



Smart Solutions to Minnesota's Teacher Shortage: Developing and Sustaining a Diverse and Valued Educator Workforce

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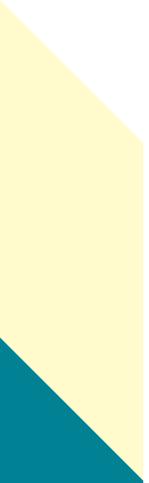
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I. What is EPIC?

The Educator Policy Innovation Center, or EPIC, was founded by Education Minnesota to bring together groups of experienced educators to provide research-proven solutions to the challenges facing Minnesota schools. Each EPIC advisory group performs a comprehensive review of academic literature on a given issue and adds to our understanding by sharing classroom experiences. After discussing the academic literature and its real-world implications for students, the educators recommend policies to meet the challenges. The coupling of sound academic research with actual classroom experience means EPIC's policy recommendations are uniquely valuable because they combine the best from academia and practical experience.

The EPIC research advisory committees are open to all members of Education Minnesota. Practicing educators are the experts when it comes to education policy, but the voice of the educator has often been absent in education policy discussions. Academics, politicians, and CEOs proclaim what is best for education, often with no grounding or experience in how their proposals affect real classrooms with actual students. As a result, our schools are hampered by disjointed, inefficient and at times harmful state and federal policies.

Educators see every day how these policies affect Minnesota's children. EPIC ensures policymakers will now have access simultaneously to the best academic research as well as to the thinking of front-line educators on the most pressing issues in education.



II. The EPIC Recruitment and Retention Advisory Committee Members

Ryan Fiereck is a K-5 computer technology teacher from the St. Francis School District. He teaches at Cedar Creek and East Bethel Community Schools. Ryan has a M.Ed. in teaching and learning from St. Mary's University. He earned his undergraduate degree in business education from Winona State University. Ryan has worked with young educators through Education Minnesota's Next Gen. He serves on the Education Minnesota Governing Board and is vice president of local 1977. Fiereck has worked in elementary and secondary schools. He is inspired by the opportunity to work with his colleagues tackling student issues.



Esther Hammerschmidt was born in Colombia, South America, and she moved to Minnesota 17 years ago. She has been teaching Spanish at Redwood Valley High School for the last eight years. Hammerschmidt is pursuing a master's degree in education at Southwest Minnesota State University in Marshall. She is also a co-advisor for the Redwood Valley High School junior class. Hammerschmidt is involved in many local and regional activities including helping the Hispanic community, serving as secretary for the Friends of the Library club, and teaching religion classes at her church. She also tutors future educators in preparation for their Spanish licensure examinations.



Maria Le is a first-grade teacher in the Roseville Area School District. She also supervises the targeted services programs for her school. She is a proud alumni of the University of Minnesota, from which she holds a B.A. in child psychology, a B.S. in foundations of elementary education, and an M.Ed. in elementary education. Le is a leader of several site and district committees, and in that capacity has trained her colleagues on culturally responsive and competent teaching practices and reading language arts practices. She is an advocate for students of color and promotes an equitable education for all who come into her classroom.



Nan Lu is originally from China and has been living in the United States for more than 25 years. She holds a B.A. from Shenyang Normal University in China and a M.A. from Winona State University. She has taught English as a second language and English language learners for more than 20 years. She currently works for Bloomington Public Schools as an ESL/EL teacher. Lu enjoys working with students who come from diverse cultural and educational backgrounds. She regards Minnesota as her second home and is very proud to be a Minnesota educator.



Claire Traynor is a K-5 general music teacher in the Mankato School District. She graduated from Wartburg College in 2012 with a bachelor of music education and a bachelor of music therapy. Traynor is licensed to teach K-12 vocal, instrumental, and general music and also holds her National Board Certification in music therapy. Prior to her teaching assignment in Mankato, she was a music therapy intern at Unity Sunshine Program in Troy, New York, and she taught K-2 general music and high school choir in Amery, Wisconsin. In her free time, Traynor enjoys baking (and tasting!) desserts of all kinds and rooting for her home-state football team, the Green Bay Packers.



Verna Wong is a teacher of English learners at Champlin Park High School in Champlin, Minnesota. She is completing her master of arts in literacy education at Hamline University and researching retention of teachers of color. Her research has guided her organizing efforts in forming the Anoka Hennepin Teachers of Color Coalition. This coalition of educators is dedicated to their own personal and collective empowerment within their school communities through advocacy, mentorship, and partnership. Outside of teaching, she spends time with her three kids and running a little bookstore with her husband in Minneapolis.



III. Executive Summary

Minnesota has a teacher shortage. Since the 1980s, districts around the state have expressed growing concerns about finding and keeping licensed teachers. Shortages are most acute in specific fields and in specific geographic parts of the state. In addition, Minnesota has a severe shortage of teachers of color.

The Minnesota Department of Education's *Teacher Supply and Demand* report offers a helpful overview of Minnesota's teacher workforce. During the 2013-2014 school year, there were 58,211 teachers employed in Minnesota's public schools, including those run through school districts and charter schools. But because of the shortage of teachers, districts and charter schools hired 3,504 teachers who "lacked the necessary licenses for the subjects and the grade levels taught" (Minnesota Department of Education, *Teacher Supply*, 2015).

The teacher shortage is also more critical in specific subcategories of educators. Substitute teachers are in short supply, and this problem has nearly doubled in size and severity in the past three years. Also, districts report increasing levels of difficulty hiring special education teachers and educators with specialties in math and science. Increasingly, public schools are reporting that certain positions will simply not be filled, which leads to administrators seeking variances and hiring greater numbers of unqualified people to teach.

In addition to a shortage of teachers in specialty and geographic areas, the gap between the number of teachers of color and the number of students of color is both severe and highly detrimental. The student population in Minnesota is becoming more racially diverse, as the numbers of Caucasianⁱ students has dropped by one full percentage point each year over the past five years (Minnesota Department of Education, *Teacher Supply*, 2015). In 2014, 29% of Minnesota's schoolchildren were Native American, Asian or Pacific Islander, African American, or Hispanicⁱⁱ. In contrast, roughly 3% of Minnesota's teachers were people of color (Minnesota Department of Education, *Teacher Supply*, 2015).ⁱⁱⁱ

Researchers have focused attention on potential solutions to the teacher shortage since the 1980s, when trends showing baby boomer retirements began colliding with trends showing increasing student enrollment. Earlier research focused heavily on recruitment. The question foremost in the minds of most stakeholders was how to convince more people to choose teaching as a profession. These efforts at increasing recruitment, while laudable, have not resolved the teacher shortage. More recently, researchers have noted spikes in the numbers of teachers who leave the profession in their first few years on the job and especially acute attrition rates among already vastly underrepresented teachers of color.

High attrition rates in the teaching profession led to a significant shift in research and, indeed, in policy. By the mid-2000s, many policy scholars and policymakers were coming to see that the singular focus on recruitment strategies of the previous two decades had in some cases made the problem of attrition even worse. Because of this, the focus of much of the research on the topic has made a dramatic pivot from recruitment alone to both recruitment and retention. Some of the most central voices in the body of research surrounding the problem

assert that retention is by far the greater and more important challenge.

After thoroughly reviewing academic literature, the EPIC advisory committee recommends a comprehensive approach to recruiting and retaining the highest quality teaching force for Minnesota classrooms. This state's students deserve no less.

To recruit the most diverse, talented teaching force, Minnesota should:

- build early pathway programs in high schools to promote teaching as a profession. In addition, Minnesota must implement pipeline programs specifically designed to attract high school students of color to careers in education.
- provide the resources needed for school districts and teacher training institutes to collaboratively create new training programs that recruit talented future educators. In addition, Minnesota's teacher training programs need to implement new policies specifically designed to recruit and support future teachers of color.
- transform the teacher licensure process and modernize the employment application process. In addition, Minnesota must eliminate barriers that prevent highly qualified teachers of color from being placed in Minnesota schools.
- provide stronger financial support to attract highly qualified teachers. In addition, Minnesota should provide financial incentives to educators willing to work in schools that serve diverse populations.

But recruitment alone is not enough, especially because efforts focused solely on teacher recruitment can have long-lasting unintended consequences that harm children. Minnesota needs to retain high-quality educators. To do this, the state must:

- provide the resources to allow educators and administrators to build collaborative working environments.
- increase support for teacher agency, which means granting autonomy to teachers as they respond to student needs and involving teachers in the school-wide decision-making process.
- provide a stronger menu of financial benefits for all educators.
- invest in quality professional development for all educators.
- invest boldly in new strategies that help retain teachers of color, including creating avenues for teacher autonomy, diversifying curriculum, reducing financial barriers, and providing meaningful, ongoing professional development and induction.
- decrease the professional demands and work stressors placed on special educators.
- give more attention to the mental health and well-being of all educators. Minnesota must especially support the well-being of educators working in high-needs schools.

High-quality teachers are the backbone of a school community. If Minnesota is serious about improving educational outcomes, then policymakers must get serious about recruiting and retaining talented individuals to the teaching profession.

IV. What Does Minnesota's Teacher Shortage Look Like?

Minnesota's teacher shortage has been growing for decades. In some geographic, curricular or demographic areas, this shortage has become a crisis. In classrooms throughout the state, there are individuals at the helm who have no background or preparation. While the teacher shortage has a negative impact on all classrooms, Minnesota's children and classrooms with the greatest needs are disproportionately disadvantaged by it. As a result, one method to tackle the achievement gap is to stabilize classrooms populated by students in those gaps with high-quality teachers.

SHORTAGE FIELDS

The specific fields in which there are shortages in Minnesota are not unique to this state. Special education, math, and sciences top shortage lists nationwide. The top 10 most difficult or impossible to fill licensure areas in Minnesota are listed in the table below.

TABLE 1: DIFFICULT TO FILL LICENSURE AREAS FOR MINNESOTA SCHOOL DISTRICTS

Field by ranking of difficult to fill	Percentage of districts that report positions are impossible or very difficult to fill
1. Emotional and behavioral disorders	44%
2. Autism spectrum disorders	33%
3. Developmental disabilities	32%
4. Specific learning disabilities	31%
5. Speech language pathologist	30%
6. Special Education Early Childhood	23%
7. Chemistry	23%
8. School psychologist	23%
9. Mathematics	22%
10. Physics	21%

(Minnesota Department of Education, Teacher Supply, 2015).

In addition to the difficulties hiring licensed teachers into certain positions, there are increasingly dramatic shortages of both short-term and long-term substitute teachers. In 2012, 22% of districts reported that it was “very difficult” to find short-term substitutes, and 24% reported that it was “very difficult” to find long-term substitutes. Just two years later, 47% of districts reported that it was “very difficult” to find short-term substitutes, and 49% reported that it was “very difficult” to find long-term substitutes (Minnesota Department of Education, *Teacher Supply*, 2015).

It is hard for districts in all geographic regions to hire in the field of emotional behavioral disorders. The ranking of other licensure fields by “difficulty to hire” or by “licensure variances sought” varies when the data is organized by city, suburb, town, and rural area. In rural areas, for example, early childhood education positions are the second most difficult positions to fill, after emotional behavioral disorder positions. In suburban areas, autism spectrum disorder positions are the second most difficult to fill (Minnesota Department of Education, *Teacher Supply*, 2015).

In addition, districts in certain geographic areas of the state find it much harder than others to hire licensed teachers. *The Supply and Demand Report* illuminates this problem in stark terms, as it shows us the percentage of districts in each region of the state that indicated that they were unable to fill vacant positions. Districts in the Southwest Central region of the state, the region including Kandiyohi, McLeod, Meeker, and Renville counties, reported being unable to fill positions with licensed teachers more than half of the time for many special education positions, and up to 64% of the time for speech language pathologist positions (Minnesota Department of Education, *Teacher Supply*, 2015).

SHORTAGE OF TEACHERS OF COLOR

The gap between the number of students of color and the number of teachers of color in this state is particularly dramatic. In 1995, 18% of Minnesota public school students were students of color. That percentage has increased steadily over the past 20 years. As of 2014, 29% of the student body in Minnesota’s public schools was made up of Native American, Asian or Pacific Islander, African American, and Hispanic students. By contrast, of the roughly 58,000 teachers employed by public schools in Minnesota in 2014, only 2,211, roughly 3%, were Native American, Asian or Pacific Islander, African American, or Hispanic (Minnesota Department of Education, *Teacher Supply*, 2015).

It is helpful to place Minnesota within a broader, national context. According to the National Center for Education Statistics, students who are culturally and linguistically diverse comprise 45% of the nation’s K-12 students, while 17% of the nation’s teaching force is made up of people of color (Neal, Sleeter, & Kumashiro, 2015). Minnesota’s student body is not as diverse as national averages, but the lack of diversity among the state’s teaching ranks is relatively much more severe.

Nationally, this gap between the percentage of students of color and the percentage of teachers of color has not always existed. Indeed, before *Brown v. The Board of Education*

of *Topeka, Kansas* decision desegregated America's schools, African American students were taught by and large by African American teachers. Teaching was a popular profession in African American communities, and by some estimates, teachers reflected roughly half of African American professional ranks. Though the schools and materials available were clearly inferior to those available in white schools, "teachers of color were able to establish meaningful relationships with their students and families outside of school" (Milner and Howard, 2004, p. 286). African American students "attended these dilapidated schools that were operated mostly by skilled, experienced, and dedicated educators of color who lived in the same communities as their students" (Neal et al., 2015, p. 3).

The years that followed *Brown v. Board of Education* ushered in massive layoffs and demotions for teachers of color. Milner and Howard (2004) explain "Approximately 38,000 African American teachers and administrators in 17 states lost their positions between 1954 and 1965" (Milner & Howard, 2004, p. 286). Sixty years after Brown attempted to integrate Black and White schools, the population that was supposed to benefit most from the ruling—namely, African Americans—is the group of students whose genius has been sparked the least in U.S. schools (Neal et al., 2015, p. 3).

Today, the skewed racial representation of teachers of color continues "and is replicated among Latinos/as, Native Americans, and Asian Americans, which clearly puts students of color at a disadvantage" (Neal et al., 2015, p. 3). Many scholars have pointed out the critical need not only to increase the cultural competence of the teaching force overall, but to increase its diversity as well if we are to seriously confront the achievement gap (Achinstein, Ogawa, Sexton, & Freitas, 2010; Ellis & Epstein, 2015; Ingersoll, 2001; Neal et al., 2015). There is a growing body of research focused on the harmful effects of a teaching force whose diversity does not even come close to matching the diversity of its student population.

Ingersoll and May (2011) outline three reasons often cited for why the mismatch between teachers of color and students of color is detrimental. These include: 1) Demographic parity. This argument holds that "minority teachers are important as role models for both minority and white students." 2) Cultural synchronicity. This argument "holds that minority students benefit from being taught by minority teachers because minority teachers are more likely to have 'insider knowledge' due to similar life experiences and cultural backgrounds." 3) Candidates of color. "This argument holds that candidates of color are more likely than non-minority candidates to seek employment in schools serving predominantly minority student populations, often in low-income, urban school districts," which are the schools that suffer disproportionately from teacher shortages (Ingersoll & May, 2011, p. 11). Achinstein, Ogawa, Sexton and Freitas (2010) cite the increasingly large body of research showing that teachers of color "can produce more favorable academic results on standardized test scores, attendance, retention, advanced-level course enrollment, and college-going rates for students of color than White colleagues" (Achinstein et al., 2010, p. 72). Many other scholars "contend that this demographic gap creates a teaching-learning disconnect that contributes to the too-often dismal academic performance, high dropout rates, and low graduation rates of diverse urban students" (Waddell & Ukpokodu, 2012, par. 8).

RETENTION IS BECOMING THE DOMINANT PROBLEM

Teacher retirements and lower numbers of candidates coming out of teacher preparation programs certainly impact the teacher shortage, but so does attrition, which is a greater problem in teaching than in other, comparable professions. In fact, the National Commission on Teaching and America's Future concluded that shortages in the teacher workforce were primarily caused by attrition (Achinstein et al., 2010). One of the most widely cited scholars on teacher attrition is Richard Ingersoll of the University of Pennsylvania. In his study, "Teacher Turnover and Teacher Shortages: An Organizational Analysis" (2001), he points out the problem of higher attrition rates in the teaching profession: "The Bureau of National Affairs has shown that nationwide levels of total employee departures have been quite stable [...] averaging 11% per year." He looks to the similar profession of nursing, "which, like teaching, is a predominantly female occupation that has experienced perennial workplace staffing problems," and finds an attrition rate of 12%. Ingersoll then compares these numbers to the attrition rates of teachers, where the percentages for the same years ranged between 13.2%-15% (Ingersoll, 2001).

