Breaking the Cycle of Teacher Attrition:
Suggested Policies and Practice for Retention

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ABSTRACT

Teachers are prematurely leaving the profession at substantially high rates. The purpose of this research was to (a) collect and analyze factors linked to retention and potential attrition (i.e., how often a teacher considers leaving the profession), (b) provide specific and updated data on the causes of this problem along with potential solutions, and (c) meet the objective of improving retention policy and practice at all the levels of leadership within the education system. The sources used for this study are extensive literature and a mixed-methods survey about experiences sent by email to teachers across the state of California. The survey collected usable responses from 2,196 teachers about their experiences with teacher preparation programs, induction or mentorship programs, and their first five years of teaching. The researcher analyzed the responses to determine the relationships between the experiences and to make recommendations for leadership. The findings of this research show that teachers across the State of California feel high amounts of stress in their first five years of teaching, in addition to being generally unprepared for the profession and feeling unsupported in their induction programs. All of these factors are related to the frequency with which teachers consider leaving the profession throughout their careers. Recommendations for leadership include creating hands-on, practical, specific experiences prior to and in the early years of teaching; building better relationships between all staff members, including mentors; reducing the workload for teachers generally; and developing clearer communication and transparency between all stakeholders throughout the educational system.

Keywords: attrition, retention, teacher turnover, educational leadership, teacher preparation, induction, mentorship

Attrition is an issue that impacts our nationwide educational system. Student academic and social growth, teacher moral, parental inclusion, and the overall school culture are directly impacted by teacher attrition (Zang & Zeller, 2016). In this study, attrition refers to teachers leaving the profession; retention is its desirable opposite (Miller & Chait, 2008). Teacher attrition has many causes, both at the systemic level (i.e., supply and demand) and more specific levels (i.e., recruitment, preparation, leadership) (California Commission on Teacher Credentialing, 2019; Sutcher, et al., 2016). Although there is extensive research on the field, the topic bears continued research because the problem remains unsolved. This study sought to understand why teachers leave the field and present leadership recommendations for retaining teachers.

For this study, four main research questions were used:
1. How do teacher preparation programs affect preparedness and retention?
2. How does induction/mentorship affect retention?
3. Which workplace conditions contribute to teacher retention?
4. How do the preparation programs, mentorship, and workplace conditions interact over time?

LITERATURE REVIEW

This literature review will explore the causes of teacher attrition, the cyclical nature of those issues, and the cost to the system when those issues persist. In order for the education system to meet the needs of all stakeholders, in particular the students, there must be highly qualified teachers who stay in the field.

The Causes and Cyclical Nature

Attrition is caused by some of the following: (a) systemic issues, (b) supply and demand, (c) the budget, (d) recruitment, (e) preparation programs, (f) new teachers, and (g) veteran teachers (California Commission on Teacher Credentialing, 2019; Sutcher, et al., 2016). The conceptual framework below describes the interaction of the four parts of the teacher attrition cycle. It is important to note that this framework suggests attrition is cyclical. The cycle begins at the recruitment of potential teachers, which is impacted by societal views of teaching (Phi Delta Kappan, 2018). For those who make it to the teaching programs, many factors affect if they stay in their program and continue to become teachers. Thereafter, new teachers face specialized issues on top of the issues faced by all teachers. Each phase has a variety of causes that lose teachers and impact our external world. The cyclical nature and interplay between inherent issues and external factors are illustrated in Figure 1. In simplest terms, the factors outside of the circle pull people away from the profession, while those factors in the center retain people (Miller & Chait, 2008; Sutcher, et al., 2016; Zang & Zeller, 2016).

