Retaining Nevada’s Teachers: Issues and Solutions
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Teacher attrition and retention present an immediate, undesirable challenge for education in Nevada. While an increase in enrollment in the student population necessitates an increase in teachers, teacher retention rates across the state of Nevada range from 14 percent in Pershing County to 30 percent in Clark County and 75 percent in Mineral County from 2012-2015. In addition to the disadvantages to students when teachers leave the profession, there is also a substantial cost to districts. Research in urban settings suggests that replacing a new teacher in a district can range from $12,000 to more than $26,000.

Factors that help retain teachers include strong professional collegial environments, supportive leadership, professional development aligned with present teaching contexts, induction programs that provide new teachers with mentoring and coaching from experienced teacher leaders, reduced teaching loads, positive personal support from administrators, and collaborative experiences with colleagues. In addition, teacher pay has always been a factor in retaining quality teachers. Teaching is a demanding profession, but low pay can leave teachers feeling undervalued and contribute to their attrition.

Key Nevada Facts and Statistics
- During 2017-2018 there were nearly three million students enrolled in Nevada schools and approximately 1,000 teacher vacancies.
- Less than 60 percent of the statewide demand for teachers was met in 2017.
- Between 2012 and 2017 nearly 20 percent of the Nevada teaching force left the profession.
- While Nevada school districts have a large number of substitute teachers, many classrooms still go without a qualified teacher; in CCSD alone nearly 900 jobs a day go unfilled.

Key U.S. Facts and Statistics
- Teachers in the U.S. comprise the largest organizational group in the nation.
- Approximately 42 percent of new teachers are estimated to leave the profession in five years.
- The national average of teachers leaving the profession is 14.2 percent and the number of candidates entering the teaching field has dropped since 2004.

Recent Actions in Nevada
- Numerous teacher education programs have been approved in Nevada in an attempt to address the teacher shortage.
- Some districts offer monetary incentives for teachers who commit to work in lower-performing schools.
- The Great Teaching and Leading Fund has provided professional development opportunities for teachers and administrators.

Considerations for Future Actions
- Fund professional learning for principals in developing a school culture that supports teacher retention.
- Fund coaching, mentoring, and networking opportunities for administrators and teachers.
- Institute programs for timely and meaningful professional development for all teachers.
- Increase teacher pay.
- Establish a framework for paying teachers serving in residency or internship programs as they work alongside an experienced teacher or teachers over an entire school year.

Implications of Maintaining Status Quo
- The population of Nevada is projected to increase to 3.5 million by 2020, stressing the existing educational system already struggling to recruit and retain the teaching force necessary to serve a growing and diverse student population.
- The educational vitality of Nevada’s communities will be inhibited by the absence of teachers and programs that support them.
- Education has a direct effect on workforce and whether that workforce has the skill sets sufficient to attract the industries Nevada’s economic development leaders want to attract.
- Nevada’s status as last in the nation for “student chance of success,” cannot be improved without increased focus on improving teacher retention and professional development for Nevada’s teachers and administrators.
Introduction
This paper presents an overview of challenges the Nevada Department of Education faces regarding the attrition and turnover of Pre-K-12 classroom and special education teachers. This paper asserts that for children and schools, the distinction between attrition and turnover is not as important as the fact that teachers leave schools. After describing the problem of teacher attrition and turnover, the paper addresses the cost of this problem to Nevadans, school districts, and the Nevada Department of Education, lists probable causes, and recommends possible solutions as identified through a review of literature on teacher attrition and turnover.

Statement of the Issue
Teachers in the U.S. comprise the largest organizational group in the nation (Bureau of Labor Statistics, 2011). While the number of teachers who are beginners has dramatically increased, more than 41 percent of new teachers are estimated to leave the profession within five years (Perda as cited in Ingersoll, 2014). The loss of new teachers hampers the ability to adequately staff schools with highly qualified teachers. In the May issue of Educational Leadership, Ingersoll, Merrill, and Stuckey (2018) provide data on trends in public school teacher turnover that indicate the following: Public school retirements have increased, the teaching force has become less experienced and less stable, and departures from teaching are far higher for beginning teachers than for their experienced colleagues.

