support of mentors.

Program Components. In survey item 1, I asked participants to rate induction programming components that I had identified through the review of prior research: district/school orientation, IEP paperwork procedures, observations of other staff and by other staff, reduced teaching load, ongoing professional development, and beginning teacher meetings. I asked participants to provide information about the frequency of each activity and each activity's effectiveness on a 5 point continuum, with the scale rating from "almost daily" to "not available" and the latter from "not at all" effective to "a great deal". As illustrated in *Table 8: Frequency of Induction Activities by Percentage*, 63% of the participants reported that the most frequent activities were learning more about special education procedures and the IEP process at least several times a year. Reduced teaching load was the least prevalent induction activity, with 93% of participants indicating they were not given a reduced teaching load as a beginning special educator. I noted that 55% reported not having any opportunity to observe their mentors, and 32% had no opportunity to observe any peer.

Table 8: Frequency of Induction Activities by Percentage

Induction Activity	Several times a week or less	At least several times a year	Once a year	Not available
Orientation	4	29	55	13
SPED procedures	7	63	18	12
Observe other staff	9	36	24	32
Observe mentor	4	29	13	55
Reduced teaching load	3	2	3	93
Prof Development	1	84	7	8
Beginning teacher meetings	<1	47	10	43

Those teachers who reported participating in an induction activity were also asked to rate the effectiveness of each induction activity they experienced on a 5 point Likert scale, with a score of 1 as "not at all" effective and a 5 as "a great deal" effective. *Table 9: Effectiveness of Induction Activity* lists participants' responses. Beginning teacher meetings, defined as ongoing dedicated times for administrators to meet with early career educators, were ranked the highest in effectiveness with a mean of 3.34 (SD=1.23), indicating placement between somewhat effective and quite a bit effective. Still in the somewhat effective range were learning more about special education procedures with a mean score of 3.17 (SD= 1.15) and observing other staff with a mean score of 2.85 (SD=1.33). Of least effectiveness was having a reduced teaching load, with a mean of 1.47 (SD=1.11). However, it should be noted that this rating may be impacted by the fact that only 7% of participants indicated this component was part of their induction plan.

Table 9: Effectiveness of Induction Activity

Induction Activity	M	SD	Included by %
Beginning teacher meetings	3.34	1.23	57%
Special education procedures	3.17	1.15	88%
Professional development	2.96	1.04	92%
Observe other staff	2.85	1.33	67%
Orientation	2.68	1.06	87%
Observe mentor	2.47	1.43	45%
Reduced teaching load	1.47	1.11	7%

Next in the survey I asked participants to rank a variety of topics that might have been included in their induction program or through support provided from their mentor. I documented their responses using a 1 to 5 Likert scale ranging from "not at all effective" to "significantly effective", with an option of "not included". Topics included here were special education procedures, behavior management, parent conferences, working with paraprofessionals, time management strategies, IEP development, curriculum/lesson planning, assistive technology support, and support with formal/informal assessments. Of the 202 participants for this question, I point out that a high number of people said that many of these topics were not included as part of their induction program. That information is listed as part of the data in *Table 10: Effectiveness of Support Components in Induction Program.*

For the results displayed in *Table 10: Effectiveness of Support Components in Induction Program*, the topic ranked highest was development and implementation of IEPs with a mean of 3.50 (SD=1.55), in the range of somewhat effective and quite effective. Ranked second highest was learning special education procedures for my school/district with a mean of 3.42 (SD=1.48). Ranked least effective support were using assistive technology and time management, at 2.09 and 2.18 respectively. However, 57% of participants indicated that assistive technology was not included as part of their induction program, and 54% of participants indicated that time management was not a

part of their induction program. Support for conducting parent-family conferences also ranked low on effectiveness ratings with a mean of 2.33. Again here, 51% of participants indicated that this topic was not included in their induction programming. These results would indicate that support for connecting with families is limited. Another key result would be that for each component, a minimum of 20% of participants had no support as shown in *Table 10: Effectiveness of Support Components in Induction Program.*

Table 10: Effectiveness of Support Components in Induction Program

Component	M	SD	included by %
Development and implementation of IEPs	3.50	1.55	79%
Special education procedures for my school/district	3.42	1.48	80%
Behavior management	2.89	1.55	68%
Using formal and informal assessments	2.81	1.47	69%
Curriculum and lesson planning	2.68	1.44	66%
Working with paraprofessionals	2.40	1.58	50%
Conducting parent-family conferences	2.33	1.55	49%
Time management strategies	2.18	1.43	46%
Using assistive technology with students with disabilities	2.09	1.41	43%

Mentor-specific induction support. The next section of items gathered early career special educators' perceptions about the support they received from teachers' mentors. Maine state regulations mandate that every beginning teacher in the state, regardless of endorsement type, be matched up with a specific mentor. Prior to July 1, 2018, mentors were also required to attend state-approved training. I asked participants if they had a mentor during their first year of teaching. *Figure 3.* Mentor in Your First Year, illustrates that 18% of participants indicated that they did not have the benefit of a mentor in their first year as a special educator, despite the legal requirement to do so.

Mentor in Your First Year?
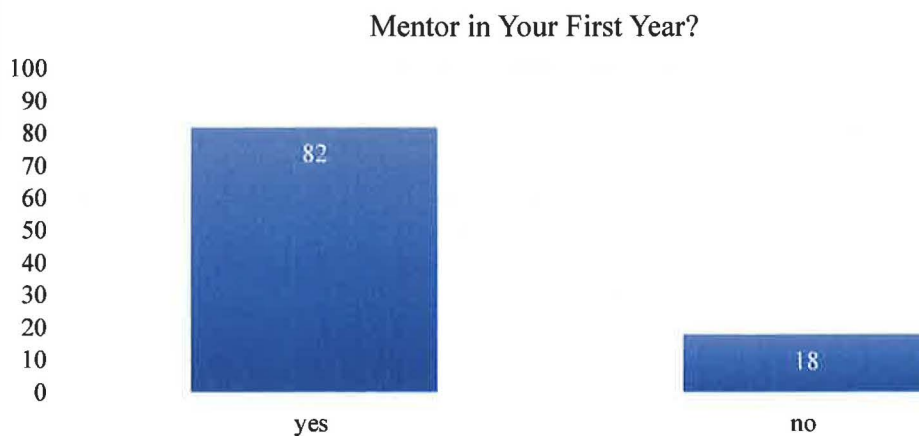
Figure 3. Mentor in Your First Year. This graph indicates the number of participants who stated they had a mentor in their initial year as a special education teacher.

Data was collected from the participants about who served as their mentors. Table 11: Mentor Characteristics lists a number of attributes participants provided about their mentors. Only 50% of mentors were fellow special educators who could provide specific special education support. Similarly, 47% taught similar content areas and could offer support in the development of content-specific, curriculum skill building. However, only 13% of mentors shared common planning time with their mentees.

The early career special educators who responded also recognized positive mentor characteristics. The highest positive responses included mentors as people who treated early career special educators as professionals (91%), who recognized accomplishments and growth (80%), and who encouraged reflective practice (75%).

Table 11: Mentor Characteristics

Descriptor	% yes responses
Someone who treated you as a professional	91
Someone who recognized your accomplishments and growth	80
Someone who encouraged reflective practice	75
In your building	69
Someone who encouraged you to balance work/home	65
Readily available when needed	63
Another special educator	50
Someone who taught similar content areas	47
Someone who had common planning time with you	13

Data was also collected to discern how often mentors specifically communicated with their mentees on a range of topics, as listed in *Table 12: How Often Mentor Worked With Mentees*. Participants answered on a continuum with 1="not at all" and 5="a great deal" of time spent together. Results indicate that 35% of participants communicated with their mentors quite a bit to reflect on teaching effectiveness, and 29% of participants communicated with their mentors quite a bit about observations. By contrast, over half of participants indicated that they did not communicate with a mentor around analyzing student work, reviewing assessment results, or observing their mentor.

Table 12: How Often Mentor Worked With Mentees

Topics Addressed	Mean	SD	Not at all	Quite a bit or more
Providing time for novice teacher to observe mentor	1.81	1.06	55%	11%
Analyzing student work	1.89	1.03	50%	9%
Reviewing assessment results	1.96	1.17	50%	13%
Aligning plans to local/state curriculum	2.10	1.19	45%	16%
Developing lesson plans	2.18	1.09	35%	14%
Addressing behavioral issues	2.49	1.32	33%	27%
Observing novice teacher	2.70	1.12	18%	29%
Reflecting on teaching effectiveness	2.74	1.28	23%	35%

I asked participants to provide information about the mode of communication used most frequently with their mentors. The forced-choice list included face-to-face conversation, email, telephone conversation, and video conferencing. Of the 194 responses, 60% indicated face-to-face conversations were used most often, followed by email with 18%. Only 13% ranked video conferencing at all, and 40% had phone conversations with their mentors; 85% also stated that face-to-face conversations were the most effective format to use.

For the last item about mentors, participants were asked to rate their mentors' effectiveness in a variety of areas. Ratings were given on a Likert scale with 1="not at all" and 5="a great deal" of effectiveness. Similarly, participants had the ability to indicate "did not receive support from my mentor" in this area. *Table 13: Mentor Effectiveness Ratings* documents participants' responses.

Table 13: Mentor Effectiveness Ratings

Attribute	M	SD	no support	quite a bit or more
Providing emotional support/encouragement	3.90	1.41	10%	55%
Observing your teaching/providing feedback	3.42	1.40	8%	37%
Problem solving student behaviors	3.33	1.61	12%	32%
Helping you collaborate with general education Teachers	3.30	1.65	16%	24%
Supporting you with general education curriculum	3.29	1.61	14%	26%
Giving tips on communicating with parents	3.27	1.67	13%	29%
Helping you to write IEPs	3.12	1.90	16%	27%
Overseeing lesson plan development	2.91	1.74	16%	13%

In summary, survey participants felt the most effective support from their mentors came in the form of encouragement and emotional support with a mean of 3.9; 55% rated this item at quite a bit or higher. Next in effectiveness was direct observation and feedback with a mean score of 3.42. The least amount of support was in overseeing

lesson plan development with a mean of 2.91 and only 13% of responses at quite a bit or higher.

Other Environmental Factors

Administrative Support. A key focus for my study involved examining the perceived influence of environmental factors in supporting early career special educators. One particular segment of the survey focused specifically on administrative and collegial supports that were provided beyond the formal induction processes or the mentor.

