

Teacher Retention: Why They Stay

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Abstract

This quantitative study was based on national studies of teacher retention. A survey modified from Wiegand (2003) was completed by 425 practicing teachers from four Wisconsin school districts. Perception data were gathered from 319 participants who reportedly planned to continue teaching at their current schools. The survey was cross-sectional: data were collected in a short time frame. Data analysis was conducted in five stages: 1) Background characteristics of respondents; 2) Analysis of future plans; 3) Analysis of Likert scale items for all teachers that plan to remain; 4) Analysis of Likert scale items by teacher subgroups; 5) Analysis of open-ended items.

Findings showed that their decisions were influenced by gender, age, current school teaching experience, and grade levels. Analyses of responses found significant relationships among intrinsic motivation, school organizational characteristics, and school climate.

This study received Exempt Review from the Edgewood College Human Participants Review Board based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized.

TEACHER RETENTION: WHY THEY STAY

by

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Abstract

This study was based on national studies of teacher retention. A quantitative survey modified from Wiegand (2003) was completed by 425 practicing teachers from four Wisconsin school districts. Perception data were gathered from 319 participants who reportedly planned to continue teaching at their current schools. Findings from the study were that the teacher turnover rate was higher than national averages, and that participants' responses were influenced by gender, age, current school teaching experience, and grade levels. Responses from participants who reported decisions to remain showed significant relationships to their responses on intrinsic motivation, school organizational characteristics, and school climate.

Keywords: Teacher Retention; Teacher Turnover; Teacher Attrition; Teacher Recruitment; School Improvement; Student Achievement**Highlights**Total teacher turnover rates were higher than national rates. Characteristics associated with teacher efficacy were the strongest reasons to stay. Relationships with students and colleagues influenced decisions to remain. Participants' responses were strongly influenced by grade levels.

1. Introduction

This study addressed teacher retention at the school level. It used a quantitative survey of teachers who have remained in teaching positions in Wisconsin to find their perceptions of conditions that affected their decision to stay at their current schools. Since the early 1980s, education research and policy in the United States has been brimming with recommendations for improving public schools. A significant part of the discussion revolved around the issue of teacher labor markets (Borman & Dowling, 2008). Teacher shortages were predicted based on increasing student enrollments and increasing teacher retirements (Ingersoll, 2001). The educational literature articulated the growing concern that teacher shortages would cause the nation's school districts to lower teacher standards, filling the increasing numbers of teacher openings with marginally qualified teachers (Darling-Hammond, 1984). Concern over teacher shortages creating school staffing problems has been the target of educational reform and policy initiatives. School staffing problems refer to a school administration's "inability to adequately staff classrooms with qualified teachers" (Ingersoll, 2001, p. 500). The 1983 release of *A Nation at Risk* called for qualified teachers and recommended incentives for attracting outstanding students to the teaching profession (Gardner, 1983). A 1996 report from the National Commission on Teaching and America's Future (NCTAF) urged the nation to invest in quality teaching by setting a goal to provide every student with "competent, caring, and qualified teaching" by the year 2006 (p. 10). According to the report, a central strategy for improving schools is recruiting, preparing, and retaining good teachers. States and school districts have addressed school staffing problems through recruitment strategies such as alternative certification programs to allow college graduates to begin teaching without formal education training. States and districts have also recruited teachers from overseas, offered scholarships, financial incentives, student loan forgiveness, housing assistance, and tuition reimbursement to aid recruitment (Ingersoll & May, 2012). The dominant policy approach to school staffing problems has been teacher recruitment (Borman & Dowling, 2008; Ingersoll, 2001). In contrast to recruitment, policy makers have paid relatively less attention to the role of teacher turnover in school staffing problems (Ingersoll, 2001). However, teacher turnover is a significant aspect behind the need for attracting new teachers (Murphy & DeArmond, 2003; Ingersoll, 2001; Ingersoll & Perda, 2010). Two major components of teacher turnover are teacher attrition and teacher migration. Teacher attrition refers to teachers "who leave the occupation of teaching altogether" and teacher migration refers to teachers "who transfer or move to different teaching jobs in other schools" (Ingersoll, 2001, p. 503). When teachers exit the profession or migrate within or across school districts, they create vacancies that must be filled. Higher levels of turnover increase the demand for teachers, creating a greater need to increase supply. In other words, teacher turnover causes teacher shortages that result in school staffing problems. These problems are already severe in some instances. An estimated 3.9 million new elementary and secondary teachers will be needed for the 2008-2009 through 2020-2021 school years (Aaronson & Meckel, 2008). At the beginning of the 1999-2000 school year, schools across the nation hired 64,000 math and science teachers. By the end of the following year, nearly 68,000 had left or moved to other schools or school districts (Ingersoll & Perda, 2010). Two conditions driving the demand for teachers are a growing number of teacher retirements and a larger percentage of the teacher workforce composed of beginning teachers. According to the NCTAF (2010), the teacher workforce is aging with nearly half of the workforce at or near retirement age. Ingersoll and Perda (2010) found that the number of U.S. teachers over age 50 has grown 141% from nearly 530,000 in 1988 to almost 1.3 million in 2008. As aging teachers exit the profession, they are generally replaced with beginning teachers (Grissmer & Kirby, 1997). Some researchers estimated that between 30-50% of beginning teachers leave the profession within the first five years (Darling-Hammond, 1997; DeAngelis & Presley, 2011; Grissmer & Kirby, 1991; Ingersoll & Smith, 2003). Replacing exiting teachers with beginning teachers who generally have high rates of attrition may

