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## Attrition, mobility, and retention patterns of public-school teachers

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Pepperdine University  
Graduate School of Education and Psychology

ATTRITION, MOBILITY, AND RETENTION PATTERNS OF PUBLIC-SCHOOL  
TEACHERS

A dissertation presented in partial satisfaction  
of the requirements for the degree of  
Doctor of Education in Learning Technologies

by

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March, 2022

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DOCTOR OF EDUCATION

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## VITA

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## ABSTRACT

Attracting and retaining teachers may be a problem in many rural school districts. According to previous research, teacher attrition is greater in rural regions due to various demographic and other factors. Retention was also cited as a key issue in these rural school districts. The number of teachers quitting their professions before they can retire has risen drastically. In addition, teachers in rural schools and in some suburban and urban places confront obstacles such as lack of resources, little support, poor pay, inconsistent professional development opportunities, and inadequate preparation that cause them to lose their enthusiasm for teaching. Therefore, this study was carried out to understand the educators' attrition and mobility in their first five years of work and the retention practices used by education institutions to reduce attrition and mobility. In particular, the research evaluated the factors influencing teacher mobility, attrition, and retention in U.S. public schools. Data was collected from National Center for Education Statistics and concentrated on Schools and Staffing Survey (SASS). The study used salary received by teacher at different education levels as the main factors influencing mobility, retention, and attrition. Correlation and regression analyses were the inferential tests used. Results showed there were significant associations between salary for the teachers with Bachelor's and Master' degrees with experience of 10 years and mobility, retention, and attrition compared to the teacher with no experiences. Further, the findings illustrated that the different salary received by teachers of different education levels with 10 years or without experiences have a mixed influence on the mobility, retention, and attrition of teachers. In conclusion, the study showed that teacher compensation is an important factor in determining whether there will be an increase in the rate of mobility, retention, and attrition.

*Keywords:* mobility, retention, attrition, public school, teachers

## Chapter 1: Introduction

Teaching entails creating and nurturing human capital, a practice in which teachers are considered essential building blocks of the education sector. While teachers are central to primary education, their attrition, retention, and mobility remain fundamental in students' performance. In essence, the teachers' movement is essential for equitable education (Mayer et al., 2017). Attrition in the teaching profession is normal, but challenges emerge when measures are not taken to restore the workforce by recruiting new teachers. Several factors lead to teachers' attrition, such as ethnicity, age, and gender (Mayer et al., 2017).

Mobility is characterized by teachers transferring across different schools or institutions they work in. In addition, it may also involve teachers' total and complete abandonment of the teaching profession so that they leave an unfilled gap. The ideal situation occurs when such abandonment is matched with a replacement, but this is not always the case (Oke et al., 2016). The negative implications of the latter scenario imply the need for action in the pedagogical arena to maintain and sustain teaching standards that meet students' learning environments and result in academic excellence. Student performance in the context of teaching and teacher mobility is marked by a decline in mean scores (García & Weiss, 2019a, 2019b). Teacher mobility outside the realm of professional abandonment of the teaching profession is associated with various factors, including going to further their studies to develop their knowledge and skills. Socioeconomic factors drive teachers' quest for furthering their studies, such as the need to increase their income-generating capacity, social prestige, and career advancement. The move to advance their academic skills and qualifications may range from short-term courses and bridging courses to long-term projects or full educational packages that last years to finish (Kaden et al., 2016). With the advent of the technology age, a pursuit for further studies may be less implicated in teacher mobility as

information technology (IT) overcomes spatial limitations enabling teachers to pursue their studies without moving from their places of work.

Teacher retention is characterized by factors influencing and influence the ability of teachers to remain in schools or institutions they have been deployed or employed to work in (Djonko-Moore, 2016). Teacher retention is affected by the rate at which attrition and mobility. As such, when the rates of attrition and mobility increase, there is less teacher retention meaning that there is increased teacher turnover. Therefore, the retention rate decreases (Dee & Goldhaber, 2017). As the organizational culture and school leadership influence the perception and attitudes of teachers, teacher retention is determined by organizational culture and school leadership.

According to the state-level staff data (Meyer et al., 2019), the provision of necessary teaching materials (e.g., textbooks) by a school reduces the chances of teacher attrition. Therefore, when assessing the district level, teachers' retention is related to a district's wealth (Meyer et al., 2019). Research shows that schools with minority learners are likely to suffer from teacher attrition because of a lack of resources supporting teaching staff. Unfortunately, there is no adequate evidence that shows the massive mobility and attrition of minority teachers (Meyer et al., 2019). It is also indicated that a teacher's age also affects retention, meaning that older teachers are more likely to experience attrition than younger educators. Because of this, more inexperienced teachers are preferred due to their flexibility.

Kaden et al. (2016) examined teacher attrition cases in various nations (Australia, Belgium, China, England, Finland, Israel, Netherlands, Norway, the United States, and Singapore). They discovered that the attrition problem was similar in all the countries reviewed. Kaden's findings showed that most countries struggle to maintain a steady workforce due to high attrition rates, especially in rural environments. However, Oke et al. (2016) argued that attrition is normal because people leave professions for voluntary or

involuntary reasons. Some teachers also leave the profession to pursue a different career path. Studies by Oke et al. (2016) revealed that attrition is increasing annually in a review of teacher-attrition statistics. Kaden et al. (2016) found that an increase in mobility and attrition cases in California was responsible for the increasing teacher scarcity. Teacher scarcity has caused educational institutions to go on massive recruitments of teachers who would leave the schools again, furthering the cycle of teacher attrition.

The meta-analytic review of mobility and attrition in teaching statistics conducted by Djonko-Moore (2016) revealed that more teachers quit the profession after their first five years than before that point. Djonko-Moore (2016) was concerned about the ongoing teacher-attrition phenomenon where new teachers leave the profession but later rejoin. Djonko investigated attrition and retention using the self-recounted experiences of several teachers quit within their 1<sup>st</sup> year and then rejoined later. Findings revealed that a significant percentage of the attrition cases in the first years of teachers' careers were attributed to harsh working conditions and unsustainable compensation. A similar study conducted in Belgium revealed that, globally, the highest determinant of teacher attrition is the type of school that the teacher is employed. Meyer et al. (2019) further suggest that the administrative structure and the school payment schedules regarding teachers' performance drive teacher retention or attrition. Meyer et al. (2019) found similar results examining teacher retention and attrition in Chile and the United States. There were similarities in the factors that influenced both nations' attrition, including the schools' characteristics, remuneration, school location, environmental conditions, teaching conditions, and teachers' satisfaction levels.

Findings reveal an underlying problem across the United States: increasing attrition and teacher mobility is caused by a full continuum of challenges teachers face in their practice. Kaden et al. (2016) examined teachers' attrition in the United States and found that it contributes to 90% of teacher shortages in the United States. The study also found that 90%

of teachers' total demand results from attrition, with retirement accounting for one-third of all attrition cases. The investigation exposed underlying demographic disparity issues, revealing more elderly teachers than young or middle-aged teachers.

In 2016, Kaden et al. examined teacher attrition, movement, and retention in Alaska. Their study found that teacher movement and attrition in rural schools surpassed that in urban schools. Teachers dispatched to rural schools meet complications in dealing with such settings. Also, schools situated in countryside areas find it hard to maintain their staff. This is since teachers in these kinds of areas feel sequestered and separated. Hence, there is a significant trend to quit either entirely or go to an alternative school located in an urban community. However, getting fresh teachers to work in countryside communities can be an overwhelming undertaking due to social segregation. The study examined the relational differences between the teachers who stay and leave in Utah and found that community relationships were recognized as the justifying aspect regardless of any grouping of other elements impelling the choice to stay or leave in their professions. The researcher recommended that policies that improve the United States' teaching practice need to be adjusted to make the teaching experience more enjoyable, thus motivating teachers to stay.

According to Djonko-Moore (2016), teachers with 1 to 5 years of experience are often employed on contractual bases. The tensions and uncertainties among the teachers surrounding contract renewal contribute to teacher attrition within five years of their careers. The study focused on the impact of poverty on attrition and revealed that areas with high poverty margins had high attrition due to the teachers' hardships in such areas. The following section reviews why teacher attrition matters, current statistics in the United States that compel research on the subject, and the problems emanating from teacher attrition and movement.



## **Problem Statement**

The first 5 years of a teachers' career are crucial for retaining them in the field. Teacher attrition is an increasing problem in the United States. There are several vital explanations of the causes of teacher attrition that have been studied by researchers. They include inadequate salaries, poor working conditions, leadership styles, and teachers' posting to rural schools. However, many states struggle to retain new teachers. A report by Dee and Goldhaber (2017) on the labor market for teachers revealed that most schools in the country encountered challenges employing and retaining new teachers. Their data showed that 13% of the total teacher population in the United States within their first 5 years left the teaching profession or their current school to teach at another one. The number of schools that attempted to employ teachers unsuccessfully tripled from 2011 to 2015, increasing from 3.1% in 2011 to 9.4% in 2015. Schools that employed teachers during this period of shortages almost increased from 19.7% to 36.2%. Dee and Goldhaber (2017) cross-examined the trend and found that it was due to the decreasing number of teaching applications. The authors concluded their review by calling for urgent and sustainable solutions for the attrition problems.

Due to increasing attrition, teacher shortages have also increased across different states (Dee & Goldhaber, 2017). Although some teachers leave for other professions, some change their teaching specialty or school, thus leaving schools with inadequate teachers. Mobility rates have also increased due to the relocation of teachers, mainly from one school to another. Although attrition and mobility are normal because teachers relocate because of unavoidable circumstances, teacher attrition often occurs within five years of a teacher's career requires a further inquiry into the factors that increase attrition and mobility. Dee and Goldhaber (2017) noted the ramifications of growing teacher shortages. They revealed that teacher attrition accounted for a 35% reduction, from 691,000 to 451,000, in the United

States' teacher workforce from 2009 to 2014. Increasing teacher attrition and mobility rates necessitate increased recruitment to fill vacancies, but reducing applicants compounds the problem. The trends of teacher mobility and attrition reveal severe underlying issues in the education system. These issues motivate teachers to leave or frustrate them to the point of deciding to quit.

The elements that influence attrition are varied and range from unfavorable working conditions to remuneration-based factors. Increasing teacher mobility and attrition also reveal challenges with current teacher-retention strategies, especially among young teachers with relatively little experience and lower pay grades. The issues affecting the teachers enumerated above, and the acute shortage of teachers in different states due to low retention and high attrition and mobility requires an in-depth examination to identify the causes and develop preventive measures (Dee & Goldhaber, 2017). Investigations into teacher attrition, mobility, and retention dynamics are necessary to unravel the causes, challenges, and solutions. To examine attrition by the compelling evidence that attrition is a social and economic problem in sustaining a steady teacher labor worker and the United States' education sector's future.

### **Purpose of Research**

The purpose of the research was to scrutinize educators' attrition and mobility in their first five years of work and the retention practices used by education institutions to reduce attrition and mobility. Retention rates of teachers across the United States proved to be dismal. Over 35% of young teachers who are new into the profession in public schools exit the teaching profession or switch to other teaching categories (Dee & Goldhaber, 2017). In *The Teacher Labor Market, the Perfect Storm*, a series by García and Weiss (2019a, 2019b), revealed a significant teacher shortage due to increased attrition and low retention strategies in high turnover-prone schools. The increase in teacher attrition and mobility and low teacher

retention levels necessitate investigating the problem that plagues this profession across the United States. This study's scope is confined to teacher attrition, retention, and mobility in the United States. School heads' leadership structure was also stated to be amongst the factors that regulate teachers' plan to quit their careers. In institutes where administrators do not inspire their staff, teachers have an excellent inclination to shift to other institutes (DeFeo et al., 2017). Teachers may also transfer to another well-paying school or leave the profession entirely.

Furthermore, the working state in schools makes educators leave. Schools with less conducive environment may see a high turnover rate amongst their teachers (Djonko-Moore, 2016). Despite the massive investments from state and federal governments to curb the teacher shortage, increasing attrition and mobility rates in public schools revealed an underpinning problem that requires further exploration and forms the basis of the central question and sub-questions. As teacher attrition is a element of turnover, the rate at which teachers exit schools without a cumulative replacement is implicated and requires delineation. The attrition may occur in various ways including moving out of the profession, their specific field, or the schools to which they are deployed or employed. Consequently, there is a reduction in the number of teachers in such schools when the exits occur without replacements. Mobility on the other hand entails the entry and exit of teachers in schools or leaving the whole profession entirely hence resulting in untoward changes and shifts in the teaching structure (Vagi & Pivovarova, 2017). In addition, when teachers exit their profession with replacement for whatever reason and fail to return within a year, it is termed as mobility (Feng & Sass, 2017). On the other hand, teacher retention entails the reduction of mobility. Thus, the interventions to increase the period that a teacher stays in the profession are profoundly implicated in this regard (Shaw & Newton, 2014). As attrition, mobility, and retention are implicated in the research problem, the socioeconomic factors implicated in this

regard are important to explore and thus also form the basis of the central question and sub-questions.

### **Research Questions**

The researcher identified one specific and three general research questions.

Central question:

1. What factors affect teacher mobility, attrition, and retention in U.S. public schools?

Sub-questions:

1. What, if any, is the correlation between education/salary with teacher mobility?
2. What, if any, is the correlation between education/salary with teacher attrition?
3. What, if any, is the correlation between education/salary with teacher retention?

### **Objectives**

The researcher aimed to achieve the following objectives:

1. Examine teacher mobility and attrition in the U.S. public schooling sector.
2. Investigate the impacts of teacher mobility and attrition levels in the U.S. public schooling sector.
3. Assess teacher retention practices in the U.S. public schooling sector.

The systematic approach to the research is based on a literature review on the topic to assess the existence of gaps and niches for the study topic, followed by the methodology where the inquiry process is described. After the methodology, the results are highlighted, and discussion is made regarding the study with correlation with the literature review findings. Subsequently, the research's conclusion and recommendation are made, and inferable outcomes deciphered in a practical setting. Thus, the dissertation is comprised of five chapters. The first chapter is an introduction to the investigation. In the first segment, the structure introduces the study and explains teacher attrition cases, retention practices, and

mobility rates, globally and in the United States. The research also explains the problem that led to this investigation, and the objective of the research has been provided. The paper has enumerated the research questions and suppositions and the purpose and significance of the examination. A special section that guides the reader in comprehending this investigation's scope and its discussions is included. The segment culminates with a description of the various elements of the introduction. In the second segment, the discoveries and conclusions of previous studies on the topic are made. The review is categorized into theoretical, empirical, and conceptual reviews to ensure the orderly evaluation of teacher mobility, retention and attrition concepts, empirical findings of previous researchers on teacher mobility, retention and attrition, theories, retention strategies, mobility rates, and attrition cases. The quantitative and qualitative data are presented, analyzed, and discussed separately. The paper concludes this section by sharing the crucial findings of the investigation. Lastly, Chapter five contains a description of the conclusion and inferable outcomes of the findings and provides recommendations for future research work, policy, and practice.

### **Conceptual/Theoretical Focus**

Using the Social Identity Theoretical Framework, various aspects of teacher retention, mobility, and attrition were explored from collaboration and management. It was from the literature review groundwork where the social and economic factors underpinning teacher retention, mobility, and attrition was achieved (Guan & So, 2016). The Social Identity Theory explores the self-concept and human agency from a collective and dynamic group sense that determines how individuals (s) relate to others and how they derive a sense of belonging or repulsion to people and their actions. From a pedagogical stance, Self-Identity Theory underpins how social systems in a teaching setting optimizes or minimizes the comfort and motivation to teach depending on how favorable the environment may be (Hogg, 2016). Hence, a Social Identity model of investigation is useful in assessing teacher mobility,

retention, and attrition in public-sector education in the United States (Guan & So, 2016).

The unfortunate ramifications of teacher attrition and mobility are detrimental to the future of public education, teacher labor supply, and teacher demand.

Further, assessing the increasing teacher attrition and mobility rates in schools around the United States and poor retention practices is feasible. The study has offered to identify practical solutions to the problems faced by both teachers and educational institutions. Profound motivation lies in examining the retention practices and attrition and mobility rates because of the increasing number of challenges caused by high attrition and low retention in most states. Increasing mobility and attrition robbed the teaching profession of its labor force, which is needed to achieve the millennium development goals. This study explores the challenges of teacher mobility, attrition, and retention faced in the United States and the implications of teachers' attrition and mobility on the policy that governs the institutions, the imminent of education in the U.S, and the impacts of attrition and mobility on the interventions to eliminate or reduce attrition and mobility. Understanding the root causes of the teachers' shortages from a Social Identity theoretical model will help implement resources that will reduce deficits. Previous researchers' findings illuminate attrition, retention, and mobility in the teaching profession are inherently explored in Social Identity Theory. They are implicated in influencing the teaching and learning process from the teachers' perspectives and thus bear relevance to the study topic (DeFeo & Tran, 2019). The study's narrative gaps that are identified through the literature review should also be correlated with Social Identity theoretical concepts. In the third section, the investigation procedure is illustrated in the context of teachers' attrition and mobility rates. This section underpins the design, philosophy, strategy, approach, instruments, recording and analysis techniques, data gathering, and ethical aspects of the examination concerning answering the research questions and study objectives. In the fourth section, where the discussion of the data

collected from the participants ensues, the social aspect of the problem is explored under a Social Identity theoretical lens.

Fundamentally, the assessment of the dependent variables, which are the socioeconomic factors influencing retention, attrition, mobility, and teacher perception, are implicated in the identification of aspects of teaching and learning that are affected. Teachers' welfare, including remuneration, appraisal, and promotion, have important social and financial implications that influence retention, attrition, and mobility. As such, welfare should be explored in a positive light in the interest of teachers. Social Identity theoretical models implicated in teachers' social cohesion in formal and informal contexts should be underpinned (Coleman, 2017). Thus, how teachers identify and categorize themselves and their teaching agency's scope should be tailored to their professional workspace so that roles and responsibilities are well defined. Optimal participation, collaboration, and feedback are achieved. Social comparisons and collaborations also characterize teachers' group dynamics and status and form the basis for professional engagement so that optimal teaching and learning is achieved (Hogg, 2016). These variables are measured using comparisons and assessment tools based on evidence and practical application in teaching and learning frameworks and models and human agency social determinants such as relationships and finance. The intergroup competition and intragroup dynamics that create social categorization and avenues for social comparisons and collaborations is achieved. A sense of positive distinctiveness between and among members of the teaching profession is thus achieved, so that insight on what brings them together and represents their interests is overtly underpinned (Guan & So, 2016). Such an achievement would result in the delineation of how retention, attrition, and mobility occur and how solving it can be achieved.

## Definitions

There are various theoretical and operational definitions relevant to the Social Identity Theory. Theoretical definitions include:

- *Social categorization*: social categorization refers to how similar or different people are from each other, determining how the group and identify themselves concerning each other (Hogg, 2016).
- *Social comparison*: social comparison refers to how an individual or group identifies with itself and differentiates itself from other individuals or groups based on similar or different characteristics (Hogg, 2016).
- *Social identification*: refers to how a person or group identifies and defines itself based on the people's self-concept and how similar or different they are (Hogg, 2016).



Operational definitions include:

- *Intergroup competition*: refers to the processes between groups that establish how different they are from each other and hence the attitudes and actions toward different groups in what is termed discrimination and prejudice, respectively (Guan & So, 2016).
- *Self-concept*: refers to how individuals perceive themselves and form the basis for self-identity and social identification (Hogg, 2016).
- *Positive distinctiveness*: refers to the processes of bringing out or refining the aspects of qualities of a group(s) to make it more distinct and desirable, so it is uniquely recognizable with other groups (Hogg, 2016).
- *Teacher attrition*: teacher attrition is the yearly rate at which instructors leave their careers. This rate can be calculated by computing the variance between the number of teachers each year to the total number of teachers from the previous year and then adding numbers to the new teachers' (Oke et al., 2016).
- *Teacher mobility*: teacher mobility is when instructors move from one teaching position, school, or specialty to another. Oke et al. (2016) calculated the mobility rate by completing new teacher admissions and pulling out during the year divided by the whole number at opening day official staffing.
- *Teacher retention*: teacher retention is a practice used by education stakeholders, such as a school administration, to maintain teachers. According to Oke et al. (2016), instructor retention motivates teachers to continue working at a specific school.

### **Significance**

This investigation's discoveries may be relevant to different stakeholders in the education sector, such as school administrators, state and federal governments, policymakers,

teachers, and research fraternities. Investigating teacher attrition and mobility rates is crucial because doing so illuminates the problem across different states. Once a problem and its root causes are recognized, real and effective change can make it better. Education policymakers and government stakeholders can consider these results when discussing and deciding measures to reduce the looming crisis of acute teacher shortages (Chambers Mack et al., 2019). This investigation can help teachers comprehend the dynamics of teacher attrition, mobility, and retention. As uncovered, most teachers who leave their jobs later rejoin the profession after five years, revealing a sophisticated issue. Teachers can look inward and assess their motivations for leaving or staying in their profession, helping them make informed decisions. School administrators may also appreciate this study's findings as they illuminate the factors that cause teacher mobility and attrition. The school administrators will then find strategies that can be used to improve instructors' working conditions and, thus, retention rates (Coleman, 2017). This study homes in on different aspects of teacher retention, mobility, and attrition, providing crucial information for stakeholders across the education sector.

There are various gaps that the study intends to fill by identifying potential niches for exploration. The study is centered on three subjects: teacher attrition, teacher retention practices, and teacher mobility rates, all within the United States. The investigation on attrition would be done by reviewing global and U.S. attrition statistics. The study focused on understanding factors that lead to attrition, preventive interventions, and their effects on teacher supply and demand dynamics in the teaching profession (Craig, 2017). The discourse on teacher attrition reviews researchers' findings, concepts of attrition, and related shortcomings. This study also includes discussion on the U.S. mobility rates, focusing on contributing factors and their impacts. This study investigates retention practices, including current retention policies and strategies and implementing said policies for retaining teachers

at high attrition–risk schools. The findings also have policy, research, and practice implications, extending the study's impact. The study underlines the inherent gaps in the literature intended to be filled, including the nature of teacher mobility and attrition in the U.S. public schooling sector, by examining relevant data and information on the subject (Darling-Hammond et al., 2019). Investigation of the impacts of teacher mobility and attrition levels in the U.S. public schooling sector will also be underpinned and teacher retention practices in the U.S. public schooling sector. When these aspects of the study topic are underscored, the information inferred from the study outcome would be applied in pedagogical models and frameworks to optimize and enhance the teaching and learning experience of students, scholars, learners, and teachers.

### **Summary**

Various aspects of the study's introduction have been explored, including the nature of teaching in the context of attrition and retention rates and how it may be affecting teaching and learning. The significance of teaching in creating and nurturing human capital, a practice in which teachers are considered essential building blocks of the education sector, has been explored. Teachers' initial position in primary education, their attrition, retention, and mobility, has been underpinned by showing their fundamental nature in terms of a students' performance (Meyer et al., 2019). Hence, the teachers' movement and how it affects equitable education has been underpinned. The challenges that emerge when measures are not taken to restore the workforce by recruiting new teachers have been suggested due to mobility and attrition with reduced retention and set the stage for subsequent aspects of the introduction. The problem statement has also been discussed and has been based on the increasing rate and incidence of attrition and the proliferation of teacher shortages that have increased across different states (Dee & Goldhaber, 2017). Although some teachers leave for other professions, some change their teaching specialty or school, thus leaving schools with

inadequate teachers. Mobility rates have also increased due to teachers' relocation, mainly from one school to another, hence showing that optimal teaching is becoming compromised with the need for urgent intervention. As such, the basis for the research question and study objectives was established.

The theoretical and conceptual focus of the research was also underpinned under the Social Identity Theory, which explores self-concept and human agency from a collective and dynamic group sense that determines how an individual(s) relates to others and how they derive a sense of belonging or repulsion to people and their actions. How the Social Identity Theory underpins social systems from a pedagogical stance in a teaching setting has been described, showing that it optimizes or minimizes the comfort and motivation to teach depending on how favorable the environment may be (Hogg, 2016). Thus, the theory's usefulness in the investigation of the study problem by assessing teacher mobility, retention, and attrition in public-sector education in the United States is thus underpinned (Guan & So, 2016). Various theoretical and functional definitions of the study topic have also been described and the significance of the research. Hence, a basis for exploring the study problem concerning teacher attrition, teacher retention, and teacher mobility has been set for exploration in the literature review.

## **Chapter 2: Literature Review**

### **Chapter Overview**

This literature review chapter is divided into four sections. The first second and the third section review scholarly articles regarding teacher attrition, mobility, and retention as applied to America. The fourth section is an in-depth review of the American teaching sector's state of attrition, retention, and mobility in detail with respect to the main factors identified in the studies which affect attrition, retention and mobility in the USA. The section is a conceptual review of the correlation between teacher mobility, attrition, and retention deriving theoretical relationships of their potential relationships and their effect on each other. It shows the relationship between the three concepts by discussing the impacts of attrition and mobility, including nationwide teacher deficiencies, racial, demographic and geographic factors, financial factors and the importance of retention, among them, promoting learning. In addition, it correlates the Social Identity Theory in discussing the factors that influence mobility, attrition, and retention. Lastly, it reviews the demand and supply of teachers in the United States and the strategies that can be used to prevent attrition and mobility and improve retention. The chapter concludes with a theoretical review and summary of key findings from the literature review and summarizes the theoretical framework utilized throughout the paper.

### **Teacher Attrition**

Teacher attrition is a component of teacher turnover, where the teachers exit schools without a cumulative replacement. The teachers may have moved out of the profession, the specific field, or schools. Consequently, there is a reduction in the number of teachers in schools due to exits without replacements. Wesley (2016) describes attrition as the exit of educators from the teaching profession without return for whatever reason at any time of their careers. Wesley's study was based on the findings compiled by Aud et al. (2011) and Borman

and Dowling (2008) on phases of the teachers' careers that exhibited the highest attrition rates. In the study, Wesley realized a high probability of teachers leaving their profession for whatever reason during their first seven years of work, as this is when most teachers are not yet sure of their prospects in the field. Those who exhibited the highest attrition rates were novice teachers in that most teachers leave the profession within their first three years of venturing into the career. Novice teachers are new teachers who have just joined the career. Most of the time, they leave the career due to the discrepancy between their expectations and the hands-on experiences in the field (Caspersen & Raaen, 2014). Most teachers describe their first years of experience as incredible experiences. Therefore, novice teachers who fail to develop the necessary coping mechanisms leave the field. However, the discrepancy between the coping levels of novice teachers and experienced teachers is low.