Figure 1

Conceptual Framework: The Cycle of Teacher Attrition
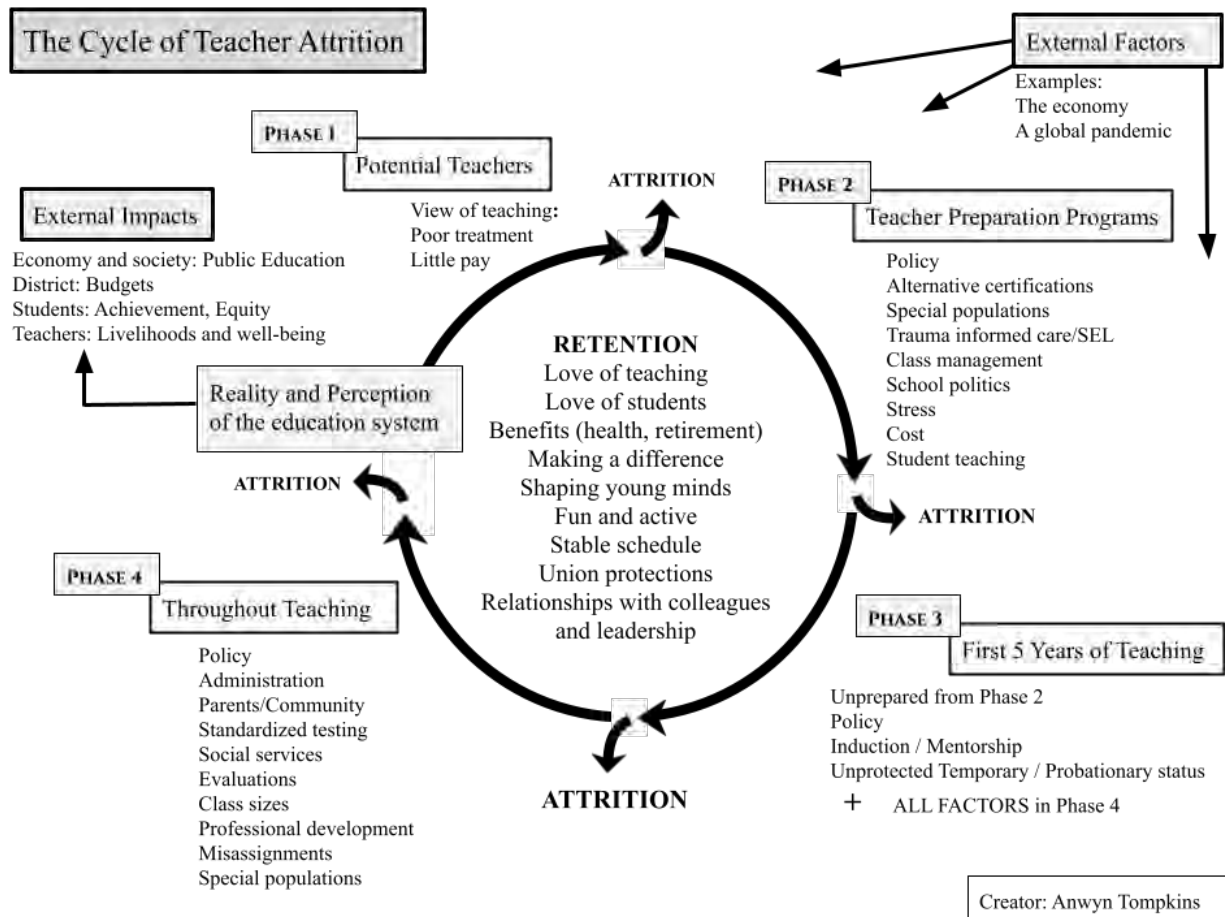
In Phase 1, people who are considering joining the profession will either continue to be swayed to join the profession by the factors listed in retention or will be dissuaded by the perception of the profession and become the first set of, in this case potential, teachers lost to attrition.

The people who are retained by the ideals in the center move forward into Phase 2, where they join some form of teacher preparation program. When potential teachers experience the difficulties listed under teacher preparation programs, they may be discouraged from their goal of becoming teachers and, thus, become the second group to be lost through attrition (Carver-Thomas, & Darling-Hammond, 2019; National Council on Teacher Quality, 2011; Podolsky et al., 2016). If they do continue to be pulled in by the retention factors, they become new teachers.

New teachers are faced with a special set of additional difficulties, as seen in Figure 1 (Miller & Chait, 2008; Moir & Gless 2001; National Commission on Teaching and America's Future, 2007). This double set of problems causes Phase 3 to encounter a large amount of attrition. If new teachers remain in the profession, having been retained through the central factors, they then become more veteran teachers. Veteran teachers no longer face new teacher difficulties, but they continue to deal with a variety of factors faced by all teachers, which can also cause them to leave the field prior to retirement (Carver-Thomas, & Darling-Hammond, 2019; Podolsky et al., 2016; Sutcher, et al., 2016; Whitaker et al., 2019).

Teacher attrition impacts stakeholders at all levels. The largest scale impact is for the economy, followed by districts, which are faced with the costs of recruitment, hiring, and onboarding/training (Brewer & McEwan, 2010; Zang & Zeller, 2016). Thereafter, school sites are faced with less stability, difficulty in implementing school-wide/multi-year initiatives, time training/mentoring new teachers, and developing relationships (Sutcher, et al., 2016). Most significantly, students are impacted by these issues, specifically students in high-poverty and high-minority schools. Schools serving historically underserved populations see more inexperienced and underqualified teachers, and so in turn experience disproportionate levels of attrition (Carver-Thomas, & Darling-Hammond, 2017). Lastly, this significantly affects teacher health and well-being (Lever et al., 2017; Pennsylvania State University, 2017).