For administrator support, survey participants scored their administrators as being somewhat effective or better in fostering an environment that promotes success for all students *(M*=3.35), providing strong leadership (*M*=3.20), setting clear expectations (*M*= 3.14) and supporting these early career special educators with student behaviors (*M*= 3.09). Alternatively, they reported administrators as being least effective in discussing instructional practices with them regularly (*M*=2.28), with 33% reporting their administrator as not at all effective. Similarly, 25% of participants stated that their administrators were not effective in providing instructional leadership (*M*=2.52). Results are displayed in Table 14: Building Administrator Effectiveness. The survey design did not allow for participants to state that specific elements were not included or missing, leaving the question about whether administrators were ineffective in these areas or had not provided these kinds of supports unanswered.

Table 14: Building Administrator Effectiveness

Attribute	M	SD	not at all	quite a bit or more
Fostering a school environment that promotes success for all students	3.35	1.21	9%	51%
Providing overall strong leadership	3.20	1.22	10%	46%
Making expectations clear	3.14	1.21	9%	43%
Supporting you with student behaviors	3.09	1.23	12%	49%
Providing constructive feedback on your performance	2.99	1.21	14%	37%
Providing opportunities for PD	2.96	1.16	14%	34%
Knowledge of special education practices	2.86	1.28	18%	35%
Working with your team to problem solve	2.77	1.28	20%	31%
Providing instructional leadership	2.52	1.22`	25%	25%
Discussing instructional practices on a regular basis	2.28	1.22	33%	19%

Support from Other School Personnel. Survey participants also provided information about supports they received from other staff as reported in *Figure 4.* True for You? In this section, 34% reported having a similar amount of planning time as their non-special education peers. This is similar to information provided in *Table 8*, where 46% reported having no planning time at all. Likewise, only 8% reported here that they had a reduced caseload, again matching up closely to what was reported in *Table 8* where 93% stated not having this benefit. Overall, participants did feel valued in their schools, with 83% reporting being treated as professionals by other colleagues and 85% having that sense from administration. 46% responding positively to the rating – having access to adequate resources. This correlates with a key demographic attribute of participants: 62% of participants reported serving economically depressed or underprivileged populations.
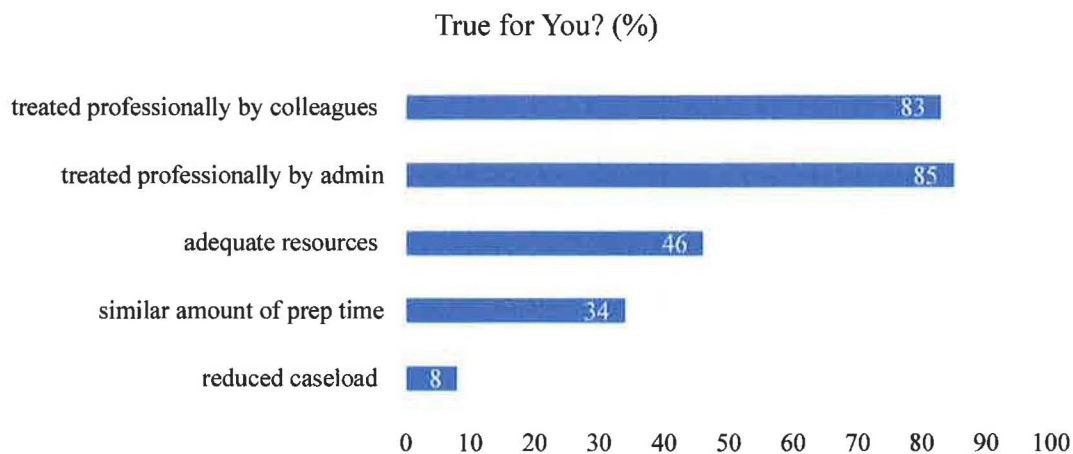
True for You? (%)

Figure 4. True for You? This graph represents participants' perceptions about indicators related to building level support.

Table 15: Support Received from Colleagues Other Than Mentor ranks the types and level of support early career special educators received from their colleagues. The most early career special educators indicate that high levels of support came in the form of feeling valued (90%) and helping to reduce stressors (80%). Less support was indicated with curriculum assistance at 70%; fewer participants provided information here.

Table 15: Support Received from Colleagues Other Than Mentor

Attribute	Yes	$n=188$	Quite a bit or more effective
Make you feel like a valued school community member	90%	167	68%
Help you problem solve stressors	80%	149	52%
Offer teaching strategies and resources	77%	144	43%
Provide assistance with curriculum	70%	130	44%

I examined data to learn more about which groups of staff within the school setting provided different kinds of supports for special educators during their first two initial years in teaching. In examining *Table 16: School Personnel Who Provided Assistance*, I found a consistent pattern of a wide variety of other personnel providing

supports across all areas. The one exception was in writing IEPs, for which general

educators did not provide support (nor would they be expected to have the skills in which

to do so). Overall, I found that other special educators were the one consistent group that

provided the most assistance across all areas, with the exception of general educators,

who were the most helpful in knowing how to collaborate with general educators and

with the general education curriculum.

High percentages of participants noted that they were not given support in

numerous key areas. According to collected responses, just about one in three

participants stated that they were not given assistance in preparing lesson plans (41%),

planning/conducting parent meetings (35%), assisting with general curriculum (34%),

and working with paraprofessionals (31%).

Table 16: School Personnel Who Provided Assistance

	Mentor	Administrator	Special Education Teacher	General Education Teacher	Other Personnel	Not Given	Not Needed
Provide social support/encouragement	39	29	50	34	39	6	3
Improve classroom management	35	31	48	14	16	19	8
Orient to the school	33	34	44	28	30	6	11
Complete paperwork	32	31	61	7	17	13	3
Write IEPs	29	31	68	<1	12	8	3
Obtain materials	24	17	26	29	7	28	15
Plan/conduct parent meetings	24	32	51	26	32	17	1
Prepare lesson plans	21	18	32	12	7	35	11
Work w/paraprofessionals	20	8	32	13	11	41	10
Assist w/curriculum	23	23	36	4	12	31	14

For the final question in this category, I asked participants to share overall impressions about the support received from colleagues. *Figure 5.* Additional Support Received as a New Teacher, illustrates that over half of participants (n=189) reported that supports they received as a beginning teacher had an impact in their decisions to continue teaching in their school. Similarly, 60% of participants noted a connection between new teacher support and overall improvement of instructional practice or an impact to student learning.

Additional Support Received as a New Teacher (%)
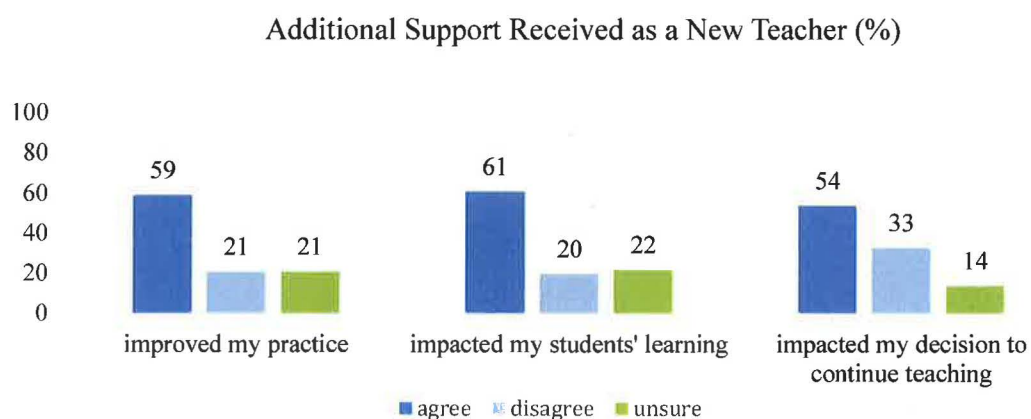
Figure 5. Additional Support Received as a New Teacher. This graph lists participants' perceptions about the overall supports they received as beginning special education teachers.

Personal Factors

The third prong of the survey design was included to get information about participants' job satisfaction and to learn more about personal factors that might influence their decisions to remain in special education. Included here are economic factors, job satisfaction, and personal/family circumstances.

Some of these questions were taken from The Brayfield Rothe Job Satisfaction Index (1951) as modified by Warner (1973). I also included a few key questions regarding "intention to leave" from 2017 research conducted by Conley and You (2017). I selected statements that focused on a special educator's job satisfaction. The questions were neutrally designed, following a model purported by Mueller, Wallace, and Price (1992). Participants' ratings for these statements are listed in detail in *Table 17: Job Satisfaction/Personal Factors.*

Table 17: Job Satisfaction/Personal Factors

Statement	Quite a bit or more	to a limited degree
I am satisfied with my job for the time being.	62%	16%
I feel very satisfied with my present job.	58%	20%
Other personal life changes could impact my decision to continue as a special educator.	32%	47%
I often have thoughts about transferring to another school.	25%	61%
I would consider leaving my job for the birth of a child or for childcare reasons.	23%	66%
Moving far away might affect my decision to stay in special education.	23%	58%
If I could get a higher paying job, I would leave teaching as soon as possible.	20%	58%
I am disappointed I ever took this job.	3%	91%

20% of the participants indicated they would leave right away if they could get a higher paying job in another field, and 25% often think about leaving their present positions. Data also showed that only 3% of participants were disappointed about taking their jobs and that approximately 60% were satisfied or very satisfied with their current positions; 23% reported considering leaving for childrearing purposes or for a move, while 32% stated that they could envision other life changes impacting the decision to remain in the field.

Data was also collected about future plans by asking how long people envisioned themselves remaining in special education. *Figure 6.* Plan to Remain in Special Education illustrates that 34% of early career special educators in Maine have a made a commitment to the work until retirement; 18% of early career special educators do not see themselves staying in the field for more than 5 years; and 31% of early career special educators are undecided about their future in special education.