Still, the experienced teachers have the upper hand by having better means to communicate their needs, thus reducing attrition. These findings are also supported by Mason and Matas (2015), who attributed a shortage of high-quality teachers to high attrition rates. The term can be sparingly used interchangeably with terms like teacher turnover and mobility to refer to instructors' departure between schools, changing specialty or profession only when there is no replacement for the loss (Oke et al., 2016). Oke et al. (2016) add that teacher attrition can be defined differently as it is a variable concept among scholars. Elsewhere, a report by the Learning Policy Institute in the United States indicates that the attrition cases are escalating among young teachers in most states (Carver-Thomas & Darling-Hammond, 2017). The increase in attrition rates among young teachers results from their perceptual changes to teaching, which occur as per the prevailing conditions. Carlsson et al. (2019) explain that it is a fact that not all training teachers end up as teachers. Many matters lead to the change in their paths, and they may drop out of teaching at their initial or advanced stages according to their feelings and convenience. They also argue about the definition of teacher

attrition, where they explain that it is a broad measurement to fathom the value of teacher education and thus cannot be used to gauge the same. Therefore, they concluded that attrition should be considered from different perspectives and should be correlated with the total amount of time spent in the school settings instead of the percentage values. This is to add quality to the meaning of teacher attrition.

Several factors have been implicated in affecting teacher attrition. These factors span from individualistic factors such as the teacher's age, education level, perceptions of another job opportunity, the prevailing pandemic circumstances, and the teachers' professional discipline. External factors include the workload and working conditions, the leadership in teaching, and teacher management. Therefore, attrition can be a correlation of push and pull factors covering the aspects of teacher mobility and retention (Kalai, 2016).

### **Teacher Mobility**

The Conventional meaning of mobility in teaching is the entry and exit of teachers in schools or leaving the whole profession entirely (Vagi & Pivovarova, 2017). It can also be defined as the number of teachers who exit their profession for whatever reason but fail to return within a year (Feng & Sass, 2017). According to Grissom et al. (2016), teacher mobility is used interchangeably with teacher turnover to refer to teachers' entry and exit rates. High mobility has overt negative impacts on the process of teaching and learning in the affected schools. Most of the time, the schools are left with inexperienced teachers and students to do not receive quality guidance and assessment. Gray and Taie (2015) differentiate mobility from attrition and defined attrition as a decrease in the number of high-quality instructors in the teaching profession.

In contrast, they define mobility as teachers' tendency to change their specialties, positions, schools, or shifting to other professions. Player et al. (2017) reiterate that attrition is the main differentiating factor because attrition considers the balance between the teachers

who are leaving and those who are being recruited into the field. Policymakers have realized a notable correlation between the relationship between the quality of the teaching workforce and teachers' mobility. It has been realized that the most mobile group of teachers is at the top and bottom quartile as opposed to the average teachers. The low quartile teachers exit to seek other career opportunities that can fit their level of skill. The higher quartile teachers exit as a move to distribute the quality to other areas in need and further their careers (Feng & Sass, 2017). According to Goldhaber and Cowan (2014), even though mobility can be voluntary or involuntary, it directly impacts attrition rates if the teachers fail to return to the field, leaving a deficit. High mobility rates increase the attrition rates, and as such, mobility and attrition are directly related (Elfers et al., 2017; Goldhaber & Cowan, 2014). Elsewhere, Elfers et al. (2017) argued that mobility and attrition are related because high mobility increases attrition.

Unlike attrition, which was highest during the first 7 years, Gray and Taie (2015) reported that teacher mobility is highest during the 5 years and high among novice teachers. There is a risk of teacher shortages when high mobility rates are not controlled, mainly when the prevailing policies and conditions cause a shift towards one direction (Aragon, 2016; Vagi & Pivovarova, 2017). There is a tendency for high-quality teachers with experience to be replaced with low-quality teachers with no experience in the profession (Grissom et al., 2016; Vagi & Pivovarova, 2017). High-quality and experienced teachers tend to seek greener pastures elsewhere, which sometimes might compel them to change career paths. Some of the factors leading to teachers' high mobility include poor working conditions, compensation, staffing decisions, job dismissal, and performance appraisal (Grissom et al., 2016). However, teacher mobility cannot be an entirely wrong concept because teachers' mobility to other fields leaves career opportunity advancement for the younger teachers. Furthermore, the transfer of experienced human resources confers the transfer of quality to other areas. Therefore, there is an improvement in the less privileged areas (Katz, 2018).



Organization or institutional culture could compel teachers to leave. Knauer (2014) suggested that the Title I school (federally supported for students from low-income backgrounds) teachers' decisions to stay or quit depended on the school administration's support, student and the teacher-to-teacher relationships. In a separate but similar study, Furuta (2015) established that 100% of teachers base the decision to stay or leave on social context, environment, and collaboration and relationships with fellow teachers, school administrators, and students before deciding to stay.

Teacher mobility can be voluntary or involuntary. However, voluntary mobility cases are higher than involuntary cases. The few cases of involuntary mobility are primarily caused by retrenchment and termination of employment. According to Chambers Mack et al. (2019), voluntary mobility is caused by low job control, low organizational commitment, lower perceived support, lower job involvement, and mental health problems, all of which constitute personal reasons.

Average and below average salary is a causal factor for high teacher mobility in schools. Researchers like Carver-Thomas and Darling-Hammond (2019), Craig (2017), Djonko-Moore (2016), Glazer (2018), and Player et al. (2017) have examined many aspects of learning and teaching around the globe and found that teacher attrition and mobility were substantially affected by remuneration and working conditions. For instance, Carver-Thomas and Darling-Hammond (2017) revealed that 20% of teacher attrition cases in the United States are associated with poor remuneration. Elsewhere, Elfers et al. (2017) revealed that attrition cases were highest among novice and elderly teachers. These cases emanated from voluntary decisions or retirement options. This is contrary to the findings by See et al. (2020), who explain that monetary remuneration is an essential factor in teacher mobility and attrition. Still, it is not the leading cause of these. They further add that career satisfaction is a

function of many interdependent factors inherent to the teacher, the institution, and even the general policies, which have a direct and indirect effect on teacher attrition.

### **Teacher Retention**

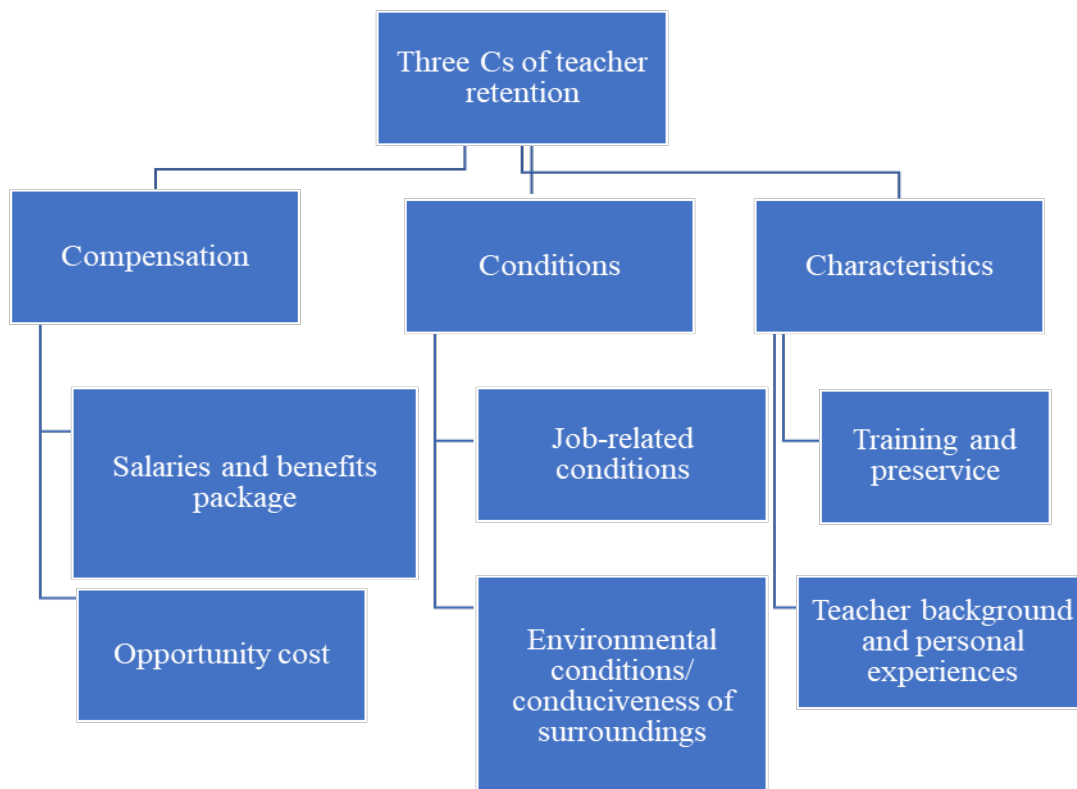
Teacher retention is the ability to reduce mobility. It refers to measures or interventions to increase the period a teacher stays in the profession (Shaw & Newton, 2014). It can also refer to creating favorable conditions tailored as per the teachers' prevailing needs. These interventions are employed by education stakeholders, such as school administrators. This agrees with Wesley's (2016) assertions, who explains that there is increased attrition and mobility and reduced teacher retention when the working environment is hostile. However, there is low attrition and mobility and high teacher retention when the work environment is conducive. Teacher retention is highly dependent on eliminating or reducing factors that can result in intent-to-quit or leave (Geiger & Pivovarova, 2018). Many scholars agree that work environment affects employee turnover and retention, and teaching is not excepted (Chambers Mack et al., 2019; De-Stercke et al., 2015; Geiger & Pivovarova, 2018; Hughes et al., 2014); Pogodzinski, 2014; Sims, 2017; Tehseen & Hadi, 2015; Weldon, 2018; Wesley, 2016).

The factors that may compel a teacher to leave or stay usually work jointly. Many scholars agree that high teacher mobility and attrition rates are down to the poor implementation of retention strategies rather than lack of retention strategies, directly correlated to poor working conditions (Wesley, 2016; Springer et al., 2016; Stromquist, 2018). For instance, according to Springer et al. (2016), retention strategies such as offering teachers retention bonuses significantly affect mobility, but when managed effectively. Wesley (2016) proposed a teacher-retention matrix, a function of the three Cs theorized by Sher (1983): conditions, characteristics, and compensation. Figure 1 illustrates a framework influenced by Sher (1983) and Wesley (2016) that features critical success factors for teacher

retention. In the recent past, many scholars have looked into the theoretical aspects of teacher retention. Wesley (2016) revealed that the decision to stay in a current school or seek a transfer is strongly linked to the institution's workload, conditions, working situations, and the environment of the school. See et al. (2020) added to the argument by explaining that money may not be a retention factor despite being an encouraging factor. Also, retention is improved by factors such as continuous professional development by the institution and early career support. However, the evidence in support of this is relatively ambiguous.

**Figure 1**

*Three Cs of Teacher Retention*



*Note.* Adapted from *Teacher Attrition, Retention, and Pre-Service Preparation*, by K. Wesley, 2016, Doctoral dissertation, Governors State University. CC BY-NC-ND.

The retention strategies should incorporate three critical aspects that affect the teacher's attitude towards their careers from the figure above. The factors include teacher compensation, working conditions, and teacher characteristics and qualities. Teacher

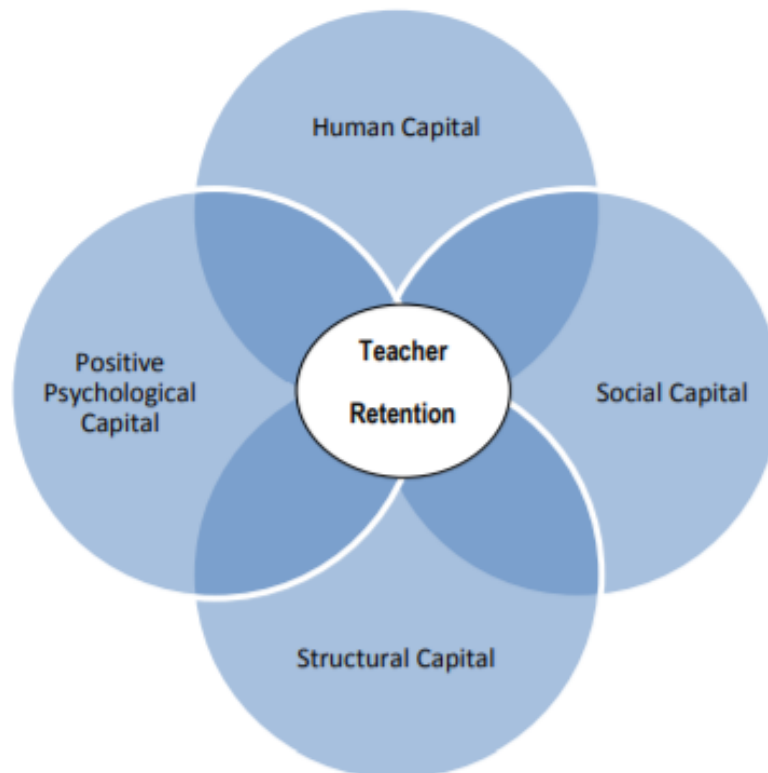
compensation includes payment arrangements that are perceived as fair based on the market rates. The main factors which affect the teacher's welfare in terms of financial remuneration include salary, bonuses, commissions, and other benefits such as insurance cover. All these have a direct correlation to the attitudes of the teachers in service. However, See et al. (2020) argue that monetary motivation may not be the main determining factor of teacher attrition, mobility, and retention. Instead, the working conditions, which include providing resources necessary for the teachers to provide quality services, maybe the main determining factors. Therefore, this can be done by the provision of teaching materials and positive organizational culture. Teacher characteristics and qualities include their personalities and competencies.

While the rates of mobility and attrition were in rural areas, Evans-Dobbs (2018) held that workload pressure, low teacher induction, lack of support from leaders were significant factors that influenced low teacher retention. Evans-Dobbs (2018) also found that teacher status and experience, mentoring and professional development, and teaching autonomy were not significant predictors of teacher retention. Many studies agree with the three Cs of teacher retention. For instance, Colson and Satterfield (2018) established that high remuneration encourages teachers to stay in their current schools, while low remuneration resulted in high mobility rates and low retention rates. A strong correlation exists between student success, compensation, and teacher retention. Grimm (2017) realized that high compensation, whether direct or indirect, results in high retention rates and motivates teachers to do their job, which results in the positive performance of learners. In similar research, Espel et al. (2019) affirmed that teachers exhibit high mobility and attrition and tend to leave for better-paying jobs when their schools pay them average or below-average salaries. This contrasts with the findings of See et al. (2020), who explain that monetary remuneration, continuous professional development, and early career support may be pulling factors but not necessarily relate to teacher retention.

As such, teacher retention is an elaborate aspect. It goes beyond giving out lucrative payment packages, as described by See et al. (2020). Numerous factors come into play when teachers decide whether to stay or leave their current jobs or position. In support of Sher (1983) and Wesley (2016), Mason and Matas (2015) developed a four-factor conceptual framework for teacher retention (as shown in Figure 2). According to Mason and Matas (2015), teacher retention strategies should focus on four aspects: structural capital, positive psychological capital, human capital, and social capital.

**Figure 2**

*Four-Factor Conceptual Framework for Teacher Retention*



*Note.* Adapted from “Teacher Attrition and Retention Research in Australia: Towards a New Theoretical Framework,” by S. Mason and C. Matas, 2015, *Australian Journal of Teacher Education*, 40(11), p. 59. Copyright 2015 by Edith Cowan University.

Human capital can be defined as the skillset, technical knowledge, and experience possessed by a person that can be directly translated to their value in an organization.

Structural capital can be defined as the supportive abstract infrastructure, which enables human capital to function optimally. Social capital is concerned with the formation of relationships, which improves the career status of human capital. Positive psychological capital refers to a positive and developmental state inherent to an individual, which consists of self-efficacy, resilience, hope, and optimism (Cavus & Gokcen, 2015). Teacher retention can be a highly dynamic concept being a function of an array of factors based on the four-factor conceptual framework. Thus, it can be deduced that there is no single factor that can guarantee retention. Instead, various factors interact when teachers decide whether to leave or stay in their current jobs.

Mason and Matas' (2015) work is recommendable for education stakeholders because it provides a holistic approach to teacher retention. Their works are advantageous because most of the studies focus on individual factors, thus losing the bigger picture in addressing teacher attrition, mobility, and retention. Their relevance as human capital gauges the relevance of an employee to an institution. All these components have a direct effect on teacher retention. The teaching workforce can be highly dynamic. This is because of the changes of the structural and legislative changes which occur daily in the field. Also, some structural factors such as curriculum development, government support, and the schools' managerial structure are seen to be the main determining factors of teacher retention as it directly affects the working conditions. These structural factors also affect the career development of these teachers, where the inability of a particular stakeholder to develop the teachers' careers may render them irrelevant. For instance, there has been an increase in the use of digital modalities of teaching various institutions due to the positive effects of flexibility and quality improvement. Failure of an institution to train their teachers to maintain relevance may lead to the education of the teaching quality by the available teachers. Consequently, some teachers shift to the lower quartiles in terms of quality of skill.

As per Feng and Sass (2017) assertions, a shift to the lower quartiles by the teachers confers mobility and attrition.

Furthermore, teachers have a significant role in promoting learning and advancing the quality of learning as the primary service providers. Like other professions, building relationships is an essential aspect of effective performance. It takes time to build teacher-to-teacher and teacher-to-student relationships. Retaining highly experienced educators is critical to building relationships necessary for student development and success. The stability of school principals' mobility leads to an immediate improvement in the quality of services offered by the teachers and education quality. For instance, Flores (2018) found that when teachers retain the same schools for a while, they become familiar with the programs implemented there and show more participation and engagement. Besides, retention allows teachers to have time to build teamwork and teacher-to-teacher relationships, which are important aspects of motivation at workplaces. For instance, retained teachers can build strong work relationships with each other when working toward improving students' academic outcomes.

Lochmiller et al. (2016) established that the lowest student academic performance levels were experienced in schools with the lowest retention rates. This is consistent with Knapp et al.'s (2016), arguing that continued teacher-student interaction and smooth learning achieved through teacher retention led to improved academic success. With high retention, teachers can identify students' requirements and have time to modify their teaching strategies to meet each student's specific needs. High retention means that once teachers identify each student's individual needs, they can adopt specific methodologies suitable to each learn (Oke et al., 2016). Therefore, retention immediately directly affects the quality of education imparted by the teachers onto the learners due to the social and academic stability associated with it.

Teacher retention saves schools the costs of hiring and training new teachers when there are shortages created by leaving teachers. Instead of diverting resources to hiring and training new teachers, school headship can use those funds to provide materials necessary to improve learning. Oke et al. (2016) affirmed that teacher retention results in realizing the set academic goals and objectives. The researchers recommended educational managers to implement retention strategies such as adequate remuneration, proper work environment, and welfare packages. Similarly, Schwerdt et al. (2017) and Nguyen (2018) encouraged school administrators to promote teacher retention because it resulted in positive academic outcomes. Retaining teachers through the provision of benefits is cost-effective than recruiting new instructors (Hopkins et al., 2019). Therefore, educational managers are encouraged to allocate resources to retention strategies, such as providing medical coverage rather than waiting for teachers to leave and replace them (Dee & Goldhaber, 2017). With high compensation and lucrative benefits, teachers' morale is boosted, and they are motivated to provide learners with high-quality education (Hopkins et al., 2019).

### **Correlation between Attrition and Mobility with Respect to the USA**

#### ***Review of Teacher Mobility and Attrition in the United States***

Teachers play an essential role in terms of the quality of education. However, quality learning is not only impacted by service providers but also the learners. In a nutshell, the quality of education is mainly dependent on the quality of output and the skillset that is provided by the teachers. When instructors in learning institutions provide poor-quality services, the overall output would also be poor. In the USA, some factors influencing quality learning include teacher mobility and attrition. The public and learning fraternity have reasons to be concerned because, just like the rest of the world, mobility and attrition rates in the United States are rising. For instance, in the 2011/2012 school year, it was revealed that 8% of teachers transferred from one school to another while 8% left for other careers the



subsequent year out of the 3,377,900-total teachers (Goldring et al., 2014). Attrition can be correlated with mobility because, in attrition, the teachers move out of the field altogether, and there is no replacement (Oke et al., 2016). Mobility only considers the group of teachers in the career movement but does not investigate the cumulative deficit. Attrition and mobility are associated with some groups of teachers. These include the highly skilled teachers with poor skills regardless of their cumulative experience in the field and novice teachers who are just new to the field and have witnessed an incongruence between their expectations and their practicum experiences. Meyer et al. (2019) give their perspective that mobility and attrition rates depend on the teacher's district, school, community, or country. In the United States, teacher attrition varies across states, geographical areas, and types of districts and schools (Meyer et al., 2019). This trend is associated with ensuring all students in the United States can access high-quality teachers equitably. However, most teachers tend to leave poor areas and low-performing districts. When this happens, such districts and schools incur additional expenditures for hiring and training new teachers. Meyer et al. (2019) estimated that 8% of the teachers shifted from one school to another, and the rate increased in disadvantaged districts and rural schools.

Furthermore, chances for continuous professional development appear to be the pivotal factor in teacher mobility and attrition. In the absence of CPD, the teachers tend to get demotivated and seek better working conditions and terms by shifting school fields or career lines. The argument by See et al. (2020) is also underscored by Mason and Matas (2015), who give a four-factor approach to teacher retention. Therefore, through scholarly analysis, it can be said that teacher mobility and attrition in the USA are determined by several factors, which are flexible, and change as per the prevailing geographical, legislative, and administrative conditions.

In report ranking states concerning teacher attrition and mobility rates, Utah and West Virginia had the lowest rates while Arizona and New Mexico had the highest rates. In a separate but supporting study, in West Virginia, 90% of teachers stayed in their schools (Lochmiller et al., 2016). Also, only 11% of the school administrators left within 5 years (Lochmiller et al., 2016). Besides, this study revealed that teachers with 2 years of experience and below showed the highest mobility and attrition. The findings are congruent with Caspersen and Raaen's (2014) assertions, who explain that novice teachers are the most susceptible to attrition and mobility. Concerning teacher experience, the upper and lower quartiles of skill distribution tend to be the most susceptible to mobility. The upper quartile teachers move to redistribute skills. The lower quartile teachers tend to leave the fields to seek better working conditions elsewhere in line with their skill level (Feng & Sass, 2017).

There are high teacher attrition and mobility rates in rural schools and districts in terms of the geographic distribution of schools. This is attributed to a high concentration of people of color, underdevelopment, and low socioeconomic status (Castro et al., 2018; Darling-Hammond, 2001; Nguyen, 2018). For instance, Nguyen (2018) realized that there was less likelihood of teachers in urban schools in Tennessee, leaving their occupations than teachers in rural schools. These findings are consistent with Castro et al.'s (2018), attributing teacher shortages in some districts across the country to racial inequality and low socioeconomic status. The intent to move between teachers differs, with most teachers preferring to transfer within the same district. Teachers in public schools prefer remaining in public schools when seeking transfers rather than joining private schools. According to Goldring et al. (2014), 59% of teachers who decide to move from one public school to another are inclined to remain in the same district, while 38% prefer transferring to public schools in another district. Only 3% of teachers would welcome the idea of transferring to private schools from public schools. Elsewhere, novice teachers in private schools prefer

moving to public schools (Espel et al., 2019). Besides, most movers preferred urban-based schools (Espel et al., 2019). Shikapelo (2019) explains that distance, climatic changes, hygiene, presence of earning facilities, and literacy levels, are the main determining factors of teacher mobility and attrition in the rural areas. These factors have a direct effect on the process of teaching and learning. Consequently, they can determine the level of teacher mobility, attrition, or retention.

The general shortage of teachers in schools could also spark mobility and attrition. For instance, there are many causes of ongoing teacher attrition in the US; however, Strauss (2017) attributes this trend to teachers' general shortage across the country. This information was obtained from the report provided by the US Department of Education. In a separate study, Sutcher et al. (2016) found that 47 states in the US have shortages in math instructors, 46 in special education teachers, and 43 in science teachers. Also, 40 states do not have instructors to teach foreign languages, 32 lack English and technical instructors, and 28 have deficiencies in performing arts teachers (Sutcher et al., 2016). Elsewhere, the National Public Radio (NPR, 2016) associated the increasing teacher shortage due to attrition with increasing frustration and burnout among teachers. A 2007 Department of Education report on teacher attrition revealed that 25% of the new teachers in public schools were leaving for other professions within the first three years of work.

It appears attrition has been happening for a long time across the US and what is being experienced today is only a ripple effect of the persistence of attrition. For instance, Lambert (2018) points out that there has been a rapid increase in attrition in the past three decades, which has resulted in the acute shortage of teachers today. The attrition is because of several factors that are specific to every locality. The main factors that cut across the United States include remuneration, local government policies, professional development, changing attitudes towards teaching, and a supportive culture towards the teaching career. (Harris et al.,

2019) Continued attrition in the teaching profession makes it hard to fix the shortage crisis in the short-term. For instance, California continues to face teacher shortages challenges despite investing heavily in addressing such problems (Lambert, 2018). There have been fewer incoming applications than leaving teachers (Lambert, 2018).

With a holistic approach, stakeholders can develop informed policies, thus solving this public concern. However, while many studies acknowledge that teacher attrition, mobility, and retention are severe problems in the teaching profession, there is a substantial gap in research findings and comprehensive statistics on attrition in the United States (Gray & Taie, 2015; Hanna & Pennington, 2015; Mason & Matas, 2015). For instance, Mason and Matas (2015) established that most research about attrition focus on specific parts of the country rather than extending to the entire country. Education stakeholders should be concerned that the existing literature indicates that attrition and mobility rates are escalating in the United States. There is a need for extensive research on the causal factors and measures that can be implemented in the education sector to combat this trend.