The Cost

The constant attrition of teachers, in all of the phases, leads to very serious consequences for individuals, organizations, and our society as a whole (National Commission on Teaching in America's Future, 2007). The general public then notices these consequences, which causes the cycle to begin once again (Phi Delta Kappan, 2018). This conceptual framework guides this research because it demonstrates the interconnected and cyclical nature of the problem.

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METHOD

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The data collection method for this research was a mixed-method survey, which was approved by the IRB at Sacramento State University. Preliminary research was completed in a master's program research methods course, which helped to hone the questions. The survey contained 18 questions divided into 5 sections that related to the research questions, shown in Figure 2.

The only restriction on participants was that participants needed to have taught in the last 10 years. The participant pool included any type of school and any person who had taught. The participants were from throughout the State of California; randomized distribution of the participants helped ensure generalizability. I used complex sampling, which is a sampling design in which sections of the population are identified and surveyed in multiple different phases to ensure the participants mirror the population being analyzed. In this study, there were two phases: In the first phase, administrator email addresses were pulled from the publicly accessible California Department of Education database. Each of the 14,007 administrators in the state received an email with a link to the survey with a request to forward it to their staff. In the second phase, I downloaded a list of all California districts from the DOE website and used a random generator to select letters from the alphabet. I then collected all the teacher email addresses from each school in the districts beginning with that letter, and each of the 38,104 teachers received a direct email to complete the survey. This complex sampling design ensured that the sample was distributed across all sorts of schools in California and included as many teachers across the state as possible.

The numerical data was analyzed using Pearson R Correlation, Regression, and ANOVA tests to determine correlations and significance, and the open response questions were analyzed for the frequency of responses and grouped into themes. As the purpose of the research was to evaluate factors in retention and attrition, the question about how often teachers considered leaving the profession was the independent variable. The limitations of this research include the following:

1. Access to teachers: the teachers who participated were all people who were still in the profession, rather than those who had chosen to move on.
2. Timing: the survey was conducted during the COVID-19 pandemic and participants were recalling past experiences, so may have misremembered.
3. Demographics: although the data was representative of the demographic distributions of the teaching body in California, there was still limited participation from minority groups.

Figure 2

Survey Sections Relative to Research Questions
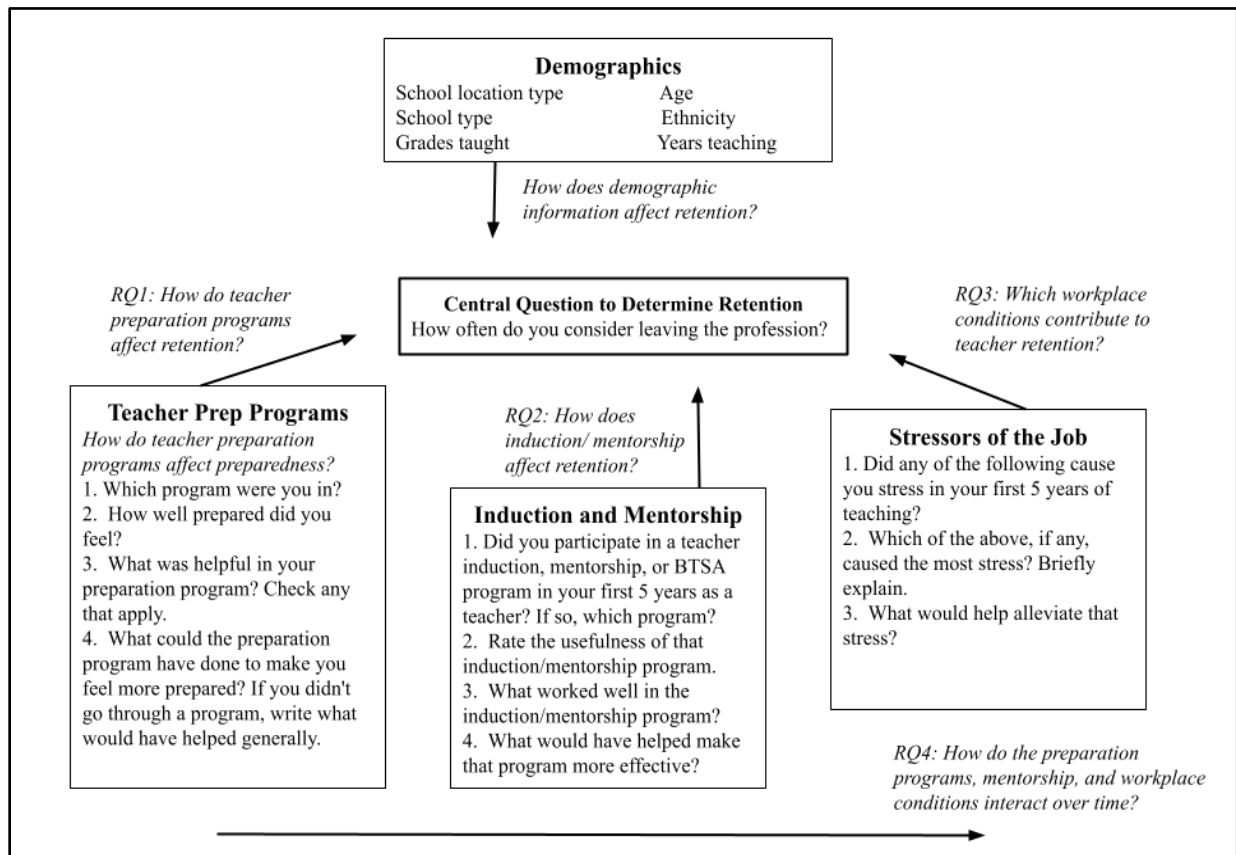
RESULTS