Plan to Remain in Special Education (%)
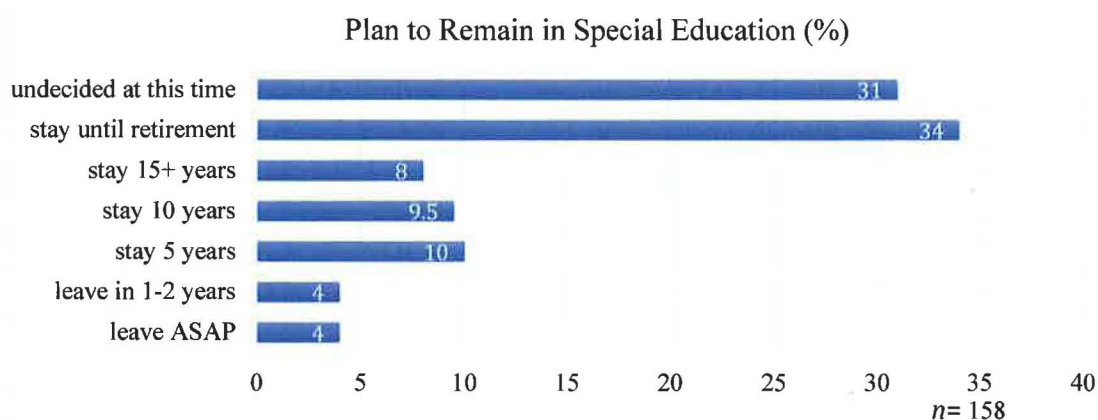
Figure 6. Plan to Remain in Special Education.   This graph provides information about participants' future plans in Special Education.
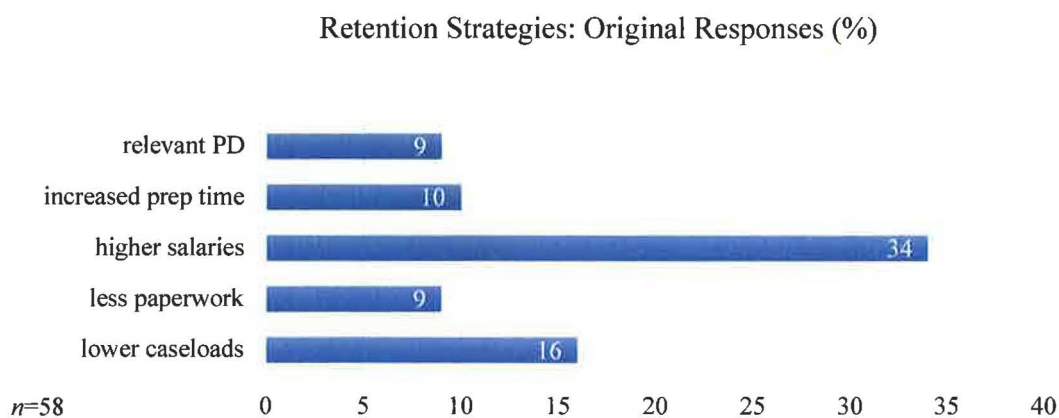
Retention Strategies

To capture participants' perceptions about strategies that promote retention, I asked them to select from a given list based on the work of Jacob, VIdyarthi, and Carroll (2012). In addition, participants had the opportunity to share other ideas through the use of "other". *Table 18: Additional Strategies to Promote Retention* outlines the results. School working conditions, formalizing retention as a district goal, and meaningful teacher evaluation feedback were most often selected as additional strategies to promote retention.

Table 18: Additional Strategies to Promote Retention

Strategy	% yes responses
Making retention a district goal	51%
Monitoring of school working conditions	51%
Meaningful teacher evaluation	49%
Performance-based compensation	43%
Having principals who provide instructional leadership	35%
Removal of policies for low-performing teachers	32%
Performance-based layoffs	25%
Alternatives to dismissal procedures	19%

Of those who gave original responses (*n*=58), most referenced items that were previously asked about earlier in the survey. *Figure 7.* Retention Strategies: Original Responses highlights those responses most often listed by theme. Salary was mentioned most often, in 34% of original responses, followed by lower caseloads, mentioned in 16% of responses. A few single responses that are worth noting: loan forgiveness, more time for team meetings, fewer new teacher regulations, direct support from the special education director, and training all school staff in special education regulations.

Retention Strategies: Original Responses (%)

Figure 7. Retention Strategies. This graph captures the most frequently listed original responses that participants described related to strategies they believed could further support for early career special educators.

Correlational Analysis: Mentor Effectiveness and Plans to Remain

I conducted a Spearman's rho correlation analysis from the 158 participants who answered the question about their plans to remain in special education to determine how related their future plans were to a number of mentor effectiveness ratings: support with general education curriculum, collaboration with general education teachers, support with lesson plan development, help in writing IEPs, emotional support, direct teaching observations, problem solving student behaviors, and providing assistance in communicating with parents. For this analysis, I collapsed groupings for "the plan to remain" category from the original question to include 10 years or less, 15 years to retirement, or undecided, as indicated in *Table 19: Plans to Remain in Special Education.*

Table 19: Plans to Remain in Special Education

Number of years	Frequency	Percent
10 years or less	44	28
15 years to retirement	65	41
Undecided	49	31

As the correlation coefficients in *Table 20: Plans to Remain vs. Mentor Effectiveness Ratings* indicate, the correlations between plans to remain in special education and mentor effectiveness ratings were weak and not significant across all indicators, with *r* values ranging from .052 to -.127. These results suggest that plans to remain in special education and mentor effectiveness are not related.

Table 20: Plans to Remain vs. Mentor Effectiveness Ratings

Statistic	General curriculum support	Collaborate with other teachers	Assist with lesson plans	Help in writing IEPs	Providing emotional support	Observe your teaching	Problem solving student behavior	Support with parent communica-tion
Correlation coefficient	.042	.052	-.061	-.112	-.036	-.124	-.127	-.013
Sig (2-tailed)	.613	.524	.460	.172	.666	.131	.122	.872

In attempting to discover if those components collectively were more strongly related to plans to remain in special education, a mean score of the mentor effectiveness ratings was derived using the compute variable feature, and I ran the analysis a second time. Again, results using the Spearman's rho correlations were very weak, as demonstrated in *Table 21: Plans to Remain vs. Overall Mentor Effectiveness Ratings.*

Table 21: Plans to Remain vs. Overall Mentor Effectiveness Ratings

		Mentor Effectiveness
Remain	Correlation coefficient	-.057
	Sig (2-tailed)	.487

Finally, in an effort to discover if stronger correlations would be identified if I spread the "intent to remain groups" to match the original question, I ran the data again using the original question choices: as soon as possible, in the next year or so, plan to stay 5 years, plan to stay 10 years, plan to stay 15 years or more, plan to stay until retirement, and undecided at this time. I recalculated Spearman's rho a third time, and the results continued to show a very weak correlation, as noted in *Table 22: Original Remain Groupings vs. Mentor Effectiveness Ratings.*

Table 22: Original Remain Groupings vs. Mentor Effectiveness Ratings

Statistic	General curriculum support	Collaborate with other teachers	Assist with lesson plans	Help in writing IEPs	Providing emotional support	Observe your teaching	Problem solving student behavior	Support with parent communica-tion
Correlation coefficient	.052	.035	-.078	-.127	-.031	-.123	-.117	-.037
Sig (2-tailed)	.530	.666	.342	.123	.710	.133	.151	.655

Correlational Analysis: Administrator Effectiveness and Plans to Remain

In a similar fashion to the former set of correlations, I also conducted a Spearman's rho correlation analysis from the sample of 156 participants to determine

how related plans to remain in special education were to a number of administrator effectiveness ratings: support for student behaviors, instructional leadership, discussions about instructional practices, problem solving with team, knowledge about special education, overall leadership, professional development opportunities, clear expectations, constructive feedback, and a school environment that fosters success for all students. As the correlation coefficients in *Table 23: Plans to Remain vs. Administrator Effectiveness Ratings* illustrate, the correlations between plans to remain in special education and administrator effectiveness ratings were weak and not significant across all indicators, with *r* values ranging from .081 to -.034. These results suggest that plans to remain in special education and administrator effectiveness ratings are not related.

Table 23: Plans to Remain vs. Administrator Effectiveness Ratings

Attribute	Correlation coefficient	Sig. (2-tailed)
Support with student behavior	.052	.522
Providing instructional leadership	.016	.839
Discussing instructional practices	-.001	.988
Working with your team to problem solve	.062	.447
Knowledge of special education practices	-.020	.808
Providing overall strong leadership	.069	.395
Building in opportunities for PD	-.012	.881
Making expectations clear	-.034	.677
Providing constructive feedback	.048	.552
Fostering a student centered environment	.081	.317

In attempting to discover if collectively those administrator effectiveness ratings were more strongly related to plans to remain in special education, I derived a mean score using the compute variable feature and I ran the analysis a second time. Again, results

using the Spearman's rho were very weak, as evidenced in *Table 24: Plans to Remain vs. Overall Administrator Effectiveness Ratings*.

Table 24: Plans to Remain vs. Overall Administrator Effectiveness Ratings

		Administrator Effectiveness
Remain	Correlation coefficient	.030
	Sig (2-tailed)	.708

Finally, to discover if stronger correlations would be identified if the intent to remain groups were spread to match the original question, I ran the data again using the original question options: as soon as possible, in the next year or so, plan to stay 5 years, plan to stay 10 years, plan to stay 15 years or more, plan to stay until retirement, undecided at this time. Spearman's rho was recalculated a third time, and the results showed a similar very weak correlation, as evidenced in *Table 25: Original Remain Groupings vs. Administrator Effectiveness Ratings*.

Table 25: Original Remain Groupings vs. Administrator Effectiveness Ratings

Attribute	Correlation coefficient	Sig. (2-tailed)
Support with student behavior	.055	.493
Providing instructional leadership	.021	.796
Discussing instructional practices	.010	.898
Working with your team to problem solve	.055	.495
Knowledge of special education practices	-.025	.753
Providing overall strong leadership	.070	.387
Building in opportunities for PD	-.019	.810
Making expectations clear	-.027	.735
Providing constructive feedback	.052	.521
Fostering a student centered environment	.067	.408

Qualitative Results

Although the survey design was primarily of a quantitative nature, I wanted to create an opportunity within the survey to allow participants to provide any additional information about their experiences as early career special educators. I evaluated the recorded responses within the research framework as previously described in Chapter 3, and focused on historical, environmental, and personal factors. Historical factors include pieces related to pre-service preparation and initial certification. Environmental factors are described as formal induction components, including mentors, support from administrators and other school staff, and day-to-day job responsibilities. Personal factors are comprised of job satisfaction, economic factors, personal life changes, and other career options. For the purposes of this analysis, I sorted and coded all open responses according to this framework and I will discuss the results by factor type here.