increase overall teacher turnover rates and simultaneously increase demand for teachers. Teacher migration adds to the complexity of turnover. At individual-school levels, the impact of teachers changing schools is the same as teachers leaving for other reasons. In either case, the school has to replace the vacating teacher. After examining population data in Illinois, DeAngelis and Presley (2011) found that “on average, about 40% of schools’ total loss of new teachers each year between 1987 and 2001 was due to teachers moving to teaching positions in other IPS” [Illinois Public Schools] (p. 611). Using data from the 1990-1991 Schools and Staffing Survey (SASS) and the 1991-1992 Teacher Follow-up Survey (TFS), Ingersoll (2001) found migration to represent nearly 55% of total teacher turnover. A certain amount of turnover is normal, inevitable, and can be beneficial (Ingersoll, 2001) if those who are leaving are the least effective teachers (Borman & Dowling, 2008; Ronfeldt, Loeb, & Wyckoff, 2013). However, high levels of turnover can have negative financial, academic, and organizational effects. The financial costs of teacher turnover can be attributed to costs associated with recruitment and advertising, hiring incentives, administrative processing, and teacher training. According to a five-school-district study conducted by Barnes, Crowe and Schaefer (2007), the cost of replacing a teacher ranged from \$4,366 in Jamez Valley, New Mexico to \$17,872 in Chicago, Illinois. They estimated the total cost of turnover for Chicago Public Schools to be over \$86 million per year. The Alliance for Excellent Education (2005) estimated the national cost of teacher attrition at \$2.2 billion per year. When including migration, the Alliance determined that the nation’s schools spend approximately \$4.9 billion per year replacing teachers. The combined costs of attrition and migration have taken a toll on the nation’s schools, but perhaps the most crucial cost is the impact of teacher turnover on student achievement. Teacher turnover unfavorably affects student achievement. Studies have linked high levels of turnover to lower student performance (Guin, 2004; Rivkin, Hanushek, & Kain, 2005; Ronfeldt, Loeb, & Wyckoff, 2013). Exiting teachers are usually replaced with new teachers with little or no experience (Grissmer & Kirby, 1997). New teachers are more likely to leave within the first five years of teaching resulting in additional new teacher replacements. Considering that new teachers generally take 1-5 years to become effective (Rivkin et al., 2005), high levels of turnover can lead to greater concentrations of inexperienced and less effective teachers. Student achievement can be affected by teacher turnover in other ways. Organizational costs occur when high levels of teacher turnover disrupt the coherence of the organization impacting a school’s ability to function effectively and efficiently. Disruptions can decrease employee morale and increase stress on employee work relationships. In a five-school case study, Guin (2004) found that schools with high turnover rates were “less likely to have high levels of trust and collaboration among teachers” (p. 20). In addition, he found that teacher turnover caused disruptions in school climate, disruptions in teaching and instructional programs, and repetition of professional development. The combined effect of organizational disruptions caused by teacher turnover resulted in significantly lower test scores on statewide math and English assessments. The disruptive effect of turnover on an organization has been found to impact student achievement even when exiting teachers are replaced with teachers who are equally effective (Ronfeldt et al., 2013). The effects of teacher turnover may be the most harmful to students in schools with underserved student populations. Schools with lower student achievement, a higher rate of minority students, and higher levels of poverty consistently have higher rates of turnover (Borman & Dowling, 2008; Guin, 2004; Lankford, Loeb, & Wyckoff, 2002). Results of correlations between school achievement and teacher characteristics found that “nonwhite, poor, and low performing students particularly those in urban areas, attend schools with lesser qualified teachers” (Lankford et al., 2002, p.54). Finding qualified teachers will continue to be a challenge for schools and school districts. As predicted, student enrollments and teacher retirements have increased over the past two decades, creating a greater demand for teachers (Ingersoll & Perda, 2010). However, Ingersoll and Perda (2010) found that the nation has produced an adequate supply of teachers, indicating that recruitment efforts have yielded results. Still, teacher shortages exist due to an uneven distribution of teachers for some geographic regions, school districts, and for specific subject areas (Murphy & DeArmond, 2003; Rice, Roellke, Sparks, & Kolbe, 2009). “But the largest source of hiring problems is not between states but between schools, even within the same district” (Ingersoll & Perda, 2010, p. 585). These hiring problems are largely caused by teacher turnover, leading some researchers to conclude that improving teacher retention to reduce turnover will help schools suffering from staffing problems while simultaneously improving school performance (Ingersoll & Perda, 2010; NCTAF, 2010). The research question that guided this study was:

How do teacher characteristics and organizational characteristics relate to teachers' decisions to remain at their current schools? The model for this study was adapted from theories and research by Ingersoll (2001) and Ingersoll and Perda (2010) on the supply and demand of teachers. Their model was an alternative to contemporary theory that school staffing problems were caused by an inadequate supply of teachers and could be solved through the recruitment of new teachers. Ingersoll (2001) theorized that recruitment alone would not solve school staffing problems. This study tested his conclusion that school organizations play a significant role in reducing teacher turnover.

2. Method

This study \soutanalyzed teacher characteristic variables and school organizational characteristic variables as related to teachers' reported decisions to remain at their current schools. The following attitudinal data were collected: teacher perceptions of personal intrinsic motivators, personal extrinsic motivators, school climate, and school resources as predictors of teacher retention. Of particular interest were the perceptions of subgroups of teachers who planned to remain at their current schools. The following subgroups were analyzed: gender, current school teaching experience, age, and grade level.

2.1 Participants

The population for this study was practicing PK-12 teachers in Wisconsin. This study used a single-stage purposive sample of four Wisconsin school districts to access the perspectives of PK-12 public school teachers in Wisconsin schools. All districts were similar in size. The teacher survey was completed by 425 practicing teachers during April 2015 representing an approximate response rate of 38%. Of the 421 participants who reported gender and ethnicity, the majority were White ($n = 407$, 96.7%) and female ($n = 304$, 72.2%). Two participants (0.5%) reported American Indian or Alaskan Native, 3 (.7%) reported Asian or Pacific Islander, zero reported Black or African American, 4 (1%) responded Hispanic or Latino, and 5 (1.2%) responded two or more races. Of the 416 participants who reported age, 51 (12.3%) were less than 30 years of age, 266 (63.9%) were 31 to 50 years of age, and 99 (23.8%) were older than 51. The mean age of participants was 42.7 years ($SD = 9.8$) and the median age was 43.5. The exact age of three participants was unknown due to the construction of the survey. Three participants reported an age of 61 or older and are included in the 51+ category. Mean participant age and standard deviation were calculated using an age of 61 for each of these participants. Grade level was reported by 420 participants and represented with 127 (30.2%) teaching elementary, 91 (21.7%) teaching middle school or junior high school, and 165 (39.3%) teaching high school or senior high school. Thirty-seven participants (8.8%) reported teaching at more than one grade level. Highest degree earned was reported by 422 participants where the majority of participants possessed a master's degree ($n = 326$, 77.3%). Ninety-five participants (22.5%) held a bachelor's degree and one (.2%) held a doctorate. Participants averaged 16.6 years ($SD = 8.7$) of total teaching experience and 11.1 years ($SD = 8.2$) of teaching experience at their current school. Of the 424 participants who reported total teaching experience, 46 (10.8%) reported less than 5 years, 54 (12.7%) reported 5-9 years, 165 (38.8%) reported 10-19 years, and 159 (37.4%) reported 20 or more years. Of the 422 participants who reported current school teaching experience, 112 (26.5%) reported less than 5 years, 94 (22.3%) reported 5-9 years, 141 (33.4%) reported 10-19 years, and 75 (17.8%) reported 20 or more years.