Of the 2,609 returned surveys, 2,196 were complete and therefore usable for the analysis. The majority of participants (57.6%) taught at suburban schools, rather than urban (23.26%), or rural (17.49%) schools. Nearly 90% of participants taught in public schools, with other types of schools represented by much smaller percentages, including independent charter (3.69%), dependent charter (3.05%), private (3.14%), and other (1.28%). The majority of participants had 10 or more years of experience (65.84%), with other groups containing far fewer teachers as follows: less than 1 year (1.63%), between 1 and 3 years (9.06%), between 4 and 5 years (9.15%), between 6 and 10 years (14.16%). The ages of participants ranged widely: 25 and under (25.96%), 26-35 (19.26%), 36-45 (22.86%), 46-54 (28.5%), and 55 years old or older (26%). Participants predominantly self-identified as White (77.04%), followed by Hispanic or Latino (14.8%), Asian (6.05%), Black or African American (3.23%), American Indian or Alaskan Native (2.05%), Native Hawaiian or other Pacific Islander (1.23%), and decline to state (5.15%).

Summary of the Data

The central question of the study was, "Have you ever considered leaving the profession?" Responses showed the following results: Daily: 3.7%, Weekly: 4.4%, Monthly: 8.6%, Yearly: 14.2%, Every few years: 30.7%, Never 38.3%. The next section of the survey asked for information about the teacher preparation program the participant had completed. The first question asked about how prepared the teacher felt for the profession after their program. The majority of participants (62.5%) felt at least decently well prepared for teaching after their preparation program. Qualitative themes illustrated that there were three program parts that were deemed most useful: *teaching techniques/management*, *student teaching*, and *observing other teachers*.

More than a quarter of teachers surveyed did not participate in any form of induction or mentorship program, which could be due to varying requirements across time or at different school sites. Of the remaining teachers who did participate

in a program, fewer than a quarter believed that their program was very or extremely useful. Participants found that having a mentor to go to with questions was most impactful. A smaller but still sizable number of participants found the following beneficial: having someone to check on me ($n = 775$), someone to walk through my ideas ($n = 790$), and someone to give perspective and evaluation ($n = 747$). Although the question very specifically asked about what was helpful, more than 80 teachers wrote in answers to explain the deficits in their programs. Qualitative responses included some the following phrases: nothing ($n = 27$), waste of time or paper ($n = 25$), useless ($n = 8$), busy work ($n = 6$), not helpful ($n = 5$), extra work ($n = 4$), made things harder ($n = 3$), repetitive ($n = 2$), and pointless ($n = 2$). Other common and more asset-based answers included discussions of getting non-evaluative observations, local/site-based information, collaboration, camaraderie, time for reflective practice, clearing the credential, videos of self-teaching, and an empathetic listener. Another theme worth noting was that many teachers said that they found their own mentors or collaborators on their campus outside of their program.

A majority of teachers (64.25%) who participated in an induction program believed that less paperwork would have been helpful to their experience. An additional 18.35% of teachers chose to add an "other" option and filled in their answers. Those answers varied but were consistent in the overall topics. The most common theme involved teachers needing or wanting their mentor and tasks to be directly related to their teaching assignment. The next most common theme was that the work itself was repetitive either within the program, or from their credentialing program. Twenty-three participants used the phrase "busywork", while six specifically used the idiom "jump through hoops." There were 53 responses involving the word "time," of which most were needing "more time." Teachers frequently said that they needed a smaller caseload and shorter hours, meaning that teachers were overwhelmed with the number of tasks they were required to accomplish in the amount of time given. In general, teachers stated that they wanted less mandated time out of the classroom, but instead more opportunities for training and observation. As with the other sections, teachers predominantly mentioned needing or finding most useful some type of relationship, practical experience, or knowledge.