Historical Factors

The responses identified key areas that participants felt were missing from their pre-service education experiences. Supervising paraprofessionals was one such area. Participants indicated that it seemed expected by districts employing them that new teachers should know how manage this supervision, even without any formalized training prior to being hired. One participant indicated that "the supervision of ed techs is by far the hardest part of my job. There was no training for that!"

The participants provided feedback about the lack of knowledge for managing student behavior and student mental health. Many special education students present with extreme behaviors and significant mental health issues. The participants revealed that they had no personal expertise in managing extreme behaviors.

Participants expressed a lack of preparedness around case management. One participant described how, in her experience, preparation programs focus primarily on the teaching aspects, "It isn't really talked about that case management is much more of the job than actual teaching. Preparation programs try to focus on the teaching, when in reality, special educators don't get to actually teach nearly as much as they do case management." Participants gave feedback about the lack of instruction around inclusion practices in pre-service programming, as one person described well. "The push-in model/inclusion model is being pushed in many schools, but there was little preparation before I became a teacher to help me know how to support my students in this kind of model."

Finally, participants expressed a lack of understanding about stressors that would come up as part of the work: "There isn't enough preparation for the stressors that will happen once you are in special education."

Participants also identified the rub between their decision to enter the field of special education and the actual experience. One person described her perception eloquently, stating that "there is no benefit to staying in special education in the state of Maine other than the benefit we serve to the students."

Other participants were more positive in their thinking and demonstrated a focus on the students. One advised that "you can't do the job well unless you care about kids and if you care about kids, they stay with you even when you're not with them." Another expressed that "...time spent getting to know the children and their needs was one of the key reasons I decided to stay with the job even after the full extent of the responsibility became apparent."

Environmental Factors

Participants had much to say about environmental factors and their supportive impact. For the purposes of this data examination, I will consider each one at a time.

Ideology and culture. In terms of overall ideology and culture from a societal standpoint, many key themes emerged from the responses that were received. First was the impact of the larger community's role in supporting special educators. Participants expressed concerns regarding state IEP procedures and how actual practices and methods in writing IEPs can vary from school to school. One participant expressed, "I hope that we can come together as a state and assure that the method of writing the IEP is consistent no matter what format the case manager is using."

Participants expressed a strong disconnect between the formalities of paperwork (IEP's, BIP's ,etc.) and actual practice, as well as a lack of practicality in documentation requirements, to which one response stated, "I would appreciate documentation becoming more practical."

Participants also expressed concern about the true mission of special education being misplaced in some schools: a focus on organizational or budget needs, instead of the needs of the students coming first. One participant described this especially well indicating that "perhaps the most influential factor for me wanting to leave education is that it's clearly not about students and their needs. It's a business and is run like a business."

Finally, a clear thread of responses indicated the need for an acknowledgement beyond the school level for special educators to have a different pay scale than their general education peers. One explanation given was that "pay scales for special education teachers should be different than for regular education teachers...The amount of

paperwork is huge. Many leave special education due to this factor." There were other similar comments, like "special education teachers should be paid more than their general education peers based on the fact that we have legal standing paperwork that is a daily requirement," or "special education teachers have a lot more demands placed on them (than) regular education teachers. Yet, we don't get planning time, more money, or more supplies." Some participants stated that other states had separate pay scales, based on the amount of time spent on paperwork, as when one participant explained how "in every other state I have taught in, Special Education teachers are paid way more than regular ed teachers because there are so many more layers to their jobs than the regular classroom teachers..."

School culture and climate. The next emerging theme addressed overall school culture and climate and their relationship to how special educators felt supported. Key positive impressions indicated the value of peers, such as when one person described, "I stayed through those first years because in my school climate, there was nothing that WE could not work through. Yes challenges happened, but together we solved them." Alternately, others expressed not being in supportive schools in their first roles. Key explanations included, "I left my first school because the work conditions were awful and teachers were not treated as professionals," and "there is an overall feeling in my school that special educators are lesser teachers and their work loads are somehow easier than regular educators. This makes it extremely hard to feel welcomed and appreciated." Some found a refreshing change in moving to other schools, such as when one person described a second school as "restoring my faith in myself as an effective educator."

Other impressions highlighted areas in need of improvement with school culture and understanding of the work of a special educator. Themes here included feeling like

"less than a teacher" by other peers and a sense from others that special educators had easier work-loads, making it difficult to feel welcomed or appreciated by other faculty. Participants made comments about the lack of planning time, as when one person described how "classroom teachers are being given preference to make sure they have their planning time, when I have next to none." One person also expressed that regular education teachers in her school lacked in their understanding of special educators' responsibilities: "sometimes regular ed teachers have no understanding of how much work we do and want us doing more than special education."

Classroom. In relationship to the classroom itself and support for special education teachers, participants expressed similar themes in the qualitative responses around support for curriculum resources, behaviors, professional development, and balance with other aspects of the role, when compared to the earlier quantitative section of the survey. Teachers explained that curriculum was not solidly in place such as when one participant explained that she had "no curriculums - we have to buy multiple resources out of our own pockets to have in order to reach all levels in our classrooms, " or when another said that "this often comes in the form of "creating" materials, hunting for "free" ones, which adds more time to the day." One participant explained it well in describing the feeling of "being under-resourced in all areas: staff, materials, funding...created a lot of stress my first year." Another pointed to a more specific need: getting training and support for the growing behavioral needs of some students and the challenge of balancing the needs of other students' needs on their caseload, as types of disabilities served were diverse.

The participants acknowledged that their positions did not involve as much actual teaching time as they imagined prior to getting a position; they had not understood in

advance the number of hours they would spend in case management versus face time with students, such as this response, " ...special educators don't get to actually teach nearly as much as they do case management."

Participants were also clear in their need for support with paraprofessionals. They indicated that they received no training or additional compensation for supervision of paraprofessionals. One person described her experience, "supervision of ed techs is by far the hardest part of my job. There was no training for that! There should be!" Participants stated that an additional stressor for them was the huge shortage of quality paraprofessionals applying for jobs, as when one participant explained, " I have had to hire staff I know will not meet the needs of my classroom just so I can fill the position."

School workplace support systems. The final and biggest theme I explored from the environmental framework included the school workplace support systems: mentor, formal induction support, administration, and other staff. Participants had much to share about mentors: their background, fit, and role. One participant provided a rich description:

> The formal mentor process is ineffective for special education teachers. The process as a whole is not designed to support special educators- it is built on the classroom teaching model. My retention as a special education teacher was due in large part to the school communities I was a part of, not a prescribed plan.

Other participants echoed the concern for the mismatch with mentor assignment that happened for 50% of survey participants. Concerns about mentors in positions outside of special education were raised multiple times: mentors who did not understand the demands of special education, did not know the in's and out's of special education paperwork, or how to specifically teach those with special needs. Examples of

statements included, "...new teachers to special education need to have a mentor that understands the demands of teaching in special education. My mentor teacher was an art teacher who knew nothing of my needs," and "it would have been more helpful if my mentor had been a special education teacher rather than an ELA teacher." One participant described the stress in being the only special educator in a building, "having a special education teacher as a mentor would have been very effective for me as the only special educator covering two schools with a caseload of 30-34 students." Others described how they personally sought to fill the need for mentors in order to make the difference for other early career special educators: " I became a mentor to better support our new special education teachers."

As seen in the quantitative analysis, administrative support was a key theme in the qualitative analysis as well. I found no clear sense about support participants received: there were perspectives stated on both sides, depending on individual experiences. Statements included those like "I feel there is a general disregard toward special education and do not feel supported by my administrators..." or "my administration doesn't understand/support special education." Some participants listed the need for informed, involved administrators at the building level, as well as with special education directors. One participant in particular explained how ...many of the (positive) answers here regarding administrative support came from my building administration and not from special education administration. Another stated that "having the support of a special education director has directly correlated to my success and staying in special education."

Personal Factors

The final prong of the framework involved the examination of personal factors and their role in early career educators' future decisions. In considering other career options, one participant provided a clear picture of her decision to move to another role within education:

> I still wish I could stay. After 8 years, I do not regret any experiences with kids I have worked with, but my job has taken my life away. No preps, no positive supports, poor compensation for countless nights of work on top of work on top of work. I just can't do it anymore, so I am taking a job within the school system which is outside of the special education department.

Others described economic factors as weighing into their future as special educators. This theme was a consistent strand throughout the survey, such as when one participant suggested, "Special education teachers should also no longer be expected to hold IEP meetings outside of the contracted school day, without being offered additional compensation."

And the most pervasive factor identified in all of the narratives? Time being spent beyond the work day. This came up 42 times within 101 responses when I conducted a search for key terms: hours, time, weekends, nights, outside. Telling responses included, "I spend on average 20 hours per week outside of school on IEP paperwork," and "the biggest issue I face is the tremendous amount of paperwork involved: I estimate 10 hours per IEP meeting." Another participant painted a clear picture of her experience in her open-ended comment:

> You do not ask about the amount of time being put in outside of contract
> hours in order to do the job effectively. When I talk to other Special

Educators and those who have left Special Education for General Education this was a major factor in that decision. I currently work for 2 hours every night after leaving an hour after contract time. I also work about 5 hours on weekends.

Finally, participants expressed concerns multiple times for the mental well-being of early career special educators, such as when one participant explained, "the increased roles and demands of a special education teacher...is also taking a toll on the emotional well-being of special education teachers."

Summary

This survey methods research study was designed to understand the influence of various factors on the sustainability of early career special educators across the state of Maine with 3 to 10 years of experience.

In the first quantitative section I examined teachers' perceptions about the influence of formal induction programming. On the plus side, teachers reported getting the highest support in the area of special education procedures (88%) and in receiving ongoing professional development (85%). At the same time, many components that I identified in the literature as having high value were absent from the induction programs for the participants in my study. More specifically, 94% of participants did not experience a reduced teaching load, 55% did not have opportunities to observe their mentors' teaching, and 12% did not get any support with special education procedures as early career special educators.

Considering the highest rated formal induction components in terms of effectiveness, participants reported the support they received in learning special

education procedures was somewhat effective or better (*m*=3.17). Ongoing beginning teacher meetings were the highest rated at *m*=3.34.

In reference to their assigned mentors, 18% reported not being assigned a mentor, although state statute dictates this for all newly certified educators in the state. Only half of all mentors were fellow special educators who could provide guidance in special education. Participants rated their mentors as people who treated them as professionals (91%), who recognized their accomplishments and growth (80%), and who encouraged reflective practice (75%). This is closely aligned to the effectiveness ratings given to mentors for providing encouragement and emotional support, of which 55% of responses were rated at quite effective or better. Participants consistently responded more positively to components within affective domains.