The matter of high attrition rates is critical to any serious consideration of the teacher shortage. Failing to acknowledge this fact leads to policies that are focused wholly on recruitment, and those policies can create a revolving door of teachers in Minnesota's hardest-to-staff schools. While this is further explored later in this work, labor market approaches and the obsession with quick-fix recruitment are creating high turnover in the neediest classrooms. Teacher attrition rates are highest among young teachers and among teachers of color (Achinstein et al., 2010; Allensworth et al., 2009; Darling-Hammond & Sykes, 2003; Ingersoll & May, 2011; Ingersoll & Kralik, 2004; Ingersoll & Smith, 2003). Many scholars have reached the same conclusion. As Linda Darling-Hammond and Gary Sykes (2003) point out:

Retaining teachers is a far larger problem than training new ones—and a key to solving teacher 'shortages.' In the years ahead, the chief problem will not be producing more new teachers, as many seem to believe. The main problem is an exodus of new teachers from the profession, with more than 30% leaving within five years. (Darling-Hammond & Sykes, 2003)

Minnesota mirrors the national trend. The 2015 *Teacher Supply and Demand* report examines the numbers of new teachers in the 2008-2009, 2009-2010, 2010-2011, 2011-2012, and 2012-2013 cohorts who left their positions during their first five years: "On average, 16.4 percent were no longer teaching in Minnesota after their first year, 22.4 percent left teaching within two years of entering the profession, 26.8 percent left within three years, 30.2 percent left within four years, and 32.3 percent left within five years" of entering teaching (Minnesota Department of Education, *Teacher Supply*, 2015). Minnesota's teacher attrition rates negatively impact the state's students, classrooms, and schools in similar ways that attrition does nationally.

V. Recruiting Educators for Minnesota Schools

Minnesota must transform the process by which it recruits new educators. This is the first of many steps needed to address the teacher shortage in the state, and it will require a systematic approach that targets all levels of education. However, it is not enough to simply focus on recruitment. Putting new teachers into the system is important, but all recruitment efforts must be combined with aggressive measures that retain and support the educators already serving Minnesota students. Recruitment can mitigate the problem, but it can only do so in concert with effective retention strategies.

Teacher recruitment is primarily strained for two reasons. First, public perceptions of teaching as a career have been clouded by years of methodical attacks on the profession. This is partially due to stagnant wages and weakened benefits. The profession has also been devalued by media, special interest organizations, and political leaders. Higher salaries and better benefits would attract better teachers to Minnesota schools, but attention needs to be given to other disheartening factors. Most teachers enter the profession for altruistic reasons.

89% of the respondents reported being enthusiastic about their profession at the start of their career but only 15% sustained that enthusiasm as their career progressed.

Educators pursue this professional track because they hope to give back and make a difference. Nobody becomes a teacher because she hopes to be a millionaire. On the other hand, nobody remains a teacher when she feels bullied, mistreated, and disregarded, or when she is not given the autonomy she needs in order to best serve her students.

There is plenty of anecdotal evidence that supports the troubled reputation attached to teaching as a career. There are also ample resources that speak to the de-professionalization of education. However, one of the more illuminating pieces of evidence comes from a *Quality of Worklife Survey* conducted in 2015 by the American Federation of Teachers. In the study, 30,000 teachers responded to questions about the quality of their work environments. The results present a dismal set of facts that must be addressed by all states. For example, 89% of the respondents reported being enthusiastic about their profession at the start of their career but only 15% sustained that enthusiasm as their career progressed. Even more shocking is that 79% of public school teachers reported feeling some level of disrespect from elected officials, and 31% of the teachers feel the same level of disrespect from the communities in which they work. The report shows that a majority of teachers leave work “physically and emotionally” exhausted, and 18% of all the responding teachers had

experienced physical threats in the workplace in the past year. These numbers do not paint an attractive picture of this vital profession. These numbers do not attract new applicants. These trends must be altered if Minnesota hopes to improve its public schools.

Recruitment efforts have also been dampened by an over-reliance on labor market approaches to stopping the teacher shortage (Borman & Dowling, 2008; Ingersoll, 2001; Darling-Hammond & Sykes, 2003). Teach for America (TFA) is one of the most famous examples of this type of recruitment effort. TFA attempts to attract talented students from the country's top colleges and universities to work in classrooms. It aims to get people in the door, and in that respect, it can boast some success. But because TFA teachers leave the profession by the end of their fourth year at a rate of 81%, a rate that more than doubles that of traditionally-prepared teachers, it actually exacerbates the problem of teacher attrition. And many scholars have argued that because of this, programs like TFA do more harm than good (Baker-Doyle, 2010) causing problematic turnover in classrooms where stability is critically important to student success.

Other labor market approaches "have attempted to recruit new teachers from among early retirees, women who have raised children and who wish to enter or return to the work force, and others interested in midcareer job changes" (Borman & Dowling, 2008). States, nonprofits, colleges, universities and other agencies have created alternative licensure programs that allow candidates to get into classrooms via routes that are different from traditional teacher-preparation licensure paths. Some such programs have proven highly effective, and others have not. Programs that offer substantial shortcuts around fundamental components of teacher preparation, such as methodology, pedagogy, and student teaching might get more teachers in the doors of classrooms, but in too many cases, this is their only aim. While such programs do recruit new teachers, in some cases they may simultaneously do harm by filling classrooms with underprepared and unqualified teachers. Even more problematic is that most of these labor-market approaches are used to fill teaching positions at schools that serve the most high-needs, high-poverty kids (Darling-Hammond & Sykes, 2003). We support innovative, rigorous, and robust alternative licensure pathways like the Grow Your Programs that are outlined later in this paper.

The labor market strategies used to address the teacher shortage simply add new teachers each year without giving adequate attention to retention. In turn, this may lead to a widening of the achievement gap by failing to provide a stable workforce of teachers serving diverse populations. Labor market approaches cannot be the only methods Minnesota uses to recruit new educators. A much more thoughtful approach is needed.

Minnesota has the resources to recruit new teachers. To recruit the best possible teachers for Minnesota children, the state should:

- build early pathway programs in high schools to promote teaching as a profession. In addition, Minnesota must implement pipeline programs specifically designed to attract high school students of color to careers in education.
- provide the resources needed for school districts and teacher training institutes to collaboratively create new training programs that recruit talented future educators.

In addition, Minnesota's teacher training programs need to implement new policies specifically designed to recruit and support future teachers of color.

- transform the teacher licensure process and modernize the employment application process. In addition, Minnesota must eliminate barriers that prevent highly qualified teachers of color from being placed in Minnesota schools.
- provide stronger financial support to attract highly qualified teachers. In addition, Minnesota should provide financial incentives to educators willing to work in schools that serve diverse populations.

All of these research-supported proposals can help increase the number of high-quality individuals entering Minnesota classrooms.

USE PIPELINE PROGRAMS TO ENCOURAGE HIGH SCHOOL STUDENTS TO PURSUE TEACHING

One factor important in any discussion of the teaching shortage is the declining number of high school students who plan to pursue the profession. Since 2010, the number of high school students who indicate interest in becoming educators has dropped. In 2014, "only 5 percent of the U.S. high school graduates who took the ACT test said they intended to pursue a career as an educator, either as a teacher, counselor, or administrator. Both the percentage and the number have steadily dropped each year since 2010, when 7 percent of graduates planned on an education major" (Long, 2015, par. 4). Enrollment in Minnesota's teacher preparation programs has dropped significantly over the past decade, in some cases by as much as half (Minnesota Department of Education, *Teacher Supply*, 2015). The teacher shortage has roots that reach back beyond college and into the high school years.

Before discussing potential strategies for high school pipeline recruitment, it is important to offer a cautionary reminder. Young people who are choosing not to pursue teaching often cite low pay and a lack of respect as primary reasons for avoiding the teaching profession. One education major who watched many of her peers leave her teacher preparation program in order to pursue different professions explained it by noting, "one of the main reasons was that they were afraid the low-paying salary wouldn't cover the cost of their enormous student loans" (as cited in Long, 2015). In addition, she adds, "some people have told me they decided against education because there were fields where they could do what they love *and* be respected" (as cited in Long, 2015). We address these issues in the section focused on retention, but it is important to remember during any conversation about recruiting future teachers that until there are efforts to make the profession desirable, all policies aimed at addressing the teacher shortage will fall short. Nevertheless, there are strategies that can be effective in increasing the number of high school students who are willing to consider teaching as a profession.

Promoting teaching as a profession at the high school and even middle school levels is important, and Minnesota does too little of this. Steve Kappler of the ACT, who has spoken on the shrinking numbers of young people seriously considering teaching, asserts that "the earlier you get to them, the better" (as cited in Long, 2015, par. 11). We know that early

encouragement can have a powerful impact on students preparing for college. Like many teachers, Claire Traynor, a music teacher in the Mankato Public Schools, only considered the field of teaching after being motivated to do so in high school. She described her professional pathway this way:

When my high school choir director needed to be absent for a few days, she put me in charge of sectionals and helping direct the choir. My band teacher overheard me leading sectionals and pulled me aside and asked if I had ever considered teaching music. I definitely enjoyed it, but I had never really thought about it as a career until that point in time. He told me I had a natural ability to teach and I should seriously consider music education. That night, I went home and told my parents I was going to be a music teacher. I haven't looked back since. (personal communication, January 15, 2016)

Teachers often cite being inspired by a high school teacher as one of the primary reasons for initially pursuing the profession.

Teachers of color also list early coaching from a former educator as a reason for pursuing teaching as a career. In 2015, Education Minnesota surveyed our members of color on several topics related to the recruitment and retention of educators of color. We had 424 members respond to our *Teachers of Color Recruitment and Retention Survey*.^{iv} Of the members responding to specific questions about recruitment efforts, 58.9% said that having had a teacher tell them they should consider teaching was either an important or a very important factor in their decision to become educators (Education Minnesota, 2015).

One strategy for formalizing this level of early motivation is to offer college credit at the high school level for courses that introduce students to the profession. Such programs have proven effective in other states. For example, Virginia Teachers for Tomorrow offers introductory courses to high school juniors and seniors. In Minnesota, the institutions that make up the Minnesota State Colleges and Universities could offer introduction to teaching courses via concurrent enrollment partnerships, so that high school students can be exposed to an in-depth consideration of the profession before they even get to college.

Another strategy that has proven to be effective in encouraging young people to consider teaching is the development of high school clubs that allow interested students to learn more about the profession. St. Cloud State University's IGNITE Teacher Preparation Initiative includes efforts to partner with surrounding school districts to support Future Educator clubs. The program is currently grant-funded, but Minnesota should be investing in its future by supporting such programs statewide.

MAKE PIPELINE PROGRAMS ATTRACTIVE TO STUDENTS OF COLOR

There is more that must be done to attract students of color into the profession. Students of color are even less likely than white students to consider teaching as a profession, partly because they see so few role models of color in the teaching force, and partly because communities of color are much more likely to share a lack of trust in the education system.

Future educator clubs and introduction to teaching courses available in high school will also be beneficial for students of color considering teaching. Research shows that teachers often return home to begin their careers. With that understanding, future educator clubs are even more important in diverse, urban areas. The Chicago Teacher Education Pipeline is based on this premise. A partnership between Illinois State University and the Chicago Public Schools, this program identifies middle and high school students who are interested in teaching and nurtures that interest.

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There are a number of promising pipeline programs that are designed to engage young people of color to explore the teaching profession, but Minnesota needs to develop many more. For example, the state could build a program like Pathways2Teaching. This Denver-based teacher pipeline program specific to students of color is “an academically challenging course for students attending low-performing high schools” (Tandon, Bianco, & Zion, 2015). The program is developed around the central idea that students of color are more likely to be engaged in teaching as a profession when they see it “as an avenue for engaging with, giving back to, and righting wrongs within their communities” (Tandon et al., 2015, p. 111). The program provides a theoretical framework for students, such that they can develop “critical responses to injustice, and support the development of resilience in youth from oppressed communities” (Tandon et al., 2015, p. 113). Students in the program examine data around the achievement gap and learn frameworks for challenging the structures upon which it is built. One student in the program, an African American male, reflected on his experience this way:

I’ve had an understanding that as minorities we’re set up to fail for some time. This class made the thought more apparent...We are getting a second rate education in a second rate educational system. And people wonder why a lot of us no longer take it seriously? This has got to change and it’s up to us to change it. We can’t sit back and expect the world to fix it. (as cited in Tandon, et al., 2015, p. 113)

The program is built around the desire among students of color to work toward social justice, and it promotes teaching as a potential act of social change. Another student in the program, an African American male, reports that the program “helped my thinking because I want to help kids and it’s made me think about the kind of change I can make if I’m a teacher” (as cited in Tandon, et al., 2015, p. 117).

Minnesota could also build models like the Future Teachers Project at Santa Clara University and Project FUTURE at Texas Tech University. Both attempt to demystify higher education and support academic preparation of young people while also exposing them to experiences that may attract them into teaching. Effective pipeline programs for young students include features such as “matching youth with a mentor teacher of their same racial or ethnic background, offering academic support workshops, taking youth to university campuses, and involving young people in teaching activities with younger children” (Neal, Sleeter, & Kumashiro, 2015, p. 8). These programs and others would help attract students of color to the teaching profession.

REFORM STUDENT TEACHING FOR ALL CANDIDATES

Minnesota teacher preparation programs (TPPs) must create more innovative and productive models of student teaching. School districts, teacher educators, scholars, and teacher unions are in agreement that the current apprenticeship model must be refashioned to help future teachers build the necessary skills to serve students (American Association of Colleges for Teacher Education, 2009; American Federation of Teachers, 2012; The Blue Ribbon Panel, 2010; Commission on Effective Teachers and Training, 2011; Council of Chief State School Officers, 2012; Duncan, 2010; Hammond, Furger & Sutchter, 2016). In particular, the National Council for Accreditation of Teacher Education commissioned a blue ribbon panel on teacher training in 2010. The group provided a comprehensive study of all teacher preparation institutes in the United States and recommended that the system receive revolutionary change. The panel calls for more clinical experience and stresses the need for more opportunities for candidates to, “build their professional knowledge through practice” (The Blue Ribbon, 2010, p. 2). Clinical practice and systematic rethinking of how prospective teachers are introduced to the profession can help recruit new people to the state’s classrooms.

Minnesota must heed the recommendations of the blue ribbon panel and the other advocacy and research groups if it hopes to make the education programs at TPPs attractive to future teachers. Again, this has to be a joint effort. The panel emphasizes that:

Preparation programs, school districts, teachers and their representatives and state and federal policymakers need to accept that their common goal of preparing effective teachers for improved student achievement cannot be achieved without each other’s full participation. They must form new strategic partnerships to share in the responsibility of preparing teachers in radically different ways. (The Blue Ribbon, 2010, p. 3)

Teachers and faculty must be allowed to design more appealing and productive teacher training systems, but the state must be ready to help those systems grow and flourish. There are a variety of ways to improve the student teaching experience.

Student teaching experiences should embrace collaborative work, co-teaching, and more clinical practice. This does not mean that student teaching needs to be longer, and it does not mean Minnesota should put pressure on TPPs to add one more task to the degree-

completion lists of potential teachers. Instead, it means recruitment efforts would be bolstered by developing higher quality student teaching experiences that allow candidates to work in a collaborative clinical environment with senior teachers. Potential teachers will be more attracted to a profession with innovative training programs that prepare education students for career success. Programs that put future teachers in front of actual students and allow for innovation and risk taking are the ideal models for training future teachers. Ronfeldt and Reininger (2012) offer empirical support for making student teaching more clinically based, and they stress the importance of candidate placement and quality of experience (p. 1103). Improving quality of the student teaching practicum will make the teaching profession attractive to future educators.

We understand that changing the student teaching practicum is not an easy process. Collaboration and mentorship require the time and resources of already over-worked mentor teachers. It is also difficult for school districts and administrators to work teacher mentor programs into their overly burdened systems. McGuire (2015) notes that Minnesota's TPPs are struggling to place candidates due to "high stakes student testing that puts increased demands on teachers and leaves little time for the rigors of mentoring." Senior teachers do not have the time to train teaching candidates. Also, mentor teachers are required to evaluate teaching candidates and provide written performance accounts to professors and administrators at TPPs. These mentors are usually offered a small stipend for their efforts, but it is not enough, and it does not create extra hours in an overly scheduled, demanding day.