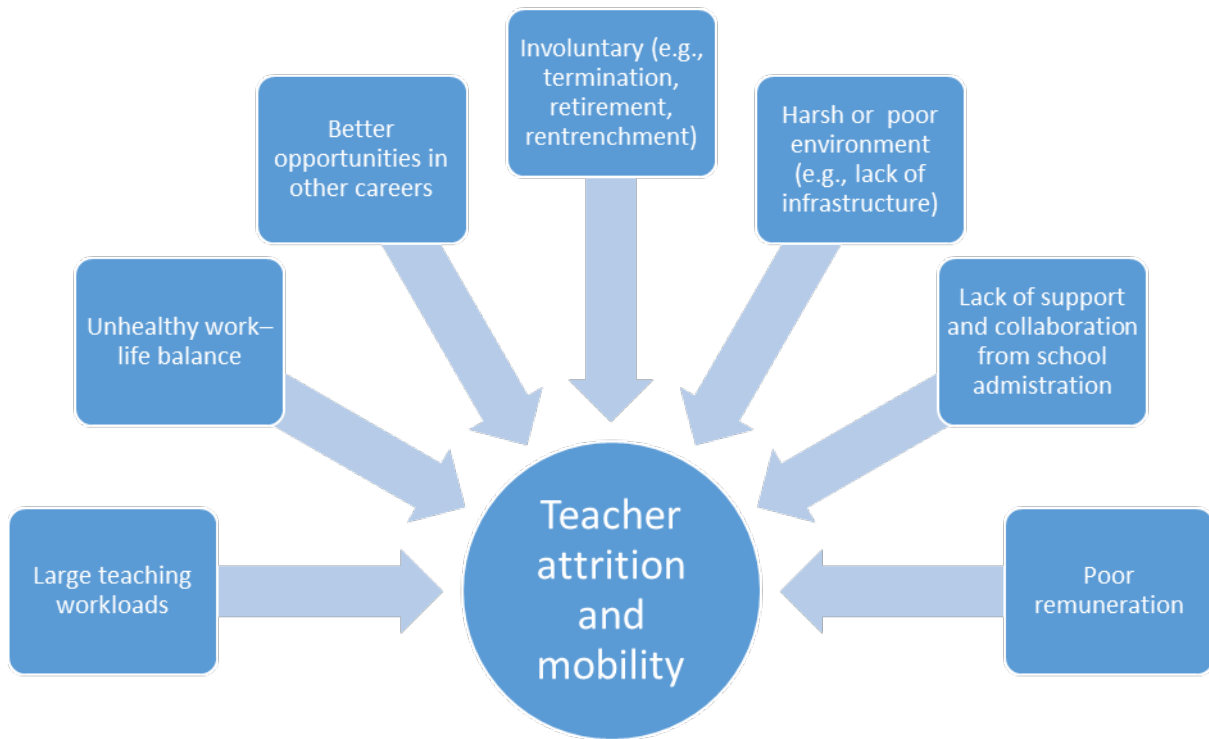
From the review of teacher mobility, retention, and attrition in the United States, it can be concluded that there is a worrying trend that needs to be addressed by concerned education stakeholders and policymakers.

### ***Relationship between Mobility, Retention, and Attrition***

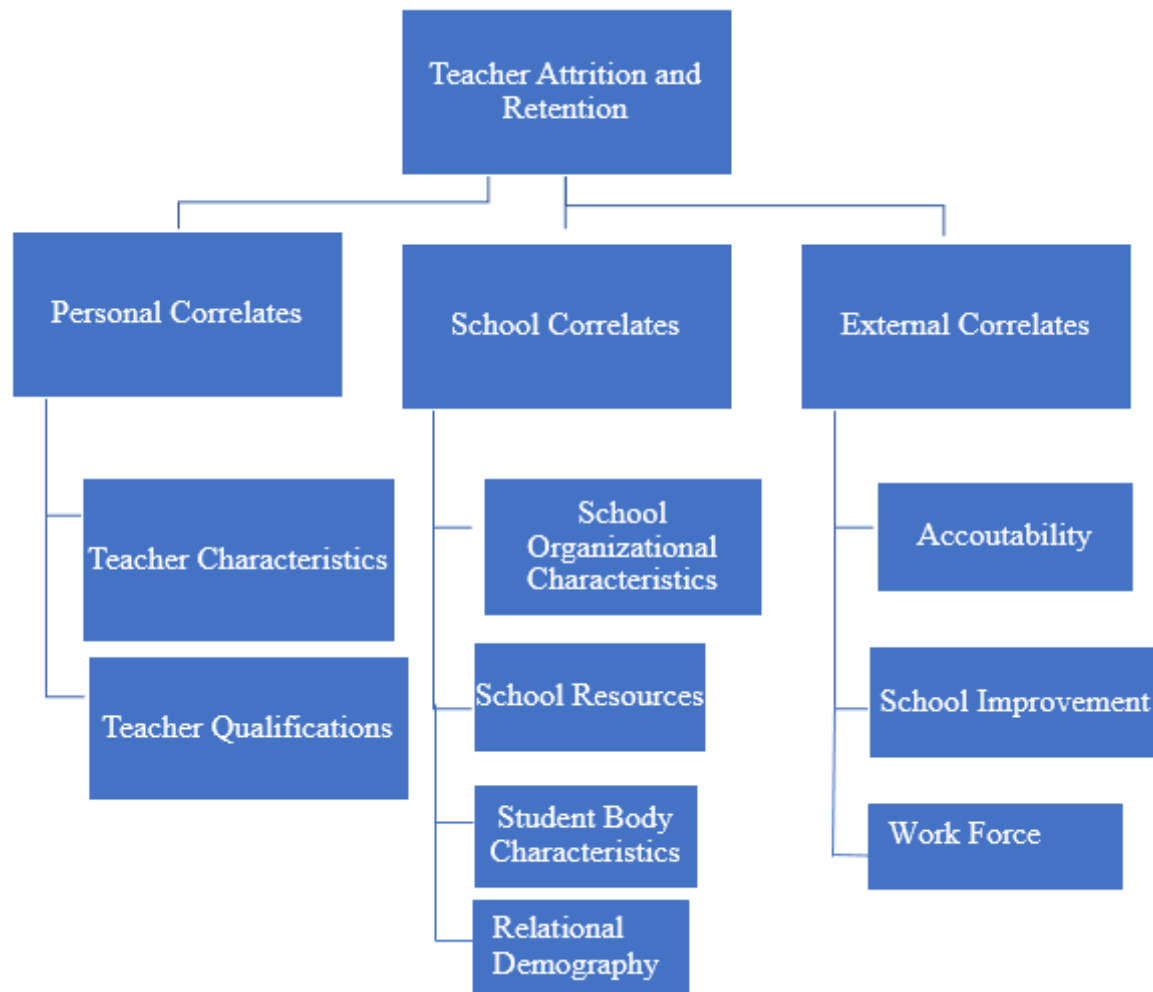
Before solving teacher mobility and attrition and improving retention to improve learning, there is a need to assess the relationship between these concepts. As mention before, mobility is the tendency of teachers to leave their jobs because of voluntary or involuntary reasons but fail to return within a year (Feng & Sass, 2017). It includes shifting from specialization, changing teaching positions, transferring from one institution to another, moving from urban school to rural area (or vice versa), or changing professions from teaching to other careers. On the other hand, attrition is the exit of educators from the

teaching profession for whatever reason, resulting in a reduction of teachers from the profession. The concept of attrition considers the cumulative deficit regardless of whether mobility works in favor or not of the institution or sector that is being analyzed (Wesley, 2016). Therefore, mobility and attrition are directly proportional; that is, an increase in one results in an increase in the other. It follows that teacher mobility contributes to attrition, which is the reduction in teacher supply.

Both attrition and mobility impact teacher retention negatively. As mentioned before, teacher retention refers to measures or interventions to increase the period a teacher stays in the teaching profession (Shaw & Newton, 2014). This means effective retention strategies would result in low teacher mobility. In some instances, it is right to say that retention and mobility are inversely proportional; that is, an increase in retention results in decreased mobility. Therefore, there is a direct proportionality between mobility and attrition and an inverse proportionality between retention and mobility and attrition. However, in some instances, where teachers fail to shift careers entirely and only perform horizontal movements may lead to an endless number of teachers. The relationships between these concepts (or variables) are illustrated in Figure 3.

**Figure 3***Factors Affecting Mobility and Attrition Relationships*

From the framework, it can be deduced that factors that increase mobility can increase attrition as well. Therefore, by minimizing the factors that promote mobility and attrition, retention can be increased. However, the conceptual frameworks illustrated in Figure 1 and Figure 2 show that reducing attrition and mobility and motivating teachers to stay call for more than just controlling the predictors depicted in the conceptual framework illustrated in Figure 3. For instance, the framework illustrated in Figure 1 outlines three aspects to be considered when developing retention strategies: compensation, working conditions, and training and pre-service. In response to limitations provided in the framework illustrated in Figure 3, Nguyen (2018) proposed a model which informs the concept of retention and attrition illustrated in Figure 4.

**Figure 4***Conceptual Framework of Retention and Attrition*

*Note.* Adapted from *The Theories and Determinants of Teacher Attrition and Retention*, by T. Nguyen, 2018, Doctoral dissertation, Graduate School of Vanderbilt University (<https://etd.library.vanderbilt.edu/available/etd-05012018-090814/unrestricted/TNguyen.pdf>). CC BY-NC-ND.

As mentioned before, the dynamics surrounding attrition, retention, and mobility of teachers result from multifactorial internal and external interactions. Teacher mobility and attrition rates, most of the time, reduce teacher retention. Therefore, relevant practices surrounding creating the right working conditions and policies need to be implemented effectively. When teachers occupy their training position, specialties, or schools, mobility and eventual attrition rates can be prevented (Springer et al., 2016). Attrition is caused by teacher

mobility, and as such, its rate reduces with time once retention strategies prevent teacher mobility cases. The teacher-, learner-, and learner-related factors shown in Figure 4 contribute to the motivation and job fulfillment that, in return, compels teachers to stay in their schools.

### ***Impacts of Teacher Mobility, Attrition, and Retention***

As mentioned before, attrition is the leading cause of nationwide teacher deficiencies in the United States. Each year, about 8% of teachers leave the profession (Carver-Thomas & Darling-Hammond, 2017). The attrition is because of multiple factors that span social capital, human capital, positive psychological capital, and structural capital (Mason & Matas, 2015). This trend has contributed to limited teacher retention rates. Thus, an annual 90% recruitment vacancies are created in the teaching profession. Besides, the labor market imbalances affect the education quality and the teachers' performance in the long-term due to the instability, which attrition and mobility present (Adnot et al., 2017). While teacher mobility and attrition have many shortcomings, they do come with some benefits as well. These benefits are also well documented. For instance, Carver-Thomas and Darling-Hammond (2017) suggested that teachers' attrition and mobility created employment opportunities as new teachers are hired. Besides, it also creates an opportunity for promotions as experienced teachers get the nod for senior positions. Elsewhere, Nguyen (2018) argued that mobility and attrition gave teachers financial freedom and a chance to get better pay since remuneration was the prime reason for them to move. See et al. (2020) give a contrary opinion where they explain the concept of teacher mobility and attrition to be a consequence of many factors with financial remuneration being one of the least factors. It can also be argued that mobility and attrition help to get rid of teachers who do not have passion in their profession, particularly for those who shift to other professions. However, there needs to be a shift in attitude that will improve the teachers' attitude, and this will act as an initial step to the promotion of teacher retention.



In a separate study, Feng and Sass (2017) reported that the impacts of attrition education quality primarily relied on teachers' quality leaving the profession. The high rate of mobility and attrition are reported in rural areas, schools with an uncondusive working environment, and schools (Marinette, 2019). This agrees with Feng and Sass (2017), who report that the most dynamic groups in terms of teacher mobility and attrition are the upper and lower quartiles in terms of the presented skillset.

Teacher mobility and attrition also result in disproportions in education quality, with some regions, schools, or students receiving quality teachers and vice versa. This occurs primarily due to the rural to an urban shift of human resources because of geographical barriers, climate changes, hygiene levels, the presence of learning facilities, and literacy levels (Shikapelo, 2019). For instance, there are high mobility and attrition rates in rural schools or economically disadvantaged schools, and teachers prefer being transferred to public schools or economically privileged schools (Nguyen, 2018). Elsewhere, Özoğlu (2015) revealed that high-quality and experienced instructors working in schools with underperforming students preferred transferring to schools with students who score high grades. Most of the time, in rural and underperforming schools, the management structure is flawed, and thus the working conditions in the schools are generally poor (Shikapelo, 2019). When these scenarios occur, special schools, economically disadvantaged schools, and low-achieving students are left with inexperienced instructors or shortages, which negatively affects the quality. The few instructors left in such schools are left with more workload that could hamper their ability to attend to all students' needs (Özoğlu, 2015).

Mobility is chaotic and hinders student development due to the varied teaching styles, which the new teachers use. This affects both urban and rural schools. According to Nguyen (2018), educators blame students' lack of success on mobility, which is consistent with Özoğlu's (2015) and Feng and Sass' (2017) findings that mobility is negatively correlated

with student performance. Students, most of the required stability, especially in the techniques and modalities of teaching to grasp concepts. Therefore, a constant change in teaching modalities will reduce the effectiveness of learning for the intellectually average and the less privileged students. For instance, Feng and Sass (2017) established that students in schools that exhibited high mobility and attrition rates and had inexperienced teachers might not perform well than those from schools with high retention rates and experienced teachers. This can be partly attributed to low syllabus coverage due to the limited number of teachers in attrition and mobility. With insufficient staff in schools due to attrition and mobility, syllabus coverage is impacted negatively. Feng and Sass (2017) syllabus coverage was significantly affected in technical subjects such as sciences and mathematics because they experienced the highest mobility and whose teaching modalities require persistence in technique. Gatemi and Thinguri (2018) attributed the poor academic performance to teachers' mobility as schools are left with few teachers to cover the syllabus. The few teachers' massive workloads left to be handled means that they must work for long hours. This leads to burnouts, which further contributes to mobility and attrition.

For school administration to maintain quality learning in massive mobility and attrition, they are forced to incur additional costly expenditures, including allocating funds for recruitment and induction processes of new teachers. Teachers should be empowered to promote learning. Attrition limits quality knowledge transfer, and as such, it is crucial to address the problem. For instance, when there are teacher shortages in schools due to mobility and attrition, most operations are disrupted, including teacher-student relationships. Besides, resources are diverted away from improving other areas of learning to hire new teachers. It takes time for the students and teachers to build relationships, which, in return, has a ripple effect on performance.

Furthermore, there is a financial implication with regards to teacher mobility and attrition. For instance, when a teacher relocated from one district or county to another, the cost of replacement amounted to approximately \$20,000 (Carver-Thomas & Darling-Hammond, 2017). It should be remembered that new teachers may be qualified, but they are inexperienced, and as such, they need training. Failure to train new teachers could render them ineffective in providing high-quality education.

In addition, the performance of instructors is also tied to the mobility of school principals. While research indicates that school principals' attrition and mobility have a positive correlation with the performance of instructors, their turnover poses a significant challenge in implementing education policies in schools (Sammy, 2014). In a study to determine whether the mobility of school principals had a substantial effect on the quality of education, Sammy (2014) found that principal turnover can impact school values and morale as both teachers and students adjust to the possible shift in focus. The findings revealed that change in headship help boost morale and teamwork as teachers anticipate the change in focus and education policies. However, the study also revealed that most principals who head one school for many years tend to leave for other professions when required to move to another school. Sammy (2014) recommended incorporating a term limit of not more than six years to govern principals' transfers instead of having those heading schools for many years. Sammy (2014) argued that this would create an open school climate necessary for a conducive learning environment.

As mentioned before, high mobility destabilizes most operations in schools and wastes time by the need to restructure the teaching modalities to meet the needs. Massive mobility means that the school administration must hire replacements for those leaving so that the balance limits teacher attrition. However, incoming teachers are usually inexperienced. Katz (2018) recommended retaining teachers because it is challenging to find

competent teachers to replace those leaving. When the school is believed to have low-attaining learners, the task becomes even more challenging. Katz (2018) found that administrators from special schools find it hard to find competent teachers than public schools.

Organizational culture is integral to high productivity in organizations. Similarly, in schools, retention allows teachers to build a positive institutional culture that is seamlessly embedded in their mission and vision (Flores, 2018; Ram & Samsudin, 2019; Seymour, 2016). From the findings in this section, it can be concluded that teacher mobility and attrition negatively affect learning in schools. On the other hand, teacher retention influences learning in schools positively. Educational managers should look for ways to promote learning in schools by encouraging teacher retention and reducing mobility and attrition.

### **Factors Affecting Teacher Mobility, Attrition, and Retention**

Role of remuneration in mobility and attrition. Lucrative pay attracts and helps to retain the best talents in an organization. It is well-documented that payment arrangement and perceived fairness is one of the reasons employees choose to stay or leave in an organization (Blašková & Blaško, 2014; Dee & Goldhaber, 2017; Fulbeck, 2014; Greaves & Sibieta, 2019; Hendricks, 2014; Oke et al., 2016). Hendricks (2014) found that high remuneration is the most effective retention strategy, particularly among novice teachers. As their first form of employment, novice teachers are always interested in what they take home in pay. However, as teachers gain experience, favorable working conditions outweigh high remuneration as retention strategies (Sorber & Campbell, 2019). See et al. (2020) agrees that financial remuneration is an important factor but is not the main factor that affects teacher retention. Mason and Matas (2015) add that investment in social, structural, and human capital in career quality development leads to higher retention rates.

Salaries vary across different professions and positions, and teaching is not excepted. The lower teaching positions receive low salaries, explaining the high rates of attrition and mobility due to the low level of skill attributed to novice teachers and those in the lower quartiles of teaching quality (Carver-Thomas & Darling-Hammond, 2017). Payment arrangements seem to vary in some districts and counties. For instance, some districts offer low salaries for new teachers while others prefer high salaries to beginners. In districts that offered low wages, it was subject to increment as the teachers gain experience (Carver-Thomas & Darling-Hammond, 2017). While this is a common phenomenon in other professions, when new teachers are offered a starting salary that is subject to annual increment or moving from one pay grade to another, most teachers show a high tendency to move in districts that offer a high starting salary. This leaves those with incremental payment arrangements at the risk of having a shortage of teachers. These findings are consistent with Newberry and Allsop's (2017), who revealed that novice teachers are more likely to show high mobility when offered low remuneration.

Data from the National Center of Education Statistics regarding wage comparability indicated that teachers whose salaries were low in the first years of their profession had a higher likelihood of mobility and attrition than those who were highly paid in the early years of their profession (Carver-Thomas & Darling-Hammond, 2017). Besides providing fair salaries, Dee and Goldhaber (2017) argued that giving benefits like bonuses can help teachers take positions in harsh-condition or low-achieving schools.

The reason for teachers to quit the profession is not only down to low remuneration. Sometimes teachers choose to move or leave their professions when they do not get the resources that other professions obtain (Oke et al., 2016). Oke et al. (2016) recommended educational managers evaluate specific management issues that could push teachers out.

Some of the highlighted areas included adequate welfare packages, remuneration, and providing materials necessary for learning.

Based on the findings above, it is prudent to conclude that remuneration is a crucial driver of teacher retention or intent-to-quit, and as such, it needs to be addressed. The tough economic times presented by the economic depression that was witnessed before and during the COVID-19 pandemic made more staff motivated to seek greener pastures where they deem fit. It calls for combined efforts from various stakeholders, such as government educational agencies. It should be noted that not all schools have adequate resources to pay teachers to their satisfaction due to the stated reasons. As such, there is a need for interventions to ensure all schools can offer competitive remunerations. For instance, economically disadvantaged schools should be offered more resources than economically privileged schools.

### ***Role of Teaching Environment on Mobility and Attrition***

Teaching resources and security. The teaching environment is an essential element of quality education to be realized. It is crucial to the teacher's morale and security, which are essential in determining the teaching process's outcome. A teaching environment includes the professional atmosphere and demographic school characteristics (Oke et al., 2016). A conducive teaching environment creates an optimal setting to support the process of teaching and learning. Emphasis on staff welfare is crucial as it enables the institutions to treat the teachers as human beings instead of production tools. Welfare activities ensure that the teachers strike a balance between their work and social life (Evans & Young, 2017). A work-life balance promotes job satisfaction among teachers because they have time for learners, hobbies, and families. Effectively, adequate teaching resources and security as essential aspects of the teaching environment. It has been established that a school that rated its

working environment and conditions as satisfactory experienced the lowest attrition and mobility rates (Geiger & Pivovarova, 2018).

Classrooms that are well-furnished and secure are an essential part of the conducive working environment as they boost the teachers' morale to do their job. In addition, they have all the required resources at hand. Inadequate teaching resources and facilities such as textbooks and classrooms impact learning negatively and give teachers a reason to leave for other schools (Walton, 2021). In a study investigating the teaching environment in private and public schools, Sorber and Campbell (2019) established that the teachers' attrition and mobility were high in public schools because they contained inadequate teaching resources and security. A report by the Council for American Private Education (2014) revealed that private schools enhance teachers' safety regarding violence and threats. The report indicated that 2.6% of private school teachers than 8.1% of public-school teachers faced threats of injuries. Besides, 1.9% of private school teachers compared to 4.3% of public-school teachers reported physical attacks by students.

Rural versus urban environments. Schools located in rural settings often have difficulties retaining their personnel, unlike those in urban settings. Rural areas are characterized by poor infrastructures such as poor roads and housing and inadequate or lack of social amenities such as hospitals and schools. Schools in rural settings often have difficulties retaining their personnel because they have unconducive working conditions such as inadequate housing, long distances to and from work, and lack of social amenities like hospitals (Kalai, 2016). Shikapelo (2019) adds to the argument by explaining that rural settings are subject to attrition due to the poor working conditions in these areas. Besides, there is poor policy implementation, and the scarcity of resources calls for practical application of skills to enable improvisation. This aspect locks out the inexperienced teachers who find it hard to improvise and adapt to hardship situations. Rural-based schools

experience more outbound mobility than urban-based schools, as the teachers feel isolated (Meyer et al., 2019). These teachers prefer working at schools in urban areas, thus increasing inbound mobility.

The excellent infrastructure and adequate social amenities in urban areas create an environment that boosts educators' morale and contributes to low turnover rates. Urban areas are characterized by better social amenities, teaching facilities, and infrastructures, such as good roads, electricity, water, and housing and adequate social amenities like schools and hospitals (DeFeo et al., 2017; DeFeo & Tran, 2019; Goldring et al., 2014). The availability of these resources and facilities contributes to less distress associated with working in rural areas. As such, urban areas have low mobility and attrition rates.

Public versus private schools. The source of funding differentiates private and public schools concerning access to resources. The government funds public schools, while private schools get their funding in fees paid by learners, donations, and endowments. As such, tuition fees are lower in public schools than in private ones. This also means that public schools have students from all classes, unlike private schools that often accommodate students from privileged families. With more students and more diversity, the quality of education is affected. The higher the student to teacher ratio, the lower the quality of education (Garira et al., 2019)

The teaching environment of public schools immensely differs from that of private schools. Public schools offer bigger class sizes, less individual attention, and little understanding of how each student prefers to learn. Private schools usually have a favorable working environment as they have smaller classes, allowing teachers to support and monitor student learning on an individual level. This results in high academic performance and student development compared to public schools (Perry et al., 2016).



Racial demographics of teachers. Despite the democratic moves made to foster racial equity, racial profiling remains a determining factor of job satisfaction across all United States jobs. Teacher mobility, attrition, and retention rates vary across population segments. Most American teachers are white (Erskine-Meusa, 2017). This has led to some stakeholders believing that schools serving minority populations face more challenges regarding providing a favorable teaching environment than those serving majority (White) populations because they are served by people who do not have their best interests at heart. For instance, King et al. (2016) found that economically disadvantaged schools serving students from black communities and ethnic minority groups had 92% white teachers.

The dominance of whites in teaching has negatively impacted people of color in the profession (White, 2018). The few black teachers in the profession continue to face frustrations, including racial profiling, which has contributed to the high attrition rates and mobility (Djonko-Moore, 2016). For instance, Djonko-Moore (2016) reported that racial disparity was a critical driver for black teachers' losing interest in the teaching profession. Elsewhere, White (2018) pointed out weak labor protections, discrimination in hiring practices, and disproportionate influences of external managers and private donors as the reason for low retention and high mobility, attrition, and turnover rates among the teachers of color. Therefore, the staff who are of color prefer to seek other job opportunities with limited racial profiling, thus attrition.

### ***Role of Teacher Wellbeing and Resilience in Teacher Mobility and Attrition***

Teachers' mental well-being is anchored on having a work-life balance through ensuring social welfare programs in the workplaces. For instance, it enables them to offer high-quality education (Virtanen et al., 2019). Besides being teaching, teachers have families and hobbies outside classrooms. When lessons are scheduled such that they do not impact negative life outside classes, teachers get high job satisfaction, which is necessary for

building student-teacher relationships to promote learning through social welfare. Several studies show that poor well-being and low resilience to harsh environments and working conditions increase teacher mobility and attrition (Aldrup et al., 2018; Bettini et al., 2017; Gibbs & Miller, 2014; Harmsen et al., 2018; Qu, 2014; Ryan et al., 2017; Torres, 2016; Virtanen et al., 2019; Yıldırım, 2014). Many schools have made remarkable progress in providing physical support to teachers by providing teaching tools and physical safety measures. They have forgotten to provide platforms that address psychological well-being (Virtanen et al., 2019).

A psychologically disturbed teacher would not be effective in carrying out his or her duties, and leaving the profession is always a valid option. The burnouts caused by heavy workloads in some schools have been associated with high attrition and mobility among teachers (Harmsen et al., 2018). The heavy workload is a common phenomenon in public schools with high student populations and large classes compared to private schools (Bettini et al., 2017; Ryan et al., 2017; Torres, 2016). The data provided by the Charter Management Organizations indicated that the perception of heavy workload was a significant determiner of the intent-to-quit or staying at the current schools among teachers (Torres, 2016). One out of three instructors who rated their workload as “unmanageable” left their schools as opposed to one out of 10 instructors who rated it as “manageable” (Torres, 2016).