Participants expressed less support in their mentors overseeing lesson plan development with a mean of 2.91 (approaching a somewhat effectiveness rating) with only 13% of responses at quite effective or better. Similarly, over half of participants indicated that they had no communication with a mentor around analyzing student work, reviewing assessment results, or observing their mentor.

In the second quantitative section of this research, I examined participants' perceptions about administrative and collegial support. Survey participants rated their building administrators as being somewhat effective or better in fostering an environment that promotes success for all students, providing strong leadership, setting clear expectations, and offering support with student behaviors. Conversely, participants reported administrators as being least effective in discussing instructional practices with them regularly and in providing instructional leadership, with 33% and 25% of participants respectively reporting no effectiveness in these categories.

Regarding peers, 34% of participants in this survey research reported having a similar amount of planning time as their non-special education peers. High levels of support were perceived by these early career special educators in key areas: 83% reported being treated as professionals by their colleagues, 90% expressed feeling valued, and 80% reported that their peers helped in reducing stressors. Participants reported 70% who received less support with curriculum matters and 44% who rated it as quite effective or better. Survey results demonstrate a consistent pattern of supports given by school personnel in a wide variety of roles. Other special educators were the one consistent group, however, that provided the most assistance across all areas, with the exception of collaborating with general education teachers and supporting general education curriculum.

There were also indications of missing supports. According to collected responses, over one-third of all participants reported not being given any assistance in writing lesson plans (41%), planning/conducting parent meetings (35%), assisting with general curriculum (34%), and working with paraprofessionals (31%). One-third of participants did not feel that supports they received as beginning teachers impacted their decisions to continue teaching in their schools. Over 40% of participants did not perceive a connection between the supports they received as new teachers to the overall improvement of their instructional practice or toward a positive impact to student learning.

Correlational analysis did not show a correlation between participants' plans to remain in special education and mentor effectiveness ratings, or between plans to remain and administrator effectiveness ratings.

For the final section of this research, I collected information about participants' perceptions of personal factors related to sustainability within the field of special education. One in five participants indicated that they would leave their positions right away if they could secure higher-paying jobs. Similarly, one in four stated that they often think about leaving their present positions.

Not all indicators were negative, however. On a more positive note, only 3% of all survey participants were disappointed about taking their jobs and 58% rated that they were satisfied or very satisfied with their current positions. A number of participants, 34%, expressed being committed to their current work until retirement. A similarly-sized number, 31%, are still undecided about their plans to continue in special education.

Participants selected from a forced-choice list regarding strategies that would promote retention. School working conditions, formalizing retention as a district goal, and providing meaningful teacher evaluation feedback were most often selected. In open-ended comments, participants listed higher salaries by 34% and lower caseloads by 16%.

Across all areas examined: induction programming, mentors, and administrator/staff support, not one participant gave these categories an exceptional rating. A number of participants had no experience with a few components within each category. My findings provide key stakeholders with much to consider as policies are made in how to best support early career special educators in Maine, both now and into the future.

CHAPTER 5: CONCLUSIONS

The purpose of this survey methods research study was to understand the influence of various factors on the sustainability of early career special educators. An online survey was widely distributed to special education teachers across the state of Maine, with a specific focus on those with 3 to 10 years of experience.

Whereas Maine's public database does not include specific information related to years' experience, I initially cast a wide net to all Maine special educators prior to identifying the target group. A total of 1,567 participants, or 76.2%, opened the survey initially. At the onset of the survey, I identified the specific target group of special educators with 3-10 years' experience. In the final analysis, the survey included 231 participants, which represents 37% of all special educators in the selected experience range, based on unpublished aggregate data provided from the Maine Education Policy Research Institute (A. Johnson, personal communication, November, 2018).

This research study aimed to answer the following research question:

- What are Maine's special educators' perceptions of the induction support they received in their early years?

Sub-questions included:

- What are early career special educators' perceptions about the influence of induction programs that were provided to them as they relate to sustainability in their roles within special education?

- What are early career special educators' perceptions about the influence of environmental factors, such as school climate and collegial/administrative support, as related to sustainability in their roles within special education?

- What are early career special educators' perceptions about the influence of personal factors as related to sustainability in their roles within special education?

In this concluding chapter, I will present a brief overview summarizing the participants involved, followed by a summary of the findings as they relate to each of the sub-questions in sequential order: perceptions about the influence of formal induction supports, perceptions about the influence of environmental factors, and the perceived influence of personal factors. In the section that follows, I draw conclusions based on the findings in this research. The chapter concludes with implications for future policy and practice, as well as recommendations for future research.

Research Findings

Demographic Overview

This survey methods research study was designed to learn more about what factors were perceived as having provided the greatest level of support for early career special educators with 3 to 10 years of experience across the state of Maine.

Before getting into the detailed results garnered from this research, it is important to understand key demographics about this population of participants, who were representative of Maine's early career special educators. First, they were predominantly female, representing an even distribution of all grade levels K-12 and serving a wide range of disabilities within their caseloads. School participants self-identified as being employed predominantly in rural, economically disadvantaged schools. Most described their roles as delivering services in one school, more often within a self-contained program or resource room setting.

The participants came to education through a variety of ways, with 45% coming from undergraduate or graduate education programs, 17% from alternate certification

programs, and 38% through meeting Department of Education course requirements. Similarly, 42% started their careers with a provisional certificate, having met full certification requirements; 54% of the early career special educators surveyed began their careers with a conditional or targeted needs certificate, indicating that they did not meet the state's requirements for full certification. This would suggest that no longer are the vast majority of early career special education teachers in Maine coming from traditional preparation programs.

Participants' open-ended responses indicated a sense of initial unpreparedness coming into their roles in a number of key skill areas. These include supervising paraprofessionals, managing student behavior, or having job readiness in the areas of student mental health, case management, and inclusion practices.

Teachers' Perceptions of the Influence of Formal Induction Programming

For my first research question, I examined teachers' perceptions about the influence of formal induction programming.

- What are early career special educators' perceptions about the influence of induction programs that were provided to them as they relate to sustainability in their roles within special education?

Teachers who responded to the survey consistently reported receiving the greatest support in the area of special education procedures and in receiving ongoing professional development. At the same time, many induction components, identified in the literature as having high value, were missing or not available for these teachers. The New Teacher Center, the country's leading induction research organization, identified key elements of effective induction programs. These include formalized organizational structures that address deliberate school leader engagement, mentor selection and support, defined

onboarding practices for new teachers, instructional practice development, and professional development planning (New Teacher Center, 2018).

Results from my study indicate a high level of variability in the number and quality of available supports. For example, 94% of participants were not provided with a reduced teaching load, 55% did not have a single opportunity to observe their mentors, and 12% did not get any support learning special education procedures. Participants reported the support they received in learning special education procedures as somewhat effective or better (m=3.17). Ongoing beginning teacher meetings were the highest rated among all components (m=3.34).

In reference to their assigned mentors, 18% of participants reported not even being assigned a mentor, although state statute dictates this for all newly certified educators in the state. This is strikingly similar to trends across the country. In recent research conducted by The New Teacher Center, between 7% to 30% either responded that they did not get a mentor assigned or that their mentors had not assisted with any shared planning or classroom observation time (Goldrick et al., 2012, p. vi).

In the current study, of those who reported having mentors, only half of them were fellow special educators who could provide guidance in special education. Previous research describes the increased value that mentorship creates when deliberate attention is given to mentor-matching (Lozinak, 2016). Current Maine statute does not mandate role-alike mentors, nor does it provide for role-specific induction programming. This is consistent with many other states in the U.S. Statistics reveal that few states provide role-specific induction programming, and of those programs, these targeted supports are not accessible to all special educators (Muller & Burdett, 2007). Induction programs that have yielded the greatest success provide specialized induction programming; in one

model St. Louis program, retention rates rose from 74% in the beginning of the program in 1996 to 96% by 2008 (Kamman & Long, 2010; Leko & Smith, 2010).

Participants in my study gave their mentors strong ratings as people who treated them as professionals, who recognized their accomplishments and growth, and who encouraged reflective practice. This is closely aligned with the effectiveness ratings participants in my study gave to mentors who provided encouragement and emotional support, of which 55% of responses scored at quite effective or better.

My participants said they received less support from mentors in overseeing lesson plan development; only 13% of responses scored at quite effective or better. Similarly, over half of these early career special educators indicated that they had no communication with a mentor at all when it came to analyzing student work, reviewing assessment results, or observing their mentor. Instead, my survey data demonstrates that mentors were more likely to provide emotional support than they were to assist with curriculum, instructional, and assessment support.

The role of mentors has often been cited in previous research: their interactions, the variability of supports they offer in application, and value of pairings. One key study related to mentoring cited that only two in five early career educators reported being observed by their mentors. Even worse, only about three in five reported having three or more conversations with their mentor around issues of management, curriculum or lesson design, and instruction within the entire first year of teaching. In high poverty schools, rates for these conversations decreased to two in five (Kardos & Johnson, 2010). Maine's special educators are quite similar.

Participants in my study noted the challenge of connecting with their mentors: only 13% had common planning time with a mentor, and 31% had mentors who were

located in another building, making the ability to communicate as questions arose more challenging. These realities present additional barriers for support to take place when it is needed most. Previous research has demonstrated that mentor effectiveness increases significantly when mentors are full time, and not juggling mentorship roles with their own full time roles as teachers (Rockoff, 2008). However, no participants in my study described having this support.

Teachers' Perceptions of Administrative and Collegial Support

For the second section of this research, I examined participants' perceptions about administrative and collegial support, and I sought to discover early career special educators' perceptions in regards to this question:

- What are early career special educators' perceptions about the influence of environmental factors, such as school climate and collegial/administrative support, as related to sustainability in their roles within special education?

Survey participants scored their administrators as being somewhat effective or better in fostering an environment that promotes success for all students, providing strong leadership, setting clear expectations, and supporting early career teachers with student behaviors. Conversely, participants reported administrators as being least effective in discussing instructional practices with them regularly and in providing instructional leadership, with 33% and 25% of participants respectively reporting no effectiveness in these areas. Although there was some variability in ratings, none of the survey elements were ranked as quite effective or better, indicating much room for administrators to improve in the level of the support they offer. Further, as with mentor results, administrators were least effective with supports around instruction.