The next part of the survey focused on stress factors that impacted teachers in their first five years of teaching. The first of those questions read "Did any of the following cause you stress in your first five years of teaching?", followed by a list of 21 different stressors and two fillable "Other" options. The answers and their frequencies are shown below in Table 1.

In addition to the 21 factors listed in Table 1, 61.43% of teachers elected to fill in a response in the "Other" section. Fifty-eight participants mentioned time, including workload, caseload, grading, and distribution of responsibility. The second most common theme (totaling 44 responses) related to administration, including incompetence, turnover, micromanagement, and lack of support or communication. The next theme included 31 responses related to the school culture, specifically with conflict, collaboration, and negativity with other teachers. Issues related to a work/life balance, including families and personal issues, comprised 19 responses. Eighteen participants mentioned issues with discipline and behavioral issues, including personal safety. Lastly, teachers consistently wanted better, more respectful communication, support, consistency, and value.

The final question was entirely open-ended and simply asked teachers if there was anything else about their teaching experience that they wanted to share. A total of 949 teachers responded to the question. The responses are grouped by like answers and so can be categorized into seven frequent answer types:

I love teaching: For example, "I love teaching and would never cho[o]se another profession. I'm proud of the children I have taught over the years and proud of my profession."

I love teaching, but…: For example, "Overall, my experience has been positive. But the longer I'm in this profession, the harder it is. We do not get paid enough, and we are not valued for what we do."

Even with X issues, I love teaching: For example, "Ultimately, being a teacher is my social justice work. For that reason, I am still teaching despite all the obstacles."

There have been changes over time: For example, "Parents have changed, students have changed, [administration] has changed. There is no support for the teachers on the front lines . . ."

The importance of district, administration, "fit" or school climate, collaboration, and camaraderie: For example, "Also, working in Title 1 schools is my calling but it's only doable with supportive admin and that hasn't always been in place."

Wishing not to teach, planning to quit, or recommending that others do not teach: For example, "If I had it to do over again I don't think I would have become an educator. It is hard for me to encourage young people to go into education. We put up with so much, from so many different angles. It can be incredibly demoralizing."

Other: For example, "I feel I have to choose between my career, my students, and my own mental health."

Table 1

Number of Participants and Percentage of Total Responses Per Stress Factor

Stress Factors	No		Rarely		Sometimes		Often	
	n	%	*n*	%	*n*	%	*n*	%
Policies (including EdCode)	600	28.20	441	20.72	744	34.96	343	16.12
Pay and/or benefits	561	25.96	366	16.94	604	27.95	630	29.15
Job instability	684	31.81	380	17.67	555	25.81	531	24.70
Administrative control/conflict	502	23.15	485	22.37	691	31.87	490	22.6
School climate/culture	472	21.82	507	23.44	730	33.75	454	20.99
Disorganization of the district/school site	426	19.71	488	22.58	666	30.82	581	26.89
Professional development (including induction)	480	22.42	514	24	751	35.07	396	18.49
Meetings	325	15.07	514	23.84	827	38.36	490	22.72
Lack of or ineffective support staff	479	22.24	534	24.79	654	30.36	487	22.6
Extra duties (supervision, events, etc.)	500	23.16	570	26.4	641	29.69	448	20.75
Parent involvement	509	23.84	715	33.49	647	30.3	264	12.37
Lack of parent involvement	349	16.18	448	20.78	741	34.39	617	28.63
Class sizes	364	16.94	340	15.83	675	31.42	769	35.8
Differentiation demands	302	14.09	390	18.19	736	34.33	716	33.40
New/changing curriculum	404	18.97	449	21.07	710	33.33	567	26.61
Testing (standardized state, district, site based, etc.)	346	16.53	396	18.92	664	31.72	687	32.82
Technology problems	379	17.97	558	26.50	718	34.09	451	21.41
Insufficient/inappropriate supplies	354	16.38	515	23.84	667	30.87	624	28.88
Student behaviors	121	5.62	312	14.50	784	36.43	935	43.45
Student hardships (lives and stories)	202	9.37	434	20.14	829	38.48	689	31.98
Demands on time	166	7.82	241	11.35	615	28.98	1,100	51.83

Note. Each factor's responses contain 50% or more participants who answered sometimes and often combined.