Throughout the U.S. teachers leaving the profession, defined as attrition, occurs at higher rates in the South and lowest in the Northeast, where states tend to offer higher pay, support smaller class sizes, and make greater investments in education. Shortages also persist in specific areas: mathematics, science, special education, English language development, and foreign languages. Turnover, which refers to teachers moving from school to school, is 50 percent higher in Title I schools, which serve more low-income students. Turnover rates are also 70 percent higher for teachers in schools serving the largest concentrations of students of color (Carver-Thomas & Darling-Hammond, 2017). According to Ingersoll, Merrill, and Stuckey (2018), “about 45 percent of all public school teacher turnover takes place in just one-fourth of public schools” (p. 48). These high teacher turnover and attrition rates negatively impact student achievement (Ronfeldt, Lankford, Loeb & Wyckoff, 2013).

As we look across two particular issues, attrition and turnover, we assert that for children and schools, it is not important to distinguish between attrition and turnover; the problem is that teachers are leaving. According to an analysis by Pak-Harvey (2017), the national rate of new teachers who left the profession after one year in 2015 was 15 percent. This number does not include teachers who move from one school to another, which is estimated to be significantly higher. Across the state of Nevada, three-year turnover rates for teachers have ranged from 14 percent in Pershing County to 30 percent in Clark County and 75 percent in Mineral County from 2012 to 2015; the data reveal that teacher retention is a significant issue in rural and urban areas of Nevada.

Costs of Teacher Loss for Nevada, the School Districts and Nevadans
There is a high cost when teachers leave school districts. A study of state-by-state attrition rates concluded that there is a revolving door of teacher turnover that costs school districts upwards of $2.2 billion a year (Amos, 2014). The cost of teacher turnover and attrition varies among urban, suburban, and rural schools districts. Research in urban settings suggests that replacing a new teacher in a district can range from $12,000 to more than $26,000 per teacher (Watlington, Shockley, Guglielmino, & Felsher, 2010). This cost includes the money districts must spend for recruitment, orientation, and induction. In addition, there are other hidden costs that are difficult to monetize in terms of student learning, and their impact on school culture should not be underestimated.

Causes of Teacher Loss
Given the impact that teacher loss has on students, schools, and districts, it is imperative to better understand causes of attrition and turnover in an effort to ameliorate the issue. Redding and Henry (2018) contend that “students who lose their teacher during the school year have significantly lower test score gains...than those students when their teachers stay” (p. 1). In this section, we provide an overview of several causes for teachers leaving schools. The list is not exhaustive but rather covers salient topics that have been well-documented by research. Based on our review of literature, we lim-
it our discussion to school leadership, job dissatisfaction, new teacher reality shock, a lack of meaningful professional development, and low pay.

Studies show that teachers leave schools not students. Ashkanasy and Humphrey (2011) found that teachers placed in schools with positive climates (e.g., strong professional and collegial environments and supportive leadership) were more likely to decide to stay in teaching, and administrative support is the factor most consistent with teachers’ decision to stay or to leave (Sutcher, Carver-Thomas, Darling-Hammond, 2016). Specifically, principals are crucial to a positive school climate, teacher professional development, and structures that support teachers. According to Tatoro and Wise (2018), when the induction of teachers into a district or school focuses on culture and vision as well as procedural information, teachers are more likely to feel part of the school culture.

Research on teacher job dissatisfaction correlates satisfaction and attrition; the less satisfied a teacher is with his/her job, the more likely he/she is to leave (Perrachione, Rosser, & Petersen, 2008). Contributing factors to dissatisfaction include stress, a lack of confidence in one’s ability to perform requisite duties (Chestnut & Burley, 2015), and challenges of placement when the newest teachers are placed in the hardest-to-staff schools. For new teachers, stress can result from demands such as paperwork or classroom management, or conditions such as isolation and feeling undervalued (Prilleltensky, Neff, & Bessell, 2016). One well-established stressor for teachers is a low level of belief in their ability to execute the tasks of teaching in a way that will garner expected student outcomes. When teachers question their ability to effectively engage students, manage the classroom, or implement instructional strategies, they are likely to experience higher levels of stress than those with more confidence in those areas—Thus beginning teachers are more likely to be impacted by this (Klassen & Chiu, 2010). Furthermore, when teachers find themselves in schools impacted by high poverty and low academic achievement, stress factors can be compounded. Unfortunately, more often than not, the teachers facing such conditions are typically the newest to the profession. Amrein-Beardsley (2007) estimates that “only about 15 percent of America’s expert teachers teach in high-poverty, underachieving schools” (p. 65).