Prior research similarly points to the sphere of influence that building administrators can have over many other moving parts of the process (Gersten et al., 2001; Kukla-Acevedo, 2009; Prather-Jones, 2011). For example, in one research study, new teachers were found to leave three times more often when administrator support dropped by one standard deviation. Even further alarming, first year teachers were more likely to leave based on any and all measures of workplace conditions (Kukla-Acevedo, 2009). Conversely, teachers reported staying in their roles when they perceived that they were respected and appreciated for their efforts by administration (Prather-Jones, 2011). These are critical findings as we consider what improvements can be made.

Regarding peer support, 34% of participants reported having a similar amount of planning time as their non special education peers. This problem of time has been documented in previous studies as well (Griffin, Kilgore, Winn & Otis-Wilborn, 2008).

The special educators in this study felt highly supported in some key areas, with over 80% of participants responding positively when rating "being treated as professionals by their colleagues", "feeling valued", and "peers reducing stressors." Less support was indicated with curriculum matters. Again here, themes of greater emotional support and lesser instructional support ring true for this group of supporters, much like earlier research, where teachers indicated an increased likelihood of remaining in their positions over time when they reported having informal peer support (Billingsley, Carson, & Klein, 2004). This attribute impacts special educators' commitment to job assignments to a higher degree as compared to their general education peers (Jones, Youngs, & Frank, 2013). That "perception of fit" weighs into early career special educators' commitment, both to their school and to their positions (Jones et al., 2014).

My survey results demonstrate a consistent pattern of supports given by school personnel in a wide variety of roles. This is similar with previous research, which found that support from colleagues impacted special educators' commitment to job assignments; a feeling of collective responsibility for students impacted special educators' commitment to the school (Jones at al., 2013).

There were also indications of missing or unavailable supports in my research. Over one-third of all participants reported that they were not given any assistance in writing lesson plans, planning/conducting parent meetings, building familiarity with general curriculum, and working with paraprofessionals. Over half of participants reported that supports they received as beginning teachers impacted their decisions to continue teaching in their schools. Similarly, a connection between new teacher support and overall improvement of their instructional practice or their ability to impact student learning was validated by 59% and 61% of those surveyed respectively.

The correlational analysis that I conducted did not indicate a correlation between mentor effectiveness ratings and participants' plans to remain in special education, or between administrator effectiveness ratings and plans to remain in special education, consistent with previous work (Morrison, 2010).

Teachers' Perceptions of the Influence of Personal Factors

For the final section of this research, I collected information about participants' perceptions about job satisfaction, economics, family circumstances, and consideration of other career options. The question here was:

- What are early career special educators' perceptions about the influence of personal factors as related to sustainability in their roles within special education?

Surprisingly, 20% of participants in my survey indicated that they would leave education right away if they could secure higher-paying jobs. Participants' open-ended comments pointed to the endless hours, excessive paperwork, and poor compensation when considering the time necessary to complete demands of the work.

Similarly, 25% stated that they often think about leaving their present positions to go to another school. My survey also revealed that 18% of early career special educators do not see themselves remaining in special education for another five years.

Previous research notes that close to 40% of special educators leave for personal reasons (Berry, Petrin, Gravelle, & Farmer, 2012; Goldring, Taie, & Riddles, 2014). Similar themes were echoed in the 2013 Teacher Follow Up Survey, results of which describe as many as 55% of departing educators leave for reasons related to job satisfaction (Goldring, Taie, & Riddles, 2014). These national indicators are a cause for alarm for the future of special education and are much like the 31% of participants in my study who indicated that they were undecided about their plans to remain in special education.

Not all indicators were negative, however. On a more positive note, only 3% of all survey participants indicated disappointment about taking their jobs and 58% of participants rated that they were satisfied or very satisfied with their current positions. In regards to longevity, 35% of participants expressed being committed to their current work until retirement.

The strategies that participants reported would promote retention included improving school working conditions, formalizing retention as a focused district goal, and providing meaningful teacher evaluation feedback. In their open-ended comments, the participants listed higher salaries in 34% of responses and lower caseload numbers in

16% of responses. A thread across several comments indicated the need for special educators to have a different pay scale than their peers, based on the time and amount of paperwork that is put into case management. One comment was that, "Special education teachers have a lot more demands placed on them (than) regular education teachers. Yet, we don't get planning time, more money, or more supplies." A 2017 analysis conducted by the National Council on Teacher Quality reported that 57% of surveyed districts offered differentiated compensation for hard-to-staff positions, like special education, most often in the form of stipends or step adjustments (Nittler, 2017).

Not one of the areas examined--induction programming, mentors, and administrator/staff support--received exceptional ratings by survey participants. According to their self-reports, participants' comments in each category indicated that some components were not an active part of their experiences.

It is time for state policy to be re-examined. Early career special educators are often not afforded the same supports as their general education peers as they enter the profession (Wasburn-Moses, 2010). Overall, they perceive the supports that have been available as mediocre at best.

Conclusions

Increased Preparedness

Given the gaps of knowledge that exists for early career special educators, what solutions will ensure that these teachers have the background they need when entering their first positions? The self-identified areas: supervision of paraprofessionals, managing student behavior, and skill development around student mental health, case management, and knowledge about inclusion practices, are major components in the role of today's special educator. As we consider how to address these needs, we cannot rely

solely on pre-service programming, as data collected here demonstrates that over 50% of new special educators in Maine are not coming from traditional education programs, but from alternate pathways. This percentage is much higher than the overall 20% of new teachers coming from alternate pathways nationally (U.S. Department of Education, 2013). State and district policies and programs are needed to guarantee access to these skills.

Increased Consistency with Induction

Induction Activities. Currently, there is a wide variability of induction programming in place for Maine's early career special education teachers, as well as variability in the effectiveness of said supports. This research study highlights the need for more consistent induction supports across settings. It is of grave concern that our newest educators may not receive the opportunity to have an orientation, get assistance with special education procedures, observe others, receive professional development, have a reduced teaching load, or even the benefit from ongoing general check in meetings. My survey data revealed that each of these elements was missing for at least some of the participants.

Mentors. Just about one in five participants (18%) in this research reported not being assigned a mentor, although Chapter 180 dictates this legal requirement for all newly certified educators in the state. This does not speak well of wanting to help our newest hires build any capacity for the present time or into the future.

Regrettably, the narrative is not much different nationally. In one seminal study examining written policy versus real-time practices, 86% of general education teachers stated they received a mentor, as compared to 64% of special educators who received

mentors (Wasburn-Moses, 2010). Attention must be given to this long-standing problem of practice.

Accountability. Maine's current or former induction policies have no checks and balances or critical accountability measures in place, much like the "lack of rigorous evaluation" in national induction policies (Smith, 2007). In fact, I found that current Maine Department of Education policy, nested within Chapter 180 for Performance Evaluation and Professional Growth Systems, does not provide any assurance of programming in the way it is written. Although districts are required to provide mentors, decisions about the skills and attributes of those mentors, or the on-boarding that will assist them in providing similar supports for one another, is no longer in existence. Previous research echoes this, citing that about 4 of every 10 of mentors do not receive any training prior to or while mentoring new educators (Wasburn-Moses, 2010; DeCesare, Workman, & McClelland, 2016). The barriers most commonly cited included lack of funding for mentor training and lack of time for such training to occur. We cannot afford to leave it up to chance that our early career educators will receive needed supports. An increased commitment to providing strong induction programming and monitoring to assure that it is working is necessary.

Increased Supporter Effectiveness

All three supporter groups: mentors, administrators and other school peers were perceived as providing mediocre supports across all rated components in this survey. Policy-makers cannot afford to settle for supports being "somewhat effective" or good enough. The supports that I assessed are representative of model attributes previously identified as contributing to growth for early career educators (Goldrick, 2016).

The data on effective supporter groups for early career teachers tell us much about the training and time mentors and administrators need to develop effective skills. We need policies that ensure key supports for special educators happen more consistently across all schools, perhaps by drawing on the models used in districts which have made induction a greater priority or whose systems are more developed than others. A key piece in ensuring that this takes place is to provide increased professional development for both mentors and administrators.

Increased Commitment to Ongoing Support

If they were able to secure a higher paying job, 20% of participants in this study indicated that they would leave their positions right away. Similarly, 25% stated that they often think about leaving their present positions. These statistics are similar to the 31% of participants who reported feeling undecided about their plans to remain in special education. Results from the 2013 Teacher Follow Up Survey describe that as many as 55% of departing educators leave for reasons related to job satisfaction (Goldring, Taie, & Riddles, 2014). Additionally, schools have generally assumed that teachers would continue to come to the profession and remain for their entire career, as has happened with previous generations. That assumption has not come to fruition (Auguste, Kihn, & Miller, 2010).

We should not overlook the fact that attrition may be an issue across multiple career pathways, not just education. According to a longitudinal study conducted by the United States Department of Labor (2017), people are not staying committed to a single job in the way they have in earlier times. For example, of people born between 1957 and 1964, the average male college graduate has held 9 different jobs and the average female held 9.2 jobs between the ages of 25 and 50.

Given these realities, it would be wise to closely examine model induction programs which have been successful in achieving results (Kamman & Long, 2010). Another consideration is to build in support structures and feedback loops across different phases of special educators' careers, not just during the induction phase, to increase persistence rates.

Increased Attention to Job Complexity

In the open-ended response section of this survey, special educators reported on the amount of time related to their jobs that they spent outside of the workday -- 42 times within 101 responses. This direct feedback cannot be overlooked. Today, more than ever, special educators experience great complexities in their roles. Yes, they provide direct instruction to the neediest students, but they also spend an inordinate amount of time completing legal paperwork, meeting with parents and other providers, and gathering curriculum resources, quite often for the paraprofessionals that they supervise to use with students. Adding to this stress, just about two-thirds of them do it with no planning time within the school day.

This is not just a Maine problem. Special educators across the nation who stated they were considering leaving teaching as soon as it became possible more often rated their workload as "not at all manageable" as compared to their peers (Carlson & Billingsley, 2001). There is a wide difference in what pre-service special education teachers believe they will be doing and how their efforts will be focused before they get their first jobs, compared to the reality of what actually happens once they are hired as special educators with the complex roles and expectations as described above (Wasburn-Moses, 2009).