Statistical Analyses

The researcher completed multiple statistical analyses with the data, including six single-factor ANOVA tests and Pearson's *R* correlations, for their ability to show relationships between factors. The following are results of each of the six tests. (1) There was a significant impact of the month in which teachers responded to the survey and the frequency that they reported considering leaving the profession ($F = 13210.92$, $p < .05$), meaning that there was a significant difference between the months in terms of how often teachers considered leaving. (2) The single-factor ANOVA test on the type of school location where the participants teach was significant ($F = 3.477$, $p < .05$), meaning that there was a significant difference between location types and the frequency teachers considered leaving the profession. (3–4) Single-factor ANOVA tests were also run on the variables of ethnicity and school type but produced no significant differences. (5) The age of the participant had a significant impact on their response ($F = 6.482$, $p < .001$), meaning that there was a significant difference between age groups and their levels of considering leaving. Although there is a much lower average for 25 years old or younger, this might represent a sample bias since there were only 57 teachers in that category compared to 423-626 teachers in the other categories. The remainder of the age groups show a clear pattern of a decreased desire to leave the profession with age. (6) The number of years of participant teaching experience had a significant impact on their response ($F = 5.371$, $p < .001$), meaning there was a significant difference between the experience levels in regards to how often a teacher considered leaving the profession. These results illustrate the function reported in research that teachers often quit in their first five years of teaching.

The next set of statistical analyses were correlations, which were run in relation to the central question that asked how often the participant considered leaving the profession. Table 2 shows several highly complex correlations of importance, each of which is significant. First, there is a positive relationship between the level of preparedness that a teacher felt from their teaching program and the usefulness that they found in their induction or mentorship program. Secondly, both preparation through teacher programs and the usefulness of induction or mentorship are negatively correlated with the frequency with which teachers consider leaving the profession, with their total stress (all scores added across factors), and with average stress (the mean of their stress scores). Thirdly, the more stressed a teacher was in total, or on average, across the 21 factors, the more likely and often they were to consider leaving the profession. Lastly, the more stressed a teacher was on average about the 21 individual factors, the more likely they were to feel more stress in total (not just the individual factors). All of these correlations are shown below in Table 2.

Table 2

Preparation, Usefulness, Stress, and Consideration of Leaving the Profession Correlations

	Rating of Prep Program	Rating of Mentorship / Induction	Leaving	Sum of Stress	Average of stress
Rating of Preparedness from Teacher Preparation Program	1				
Rating of Mentorship / Induction Program Usefulness	.124*	1			
Frequency of Considering Leaving the Profession	-.109*	-.141*	1		
Sum of Stress Ratings	-.166*	-.083*	.280*	1	
Average of Stress Ratings	-.170*	-.080*	.274*	.950*	1

Construct	*B*	*SE B*	β
X	.29	.06	.36**

Note. * $p < .001$

Table 2 provides information that demonstrates feeling more prepared was linked with feeling supported, and both of these factors were linked with lower stress and higher retention rates. It also shows that stress in both an average and combined sense is related to the frequency with which teachers consider leaving the profession.

Table 3 presents the correlation between the level of stress felt by a new teacher in each of the 21 factors and their reported frequency of considering leaving the profession.

Table 3

Correlational Values with Stress Factors and Leaving the Profession

Stress Factors	Correlation with Considering Leaving the Profession	*N*
Policies (including EdCode)	.206**	2,107
Pay and/or benefits	.149**	2,137
Job instability	.085**	2,148
Administrative control/conflict	.199**	2,141
School climate/culture	.225**	2,137
Disorganization of the district/school site	.210**	2,131
Professional development (including induction)	.165**	2,113
Meetings	.175**	2,128
Lack of or ineffective support staff	.211**	2,122
Extra duties (supervision, events, etc.)	.191**	2,127
Parent involvement	.130**	2,106
Lack of parent involvement	.123**	2,121
Class sizes	.123**	2,114
Differentiation demands	.140**	2,113
New/changing curriculum	.135**	2,102
Testing (standardized state, district, site based, etc.)	.084**	2,065
Technology problems	.101**	2,074
Insufficient/inappropriate supplies	.150**	2,129
Student behaviors (management)	.158**	2,114
Student hardships (lives and stories)	.094**	2,120
Demands on time	.203**	2,088

Note. Correlation is significant at the 0.01 level (2-tailed).

As seen in Table 3, each of the 21 stress factors from the first 5 years of teaching was statistically significantly correlated, to a small degree, with the frequency teachers reported considering leaving in the present day. This indicates that the more stressed the teachers were at the start of their career, the more they considered leaving regardless of when in their careers they were taking the survey. This means that the way that teachers feel at the start of their careers has a lasting impact on their continued commitment to the profession. Although the correlations individually are small, when looking at them together, these 21 small factors can have a large impact. It is clear that school climate/culture is the strongest correlation for a teacher wanting to leave the profession, shortly followed by a lack of or ineffective support staff, disorganization of the district/school site, policies, and demands on time.

DISCUSSION

The results of this data provide more information on the four research questions that were generated before the research started. The research questions are explored below using results.