Entering the teaching profession into the most challenging contexts can force new teachers into a “reality shock” (Dicke, Elling, Schmeck, & Leutner, 2015) and contribute to those teachers leaving within five years. “Reality shock” refers to the process of having to apply what was largely theoretical knowledge and ideals to full-time teaching. This is most likely to occur when a teacher enters the profession and quickly transitions from being a student-teacher to the teacher-in-charge. In an influential study on new teachers which popularized the concept of teacher reality shock, Veenman (1984) outlined eight challenges new teachers face: assessing student learning, classroom discipline, communicating with parents, motivating students, organizing class work, having inadequate materials and supplies, addressing students’ individual differences, and responding to individual student issues. While teacher candidates may become aware of these potential obstacles during preparation, they most often have limited opportunities to confront them until their first years teaching.

The lack of high quality professional development (PD) is another cause of teacher loss. When professional development is not aligned with educators’ present teaching contexts or with the needs of schools, districts and schools miss an opportunity to leverage quality PD as a vehicle toward improving school culture, and educators are likely to miss ongoing, high-quality professional growth opportunities. It is generally accepted that PD costs range from 2 percent to 4 percent of a district’s total budget, with some estimates going as high as 7 percent (Gulamhussein, 2013; The New Teacher Project, 2015), so PD is an area in which policymakers should expect evidence of effectiveness. In addition, a school environment in which leadership encourages teachers to further their careers through meaningful PD has been linked to increased teacher retention (Kraft, Marinell & Shen-Wei Yee, 2016).

According to Podolsky and colleagues (2016), the beginning salary for teachers can be 20 percent less than beginning salaries in other fields for individuals with college degrees. In addition, great inequities in teacher salaries among districts within the same labor market leave some high-need, under-resourced districts at a strong disadvantage in hiring. For example, an analysis of nationally representative data found that the best-paid teachers in low-poverty schools were earning 35 percent more than their counterparts in high-poverty schools.
Jackson et al. (Adamson and Darling-Hammond, 2011). The nationwide issue of teacher pay is also related to teachers feeling undervalued. Currently, four states (Arizona, Kentucky, Oklahoma, West Virginia) have had or are now facing teacher strikes due to low wages (Pearce, 2018), and while striking is illegal for teachers in Nevada, protests to fight pay freezes are underway in the Clark County School District (Pak-Harvey, 2018). Without attending to these and other concerns facing Nevada’s teachers, retaining them will remain difficult.

**Potential Solutions**

**School Leadership.** An important solution for improving teacher retention is providing effective professional learning experiences for principals in order to develop a culture conducive to a positive working environment along with school structures that support teacher retention. Once in the profession, substantial evidence indicates that new and experienced teachers will both stay at their schools and in the profession if they receive a variety of supports, the most important of which is a quality principal (Sutcher, Carver-Thomas, Darling-Hammond, 2016). Principals that can develop positive working conditions that include a school culture of collaborative responsibility, teacher empowerment and involvement in decisions, positive student behaviors, a safe working environment, and time for PD are more likely to retain teachers at their schools and in the profession (Allensworth et al., 2009; Boyd et al., 2011; Burghauser, 2017; Kraft, Marinell, & Yee, 2016).