There needs to be a release valve for special educators. No one change might be the magic bullet. Instead, policy-makers should consider a variety of modifications to the current system, including guaranteed planning time, financial acknowledgment for time worked beyond the school day, or novel approaches to case management, for example.

Implications

Changes to Formal Induction Policy

Results presented here clearly demonstrate that early career special educators within our state experience a number of challenges, some for which they report support, others for which they receive no assistance. In examination of Maine induction policy, Chapter 118 revealed no positive change in increasing retention rates for special educators during the 30 years it was in place. With the repeal of Chapter 118 and rewrite of Chapter 180, individual districts now have full autonomy to decide what supports, if any, they will provide beginning special educators. As such, the door of inequity and inconsistency is wide open. Supports provided to all early career teachers are subject to becoming more variable than ever, especially given that many individual districts grapple with other large school issues, have limited funds available, experience limited staff resources, or lack in teacher leadership to fill mentor roles.

Maine's current independent approach may run counter to what its early career special educators need, as research strongly suggests that high quality new teacher supports are essential. Carver-Thomas and Darling-Hammond (2017) note, "Districts should provide high-quality mentoring and induction to beginning teachers, and in particular, should consider how these supports can meet the needs of a diverse workforce. Induction programs that include being assigned a mentor, meeting frequently, and

focusing on high leverage activities [...] have been found to result in improved teacher retention" (p. 34).

One key recommendation is to establish explicit state induction policies for all educators, including policies that address the specific needs of special educators. I advocate for a framework and the funding of a system of regionalized wraparound alliances to be created for early career special education teachers during their first two years of employment. This would work to address concerns regarding special education teacher retention by providing ongoing special educator-specific research-based supports and professional development, two vital components in growing and retaining strong teachers. This policy would provide for full-time regional facilitator coaches, replacing the long-standing model in Maine of using full-time teachers who struggle to juggle mentorship roles with their own full-time roles as teachers to find time to offer mentor support. Prior research has demonstrated much higher success rates when "mentors" are full-time, dedicated staff who can focus on their primary work as instructional coaches (Rockoff, 2008, Picus, Odden, Goetz, Aportela, & Griffith, 2013). These coaches would partner with administrators and school staff in their work with early career special educators onsite, as well as organize and provide regional opportunities for special educator specific professional development offsite. Funding for this policy could fall within the context of the state's current regionalization initiative as specified in Title 20-A, Part 2: School Organization, Chapter 123: School Management and Leadership Centers.

Responding to Time Concerns

Another critical recommendation is to address special educators' concerns about the inordinate amount of time they spend trying to meet the varied demands currently

nested with the role of special educators. Two potential solutions include a salary increase or the lessening of job responsibilities for each special educator.

Salary Increase. Nationally, the role complexity and increased responsibility assumed by special educators is gaining attention, and teachers are being financially compensated. Most often this occurs through stipend agreements but sometimes is possible through explicit salary structures for special educators, as reported in the 2017 National Council on Teacher Quality analysis (Nittler, 2017).

Salary for special educators in Maine is not commensurate with the national average of special education teacher salaries. According the U.S. Bureau of Labor statistics, the median salary for special educators in the United States in May of 2017 was $61,960, with the lowest 10% of special educators making less than $38,000 per year and the highest 10% making over $93,000 per year (Summary, 2017). Comparatively, using data from the U.S. Bureau of Labor regarding Maine, consider the following about Maine elementary special education teachers: those in the 10th percentile in Bangor earn $34,380 and in the Greater Portland area earn $41,710, while those in the highest 10% in the Bangor area earn $68,620 and in the Portland area earn $77,100 (May 2017 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates, 2018). Not only does Maine offer much lower starting pay than other states, the average salary for teachers in one of the most populated areas of the state still brings in less than the median salary for the nation. This is problematic, since many early career educators leave their post-secondary experiences with student loans and face other financial challenges, such as living expenses, as they forge out into the world of work.

Reframing job responsibilities. Another approach to this dilemma includes reconfiguring the responsibilities of special educators. Some school districts have done

this by building in additional positions such as IEP coordinators, consulting teachers, and even secretarial support to assist teachers with the legal paperwork responsibilities that fall under the expectations of most special education teachers. Others have lowered caseload sizes, decreased face-to-face time with students, or built in more planning time within the school day to allow time for the completion of management responsibilities.

Ultimately, addressing the issue of time comes at a financial cost. The decision about which of the above alternatives offers the best, most sustainable solution for the long term should be examined through a cost-benefit analysis. By doing so, assurance can be provided in relation to the costs and consequences of either solution.

Financial Incentives

Maine ranks 15th in student debt nationally, with each graduate incurring an average $29,752 in student loan debt (Student Loan Debt by School by State 2017 Statistics, n.d.). Knowing this is of primary concern to young graduates, I propose that loan aid and forgiveness be increased and re-examined for new special educators, who are faced with considerable loans as they start their teaching careers. More often, they are required to take more courses than their general education peers, especially when becoming alternatively certified.

Currently, special education teachers can have up to $17,500 of the balance of their Stafford Loans forgiven by the Public Service Loan Forgiveness Program after making 120 payments, as described on the Department of Education's Federal Student Aid website. The most critical time for assistance with loans, however, is when new educators are just entering the field, when their salaries are the least, and when many face financial independence and responsibility for the first time. If the Public Service Loan Forgiveness Program was restructured to begin Stafford Loan forgiveness in year 1

instead of year 11, that would go far in supporting teachers. Additionally, if the state provided additional funding towards loan forgiveness for special educators, this might also increase the financial viability of entering the field. When students leave college, the expectation to pay loans begins as soon as their diplomas are awarded. Including these kinds of benefits may not only attract but retain qualified teachers in special education positions.

It is critical to consider recommendations that could finally make inroads towards the goal of better supporting special educators and increasing teacher retention now and into the future.

Future Research

This research study extended the current body of literature about early career special educators. More specifically, it was the first statewide research study that was germane to the experiences of early career Maine special educators with 3 to 10 years of experience. In thinking about extending this work, I suggest that the study be replicated in another five years, after the recent changes to Chapter 118 and 180 have been in place for more time, or once additional policy changes are made that offer more focused supports for this very deserving population of teachers, to determine if their perceptions improve over time.

Some participants in my study pointed out that the survey lacked focus on the role that special education directors had on early career special educators. Participants wanted to say more about their perceptions of these professionals. I believe that further study should examine potential links to the support provided by these individuals.

Teachers in this study consistently described the inordinate amount of time spent outside of the workday on paperwork and case management responsibilities. Future

research could identify those districts that have chosen to address these concerns themselves, either by lowering caseload sizes or by providing consulting teachers, IEP coordinators, or clerical support to assist with these responsibilities. It would be prudent to discover if any of these kinds of changes have resulted in increased retention rates or job satisfaction for special educators at these sites. Such case studies could further assist major decision-makers and provide them with evidence from which to suggest larger policy changes.

Summary

The intent of my research study was to identify factors related to early career special educators' ability to meet the demands of their roles and to further the conversation throughout the state of Maine about the challenges faced by early career special education teachers. I documented the variable experiences of the early career special educators who participated in this research. The data and accompanying discussion offer telling insights about the inconsistency of supports and the gaps that exist in school districts across the state of Maine.

Findings indicate that: (a) the majority of early career special educators report a gap in key knowledge areas upon hire; (b) most participants perceived the induction components and activities that were provided for them as no more than somewhat effective, across all surveyed elements; (c) half of the participants did not have the benefit of a special education mentor; (d) support provided by mentors, administrators, and other staff were perceived as no more than somewhat effective; (e) more support was perceived in the form of emotional support as compared to support for instruction, curriculum, or assessment; (f) mentor and administrator support, as experienced in their forms at the time of the study, were not found to affect teachers' intent to remain in

special education; (g) early career special educators spend inordinate amounts of time beyond their workday in their attempts to meet the demands of their increasingly complex roles; and (h) nearly one third of early career special education teachers are undecided about their long-term commitment to the field.

This work furthers the knowledge base regarding induction for early career special educators in Maine. These results will inform key stakeholders: Department of Education staff, state legislators, district leaders, and university education departments. It is hoped that the voices of the teachers themselves will guide these stakeholders' decisions as they thoughtfully consider how to better support early career special educators in the future.

The implications of this research are significant and are worth careful examination among all identified stakeholders. Of greatest concern is the lack of consistency of supports that are available and effective. Given the striking shortage of special educators state-wide, attention should be given to re-thinking the five w's of support as they relate to induction: who, what, when, where, and why.

Although mandates are not popular in our locally-controlled state, we all agree that Maine schools have an ever-present shortage of special education teachers. This problem crosses all demographics and regions; it is not limited to poor, small, rural districts. More than ever before, a closer examination of state policy, based on research about what really works and what is currently taking place, is warranted. A re-write of Maine's induction policy is not only recommended, but sorely needed.

APPENDIX

Survey

An Examination of Supports for Novice Special Educators in Maine

1. Welcome to My Survey

Dear Maine Special Educator,

As a current doctoral candidate whose research is focused on addressing the special education teacher shortage that exists in the state of Maine, I am asking for your assistance. As a current special educator, you understand the the crisis we are all being faced with in regards to attracting and retaining quality special education teachers to assist our most struggling learners. The purpose of my study is to discover what factors have had the greatest influence on novice special educators' decisions to remain in special education teaching positions beyond their probationary years. Information derived from the present study will assist in informing policy makers as they seek to revise induction policies for all teachers, but especially in consideration of the merits of having special-education specific policy to assist in addressing the growing critical shortages.

The scope of my work is two-fold: to gather a wide range of survey responses from special education teachers from across the state of Maine, and to then select a small group of teachers for more in-depth interviews. All information gleaned from my research will be shared with participating districts upon completion.

Your role at this time is to kindly endorse my work by taking approximately 15 minutes to complete my survey, the link to which is below. All results will be anonymous, unless a respondent chooses to share their information for the interviewing stage of my research. My dissertation proposal, including methodology, has been approved by the University of Southern Maine Institutional Review Board. Please reach out to me with any questions or comments, diane.r.nadeau@maine.edu or (207) 730-1060.

I understand that as a special educator, your time is limited. However, I am conducting this research with the aim of improving supports for teachers like yourself who work incredibly hard in students' best interests every day. Your time is greatly appreciated.