Teachers handle workload pressure differently. The novice teachers and those who fall in the lower quartiles face significant challenges in coping with workload pressure and reported the highest mobility and attrition (Harmsen et al., 2018). There is an incongruence between their expectations and findings on the field (Feng & Sass, 2017). The heavy workload is associated with a high level of psychological demands. Harmsen et al. (2018) recommended introducing induction programs that would help new and inexperienced teachers communicate their frustrations, learn how to deal with a heavy workload, and find

mental health assistance. The findings are in line with Caspersen and Raaen (2014) assertions, who explain that novice teachers are likely to leave their professions due to their lack of knowledge in how to communicate. Elsewhere, Den Brok et al. (2017) recommended workload reduction as one of the retention strategies to reduce teacher attrition and mobility. Workload reduction can only be made through more teachers' employment, which will enable the distribution of labor. However, this has not been possible due to the high teacher attrition rates in the USA. Thus, there is a stagnation in the status quo.

Teachers' well-being and general satisfaction in schools are based on five elements: school and classroom environment, learner-based teaching and learning techniques, motivation, corrective feedback, and professional growth (Yıldırım, 2014). These factors are related and satisfying one of them is not enough to maintain the teachers' well-being and job satisfaction and mobility decisions. The teachers' well-being and teacher-student interactions are intertwined in that teachers who have high interaction domains (instructional support, classroom organization, and emotional support) showed the highest job satisfaction (Virtanen et al., 2019). When teachers are satisfied with their job, their students stand to benefit because they exhibit effective performance due to stability. Therefore, efforts should be taken to improve teacher job satisfaction. Durksen et al. (2017) suggested that this can be realized by improving teachers' welfare, reducing workload, and promoting effective communication and support between teachers and school administration. Elsewhere, Darling-Hammond et al. (2019) suggested that professional development training could help nurture job satisfaction.

Resilience is an essential attribute in every profession, and teaching is not exempted. Each student has varying needs; thus, the teachers generally need to be tolerant and accommodative to all the students, including intellectual challenges. The term resilience can be often used interchangeably with endurance. The resilience of instructors is subject to many

influences. One of the significant influences is children's social and academic behavior (Gibbs & Miller, 2014).

### ***Role of Interference from Personal Life on Attrition, Retention, and Mobility***

Teaching roles take a significant amount of time, often resulting in teachers being left with minimal time for self-care. This leads to career stress and fatigue, which may limit the effectiveness of teachers. In some other schools, teachers are kept on duty even during the holidays (Troesch & Bauer, 2017). Teaching interferes with the teacher's personal life, even for the most experienced teachers. Working life and home life affect each other correlatively. Once teachers accept this fact, strategies can be developed to achieve a work-life balance that would result in satisfaction in both personal and professional life.

The disproportionate work-life balance impedes education quality, as well as the social and psychological well-being of educators. For instance, when teachers choose to spend most of their time away from school, education is affected negatively. On the other hand, when teachers choose to spend a lot of their time in schools, academic performance is improved, while personal well-being could be negatively impacted. When teachers' well-being is impacted negatively, turnover is likely to increase (Lipińska-Grobelny, 2016; Nyberg et al., 2018; Santos, 2014; Urs & Schmidt, 2018). A good work-personal life among employees is one way to retain the best talents in organizations (Nyberg et al., 2018).

There is contention among some scholars that work-life interference could result in high mobility among teachers due to the presenting stressors that may tempt some of the teachers to shift careers. For instance, Mburu (2015) suggested that when teachers are offered lucrative remuneration, they could endure work-life conflicts. Only average or below average remuneration could contribute to mobility, attrition, and turnover rates. As mentioned before, many researchers disagree with this assertion (Erdamar & Demirel, 2014, 2016; Makela, 2014; White & Knight, 2018). Most of the time, it isn't easy to compartmentalize between

school and work. Personal issues at home are likely to overlap to work, and thus the performance is negatively affected. Some of the problems associated with imbalances between work and home lives include dissatisfaction with the job, feeling not good at work or less qualified, underperformance, fatigue, and boredom (Erdamar & Demirel, 2014). Besides, some walk-out cases are attributed to problems in personal life and not the work environment in school (Erdamar & Demirel, 2014, 2016).

The cases of Work-family and family conflicts vary between teachers (concerning gender and age) and schools. Family-work and work-family conflicts are prevalent among female and young teachers and private schools (Erdamar & Demirel, 2014). Female teachers experience these conflicts due to rigid traditional gender roles. These roles include activities such as serving their husbands and taking care of children. Therefore, they are left with limited time for self-care. As such, female teachers are torn between the requirements of work-life and house responsibilities. Elsewhere, most private schools are employed on a contract basis, and as such, they must work hard to impress their employers and earn a new contract. This also acts as a source of career anxiety and leaves more room for exploitation due to their inherent need to perform to retain their jobs. This could mean sacrificing their personal life to spend more time in schools. Teachers' failure to balance home life and work-life conflicts, especially among married teachers, could compel them to move close to their families or walk-out from the profession (Erdamar & Demirel, 2014).

### ***Role of Unhealthy Workloads and Burnout in Mobility and Attrition***

Many factors come into play to guarantee job satisfaction. As mentioned in the previous section, a heavy workload results in burnouts, which are key contributors to psychological and physical stress; thus, a low level of satisfaction. Many studies indicate that heavy workload and burnouts result in distress, and high mobility rates among employees and teachers are not accepted (Torres, 2016; Van-Droogenbroeck et al., 2014; Ziaei et al., 2015).

As mentioned before, one teacher left his or her school out of three who perceived their workload as “unmanageable” (Torres, 2016, p. 89). Therefore, reviewing the role of workloads and burnout in mobility and attrition is a critical aspect of promoting learning.

A high workload is a common phenomenon among teachers who occupy low positions and those employed on a contract basis in schools due to a lack of autonomy. Novice teachers exhibit the highest burnout rates because they report the lowest autonomy and the highest workload than teachers occupying senior positions. Their work stress may also be a result of their lack of skills. Thus, they are unable to perform effectively and efficiently. In a study investigating teacher-related and nonteaching-related workload, Van Droogenbroeck et al. (2014) revealed that novice teachers exhibited the highest non-teaching-related workload due to lack of autonomy and the contractual employment that most of them are on.

There is also a strong relationship between inexperience and perceived high workload. During the early years of teaching, most teachers exhibit low tolerance to demands in their line of work. For instance, most of these teachers do not manage their work effectively to meet the targets due to the lack of practical knowledge. Besides, they find it challenging to deal with indiscipline cases in their classrooms compared to experienced teachers. Emotional exhaustion and perceived high workloads result in job dissatisfaction, which is one reason for mobility. For instance, Bettini et al. (2017) and Kucukoglu (2014) established that novice teachers exhibited the highest mobility and attrition rates because they had little experience in managing high workloads and low tolerance to work-related stress. In a separate but supporting study, Pogodzinski (2014) attributed high rates of attrition and mobility among newly hired teachers to an inaccurate perception of the teaching environment and working conditions, such that when their expectations were not met, they would be frustrated and contemplate leaving the profession.

### ***Retrenchment and Termination of Employment***

Termination of employment or retrenchment has a significant impact on teacher supply and demand. During the COVID 19 pandemic, there has been a rise in the rates of retrenchment due to the closure of some schools, limited funds, and the adoption of online education even at the lowest academic levels, which require limited input; thus, some staff had to be laid off (Hoang, 2020). An increase in retrenchment levels and the termination of employment without proportional replacement causes a shortage of employees. This is also applicable to teaching.

While the effects of retrenchment and termination of employment lead to attrition and, thus, shortages in creating shortages in schools, when the teachers being laid off are experienced, the quality of education is impacted negatively. Layoffs may result in chronic staff instability, causing loss of valuable human and social capital, creating barriers to quality education in schools (Holme et al., 2018). Retrenchment and employment termination leave school principals with the burden of training new teachers instead of focusing on sustained instructional improvements. When the school administration does not provide the management with quality replacements or instructional support, the remaining teachers are left with a high workload, resulting in more teacher turnover (Holme et al., 2018). Holme et al. (2018) recommended laying off inexperienced teachers if retrenchment is deemed unavoidable to maintain quality education.

A threat of retrenchment and employment termination also has a significant effect on the affected employees' performance. It leads to career anxiety, thus a reduction in performance due to reduced motivation to work. While there are limited studies on the quality and quantity of teachers' productivity in the face of retrenchment threats, it can be argued that those who face such threats would be psychologically unstable, which affects teaching. During the Great Recession of 2008, teachers who faced layoff threats were less

productive than those who did not face such threats, according to the data provided by Washington State and Los Angeles Unified School District (LAUSD; Strunk et al., 2017). Those who received the reduction-in-force notice and were not fired during the depression exhibited less productivity and job commitment (Strunk et al., 2017). Hoang (2020) adds that during the COVID 19 pandemic, only experienced teachers have been retained. In contrast, the novice teachers have been forced into retrenchment due to the economic crises caused by the economic shutdown. The uncertainties presented by this situation has led to the loss of confidence of many teachers in the employment systems; thus, the retrenched teachers have resorted to marketable career lines.

### ***Role of Retirement in Attrition and Mobility***

Retirement can be voluntary or involuntary. The availability of some benefits could encourage teachers to seek early retirements. For instance, Schulz and FitzPatrick (2016) established that many graduate teachers between 60 and 64 years from 2000 to 2010 were more likely to seek retirement because of lucrative pension plans. These findings are consistent with Aubry and Munnell's (2015), who suggested that professionally trained teachers sought early retirement because they were covered by defined benefits than teachers covered by social security pension, thus promoting attrition. This poses a potential danger to teaching due to the deficit between the incoming teachers and those in retirement. Currently, there are negative attitudes that discourage most of the young population to join teaching careers. The continued loss of these professionals will lead to an overt state of deficit and teacher attrition, which may take a lot of time to counter (Christensen & Knezek, 2017). When such a policy continues to be the case in the profession, teacher shortages are the likely outcome that can befall the US.

Retirement benefits could also encourage the instructor to stay in the profession by the formulation of new policies that the benefits only become active after a certain amount of



time in the field. This reduces the mobility of teachers. Strunk et al. (2017) revealed that most teachers remained in the profession to get pension benefits after retirement. These findings are consistent with Salinas' (2017), who established that Texas's senior teachers exhibited low outbound mobility because they valued getting retirement benefits.

### **The Reality of Teacher Shortage: A Review of Teacher Demand and Supply**

Teacher shortages are caused by high demand and low supply; in other terms, low retention and high levels of attrition and mobility. Many factors have been implicated in the dynamics of demand and supply for teachers in some American districts, states, or countries, among them high mobility and attrition. As mentioned in the previous sections, the United States is experiencing higher teacher mobility in some states than others. The increased mobility and attrition are associated with early retirement, employment termination, low remuneration, and a poor teaching environment. For instance, many California teachers are retiring early due to a lack of effective recruitment and retention practices by the state government (Carver-Thomas & Darling-Hammond, 2017). About 50% of Arizona teachers leave the profession permanently five years after employment, thus high mobility among novice teachers (Tirozzi et al., 2014). Utah is leading in teacher mobility and attrition rates due to poor recruitment and retention strategies (Newberry & Allsop, 2017).

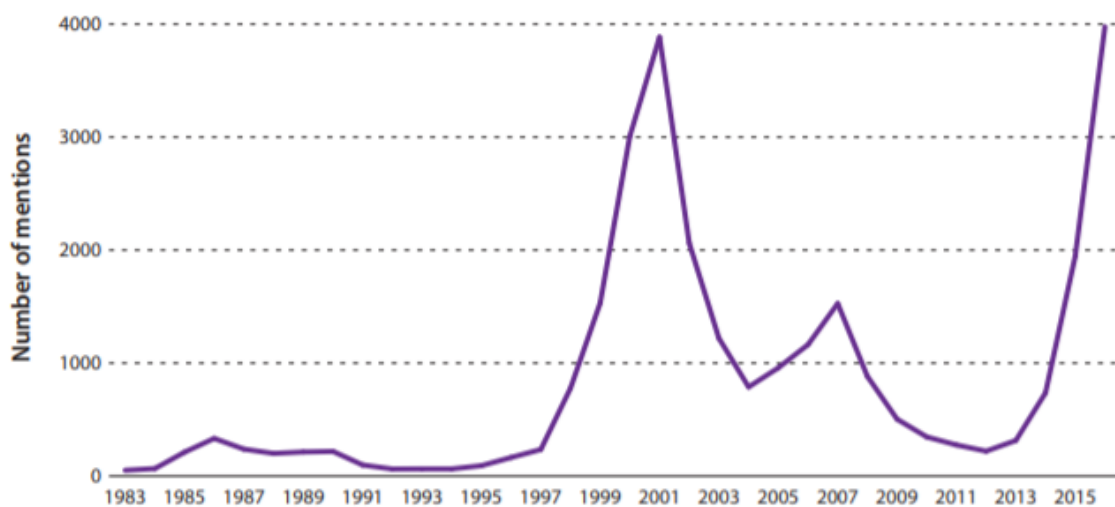
The demand for teachers and supply in the US is different within disciplines, schools, and states. Generally, there are teacher shortages in mathematics and science subjects, with more than 40 states experiencing these shortages (Sutcher et al., 2019). Besides, special schools are at risk of teacher shortages due to higher mobility and attrition rates than public schools (Sutcher et al., 2019).

The high mobility and attrition rates in the states have left state governments in dire need of more teachers to avert acute shortages. This comes as an additional cost to the schools and the state governments. For instance, Nevada proposed allocating \$5 million in

recruiting new teachers by fall 2016 to reduce the acute teacher shortages. Elsewhere, Oklahoma was forced to approve hiring around 1000 unqualified teachers (those who are not certified) in the same year to curb the escalating teacher shortages (Nix, 2015). This is the same trend in most schools, with Carver-Thomas and Darling-Hammond (2017) reporting that most schools resort to hiring unqualified teachers due to the widening gas of teacher shortages. In the report, Texas led with the number of unqualified teachers (22,791), followed by New York (14,735) and California (10,209). The number of unqualified teachers in New York tripled between 2010 and 2016 (Dee & Goldhaber, 2017). Figure 5 shows the prevalence of mentioning teaching shortage in the US new coverage.

### Figure 5

#### *Mention of Teacher Shortages in the United States News Coverage*



*Note.* Adapted from *Understanding and addressing teacher shortages in the United States*, by T. Dee and D. Goldhaber, 2017, Brookings ([https://www.brookings.edu/wp-content/uploads/2017/04/es\\_20170426\\_understanding\\_and\\_addressing\\_teacher\\_shortages\\_in\\_us\\_pp\\_dee\\_goldhaber.pdf](https://www.brookings.edu/wp-content/uploads/2017/04/es_20170426_understanding_and_addressing_teacher_shortages_in_us_pp_dee_goldhaber.pdf)). In the public domain.

From Figure 5, media coverage of teacher shortage was lowest and relatively constant between 1983 to 1995. There was a sharp increase from 1997 to 2001 and a decrease from 2001 to 2013. There has been an increase in media coverage of teacher shortage since 2013.

Another reason for high mobility and attrition and eventual shortages of teachers in school is the profession's negative perception, especially among the younger population. Some people view it as a low-paying and strenuous profession; hence, few people are willing to join. Young people, especially of the millennial era, cannot cope with the strictness and self-discipline that the teaching career demands; thus have formed a negative attitude towards the whole career due to their experiences (Maiers, 2017). Attrition, mobility, and teacher shortages vary across age groups. Young teachers and older adults exhibit high mobility rates (Goodale, 2019). The increased mobility and shortages of young teachers can be attributed to the low remuneration within the early years of their careers. For older teachers, retirement was the leading cause of the shortages of experienced teachers. Goff et al. (2018) and Roth (2017) found that in Wisconsin, attrition and mobility were stagnant, but senior teachers exhibited increased attrition and mobility through retirement. Most young people also seek quick ways of making money. Thus, those who are lowly paid, especially novice teachers, are inclined to leaving the profession when they get a high-paying job. A study carried in North Dakota found that the negative perception regarding teaching due to low remuneration discouraged people from joining the profession and encouraged some teachers to leave the profession (Klimek, 2019). Teachers with fewer than five years in Indiana were paid a monthly salary below the poverty line, contributing to outbound mobility in the state (Dean, 2019). Increasing remuneration can be a starting point in reducing teacher shortages in such a state. In Florida, Feng and Sass (2017) recommended increasing teachers' salaries as a solution to the negative perception and decreasing attrition and shortages.

Racial prejudice also affects the demand and supply of teachers. There are shortages of teachers of color in the US. This trend can be attributed to the high attrition and mobility rates caused by white teachers' dominance in the profession or the high reluctance to hire non-native teachers. Racial discrimination has been reported in many states, particularly

those considered to be White (Espel et al., 2019; Hays et al., 2018; Jackson et al., 2019; Liu et al., 2017; Meyer et al., 2019). With racial discrimination and white education stakeholders' dominance, many people of color are discouraged from joining the profession or encouraging high mobility and attrition rates.

Shikapelo (2019) believes that distance, climatic changes, hygiene level, presence of earning facilities, and literacy levels are the main determining factors of teacher mobility and attrition in rural areas. Consequently, there are high teacher mobility and attrition rates in rural schools. Most teachers prefer moving to urban schools because there are better infrastructure and social amenities, which lead to better job satisfaction, and they're also better chances of retention from the large population. This trend has resulted in higher teacher shortages in rural schools than in urban ones. Besides, this has further contributed to differences in teachers across various districts, counties, and states across the US (Coleman, 2017; Sheridan et al., 2018).

### **Preventing Attrition and Mobility and Improving Retention**

Various scholars have suggested many strategies in different settings regarding reducing teacher mobility, attrition, and improving teacher retention. Perceived fairness in the payment arrangements contributes to teacher retention. The fairness is reflected in the market rates or payments for teachers occupying the same position in schools. Besides the basic pay, Springer et al. (2016) proposed offering financial incentives such as providing allowances, bonuses, and medical cover.

Besides improving remuneration, providing a favorable working environment boosts teachers' morale and results in job satisfaction. See et al. 2020 underscore the essence of having a good working environment coupled with continuous professional development to be more critical in the promotion of retention than remuneration. Heineke et al. (2014) argued that giving a conducive work environment precedes improving remuneration. This can be

achieved by providing teaching resources and building relationships between teachers and school headships. Heineke et al. (2014), Meyer et al. (2019), and Rhodes (2019) attributed the high attrition and mobility rates in rural schools to a lack of a supportive working environment. When teachers get emotional and financial support from the school administration, they are motivated to do their work and increase job satisfaction (Wells, 2015). However, poor working conditions are likely to increase turnover, absenteeism, and work-life conflicts.

Replacing teachers after others leave is also an effective way of retaining the remaining ones. However, for this retention strategy to be effective, there is a need for induction and training. Teacher induction and training is necessary for newly hired and inexperienced teachers (Ronfeldt & McQueen, 2017). The induction process helps teachers understand their teaching environment, which helps build positive teacher to teacher relationships essential for settling seamlessly. For instance, Kokka (2016) revealed that black teachers found it easy to settle in schools with a high percentage of black teachers than schools dominated by white teachers.

As mentioned in the previous sections, there are high teacher shortages in special schools compared to public schools due to these schools' increased career demands. Reducing mobility and attrition in these schools should prioritize education stakeholders to reduce disproportions in education. Vittek (2015) suggested that school headship should improve retention strategies such as increasing remuneration, providing adequate induction programs, mentoring programs, and school administration offering support for teachers.

Another cause of high mobility and attrition rates is the failure to balance work and personal life. A lack of balance between the two could impact the teaching or well-being of teachers negatively. In schools, teachers should not work to the point of interfering with their well-being. This can be realized by reducing the workload. Principals can reduce the few

teachers' heavy workloads by hiring more staff (Ulferts, 2016). Mentoring and induction programs could offer teachers skills to organize themselves so that work does not interfere with their personal lives.

### **Empirical Review of Attrition and Mobility Statistics**

This section is focused on the findings from empirical studies on educator movement, retention, and attrition. There seem to be gender differences in the rates of mobility and attrition. Female teachers exhibit higher rates of attrition and mobility (31%) than their male counterparts (18.5%; Deutsch & Yao, 2014). This can be attributed to work-life conflicts. The conflicts can be because of traditional gender roles like taking care of children. More female teachers (10.5%) leave the profession than male teachers (8.9%; Goldring et al., 2014). The high attrition and mobility rates cut across all teaching positions. While 18% of teachers (with no leadership roles) left their schools in the 2015-16 school year, 10% of school principals left (Goldring et al., 2014). School principals also fueled mobility and attrition among their teachers. For instance, new principals' appointment results in a shift in focus, which could motivate teachers to stay or leave. Outbound mobility is higher among public schools than private schools. This can be associated with a lack of a supportive teaching environment and increased workload in public schools (Goldring et al., 2014). Besides, public schools in rural areas exhibited more mobility than those in urban areas.

As mentioned in the previous sections, teacher attrition and mobility rates in the United States are alarming and have resulted in teacher shortages. In response to teacher shortages, some states have resorted to massive hiring. For instance, in the 2013-14 school year, Arizona had around 68% vacant teaching positions due to high mobility and attrition (Lambert, 2018). The state had to hire more than 1000 teachers temporarily. In the 2014-15 school year, California employed 7,7000 unqualified teachers (Sutcher et al., 2016). In the 2015-16 school years, Nevada spent \$5 million addressing teacher shortages by hiring new

teachers (Sutcher et al., 2016). In the same school year, Oklahoma hired more than unqualified 1000 teachers. The rate of attrition in the state rose by 802 from 98 in 2010. At this rate, parents have reasons to be concerned even as state governments need to devise ways to counter these disruptions to the quality of education.

Regardless of age, inexperienced teachers have a high tendency to leave their schools or shifting to another profession. Goldring et al. (2014) confirmed that teachers with less than three years of experience are more likely to leave for other schools. Besides, even when they choose to leave the profession, they do it temporarily. Also, most of them move within the same profession. This is not the case for teachers with more than 15 years of experience which permanently leave the profession (Goldring et al., 2014). One possible explanation for this trend is that experienced teachers are less likely to be convinced to change their minds even with an increase in remuneration. For inexperienced and young teachers, money is the primary source of motivation, and as such, a pay increase can convince them to stay.

### **Theoretical Review**

This section is focused on theories that can be used to explain the trends of mobility, attrition, and retention. First, social identity theory suggests that teachers have a psychological self-conception of themselves and their surroundings (Hogg, 2016). Social identity theory holds that people categorize themselves based on their race, economic status, peers, nationality, among others (Mcleod, 2020). Similarly, in teaching, instructors identify themselves with their position, schools they teach, compensation, and benefits packages, among others. They also compare themselves with others in other schools and professions. According to Guan and So (2016), social identity theory influences self-efficiency at work, motivations to continue instructing, and intentions to exit for better opportunities. Social identity theory plays a crucial role in this study as teachers compare themselves to fellow teachers with better pay grades or higher ranks. The salary received by teachers is a good

example of application of social identity theory (Herman & Chiu, 2014). This study focuses on the social-cognitively motivating and socially-interactive parts of a group's experience. According to Herman and Chiu (2014), a person's sense is shaped by their perception of social identity, indicating that the task the teachers perform impact the sense of receiving a salary. In addition, according to social identity theory, stereotyping, ethnocentrism, and racism are all examples of social identity phenomena that makes the teachers with different levels of education receive various amounts of salaries (Gorski, 2012). Therefore, if the teachers perceive that they could do better in other schools or professions where they can receive better pay, they can decide to move to another school or leave the profession. As such, the "us" versus "them" could either encourage staying or moving.

The path-goal theory informs the functions of the work environment, motivation, and leadership style in achieving one's career goal. It advises this study as well because the work environment and leadership style affect employee motivation. Amahundu (2016) studied path-goal theory and its effects on employee retention and found that path-goal management styles and motivation increase retention. The presence of path-goal leadership and guidance improves retention and satisfaction, while its absence can increase mobility and attrition (Madyastuti, 2016).

Lastly, the theory of teacher attrition can also inform this study. It helps assess the benefits and costs of being a teacher or teaching-related career (Wesley, 2016). Teachers tend to compare the benefits they get in the teaching career and the ones they would get from another profession. For instance, teachers will be motivated to stay if the benefits are high compared to other occupations.

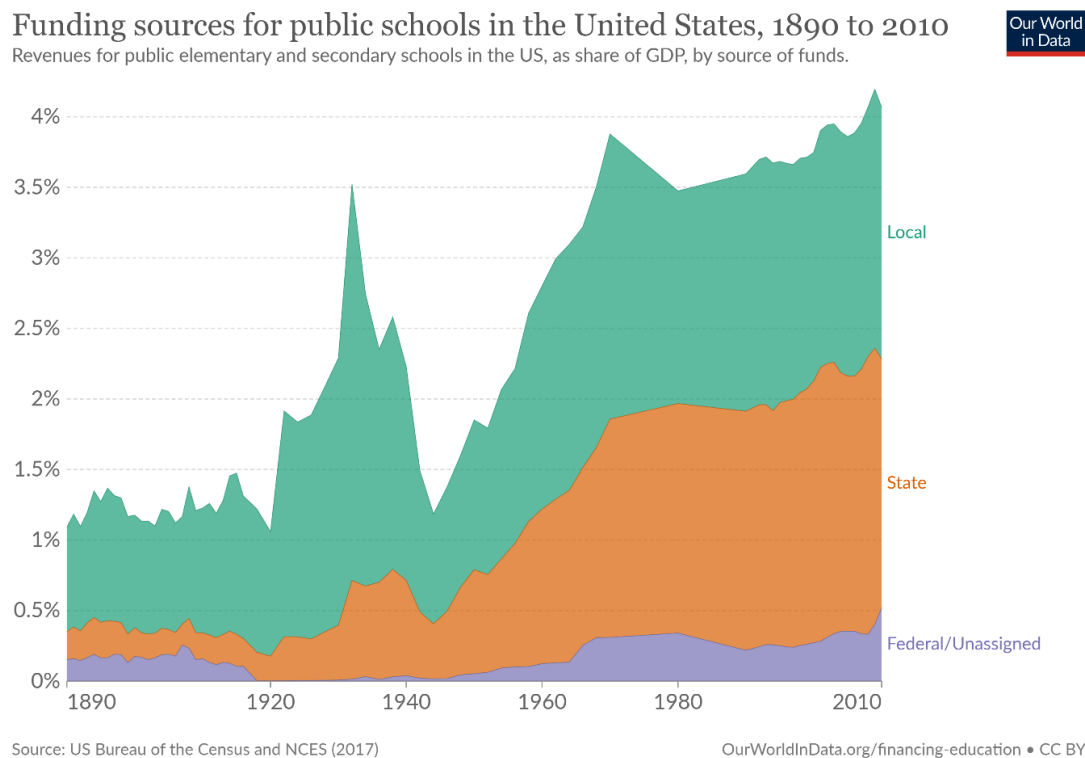
Therefore, understanding the social identity theory, path-goal theory, and attrition theory is essential for uncovering teachers' motivations for staying in the profession and the reasons that promote them to move or leave the profession. For instance, understanding the



path-goal theory is fundamental to this study as it can help school principals and administration recognize their role in creating an enabling environment for teachers. The graph shows the education funding received by public school as a form of salary to the teachers.