According to a report by the Education Commission of the States (ECS), “states have played a relatively small role in principal professional development” (Aragon & Education Commission of the State, p. 1), and virtually no attention has been focused on principal PD specific to teacher retention. The ECS report and others (Council of Chief State School Officers, 2016; Manna, 2015), however, suggest states can positively impact principal learning through statewide policies and resource allocation targeted to support and improve principals’ practice. The ECS report specifically highlights Nevada’s efforts to provide high quality PD through Senate Bill 474 and The Great Teaching and Leading Fund. Other states, such as Colorado and Oregon, have developed specific programs to provide coaching, mentoring, and networking opportunities to principals through state initiatives and funding. Through relicensure requirements that direct principals to participate in high-quality professional learning experiences, as exemplified by Pennsylvania’s Inspired Leadership Program (Manna, 2015; Pennsylvania Department of Education, 2018), states can be more systematic in dictating what and how principals learn. Such systematic, state-guided principal professional learning can be focused on skills and practices that specifically help retain teachers.

**Mentoring and Coaching.** Along with principals, veteran teachers who serve as mentors are vital to retaining their colleagues. High quality mentoring for early career teachers has been shown to impact teacher enthusiasm (Kent, Green, & Feldman, 2012), stress (Adams & Woods, 2015), and classroom teaching behaviors (Spooner-Lane, 2017). To further the impact of mentoring in their state, Texas voters passed legislation to fund a Beginning Teacher Mentoring and Induction grant program which was designed to provide “qualified mentor teachers [for] classroom teachers with less than two years of experience” (Eissler & Watts, 2009, p. 23). The state allocated $15 million across 50 districts in the first grant cycle (2007-2009) and $15 million to 35 districts during the second (2008-2010). Similarly, New York state funds a competitive grant, the “Mentor Teacher-Internship Program,” for beginning teachers in their first or second years to be supported by a mentor who is appointed by a “mentor selection committee composed of a majority of highly qualified teachers selected by peers” (New York State Department of Education, 2018). While public evaluations of these state programs were not readily accessible, the decision to fund such programs is aligned with research that has demonstrated that formal induction that includes mentoring does positively impact teacher retention rates (Duke, Karson, & Wheeler, 2006).

For more established teachers who may be new to a school or district, coaching is a proven method for continued professional improvement. While mentoring and coaching have much in common, the act of coaching takes on a more specific purpose toward improving instructional practice. Coaches often team teach or demonstrate teaching strategies, assist with aligning teaching and student assessments, and focus on reaching “personalized goals that are directly generated from... the needs of teachers and students” (Desimone &
Pak, 2017, p.8). In an effort to specifically increase student achievement in math, Delaware’s governor proposed expanding the state’s number of middle school math coaches (Whinnery & Pompelia, 2018). Data on the effects of large-scale coaching programs acknowledges challenges when widely implemented in a state, yet promising practices include web-based virtual coaching using video-based technology (Kraft, Blazar, & Hogan, 2017) and providing continued support and development for instructional coaches (Eisenberg, Eisenberg, Medrich, & Charner, 2017).

**Induction for New Teachers.** Mentoring is a component of induction, and induction is a component of PD. As with any worthwhile program, all pieces must be in play for a successful outcome to occur. Research outlines the importance of implementing structured induction programs at the district and school level to improve retention of new teachers (Ingersoll & Kralik, 2004; Ronfeldt & McQueen, 2017; Smith & Ingersoll, 2004). These induction programs include new teacher orientations, mentoring and coaching, professional development specific to new teachers, reduced teaching loads, positive personal support and interactions with administrators, and collaborative experiences with colleagues. The New Teacher Center provides a detailed look at induction practices. They claim that “the ultimate beneficiary of a comprehensive induction program is the student. A growing body of research shows that students taught by teachers who receive comprehensive induction support for at least two years demonstrate significantly higher learning gains” (thenewteachercenter.org, 2016).

Induction and mentoring new members in any profession is not a new idea. In the 1978 issue of The Harvard Review Collins and Scott stated that “Everyone who makes it has a mentor.” During the 1980s, support programs for teachers began to appear across the country. These induction programs established systematic and sustained assistance for beginning teachers as well as teachers new to a state or district through the establishment of mentors and allowed for experienced teachers to offer professional and personal support. Zimpher (1987), stated that mentoring of novices by expert teachers can ameliorate initial concerns about self and teaching and encourage an early view toward professionalism. More broadly, the greater the number of supports through an induction program, the less likely new teachers are to leave their schools or the profession (Ronfeldt & McQueen, 2017; Smith & Ingersoll, 2004), with estimates as high as 58 percent of new teachers being more likely to remain in teaching and at their schools with such support (Ronfeldt & McQueen, 2017). If implemented well, mentoring and coaching for new teachers at the state, district, and school levels indicate new teachers may be 30 percent less likely to leave the profession (Smith & Ingersoll, 2004).