Respectfully,

Diane Nadeau

An Examination of Supports for Novice Special Educators in Maine

1. Demographics

1. What is your gender?

Male

Female

Unspecified

2. How many years have you been a special educator?

3. How many schools have you worked in as a special educator?

4. How would you best describe the SES of your school?

Predominantly economically disadvantaged

Predominantly middle class

Predominantly upper class

A blend of the above

5. How would you best describe the location of your school?

Urban

Suburban

Rural

6. How would you best describe the size of your school?

Small - less than 250 students

Average - between 250 to 500 students

Large - more than 500 students

An Examination of Supports for Novice Special Educators in Maine

2. Educational Preparation/Historical Information

7. What best describes your pathway to Special Education/Certification?

Through an undergraduate education program

Through a graduate education program

Through an alternative certification program through a college/university

Through an alternative certification program through a school district

Through meeting course requirements that the state DOE said I needed

Through an other alternative certification program (e.g. Teach for America, Troops for Teachers)

I'm unsure

8. As you consider your path to becoming a teacher, to what extent was this true for you?

	not at all	hardly at all	somewhat	quite a bit	a great deal
I had an extensive amount of coursework to support my start in education					
My coursework was based in education pedagogy					
My courses focused on content					
I had sufficient field experiences in the classroom prior to my first real teaching position					
I felt confident in the instruction I had in planning for lessons and units					
I learned effective classroom management skills					

9. What kind of certification did you have for your first teaching position **In** Special Education?

I had a provisional certificate in Special Education

I had a conditional certificate in Special Education

I had a targeted needs certificate in Special Education

I did not have any certificate

10. Please indicate the grade levels of your special education teaching positions during your first 2 years. Check all that apply.

- [ ] K
- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5
- [ ] 6
- [ ] 7
- [ ] 8
- [ ] 9
- [ ] 10
- [ ] 11
- [ ] 12

11. In what setting(s) did your teach within special education during your first 2 years? Select all that apply.

- [ ] self contained classroom
- [ ] resource program setting
- [ ] co-teaching model
- [ ] Other (please specify)

12. Please enter the number of different subject preparations that you had for your teaching load (for example, if you taught biology, algebra, and reading, and had a planning time for each every day, that would be three preparations).

    1 preparation per day

    2 preparations per day

    More than 2 preparations per day

    I generally was not given any preparation periods.

13. Please enter the number of different classrooms in which you taught during a typical day.

    1

    2

    3

    I taught in more than 3 different classrooms

14. Did your teaching assignment during your first 2 years require you to be in more than one school?

    Yes

    No

15. Please indicate all of the identified disability areas of students you worked with in your first 2 years in Special Education.

- [ ] Autism
- [ ] Blindness
- [ ] Deafness
- [ ] Emotional Disturbance
- [ ] Hearing Impairment
- [ ] Intellectual Disability
- [ ] Multiple Disabilities
- [ ] Orthopedic Impairment
- [ ] Other Health Impaired
- [ ] Specific Learning Disability
- [ ] Speech or Language Impairment
- [ ] Traumatic Brain Injury
- [ ] Visual Impairment

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3. Formal Induction Supports/Mentoring

16. From each drop-down menu below, please indicate the frequency and extent of effectiveness of the following activities and assistance that you may have received as part of your induction program. Choose "not available" if the type of assistance was not part of your induction program. You do not need to mark the effectiveness if the activity wasn't available to you.

	Frequency of activity	extent of effectiveness of activity
district / school orientation		
Information about assessment and referral process/IEP paperwork		
Opportunity to observe other staff		
Opportunity to observe your mentor		
Reduced teaching load as a beginning teacher		
Professional development activities		
Meetings for beginning teachers		

17. Induction programs in different districts include various topics that may be presented through meetings with a mentor professional development, or other components. Please rate the extent of each item's effectiveness for increasing your skills and knowledge as it was presented in your program. Mark "not included" if the item was not a part of your induction program.

	not included	not at all effective	hardly at all	somewhat	quite a bit	a great deal
Special education procedures for my school/district	)		(		)	(
Behavior management						
Conducting parent-family conferences	)	)			)	
Working with paraprofessionals						
Time management strategies	)	)			)	
Development and implementation of IEPs			)			
Curriculum and lesson planning	)				)	
Using assistive technology with students with disabilities						
Using formal and informal assessments	)	)	(		)	(

18. Did you have a mentor during your first year of teaching?
(if no, skip this section and go to #23)

Yes

No

19. How often did your mentor communicate with you on the following **topics?**

	not at all	hardly at all	somewhat	quite a bit	a great deal
Developing lesson plans					
Being observed teaching by my resource teacher/mentor					
Observing my resource teacher's/mentor's teaching					
Analyzing student work					
Reviewing results of students' assessments					
Addressing student or classroom behavioral issues					
Reflecting on and discussing the effectiveness of my teaching					
Aligning my lesson planning with the state curriculum and local curriculum					

20. What format did you use most often to communicate with your mentor?

face-to-face conversation

email

telephone conversation

a combination of of the above listed modes

other (please specify)

21. Was your mentor...

	Yes	No
A special educator		
In your building		
Someone who had common planning time with you		
Someone who taught similar content areas		
Readily available when you needed him/her?		
Someone who treated you as a professional		
Someone who encouraged reflective practice		
Someone who recognized your accomplishments and growth		
Someone who encouraged you to balance work and home life		

22. To what extent was your mentor effective in:

	not at all	hardly at all	somewhat	quite a bit	a great deal	n/a- I did not receive support from my mentor in this area
Supporting you with general education curriculum						
Helping you in collaborating with general education teachers						
Overseeing lesson plan development						
Helping you to write IEPs						
Providing emotional support/encouragement						
Observing your teaching and providing feedback						
Problem solving student behaviors						
Giving tips on communicating with parents						

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4. Administrative and Collegial Support

For the purposes of the survey, "administrator" can be defined as building administrator, special education director, or consulting teacher/IEP coordinator

23. To what extent was an administrator effective in...

	not at all	hardly at all	somewhat	quite a bit	a great deal
Supporting you with student behaviors					
Providing instructional leadership					
Discussing instructional practices on a regular basis					
Working with your team to problem solve					
Knowledge of special education practices					
Providing overall strong leadership					
Providing opp for PD					
Making expectations clear					
Providing constructive feedback on your performance					
Fostering school environment that promotes success of all students					

24. Was this true for you?

	Yes	No
Reduced caseload as a beginning special education teacher		
Similar # of planning periods as general education teachers		
Adequate instructional resources		
Treated as a professional by administration		
Treated as a professional by other colleagues		

25. Please identify school personnel who helped you with each of the following in your two years of teaching. Check all that apply in each row.

	mentor	administrator	other special educator	general education teacher	other school personnel	no help given	no help needed
Orienting you to the school	☐	☐	☒	☐	☐	☐	☒
Providing social support and encouragement	☐	☐	☐	☒	☐	☐	☐
Obtaining classroom materials	☐	☐	☐	☐	☐	☐	☐
Improving classroom management skills	☐	☐	☐	☐	☐	☐	☐
Preparing lesson plans	☐	☐	☐	☐	☐	☐	☐
Completing school & district paperwork	☐	☐	☐	☐	☐	☐	☐
Writing IEPs	☐	☐	☐	☐	☐	☐	☐
Planning and conducting parent conferences	☐	☐	☐	☐	☐	☐	☐
Collaborating with general education teachers	☐	☐	☐	☐	☐	☐	☐
Providing assistance with general education curriculum	☐	☐	☐	☐	☐	☐	☐
Working with paraprofessionals	☐	☐	☐	☐	☐	☐	☐

26. Please mark yes or no to the following statements that describe additional support you may have received from colleagues OTHER THAN YOUR MENTOR. If your answer is yes, please rate the effectiveness of the support. Did other educators...

	yes or no	To what extent it was effective
provide assistance with curriculum ?		
make you feel like a valued member of the school community?		
help you problem solve stressors you encountered?		
offer teaching strategies or resources that you could use in your classroom?		

27. Other impressions about support you received from colleagues...

	strongly disagree	disagree	unsure	agree	strongly agree
Overall, the additional support I received as a new teacher improved my instructional practice.	☐	☐	☐	☐	☐
Overall, the additional support I received as a new teacher helped me to impact my students' learning.	☐	☐	☐	☐	☐
Overall, the additional support I received as a new teacher was important in my decision to continue teaching at this school.	☐	☐	☐	☐	☐

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5. External Factors

28. To what extent are the following statements true for you?

	not at all	hardly at all	somewhat	quite a bit	a great deal
I feel very satisfied with my present job.					
I am satisfied with my job for the time being.					
I often have thoughts about transferring to another school.					
If I could get a higher paying job I'd leave teaching as soon as possible.					
I am disappointed that I ever took this job.					
I would consider leaving my job for the birth of a child or to address childcare needs.					
Moving far away might affect my decision to stay in special education.					
Other personal life changes could impact my decision to continue as a special education teacher.					

29. How long do you plan to remain in special education?

Plan to leave as soon as possible   Plan to stay longer than 15 years

Plan to leave in the next year or two   Plan to stay until retirement

Plan to stay 5 years   Undecided at this time

Plan to stay 10 years

30. In an effort to impact future policy and support for novice special educators in the future, the researcher is interested in talking to individuals about their specific lived experiences. All information collected will remain confidential and any identifying information will be redacted. Please leave your contact email, and the researcher will contact you if you are chosen from the sample.

Name

City/Town

Email Address

Phone Number

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BIOGRAPHY OF THE AUTHOR

Diane R. Nadeau was born in Portland, Maine, in 1970, and grew up in nearby Biddeford, graduating from Biddeford High School. In 1992, she earned her undergraduate degree in Elementary Education from the University of Southern Maine. Diane went on to complete her master's degree in Literacy Education in 2003 from the University of Southern Maine. By 2009, she graduated a third time from the University of Southern Maine, having earned a Certificate of Advanced Study degree in Educational Leadership.

Diane has served in a number of roles during her educational career. Beginning in Old Orchard Beach in 1992, Diane served first as a fourth-grade teacher, later as a literacy specialist, and finally as Assistant Principal. In 2006, she began working in the Bonny Eagle School District, wherein she obtained her first principal position, overseeing both Hollis Elementary School and the Eliza Libby School. During the eleven years she worked at Bonny Eagle, she went on to serve as principal of Buxton Center Elementary School and later of Bonny Eagle Middle School. In 2017, Diane transitioned to the Scarborough Schools to work as principal of Scarborough Middle School. She is a candidate to receive a Doctor of Philosophy degree from the University of Southern Maine in May, 2019.