Fortunately, Minnesota can work on this first transition by following the nationally recognized model that already exists in its public university system. In 2003, St. Cloud State University had difficulty finding "high quality student-teaching placements" for the 500 candidates the university had each year (Heck & Bacharach, 2015, p. 25). The university sought a five-year Teacher Quality Enhancement Grant and created The Academy for Co-Teaching and Collaboration. This program moves away from traditional watch-and-learn models of apprenticeship and involves both the mentor and candidate "in every aspect of planning and delivering instruction" (p. 25). Teresa Washut Heck and Nancy Bacharach (2015), professors who work directly with the program, praise the new model for providing candidates with a positive mentoring experience and also note that elementary students in these co-taught classrooms "performed better on state assessments in math and reading than did students in classrooms using a more traditional student-teaching approach" (p. 26). Collaborative student teaching builds better teachers, and it enhances the learning environment of students in co-taught classrooms.

Minnesota should be proud that St. Cloud State's program has been successfully modeled and praised by other states (Hartnett, Weed, McCoy, Theiss, & Nickens, 2013; Morton & Birky 2015). Policymakers can help transform student teaching by promoting the co-teaching model and helping to spread its approach to other TPPs. This will require the necessary financial resources to sustain St. Cloud's program and build similar programs at other institutions, but it is a small investment that will recruit more teachers to the profession and better train the future educators of the state. Ronfeldt (2015) stresses that "when done

strategically districts can benefit from sharing their school sites with preparation programs as field placement sites” (p. 319). Minnesota must invest in strategic partnerships like the St. Cloud State University model and allow for innovative co-teaching approaches to prepare future teachers.

Second, the student teaching practicum must be improved by exposing candidates to all dimensions of the profession. College students are more likely to finish a teaching program and apply for positions if mentor teachers are given the opportunities to explain all the dimensions of the job. Teaching involves more than lesson plans and content delivery. Teachers are required to serve as researchers, advocates, liaisons, and role models. Teachers are given the opportunity to inspire and nurture students, and they are able to watch change happen in a group of kids. However, teachers also face difficult professional moments. They must manage classrooms and work with behavioral issues. They must understand the realities of policy and funding. They need to know how to look for warning signs about mental health problems in their students. And they need to learn how to satisfy district requirements for student data and testing while still finding ways to nurture the whole child. They must also be trained in the art of realizing that the needs of students are far more complex than the data, or the insatiable hunt for more of it, will ever suggest. The student teaching experience is a place for mentor teachers to cultivate these skills in new educators. They have to gather a tool box of skills and professional relationships, so they are prepared to serve the students of Minnesota from their first day of employment.

Mentor teachers and school districts are already burdened with non-classroom based responsibilities that make this sort of mentorship a challenge. However, potential educators are not going to enter a profession without fully understanding the realities and requirements of the work. Coffman (2015) stresses that teaching candidates must be allowed to develop their own agency, so they feel prepared to thrive in classroom settings. She writes:

Rather than policies that require little preparation to be a teacher, state and federal policies should be put into place that support the requirement that every pedagogy course be attached to in-depth school-based experience that allow candidates to see the application of theory in actual practice in real schools. Official policies in this area may be the only way to systematically allow for structural changes in budgeting across education institutions (i.e., universities, P-12, districts, states). If school-based experiences are unavailable, community-based experiences, computer simulations, or even microteaching experiences should be linked to these courses. (Coffman, 2015, p. 326)

Minnesota needs to change the way future teachers are exposed to the job tasks. Minnesota will attract new applicants to the profession by giving them an honest chance to see the realities of the work. The state should provide the money needed to allow senior teachers to take on the proper mentoring roles needed to build a robust and sustainable teaching force.

Third, Minnesota must aggressively lift the financial burdens placed on student teaching candidates, teacher preparation programs, mentor teachers, and school districts. Minnesota once invested robustly in its public higher education system. In 1992, 13.6% of Minnesota’s

budget was spent on higher education. Since that time, the state's investment in higher education has dropped steadily, and last year the state spent just 7.4% of its budget on higher education (Minnesota House of Representatives, 2015). In addition, over that time period a greater and greater percentage of the state's higher education allocation has gone into the State Grant Program, which helps individual students with the costs of college rather than helping colleges and universities keep tuition low. As a result of Minnesota's disinvestment in higher education, tuition at public colleges and universities has skyrocketed over the past two decades, more than doubling between 1999 and 2009.

The lack of funding for higher education has also forced Minnesota students to take on larger loads of student debt to get through college, if they can get there at all. Policies that fully fund public higher education institutions, such that they can attract and retain high-quality faculty and keep tuition down, would make a positive difference for teacher preparation institutions and their ability to recruit students. Starting salaries for licensed teachers in some rural areas of the state are as low as \$31,000. That's equivalent to the average amount of student debt held by Minnesotans coming out of college. Minnesota cannot continue to expect students to choose teaching when the financial barriers make it more and more impossible to do so.

In addition to limited lifetime wages, teaching is also less attractive than other professions because the current student teaching model requires candidates to pay tuition in order to essentially work a full-time job. In most Minnesota programs, candidates are in the classroom with mentor teachers for an entire semester. They work the entire school day and spend evenings corresponding with their instructors at their TPP. Given the amount of time required to complete student teaching and the reporting process, holding a part-time job at the same time is simply impossible, and most student teachers still pay tuition and fees to their home university or college. This means most future teachers in Minnesota take out student loans and go further into debt to receive the clinical training they need. In a study directed at the similar teacher shortage in California, Hammond, Furger, Shields, and Sutcher (2016) explain that maintaining a system that requires accumulating massive amounts of debt just to receive training is not a viable solution to the teacher shortage (p. 18). Minnesota will not recruit new teachers if it continues to ask young people to work for four months without an income.

Minnesota can alleviate this burden by providing stipends and grants to help pay the living expenses and fees associated with student teaching. California offers grants and stipends to some of its student teachers through federally funded TEACH grants. Many states have programs that pay the living expenses of future doctors and health care providers through the Health Professions Education Assistance Act. This problem presents an opportunity for Minnesota to transform the way teachers are trained. The state should take a leadership role and give student teachers enough money to both train to become teachers and pay for rent and groceries. Such an investment could help recruit teachers who might otherwise be dissuaded from joining the profession.

The structural burdens also extend to TPPs and the districts that host teaching candidates. It is a lot of work for mentor teachers to work with teaching candidates, and it diverts their efforts away from other tasks. This leaves administrators needing to find other veteran teachers to

take on other leadership roles. Minnesota should follow the recommendation of Ronfeldt (2015) and incentivize “promising school sites” to take in teacher candidates (p. 319). However, the incentives should not stop there. Teaching candidates still need the help of their professors at their TPPs. Mentor teachers need to work with these professors to make sure they are providing guidance that fits with the philosophy of the candidate’s home institution. Often, this does not happen. Clift (2009) shows that tenure requirements and university pressures do not allow university professors the freedom to fully collaborate with districts and mentor teachers. Minnesota should follow the recommendations of Coffman (2015) by providing financial incentives, so TPPs can create tenure and promotion rules for their faculty that incentivize work with districts and mentor teachers.

DESIGN AND FOSTER GROW-YOUR-OWN PROGRAMS TARGETED TOWARD CANDIDATES OF COLOR

Minnesota should also support teacher preparation programs and school districts working to develop Grow-Your-Own Programs designed to help paraprofessionals already in schools to become licensed teachers. This will not only boost general recruitment of all teachers, but it will also help the state systematically increase the number of future educators of color. Successful Grow-Your-Own Programs include meaningful financial support (i.e., forgivable loans for tuition, fees, and books plus funds for tutoring, child care, transportation, and student teaching stipends), academic support, and social support (Bartow et al., 2015).

For many candidates, it is difficult to balance the realities of college with the intense pressures of navigating the paths to becoming a teacher. These pathways are more easily traveled by White, middle-class candidates than they are candidates of color from more diverse social and economic backgrounds. Also, teacher preparation institutions exist disproportionately outside of urban centers, and they often lack diverse student bodies and faculty ranks. These facts lead to the greater likelihood that students of color will face isolation, have few opportunities for collaborative learning, and will ultimately decide to not pursue teaching as a career.

Grow-Your-Own Programs are a mechanism Minnesota can employ to recruit new teachers and teachers of color into the system. For example, Minnesota could help TPPs and school districts build models like The Multilingual/Multicultural Teacher Preparation Center in the Bilingual/Multicultural Department at Sacramento State University. This program is composed of 75% candidates of color, most of whom are bilingual. This alternative program attracts diverse applicants because of its “commitment to working with communities of color and social justice” (Neal et al., 2015, p. 10). Minnesota has the resources and tools to pilot similar programs, and it must get serious about offering alternative training programs that are run and monitored through the state’s universities.

Minnesota could also follow the success of the North Carolina Teaching Fellows Program. This statewide initiative was designed to address North Carolina’s teaching shortage in the 1980s, and it was in operation from 1986-2011. It successfully recruited 11,000 new teachers into the program by offering generous scholarships to top universities in the state. In return,

the fellows would agree to teach for a period of four years in North Carolina. The program was successful in attracting large numbers of males, teachers of color, and math and science candidates (Public Schools Forum, 2015, p. 9). The program also had great success with retaining these teachers for as long as six additional years beyond their mandatory four years of service to the state. This program produced remarkable results for North Carolina, and it is a system that could be easily replicated by Minnesota.

Minneapolis Public Schools has partnered with the University of Minnesota on a number of Grow-Your-Own and alternative licensure programs. One such program, the Minneapolis Residency Program, is a promising model. The program offers a pathway for Minneapolis Public School employees already working in the schools to work toward licensure. Students in the program receive a year-long, co-teaching experience and intensive summer work at the university. In addition, each student earns approximately \$24,900 during the residency experience and pays a reduced fee at the university. As of the writing of this paper, the 25 students that make up the first cohort going through this program are half way through their year of clinical work (Hinrichs, 2016). All of them have agreed to teach in the district for at least three years, and since they already live and work there, they are much more likely to stay beyond those initial three years.

The problem, however, is that the Minneapolis Residency Program is able to offer meaningful financial support to the students because of grant funding. However, that funding is limited. Minnesota should invest long-term in this and other, similar initiatives. The state needs the Minneapolis Residency Program to last, and it must help create many more programs like it in different parts of the state. This will only come with an ongoing financial commitment.

MODERNIZE THE CURRICULUM AT TPPs TO MEET PEDAGOGICAL AND CULTURAL CHANGES

Minnesota needs to allow TPPs and school districts to collaboratively reframe the curriculum of teacher education programs. The coursework at TPPs must be constantly updated to meet the rapidly-changing needs of Minnesota's students. Minnesota's public school demographics grow more diverse every year, but the curriculum offered in many teacher preparation programs reflects a particularly white narrative that is not critical of the education system or its systemic inequities. Student demographics are changing, but curriculum at TPPs too often remains the same. Also, the curriculum fails to make room for those who are interested in social justice as a bed-rock of teaching. Neal et al. (2015) lament the fact that "the majority of teacher education programs require only one diversity course for their teacher candidates" (p. 2). A curriculum that fails to address the realities of the public school system will also fail to attract new teachers to the profession.

Students at Minnesota's TPPs want to be challenged, and they want to make a difference with their careers. Gay and Kirkland (2003) recommend allowing for spaces in which candidates can learn to understand "their own cultures and the cultures of different ethnic groups, as well as how this affects teaching and learning behaviors" (p. 182).

This is likely the most difficult collaboration task for TPPs and school districts, but it is also the most serious. Minnesota will not attract new teachers or teachers of color unless the state allows the space and time needed to create a teacher training curriculum that is reflective of the changing demographics of the state. Gay and Kirkland (2003) argue that these efforts have to go beyond discussing inequality and social justice. They assert that pre-service teachers need to:

Practice actually engaging in cultural critical consciousness and personal reflection. This practice should involve concrete situations, guided assistance, and specific contexts and catalysts. Real life experiences make the learning activities more genuine and authentic, and lessen the likelihood that students will escape the intellectual, emotional, psychological, moral, and pedagogical challenges inherent in reflection and critical consciousness. (Gay & Kirkland, 2003, p. 186)

Minnesota must provide the financial tools that are necessary for TPPs and school districts to collaboratively build a robust and comprehensive teacher training system that prepares educators to be culturally aware and responsive. This will improve teacher recruitment, and it has a high likelihood of encouraging candidates of color to continue pursuing the profession.

MOTIVATE DISTRICTS AND TPPs TO MENTOR EDUCATORS OF COLOR

We also recommend that Minnesota encourage TPPs and districts to create more mentoring programs for educators of color. The TPPs in this state have to develop comprehensive plans that help candidates of color navigate the application and interview process. TPPs should also track the success of their candidates by following up with their graduates throughout their first year of teaching. We recommend TPPs and districts utilize affinity groups to connect educators of color if there is not enough staff to set up mentoring within a district, site, or program. Teaching candidates of color will be more attracted to programs and districts that have support networks and helpful professional pathways.

TRANSFORM LICENSURE PATHWAYS FOR ALL CANDIDATES

There is a tremendous amount of attention being paid to the licensure process in Minnesota right now. The licensure process should be as transparent and streamlined as possible. The Minnesota Board of Teaching needs to make sure its requirements are fair, free of bias, and necessary, and that those requirements ensure that the teachers in Minnesota schools have the training and education they need to be successful in their classrooms. Minnesota also should eliminate financial barriers to the licensure process and should develop a one-stop shop where candidates can get clear and consistent information regarding their paths to licensure.

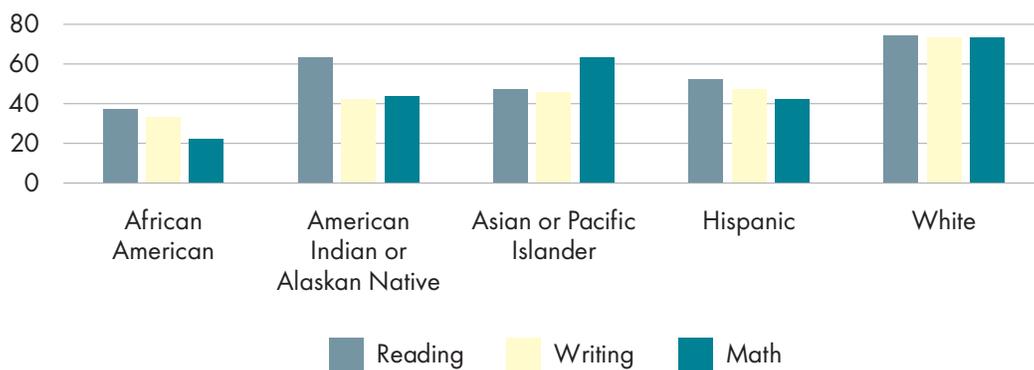
In recent years, critics have asserted or implied that the teaching shortage and the shortage of teachers of color are the result of unnecessary barriers put up by the Minnesota Board of Teaching at the stage of licensure. Too often such claims are the precursor to suggestions that

the requirements for licensure are too difficult and need to be lowered. This dynamic is not unique to Minnesota. Throughout the country, as teacher shortages have worsened, many states have attempted to solve the problem by simply lowering standards. This approach is based on a misinformed understanding of the teacher shortage. The truth is, far fewer high school and college students are considering teaching as a profession, and a third of the people who pursue teaching are leaving the profession in the first five years. The problem is much deeper and more complex than a simple adjustment of licensure requirements could ever address.

Lower licensure requirements may get more people into the profession, but they also lead to higher attrition rates. Much like we see in the realm of teacher preparation programs, short-cuts that lessen the rigor or the substance of the requirements may create an immediate benefit of increased licensed teachers, but make the overall problem worse in the long run by correspondingly increasing attrition and placing ineffective teachers in classrooms. Many teacher preparation and licensure requirements are directly correlated to teacher effectiveness and lower attrition rates (Darling-Hammond & Sykes, 2003; Clotfelter & Vigdor, 2010). And the victims of such policy decisions are the students in the most high-poverty, linguistically and culturally diverse schools. These students are the most likely to experience a revolving door of teachers, and they are most likely to be taught by teachers who are teaching outside of their licensure field or without a full license.

Minnesota can streamline and simplify the licensure process without reducing quality. A good first step would be to eliminate the basic skills test required to obtain a Minnesota teaching license. Nationally, teacher tests have often served more as gatekeepers laden with racial filters than they serve as tests measuring candidates' ability to teach effectively (Neal et al., 2015; Harris, 2015). Minnesota offers a glaring example of this problem. Minnesota statute mandates that candidates for teacher licensure pass a basic skills test in reading, writing, and math, but the test the state has used for the past several years has demonstrated remarkably inequitable passing rates, with African American candidates passing the tests at only a fraction of the rate at which white candidates pass the tests. These results are shown in figure 1.