2.2 Variables

The dependent variable of this study was a teacher's decision to stay at his or her current school. The independent variables of this study were variables associated with teacher characteristics and school organizational characteristics. Teacher characteristics describe the variables used to determine the type of teachers that are more likely to stay (Boyd et al., 2011). Teacher characteristic variables for this study were demographic variables (i.e., gender, age, and ethnicity), qualifications variables (i.e., teaching experience, grade level, and highest degree earned), intrinsic motivational variables (i.e., personal teaching efficacy, personal

connection to the school and community, and a sense of comfort at the school), and extrinsic motivational variables (i.e., other employment opportunities and retirement). School organizational characteristics refer to school to school differences in workplace conditions that may influence a teacher's decision to stay (Borman & Dowling, 2008; Boyd et al., 2010; Ingersoll, 2001; Kukla-Acevedo, 2009). The school organizational characteristic variables for this study were teacher influence (i.e., teachers' autonomy in their classrooms and teachers' involvement in school decision making), availability of resources (i.e., salary, instructional materials, and facilities), teacher perceptions of workload, administrative support, student behavior, parent involvement, staff relations, school safety, professional growth opportunities, and school or district induction and mentoring programs.

2.3 Instrumentation

The study used a quantitative survey approach to gather information about teachers' perceptions of conditions that affected their decisions to remain at their current schools. The survey was cross-sectional: data were collected in a short time frame. It contained 40 items in three sections: backgrounds, future plans, and perceptions (Appendix B). It included 33 items adapted or modified from the *Wiegand Teacher Retention Survey* (Wiegand, 2003), four items adapted from the Perrachione et al. (2008) survey, and three items added by the researcher. It was self-administered online. Statements of participants' implied consent were included in solicitations and the instrument; both were approved by a Human Participants Review Board.**2.4 Analysis**Data analysis was conducted in five stages: 1. Background characteristics of respondents; 2. Analysis of future plans; 3. Analysis of Likert-scale items for all teachers that plan to remain; 4. Analysis of Likert-scale items by teacher subgroups; 5. Qualitative analysis of open-ended items.

In the first stage of analysis, frequency tables were used to determine counts and percentages of teachers by gender, age, ethnicity, total teaching experience, teaching experience at the same school, grade level, and highest degree earned. Means and standard deviations were calculated for age, total teaching experience, and teaching experience at the same school for all respondents.

The second stage of the analysis was divided into two sections. The first section used descriptive statistics to summarize the future plans of all respondents. A frequency table was used to display counts and percentages of respondents who selected each of the twelve future plan options. The second section used a chi-square test for independence to examine cross-tabulations between teacher demographic characteristics and teacher future plans and to examine cross-tabulations between teacher qualification characteristics and teacher future plans. Teacher demographics included age and gender. Teacher qualifications included total teaching experience, teaching experience at the same school, grade level, and highest degree earned. Future plans data were collapsed into two categories, those who planned to return to their current

schools and those who did not plan to return to their current school. The Pearson χ^2 value was used to determine significance on tables larger than 2 by 2 (i.e., two categories per variable). The Yates' correction for continuity was used to determine significance on 2 by 2 tables. The significance level was set at 95% ($p < .05$). Prior to conducting the third and fourth stages of data analysis, internal consistency was analyzed on the sample data for each of the four subscales from the teacher perception scale. The subscales were intrinsic motivators, extrinsic motivators, school climate, and school resources. Cronbach's α value and mean inter-item correlation value were calculated for each subscale. Internal consistency was acceptable with Cronbach's α values above .7 for intrinsic motivators ($\alpha = .76$) and school climate ($\alpha = .85$) scales and mean inter-item correlations within the acceptable range for the two smallest scales, extrinsic motivators (.34) and school resources (.22). Twenty-seven of the original 29 items were retained. Two items were eliminated from the intrinsic motivators scale in order increase the size of the Cronbach's α . The items removed were *close to home* and *similar to school attended as a child*.