## Figure 6

### *Funding Sources for Public Schools in US (1890 – 2010)*



## Social and Economic Strategies

### *Teacher Retention*

Massive turnover affects schools negatively. A high turnover means school principals are under immense managerial pressure of hiring more teachers to avoid shortages. While the hired teachers can be qualified, they are usually inexperienced and need training. Failure to replace teachers could further fuel mobility and attrition due to heavy workload.

### ***Compensation Strategies Boost***

Low-paying schools exhibit higher mobility than highly paying schools, regardless of the school's location (rural or urban). Therefore, providing competitive wages and other incentives like child welfare support, housing, and medical cover can help attract and retain teaching staff in areas with shortages.

### ***Strategy to Enhance Opportunities for Career Development and Progression***

Lack of opportunity for professional development could fuel intent-to-quit or move among employees, and teachers are may not be not accepted. The stagnation in a career makes teachers see themselves not getting promoted or moving to a higher pay grade (Ingersoll & Perda, 2010). Therefore, offering teachers the opportunity to develop, like providing induction and mentoring programs and allowing teachers to advance their studies, can motivate them to stay.

### **Gaps and Weaknesses in the Literature**

From the review, there is insufficient literature on teacher attrition theory. Little research directly explains the causes of retention, mobility, attrition, and prevention regarding human psychological and philosophical theories.

Second, despite social identity, path-theory, and teacher attrition theories being cited in explaining the causes and prevention of teacher attrition and mobility, most of the existing studies were conducted over ten years ago. As such, they do not provide recent insight into these concepts. The current dynamics, especially with the paradigm shift, need more scholarly interest to inform policies.

Third, there is little empirical research on teacher attrition, mobility, and retention. However, the existing studies were informative regarding attrition, mobility, and retention across the US.

From the review, some findings were contradictory. This necessitates extensive research for a holistic understanding of the threats posed by high mobility and attrition rates and how to prevent them. Further research would help iron out the contention and variances and validate or invalidate various existing theoretical findings and postulations.

### **Chapter Summary**

This chapter reviews the concepts of teacher attrition, retention, and mobility in the United States. It looks at the factors that contribute to high attrition and mobility cases and strategies that can be used to reduce those cases and improve retention. Some of the causes of attrition and mobility reviewed include low remuneration, an uncondusive teaching environment, retrenchment, and employment termination. The high rates of teacher shortages in the United States are a combination of many factors from the review above. Some of them include a negative perception regarding the profession, low pay, racial discrimination, retirement options, and unfavorable working environments. These factors have resulted in states having high attrition and mobility rates and the eventual inequalities in teacher shortages across the US. Therefore, local, state, and federal governments need to devise strategies to increase teacher retention in schools. The demand for teachers and supply in the US is different within disciplines, schools, and states. Generally, there are teacher shortages in mathematics and science subjects, with more than 40 states experiencing these shortages (Sutcher et al., 2019). Besides, special schools are at risk of teacher shortages due to higher mobility and attrition rates than general schools (Sutcher et al., 2019).

Further, the chapter provides a statistical review of attrition, mobility, and mobility in various states. From the review, it has been found that there are teacher shortages across the country. However, it has been revealed that rural schools experience high attrition and mobility, and the rates are highest in public schools. Just like retrenchment and termination of employees, retirement creates a need for replacement. An increase in retirements without

proportional replacement causes shortages of employees. When this occurs in teaching, the few left teachers have a heavy workload that can lead to burnout. As mentioned before, burnouts are critical drivers to teacher mobility and attrition. As such, retirement influences attrition and mobility patterns. Nevada proposed allocating \$5 million in recruiting new teachers by fall 2016 to reduce the acute teacher shortages. Elsewhere, Oklahoma was forced to approve hiring around 1000 unqualified teachers (those who are not certified) in the same year to curb the escalating teacher shortages (Nix, 2015).

The chapter also discusses the social identity theory, path-goal theory, attrition theory, and how they inform this study. These theories provide a foundation for examining factors that motivate high mobility and attrition rates and promote teacher retention.

Lastly, the chapter identifies research gaps in the existing literature. It has been recommended that further investigation is necessary to validate or invalidate various existing theoretical findings and postulations. The study therefore acts to be instrumental in informing policy development drawing from the scholarly examples that have been enumerated. In addition, it sets a basis for research where other researchers who review this study and find gaps will be able to perform further studies in order to fill the knowledge gap.

### **Chapter 3: Methodology**

The need to explore new teachers' career paths, their experiences and satisfactions has been highlighted as motivators to reduce teacher attrition and absenteeism. Having this knowledge is important to understand teacher's attrition and retention in schools across the United States. Similarly, the study offers a way to explore factors that influence teacher attrition and retention and provides recommendations to future researchers who may adopt similar methodology as applied in this study. The proposed research seeks to provide answers to the following research questions:

- What, if any, is the correlation between education/salary with teacher mobility?
- What, if any, is the correlation between education/salary with teacher attrition?
- What, if any, is the correlation between education/salary with teacher retention?

#### **Research Design**

Business research has the potential to address several research objectives. For instance, to understand and critiquing the business practice or quantitatively measuring the business components. The purpose of the research design is brought forth in serving as a framework for how the responses will be generated for the set research aims, the research design also specifies the way research is being undertaken to meet its objectives (Lee & Cassell, 2013). This section justifies and presents why the researcher embarks upon studying what is believed to be known (Guba & Lincoln, 1994). This justification achieved by discussing the research philosophies that underpin knowledge, followed by brief comments on the author's positioning within these philosophies. Finally, a justification is provided as to why the specific research approach has been adopted in favor of others.

#### **Philosophical Worldview**

As one's philosophical worldview shapes research strategy and data collection methods (Saunders et al., 2009), there is a need to consider the philosophical worldview that

gives the researcher's intention and orientation about the world and the nature of research (Creswell, 2014). Creswell (2014) discussed four worldviews: postpositivism, constructivism, and advocacy/participatory, and pragmatism. Since the researcher aims to explore the attrition and mobility of beginner teachers in public elementary and secondary schools, there is a heavy reliance on the participants' views regarding the situation and their historical or personal setting (Creswell, 2014). That explains the social constructivist worldview, which is applied in this research.

As the research follows a social constructivist worldview, the findings result from the researcher's interpretation of the collected data. The interpretation process is based on the researcher's own experience and background and the participants' points of view about the problem or issue. The interpretation can help the researcher to generate or inductively develop a theory or pattern of meaning. Therefore, it is reasonable to conclude that the social constructivist paradigm often goes with the inductive approach. The inductive method enables the researcher to develop a general conclusion or theory based on the collected data (Saunders et al., 2009). As there is little research on the attrition and mobility of beginner teachers in public elementary and secondary schools, and most of the studies took place in Europe, this study is exploratory. The exploratory analysis "offers insights into and a fuller understanding of an issue or situation" (Saunders et al., 2009, p. 110). This is the reason why it is adopted in this study to understand about teacher attrition.

### **Methodological Approach**

Quantitative research seeks to examine the relationship between variables, so that numbered data can be analyzed using statistical procedures (Creswell, 2014). On the other hand, qualitative research focuses on understanding the meanings people assign to things surrounding them from their perspective (Creswell, 2014). Both approaches have their advantages.

Quantitative research has advantages in avoiding bias and the ability to repeat the findings because of statistical analysis and statistical interpretation; conversely, the qualitative approach involves analysis of non-numeric data to understand opinions and concepts (Creswell, 2014). Unlike quantitative research, which only relies on causal relationships among factors, qualitative research can reveal complex interactions of factors associated with the situation. The researcher can understand the reasons behind the participants' responses (Creswell, 2014).

Learning why there is high job turnover in the teaching profession across the countries creating labor mobility and attrition in a socially constructed and complex world makes qualitative research more appropriate. Qualitative research allows the researcher to understand how and why age and gender affect the distribution and access to new opportunities under different rates and the relationship between teacher education level and salary package. Additionally, the qualitative research approach is chosen because the researcher has no expert knowledge of statistics. Although the author can use the software program SPSS to assist in data analysis, a lack of understanding of underlying principles of statistical analysis would limit the data interpretation and analysis. As the research is qualitative, data collection methods that are suitable can be questionnaires.

The data collection method should be consistent with the research questions and research objectives (Easterby-Smith et al., 2012). The overall purpose of this research is to explore the attrition and mobility of beginning teachers in public elementary and secondary schools. Therefore, questionnaires offer sufficient information to answer not only the respondents' viewpoint but also measure their responses (Easterby-Smith et al., 2012).

### ***Sources of Data***

This study's data was built off existing research from the U.S. Department of Education, of which exists in the public domain and thus requires no additional permission for

use. The information source is rich with data because it was conducted by the Department of Education. The department constitutes the national study of a cohort of beginning public school teachers initially interviewed as part of the 2007-08 schools and staffing survey (SASS). SASS is the most extensive survey for the public and private kindergarten-grade 12 school districts, schools, teachers, and administrators across the United States. It offers comprehensive data about the characteristics and qualifications of teachers and principals, the practices on teacher hiring, professional development, class size, and other conditions for the schools across the nation. The data existed in 08/2007, 09/2008, 11/2010, 12/2011; this period was chosen to make enough comparison through follow up and get the trend on attrition and mobility of teachers over the study period.

The target population included the following:

- The regular full-time and part-time teachers.
- Itinerant teachers, long-term substitutes, and administrators.
- Support staff.
- Librarians.
- Other professional staff that taught at least one regularly scheduled class over the period.

The total number of eligible sampled teachers was 1,990.

On the other hand, choosing an appropriate sampling technique is essential for all projects (Saunders et al., 2009). Sampling in quantitative research seeks to draw a representative sample from a population so that the studying model results can be generalized back to the population (Creswell, 2014). Random or probability samples are the common techniques for sampling adopted for quantitative research. Berg (2018) argued probability sampling allows a researcher to make different hypothesis tests through statistical analysis. Hence, it is more suitable for quantitative research.



As a result, convenience sampling was the chosen sampling technique for this research. Time and financial constraints were vital determinants for this method of selection to be adopted. While convenient sampling was used as an effective sampling technique, there was an element of judgment sampling, also called purposeful sampling. The researcher actively chooses the most productive sample to answer the research question (Marshall, 1996), because the author made efforts to ensure that the participants came from various teaching disciplines. Besides, with consideration of demographic characteristics of teachers such as salary scale, gender, age, marital status, an effort was made to ensure that the male and female participants were equal.

### ***Data Collection Strategies and Procedures***

There are several data collection strategies available to researchers, including mono-method, multi-method, and mixed method. Saunders et al. (2009) describe the mono-method as either a single quantitative or qualitative data collection method, multi-method as more than one data collection technique, and mixed method as a mixture of quantitative and qualitative data collection techniques. The data collection technique adopted for this study was the mono-method technique. The current research needed qualitative data to be collected used the single method (survey) with a quantitative data analysis (Descriptive and inferential statistics using SPSS) conducted on the resulting data. The alternative multi- and mixed methods were rejected as there was no plan to conduct additional qualitative research or analysis in the current study. The advantage of a survey is that a standard set of responses can be obtained efficiently. Given the large sample size required to conduct statistical inference, qualitative methods such as interviews were not suitable as this would have taken too much time.

The 2007/2008 SASS data for the teachers that started teaching in 2007 or 2008 were the first wave for the study data. The first wave collection used the mail-based methodology with telephone and field follow up. At the start of the data collection exercise, the census

Bureau telephone centers tried to use a survey coordinator at each school. Telephone interviews or field representatives contacted non-respondents. The 2007/08 SASS included several questionnaire components that collected data from schools, school districts, principals, the library media centers (public schools only), and the teachers. The BTLS cases were identified during the teacher collection, and their SASS data constituted BTLS first wave. The SASS teacher data collection started in August 2007 and was finalized in June 2008.

The researcher conducted the second wave of the study during the 2008/09 school year. The BTLS teachers used longitudinal versions of the questionnaires that contained more questions than the TFS questionnaire. The second wave included those indicating that they started teaching either in 2007 or 2008 in the public school during the first wave. The second wave data mainly collected using the internet instrument. In the data collection, the researcher noted that about 100 teachers did not report their first-year teaching in 2007/08 SASS and had often started teaching before 2007. The cases were not included in the sample. The efforts were made on follow-up using the telephone to resolve issues with discrepancy or collect the missing data and encourage participation or collect data using the phone for non-responsive individuals. Throughout the process of telephone follow up, paper questionnaires were mailed on request. The paper questionnaires were sent in June 2009 to all the teachers that had not yet finished the survey. The TFS data collection started in February 2009 and ended in August 2009.

The researcher completed the third, fourth, and fifth waves for the study in 10/2009, 11/2010, and 12/2011 school years, in that order. Each of the data waves was collected through an internet instrument for the sample members to respond to the same questionnaires, irrespective of their teaching status in that year. In each of the waves, follow-up efforts using the telephone were made to encourage participation or data collection using the phone from non-respondents. In the data collection during waves 3 and 4, the researcher noted that about 10 sample members were not first-year teachers in 2007 or 2008 and hence not eligible for the

study. These cases were removed from the sample. There were no cases removed out of the sample during the wave. There were about 1,990 eligible teachers who were included in the final sample for the study.

### ***Tools/Instruments Used***

In this study, data collection was done by a quantitative method. The data collection tools were semi-structured self-administered questionnaires and document reviews. The above data collection tools were incorporated to secure enough data that enhanced the investigation. The semi-structured self-administered questionnaires were developed based on the objectives of the study. Therefore, the research's purposes guided the themes for the development of this tool, which ensured face validity. Face validity is considered the extent to which a test appears to measure what it's intended to measure. As a result, most people agree that the test item seems to measure what they were designed to measure, and this means that they would have healthy face validity.

The instruments were designed in a precise and straightforward manner, and they were made to be as objective as possible. This ensured that content validity was established. Instruments used throughout the data collection process include a mail methodology followed by a telephone call, longitudinal questionnaires, and internet tools. Convenience sampling was adopted to ensure that the study avoided bias. The aspect that selection was based on what was believed by the researcher to be part of the study was provided that content validity was assured. Besides, a stratified random sampling process was undertaken before the convenience sample to enhance the population's homogeneity. The optimal sample population and a higher response rate ensured the validity of the research.

The document reviews used in the data collection process included reports and journals on attrition and teacher retention. Annual Reports from the government such as the National Center for Education Statistics (NCES) were also reviewed. The reviewed documents were

those with data of printing and with an author to ensure that the content of the documents was valid and reliable.

### ***Human Subjects Consideration***

Advances in human health, as well as welfare, ultimately relies upon the human subjects. Properly controlled studies with human subjects are essential to verify any conclusions on normal physiology, mechanisms in disease, effectiveness, and learning behavior. Unfortunately, not all human reviews are justifiable and useful. There can be aspects of human cruelty being penetrated in the name of undertaking research. This has influenced the codification of research involving human subjects. One of these bodies is the Institutional Review Board (IRB), created to review proposed research to protect the rights and safeguard human subjects' welfare. IRBs review and approve a study that involved human subjects and is charged with the role of determining and certifying all projects reviewed to conform to the regulations and policies set forth by the Department of Health and Human Services (DHHS) concerning health, welfare, safety, rights and privileges in the human subjects. To help the researchers in doing ethical research that complies with DHHS regulations to permit accomplishment in the research activity.

All safeguards were enabled to ensure the rights and welfare of human subjects in this research study. Further, all policies and procedures aligned with the required Pepperdine University Graduation and Professional Institutional Review Board (IRB) procedures. All research was conducted in accordance with ethical, legal, and institutional requirements. The researcher submitted the required IRB documentation, and also completed Pepperdine University's online tutorial in Human Subjects Protection. The researcher applied for an exempt status based on the Summary of Exempt Category 4 criteria. Continuation of the research was not executed until permission from IRB was granted.

### ***Proposed Analysis***

Data analysis was conducted using the computer-based Statistical Package for Social Science (SPSS). The raw data from the field survey were converted to a format to facilitate further analysis. Before analysis, the raw data were categorized and coded. The mode of study was quantitative and qualitative for some form of interviews involved. The quantitative method of analysis took care of the numerical data using descriptive and inferential statistical procedures used to analyze collected data.

Descriptive statistical analysis provides a measure of the distribution of scores or measurements using central tendency statistics such as mean, mode, and median. In this study, descriptive statistical analysis involved the computation of frequency count and the mean item scores presented in tables, histograms, bar charts, and pie charts. Inferential statistics were applied to correlate the variables and find the relationships between variables and the chi-square test to confirm or reject the hypothesis at a 0.05 level of significance. The textual analysis was applied for the recorded interviews that involved describing and interpreting the recorded data. The textual study aimed to describe the content, structure, and functions of messages within the texts.

### ***Study Validity, Reliability, and Replicability***

Reliability and validity influence the level at which data is accurate and the results' representativeness, respectively. At the same time, replicability indicates repetition of the study using similar methodology to realize similar findings. Mugenda and Mugenda (2003) noted that reliability is a measure of how the research instruments yield consistent results after repeated trials. After repeated trials in normal circumstances, non-consistent measurements are due to random error and often the critical cause of inaccurate findings (Bryman, 2008). Hence, it is necessary to have measures in place to reduce random error.

In this study, the research instruments were designed in a way to reduce these errors. The questionnaires were simple, precise, and clear without unnecessary ambiguities, while the interviews shall be as objective as possible. This was meant to reduce bias. The research instruments were pretested and adjusted accordingly to improve the accuracy of data. Cronbach alpha shall be used to establish the level of internal consistency of the questionnaires. Haines et al. (2011) notes that alpha coefficients greater than 0.7 imply that the data collection process tools are reliable, indicating that adopted questionnaires are reliable.

Kothari (2010) talks about validity as a measure of accuracy to which the findings in a study can be generalized to the entire population. Unlike reliability, which is caused by random error, validity is influenced by systematic error, implying that while reliability is concerned with the internal properties, validity indicates the relationship between data and variables being measured. Besides, validity involves how accurate data in a study. Hence, each effort should be put in place to reduce the systematic error to ensure representativeness of the results from a sample population. Validity in research will be enhanced through convenience sampling to ensure that selection is purposeful rather than chance.

### ***Plan for Reporting Findings***

This chapter discusses in detail the methodological approach that shall be adopted for the proposed study. The research strategy that was adopted was quantitative and a little qualitative. In contrast, the research design shall be a survey that involves obtaining responses from sampled teachers between 2008 and 2012. Secondary data on teachers shall be collected using document reviews from the purposely selected organizations and related literature assessment. The next chapter is an analysis of the data from the field. It begins by evaluating the response rate and the demographic data of the sample. It assesses the relationship between the teacher's education level and salary packages between 2008 and 2012, how gender and age

affect the market's salaries, and the undermining factors influencing the distribution and access to new opportunities under different races.

The following chapter provides a discussion of the findings from the research. The discussion confirms the literature review contents and provides a way forward for further investigation. The discussion is also based on the research questions of the study.

## Chapter 4: Findings

### Data Analysis and Results

This chapter examines the link between teachers' mobility, retention, and attrition and the salary these teachers received at different levels of education through three research questions of interest. Answering these three questions helped establish whether there was a statistically significant association between the variables of interest. Firstly, the teachers' demographic information and descriptive statistics were assessed to understand the general distribution of the data. Additionally, the reliability and validity of data was also evaluated to determine whether the items were valid and reliable to be used to test the research questions. All data was obtained via research collected by the National Center for Educational Statistics. The demographics of those surveyed focused on a number of factors, age, sex, race/ethnicity, base salary, teaching status, highest degree, and if the teacher was assigned a mentor.

### Results from Collected Data

The results in table 1 below reflect the key demographic data for the surveyed teachers as they entered the 2007-2008 school year. The 2007-2008 school year was the initial year of this study, and it should be noted that subsequent years note a variation from year to year due to attrition, retention, and mobility.

**Table 1**

#### *Demographic Information*

<b>Characteristic in first teaching year</b>	<b>Total</b>	<b>Current</b>	<b>Former</b>
<b>All 2007-08 beginning teachers</b>	100	90	10
<b>Age</b>			
Less than 30 years	100	91.2	8.8
30 or more years	100	87	13
<b>Sex</b>			
Male	100	87.8	12.2
Female	100	90.8	9.2
<b>Race/ethnicity</b>			
White, non-Hispanic	100	90	10



<b>Characteristic in first teaching year</b>	<b>Total</b>	<b>Current</b>	<b>Former</b>
All other races/ethnicities	100	90.3	9.7
<b>Base salary</b>			
Less than \$40,000	100	87.5	12.5
\$40,000 or more	100	96.6	3.4
<b>Teaching Status</b>			
Full Time	100	91.2	8.8
Part Time	100	75.3	24.7
<b>Highest Degree</b>			
Less than a bachelor's degree	100	67.6	32.4
Bachelor's degree	100	91.4	8.6
Master's degree	100	89	11
Higher than a master's degree	100	52.1	47.9
<b>Assigned a mentor</b>			
Yes	100	91.6	8.4
No	100	83.6	16.4

*Note.* Adapted from *Public School District Data File 2007-08*, by U.S. Department of Education, National Center for Education Statistics, n.d.b (<https://nces.ed.gov/surveys/sass/>). In the public domain.

While the study reveals the reasons for this movement, this initial demographic effectively provides a snapshot of the initial grouping of educators, by percentage, according to specific descriptors. Further, these demographics note both current and former educators as well.

Figure 7 highlights demographic information based on age for both current teachers and former educators. The data is identified by teachers less than age 30, and greater than age 30. Current teachers who were less than 30 years old at the time of this survey accounted for 91.2% while former teachers who were less than 30 years old at the time of this survey accounted for 8.8%. The key demographic of being less than 30 years of age for both current and former educators therefore added up to 100%. Current educators who were over the age of 30 at the time of the survey accounted for 87% of the gathered data, while former educators who were over the age of 30 accounted for 13% of the gathered data. This key demographic also adds up to 100%. Notably, while the researcher worked to maintain even

data, the percentage of current teachers who were less than 30 at the time of the research was higher, while the percentage of former teachers who were over the age of 30 was also higher.

**Figure 7**

*Age for Current and Former Educators*

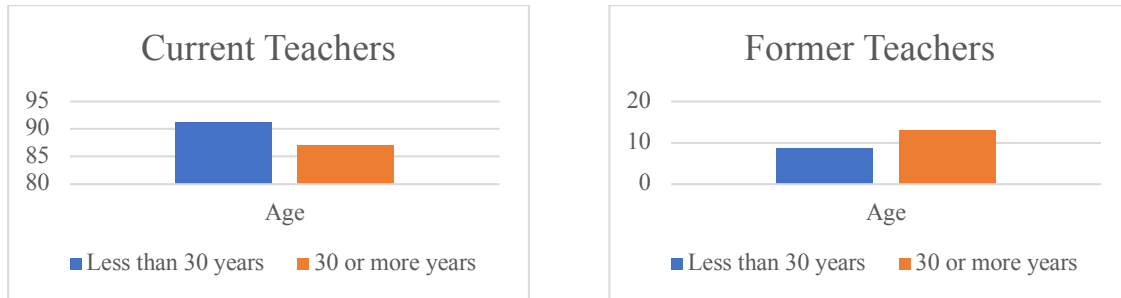


Figure 8 highlights key demographic information based on the sex of current and former educators. The data is identified by male and female. According to the data, current male teachers at the time of this survey consisted of 87.8%, while former male educators accounted for 12.2%. This key demographic therefore totaling at 100%. Moreover, current female teachers at the time of this survey consisted of 90.8% while former female teachers at the time of this survey accounted for 9.2%, altogether totaling 100%. The data therefore suggests that females account for a higher percentage as current teachers (90.8%), while there is a heightened percentage of former male teachers (12.2%).

**Figure 8**

*Sex for Current and Former Educators*

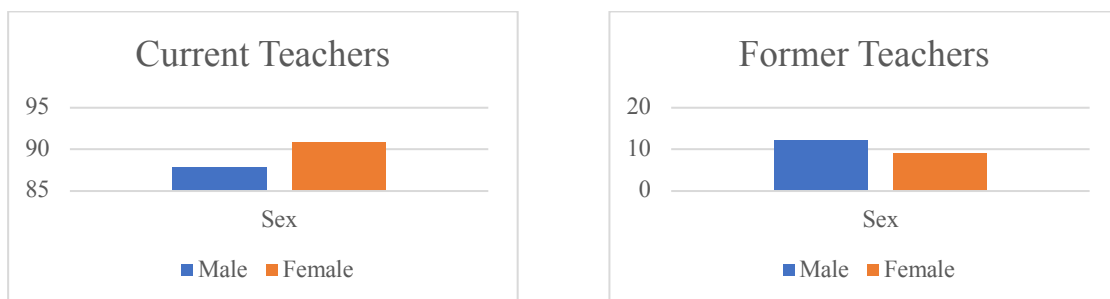


Figure 9 highlights key demographic information based on the race/ethnicity of current and former educators. The data is identified by white, non-Hispanic and all other

races/ethnicities. According to the data, current white, non-Hispanic educators at the time of this survey consisted of 90%, while former white, non-Hispanic educators accounted for 10%. This key demographic therefore totaling 100%. Comparatively, current teachers at the time of this survey who identified as all other races/ethnicities accounted for 90.3% while former teachers who identified as all other races/ethnicities accounted for 9.7%. At first glance, race/ethnicity does not appear to a contributing factor to this research, as both current and former percentages are comparable.