FIGURE 1: BASIC SKILLS TEST PASSING RATES 2013-2014



(Evaluation Systems Group, 2015)

There is no need to lower licensure standards to diversify the teaching ranks, though it is imperative that requirements be both necessary and unbiased. As discussed earlier, alternative licensure programs that are substantive and rigorous and that reflect the needs of communities of color can go a long way toward developing a more diverse teaching force. When licensure requirements measure information that is not relevant to the knowledge and skills needed to do the job, and when those requirements are based on measurements that have been shown to be racially biased again and again (Evaluation Systems, 2015; Harris, 2015), clearly, such requirements are not serving the purpose Minnesota needs them to serve. At the same time, research shows us that teachers are both more effective and more likely to stay in the profession when they have been prepared in pedagogy and content-specific methodology, and when they have had a meaningful, relevant student teaching experience.

Alternative licensure programs that are substantive and rigorous and that reflect the needs of communities of color can go a long way toward developing a more diverse teaching force.

To diversify its teaching force, Minnesota should also adopt policies that reduce or eliminate financial barriers to licensure. The costs of teacher preparation programs and the fees associated with the licensure process are enough to keep many people of color out. This is an issue that is too often overlooked, but financial disparities along racial lines are incredibly severe and appalling. Minnesota cannot ignore the matter of licensure fees. As Neal et al. (2015) point out, “addressing the demographic imperative involves not merely encouraging more students of color to become teachers but also removing the institutional barriers that keep them out in the first place” (p. 8).

In addition, Minnesota should invest the resources necessary so that there can be a one-stop shop for the licensure information needed by candidates coming to the profession through alternate pathways. Currently, when candidates call the Minnesota Department of Education (MDE) to ask what they need to do to complete their licensure processes, they are told to contact a teacher preparation program. Teacher preparation programs, however, do not, and should not, share standardized curricula, and their requirements for students differ. That means that a candidate who calls MDE to ask what else she needs to complete is sent out to shop programs. She may find that at St. Mary’s University, she needs to take six more credits. She may find out that at Minnesota State University, Mankato, she needs only two. The candidate is on her own to navigate these options. Candidates often complain that they spent thousands of dollars on tuition in one program, only to discover that they could have completed certain requirements elsewhere for half the cost. We strongly advocate for a collaborative effort to create a more streamlined and transparent system for candidates on the road to licensure. We need greater transparency around alternate routes to and through

the licensure process, whether for teachers from other states who meet some but not all of Minnesota's requirements, candidates from other countries, or candidates coming to the teaching profession mid-career.

Finally, Minnesota needs a central posting site for districts that are advertising vacancies and for teachers looking for positions. Districts and charter schools should advertise positions in a single, statewide location, so candidates know where to look. Such a site should allow districts to find licensed teachers and licensed teachers to find open positions.

INCREASE FINANCIAL SUPPORT FOR TEACHER CANDIDATES AND DISMANTLE BARRIERS FOR CANDIDATES OF COLOR

There is no question that financial incentives such as scholarships for teacher preparation costs, student debt relief, and increased teacher salaries are effective recruitment strategies. The Minnesota Department of Education surveys teacher preparation institutions as part of its data-collection for the annual *Teacher Supply and Demand* report, and those institutions are asked to make suggestions about policies or programs that might improve recruiting, admission, and the preparation of candidates in shortage areas. The most popular suggestions from those institutions were financial incentives (Minnesota Department of Education, *Teacher Supply*, 2015). One representative from a teacher preparation institution explains:

There are people out there who would like to teach in STEM, in special education, in ESL. They are even willing to give the time to completing licensure programs but coming up with the money to pay for them is often difficult, especially at the grad level. Some form of expanded loan forgiveness program that is easily available would help. (Minnesota Department of Education, *Teacher Supply*, 2015)

Researchers consistently echo the findings of the Minnesota Department of Education by showing that financial concerns are barriers for many people who might want to pursue teaching as a career. Darling-Hammond and Sykes (2003) state, "even if teachers may be more altruistically motivated than many other workers, teaching must compete for talented college graduates in ways that include pay" (p. 19). Higher salaries attract more talented college graduates to the profession, and there is also ample evidence that the investment in higher salaries can produce teachers who inspire greater levels of student achievement (Darling-Hammond & Sykes, 2003). As we will discuss later, higher salaries for teachers also reduce attrition rates, meaning that better-paid teachers are less likely to leave the profession in search of better salaries. In addition, higher salaries are often cited as the only way to attract people to the fields of math and science, fields that traditionally experience shortages because candidates and teachers are wooed to other professions because of market competition.

Other financial incentives that prove effective in recruiting more people into the teaching ranks are scholarships and debt relief. Often, these are tied to commitments to teaching and/or time served in the teaching ranks. Borrowing money to pay for college increased by 89%

over the 10-year span between 2004 and 2014. For Minnesota, this is an especially important topic, as the state's college graduates rank fifth in the nation for the amount of student debt carried, on average \$30,894, and third in the nation for the proportion of graduates carrying student debt (70% of graduates) (Furst, 2014; Williams-Wyche et al., 2015). For most, it is impossible to repay student loan payments and support a family on the salaries offered by many Minnesota school districts. For these reasons, many researchers assert that financial incentives that help pay tuition and fees and that forgive student loan debt are critical strategies to addressing the teacher shortage (Darling-Hammond & Sykes, 2003; Kearney-Gissendaner, 2010).

Minnesota's college graduates are more likely to carry debt, and they have more of it. For most, it is impossible to repay student loan payments and support a family on the salaries offered by many Minnesota school districts.

CONCLUDING THOUGHTS ON RECRUITMENT

Attention to these areas will help build a recruitment system that attracts the future educators Minnesota's students deserve. The state has to provide the financial and structural resources to districts and institutions of higher learning, so the pathways to entering the profession are direct and easy to navigate. These are only the steps to recruiting new educators to the programs that train teachers. Policymakers must also give greater attention to retention strategies to make a lasting and positive impact on the teacher shortage in Minnesota.

VI. Retaining Teachers in Minnesota

A consensus of scholars in the field agree that retaining teachers in classrooms is a more important approach to solving the teacher shortage than recruiting new teachers. As Ingersoll and Smith (2003) point out, “recruiting more teachers will not solve the teacher crisis if [so many] teachers leave in a few short years. The image that comes to mind is that of a bucket rapidly losing water because of holes in the bottom. Pouring more water into the bucket will not do any good if we do not patch the holes first” (p. 33). In Minnesota overall, roughly 30% of teachers leave after their first five years (Minnesota Department of Education, *Teacher Supply*, 2015). It is important to note, however, that attrition rates in high-poverty, urban schools can be a great deal higher. Nationwide, such schools lose more than half of their teachers over any five-year time span (DiCarlo, 2011).

Recruiting more teachers will not solve the teacher crisis if [so many] teachers leave in a few short years. The image that comes to mind is that of a bucket rapidly losing water because of holes in the bottom. Pouring more water into the bucket will not do any good if we do not patch the holes first.

The data about when teachers leave the profession lead to a U-shaped graph, with large numbers of teachers leaving in their first five years, fewer leaving during the middle of their careers, and then another spike at retirement age (Allen, 2005; Guarino, Santibanez & Daley, 2006). New teachers are more likely to leave the profession than new professionals in other industries, even after accumulating student debt and investing years of training into the profession. Teachers in math, science, and special education are more likely to leave than in other licensure areas (Guarino et al., 2006; Ingersoll, 2001), and teachers of color are increasingly more likely to leave than White teachers, a trend that reversed during the 1988-1989 school year and that has continued to worsen (Albert Shanker Institute, 2015; Guarino et al., 2006; Ingersoll & May, 2011).

After meeting with and interviewing hundreds of teachers in their first years as a part of this project, the themes became so consistent and so prevalent, that the question we were pursuing answers to shifted from one about why a third of new teachers leave to a question about how the other two-thirds survive.

Minnesota teachers in their first years in the profession articulate the same stressors that teachers around the country make clear: they are asked to do too much with too little time; they are compensated so poorly they cannot pay for living expenses and health care and keep up with student loan payments; they lack opportunities for collaborative support; they are overwhelmed by the state’s relentless focus on data at the expense of the whole

child; and they are acutely aware of their starring role in dominant political narratives as scapegoats for conditions well outside of their realm of control. Minnesota teachers love what they do. They articulate and demonstrate that commitment over and over again. But Minnesota's education policies have created a profession that fewer and fewer young professionals will ever consider, and that more and more current teachers will abandon before completing their first few years.

Specific school characteristics are highly predictive of teacher attrition rates. There are strategies to address those specific characteristics and stem the tide of teachers leaving the profession. Minnesota should:

- provide the resources to allow educators and administrators to build collaborative working environments.
- increase support for teacher agency, which means granting autonomy to teachers as they respond to student needs and involving teachers in the school-wide decision-making process.
- provide a stronger menu of financial benefits for all educators.
- invest in quality professional development for all educators.
- invest boldly in new strategies that help retain teachers of color, including creating avenues for teacher autonomy, diversifying curriculum, reducing financial barriers, and providing meaningful, ongoing professional development and induction.
- decrease the professional demands and work stressors placed on special educators.
- give more attention to the mental health and well-being of all educators. Minnesota must especially support the well-being of educators working in high-needs schools.

PROMOTE COLLABORATION AMONG ALL EDUCATORS

In order to retain educators, it is vital that schools be collaborative environments. Policies that inspire and nurture authentic collaboration—between teachers and administrators, between teachers and paraprofessionals, between teachers and parents, and among teachers themselves—are the policies that Minnesota needs. Borman and Dowling (2008) show that there is “higher attrition [. . .] in schools with a lack of collaboration, teacher networking, and administrative support” (p. 398). This is a trend that remains consistent across all sizes of schools and all teachers, including teachers of color. When teachers work in collaborative and highly supportive environments, they are much more likely to remain at their schools and in the profession.

Teachers very often cite a lack of support from administration both as a reason for leaving particular schools and as a reason for leaving teaching altogether (Allen, 2005; Allensworth, Poniscia & Mazzeo, 2009; Baker-Doyle, 2010; George & George, 1995; Guarino et al., 2006; Swars, Meyers, Mays, & Lack, 2009). Allensworth et al. (2009) argue, “teachers stay in schools with inclusive leadership, where they feel they have influence over their work environment and they trust their principal as an instructional leader” (p. 2). In a 2005 study of teacher attrition and retention at an elementary school in Georgia, teachers who stayed cited support from administration as one of the top reasons for remaining at the school:

I feel like if I have a concern, I can go to them [the administrators] without feeling intimidated or that they're going pass it to the side. They're really going to consider my viewpoint. And, even as a 1st-year teacher, when I had a concern, I knew I could go to them. And I know at some schools, it's not like that. (Swars et al., 2009, p. 173)

Administrators can play a key role in stopping teacher attrition. Minnesota should do more to offer administrators the support they need to implement strategies to retain teachers.

In the comprehensive literature review, "Teacher Recruitment and Retention: A Review of the Recent Empirical Literature," the authors found that "schools with more autonomy and administrative support had lower levels of teacher attrition and migration (Guarino et al., 2006, p. 198). Student behavior is another often-cited cause of teacher attrition, and it is one that is commonly correlated with teacher perceptions of administrative support (Allensworth et al., 2009). When teachers and administrators work collaboratively on student behavior policies and procedures, teacher attrition rates drop.

The past two decades have seen increased interest and investment in teacher accountability measures, including in some states policies that rank teachers against one another in a given school or district. These policies often cast administrators as teacher evaluators at the exclusion of their potential roles as supporters, coaches, or collaborators. Such policies have been proposed by legislators in Minnesota, too. Stakeholders who are attracted to such policies believe they are a mechanism for weeding out less effective teachers and rewarding the most effective teachers. But what such policies actually do is cut off collaboration between teachers and between teachers and administrators, causing attrition. If a new teacher knows she is being ranked against a senior teacher, she is less likely to ask for help for fear of showing weakness, and the senior teacher is less likely to offer it for fear of losing her ranking to the younger teacher.

Teacher ranking policies are the death knell for collaboration, and they drive teachers out of schools. Even so, some stakeholders celebrate these results by claiming that the policies are driving out less effective teachers. There is ample evidence to disprove this wrong-headed notion. Guarino et al. (2006) explain, "The preponderance of evidence suggests that teachers with higher measured ability have a higher probability of leaving" (p. 186). Lankford, Loeb, and Wyckoff (2002) also found higher turnover rates among the more qualified teachers, both in terms of teachers leaving the profession and teachers migrating to other schools and districts: "Teachers leaving the system were somewhat less likely to have failed their certification exam on their first attempt and 60% more likely to have received a bachelor's degree from a highly competitive college" (as cited in Guarino et al., 2006, p. 186).

Teachers also cite collaborative relationships with peers as important factors when asked about their desire to stay in or leave teaching. Schools that make space for and celebrate authentic collaboration among teachers have higher retention rates than those that do not (Borman & Dowling, 2008; Allen, 2005). The Consortium on Chicago School Research published a major study about the critical problem of teacher attrition in the Chicago Public

Schools. That study finds that “teachers are more likely to stay in schools where they respect their colleagues and feel that there is a climate of collective responsibility and innovation in the school” (Allensworth, et al., 2009, p. 25).

In 2005, an elementary school with chronic attrition rates in Georgia partnered with Georgia State University to engage in a collaborative inquiry in order to investigate why teachers were leaving their school at such high rates, as well as why others stayed (Swars et al., 2009). Among those who stayed, strong teacher-to-teacher relationships were often cited: “a predominant factor influencing teacher retention is the strong relationships shared between teachers, which were characterized as supportive, collaborative, and caring” (Swars et al., 2009, p. 174). Teacher collaboration can prevent teachers from leaving the profession.

Professional learning communities are born out of the understanding that teacher collaboration is critical to student success. In Minnesota, many school districts support professional learning communities for their teachers. Some districts minimally use PLCs, some do not use them at all, and others use them with robust support and sufficient time and training. PLCs can be configured in many different ways, by grade level or by content, for example. Special education teachers working with children on the autism spectrum might form a PLC, as might all of the second-grade teachers in a given school. Much like other efforts to increase collaboration, PLCs can exist as entirely superficial structures that provide no meaningful benefit. In some schools in Minnesota, PLCs are little more than required meetings whose agendas are filled with any number of administrative initiatives. In other schools, however, PLCs are proving that they can, if supported, be transformational in their effect on student learning and the professional development of teachers.

Richard DuFour (2004) describes best practices for PLCs: “The powerful collaboration that characterizes professional learning communities is a systematic process in which teachers work together to analyze and improve their classroom practice. Teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement” (2004, par. 16). In order for this level of collaboration to be possible, however, “schools must stop pretending that merely presenting teachers with state standards or district curriculum guides will guarantee that all students have access to a common curriculum” (DuFour, 2004, par. 24). Finally, DuFour explains, “each team must have time to meet during the workday and throughout the school year. Teams must focus their efforts on crucial questions related to learning and generate products that reflect that focus, such as lists of essential outcomes, different kinds of assessment, analyses of student achievement, and strategies for improving results” (par. 23). If supported and done well, professional learning communities can increase meaningful collaboration among teachers, which is critical to teacher retention.

Induction and mentoring programs reflect another form of collegial support that positively influences retention rates (Allen, 2005; Allensworth, 2009; Baker-Doyle, 2010; Darling-Hammond & Sykes, 2003; Ingersoll & Kralik, 2004; Swars et al., 2009). But studies of the correlation between induction programs and attrition raise an important warning; it is not

true that all induction programs make a difference. Short-lived induction programs that do not lead to ongoing collaborative relationships have minimal effects on attrition rates. Baker-Doyle (2010) writes:

The emphasis on induction has developed as a front-end strategy focused on what [scholars] call 'knowledge for practice' (i.e. specific skills) rather than supporting teachers' 'knowledge of practice' (e.g., teacher inquiry and collaboration) through an ongoing, comprehensive approach [...]. Many states now mandate an induction program for new and incoming teachers, yet the majority of these induction programs do not last beyond the first year, barely enough time for new teachers to nurture and sustain the kinds of supportive networks that can keep them committed to the profession.

Also, Borman and Dowling's (2008) review of 34 studies on attrition concludes that the induction programs that work are those "particularly related to collegial support" (p. 398).

Creating collaborative environments for teachers isn't something that comes with luck. Policies that dictate teacher scheduling and assignments can boost collaboration as easily as they can destroy it. And creating meaningful mentoring relationships between teachers is much more challenging in schools that lack a strong core of veteran teachers. In January 2016, a second-year elementary school teacher from Detroit Lakes, Minnesota, reported that of the 10 teachers in her small school, seven of them are in their first four years of teaching. She had a mentor her first year, but that mentor worked in a school 25 miles away and taught a different grade. The new teacher did not have any substantial time to visit with her mentor, and the relationship amounted to little more than a handful of brief and not very helpful meetings.