The third stage of the analysis was divided into two sections. The first section utilized one-sample t -tests to examine the perceptions of teachers who planned to remain teaching at their current schools on continuous variables within teacher characteristic and organizational characteristic subscales. The continuous variables

were measured on a six-point Likert-type

scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A mean value and standard deviation was calculated for each continuous variable. Responses were ranked within each subscale according to mean value. The mean value of each item was compared to a neutral score value (3.5) to determine significant differences. Cohen's *d* was used to determine effect sizes. The second section utilized paired-samples *t*-tests to compare mean values of the teacher characteristic and organizational characteristic subscales in order to differentiate the level of importance teachers returning to their current schools placed on each subscale construct. The significance level for both the one-sample *t*-test and paired samples *t*-test was set at 95% ($p < .05$). The fourth stage of the analysis utilized an independent *t*-test to compare the means of continuous variables over gender and Analysis of Variance (ANOVA) testing to compare the means of continuous variables over age, current school teaching experience, and grade level. Testing occurred within the subscales of personal intrinsic motivators, personal extrinsic motivators, school climate, and school resources. In addition to Cohen's *d* for effect sizes of independent sample *t*-tests, Eta-squared (η^2) was used to determine effect sizes of the ANOVA tests. A post-hoc analysis was conducted with ANOVA on significant items to determine where the differences among groups occur. The Tukey HSD post-hoc test was used when equal variances were assumed. The Games-Howel post-hoc test was used when equal variances were not assumed. The significance level was set at 95% ($p < .05$). The fifth stage of the analysis involved a qualitative analysis of the responses of the two open-ended items from Section C of the survey. All open-ended responses were analyzed using a procedure described by Creswell (2014). Coding and categorizing themes was validated by two independent reviewers. Responses to *other consideration that influence me to stay* were categorized into 14 themes; responses to *other consideration that would influence me to stay if it were present* were categorized into 13 themes. Frequencies were reported for each theme and segregated by gender and grade level.

3. Results

Table 1 provides descriptive statistics to summarize the future plans of all respondents. Of the 418 participants who responded, 336 (80.4%) planned to remain teaching at their current school. The combined percentage of participants who planned to continue teaching at a different school either in the same district or a different district was 4.6%. A total of 88.3%, planned to continue in education either teaching or in another capacity such as administration or school counselor. Only 3.3% of participants who responded planned to retire. Teacher retirements represented approximately 17% of all participants who reported not planning to return to their current schools.

Twenty participants indicated future plans other than the 12 listed options. Seven of the 20 participants were looking for jobs outside of education in which six of the seven participants indicated that they will likely return to their current schools next year. Four participants were pursuing a career in education that was not included as one of the 12 listed options. Two participants responded that they would like to stay if they could and two participants indicated that they would be working at multiple schools. Two participants were looking for teaching jobs outside of the state of Wisconsin and three participants were uncertain of their plans for next year.

3.1 Teacher characteristics & future plans. The chi-square test for independence indicated a significant association between current school teaching experience and participants' future plans, (3, $n = 415$) = 9.28, $p = .03$, with a medium effect size Cramer's $V = .15$. The percentage of participants planning to return to their current schools increases the longer they remain at their current schools. Only 70.6% of participants with less than five years of current school teaching experience plan to return compared with 82.8% of participants with five to nine years, 84.1% of participants with 10 to 19 years, and 85.3% with 20 or more years of current school teaching experience. There was no significant association between total teaching experience and future plans, (3, $n = 417$) = 4.23, $p = .24$, between grade level and future plans, (2, $n = 376$) = 1.63, $p = .44$, between highest degree earned (with Yates continuity correction) and future plans, (1, $n = 416$) = .17, $p = .68$, between age and future plans, (2, $n = 409$) = 3.54, $p = .17$, and between gender (with Yates Continuity Correction) and future plans, (1, $n = 414$) = .01, $p = .94$.