### Figure 9

#### *Race/Ethnicity for Current and Former Educators*



Figure 10 highlights key demographic data based on the salary of current and former educators. This data is identified as a base salary of less than \$40,000 and a base salary of \$40,000 or more. According to the data, current educators at the time of this survey who made less than \$40,000 accounted for 87.5%, while former educators accounted for 12.5%. Alternatively, current educators whose salaries exceeded \$40,000 accounted for 96.6%, while former educators accounted for 3.4% regarding this same demographic. Salary is often a decided factor for professionals, but there is a notable jump in percentage regarding former educators who made less than \$40,000 (12.5%) and former educators who made more than \$40,000 (3.4%).

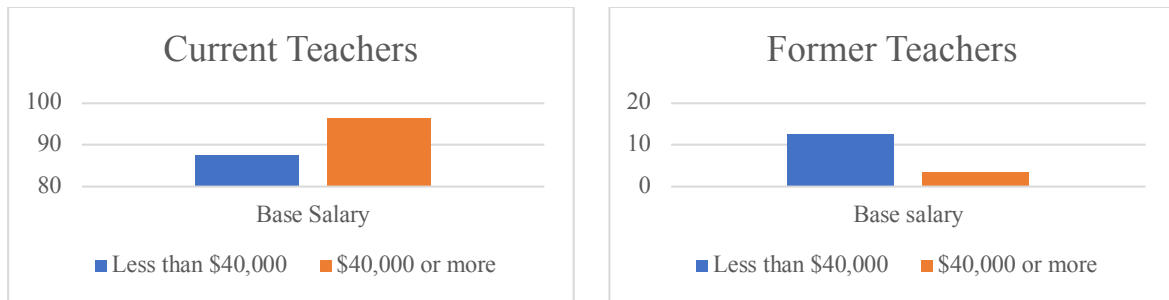
**Figure 10***Base Salary for Current and Former Educators*

Figure 11 highlights key demographic data based on the teaching status of current and former educators. This data is identified as full time and part time. According to the data, current educators at the time of this survey accounted for 91.2% compared to former educators at 8.8%. Comparatively, current part time teachers at the time of this survey accounted for 75.3% versus former part time teachers (24.7%). As previously noted, the researchers strove to align percentages from both camps (current and former educators). However, it should be noted that there is a significant increase in former part time teachers (24.7%) compared to former full time teachers (8.8%).

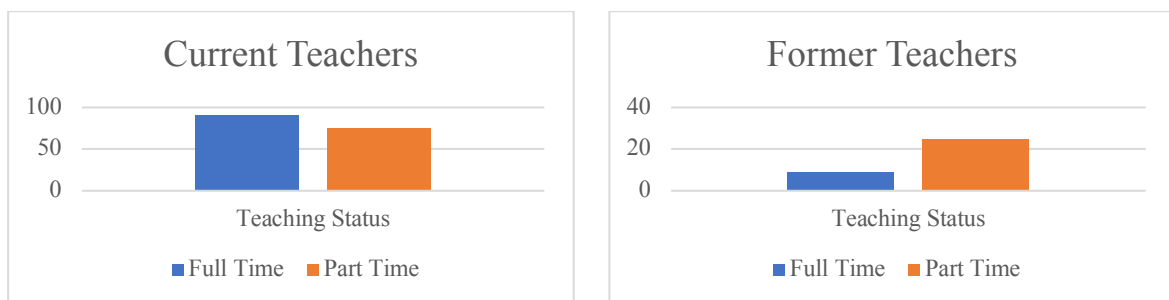
**Figure 11***Teaching Status for Current and Former Educators*

Figure 12 highlights key demographic information based on the highest degree obtained by current and former educators. This data is identified as less than a bachelor's degree, bachelor's degree, master's degree, and higher than a master's degree. According to the data, current teachers at the time of this survey with less than a bachelor's degree

accounted for 67.6%, while former educators with less than a bachelor's degree accounted for 32.4%. Current teachers at the time of this survey with a bachelor's degree accounted for 91.4%, while former educators with a bachelor's degree accounted for 8.6%. Current teachers at the time of this survey with a master's degree accounted for 89%, while former educators with a master's accounted for 11%. Lastly, current teachers at the time of this survey with higher than a master's degree accounted for 52.1% while former educators accounted for 47.9%. It should be noted that there are a few key takeaways from this data. Notably, the highest percentage of current teachers at the time of this survey maintained at least a bachelor's (91.4%) or master's (89%). This corresponds with the previous demographic focusing on age, as many younger teachers have either obtained a bachelor's degree or are pursuant of a master's degree. Alternatively, the highest percentage of former teachers at the time of this survey align with having higher than a master's degree (47.9%). This data suggests that those who are pursuant of a degree beyond a master's are unlikely to stay as a classroom teacher.

**Figure 12**

*Highest Degree for Current and Former Educators*

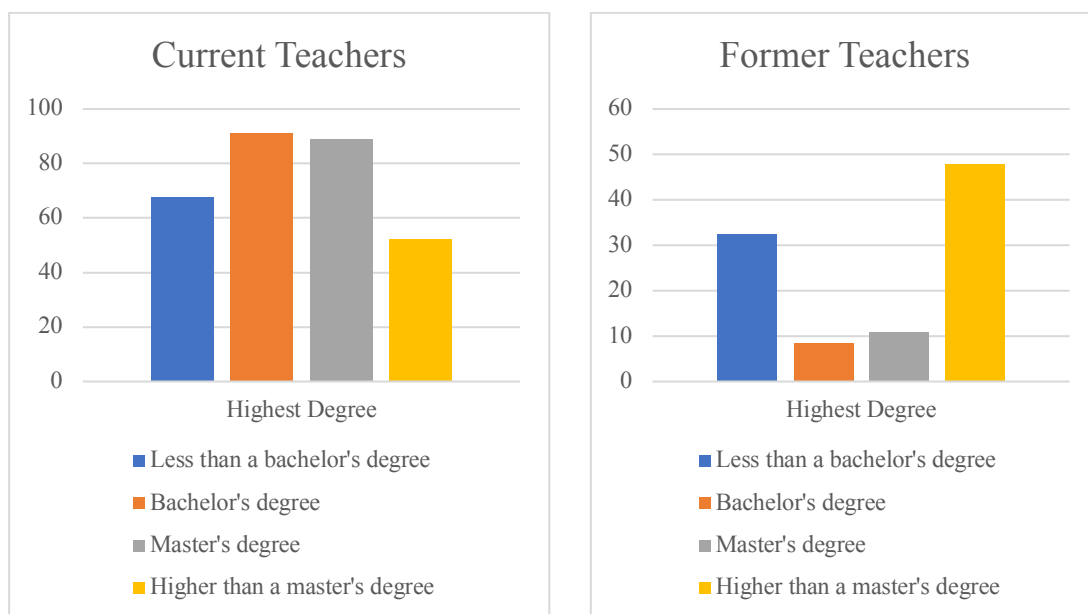
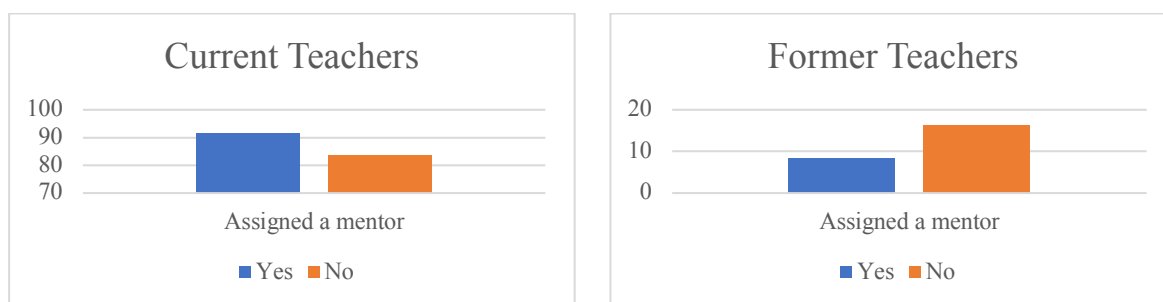


Figure 13 highlights key demographic information based on being provided a mentor for current and former teachers. This data is identified as simply yes or no. According to the data, current educators at the time of this survey who responded ‘yes’ to having a mentor accounted for 91.6% compared to former teachers who also responded ‘yes’ (8.4%). Comparatively, current educators at the time of this survey who responded ‘no’ to having a mentor accounted for 8.4% compared to former teachers who also responded ‘no’ (16.4%). This initial data is compelling, as there is a relatively comparable percentage (91.6% vs. 83.6%) of beginning teachers who are and are not assigned a mentor. This suggests that the practice of mentorship is not universal. Furthermore, there is an increased percentage of former educators (16.4% vs. 8.4%) who were not assigned a mentor. This suggests that though the practice of assigning mentorship is not universal, those who were not assigned a mentor exited the profession.

**Figure 13**

*“Assigned A Mentor” for Current and Former Educators*



### **Descriptive Statistics**

First, the researcher looked at the national mobility (movers), attrition (leavers), and retention (stayers) rate for teachers before examining the specific variables within each category (Table 2). The overall mobility rate includes teachers who transfer schools but remain in the profession (movers) and teachers who quit the profession (leavers) and is similar to previous research that employed SASS.

**Table 2***Descriptive Statistics*

	Total '000	Stayer '000	Mover '000	Leaver '000	Stay er	Mov er	Leav er
<b>Selected teacher and school characteristics in the base year</b>							
Total Full-time teaching experience	3,867	3,240	279.6	347	83.8	7.2	9
No full-time teaching experience	72.8	52.7	6.4	13.7	72.4	8.7	18.9
One year	266.4	198.6	31.6	36.2	74.5	11.9	13.6
Two years	219.7	171.1	27.5	21.1	77.9	12.5	9.6
Three years	196.6	152.5	27.7	16.4	77.6	14.1	8.3
Four years or more	3,112	2,666	186.5	259.7	85.7	6	8.3
<b>Community type</b>							
Urban	1,166	973.1	86.9	106.7	83.4	7.4	9.1
Suburban	1,290	1,078.4	91.7	120.6	83.6	7.1	9.3
Town	485.4	411.4	37	37	84.7	7.6	7.6
Rural	924.9	778.1	64	82.8	84.1	6.9	9
<b>Percent of K-12 students who were approved for free or reduced-price lunches</b>							
Less than 60	2,409	2,029.6	163.4	216.9	84.2	6.8	9
60 or more	1,049	882.4	95.1	71.6	84.1	9.1	6.8

*Note.* Adapted from *Public School District Data File 2007-08*, by U.S. Department of Education, National Center for Education Statistics, n.d.b (<https://nces.ed.gov/surveys/sass/>). In the public domain.

The table outlines background information and descriptive outcomes regarding the mobility rate for teachers who transfer schools but remain in the profession (movers) and teachers who quit the profession (leavers). The descriptive outcomes are presented based on the main categories of teachers; Selected teacher and school characteristics in the base year, community type and percent of K-12 students who were approved for free or reduced-price lunches. As illustrated in Table 2, the results showed that overall, there was 83.8% retention of teachers in their working areas. On the other hand, the movers and leavers have a proportion of 7.2% and 9.0%, respectively. Additionally, movers, stayers, and leavers' rates peaked due to the 3 years of teaching experiences (full-time or non-full time) as the stayers increased from 8.7% to 14.1%, movers changed from 72.4% to 85.7%, while leavers decreased from 18.9% to 8.3%. On the other hand, the category of community type showed an irregular change in the movers, stayers, and leavers between these categories. However,

results in the table below showed that whether or not a school was participating in free or in a reduced price lunch was the least factor that influenced the teacher rate of mobility, attrition, or retention, which was represented with a proportion of 80.4% for stayers, 5.2% for movers, and 14.3% for leavers. Reliability and validity of the data collected from National Center for Education Statistics for the salary earned at a different level of education with or without experience.

### **Validity**

Factor analysis is used to evaluate the structural validity of all measures of the dependent and independent variables. Generally, factor analyses establish structural size. The conclusions of the factor analysis are supported by two metrics, with one being Olkin Measurement - Kaiser-Meyer (KMO). The sampling adequacy measurement Kaiser-Meyer-Olkin is a statistical measurement that shows the variance proportion in the variables generated by factors. In general, high scores (near to 1.0) show that the data can be relevant for factor analysis. On the other hand, the results of factor analysis are likely not be very informative if the value of Kaiser-Meyer-Olkin (KMO) is less than 0.50. The Bartlett sphericity test checks the hypothesis of the identity matrix in the correlation that the variables are unrelated and hence not suited for the detection of a structure. Therefore, factor analysis on the data can be used when there are smaller values of significance (less than 0.05). The KMO shows a square correlation ratio between variables and a partial square correlation of factors (IBM, 2021). Whenever KMO is practically 0, a factor is difficult to identify, as only two variables have two variables (partial correlation) in common with the sum of the variance (correlation while partial correlation is subtracted). For this analysis, a factor loading above 0.3 was considered based on load volume influenced by the sample value uniformity.



### ***Validity of Salary of Teachers with 10 Years or Without Experience***

To identify the validity of items used to measure the variable of salary of teachers with or without experience, a Kaiser-Meyer-Olkin (KMO) and Bartlett sphericity test was used as shown in Table 3.

**Table 3**

*Kaiser-Meyer-Olkin (KMO) and Bartlett sphericity*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.577
Bartlett's Test of Sphericity	Approx. Chi-Square	96.568
	Df	10
	Sig.	.000

The applied KMO and Bartlett's Test measured the sampling adequacy while seeking to establish the effectiveness of using factor analysis on the research data set. Bartlett's test of sphericity indicates that variables in the population correlation matrix are uncorrelated (Approx. Chi-Square = 96.568). As shown above, there was a Kaiser-Meyer-Olkin (KMO) value of 0.577 and the Bartlett sphericity test of  $p = 0.00$ , which indicates that the items were significant since  $p < 0.001$ . The findings showed that the evaluation of factors measurement for dependent variables on mobility, attrition, and retention is sufficient for analyzing the associations.

### ***Principal Factor Analysis***

Additionally, it was essential to determine the actual structure size of this measure which was evaluated using Principal Component Analysis, and the results are as shown in Table 4.

**Table 4***Principal Component Analysis*

Component Matrix <sup>a</sup>	
Bachelor's degree with no experience in teaching (BN)	.942
Bachelor's degree with experience of 10 years (B10)	.960
Master's degree with no experience in teaching (MN)	.942
Master's degree with an experience of 10 years (M10)	.946
The largest achievable level on the wage scale (LAL)	.938

*Note.* Extraction Method: Principal Component Analysis. a. 1 components extracted.

Principal component analysis (PCA) outcomes compress the dimensions of the dataset while preserving information. The results show VF values greater than 0.75 ( $>0.75$ ) where the large and absolute variables indicate a strong capacity of the corresponding variables to calculate the component characteristics. The results of the varimax rotated principal component analysis in the table above showed that there was no deletion of any item as they had loading factors that were all greater than 0.3. These findings illustrate that the values of the teachers' salary from the retrieved datasets were valid and could be used in the evaluation of the research questions that are represented by these variables.

**Reliability**

Reliability denotes the extent to which the data gathered for the study question were presented with the analytical methodologies. Therefore, reliability is excellent when the value of items is  $>.9$ , good if the value of items is  $>.8$ , satisfactory if the value of items is  $>.7$ , uncertain when the value of  $>.6$ , and terrible in terms of value  $>.5$  and when the value is  $<.5$ , it regarded as unacceptable, accordingly.

***Reliability of Teachers' Salary Due to their Education Experience***

The findings illustrated in Table 5 show that Cronbach's Alpha coefficient is 0.938.

**Table 5**

*Reliability Statistics of Teachers' Salary due to their Education Experience*

Reliability Statistics	
Cronbach's Alpha .938	N of Items 5

The results in the table above indicate that the reliability of measurement scales of this variable was excellent since the value was  $>0.9$ . With a value greater than 0.9, the Cronbach's Alpha indicates an effective internal consistency among the study variables thereby allowing for resourceful assessment and analysis of these group items. The results imply that there was higher internal consistency, and these items are acceptable to be applied in the analysis.

### **Evaluations of Research Question**

***General Question: What Factors Affect Teacher Mobility, Attrition, and Retention in US Public Schools?***

The general question (shown above) of this study gave an overview of what the study demonstrated. Therefore, to narrow down to the specific factors that influenced mobility, attrition, and retention of teachers in US public schools, the researcher divided this broad research into three sub-researches with specific factors that compare with mobility, attrition, and retention of teachers individually. Hence, the assessment of inferential statistics involved the evaluation of these sub-research questions.

***Research Question One: What, If Any, Is the Correlation between Education/Salary with Teacher Mobility?***

Before testing this research question, the investigator aimed to determine the direction and degree of the linkage between the education levels/salary with teacher mobility purportedly impact the teacher mobility in the teaching sectors via the correlation analysis. The findings indicate that there is a small strength, positive and substantial connection

between a Bachelor's degree with no experience in teaching and mobility of teachers ( $\rho = .148, p < 0.01$ ). The results show that a bachelor's degree with no experience in teaching and mobility of teachers in the teaching sector moves in a similar direction, and this implies that the higher the bachelor's degree with no experience in teaching, the higher the mobility of teachers in the teaching sector. In addition, the correlation between a Bachelor's degree with an experience of 10 years and mobility of teachers in the teaching sector was found to be of lower strength, positive and significant at a 1% significance level ( $\rho = .139, p < 0.01$ ).

Further, the mobility of teachers in the teaching sector and master's degree with no experience in teaching association was positively and significantly associated with a small strength ( $\rho = .113, p < 0.01$ ). On the other hand, the findings showed that the mobility of teachers and master's degrees with an experience of 10 years ( $\rho = .117, p < 0.01$ ) was positively and significantly associated with a small strength. Finally, results showed that the mobility of teachers in the teaching sector and the largest achievable level on the wage scale association was positively and significantly associated with a small strength ( $\rho = .194, p < 0.01$ ). The findings also imply that the mobility of teachers in the teaching sector and average yearly teacher base salary of different level of education and experiences among districts/states that had salary schedules move in a similar direction, and this imply that the higher the average yearly teacher base salary of different level of education and experiences, the higher the mobility of teachers in the teaching sectors. Additionally, the findings showed that the largest achievable level on the wage scale was most correlated with the mobility of teachers while a master's degree with no experience in teaching was the least correlated with the mobility of teachers in the teaching sectors, respectively (Table 6).

**Table 6**

*Correlation Coefficients Between the Salary Obtained at Education Levels and Teachers'*

*Mobility*

Correlations		Mobility	BN	B10	MN	MN	LAL
Mobility	P	1	.148**	.139**	.113**	.117**	.194**
	Sig.	.013	.013	.041	.031	.017	.029
	N	13	13	13	13	13	13
BN	P	.148	1	.859**	.954**	.810**	.892**
	Sig.	.013	.000	.000	.000	.000	.000
	N	13	13	13	13	13	13
B10	P	.139	.859**	1	.850**	.973**	.907**
	Sig.	.041	.000	.000	.000	.000	.000
	N	13	13	13	13	13	13
MN	P	.113	.954**	.850**	1	.854**	.899**
	Sig.	.031	.000	.000	.000	.000	.000
	N	13	13	13	13	13	13
M10	P	.117	.810**	.973**	.854**	1	.893**
	Sig.	.017	.000	.000	.000	.000	.000
	N	13	13	13	13	13	13
LAL	P	.194	.892**	.907**	.899**	.893**	1
	Sig.	.029	.000	.000	.000	.000	.000
	N	13	13	13	13	13	13

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed). Bachelor's degree with no experience in teaching (BN). Bachelor's degree with experience of 10 years (B10). Master's degree with no experience (MN). Master's degree with experience of 10 years (M10). The largest achievable level on the wage scale (LAL).

The correlation results indicate the degree to which the retention variables, BN, B10, MN, M10, and LAL, move in tandem and coordination with each other. Positive correlations are established for all BN, B10, MN, M10, and LAL, which indicates the movement of these retention variables in the same direction. While there are no negative correlations between mobility and BN, B10, MN, M10, and LAL, most of the correlation outcomes lie between 0.5 and 1, which indicates the high correlation and unidirectional nature of the included variables.

**Additional Analysis.** The above research question was also tested using a multiple regression analysis which is used to show the actual effect size of the salary the teachers acquired at different levels of education with and without 10 years of teaching experience in

the teaching sector on teacher mobility. The inclusion of regression analysis was essential to this study, as it is more conceptual and gives a precise understanding of the relationship between variables as compared to correlation. The results of this regression analysis are shown in the tables below.

**Table 7**

*Summary of the Model*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.531 <sup>a</sup>	.282	.231	88801.402

*Note.* a. Predictors: (Constant), The largest achievable level on the wage scale, master's degree with an experience of 10 years, bachelor's degree with no experience in teaching, master's degree with no experience in teaching, bachelor's degree with an experience of 10 years

In the table above, the findings illustrated 0.282 as the R<sup>2</sup> and adjusted R<sup>2</sup> was 0.231. With an R-squared value of .282, the variance within the model outcomes has a 28% representation by the actual nature of the model. The Std. Error of Estimate value indicates a high accuracy of the model while predicting that the largest achievable level on the wage scale, master's degree with an experience of 10 years, bachelor's degree with no experience in teaching, master's degree with no experience in teaching, bachelor's degree with an experience of 10 years has a contribution of 28.2 % and adjusted of 23.1 % in total change on the mobility of teachers in the teaching sector. Further, the contribution of these independent variables was not 100%, implying that the mobility of teachers in the teaching sector could be influenced by other factors besides the influencers under study.

**Table 8***Regression Coefficients*

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	168589.350	268535.913		.628	.550
BN	-18.772	47.035	-.860	-.399	.002
B10	41.380	58.087	3.067	.712	.049
MN	-.698	38.159	.038	.018	.036
M10	28.673	44.114	-2.604	-.650	.030
LAL	2.335	6.818	.281	.342	.042

Note. a. Dependent Variable: Mobility.

Both negative and positive standardized coefficients were established where the BN (-.860) indicates that for every 1-unit increase in the predictor variable, the outcome variable significantly decreased by the beta coefficient value. For the values BN, B10, MN, M10, and LAL, positive standardized coefficients reveal that for every 1-unit increase in the predictor variable, the value of the beta coefficient subsequently increase.

The research also assessed the real impact of the salary received by teachers of different education levels with 10 years or without experiences category areas on the mobility of teachers in the teaching sector. In the table above, the regression analysis' outputs indicate that the bachelor's degree with no experience in teaching negatively and insignificantly influences the mobility of teachers ( $\beta = -18.772$ ,  $p < 0.05$ ). The findings indicate that whenever a bachelor's degree with no experience in teaching change by a unit, there is an 18.772 decrement in the mobility of teachers in the teaching sector, implying that the bachelor's degree with no experience in teaching as mobility of teachers' influencer negatively enhances the mobility of teacher from one school to another among the United States' public institutions. On the other hand, from the results in the table above, the bachelor's degree with an experience of 10 years ( $\beta = 41.380$ ), master's degree with an experience of 10 years ( $\beta = 28.673$ ), and the largest achievable level on the wage scale ( $\beta = 2.335$ ) have a positive and significant influence on the mobility of teachers. Therefore, the

results illustrate that whenever a bachelor's degree with an experience of 10 years, a master's degree with an experience of 10 years, and the largest achievable level on the wage scale changes by a unit value, the mobility of teachers in the teaching sector increases with a value of 41.380, 28.673, and 2.335, respectively. On the other hand, the master's degree with no experience in teaching ( $\beta = -.698$ ) negatively and significantly affects influence since its  $p$ -values were smaller than 0.05 and when this variable changes by a unit, there is a .698 decrement in the mobility of teachers in the teaching sector. As shown in the above results, the different salaries received by teachers of different education levels with 10 years or without experience have a mixed influence on the mobility of teachers in the teaching sector as their effect size was either positive or negative. However, the results show that a bachelor's degree with an experience of 10 years was the highest predictor while the master's degree with no experience in teaching had the least effect size on the mobility of teachers in the teaching sector. The results imply that the salary received by teachers with a degree level of education enables their mobility to schools where they can receive more salary compared to those who have master's degree and are contented with the salary they receive in their working area.

***Research Question Two: What, If Any, Is the Correlation between Education/Salary with Teacher Attrition?***

Research Question Two was also assessed using correlation analysis to show the direction and strength in the link between education levels/salary with teacher attrition. Therefore, the results of different salaries received by various teacher levels of education with experience are as illustrated below. The findings indicate that there is a small strength, positive and substantial connection between a bachelor's degree with no experience in teaching and attrition of teachers ( $\rho = .056, p < 0.01$ ). The results show that a bachelor's degree with no experience in teaching and attrition of teachers in the teaching sector moves in



a similar direction, and this implies that the higher the bachelor's degree with no experience in teaching, the higher the mobility of teachers in the teaching sector. In addition, the correlation between a bachelor's degree with an experience of 10 years and attrition of teachers in the teaching sector was found to be of lower strength, positive and significant at a 1% significance level ( $\rho = .117, p < 0.01$ ). Further, the attrition of teachers in the teaching sector and master's degree with no experience in teaching association was negative and insignificant ( $\rho = -.094, p < 0.01$ ). However, the results of this analysis illustrated that the attrition of teachers and master's degrees with experience of 10 years ( $\rho = .025, p < 0.01$ ) was positive and insignificant. Lastly, the findings showed that the attrition of teachers in the teaching entities and the largest achievable level on the wage scale association was positively and significantly associated with a small strength ( $\rho = .194, p < 0.01$ ). These results also imply that the attrition of teachers in the teaching sectors and teacher's average basic salary in a year at different levels of education and experiences among districts/ states that had salary schedules moves in a similar direction, and this implies that the higher the average yearly teacher base salary of different level of education and experiences, the higher the attrition of teachers in the teaching sectors. Additionally, the findings showed that a bachelor's degree with an experience of 10 years was most correlated with the attrition of teachers while a master's degree with no teaching experience was the least associated with the attrition of teachers in the teaching sectors, accordingly.