Given the high attrition rates faced by districts around the state, such stories are not rare. During a meeting of teachers at a middle school in Faribault, Minnesota, one 25-year veteran teacher explained, "there are so many new teachers, and there are so few of us who have stuck around. I just don't have the time to help everyone, and, frankly, I shut my door. If I didn't, I'd never leave the building" (personal communication, October 21, 2015). Clearly, effective induction and mentoring policies must provide teachers with time in which to complete this critical work.

Induction and mentoring policies that have the strongest association with higher attrition rates are those that provide a mentor in the same field, common planning time with other teachers in the same subject, regularly scheduled collaboration with other teachers, and connections to external networks of teachers (Guarino et al., 2006).

It is critical that policymakers acknowledge the overwhelming anxiety new teachers feel stepping into their own classrooms for the first time. As Borman and Dowling (2008) point out, "unlike other developed countries, beginning teachers in the United States are typically given the most difficult assignments, are provided limited classroom resources compared to veteran teachers, receive little or no support, and are generally isolated behind classroom doors with little feedback or help" (p. 397). However, Borman and Dowling's meta-

analysis also finds that “when more formal organizational mechanisms are put in place to provide novice teachers with support networks and mentoring opportunities, these efforts are associated with decreased attrition rates” (p. 397). In short, induction and mentoring can make a difference in teacher retention, but only in so far as they promote ongoing collaboration (Allensworth et al., 2009). The question is not whether or not induction and mentoring are good or bad. Depending on their quality, they can be extremely helpful or even harmful if all they do is add more meetings to teachers’ already over-booked schedules. The question is whether or not specific induction and mentoring programs are robust enough to allow for and support authentic, ongoing, and meaningful collaboration among teachers, for it is that collaboration that makes the difference in attrition rates.

Minnesota could and should work toward and invest in a robust, statewide teacher induction program. California provides a model to look to, as it developed one of the most extensive and long-lasting induction programs of all of the states. Its program, called Beginning Teacher Support and Assessment Induction, or BTSA, provides new teachers with a two-year experience “in a job-embedded formative assessment system of support and professional growth” (Beginning Teacher Support, 2016).

Minnesota has already done some important work toward a more robust induction program. Minnesota’s Teacher Support Partnership (TSP) is a collaboration among Education Minnesota, the Minnesota Department of Education, Minnesota State Colleges and Universities, the University of Minnesota, Twin Cities, and the Minnesota Board of Teaching. This partnership published the *Minnesota Educator Induction Guidelines* in 2009, which provides extensive support for the design and implementation of induction programs (TSP, 2009). The Minnesota Department of Education is currently revising its equity plan, which is a plan in place to ensure that all students, regardless of background, have equitable access to excellent educators. That plan includes strategies to strengthen teacher induction practices “in targeted schools that serve poor and/or minority students and that experience significant teacher turnover” (Minnesota Department of Education, *Teacher Equity*, 2016).

The building blocks are in place. Minnesota needs a commitment to developing and implementing strong induction experiences for all new teachers. This will help keep them in classrooms for more than five years, and it will provide stability for students. It will also allow these educators the ability to grow as professionals and to become highly effective educators.

INCREASE TEACHER AGENCY

Teachers also commonly cite a lack of autonomy and decision-making power as a reason they leave (Achinstein et al., 2010; Allensworth et al., 2009; Baker-Doyle, 2010; Guarino et al., 2006; Ingersoll, 2001; Swars et al., 2009). This problem is especially pronounced for teachers working in high-poverty, culturally diverse, urban schools, as discussed in our section on retention strategies specific to teachers of color. But it is one of the primary reasons most often cited among teachers nationwide when asked why they left a particular school or the profession altogether. Ingersoll’s pivotal 2001 study of teacher attrition found that

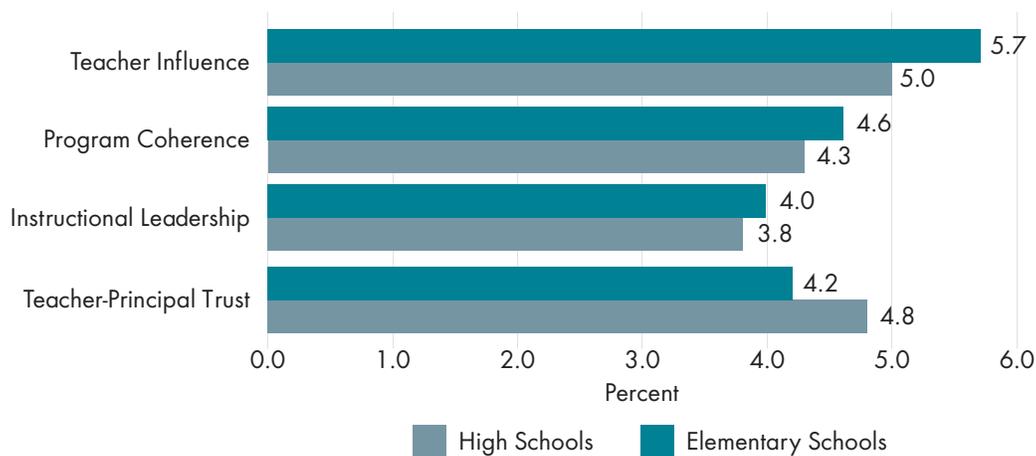
even a small difference in teacher influence in school decision-making is associated with a 26% difference in the odds of the teacher leaving the school (Ingersoll, 2001). And teacher autonomy has declined over the past 10 years, a “decade marked by standardization and high-stakes testing” (Walker, 2016, par. 1). As Ingersoll points out:

The data consistently show us that a big issue is how much voice, how much say, do teachers have collectively in the schoolwide decisions that affect their job? Teachers are micromanaged. They have been saying for a long time that one size doesn’t fit all, all students are different. But they’re told to stick to the scripted curriculum. [It] drives good teachers nuts. (as cited in Walker, 2016, par. 3)

Another study of teacher attrition in Chicago Public Schools found that “most important for teacher stability is the degree to which teachers feel they have influence over school decisions. In both elementary and high schools, stability rates were at least five percentage points higher in schools with substantial teacher influence, compared to schools where teachers had little influence over their work environment” (Allensworth et al., 2009). As discussed in our section on retention strategies specific to teachers of color, teacher autonomy and input regarding curriculum and pedagogy is more likely to be extremely limited in high-poverty, culturally-diverse, urban schools where teacher attrition is most acute. The results from the Chicago Public Schools study is found in figure 2.

FIGURE 2: A CASE STUDY OF TEACHING STABILITY IN CHICAGO PUBLIC SCHOOLS

Stability was higher where more teachers reported good relationships with the school principal and influence over school decision-making. Difference in One-Year Stability Rates: Schools With Strong Climate compared to Schools With Weak Climate



Note: The relationships shown at $p > 0.1$. These differences are calculated net of differences in school composition, structure, changes in student enrollment, and teacher’s characteristics. Bars represent a difference of two standard deviations in the schools climate measure. From “The Schools Teachers Leave: Mobility in Chicago Public Schools,” Research Report, by E. Allensworth, Stephen Ponisciak & Christopher Mazzeo, 2009. Copyright (2009) by Consortium on Chicago School Research at the University of Chicago. Urban Education Institute. Reprinted with permission.

The most high-needs schools are often the schools that give teachers the least amount of agency and decision-making power. This means the most high-needs schools are the sites teachers leave at the highest rates. If Minnesota is serious about addressing the problem of teacher attrition, it will have to develop policies that give teachers in these schools the resources and the agency needed to play a significant role in the decision-making process.

COMPENSATE EDUCATORS WITH FAIR WAGES AND BENEFIT PACKAGES

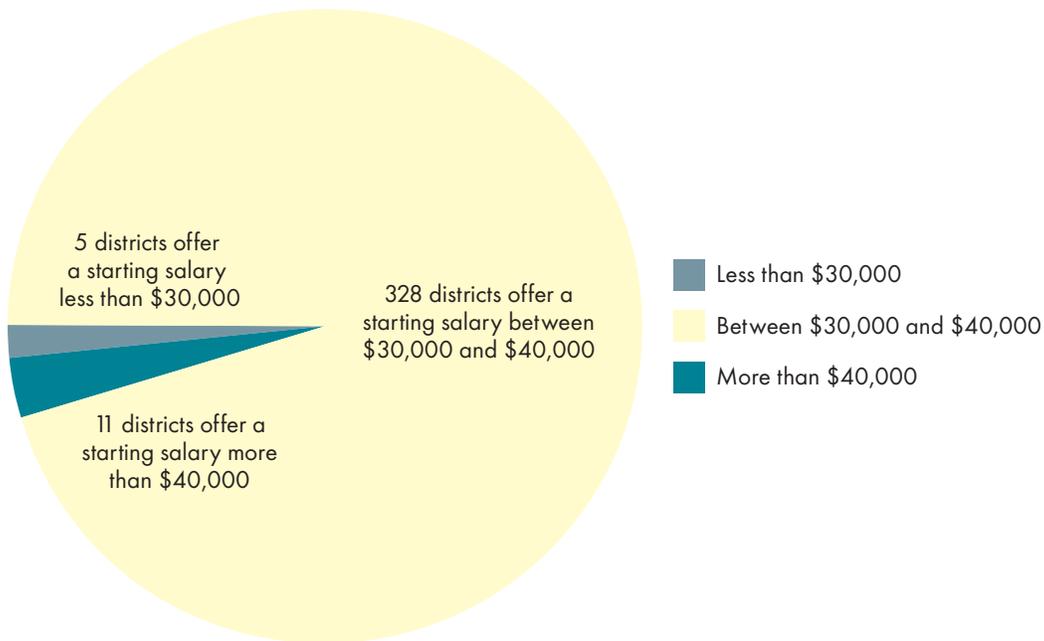
Policymakers concerned with teacher attrition should pay strong attention to the issue of compensation. Bidwell (2014) pointed out that “teachers in the United States, even when they have years of experience, are paid less and more slowly than in many other countries.” Teachers who exit the profession regularly cite low pay and benefits as a primary reason (Darling-Hammond & Sykes 2003; Shen, 1997; Boser & Strauss, 2014). Jianping Shen’s (1997) “Teacher Retention and Attrition in Public Schools” remains one of the most important studies on this topic. Shen’s study initially showed that annual salary for all teachers is positively correlated with teacher retention. These findings have been replicated by several scholars, and it is time Minnesota follow Shen’s advice of raising salaries (Shen, 1997). Minnesota must invest in better financial and lifestyle compensation packages to retain teachers. Teachers may enter the profession for altruistic reasons, but they deserve income and benefit packages that provide them access to a middle-class lifestyle.

However, it is important for policymakers to realize this is more complicated than simply improving average pay. There are several other lifestyle factors that must be acknowledged. Teachers command initial salaries that are far lower than other professional positions. This low starting salary will influence a teacher for the remainder of his or her career. This, in turn, can cause a teacher to want to leave the profession. The National Center for Education Statistics (NCES) recently commissioned a study on teacher attrition. The NCES found a direct link between starting salaries and decision to leave the classroom. For example, 97% of new teachers with a starting base salary of \$40,000 or higher were still teaching the next year (National Center for Education Statistics, 2015, p. 3). However, only 87% of new teachers with a starting salary under \$40,000 decided to return for a second year of teaching (National Center for Education Statistics, 2015, p. 3). Unfortunately, this gap only grows as the teachers progressed through their careers. The study shows that 20% of the schoolteachers who started with salaries less than \$40,000 had left teaching within their first five years (National Center for Education Statistics, 2015, p. 3).

These national numbers should alarm Minnesota policymakers because very few districts in this state start new teachers at salaries above \$40,000. Education Minnesota collects data from all member districts about starting salaries.⁷ The last complete body of internal data shows all salary schedules that were in place as of the 2014-2015 school year. Education Minnesota’s internal tracking shows that only 11 of the 344 school districts in Minnesota were starting new teachers at or above \$40,000 during the 2014-2015 school year. Even more shocking, five of the reporting districts started new teachers below \$30,000. Also,

seven reporting districts started new teachers with a master's degree below \$40,000. These low starting salaries are only contributing to the growing attrition of Minnesota's teachers. Figure 3 graphs these starting salary numbers from the internal tracking information.

FIGURE 3: MINNESOTA SCHOOL DISTRICT STARTING SALARIES



Additionally, early-career teachers who do not leave the profession are forced to take on second jobs to make ends meet. Forcing educators to take on second jobs is not only personally harmful to individual teachers, but also has a negative impact on Minnesota classrooms. The Center for American Progress (CAP) recently found that a significant number of teachers are taking on other forms of employment to pay their bills (Boser & Strauss, 2014, p.2). Bidwell (2014) shows that at least 10% of all teachers have some form of secondary employment. However, this number is even more stark for Minnesota because 19% of the state's teachers have a second job (Boser & Strauss, 2014, p. 6). This means that almost 20% of Minnesota's educators leave their rigorous teaching jobs and commute to another position to simply pay their bills, potentially leaving papers ungraded, lessons unplanned, and professional development incomplete.

Low incomes for early career teachers have a compounding negative impact on their lives. Many first- and second-year teachers share small living spaces. In some cases, three teachers share a two-bedroom apartment to save money. This "saved money" is then spent on repaying the student loans they are required to take in order to complete their teaching degrees. These are not positive living conditions for Minnesota's educators, and these realities only dissuade people from wanting to join the profession.

Finally, the compensation issue is even bleaker when the salary numbers are compared to national averages and examined against federal qualifications for low-income programs.

It is difficult to compare average base salaries to national statistics because many federal agencies operate with median numbers. However, the average salary for a public school teacher in the United States is \$39,673 (as cited by Bidwell, 2014). The most recent census listed the median household income in the United States at \$53,000 (as cited by Bidwell, 2014). This means that many public school educators are so poorly paid they qualify for welfare. The CAP study shows that “teachers with 10 years of experience who are family breadwinners often qualify for a number of federally funded benefit programs designed for families needing financial support [...] including the Children’s Health Insurance Program and the School and Breakfast Lunch Program” (Boser & Strauss, 2014, p. 2). This means teachers must seek help from federal welfare programs because their salaries do not cover simple costs of living.

The need for increased compensation, especially for early-career teachers, cannot be understated. No matter how idealistic a person is when they enter teaching, the difficult conditions found on the job, near-impossible challenge of working in overcrowded and under-resourced classrooms, and massive personal economic hardship that comes with starting teacher pay make teaching undesirable for potential candidates and untenable for those already teaching to stay in the profession.

Unfortunately, there is not a monolithic answer to the compensation problem. Teachers are not a homogenous group. They live in different places and experience different needs. They have different levels of training, and they need to be rewarded for their unique characteristics. Berry (2008) reports the recommendations created by 1,700 National Board Certified Teachers (NBCTs). This group articulates that educator compensation has to account for a diverse group of professionals. Berry (2008) explains it like this:

The needs of an accomplished, single, 25-year-old graduate of a teacher education program are likely to differ from those of a 58-year-old career switcher and from those of a 45-year-old veteran who has taught successfully for 22 years but now has three children in college. The NBCTs also recognized that life circumstances and geography can limit recruitment of teachers for their state’s more isolated rural schools.

This means Minnesota should provide a menu of compensation options. This approach allows the state to meet the needs of all geographic regions without privileging one area or one idea. Here are some of the items the state might consider:

First, Minnesota should increase teacher salaries across the board. However, this is not a simple task of raising the amount by a few thousand dollars. Budig (2006) explains the position of the College Board’s Center for Innovative Thought (CBIT) on this topic. Budig (2006) writes, “Schools must pay teachers salaries for the real world. What that means is increasing salary expenditures for teachers by an average of 15% to 20% now—and by 50% within the foreseeable future” (p. 115). One of the consistent problems with teacher pay is the low starting salaries and the small amount of room for salary increases. Minnesota should follow the recommendations cited by Budig (2006) and start teachers at higher pay levels and allow them to advance their salaries at quicker rates.

Second, Minnesota could create a Teacher Trust. Budig (2006) explains that the CBIT called for “the creation of a ‘Teachers’ Trust’ that would fund a general salary increase for all teachers as well as targeted increases to support teachers in disciplines experiencing shortages” (p. 115). This trust could also be used to pay teachers working in difficult schools (Budig, 2006, p. 115). Minnesota should invest in something like a trust to help raise the compensation of public school teachers. It should set aside money that is designated for just and fair compensation of all teachers. This trust should be managed, protected, and funded by a variety of stakeholders, and it should be present to help offset the financial demands that some lower revenue-generating districts might face. This trust should not be put in the hands of private philanthropy groups or corporations, but it must remain in the public domain.

vi

Third, Minnesota must increase the pay for rural teachers. Public districts in non-metropolitan areas struggle to find qualified teachers to fill positions. These districts are also unable to compete with the salary schedules of more affluent urban and suburban districts.^{vii} Monk (2007) confirms that “compensation tends to be low in both rural and small school settings” (p. 161). He also argues that “the share of teachers in the smallest schools who report having an extra job is higher than the national average” (p. 162). Teachers who work in small districts also rarely receive payment for their extracurricular work (Monk, 2007, p. 162). The low compensation offered in rural and small districts means they have to “make do with less qualified pools of candidates and are more likely to face retention problems” (p. 162). Beesly, Atwill, Blair, & Barley (2010) note that compensation packages are not the silver bullet to stop teacher attrition in rural areas, but they are still an important step (p. 3). Minnesota needs to give support to its rural and small districts.