3.2 Teacher Perceptions

Perception data were gathered from 319 participants who planned to continue teaching at their current school. A one-sample *t*-test was utilized on the teacher-perception items from each of the four subscales to determine if the mean scores were significantly different than a neutral score value 3.5. Paired-samples *t*-tests were utilized to compare mean values of the teacher perception subscales to differentiate the level of importance participants placed on each subscale construct for returning to their current schools. One-sample *t*-tests indicated that all items from the intrinsic motivation scale were statistically significant each having a mean value above the neutral score (3.5). The highest mean value was 5.15 for the survey item *positive impact on the students' personal growth*. The second highest mean value was 5.07 for the survey item *positive impact on student achievement*. The remaining items listed in order from highest mean score to lowest mean score were; *comfortable working at this school* ($M = 4.98$), *collegial friendships* ($M = 4.96$), *connection to students* ($M = 4.72$), *feel needed at the school* ($M = 4.46$), and *connected to the community* ($M = 4.43$). The Cohen's *d* statistic indicated a large effect size ranging from 0.89 to 2.3 for all items except *connected to the community* which had a medium effect size (Cohen's $d = 0.78$). One-sample *t*-tests indicated a significant difference between mean scores and the neutral score for all four items of the extrinsic motivation scale though only one item, *not old enough to receive retirement benefits*, had a mean value ($M = 3.97$) higher than the neutral score (3.5) with a small effect size (Cohen's $d = 0.27$). Mean values for the other three items were below the neutral score (3.5) and ranged from 2.04 to 2.91. The effect size for *no other teaching opportunities in another school out of the district* (Cohen's $d = -1.16$) and *no other teaching opportunities in another school in the district* (Cohen's $d = -1.06$) were large. The effect size for *no other employment opportunities outside of education* (Cohen's $d = -0.37$) was small. One-sample *t*-tests indicated a significant difference between mean scores and the neutral score for all 10 items from the school climate scale each having a mean value above the neutral score of 3.5. The three items with the highest mean scores were *I feel respected by the students* ($M = 5.05$) with a large effect size (Cohen's $d = 1.93$), *I feel respected by the staff* ($M = 4.94$) with a large effect size (Cohen's $d = 1.36$), and *I feel safe at this school* ($M = 4.92$) with a large effect size (Cohen's $d = 1.68$). The remaining items listed in order from highest mean score to lowest mean score were; *the principal is supportive* ($M = 4.88$), *there is a great deal of cooperation among staff* ($M = 4.70$), *I have flexibility in planning and teaching my curriculum* ($M = 4.58$), *my principal enforces the rules and backs me up* ($M = 4.33$), *a unique student program for which I am involved* ($M = 4.02$), *I can be involved in decision making* ($M = 3.98$), and *there is positive parent involvement* ($M = 3.84$). One-sample *t*-tests indicated a significant differences between mean scores and the neutral score (3.5) on four of the six items from the school resources subscale. Mean values for two of the significant survey items, *good facilities* ($M = 4.59$) and *I have the necessary instructional materials* ($M = 4.45$) were higher than the neutral score (3.5) with a medium effect size (Cohen's $d = .75$) and a large effect size (Cohen's $d = 0.88$) respectively. Two of the significant items, *I was in an induction and mentoring program* ($M = 2.28$) and *more opportunities for professional growth* ($M = 3.06$), had mean values lower than the neutral score (3.5) with a large effect size (Cohen's $d = -.88$) and a respectively small effect size (Cohen's $d = -.30$). The items *I am satisfied with my salary* and *I have adequate planning time* were not statistically significant. The results from the paired-samples *t*-tests presented in Table 2 indicated that participants perceived intrinsic motivation and school climate conditions as stronger reasons to remain at their current schools than extrinsic motivation and school resource conditions. The intrinsic motivational scale mean value was higher than all other scales and the mean value for the school climate scale was higher than the extrinsic motivational scale and the school resources scale.

3.4 Gender

The independent samples *t*-test identified six items as having statistically significant differences between female and male participants' perceptions of conditions related to their decision to remain at their current schools. All six items had a stronger influence on female participants than male participants with mean differences ranging from .33 to .48. The item *feel needed at this school* had the largest mean difference of .48 and was from the intrinsic motivation subscale. The item *principal support* had the second largest mean difference of .45 and was from the school climate subscale. The remaining four items listed in order from highest mean difference to lowest mean difference were; *involved with decision making* (mean difference = .43), *principal enforces rules and backs me up* (mean difference = .39), *connection to students* (mean difference = .38), and *cooperation among staff* (mean difference = .33). Cohen's *d* ranged from 0.28 to 0.42 indicating a small

effect size for all six items.