**Table 9***Correlation Coefficients Between the Salary Obtained at Education Levels and Teachers'**Attrition*

		Correlations					
		A	BN	B10	MN	M10	LAL
Attrition (A)	P	1	.056**	.117**	-.094**	.025**	.108**
	Sig.		.036	.005	.029	.034	.025
	N	13	13	13	13	13	13
BN	P	.056	1	.852**	.932**	.803**	.869**
	Sig.	.856		.000	.000	.001	.000
	N	13	13	13	13	13	13
B10	P	.117	.852**	1	.828**	.981**	.876**
	Sig.	.705	.000		.000	.000	.000
	N	13	13	13	13	13	13
MN	P	-.094	.932**	.828**	1	.844**	.850**
	Sig.	.759	.000	.000		.000	.000
	N	13	13	13	13	13	13
M10	P	.025	.803**	.981**	.844**	1	.843**
	Sig.	.934	.001	.000	.000		.000
	N	13	13	13	13	13	13
LAL	P	.108	.869**	.876**	.850**	.843**	1
	Sig.	.725	.000	.000	.000	.000	
	N	13	13	13	13	13	13

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed). Bachelor's degree with no experience in teaching (BN). Bachelor's degree with experience of 10 years (B10). Master's degree with no experience (MN). Master's degree with experience of 10 years (M10). The largest achievable level on the wage scale (LAL).

The correlation outcomes indicate the degree to which the variables, BN, B10, MN, M10, and LAL, move in tandem and coordination with each other. Positive correlations are established for all BN, B10, MN, M10, and LAL, which indicates the movement of these retention variables in the same direction. However, the attrition rates are established to be negatively correlated with variable MN (-0.94) which means that an increase in MN results to a corresponding decrease in attrition rates. Most of the correlation outcomes lie between 0.5 and 1 which indicates the high correlation and unidirectional nature of the included variables.

**Regression Analysis.** The above research question was also tested using multiple regression analysis to evaluate the degree to which the salary that teachers of different

education levels earn affect the rate of attrition, and the results are as shown in the following tables:

**Table 10**

*Summary of the Model*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.531 <sup>a</sup>	.485	.430	116137.192

*Note.* a. Predictors: (Constant), The largest achievable level on the wage scale, master's degree with an experience of 10 years, bachelor's degree with no experience in teaching, master's degree with no experience in teaching, bachelor's degree with an experience of 10 years.

In the table above, the findings illustrated 0.485 as the R<sup>2</sup>, and the adjusted R<sup>2</sup> was 0.430. With an R-squared value of .485, approximately 50% of the variance within the results is accounted for, by the model. The Std. Error of Estimate reflects the accuracy of the prediction model where the largest achievable level on the wage scale, revolves around master's degree with an experience of 10 years, bachelor's degree with no experience in teaching, master's degree with no experience in teaching, bachelor's degree with an experience of 10 years has a contribution of 48.5 % and adjusted of 43.0 % in total change on the mobility of teachers in the teaching sector.

**Table 11**

*Regression Coefficients*

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	63997.145	351199.489		.182	.861
	BN	-18.248	61.514	-.639	-.297	.015
	B10	59.325	75.967	3.361	.781	.040
	MN	-2.480	49.905	.104	.050	.022
	M10	42.221	57.694	-2.932	-.732	.048
	LAL	1.095	8.917	.101	.123	.046

Negative standardized coefficients established from the regression analysis for the variables BN (-.639) and M10 (-2.9320) indicate that every 1-unit increase in the predictor variable, results in the corresponding decrease in the beta coefficient value for the outcome variable. The positive beta coefficients for B10, MN, and LAL indicate that the 1-unit increase in the predictor variable would attribute to a similar increase in the value outcomes of the variable.

In the results as illustrated in the table above, the regression analysis results show that the bachelor's degree with no experience in teaching negatively and insignificantly influences the mobility of teachers ( $\beta = -18.248, p < 0.05$ ). The findings indicate that whenever a bachelor's degree with no experience in teaching change by a unit, there is an 18.248 decrement in the attrition of teachers in the teaching sector, implying that the bachelor's degree with no experience in teaching negatively enhances the attrition of teacher from one school to another among the public institutions of the United States. Similarly, the master's degree with no experience in teaching ( $\beta = -2.480$ ) negatively and significantly affects influence since its *p*-values were smaller than 0.05 and when this variable changes by a unit, there is a 2.480 decrement in attrition of teachers in the teaching sector. On the other hand, as illustrated from results in the table above, the bachelor's degree with an experience of 10 years ( $\beta = 59.325$ ), master's degree with an experience of 10 years ( $\beta = 42.221$ ), and the largest achievable level on the wage scale ( $\beta = 1.095$ ) have a positive and significant influence on the attrition of teachers. Thus, the results illustrate that whenever a bachelor's degree with an experience of 10 years, a master's degree with an experience of 10 years, and the largest achievable level on the wage scale changes by a unit value, the attrition of teachers in the teaching sector increases with a value of 41.380, 28.673, and 2.335, respectively. As shown in the results, the different salaries received by teachers of different education levels with 10 years or without experience have a mixed effect on the attrition of teachers in the

teaching sector as their effect size was either positive or negative. Nevertheless, the findings show that a bachelor's degree with an experience of 10 years was the highest influencer of teachers' attrition while the master's degree with no experience in teaching had the least effect size on attrition of teachers in the teaching sector. The findings have an implication that the salary received by teachers with a degree level of education is enabling their attrition from schools where they do not receive more salary compared to those who have master's degree who are contented with the salary they receive or due to retirement, or death.

***Research Question Three: What, If Any, Is the Correlation between Education/Salary with Teacher Retention?***

The above research question was assessed using correlation analysis to show the direction and strength in the link between education levels/salary with teacher retention. As shown in Table 12, the results illustrated that there is a small strength, positive and insignificant connection between bachelor's degree with no experience in teaching and retention of teachers since the output showed  $\rho = .039, p > 0.01$ . The results show that teachers with bachelor's degree with no experience in teaching and retention of these teachers in the teaching entities move in a similar direction. This implies that the higher the bachelor's degree with no experience in teaching, the higher the retention of teachers in the teaching sector. However, the association is not always true since  $p > 0.01$ . In addition, the correlation between bachelor's degree with an experience of 10 years and retention of teachers in the teaching sector was found to be of higher strength, positive and significant at a 1% significance level ( $\rho = .821, p < 0.01$ ). In addition, the retention of teachers in the teaching sectors and master's degree with no experience in teaching association was found to be negative and insignificantly associated with a negligible strength ( $\rho = -.096, p > 0.01$ ). On the other hand, the findings of this correlation analysis showed that the retention of teachers and master's degree with an experience of 10 years ( $\rho = .738, p < 0.01$ ) was positively and

significantly associated with higher strength. Lastly, the results illustrated that the retention of teachers in the teaching entities and the largest achievable level on the wage scale association was positively and significantly associated with a small strength ( $\rho = .194, p < 0.01$ ). These results, thus, imply that the retention of teachers in the teaching sectors and average yearly teacher base salary at different levels of education and experiences in the different districts/states of the US that have salary schedules move in a similar direction for the teachers with experiences, and this indicates that the higher the average yearly teacher base salary of different level of education with experiences, the higher the retention of teachers in these teaching sectors. On the other hand, results illustrated that salary of teachers with no experience moves in a different direction with retention, implying that experience in teaching was the key to retaining these teachers.

**Table 12**

*Correlation Coefficients Between the Salary Obtained at Different Education Levels and Teachers' Retention*

		Correlations					
		R	BN	B10	MN	M10	LAL
Retention (R)	P	1	.039	.821**	-.096	.738**	.520**
	Sig.		.900	.043	.755	.003	.037
	N	13	13	13	13	13	13
BN	P	.039	1	.852**	.932**	.803**	.869**
	Sig.	.900		.000	.000	.001	.000
	N	13	13	13	13	13	13
B10	P	.821	.852**	1	.828**	.981**	.876**
	Sig.	.043	.000		.000	.000	.000
	N	13	13	13	13	13	13
MN	P	-.096	.932**	.828**	1	.844**	.850**
	Sig.	.755	.000	.000		.000	.000
	N	13	13	13	13	13	13
M10	P	.738**	.803**	.981**	.844**	1	.843**
	Sig.	.003	.001	.000	.000		.000
	N	13	13	13	13	13	13
LAL	P	.520**	.869**	.876**	.850**	.843**	1
	Sig.	.037	.000	.000	.000	.000	
	N	13	13	13	13	13	13

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed). Bachelor's degree with no experience in teaching (BN). Bachelor's degree with experience of 10 years (B10). Master's degree with no experience (MN). Master's degree with experience of 10 years (M10). The largest achievable level on the wage scale (LAL).

The correlation indicates the degree to which the Retention variables move in tandem and coordination with each other. Positive correlations are established for BN, B10, MN, M10, and LAL, which indicates the movement of these retention variables in the same direction. A linear form of relationship is demonstrated from the significant high positive correlation that are above 0.5 and close to 1.

As the case of attrition, the findings in the table above showed that a bachelor's degree with an experience of 10 years was most associated with the retention of teachers, while a master's degree with no teaching experience was the least correlated with the retention of teachers in the teaching sectors, respectively.

**Regression Analysis.** The above research question was also tested using a multiple regression analysis which is used to show the actual effect size of the salary they acquire due to different levels of education with and without teaching experience in the teaching sector on teacher mobility. The outputs of this regression analysis are as shown in the tables.

**Table 13**

*Summary of the Model*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.522 <sup>a</sup>	.272	.248	1147817.303

*Note.* a. Predictors: (Constant), The largest achievable level on the wage scale, master's degree with an experience of 10 years, bachelor's degree with no experience in teaching, master's degree with no experience in teaching, bachelor's degree with experience of 10 years.

Model Summary established a Std. Error of Estimate of 1147817.303 which indicates the accuracy of the prediction that the largest achievable wage pay as per the scale requires an educational level meeting Master's degree requirements and 10 years of experience. However, with an R square value of .272, it indicates that 27.2% of the variance within the outcomes is accounted by the actual model.

As illustrated in the table above, the findings showed 0.272 as the coefficient of determination (R<sup>2</sup>), and adjusted R<sup>2</sup> was 0.248. The results indicate that the largest achievable level on the wage scale, master's degree with an experience of 10 years, bachelor's degree with no experience in teaching, master's degree with no experience in teaching, bachelor's degree with an experience of 10 years have a contribution of 27.2 % and adjusted of 24.8 % in total change on the retention of teachers in the teaching sector. Further, the contribution of the above independent variables was barely 100% which implies that retention of teachers in the teaching sector could be affected by other factors besides retention of the teachers.

**Table 14**

*Regression Coefficients*

Model	Coefficients <sup>a</sup>				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	(Constant)	Std. Error	Beta			
1	908245.491	3.471E6			.262	.801
BN	-224.435	607.960	-.801		-.369	.023
B10	577.694	750.808	3.336		.769	.047
MN	-38.303	493.227	.164		.078	.040
M10	408.138	570.209	-2.888		-.716	.044
LAL	19.983	88.129	.188		.227	.027

Note. a. Dependent Variable: Retention

Regression outcomes offer the standardized (regression) coefficients, which are standardized for ensuring the variances of both dependent and independent variables equal to 1. Negative beta coefficients [-.801, -2.888] indicate that for every 1-unit increase in the predictor variable, the outcome variable (retention rates for teachers) decreases by the beta coefficient value.



## Regression Analysis

The study also assessed the actual effect of the salary received by teachers of different education levels with 10 years or without experiences category areas on the mobility of teachers in the teaching sector. In the table above, the regression analysis' outputs indicate that the bachelor's degree with no experience in teaching negatively and significantly influences the mobility of teachers ( $\beta = -224.435, p < 0.05$ ). The findings indicate that whenever a bachelor's degree with no experience in teaching change by a unit, there is an 18.772 decrement in the mobility of teachers in the teaching sector, implying that the bachelor's degree with no experience in teaching as mobility of teachers' influencer negatively enhances the mobility of teacher from one school to another among the United States' public institutions. In addition, the master's degree with no experience in teaching ( $\beta = -38.303, p < 0.05$ ) negatively and significantly affect retention of teachers as the  $p$ -values were smaller than 0.05, and when this variable changes by a unit, there is 38.303 decrease in retention of teachers in the teaching sector. However, from the results in the table above, the bachelor's degree with an experience of 10 years ( $\beta = 41.380, p < 0.05$ ), master's degree with an experience of 10 years ( $\beta = 28.673, p < 0.05$ ), and the largest achievable level on the wage scale ( $\beta = 2.335, p < 0.05$ ) has a positive and significant influence on the mobility of teachers. Thus, the findings show that when there are changes in a unit value of bachelor's degree with an experience of 10 years, master's degree with an experience of 10 years, and the largest achievable level on the wage scale, there is an increment with a value of 577.694, 408.138, and 19.983 in the retention of teachers in the teaching sector, respectively. As illustrated by the results, the different salaries that the teachers of different levels of education with 10 years or without experience received have a mixed influence on the retention of teachers in the teaching sector were either positively or negatively influencing retention of teachers. On the other hand, the findings show that a bachelor's degree with an experience of 10 years was

the highest predictor while the bachelor's degree with no experience in teaching had the least effect size on retention of teachers in the teaching institutions. The findings indicate that the salary received by teachers with a degree level of education with 10 years of experience are enabling their retention in many schools compared to those who have master's degrees with the same level of experience in teaching.

Findings established from the review of the study data indicate the influence of salaries, level of education and compensation with respect to the mobility, retention, and attrition of teachers in public schools. In essence, the significant changes in the value of a bachelor's degree with 10 years of experience, a master's degree with 10 years of experience, and the highest achievable level on the wage scale, attributes to the significant increment with a value of 577.694, 408.138, and 19.983 in the retention of teachers in the teaching sector, respectively. In addition, the study established that the said factors significantly affect mobility, retention, and attrition in the teaching sector since the effect sizes were either positive or negative.

### **Interpretation of Results**

The appropriate skills seem to be difficult for many organizations, especially teachings, to recruit and retain because of economic downturns or employee turnover. As previously discovered by researchers in this field, the loss of competent employees can result in bad performance among organizations, which negatively influences the firm's outcomes. There are several ways to look at employee turnover, depending on the situation. In addition, the average number of people that work at an institution for an extended length of time and then leave that company has increased over past years due to various factors. As noted in the theory of social identity, people's senses are formed by their notion of social identity, showing that the activity that teachers perform affects the sense of receiving a salary. Teachers with diverse educational backgrounds are paid varying wages because of social

identity issues. Therefore, even if just one or two instructors leave at the conclusion of a session for various reasons, the impact will be less than high mobility or attrition, which may be expensive and harmful to the cohesiveness of teaching in schools. Policies have been implemented in western nations like the United States of America and the United Kingdom to prevent significant numbers of employees such as teachers from being laid off from or voluntarily leaving the teaching workplace. However, it is known that recruitment and retention of teachers is a persistent problem in many small rural school districts. Low financing and geographic isolation provide a challenge to these districts, causing teachers to flee the region at a higher rate than they do from cities and suburban. The fact that many of the states in the United States where rural education has a significant role in overall educational achievement underscore the importance of understanding the characteristics present in rural schools and how these factors influence instructors and their goals. In order to help rural schools in the retention of more teachers, the current study was conducted to learn more about the factors that influence the mobility, attrition, and retention of the teachers in their teaching roles. In addition to reducing school budgets as a result of mobility and attrition of teachers, every teacher who quits has a direct negative impact on how well the student will perform academically. Therefore, the current study was conducted to also understand the educators' and mobility and attrition in their first five years of work and the retention practices used by education institutions to reduce attrition and mobility. In particular, the research evaluated the factors that affected the mobility, attrition, and retention of teachers in US public schools. However, this major research question was divided into three general research questions for clear evaluation. Thus, this section compares and contrasts the results by describing the problem, methods and key findings with the results from previous studies on the attrition, mobility, and retention of teachers and how these factors are associated with salary received by teachers with various levels of education with and without experiences.

The chapter also explores in the same perspective the findings on how attrition, mobility, and retention of teachers are affected by salary received by teachers with different levels of education and experience in experience in teaching.

### ***The Association between Education/Salary with Teacher Mobility***

In assessing the relationship between the level of education/salary received by a teacher in different levels of education with teacher mobility, results showed positive and significant associations between the mobility of teachers. Additionally, when evaluating the actual effect, the findings showed that the different salaries received by teachers of different education levels with 10 years or without experience have a mixed effect on the mobility of teachers in the teaching sector as the level of education had either positive or negative effect size. The results imply that different education levels have variations in teachers' mobility since the salary given is dependent on the level of education of the teacher, and when the teacher feels that his/her level of education is not compatible with the salary, there is a higher chance of mobility. In line with these results, Goldring et al. (2014) evaluated the association between teachers' mobility with teachers' salary in the 2011/2012 school year and established that 8% of teachers transferred from one school to another, indicating that there was a positive relationship between mobility and salary. As a result, teachers transferred to acquire more salaries, making this study consistent with the current results. On a similar note, Meyer et al. (2019), in their study on the factors that determine the mobility of teachers, gave a perspective that mobility rates are dependent on the teacher's district, school, community, or country. The results by Meyer et al. (2019) illustrate a positive association between areas/district of teaching, the school where the teaching took place, the community, and the country involved with mobility. Therefore, if either of these factors is unfavorable for the teachers, they can look for a better teaching environment, making mobility increase rapidly. In support, Meyer et al. (2019) estimated that 8% of the teachers shifted from one school to

another, and the rate increased in disadvantaged districts and rural schools. The results imply significant associations between the working conditions and mobility of teachers depending on their level of education. For instance, it is impossible to find teachers with master's degree working in disadvantaged districts and rural schools as they do not fit their experience and education level. Different but related research conducted in West Virginia on teachers' mobility and retention rates by Lochmiller et al. (2016) showed 90% of teachers remained in their positions when their contracts expired. In addition, the findings by Lochmiller et al. (2016) illustrated that 11% of school administrators left in their first five years of teachings. The results imply that the environment that the teachers work in enable mobility of a few teachers, and this shows there is a positive association between the working environment and the remuneration due to these working conditions and teachers' mobility. On a similar note, Nguyen (2018) evaluated the importance of the mobility of teachers and how various factors have influenced this mobility. Their results showed that teacher mobility provided the teachers with financial independence and the opportunity to earn more money because money was the primary reason they moved, showing that higher salary positively influenced mobility of most teachers from one teaching institution to another in search of greener pastures. Lastly, Adnot et al. (2017) assessed the factors influencing the high rate of new teachers' mobility from one teaching institution to another. The findings of this assertion illustrated that new teachers are more likely to demonstrate high mobility when given low compensation. Thus, it shows compensation and rate of teachers' mobility have a significant relationship that supports the current study results.

### ***The Association Between Education/Salary with Teacher Attrition***

While evaluating the relationship between salary received by the teacher in different levels of education with teacher attrition, the findings illustrated mixed associations between the level of education with and without teaching experience and teacher attrition. However,

despite the relationships being negative or positive, they were significant, implying that attrition of teachers is affected by the salary of teachers due to their education level. To confirm this, results of regression analysis showed that there was a mixed effect the different salaries received by teachers of different education levels with 10 years or without experiences on the attrition of teachers in the teaching sector as their effect size was either positive or negative, indicating that the level of education with no experience forced teachers' attrition as compared to those with 10 years of experience. In support of the above results, Meyer et al. (2019) noted that in the United States, teacher attrition has a variation across states, geographical areas, and types of districts and schools. Their results illustrate that due to different states, geographical areas, and types of districts and schools that the teachers work in and compare with the level of education of these teachers, they feel unacceptable to work in certain areas, which leads them to move out of the field altogether making attrition of teachers to be significantly associated with the level of education. In another related study conducted in West Virginia by Lochmiller et al. (2016) on the rate of attrition, results showed that only a few (11%) of school administrators left in five years of their teaching career, indicating that attrition of teachers and working environment moved in different or were negatively associated. Additionally, the results of this survey also found that teachers with less than two years of experience were more likely to move around and experience attrition. According to Adnot et al.'s (2017) study on the factors that have influenced the attrition of teachers from teaching, labor market imbalances have a long-term impact on educational quality and teacher performance, which causes the instability of attrition of teachers. Therefore, the results have the implication that lower quality education causes attrition of these teachers.

In contrast, See et al. (2020) established that teacher mobility and attrition of learned teachers are caused by a variety of variables, with financial compensation being at the bottom

of the list of the contributing factors. Thus, these results imply that despite the salary/compensation of teachers being a contributing factor of attrition, their relationship of small effect contrasted with the current results that showed salary received was among the main factors that contributed to attrition of teachers. In addition, Carver-Thomas and Darling-Hammond (2017) indicated that lower-level teaching positions have poor pay, which explains the high attrition rates due to novice teachers' which shows there are significant associations between salary received by teachers and attrition.

### ***The Association between Education/Salary with Teacher Retention***

Finally, in examining the association between salary received by a teacher in different levels of education with teacher attrition, the results of the analysis showed that the salary of teachers with different levels of education with no experience and those who had 10 years of teaching experience and retention of these teachers in the teaching entities move in a similar direction and this implies that the higher the level of education with or without 10 years of teaching experience, the higher the retention of teachers in the teaching sector. However, the association is not always true for master's and bachelor's degrees with no experience in teaching since  $p > 0.01$ . In addition, results showed that the levels of education had significantly affected the retention of teachers. However, the findings showed that there was a mixed influence on the mobility of teachers in the teaching sector since the salary received by teachers at a different level of education were either positively or negatively influencing the retention of teachers. The results imply that teachers would want to be retained in schools where their levels of education and the salary they received are compatible. However, if their needs are not met, for example, lower salary, there is a higher chance that these teachers will decline to be retained compared to those who received a higher salary. In line with these results, Mason and Matas (2015), with the support of the results by See et al. (2020), used a four-factor model for teacher retention to evaluate the factors that influence the retention of

teachers and to what extent these factors affects retaining of teachers. The results showed that numerous elements impact teacher retention in the USA. These numerous factors included in the study and which have been proven via other scholarly research were flexible and fluctuated depending on the local, legislative, and administrative situations. In support, a recent study by Hendricks (2014) on how competitive salaries have influenced the retention rates of teachers revealed that offering a competitive salary is the best way to keep new teachers on board. The study also indicated that new instructors are usually curious about how much money they are making, no matter how long they have been teaching. Similarly, Mason and Matas (2015) indicated that greater retention rates are associated with investments in human, structural, and social capital during career quality development and during teaching practices. In contrast, See et al. (2020) study on the effectiveness of financial pay on the retention of teachers showed that although financial pay is an essential consideration, teacher retention is not primarily affected by this factor.



## Chapter 5: Conclusions

### Summarized Description of the Study

When it comes to ensuring that all children have access to competent teachers, school systems across the country have a daunting task which includes developing and sustaining a workforce of high-quality teachers. School legislators and administrators may be tempted to fix teacher shortages by focusing simply on recruitment tactics, but a better strategy begins with the knowledge of retention and attrition among teachers. This study aimed at exploring factors that affect teacher mobility, attrition, and retention in U.S. public schools. In particular, the study examined the correlation between education and salary with teacher mobility, teacher attrition, as well as with teacher retention.

The current study was guided by social identity theory (SIT) to study how people form and how they have been representing their chosen group (s) social norms and maintain the social groups. Social identity theory serves as the foundation for a slew of social cognitive theories. Further, people act in ways that increase the social status of their group by maximizing in-group and out-group distinctions. In SIT, the social identities of teachers are shown to affect their views of urban students on their expectations and, most importantly, the remuneration they will get while teaching. Consequently, teachers might leave the profession or move to another school if they believe they would be better off in a different position or in a career that pays more. Therefore, the study aimed to scrutinize educators' attrition and mobility in their first five years of work and the factors used by education institutions to reduce attrition and mobility.

In order to better comprehend the research problem, the study used a business research design involving a deductive quantitative research method. The study used secondary data that was obtained from ongoing research of the U.S, with the collected data

were analyzed using correlation and regression analysis to assess and find the answers to the research questions.

### **Discussion of Results**

The research questions and corresponding answers are as follows. A further discussion of these results continues below.

#### ***Research Question 1: What, If Any, Is the Correlation between Education/Salary with Teacher Mobility?***

- Yes, there is a correlation.
- The results show that a bachelor's degree with no experience in teaching and mobility of teachers in the teaching sector moves in a similar direction, and this implies that the higher the degree with no experience in teaching, the higher the mobility of teachers in the teaching sector.
- The findings also imply that the mobility of teachers in the teaching sector and average yearly teacher base salary of different level of education and experiences among districts/ states that had salary schedules move in a similar direction, and this imply that *the higher the average yearly teacher base salary of different level of education and experiences, the higher the mobility of teachers in the teaching sectors.*

#### ***Research Question Two: What, If Any, Is the Correlation between Education/Salary with Teacher Attrition?***

- Yes, there is a correlation.
- These results imply that the attrition of teachers in the teaching sectors and teacher's average basic salary in a year at different levels of education and experiences among districts/ states that had salary schedules moves in a similar direction, and this implies that the *higher the average yearly teacher base salary of different level of education and experiences, the higher the attrition of teachers in the teaching sectors.*

- Additionally, the findings showed that a bachelor's degree with an experience of 10 years was most correlated with the attrition of teachers while a master's degree with no teaching experience was the least associated with the attrition of teachers in the teaching sectors, accordingly.

***Research Question Three: What, If Any, Is the Correlation between Education/Salary with Teacher Retention?***

- Yes, there is a correlation.
- The results imply that the retention of teachers in the teaching sectors and average yearly teacher base salary at different levels of education and experiences in the different districts/ states of the US that have salary schedules move in a similar direction for the teachers with experiences, and this indicates that *the higher the average yearly teacher base salary of different level of education with experiences, the higher the retention of teachers in these teaching sectors.*
- On the other hand, results illustrated that salary of teachers with no experience moves in a different direction with retention, implying that *experience in teaching was the key to retaining these teachers.*

Retention and attrition of teachers have a significant influence on the worldwide lack of teachers. In the U.S, it has been difficult to recruit and retain teachers, as indicated in the reports by Dee and Goldhaber (2017). In the period between 2011 and 2015, the number of schools that made attempts to employ and retain teachers unsuccessfully increased from 6.3% (Dee & Goldhaber, 2017). Further, the same report indicated that attrition accounted for the decline in the U.S. teacher workforce by 35%. These trends are a major source of concern since teacher mobility, attrition, and retention have massive implications on the quality of education. The teacher labor market has significant ramifications in student learning and fair results. Several recent studies, including Marinette (2019) and Shikapelo (2019), have

demonstrated the negative effects of teacher attrition and mobility, especially in rural areas. Further, other recent studies by Özoğlu (2015) and Nguyen (2018) show that teacher attrition and mobility lead to a decline in the quality of education in public schools, especially those that are economically disadvantaged. The chaotic nature of mobility has negative implications on the academic achievement levels of the learners.