While the purpose and processes of induction and mentoring have been thoroughly researched, implementation of such programs is tricky and fraught with challenges. How is the Nevada Department of Education to create and sustain a systematic approach of support for teachers? It appears that implementing a comprehensive and coherent induction program holds great promise in retaining teachers. Given that teachers greatly influence student academic growth (Nye, Konstantopoulos, & Hedges, 2004), and a teacher’s influence may outweigh any number of external factors to a school’s direct control (Hattie, 2009, 2012), support through timely and meaningful induction programs and PD for teachers is basic to the retention of new teachers and experienced teachers. “Focused comprehensive induction helps teachers get better faster, sometime surpassing veteran colleagues. Successful teachers are more likely to stay in the profession; numerous programs point to dramatic increases in teacher retention even in hard-to-staff schools.” (thenewteachercenter.org, 2016)

**Internships and Residency.** Residency and intern programs have become a popular way to lessen the gap between teacher education programs and teaching so that new teachers have more time to gain practical experience before becoming teachers of record by experiencing “clinically rich” practice (Darling Hammond, 2014). Such residencies or internships are based on a medical school model of clinical practice. At the Harvard Graduate School of Education, teams of teachers observe and learn within classrooms in Boston-area schools, and a New York City model of teacher residency has demonstrated effectiveness in building experience in specific school contexts (Goodwin, Roegman & Reagan, 2018) where pre-service teachers work alongside an experienced teacher or teachers over an entire school year.
High Quality Professional Development. Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2009) conducted an extensive review of research in PD, with the explicit goal of providing a research base for policymakers, concluding “the kind of high-intensity job-embedded collaborative learning that is most effective is not a common feature of professional development across most states, districts, and schools in the United States” (p. 4). The authors found that more than 90 percent of teachers reported that PD experiences were comprised of one-day workshops or conferences. While American teachers spend roughly as much total time on PD activities as do teachers in other developed countries, American teachers are lacking the extended learning experiences that are commonplace elsewhere. The types of professional learning that were identified as holding the most potential included professional learning communities, which were regularly found in the other countries that were analyzed:

In place of professional development dictated by national boards of education, the content of professional learning is determined according to local needs and is often embedded in the work of ‘teacher teams’ or ‘teacher units’ at particular schools, which are empowered to make decisions around curriculum and evaluation. (Ibid., p. 17)

Features of quality and effective PD have been identified by numerous authors and organizations (Corcoran, 2007; Darling-Hammond, et al., 2009; Darling-Hammond, Hyler, & Gardner, 2017; Gu lamhussein, 2013; Jensen, et al., 2016) as collaborative, content-focused, focused on active learning, intensive, ongoing and connected to practice, and connected to other school/district initiatives.

Darling-Hammond et al. (2009) suggested that policymakers frame discussions around educator PD by asking, “How can states, districts, and schools build their capacity to provide high-quality professional development that is effective in building teacher knowledge, improving their instruction, and supporting student learning? And how can they assess the impact of their efforts over time?” (p. 27). As the Nevada Department of Education (NDE) does not currently collect information regarding the quality or effectiveness of professional development, the state is lacking the basic information that would be needed to craft meaningful, long-term policy solutions.

The current requirements for PD focus on verifying that a minimum amount of seat time has been completed, rather than making an explicit connection between PD activities and the ongoing professional growth of educators. In other words, the current policy framework for professional development exists in isolation, with no connection to other facets of the career continuum of educators. A few initial steps would modernize Nevada’s approach to educator PD:

- Require NDE (or another qualified entity) to collect, analyze, and report on district- and school-level PD activities across the state including (minimally) expenditures and effectiveness;
- Adopt standards of high-quality professional development and update the regulatory framework to reflect promising practices in the field;
- Require alignment to professional development standards as a mandatory pre-condition for any state or federal funding requests associated with educator development (i.e., Nevada’s Great Teaching and Leading Fund or district requests for Title IIa funds); and
- Should any new initiatives launch in the area of educator effectiveness, the state should include a corresponding PD strategy that capitalizes on the existing infrastructure provided through districts’ regional professional development providers.