3.5 Current school teaching experience.

Table 3 displays ANOVA test results for significant items from the teacher perception scale and current school teaching experience. *Collegial friendships* became a stronger reason for participants to remain the longer participants taught at their current school. Games-Howel tests indicated that the mean scores of participants with less than five years of current school experience ($M = 4.55, SD = 1.14$) were lower than participants with 10 to 19 years ($M = 5.12, SD = 0.86$) and 20 or more years ($M = 5.16, SD = .92$) of current school experience. Participants' reported perceptions of feeling *respected by students* was also a stronger reason to remain for participants with more current school experience. Tukey HSD tests indicated that mean scores for participants with less than five years of current school experience ($M = 4.85, SD = 0.82$) was lower than participants with 20 or more years ($M = 5.30, SD = 0.72$) of current school teaching experience. *Not old enough to receive retirement benefits* was a stronger reason to remain for participants with more current school teaching experience. Tukey HSD post-hoc comparisons indicated that mean scores for participants with less than five years of current school experience ($M = 3.37, SD = 1.77$) were significantly different than participants with five to nine years ($M = 4.09, SD = 1.73$) and 10 to 19 years ($M = 4.21, SD = 1.61$) of current school experience. However, post-hoc comparisons were not significant for participants with 20 or more years of current school experience. Receiving support from the principal and having adequate planning time were stronger reasons to remain for new participants than more experienced participants. Games-Howel tests for *principal support* indicated that mean score for participants with less than five years of current school experience ($M = 5.16, SD = 1.11$) was higher than participants with 20 or more years ($M = 4.44, SD = 1.49$) of current school experience. Tukey HSD tests for *adequate planning time* indicated that mean score for participants with less than 5 years of current school experience ($M = 3.65, SD = 1.55$) was higher than mean score of participants with 20 or more years of current school teaching experience ($M = 2.98, SD = 1.49$).

3.6 Age.

Table 4 displays ANOVA test results for six significant items from the teacher perception scale and three age categories. Participants' reported perceptions of having a *positive impact on student achievement* and *student personal growth* was an important reason to remain for all participants but more important for older participants than younger participants. Tukey HSD tests for *positive impact on student achievement* indicated that mean scores of participants 51 and older ($M = 5.22, SD = 0.78$) were higher than participants 30 years old and younger ($M = 4.73, SD = 0.67$). Games-Howel tests on the item *positive impact on student personal growth* indicated that the mean score of participants 51 and older ($M = 5.27, SD = 0.66$) were higher than the mean score of participants 30 years old and younger ($M = 4.94, SD = 0.55$). Having time to plan was somewhat important for younger participants who planned to return to their current school but was not an important reason to remain for participants 51 and older. Tukey HSD tests indicated that mean scores of participants 30 years old and younger ($M = 4.00, SD = 1.37$) was significantly different than mean scores of participants 51 and older ($M = 3.25, SD = 1.54$). Three items were statistically significant for age comparisons but were not strong reasons participants provided for remaining. Mean scores by age category for the items *no teaching opportunities in another school out of the district* ranged from 1.76 to 2.15, *professional growth opportunities* ranged from 2.61 to 3.59, and *induction program* ranged from 1.84 to 3.00.

3.7 Grade levels.

Table 5 displays ANOVA test results that indicated a significant difference between mean scores of participants by grade level categories and 15 items from the teacher perception scale. The mean scores of seven items were significantly higher for elementary participants than for high-school participants. Tukey HSD

tests for the items; *connection to students* were higher for elementary participants ($M = 4.86$, $SD = 1.01$) than high-school participants ($M = 4.51$, $SD = 1.06$), *feel safe* were higher for elementary participants ($M = 5.12$, $SD = .69$) than high-school participants ($M = 4.79$, $SD = .81$), and *respected by students* were higher for elementary participants ($M = 5.23$, $SD = .66$) than high-school participants ($M = 4.96$, $SD = .81$). Games-Howel tests for the items; *involved with decision making* were higher for elementary participants ($M = 4.45$, $SD = 1.04$) than high-school participants ($M = 3.53$, $SD = 1.45$), *cooperation among staff* were higher for elementary participants ($M = 5.09$, $SD = .84$) than high-school participants ($M = 4.36$, $SD = 1.21$), *respected by staff* were higher for elementary participants ($M = 5.25$, $SD = .74$) than high-school participants ($M = 4.73$, $SD = 1.21$), and *adequate planning time* was higher for elementary participants ($M = 3.68$, $SD = 1.35$) than high-school participants ($M = 3.18$, $SD = 1.54$).