Minnesota might also add housing programs to the menu of compensation. It is hard to afford a mortgage on a teaching salary, and many of the federal housing agencies have started to create programs to address this challenge. The U.S. Department of Housing and Urban Development has created the Good Neighbor Next Door Program that allows qualifying teachers to receive a 50% discount on home mortgages. Also, the Teacher Next Door Program offers financial advice and guidance so that educators can navigate the process of buying a home. However, these are not enough. Minnesota could follow the work of Chicago Public Schools which helps teachers who are first-time home buyers with the process of home-buying.

Minnesota could also revisit its past and revitalize previous legislative solutions to support higher salaries. Minnesota’s general revenue program contained a provision as recently as 2011 for “training and experience revenue.” The Legislature has phased out this revenue stream, but this form of funding is worth reconsideration. The Legislature could dedicate state aid that would be used to support salary payments to teachers who earn additional education credits and commit to teaching service, especially in districts with shortage areas or districts that struggle to provide competitive salaries. This would also help increase salaries and boost retention of teachers.

Finally, Minnesota needs to do more to expand student loan forgiveness. It is incredibly

expensive to become a teacher. The federal government has several loan forgiveness options that allow qualifying teachers to dismiss student loan debt after 10 years of service. However, these programs also require teachers to pay 10% of their annual gross income as loan payments. The programs also have varying levels of payment structures and timelines. We have already shown that teachers struggle to pay for homes and groceries on their current salaries. Minnesota cannot expect them to also contribute a 10% payment to the federal government on top of all other issues. Minnesota should take the lead by agreeing to pay teacher student debt quickly and directly.

Esther Hammerschmidt, a veteran Spanish teacher at Redwood Valley High School in southwest Minnesota, crystalizes the crisis facing new teachers. She has stories from the field about many teaching candidates completing their training in Minnesota and then leaving for more lucrative international positions. Hammerschmidt states:

I have the same conversation every year with my student teachers. I ask about their future plans and where they want to work. And they say, they are going to China to teach English because they will be paid more. They plan to teach in China and save money and return to the United States if things change. (personal communication, January 15, 2016).

This means teachers like Hammerschmidt provide teaching candidates with ample training and mentoring to set them up for success in their future classroom. Then, those candidates decide to leave the state and country because they cannot afford to accept the salary Minnesota schools offer. This story should be even more alarming to policymakers because Hammerschmidt trains candidates in a specialty field that districts struggle to fill. Minnesota has to increase teacher compensation, so the state does not continue to lose homegrown candidates to other states and countries.

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money and return to the United States if things change.**

We are not proposing that pay and benefits will stop all the attrition problems in the state. However, it is a critically important step supported by numerous academic studies examining retention issues. It is unacceptable for Minnesota to expect teachers to be required to work several jobs to support their families. Minnesota will retain more teachers if it starts compensating them with competitive salaries and benefit packages.

SUSTAIN TEACHERS WITH MEANINGFUL PROFESSIONAL DEVELOPMENT

Minnesota must provide the resources and time districts need to create meaningful professional development for all teachers. Our collective understanding of brain development, child development, content field knowledge, pedagogy, and assessment is constantly growing, and Minnesota educators need high-quality professional development as a constant and reliable resource. Minnesota cannot expect teachers to thrive in their classrooms if they are not given constant access to professional training and development. And policymakers cannot expect professional teachers to want to stay in a career that does not provide them with access to the latest techniques and opportunities to grow. Minnesota should invest more money in the continued training and development of all teachers.

Professional development has a positive impact on teacher retention. Many young teachers report feeling unsupported and unprepared for the classroom, and a large number of the new teachers who leave the profession cite lack of training as a primary reason. However, there is a direct answer to this problem. The TSP (2009) outlines the best practices school districts can implement to train and retain their new educators. In particular, the TSP specifically supports Ingersoll and Kralik's (2004) findings that retention of new teachers goes up when districts and sites provide them with professional mentoring and support. The TSP lists "mentoring, collaboration opportunities, teacher networks, resources, reduced number of course preparations, and aides in the classroom" as the sort of development opportunities districts can consider providing (TSP, 2009, p.2). Minnesota should follow the recommendations of its own stakeholder group, and it should provide districts with the time and money to make these programs a reality.

The TSP also recommends the use of individual growth plans. These specific professional development tools "provide initial educators with the opportunity to self-assess and to choose appropriate professional development goals that meet their needs" (TSP, 2009, p. 24). However, this will require that districts receive funding to pay local, mentor teachers who can help build these growth plans for new teachers. This sort of professional development is a critical step in sustaining and retaining new teachers. This type of investment seems expensive, and we know it will require a lot of time. However, one small district in California made these sorts of changes and realized a \$1.66 return on every dollar they spent on induction (TSP, 2009, pp. 5-6). Professional development can stop attrition and save districts and the state money.

The TSP is not the only organization that proposes using professional development as a retention strategy. Fraynd (2014) argued that "quality PD is also a great way to retain new teachers." He further argues:

The biggest reason teachers leave is due to the fact that they feel unsupported. When teachers feel unsupported they get frustrated and burn out quickly. Quality PD allows schools to create an environment of support and growth for new and current teachers so they are better equipped to be successful in the classroom and more likely to have a high

morale [sic]. (Fraynd 2014)

Fraynd (2014) sees professional development as a tool to prevent burnout and keep teachers in the classroom, but these programs must be grown at the local level. It is important that professional development opportunities focus on the needs of a specific district, school, or classroom. Minnesota should provide the resources for professional development, but it should trust educators to work with their administrators to develop programs that best benefit a specific site.

Although there should be local control over all professional development programs, there are two areas of continuing education that the state could help districts pursue.

First, teachers and schools are increasingly evaluated by the data that are drawn from the standardized test scores of students. Many policymakers and administrators expect teachers to improve the data of a specific class or cohort of students. However, very few teachers have access to these data and some do not know how to interpret them. Minnesota should provide schools with the resources and tools they need to train teachers to interpret and utilize data. For example, McLaughlin (2011, March) writes, “even more significant obstacles to the collaborative, ongoing, and frank discussions about data and student progress found in strong teacher learning communities lies in teachers’ general lack of knowledge about how to understand the data available to them” (p. 67). She stresses that “today’s most important professional development needs involve resources and opportunities for teachers to gain the knowledge and confidence required to make effective use of information about student learning and skills, to develop and evaluate an instructional action plan, and to engage in collaborative inquiry work” (McLaughlin, 2011, p. 67). Thus, districts and teachers need the resources and time to create their own professional development about data.

The good news is that Minnesota’s districts have many teacher leaders who can help train colleagues on the use of data. This is an important opportunity for districts to empower their own educators to help create professional development. Minnesota would need to support these efforts by providing compensation for the teacher leaders, and state agencies would have to provide teachers with regular access to updated data. However, these steps are necessary if Minnesota wants to continue measuring school, teacher, and student success with test data. This training can be grown at the local level if the state provides the financial resources districts will need.

Second, Minnesota must provide the resources for more professional development that promotes culturally responsive teaching. Professional development options must account for the growing diversity in Minnesota’s classrooms. More and more teachers are being faced with new cultural opportunities in the classroom. Some Minnesota teachers may need new tools to reach all the communities represented in their schools. Jacobson (2011) points out:

Regardless of where they earn their degree—and even if they have a solid student teaching experience before they claim their credential—new teachers are bound to face unexpected, upsetting, occasionally funny, and sometimes awkward situations that will

force them to think quickly and remain flexible. (p. 17)

However, this sort of awareness can only happen if new teachers are continuously trained and supported. Teachers need to be given training to have “an awareness and understanding of culturally responsive teaching practices” (Martins-Shannon & White, 2012, p. 5). Henfeld and Washington (2012) argue that “culturally relevant teachers harness the power inherent to their occupation to confront institutional and systematic practices which disempower students of color” (p. 149). Minnesota needs to seriously prepare all of its educators to confront the culturally changing landscape of the public school classrooms. This means the state has to provide the funding for sites to develop professional development that trains all educators in culturally responsive teaching practices.

Professional development is an important tool that will help keep teachers in the classrooms of Minnesota. Professional development does not have to be an elaborate system of classes and seminars. It does not have to take up entire weeks. Little (2006) recommends professional development programs like a lesson study. This sort of professional development “engages teachers in collaboratively planning a lesson on a key concept and in relation to shared goals” (Little, 2006, p. 21). This sort of collaboration will make teachers feel part of a learning community and it will allow them to build networks. It is important that professional development benefit the needs of specific schools and districts. As Little (2006) rightly notes, “the most promising forms of professional development are those that engage teachers in the ongoing pursuit of genuine questions, problems, and curiosities, over time, in ways that leave a lasting mark on their thinking and practice” (p. 21). Minnesota must invest in and foster this sort of professional development across the state.

RETAINING MINNESOTA’S TEACHERS OF COLOR

Before we discuss specific policy options, it is important to offer context for that discussion. A number of scholars have written extensively on this topic. Critically important resources for this topic, because of the breadth and depth of the research they reflect, are written by Richard Ingersoll and Henry May (2011) from the University of Pennsylvania, and Betty Achinstein, Rodney T. Ogawa, and Dena Sexton (2010) of the University of California, Santa Cruz. In 2015, two additional works were published that provide a wealth of critical information for this discussion. The first is the 2015 collection, *Diversifying the Teacher Workforce*, edited by La Vonne I. Neal, Christine E. Sleeter, and Kevin K. Kumashiro. The second is the *The State of Teacher Diversity in American Education*, published by the Albert Shanker Institute. All of these influential works illuminate clearly the alarming gap between the number of students of color in public schools and the almost exclusively-White teaching force that fails to reflect those demographics. All of these works also clearly articulate the damage being done by not diversifying the teaching force.

Most importantly for this discussion, all four of these resources note that teachers of color leave the profession for a consistent list of reasons other than retirement. All of these sources also acknowledge that if working conditions for teachers of color do not change, new

educators of color will not remain in the profession. Effective recruitment strategies targeting people of color have been successful. Ingersoll and May (2011) write that “over the past two decades, the number of minority teachers has almost doubled, outpacing growth in both the number of White teachers and the number of minority students” (p. i). But, Ingersoll and May also note, “the data also show that over the past two decades, turnover rates among minority teachers have been significantly higher than among White teachers” (p. i). One of the four primary findings of the work of Achinstein et al., is “a disturbing recent finding that teachers of color have higher turnover rates than White colleagues, with African American and Latina/o teachers turning over at the highest rate” (2010).

One theme that arises in study after study of teachers of color leaving the profession has to do with a mismatch between their motivation to enter the profession in the first place and the reality they face once they get there. Studies verify that “teachers of color are more likely than White teachers to work in urban schools that serve high proportions of students from low-income and racially and culturally non-dominant communities.” (Achinstein et al., 2010; Ingersoll & May, 2011). Also, teachers of color are more likely than white teachers to be motivated to enter the profession “in order to make a difference in the lives of low-income students of color” (Achinstein et al., 2010). Many studies show that pre-service teachers of color, when compared to White teacher candidates, were more likely to report that they were motivated to teach by their desire to improve the educational opportunities and lives of students of color (Achinstein et al., 2010; Belcher, 2001; Ingersoll & May, 2011; Su, 1997). Because of this “humanistic commitment” to making a difference in the lives of disadvantaged students, teachers of color are more likely than White candidates to seek employment in schools serving predominantly diverse student populations, often in low-income, urban school districts (Ingersoll & May, 2011; Ladson-Billings, 1995; Quiocho & Rios, 2000).

Minnesota’s data match these studies. The Education Minnesota *Teachers of Color Recruitment and Retention Survey* (2015) showed that most of our members of color, who responded to the survey, entered the profession to make changes in the lives of students. When the members were asked what motivated them to become educators, the factor that most members noted as either very important or important was “I wanted to make a difference” (Education Minnesota, 2015).

Despite these highly altruistic reasons for becoming educators, teachers of color leave the profession in great numbers. Ingersoll and Connor (2009) show that “retirement accounts for only 12% of turnover among teachers of color nationally [...] A recent national study revealed that teachers of color suffered greater job dissatisfaction and higher turnover than did White teachers” (as cited in Achinstein et al., 2010, p. 72).

The passions of these teachers are crushed when they are faced with the realities of the education system. The number-one reason teachers of color cite for leaving the teaching profession is “dissatisfaction with school conditions” (Achinstein et al., 2010, p. 86). The likelihood that a teacher of color will leave either the school or the profession altogether is significantly influenced by low levels of teacher classroom autonomy, administrative support, and faculty influence in decision making” (Achinstein et al., 2010). Ingersoll and May (2011)

echo these findings:

The data further show that particular school organization conditions were strongly related to [...] minority teacher departures. Hard-to-staff schools that are more likely to employ minority teachers often also have less desirable organizational conditions. And less desirable conditions, our data suggest, account for the higher rates of minority teacher turnover. In other words, the data indicate that minority teachers departed at higher rates because the schools in which they were employed tended to have less positive organizational conditions. The strongest organizational factors for minority teachers were the levels of collective faculty decision-making influence in their school and the degree of individual instructional autonomy held by teachers in their classrooms. Schools that provided more teacher classroom discretion and autonomy, as well as schools with higher levels of faculty input into school decision-making influence, had lower levels of minority teacher turnover. Other factors, such as salaries, the provision of professional development or the availability of classroom resources, had much less effect on turnover rates. (p. 43)

Achinstein et al. (2010) add another nuance to the high attrition rates for teachers of color, finding that additional reasons that teachers gave for moving from their schools were that their schools were characterized by the following: “low expectations or negative attitudes about students of color, lack of support for culturally relevant or socially just teaching, and limited dialogue about race and equity.”

In Education Minnesota’s 2015 survey of educators of color, 68% indicated that a lack of influence and autonomy were very important or important factors in their consideration of leaving the classroom.

In short, teachers of color are more likely to teach in low-income, culturally and racially diverse, urban schools, and those schools “often present conditions that reduce teacher retention rates” (Achinstein et al., 2010). All teachers leave these schools at higher rates than other schools, but the losses are particularly acute among teachers of color because they are more likely to be in these types of schools in the first place. Many have noted the inherent and troubling irony in this dynamic. Teachers of color are more likely to enter the profession out of a profound commitment to making a difference, and they are the most likely to end up teaching at schools that give them the least ability to do just that. They are in “high accountability” schools and have less autonomy and less decision-making power than their peers in other schools:

Their commitments to working as change agents, who transform schools to improve

educational opportunities for low-income students of color, were shaped by family, community, and professional influences. Thus, they were attracted to working in schools that served these communities. However [...], the teachers were often kept from acting on their commitments by the culturally subtractive conditions of the schools in which they worked and by the schools' responses to state and federal accountability policies. (Achinsteins & Ogawa, 2011, p. 161)

We know that the phenomenon of teachers of color being frustrated by having a lack of autonomy is as common in Minnesota as it is throughout the country. In Education Minnesota's 2015 survey of educators of color, 68% indicated that a lack of influence and autonomy were very important or important factors in their consideration of leaving the classroom. Again and again, respondents to the survey echoed the same theme. When asked what strategies might encourage teachers of color to remain in the profession, the teachers responded "the ability to have a voice in decisions," "a leadership team that offers agency to teachers of color," "a sense that their voice is being heard," and "more voice in the direction of education and policy decisions" (Education Minnesota, 2015).

Verna Wong, a teacher in the Anoka-Hennepin School District, describes her experience as a teacher of color:

I had idealistic aspirations as a teacher when I first started. I wanted to inspire kids, close the achievement gap, and basically change the world. Then year after year, you get bogged down by everything else, and sometimes you wonder, why do I do this? It's really wearing when you see the same students drop out of school, or students who fail their classes. Despite how hard I work to intervene, the systemic problems feel much larger, and I feel alone not knowing how to tackle them. (personal communication, January 15, 2016)

Teachers of color also cite low pay and low-quality facilities and materials as reasons for leaving teaching (Ingersoll & May, 2011; Achinstein et al., 2010). We have discussed the issue of pay earlier, but it is important to note that it also cited as a reason many teachers of color leave the profession.