Research question 1: How do teacher preparation programs affect preparedness and retention? Teacher preparation programs are generally considered helpful by participants in preparing new teachers, especially those programs that involve hands-on approaches. Within the context of this study, the level of preparedness a teacher feels after leaving a preparatory program is also related to the usefulness they feel their induction or mentorship program has and the frequency with which they consider leaving the profession. Therefore, the more prepared a teacher reported feeling for the profession, the less likely they were to report that they considered leaving frequently in the present day. This means that the foundation laid by a teacher education program can have a lasting impact on whether a teacher is retained in the profession, as is seen in similar research (California Commission on Teacher Credentialing, 2019).

Research question 2: How does induction/mentorship affect retention? Results show a clear correlation between the usefulness of a program and retention rates. The more useful a teacher found the program, the less stress they reported feeling on average and in total, and the less likely they were to consider leaving the profession as frequently. Teachers routinely stated that their induction or mentorship program was not only unhelpful, but even an additional burden in a time that was already very difficult for them. Teachers did state they found support without mandates or extra work to be helpful. This finding is similar to other information that has been provided at the state level (California Commission on Teacher Credentialing, 2019).

Research Question 3: Which workplace conditions contribute to teacher retention? The survey presented 21 different factors, including fillable "Other" options. Each of the 21 stress factors correlated with teachers considering leaving the profession more often. The higher stress level a teacher reported from their first five years of teaching, the more likely they were to also report that they considered leaving the profession more often at the time of the survey, which is consistent with general previous research (Zang & Zeller, 2016). These results suggest that the stress that new teachers face is linked with the potential longevity of their careers, since the majority of teachers surveyed were no longer in their first five years of teaching.

Research Question 4: How do the preparation programs, mentorship, and workplace conditions interact over time? Each of the factors listed was related to the others. Teacher preparation programs were related to the way that teachers felt about mentorship, the stress that they felt as new teachers, and the frequency that they considered leaving the profession even long after they were new teachers. The usefulness that teachers felt about their induction or mentorship program was related to the stress they felt as new teachers and the frequency they considered leaving the profession even later in their career. The stress factors teachers faced as new teachers were related to the frequency with which they now consider leaving the profession. The evidence suggests that each of the factors are related over time. The conceptual framework first introduced in the literature review was used to show each part of the cycle of attrition, but perhaps more importantly, to show the complex, interwoven, and cyclical nature of the problems faced by teachers in the education system. The results of the current research further strengthen the importance of connections between these parts of the cycle as is similar to previous research.

Implications

The majority of the participants (61.7%) considered leaving the profession at least every few years, and often every year or more. New teachers in particular are facing a near insurmountable amount of stress, and the more stressed teachers are in their first few years, the more often they think of quitting throughout their careers. A lack of preparation or support and overwhelming amounts of stress impact the longevity of a career, the teachers themselves, and a variety of systemic and personal factors. Age and experience are both related to decreases in a desire to leave the profession but are not

controllable factors. What can be controlled are the programs in place and the relationships that are built. The more beneficial teachers consider their teacher preparation and induction programs and the less stress they feel as new teachers, the less often teachers will think of quitting throughout their careers. There are clear ways teachers feel most supported, which are not generally through bureaucratic means, but through personal connections.

As discussed in the literature, the educational system cannot function properly without a stable population of teachers (Zang & Zeller, 2016). There are significant consequences to the system when the teacher population is not stable because teachers do not feel prepared or supported and, therefore, choose to leave the profession (Carver-Thomas & Darling-Hammond, 2019; Podolsky et al., 2016; Sutcher, et al., 2016; Whitaker et al., 2019). These teacher perceptions and the reality of the teaching profession begin to enter into the public eye and, as seen in the conceptual framework, the way that teachers feel impacts the way that the educational system and the profession itself is seen by the public and by potential teachers. This issue deeply impacts people who might be attracted to the profession. It also impacts those who leave because they are unsatisfied. These perceptions thus directly impact teacher supply and demand, which further perpetuates the issue.

This change impacts both the district and site levels as well. Districts spend large sums of money replacing these teachers who are so unprepared and unsupported that they leave (Brewer & McEwan, 2010; Zang & Zeller, 2016). With many districts already so low on funding, this attrition is remarkably detrimental (Sutcher, et al., 2016). The culture of schools suffers not just from teachers leaving, but also from retained teachers who are often deeply dissatisfied. Significantly, while student hardships were one of the highest causes of stress for teachers, it was also one of the lowest correlations with wanting to leave the profession. It is so often the emotional labor of teaching that gets teachers to the point of leaving the profession, and it is the most vulnerable children in the system who are most impacted by this attrition, rather than being the most supported (Carver-Thomas, & Darling-Hammond, 2017).