Consequently, the current study was carried out to contribute to finding solutions to the various challenges. In particular, this study helped highlight the trends in teacher mobility and attrition and its impact on the U.S. public schooling sector. Further, investigating the retention strategies would help inform policies and practices in the education sector. There has been a lot of research done by educators, academics, and policymakers to determine if primary and secondary classrooms are filled with qualified teachers, and the results show that there is a need to learn more about labor market conditions and factors that lead to the majority of teachers' and improve this kind of research. According to academics, policymakers, and the general public, the study of teachers' mobility, attrition, and retention is important because teachers are the cornerstone of public education. People worry about fairness and productivity because investing in public education is important to maintaining a healthy democratic society. More and more studies are being conducted on teacher salary and retention.

As a result of improved systematic search and big data development and proliferation, such as the Schools and Staffing Survey (SASS), which provides more accurate information than ever before and introduces new categories of mobility, attrition, and retention determinants, the number of studies has multiplied several times in the last ten years. The involvement of these significant data publications has improved the accessibility of the required datasets, which have improved the reliability of the results. A key strength of relying on the SASS survey is that it provided adequate numerical data needed for the quantitative

research. The application of inferential and descriptive statistics using the SPSS software also played a vital role in the achievement of the goals of the current study.

In spite of the fact that this study had numerous advantages (such as the large number of variables assessing teacher mobility, attrition, and retention and their demographic characteristics), some of these variables were not measured consistently throughout time since they were collected differently with regard to different demographic information of these teachers. This makes it difficult to draw conclusions about the impact of these demographic factors on teacher attrition across the year of data collection. Rural school teachers are dissatisfied with their positions and frequently quit them because they cannot grasp the school's institutional framework, create good collegial connections, and generate a dedication to student success. Researching the reasons teachers depart and variables that influence their retention can assist schools in recruiting and keeping top-notch, forward-thinking teachers. Therefore, to understand how various factors such as the salary of teachers affect mobility, attrition, and retention, this study was conducted to evaluate the educators' mobility and attrition in their first five years of work and the retention practices used by education institutions to reduce attrition and mobility of these teachers. The results of the current study have established that teachers who receive a salary that is not proportional to their level of education are less competent and are hard to retain on average than those receiving an adequate salary, and this difference may be rather significant since these teachers feel the level of education, they have attained is not equal to teaching in such level and receiving such low wages. As a result, teachers at low-income urban schools serving minority students are less likely to be highly qualified, and those who are more highly qualified are more likely to quit for better-paying jobs, thus increasing the rate of mobility from suburban schools to well-improved schools. While large-scale research can be time- and money-consuming, other factors should be taken into account to improve the findings of

national longitudinal datasets. However, in light of the aforementioned conducted research and previous studies, it is reasonable to assume that teacher compensation is an important factor in determining whether or not a teacher will stay on the job. The economic crisis that preceded and coincided with the COVID-19 epidemic is also assumed to provide further motivation for employees to look for new jobs elsewhere.

### **Study Conclusions**

This study aimed to examine teacher mobility and attrition and the impact they had on the U.S. public schooling sector. Results showed salaries received by various teachers with different education levels, such as bachelor's and master's degrees with and without experience of 10 years, affect mobility, retention, and attrition of teachers in public schools. These findings exhibit both consistency and consistency with previous and recent research on the topic. For instance, the present study's findings are supported by the observations from the research by Oke et al. (2016), which acknowledge that remuneration is one of the major factors that influence teachers' decision to stay or move. These findings are consistent with the results from a diverse range of other recent studies, including Carver-Thomas and Darling-Hammond (2017) and Dee and Goldhaber (2017), which revealed that proper remuneration reduced attrition and mobility while it enhanced teacher retention. However, the present study largely linked retention, attrition, and mobility to remuneration but failed to directly associate the trends to factors explained in other recent investigations on the same topic. A study by Oke et al. (2016) showed that in addition to remuneration, other factors including availability of resources and the general nature of the work environment, influenced their decision to stay or move. Similar observations had been made in an earlier study by Mason and Matas (2015), who linked teachers' attrition, mobility, and retention rates to a diverse range of factors that could be classified into human, structural, and social

capital. The specific findings of the study in relation to the specific research is discussed below.

### ***Effect of Pay on Mobility***

The effect of pay on mobility was investigated. From the results of correlation analysis, there were significant associations between salary for the teachers with Bachelor's and Master's degrees with experience of 10 years and mobility compared to the teacher with no experience. In addition, the findings illustrated that the different salaries received by teachers of different education levels with 10 years or without experience have a mixed influence on the mobility of teachers. For instance, the salary received by the teachers with a bachelor's degree with no experience in teaching negatively and insignificantly influences the mobility of teachers. This was also the case with a master's degree with no experience. However, the bachelor's degree with an experience of 10 years, master's degree with an experience of 10 years, and the largest achievable level on the wage scale have a positive and significant influence on the mobility of teachers. Findings of the present study about the effect of pay on mobility are supported by results of some recent studies (Carver-Thomas & Darling-Hammond, 2017; Dee & Goldhaber, 2017; Hendricks, 2014), which also establish the existence of a negative correlation between pay and teacher mobility. Similar, the findings of the present research are consistent with some of the recent including Sorber and Campbell (2019) and See et al. (2020), which show that the impact of pay on mobility vary based on the level of academic attainment and years of experience, with poor pay likely to lead to higher mobility rates among newcomers. In particular, Sorber and Campbell (2019) study show that experienced teachers are more likely to be concerned about working conditions than remuneration, and observation is also supported by another recent research by See et al. (2020).

Further, previous research by Newberry and Allsop (2017) also confirmed that mobility rates are higher among novice teachers. Based on these findings, it can be argued that the reduction of mobility among novice teachers can largely be influenced by remuneration practices. Mobility among experienced teachers can be reduced by creating a conducive working environment.

### ***Effect of Pay on Attrition***

The correlation between pay and attrition rates was also examined. In this case, results showed salary received by teachers with bachelor's and Master's degrees with no experience in teaching have a negative effect on the attrition of teachers from one school to another among the public institutions of the United States. On the other hand, the bachelor's degree with an experience of 10 years, master's degree with an experience of 10 years, and the largest achievable level on the wage scale have a positive and significant influence on the attrition of teachers. These findings are supported by the results from recent research by Hendricks (2014), which showed that remuneration was the most important factor that influenced the teachers' decision to stay or quit, especially among the novice or less experienced ones. These findings are supported by observations from a diverse range of previous studies (Blašková & Blaško, 2014; Dee & Goldhaber, 2017; Fulbeck, 2014), which show that the decision of teachers to stay or leave is primarily influenced by the payment arrangements. Some of the recent studies (Hendricks, 2014; Oke et al., 2016) also acknowledge incidences when perceived fairness and overall friendliness may outweigh remuneration in influencing the teacher's decision to leave. Generally, attrition rates are high due to poor pay, poor payment arrangements, and perceived unfairness. These findings imply that the high attrition rates can be reversed by addressing payment issues.



### ***Effect of Pay on Retention***

The association between pay and retention was another specific goal of the study. Findings from the study revealed that the salary received by the teachers with bachelor's degrees with no experience in teaching and those who had Master's degrees but with no experience in teaching have a positive and significant influence on the attrition of teachers. Nonetheless, the salary received by the bachelor's degree with an experience of 10 years and those with master's degree with an experience of 10 years positively and significantly influence the retention of teachers.

The findings of the present study regarding the role of pay on retention of teachers are consistent with those of other recent investigations by Hendricks (2014) and Sorber and Campbell (2019), which showed that good reputation of teachers was one of the most effective ways of ensuring higher retention rates. However, the current study's findings are also inconsistent with those of other previous studies such as Mason and Matas (2015) and See et al. (2020), which show that final remuneration may not be the most important retention strategy. Overall, from the results above, salary received by teachers is an essential factor that school stakeholders and management should always consider a better remuneration for the teachers with higher education level to ensure a high rate of retention, which on the other hand, will reduce the rate of attrition and mobility. Therefore, shortages of teachers in urban and suburban schools can be solved by cutting down on the number of teachers leaving schools or quitting their jobs due to unsatisfactory payments.

### **Implications for Practice and Scholarship**

There are some practical implications for practice and investigators or researchers demonstrated in this research. Firstly, the current research contributes to numerous ways to the teachers' retention and attrition. The conceptual framework this research offers is based on the fundamental work of earlier research and is informed by the larger literature on

teachers' retention as well as supported by the empirical results. Therefore, this research has the following implications for preventing and managing teacher mobility and attrition and improving teachers' retention.

- By examining the effects of the salary received at a different level of education of teachers, the current results add to the current literature on the effectiveness of teachers' different levels of education on retention, mobility, and attrition research. This study further confirms the necessity of evaluating each level of education of a teacher and the salary they receive of how the education institutions manage and improve the retention by reducing mobility and attrition of teachers.
- For the scholarships, the study provides the following research implication. Firstly, the teachers' retention and recruitment may be improved using the associations presented in this paper, which offers practical suggestions for practitioners and policymakers. In addition, the longitudinal data systems proliferation has allowed academics to have an empirical enhancement of the dynamics of the teachers' labor markets understanding, which significantly advances the knowledge of mobility, retention, and attrition of teachers in meta-analyses. The research also uses current best meta-analytic techniques to create methodological improvements, paying particular attention to the literature search, bias in publication, data processing, the results presentation, the findings robustness, and comparisons between these results and previous findings. Therefore, this meta-revisions analysis and enhancements should increase academic understanding of teachers' salaries at different levels of education and give the most up-to-date detailed assessment of the empirical information on teachers' mobility, retention, and attrition.

- In addition, this research adds to the body of knowledge on the mobility, retention, and attrition of teachers. According to the result obtained, a complete picture of teachers' mobility and attrition over a specific time and throughout the country may be obtained using longitudinal and national representation rather than state-level or short-term local data. The two reasons underlining this implication are that at first, the SASS data provide a wealth of information on teacher characteristics, such as age ranges of the teachers and levels of education, teachers' demographics, resource availability, and school organizational characteristics. Therefore, this data is ideal for examining the relationship between teacher mobility, retention, and attrition and these other variables, especially levels of education. Lastly, the research has the implication that, while the impacts of the majority of variables have remained constant over the last twelve years, certain variables' effects may shift due to the effect of external factors that have not been directly evaluated in the current study.

### **Recommendations**

Based on the findings of the study, several recommendations are made for different stakeholders, including educational managers and educational authorities or policy-makers. The recommendations are made towards reducing attrition and teacher mobility while enhancing retention.

Firstly, the study recommends educational managers evaluate specific management issues that could push teachers out. Therefore, some of the highlighted areas that need to be managed include adequate welfare packages, remuneration, and materials necessary for learning. The study recommends that to improve the teachers' retention rates, institutions may enhance this by raising the teachers' starting salaries. In addition, the study recommends schools increase student engagement by providing administrators with more support and

encouragement, which might enhance retention rates. The results have shown a significant link between teacher retention rates, the school environment, and school leadership, which enhances teachers to be compensated with an appropriate salary.

Secondly, the study recommends the educational authorities look into teachers' contentment in their locations to understand why or why instructors are not pleased in their schools. When it comes to the executive of the teaching process, research suggests that management should constantly stress the significance of the strategy and thorough conduct assessments to make sure the management is aware of the critical role teachers play in their success and development. Another important consideration is how well the strategy for proactive corrective measures is being implemented to help teachers feel more valued and accepted at work by providing a better working environment and adequate compensation. Additionally, although further study is needed to validate these findings, some early data shows that offering retention bonuses and restricting late hiring might minimize teachers' mobility and attrition. There is convincing evidence from prior studies that school organizational qualities, including student disciplinary issues, administrative support, teacher partnerships, and professional development, might significantly lower attrition rates if they were improved or reinforced. Therefore, when there is a need to keep young teachers and specialist instructors in the classroom, school managers have to do more than just reduce student disciplinary issues or enhance administrative assistance. However, data shows that this is a viable study topic. Young or specialty teachers, in particular, may benefit from solid administrative support, consistent teacher collaboration, and regular and meaningful professional development if educators and policymakers work together to create school environments that foster these elements of support and retention. Further, to better understand the factors influencing the teachers' mobility, attrition, and retention, the study recommends

that movers and leavers be distinguished since the reasons affecting mobility, attrition, and retention of the teachers are not usually the same effect size.

Thirdly, this research suggests a thoroughly new and in-depth assessment of insights into what motivates the mobility of teachers. Having an in-depth understanding of factors affecting teacher mobility is important since education can influence recruitment and attrition policies. The study recommends that one way to enhance teacher retention is to recruit minority teachers, particularly those with a lower level of education since their teaching skills could be the same as those with higher attainment. This is because teachers with lower education have a higher retention rate than those teaching at higher education levels. Additionally, since the teachers with lower education levels that contemplate being poorly compensated are more likely than teachers with higher education levels to quit the profession, the study recommends that every stakeholder do everything they can to keep these in the profession. Therefore, the retention of highly trained and in-demand teachers may be aided by better administrative assistance, teacher cooperation, principal effectiveness, and a focus on better and improved wages of these teachers. Similarly, the study recommends that the school management consider ways to keep teachers with advanced degrees, such as doctorates, in the classroom by giving them additional options or making those options more desirable. Therefore, policymakers must consider this while making decisions.

### **Limitations**

The current study has various limitations that should act as guidance for future research. Firstly, when considering how many new teachers are hired every year in the many states of the United States, the sample used is very small to generalize the whole population of teachers across the country. Secondly, keeping track of new teachers for a longer time might enhance model estimates and help educators better understand how teacher retention rates and the factors that influence them vary over time. Although merit pay has been

connected to lower teacher attrition, it is less known about the merit pay program qualities linked to retaining teachers in the profession. Since some merit pay research uses associational findings, these results cannot guarantee that estimates are unbiased or if schools and districts have unobserved influences on compensation that have merit pay that may encourage teachers to remain in teaching in comparison to schools and districts without merit pay compared to those working in the schools in the city. The information on whether merit pay systems bring in more effective teachers or how the decrease in teacher attrition is distributed across performance metrics is, likewise, lacking at this time. On a similar note, very little is known about how teacher assessment might minimize attrition based on previous studies, which is another limitation affecting the comparison with the current results. In addition, most studies have focused on the link between a particular set of variables, that is, salary received by teachers at education levels and teacher mobility, attrition, or retention in a specific school district or state, and thus, this is a major shortcoming. However, due to this constraint, the findings may be specific to the period and location in which they were conducted. In addition, another limitation is that despite this study and past research tend to concentrate on the association between teachers' salary and teachers who leave the profession and those who move to other schools, teachers who leave the profession do so for a variety of reasons, some of which are different from those that lead them to change schools. The study's time frame and context are also a drawback. As a result, generalizations regarding the influence of present teacher demographics and economic circumstances cannot be made because the study utilized data from the year before the Great Recession of 2008.

### **Suggestions for Future Study**

Researchers found that pay was a key factor in whether or not a teacher decided to change schools, leave the field altogether, or remain in the school. However, this research did not look into what made instructors happy or unhappy about their jobs as educators in their

institutions. Thus, several suggestions for future research are made to provide more comprehensive findings on the topic.

Firstly, future work should categorize the happiness of the teachers and evaluate the association on that perspective since certain work qualities, according to research on job satisfaction, are consistently linked to employee happiness, whereas other aspects are linked to employee unhappiness. Although this concept of the school environment and the salary entitled to these teachers may contribute to teacher satisfaction, more studies are needed to determine what factors promote teacher happiness and how satisfaction levels influence teachers' decisions to change schools or quit the profession.

Secondly, some factors were significant across all waves of the research, whereas others were found to be insignificant for one or two independent variables. Therefore, to gain a clearer picture of the significance of variables in the presence of other variables and to allow these covariates to be freely estimated over time, future studies should critically include as many covariates as possible in the models when studying factors that influence teachers' decisions to move to schools and leave the profession.

Thirdly, a study of teachers' mobility, retention, and attrition should be investigated over a long period, for example, between 7 and 10 years, to determine the associations and actual effects of salary received at different education levels on mobility, retention, and attrition of teachers. Further, two areas need to be developed and explored in future teacher attrition research: relational demography and school improvement. With respect to teacher retention and attrition, only a few studies have looked at how school changes and research practice collaborations affect the attrition of teachers. Additionally, when evaluating compensation effectiveness received by various teachers at a different level of education with experience, future studies should use a multi-method approach and examine the degree and direction of these factors in the teachers' mobility, retention, and attrition. Finally,

researchers in the future should focus on other factors despite the salary to provide a concise conclusion and understanding of how these factors influence teachers' mobility, retention, and attrition altogether. These factors include the working conditions in schools which are assumed to have a significant role in the departure of teachers. Additionally, teachers' intentions to leave their jobs are reportedly influenced by the leadership style of their school's principal. There is a significant likelihood of instructors wanting to switch schools when principals do not support their staff members

### **Closing Comments**

According to the findings of this study, significant job turnover in the teaching profession is due to a variety of reasons that may be traced across different nations and regions. The mobility, attrition, and retention of teachers remains influenced by varied social and economic aspects which would need to be considered for improving the teaching and learning outcomes within education settings. The decision to leave the profession among teachers is highly influenced by aspects of race, income level, and the education level, where most teachers are inclined towards working within highly favorable settings.

As per the findings, teachers' desire to leave or, rather, their decision to leave the profession was influenced by a variety of variables. Firstly, inadequate remuneration for teachers is an essential issue to address. Teachers in many nations, such as the United States, are not paid enough to support themselves and their families. Another issue is the lack of timely payment of teachers' meager wages by the government, which results in them being underpaid. Based on prior research, most people who decide to become teachers do not anticipate making as much money as from teaching as most of them want their debts to be paid on time. Therefore, these results have shown a significant association between salary received by the teacher and either teachers' retention, mobility, or attrition. Hence, the



concluding comment is that teachers will relocate to a higher-paying institution or organization, not in the education industry.

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## APPENDIX A

## Data for Retention, Mobility, and Attrition of Teachers

Number and percentage distribution of teachers by years of teaching experience, stayer/mover/leaver status and selected school characteristics in the base year<sup>1</sup>: 2008-09

Selected teacher and school characteristics in the base year	Number				Percent		
	Total	S	M	L	S	M	L
Total	3,867,600	3,240,900	279,600	347,000	83.8	7.2	9.0
Full-time teaching experience							
No full-time teaching experience	72,800	52,700	6,400	13,700	72.4	8.7	18.9
1 year	266,400	198,600	31,600	36,200	74.5	11.9	13.6
2 years	219,700	171,100	27,500	21,100	77.9	12.5	9.6
3 years	196,600	152,500	27,700	16,400	77.6	14.1	8.3
4 years or more	3,112,200	2,666,000	186,500	259,700	85.7	6.0	8.3
Community type							
Urban	1,166,700	973,100	86,900	106,700	83.4	7.4	9.1
Suburban	1,290,600	1,078,400	91,700	120,600	83.6	7.1	9.3
Town	485,400	411,400	37,000	37,000	84.7	7.6	7.6
Rural	924,900	778,100	64,000	82,800	84.1	6.9	9.0
Percent of K-12 students who were approved for free or reduced-price lunches							
Less than 60	2,409,900	2,029,600	163,400	216,900	84.2	6.8	9.0
60 or more	1,049,100	882,400	95,100	71,600	84.1	9.1	6.8
School did not participate in free or reduced-price lunch program	408,600	328,900	21,100	58,600	80.5	5.2	14.3

Note. ! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

<sup>1</sup> Base year refers to the year in which the Schools and Staffing Survey (SASS) was administered. The SASS is always administered a year prior to the Teacher Follow-up Survey (TFS). The total number of base year teachers for any year is slightly lower than previously published counts, as all teachers who responded to SASS but were ineligible for the TFS (e.g., because they died or moved out of the country) were removed from the

weighted count of base year teachers. NOTE: "S" (Stayers) are teachers who were teaching in the same school in the current school year as in the base year. "M" (Movers) are teachers who were still teaching in the current school year, but had moved to a different school after the base year. "L" (Leavers) are teachers who left the teaching profession after the base year. Detail may not sum to totals because of rounding.

Adapted from *Current and Former Teacher Data Files 2008-09*, by U.S. Department of Education, National Center for Education Statistics, n.d. (<https://nces.ed.gov/surveys/sass/>). In the public domain. and *Public School District Data File 2008-09*, by U.S. Department of Education, National Center for Education Statistics, n.d.c (<https://nces.ed.gov/surveys/sass/>). In the public domain.

## APPENDIX B

## Data for Salary Received at Different Education Level

Percentage of public school districts that had salary schedules for teachers and among those that had salary schedules, the average yearly teacher base salary, by various levels of degrees and experience and state: 2007-08

Among districts that had salary schedules, average yearly teacher base salary

State	Percent with salary schedules for teachers	Among districts that had salary schedules, average yearly teacher base salary					Highest possible step on the salary schedule
		BA degree and no teaching exp.	BA degree and 10 years of teaching exp.	MA degree and no teaching exp.	MA degree and 10 years of teaching exp.		
USA	92.4	\$33,600	\$43,000	\$36,700	\$47,500	\$62,200	
AL	100.0	35,800	43,100	41,200	49,500	61,800	
AK	100.0	37,800	49,900	42,500	58,500	69,100	
AZ	63.1	31,100	38,900	34,200	43,500	56,200	
AR	95.5	31,300	36,400	34,900	40,500	48,400	
CA	100.0	40,100	51,800	43,800	58,200	75,400	
CO	98.2	29,800	36,100	33,100	40,600	55,100	
CT	100.0	38,900	54,600	41,800	60,400	78,600	
DE	77.9	36,200	47,600	42,500	54,800	72,400	
DC	79.1	38,200	48,700	46,500	57,600	74,700	
FL	100.0	33,300	38,400	35,700	41,200	60,800	
GA	100.0	34,300	43,400	39,200	49,700	73,800	
HI	100.0	41,500	45,300	44,800	49,000	76,100	
ID	100.0	30,900	35,600	31,500	41,300	52,000	
IL	93.5	33,500	42,800	36,800	47,400	68,700	
IN	99.4	32,200	41,000	34,200	45,300	60,400	
IA	98.6	26,700	34,500	29,500	38,300	49,200	
KS	98.1	31,500	35,500	34,200	39,000	51,000	
KY	94.9	34,400	42,600	38,100	46,800	59,300	
LA	100.0	33,900	38,300	34,700	40,000	49,300	
ME	100.0	28,600	38,300	30,600	40,900	54,000	
MD	100.0	40,700	50,200	43,100	55,000	79,800	
MA	97.5	37,600	54,700	40,700	58,900	74,100	
MI	76.9	34,200	51,700	37,100	57,300	66,700	
MN	86.3	32,200	41,700	36,900	48,400	59,800	
MS	100.0	32,300	37,400	34,700	41,400	59,100	
MO	99.8	28,900	33,700	31,900	37,400	49,200	



MT	84.0	24,800	33,300	28,300	38,900	48,900
NE	99.6	27,200	33,500	32,000	42,100	50,800
NV	100.0	33,300	44,100	38,200	50,800	64,600
NH	93.9	31,100	42,900	34,300	47,300	59,000
NJ	97.1	42,700	52,600	45,900	56,200	80,800
NM	98.4	31,500	41,400	35,600	46,200	59,200
NY	92.3	40,500	52,600	45,100	58,300	86,000
NC	86.5	30,000	38,500	33,500	43,200	61,400
ND	96.1	25,500	30,600	28,300	33,800	42,400
OH	84.8	31,100	44,900	34,600	50,600	64,900
OK	100.0	32,200	36,800	33,700	38,500	47,900
OR	100.0	30,600	40,400	34,500	46,300	56,800
PA	88.6	36,300	47,400	38,900	50,300	70,200
RI	100.0	36,700	66,800	39,600	69,500	72,100
SC	100.0	31,000	39,200	35,500	44,600	65,600
SD	64.0	27,100	31,200	29,300	33,600	40,700
TN	99.2	32,300	37,800	35,000	41,400	54,600
TX	90.3	32,700	40,400	33,400	41,100	50,600
UT	100.0	30,000	38,600	32,900	42,000	51,500
VT	100.0	31,900	42,700	36,000	47,600	62,100
VA	98.0	35,700	41,000	38,100	43,500	61,100
WA	100.0	33,100	38,200	39,900	47,300	61,500
WV	98.3	29,400	35,600	32,300	38,500	56,500
WI	99.3	30,700	40,500	35,100	46,600	57,100
WY	85.7	38,500	45,000	42,500	49,900	63,300

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*Note.* The 2007-08 SASS sampled all districts in Florida, Hawaii, and Maryland. As a result of sampling,

variance estimates for these states are always equal to zero and noted with a dagger (†). Adapted from *Public*

*School District Data File 2007-08*, by U.S. Department of Education, National Center for Education Statistics,

n.d.b, Retrieved April 1, 2022, from <https://nces.ed.gov/surveys/sass/>

## APPENDIX C

## IRB Approval

# PEPPERDINE UNIVERSITY

## Graduate &amp; Professional Schools Institutional Review Board

August 20, 2021

Protocol #: **82021**

Project Title: Attrition, Mobility, and Retention Patterns of Public School Teachers.

Dear Matthew:

Thank you for submitting a "GPS IRB Non-Human Subjects Notification Form" for *Attrition, Mobility, and Retention Patterns of Public School Teachers* project to Pepperdine University's Institutional Review Board (IRB) for review. The IRB has reviewed your submitted form and all ancillary materials. Upon review, the IRB has determined that the above titled project meets the requirements for *non-human subject research* under the federal regulations 45 CFR 46.101 that govern the protection of human subjects.

Your research must be conducted according to the form that was submitted to the IRB. If changes to the approved project occur, you will be required to submit *either* a new "GPS IRB Non-Human Subjects Notification Form" or an IRB application via the eProtocol system (<http://irb.pepperdine.edu>) to the Institutional Review Board.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at <https://community.pepperdine.edu/irb/policies/>.

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval.

On behalf of the IRB, we wish you success in this scholarly pursuit.

Sincerely,

Institutional Review Board (IRB)  
Pepperdine University

cc: Mrs. Katy Carr, Assistant Provost for Research  
Dr. Judy Ho, Graduate School of Education and Psychology IRB Chair