Isolation is another key factor causing teachers to leave. Achinstein et al. (2010) writes:

The empathy of teachers of color for students of color, which was reported to be rooted in a common experience, resulted in teachers feeling isolated, having few colleagues with whom they shared the same orientation toward students, and being excluded from certain professional and social encounters that could foster a sense of belonging, help their teaching, and affect organizational decision making.

Education Minnesota's *Teachers of Color Recruitment and Retention Survey* (2015) also confirms these findings. More than 69% of the members taking the survey indicated that racial isolation is either very important or important to their consideration of leaving the

classroom (Education Minnesota). Table 2 and Figure 4 provide visual representations of how the responding members ranked the challenges they faced in the classroom. In an open-ended question about retention strategies, one respondent wrote, “having a support group for teachers of color is what made me come back this year after a terrible year.” Another wrote, “true community can go a long way toward making it easier for teachers of color to stay. It can be hard to be the only person of color in the room. I want my voice to be one of many and not just the lone black representative” (Education Minnesota, 2015). The literature on recruitment strategies specific to teachers of color shows that connectedness, a sense of belonging, and meaningful support are critical components in retaining educators of color.

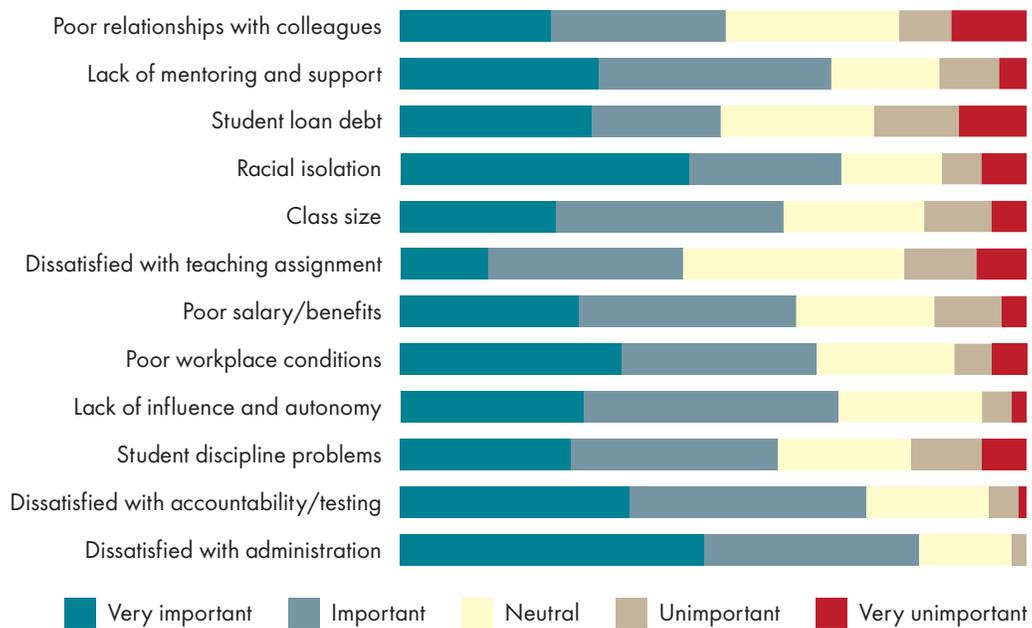
TABLE 2: EDUCATION MINNESOTA MEMBERS’ INSIGHTS ON RETAINING TEACHERS OF COLOR

Education Minnesota, as part of its efforts to recruit and retain a more diverse workforce of educators, surveyed more than 430 educators of color to determine what they considered the biggest challenges to recruiting and retaining more educators like themselves.

The educators surveyed were asked about the biggest obstacles to retaining teachers of color. They listed these four:

- dissatisfaction with their administrator.
- dissatisfaction with test-based accountability systems.
- racial isolation.
- lack of autonomy and influence.

FIGURE 4: EDUCATION MINNESOTA MEMBERS’ RESPONSES TO WHY THEY CONSIDERED LEAVING EDUCATION.



Some Minnesota schools are making an effort to connect new teachers of color with mentors who are also teachers of color, and student teachers of color with teachers of color, a strategy that is grounded in understanding how potent a factor racial isolation can be for many. Wong explains both the isolation she felt and how developing a strong relationship with other teachers of color has revitalized her love of teaching:

Often, you are working with primarily white colleagues, and it is draining when you are put in a position to speak on behalf of large and diverse groups. These conversations do not develop my knowledge or skills as a culturally-responsive educator. Instead, they can be emotionally charged for me, and I feel even more isolated when they become difficult. It is not sustainable. It can be very draining.

Making authentic connections with other teachers of color refuels the love that I have for teaching. It helps to validate my stories and empowers me as a teacher. These relationships sustain me because I know that I am not in this profession alone. We are all different. We all come from different racial, ethnic, gender, and class identities. We also know that collective knowledge from a diverse team of passionate educators is what we need to transform the future of education. (personal communication, January 15, 2016)

Wong speaks to the problems of isolation that may cause many teachers of color to leave the profession.

“Retaining Teachers of Color: A Pressing Problem and a Potential Strategy for ‘Hard-to-Staff Schools,’” by Achinstein et al., is a review of 70 studies examining the problem of teachers of color leaving the profession for reasons other than retirement. In it, the authors provide a list of policies that researchers identify as critical programs for retaining teachers of color. We use the list as an outline here because they are the same suggestions that come up again and again in the academic literature surrounding this topic and in the stories our own members tell. After considering all of the research and narratives about why teachers of color leave the classroom, we offer Achinstein et al.’s (2010) policy proposals as a strong model that can help retain Minnesota’s educators of color. We echo their recommendations:

- develop policies and governance structures that allow teachers in high-poverty, culturally-diverse urban schools professional autonomy and a role in the decision-making process regarding pedagogy and curriculum.
- provide opportunities and support for teachers in high-poverty, culturally-diverse urban schools to support and make a difference in the lives of children of color.
- develop curriculum and school practices that value students’ cultural and linguistic resources and encourage discussion about race and cultural issues.
- improve the financial capital of urban, hard-to-staff schools so that they can increase teacher salaries and provide high-quality instructional materials and facilities.
- provide high-quality, meaningful professional development, collaboration, mentoring, and social support for teachers of color.
- provide intensive and comprehensive forms of support through induction programs for

new teachers of color. (Achinstein et al., 2010).

Finding room for teacher autonomy and decision-making in the most high-needs schools may prove to be one of the most difficult and yet most important efforts Minnesota can make to address both the teacher shortage and the achievement gap. It may be difficult because the past 20 years have seen ever more stringent accountability measures placed on schools, measures that often create working conditions that lead to high teacher attrition rates: “lower-performing schools experienced much higher rates of teacher turnover in the first two years following statewide implementation of a high-stakes accountability system” (Swars, et al., p. 69). Attempts to write “teacher-proof” curricula and to dictate each minute of the day without giving teachers the ability to respond to student needs have largely failed, and instead of leading to the turnaround of underperforming schools, they have led to under-performing schools with revolving doors of teachers coming and leaving year after year.

SUPPORT SPECIAL EDUCATION TEACHERS

Special education teachers also merit a specific analysis, as they reflect the area of the greatest teacher shortage and as their needs and reasons for leaving are different from those of the general teaching force. Special education teachers are two-and-a-half times more likely to leave their positions than their general education peers (Ingersoll & Smith, 2004). Improving retention of practicing special education teachers “especially those in the early stages of their careers, has the potential to ease the difficulty of filling special educator positions (Gehrke & McCoy, 2007, p. 32). Special education teachers, like other teachers, cite poor compensation as a reason for leaving the profession (Billingsley, 2004a). They, like other teachers, also cite administrative and peer support as reasons for staying or leaving, but with special education teachers, that evidence looks a bit different. And there are additional workplace characteristics that correlate to high rates of teacher attrition in the field of special education.

There is “a growing body of evidence [that] indicates relatively high levels of discontent among teachers of students with emotional and behavioral disorders” (George & George, 1995). Researchers have paid a lot of attention to this phenomenon in the past 20 years, and we know a great deal about why teachers in this field are leaving. Aside from compensation, these teachers often cite isolation as a chief factor in their decisions to leave, and this isolation is shown to be the result of poor support from administration and poor support from colleagues. As discussed earlier, teachers who work in collaborative environments are much more likely to remain at their schools and in the profession. This is true, too, for special education teachers, who are even more likely than their general education counterparts to feel disconnected from a supportive network that includes administrators and other teachers. Gehrke and McCoy’s (2007) study of new special educators finds that teachers who left the profession were far more likely to have had difficulty finding supportive professional relationships. Those who left were more likely to list “self/no help” or “internet” as the primary sources of support, whereas those teachers who stayed were more likely to list “other special education teachers,” “mentors,” and “other school personnel” as primary sources of support (p. 35).

As trends have moved more students with special needs into mainstream classrooms, it has not always been clear how the special education teacher and the mainstream teacher are to collaborate (Billingsley, 2004a). Special education teachers very commonly talk about classroom teachers not understanding what they do, why it is important, or how to collaborate with them to help individual students. They talk about overwhelmed classroom teachers wanting the special education teachers to “get [special education students] out of their classrooms,” instead of being willing to implement interventions as identified by special education teachers. They talk about the disconnect between the reality of what a school is able to provide for a special education student and the whole-team approach that the special education student really needs. They talk, in short, about doing in isolation work that can only be successful in collaboration.

Isolation places greater strain on a profession already marked by highly stressful work. Many special education teachers report that their jobs are dangerous. An American Federation of Teachers’ 2015 survey filled out by 30,000 educators found that 18% of educators have been threatened with physical violence at school or in a school setting. That percentage rises to 27% for special education teachers. And while 9% of respondents reported being physically assaulted at school or in a school setting, that number rises to 18% for special education teachers (American Federation of Teachers, 2015).

I wish I hadn’t gotten my license. Now that I am the teacher, I spend most of my day doing paperwork while my paras work with the kids. I really miss the kids. If I hadn’t gotten my license, I would still be working with the kids and I wouldn’t have all of this debt.

A review of extant literature on the question of special education teacher attrition will point to other findings. There is clear evidence that links certification status to special education teacher attrition (Billingsley, 2004b). Special education teachers are more likely to be teaching out of their certified field, and this has a dramatic link with attrition rates. This phenomenon is exaggerated in rural areas, where “lower incidence of disability categories in remote and vast rural districts may mean that teachers face a greater diversity of abilities and disabilities on their caseload. Teachers may be providing services to students outside of their areas of training and certification” (Berry et al., 2012).

One unique characteristic of the job that leads to high levels of attrition for special education teachers is paperwork, the time-consuming, complex, ever-changing, and high-stakes paperwork required by district, state, and federal policies. Billingsley (2004b) argues that “paperwork is a major contributor to role overload and conflict [for special education

teachers]. Recent studies have consistently identified paperwork as a problem that contributes to teacher attrition” (p. 47). Excessive amounts of paperwork required for state and federal compliance have led to teachers leaving the profession out of frustration that they cannot spend their time with the kids they are motivated to help. Again and again, studies show the problem of excessive amounts of paperwork to be one of the key reasons special education teachers leave the profession. As Plash and Piotrowski (2006) assert, “teachers believe they are hired to teach children with disabilities when in reality they spend the vast part of their day completing paperwork and attending meetings.”

In an October 2015 meeting of teachers near Faribault, Minnesota, one special education teacher told a story that serves as a powerful example of how much paperwork colors and dominates the special education profession. She began her career as a special education paraprofessional without a license. She loved the work. She enjoyed working with the kids, and so she decided to borrow money for tuition and get her special education license. Now she is a special education teacher, and she regrets ever having made the change. She said, “I wish I hadn’t gotten my license. Now that I am the teacher, I spend most of my day doing paperwork while my paras work with the kids. I really miss the kids. If I hadn’t gotten my license, I would still be working with the kids and I wouldn’t have all of this debt” (anonymous, personal communication, October, 2015). Clearly, policies are needed that streamline and clarify paperwork requirements and that provide paid time in which to complete the work.

The degree to which special education teachers have access to the kind of training they need to complete paperwork correctly and efficiently varies wildly from one district to the next, and paperwork mandates change quickly from year to year. Mistakes or missed deadlines often lead to discipline for the special education teacher. Ongoing, high-quality professional development for special education teachers, therefore, is something that should be available for all special education teachers, no matter what district they work for.

Many districts in Minnesota offer some paid time for the completion of special education paperwork, but only in rare cases is the time offered sufficient to the need. Some districts offer “Due Process” nights, which are paid evenings during which special education teachers meet and complete paperwork with special education teachers from neighboring districts who work in similar fields, or with their mentors, or both. For some teachers, having the option of due process time in the evenings is preferable to time during the school day because there is such an acute shortage of special education substitutes that due process time during the day in many cases is simply not an option. Adding additional time to the already-packed schedule of a special education teacher, however, cannot be the ultimate solution. Teachers who leave the field often cite the time commitment as a factor, noting that special education teachers regularly do hours of paperwork every evening and every weekend. Paying them for some of this time is a good step, but ultimately, policymakers have to find ways to decrease the amount of time Minnesota requires its special education teachers to spend doing paperwork.

In addition to providing ongoing and high-quality training regarding paperwork requirement

and paid time in which to complete that paperwork, districts should be working diligently to manage and limit the caseloads of their special education teachers.

Other policies that help support special education teachers are critically important. Given the importance of collaboration to the retention of any group of teachers, and given that isolation is an even greater stressor for special education teachers than it is for general classroom teachers, professional learning communities that are built and supported in meaningful ways are critical. In order to make these PLCs useful, in many districts this means allowing for special education PLCs to exist across district lines. This would mean that speech language pathologists, or autism spectrum disorder teachers, for example, can collaborate, discuss paperwork requirements specific to their students, and support one another across district lines.

Imagine a job where your primary purpose is to inspire 25 to 40 individuals to action, but the individuals may have no desire to act, the action is often cumbersome and totally unknown to the individual, and there is no clear way to inspire them. Add on top of that the fact that you likely will not be able to leave the room to go to the bathroom, you will not have more than 15 minutes to eat lunch, and your day will probably start in the 7 a.m. hour and extend into the evening at home.

Supportive special education directors and coordinators who have the time to help teachers can also do a great deal to break down the sense of isolation that many teachers in the field experience. They can also provide training and assistance with paperwork, and they can help communicate with classroom teachers and promote a sense of collaboration with all staff regarding the well-being of special education students.

INVEST IN TEACHER WELLNESS AND CONFRONT OCCUPATIONAL STRESS

Teachers are overworked and face enormous pressures. Occupational stressors are leading to burnout, and they are causing many educators to leave the classroom. A former Minnesota schoolteacher explained the mental and physical stressors by saying:

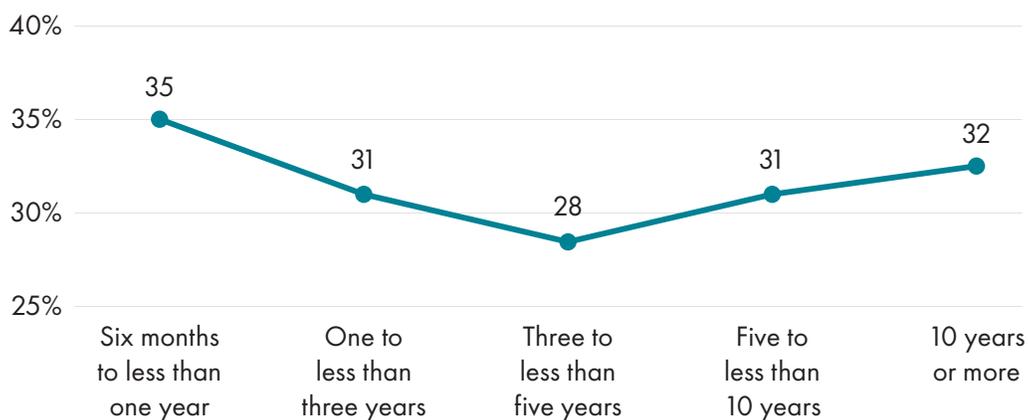
Imagine a job where your primary purpose is to inspire 25 to 40 individuals to action, but the individuals may have no desire to act, the action is often cumbersome and totally unknown to the individual, and there is no clear way to inspire them. Add on top of

that the fact that you likely will not be able to leave the room to go to the bathroom, you will not have more than 15 minutes to eat lunch, and your day will probably start in the 7 a.m. hour and extend into the evening at home. Sound attractive? (personal communication, February 23, 2016).

This is not an isolated story. This is the reality Minnesota educators face every day they enter a school.