Professional development of teachers is viewed as an ongoing process that continuously improves practice. Teachers who have the freedom to complete a range of professional development activities that are timely, relevant to their teaching situations, and connected to district and/or school initiatives can experience effective professional growth (Desimone, 2009).

Teacher Pay. States and districts can increase teacher salaries in schools and communities where salaries are not competitive or able to support a middle-class lifestyle. To do this, some states have funded statewide salary minimums that raise and equalize pay, as well as salary incentives for accomplishments such as National Board Certification or taking on additional responsibilities. Districts can negotiate salary structures that incentivize retention and make compensation packages more competitive in the local labor market.
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(Podolsky et al., 2016, p 3). Teachers can also be compensated through incentives related to housing, flexible work assignments, additional pay for expert/master teachers, and tuition reimbursement for career advancement.

What is Nevada Doing?
Senate Bill 474 and the Great Teaching and Leading Fund have provided funding for educator PD that may support teacher retention. In addition, professional development provided via state funding through the Nevada Regional Professional Development Programs may support educator retention. Potentially, the SB 497 Advisory Task Force on School Leader Management may also provide recommendations for improving principal quality that can support teacher retention. However, Nevada does not currently have a state plan directly focused on retaining educators, nor does the state suggest or require districts to address educator retention through formal plans.

How Can Nevada Do Better?
The Nevada Department of Education could develop specific programs to provide professional learning opportunities, coaching, mentoring, and networking opportunities to teachers and administrators through state initiatives. Funding that focuses on quality principal practices and best-teaching practices would support teacher retention. Requiring teacher induction and retention plans from districts that may include coaching and mentoring for new teachers, impactful, high quality professional development, and instruction in data collection for experienced teachers could all help improve teacher retention. Increasing teacher pay at all experience levels, as well as considering creative funding for experienced teachers who show competencies in coaching and mentoring, could also support teacher retention.

Implications of Maintaining Status Quo
The population of Nevada is projected to increase to 3.5 million by 2020, bringing more diverse learners to the state. This growth will stress the existing educational system which is already struggling to recruit and retain the teaching force necessary to serve a growing and diverse student population. Given that the challenges faced by ELs and other student populations in classrooms contribute to Nevada’s high teacher turnover rate, this issue will persist if not addressed. The educational vitality of Nevada’s rural communities will be inhibited by the absence of teachers and programs that support them. The Education Week Research Center’s report (2016) listed Nevada last in the nation for “Student chance of success,” and 38th for K-12 achievement. This status cannot be improved without increased focus on improving teacher retention and professional development for Nevada’s educators.

Conclusion
Support through the various means outlined for educators in this paper is basic to the retention of new teachers and experienced teachers, though according to Ingersoll (2016) none of the of the reasons previously stated represent the reason new teachers decide to remain in teaching or their perceived success.

States and districts that have prioritized teacher retention have developed ongoing data collection and evaluation systems to determine effective solutions to teacher attrition and turnover (Holme, Jabbar, Germain, & Dinning, 2017; Kraft, Marinell, & Shen-Wei Yee, 2016). Determining solutions to teacher turnover and attrition in Nevada requires robust data collection and analysis to address Nevada-specific issues.

Simply put, though nothing about recruiting and retaining excellent teachers for Nevada students is simple, any shortage of teachers can begin to be addressed by retaining those already certified and in place. Retaining teachers can certainly lighten the cost of recruitment and professional development, and such savings could release funds for establishing support programs. Putting programs in place to retain experienced and new teachers is likely the most powerful tool within our purview at present. The suggestions explained in this paper have the potential to help Nevada schools and districts retain teachers, save money, improve practice and increase student achievement. We have the necessary information, the expertise, and the desire to make significant changes to schooling in Nevada. Working together, across policy and institutional barriers, solutions to the problems of teacher retention can be accomplished.
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