While such large-scale research often focuses on facts and figures, it is also incredibly important to genuinely acknowledge what these teachers have said and what it means on a more human level. In educational research, the primary focus is always how students are impacted, but research also clearly states that teachers' mental, physical, and emotional well-being is affected by the problems and stresses of the system (Lever et al., 2017; Pennsylvania State University, 2017). In order to change the culture of the education system, there must be a consensus that the well-being of teachers is entirely enough reason to make changes.

Recommendations

From the results of this study come several recommendations for leadership in each of the three sections covered: teacher preparation programs, induction and mentorship programs, and general teaching practice.

Teacher Preparation Programs

1. Expand the hands-on, practical experiences throughout the degree and credentialing process because teachers stated that was the most useful in their preparation programs. This might include expanding the discussion of how the pedagogical theories apply in the classroom, inviting current teachers to guest speak and answer questions on panels, extending the number of hours required in teacher observations, including pre-student teaching experiences with teaching lessons or curriculum, and even increasing the required amount of student teaching or entirely changing the first few years of teaching to a co-teaching model.
2. Provide explicit instruction on classroom management and handling of special populations since teachers expressed frustration at their own lack of preparation in these topics in the research. Teachers need current, detailed, practical, and applicable knowledge about English language learners, special education students, students who have experienced trauma, and any other specific population. Theory and research are valuable in the foundation of a teacher's knowledge, but the methods for transferring that knowledge into practical application are vital.

Teacher Induction and Mentorship Programs

1. These programs need to ensure that the tasks, including meeting attendance, are specific to the teacher, represent meaningful learning, and are not redundant to provide connection and context for teacher learning. The assignments should afford teachers the opportunity to meaningfully engage with their own teaching practice.
2. In order to provide teachers with the best support, districts should ensure that the mentor assigned to a new teacher is the correct match to their student grade and subject level and that the relationship between mentor and mentee is strong, supportive, and beneficial to the new teachers, including diversification and training.

3. Administrators, at each level of the educational system, should do everything in their power to reduce the workload for new teachers. This includes extra duties, the number of different types of classes taught, and the number of sections of each class assigned to a new teacher.

Teaching Practice

1. The results make clear that teaching professionals feel an incredible amount of stress throughout their teaching careers. Any number of different factors cause this stress, but it is concentrated especially in a few specific areas. Based on the highest correlations found in this study, the first priority of leadership must be to focus their efforts on school climate and culture. District and site administration should engage in activities that help them to get to know their staff in a meaningful way. Efforts must be made by leadership to ensure that all teachers, and especially new teachers, feel safe to express their ideas or troubles, regardless of their social standing or tenure status. This could be accomplished through routine climate surveys, discussions, and team or relationship building activities.
2. The next task is to reduce the overall teacher workload. This might mean shifting responsibilities between staff members or prioritizing funds towards hiring additional staff members. A key part of this structural change is to ensure that each staff member has well-defined roles and receives training on the explicit expectations of school leadership. If a new task or duty becomes necessary, the option to add that responsibility to the existing duties of a staff member should be evaluated in depth, including the expectations, training, pay, benefits, and time commitments related to the rest of the given workload. Teachers in their first five years should not be assigned any additional tasks.
3. Leadership from the state level all the way down to the site groups and committee level need to form clear lines of communication. There should be no mystery about who in the organization is responsible for handling questions or concerns. Contact information for each person in the organization should be easily accessible and responses should be provided as quickly as possible. If new policies, curriculum, or other large-scale changes are needed, there should be a clear timeline, details provided, and stakeholders should not only have input privileges, but decision-making power. In emergency situations, such as the current coronavirus pandemic, there should be clear policy on who makes decisions and the review process for those decisions. Time and care should be spent creating contingency plans for a variety of scenarios. There should be transparency in all communication.
4. In order to address the issue of teacher attrition, systemic changes are necessary. Teacher preparation programs should focus their attention on providing hands-on, practical experience, in addition to providing theory and practice for classroom management and handling of special populations. Induction programs should provide meaningful experiences, close mentorship, and a reduction in workload for new teachers. School sites need to make efforts to improve school culture, reduce workload, clarify positions, and communicate clearly. Each of these levels of leadership demand input, oversight, and transparency to be effective at solving the crisis of teacher attrition.

Future Research

Future researchers should first and foremost expand the number of teachers who contribute to the information and the diversity of those teachers, including ethnicity, age, and experience levels. At the administrative level, it will be important to establish exit surveys for teachers leaving the profession. Further research should explore specifically which types of practical experiences are the most helpful for teachers learning the craft. District and site personnel need to determine how to build close and successful mentorship relationships, including how to recruit more diverse mentors. Further, they must discover how successful (i.e., high retention) schools and administrators handle the workload and/or lack of funding, including which student services should be required of teachers and which should be handled by social services professionals. Perhaps most pressingly, I recommend that future research should explore how to fully fund schools, particularly since the general public supports this practice.

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