Minnesota must give critical attention to the mental health of all educators. Teacher and staff wellness is linked to educator retention, and Minnesota should build school environments that benefit student learning and teacher wellbeing. The Gallup Organization recently produced a comprehensive study of U.S. schools titled *State of America's Schools: The Path to Winning Again in Education*. The researchers included questions about the occupational stresses facing public educators, and the results they produced show that the policies of the last decade have not built productive working environments for teachers or students. For example, K-12 teachers were the least likely of 12 occupational groups to agree with the statement "at work, my opinions seem to count" (Gallup, 2014, p.23). Further, Gallup reported that 46% of K-12 teachers report high daily stress (Gallup, p. 8). Even more startling, Gallup shows that "nearly 70% of K-12 teachers are not engaged in their jobs."^{viii} (p. 26). These startling figures need to be addressed by policymakers.

FIGURE 5: GALLUP ENGAGEMENT SURVEY RESULTS. WORKPLACE ENGAGEMENT LEVELS AMONG K-12 TEACHERS IN THE U.S., BY YEARS OF EXPERIENCE



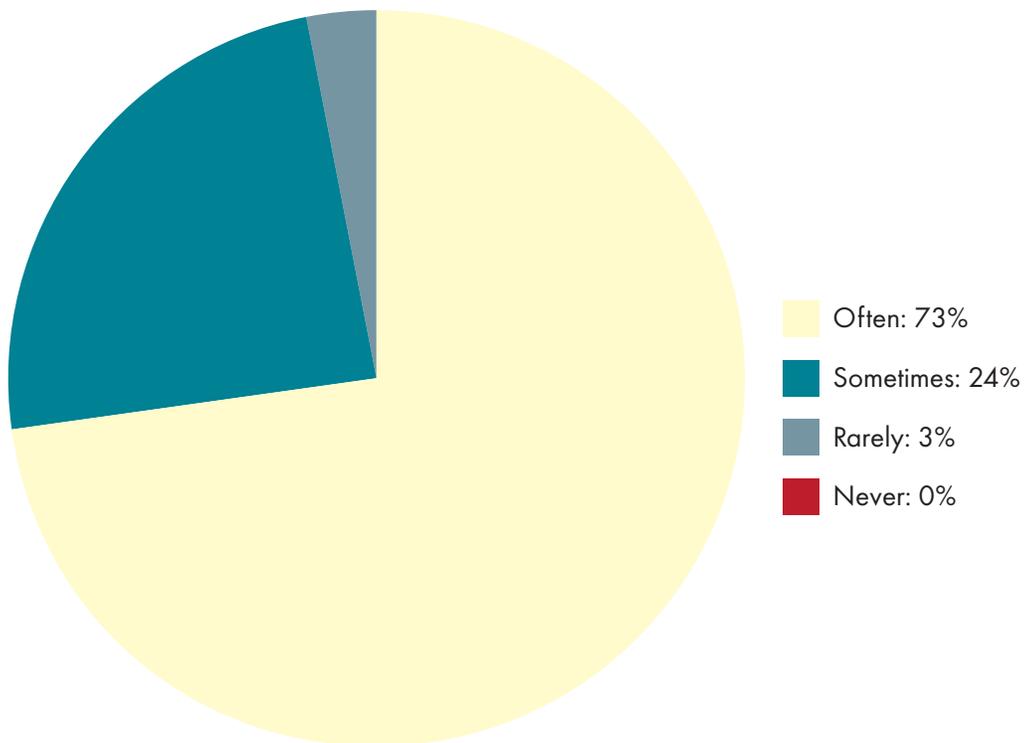
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New educators feel even more disengaged and stressed than their more senior colleagues. This is a problem for retention efforts because, as we have noted, too many teachers leave within the first five years of being in the profession. The Gallup study shows that first year teachers feel the most engaged at work, but their engagement starts to drop within six months of employment, as shown in Figure 5. The disengagement numbers are the lowest for teachers in years three to five. Teachers making it past year five will start to recapture a small amount of enthusiasm, but it may be too late at that point to correct the damage. Minnesota loses a

third of its teachers by year five, and the low engagement and high stress levels may account for much of the teacher attrition in the state. Intervention strategies must start early, and they must be sustained through the first five years of employment to help new educators find appropriate mechanisms for dealing with occupational stress.

The American Federation of Teachers has also released a *Quality of Work* survey of its members, which echoes the findings of Gallup. *The American Educator* reported that this survey shows “job related stress leaves more than three out of four teachers emotionally and physically exhausted at the end of each day” (Survey Reveals, 2015, p. 42). The AFT survey also reports that 73% of educators are often stressed at work as displayed in Figure 6. Layton (2015) further states that the AFT study shows teachers “feel particularly anxious about having to carry out a steady stream of new initiatives—such as implementing curricula and testing related to the Common Core Standards—without being given adequate training.” Randi Weingarten, president of the AFT, summarizes the findings as showing that teachers are expected to play too many roles at once and when they fail to accomplish all these tasks “we blame them for not being saviors of the world” (as cited in Layton, 2015). Minnesota policymakers need to take note that the current workforce of educators is significantly stressed out.

FIGURE 6: AFT SURVEY RESULTS TO QUESTIONS ON U.S. EDUCATOR STRESS LEVELS. HOW OFTEN DO YOU FIND YOUR WORK STRESSFUL?



Reprinted with permission from the Fall 2015 issue of *American Educator*, the quarterly journal of the American Federation of Teachers, AFL-CIO.

Scholars have provided several understandings about what factors are causing occupational stress for U.S. educators. Most research points to low efficacy as the biggest stressor facing teachers. Teacher efficacy speaks to an educator's personal belief that he or she can influence student learning (Berryhill, Linner, & Fromewick, 2009, p. 706). Educators experiencing low levels of efficacy will also likely experience high levels of stress. Sass, Seal, and Martin (2011) show that low efficacy can be related to higher levels of workplace stress, and it may also drive educators to want to leave the profession. Furthermore, Yu, Wang, Zhai, Dai, and Yang (2015) indicate that when teachers feel tremendous pressure at work they "tend to develop lower self-efficacy and feel tired of working" (p. 705). Ultimately, school, district, state, and federal policies can exhaust teachers and decrease their levels of self-efficacy (Berryhill et al., 2009, p. 8). This in turn can lead to school environments that are not productive for teachers or students.

Notably, because most teachers enter the profession for altruistic reasons, their sense of efficacy is often tied to a strong desire to make a difference. When teachers run into systemic barriers to achieving their altruistic visions, it creates much greater workplace stress.

Workplace stress can also lead to educator burnout. Scholars define burnout in many ways, but it primarily manifests when a worker feels less accomplished at work, experiences emotional exhaustion, and has negative attitudes about co-workers and the work environment (Schonfeld & Bianchi, 2015, p. 22). Burnout must be curbed to help with the retention of Minnesota's teachers. For example, Richards (2011) identified several factors that increase teacher stress in the workplace (pp. 30, 32). In another work, she links these factors to teacher burnout and argues:

Concern for the effects of unrelenting stress in the lives of our teachers cannot be minimized or ignored. Policymakers and educators must realize that good teachers can succumb to burnout and work actively to demonstrate that concern. It is true that 'children are our future,' but teachers lead the way. For the good of our students as well as our society, the subject of teacher stress deserves our attention and support. (Richards, 2012, p. 312)

Burnout can lead to higher teacher attrition. Yu, et.al. (2015) warn that when work related pressures that lead to burnout are not addressed, "teachers will lose their passion for education and teaching, experience a state of extreme fatigue, completely lose their enthusiasm, and demonstrate passive, negative, or indifferent attitudes toward their students" (p. 705). Minnesota must adopt policies at the local and state levels to stop teachers from becoming exhausted and ultimately deciding to leave the classroom.

It is challenging to create healthy workplaces, but it must be a top priority if Minnesota hopes to retain its teaching workforce. However, this work has to benefit teachers, students, classrooms, and schools. It cannot become one more burdensome committee or personal responsibility added to the crowded schedules of educators. Berryhill et. al (2009) rightly note that "policymakers should consider making changes for teachers rather than in teachers" (p. 9). There are several options the state might consider. Schools could provide on-site

counseling services. Educators could be given more access to wellness activities. Sites could set aside physical space that allow teachers to escape from stressful situations and collect their thoughts. However, these sorts of changes require money and infrastructure. Minnesota should be prepared to hire health professionals and wellness coaches. Minnesota should also be willing to give districts the time and money to pursue these sorts of benefits for educators.

Beyond money and resources, Minnesota should also facilitate leadership changes that might lead to less stressful work climates for educators. Many of these efforts can start at the level of the school principal, and Minnesota could provide the resources for administrative training on how to build mindful workplaces for teachers. For example, Richards (2011) argues that principals could do three simple tasks that can take place at the site level.

First, Richards (2011) emphasizes that teachers need more time. This is one of the most cited stressors in all studies, and Richards mentions that giving teachers moments to plan and prepare would make a significant difference (p. 32). However, time also means breaks and these breaks must be respected. Teachers need a moment to eat lunch and clear their minds. It is not appropriate for a principal to impose working lunches on teachers, and there needs to be some sort of administrative oversight to ensure teachers receive a break during their work days.

Second, Richards (2011) shows that offering teachers respect will reduce workplace stress. Respect is more than being polite. Teachers need a voice in the creation of site policies. Principals should include teachers in conversations about schedules and calendars. Principals should also show that the voice of teachers is valued in the decision-making process. These small moves can reduce some of the workplace stressors educators feel, and they will create more productive working environments (Richards, 2011, p. 33).

Finally, Richards (2011) says principals should praise educators. The teaching profession is under constant attack from external groups. Media is quick to report some failing at a local school, but journalists do not always rush to show the positives of the education system. It is hard to battle external pressures and the internal difficulties of the job at the same time. Administrators could alleviate this stressor by countering negative press with praise for the contributions teachers are making at their site. A principal might offer kind words or verbal affirmations to balance the constant focus on assessment and achievement of students. Teachers who feel valued are likely to experience less workplace stress, and this will help build healthier school climates.

Minnesota must give sustained attention to the well-being of teachers if it hopes to retain educators and stop high attrition rates. Stauffer and Mason (2013) argue that “the benefits of minimizing professional stressors may include improved job satisfaction and higher teacher retention rates” (p. 810). Liu and Ramsey (2008) also shows a relationship between work stressors and retention. Finally, Knox and Anfara, Jr. (2013) show that “increasing teacher job satisfaction can improve teacher retention and encourage the best prospects to enter the field” (p. 58). Wellness and quality of work life are important parts of the retention

puzzle, and policymakers must provide the resources to build better schools for students and teachers.

However, the benefits of a holistic wellness focus go beyond simple retention efforts. First, the wellness of teachers directly influences the wellness and performance of students. Teachers will be able to perform better in their classrooms if they have the occupational resources needed to sustain their work. This in turn could lead to better student performance. Richards (2011) argues that “concern for teachers’ level of job satisfaction and stress is important to the successful academic preparation of our youths” (p. 30). Eklund (2009) also praises the vital importance of better work environments for teachers (p. 26). Finally, scholars have also started to show that mental health problems often co-exist with other health ailments. Hinds, Jones, Gau, Forrester, and Bilgan (2015) cite studies to confirm that high levels of stress appear with physical health problems like insomnia and hypertension (p. 285). This means that stressed out teachers may miss more work due to co-existing health conditions, or they may also be less able to perform classroom tasks. In short, less stress in the workplace will lead to happier teachers. This may have positive consequences beyond simply retaining Minnesota’s educators.

Minnesota must reduce the stress levels experienced by all educators. This is a vital step in the retention process. Improving the well-being of teachers has the potential to stop attrition and increase productivity in all of Minnesota’s schools.

CONCLUDING THOUGHTS ON RETENTION

Minnesota cannot simply increase the number of teachers entering the profession and hope to stop the teacher shortage. Claire Traynor describes the problem like this, “you cannot take a simple Band-Aid and put it on a severed limb and hope for the best.” Simply adding more teachers to the pipeline is the Band-Aid approach. Instead, Minnesota needs more programs and resources that sustain and develop teachers from the moment they enter the classroom. The state also needs a compensation system that fairly reflects the work and effort public educators give to the students of this state. Minnesota has a chance to stop teacher attrition and develop a robust public school system. We hope public officials will follow these recommendations and seize this growth opportunity. We ask Minnesota’s policymakers to work together to make this state the national leader in support of public school teachers.

RECRUITMENT AND RETENTION STRATEGIES FOR THE STATE OF MINNESOTA

Minnesota must meet the challenges presented by the current teaching shortage. Policymakers must promote teacher recruitment, and the state must focus on retaining teachers. Minnesota has always been a progressive state, and this crisis presents another opportunity for the leaders of Minnesota to set an example for the rest of the country. To do that, Minnesota must give attention to these priorities:

RECRUITMENT:

- build early pathway programs in high schools to promote teaching as a profession. In addition, Minnesota must implement pipeline programs specifically designed to attract high school students of color to careers in education.
- provide the resources needed for school districts and teacher training institutes to collaboratively create new training programs that recruit talented future educators. In addition, Minnesota's teacher training programs need to implement new policies specifically designed to recruit and support future teachers of color.
- transform the teacher licensure process and modernize the employment application process. In addition, Minnesota must eliminate barriers that prevent highly qualified teachers of color from being placed in Minnesota schools.
- provide stronger financial support to attract highly qualified teachers. In addition, Minnesota should provide financial incentives to educators willing to work in schools that serve diverse populations.

RETENTION:

- provide the resources to allow educators and administrators to build collaborative working environments.
- increase support for teacher agency, which means granting autonomy to teachers as they respond to student needs and involving teachers in the school-wide decision-making process.
- provide a stronger menu of financial benefits for all educators.
- invest in quality professional development for all educators.
- invest boldly in new strategies that help retain teachers of color, including creating avenues for teacher autonomy, diversifying curriculum, reducing financial barriers, and providing meaningful, ongoing professional development and induction.
- decrease the professional demands and work stressors placed on special educators.
- give more attention to the mental health and well-being of all educators. Minnesota must especially support the well-being of educators working in high-needs schools.

This is not a small task, but the results of a comprehensive approach to this problem will benefit Minnesota for several generations. We know that Minnesotans care deeply about the quality of the education all children receive. In order to preserve and improve the quality of that education, close achievement gaps, and provide children with the learning environments that they deserve, the state must invest in improving and maintaining the teachers who create those environments. Minnesota cannot move forward with any objective to improve schools without solving the fundamental issue of teacher retention and recruitment. The state must offer the resources needed to stabilize the classrooms of its schools—particularly the classrooms where students have the highest needs—with a high quality, continuous teaching force. Then policymakers can take on many of the other challenges facing our education system. Minnesota can help facilitate these changes even though they are site level recommendations by offering money and time for trainings and programing.

VII. References

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- i We use the term *Hispanic and Caucasian* because those are the terms used by the Department of Education and the U.S. Census Bureau. We do understand the cultural and colonial critiques of these terms.
- ii Please see the above footnote.
- iii MDE's *Supply and Demand Report* offers some inconsistent data regarding this number. By one count, in the 2013-2014 school year, the percentage of teachers of color was 2.3%. By another, it was 3.5%.
- iv Education Minnesota's policy department conducted this survey in 2015. This is not a published survey. Members of the policy department are willing to discuss the results of this survey with interested parties making reasonable requests.
- v Education Minnesota's policy department tracks and verifies the starting salaries reported by local units. The data is internal, and it is continually verified. Education Minnesota does not publish this data, but members of the policy team are willing to field inquiries about this data from interested parties making reasonable requests.
- vi Education Minnesota believes a fund like the one we describe must remain in the hands of public organizations. First, private administration companies levy high fees to manage funds of this magnitude. Many higher education institutions are facing similar "fee battles" with private management companies. Second, Gollust and Jacobson (2006) stress that one of the most important tenants of a public education system is "its role in promoting democracy, social cohesion, student achievement, and equity" (p. 1735). Private management of this sort of teacher trust fund may be driven by a different set of economic values. Gollust and Jacobson (2006) also argue that private regulation of public sector programs can lead to "questions about how to ensure that alternative models are held accountable to the public and to the government and what mechanisms for oversight should be in place" (p. 1735). We argue that the management of a teacher trust is best left in the hands of democratically appointed bodies. We feel this will lead to more transparency and the best chance for equitable distribution of funding.
- vii Monk (2007) also confronts the cost of living counter argument that is often presented in these debates. Many would say that urban schools pay more because the cost of living in a city is higher. However, he makes it clear that those calculations do not often account for the added expenses of living in a rural area. For example, a rural teacher will likely rely on a personal automobile more than their urban counterparts (p. 163).
- viii Gallup recognizes that this is only slightly higher than the averages of all U.S. workers. However, the organization also rightly stresses that "when teachers are not fully engaged in their work, their students pay the price every day" (p. 27). Thus, attention needs to be given to this stark number.