Two items had mean scores significantly higher for elementary participants than middle-school and high-school participants. Tukey HSD tests for *positive parent involvement* were higher for elementary participants ($M = 4.52$, $SD = 1.01$) than middle-school ($M = 3.72$, $SD = 1.25$) and high-school participants ($M = 3.35$, $SD = 1.17$). Games-Howel tests for *feel needed at the school* was higher for elementary participants ($M = 4.79$, $SD = .78$) than middle-school ($M = 4.42$, $SD = 1.12$) and high-school ($M = 4.22$, $SD = 1.17$) participants. Mean scores for four items were significantly higher for elementary and middle-school participants than for high-school participants. Tukey HSD tests for *comfortable working at this school* was higher for middle-school ($M = 5.23$, $SD = .77$) and elementary-school participants ($M = 5.12$, $SD = .89$) than high-school participants ($M = 4.81$, $SD = 1.07$). Games-Howel tests for *principal is supportive* was higher for middle-school ($M = 5.23$, $SD = 1.17$) and elementary-school participants ($M = 5.22$, $SD = .90$) than high-school participants ($M = 4.45$, $SD = 1.51$), *principal enforces rules and backs me up* was higher for middle-school ($M = 4.44$, $SD = 1.39$) and elementary-school participants ($M = 4.89$, $SD = .90$) than high-school participants ($M = 3.84$, $SD = 1.37$), *I have the necessary instructional materials* was higher for middle-school ($M = 4.70$, $SD = 1.00$) and elementary participants ($M = 4.61$, $SD = .90$) than high-school participants ($M = 4.18$, $SD = 1.20$). The Mean scores of only one item, *unique student program for which I am involved* was significantly higher for high-school participants than elementary participants. Tukey HSD tests revealed that mean score of high-school participants ($M = 4.30$, $SD = 1.36$) was higher than elementary participants ($M = 3.80$, $SD = 1.23$). Mean scores for one item, *satisfied with salary*, was higher for middle-school participants than high-school and elementary participants. Games-Howel tests revealed that mean scores of middle-school participants ($M = 4.00$, $SD = 1.34$) was higher than high-school participants ($M = 3.29$, $SD = 1.50$) and elementary participants ($M = 3.43$, $SD = 1.39$).

3.8 Open-ended

Of the 319 participants that planned to return to their current school, 129 participants wrote at least one response to *other consideration that influence me to stay* representing 40.4% of participants. Some participants provided multiple responses. The total number of responses provided by the 129 participants were 172 responses. The top five thematic categories representing reasons participants provided for staying at their current schools were *personal or family reasons* (32 responses), *staff support* (21 responses), *difficult to start over or no other options* (19 responses), *salary and benefits* (17 responses), and *working with students and parents* (17 responses). Of the 319 participants that planned to return to their current school, 108 wrote at least one response to *other consideration that would influence me to stay if it were present* representing 33.9% of participants. Some participants provided multiple responses. The total number of responses provided by the 108 participants were 148 responses. The top five thematic categories representing reasons participants provided that would influence them to stay at their current schools were *salary and benefits plan* (45 responses), *workload* (27 responses), *respect or valued* (15 responses), *administrative support* (11 responses), and *teacher influence* (9 responses). *Salary and benefits plan* had more responses than the next two highest thematic categories combined.

4. Discussion

The findings for total teacher turnover from this study were higher than the national K-12 total teacher turnover rates reported by Ingersoll (2001). Similar to Ingersoll's findings, total teacher turnover rate for this study included teacher migration, attrition, and retirement. Ingersoll examined actual turnover data from the National Center for Education Statistics (NCES) Schools and Staffing Survey (SASS) and its supplement the Teacher Follow-Up Survey (TFS). Because this study used self-reported data, however, actual total teacher turnover rate may differ from rates reported in this study.

The results of this study indicated that teacher retirements accounted for a larger percentage of total teacher turnover than the national teacher retirement percentages reported by Ingersoll (2001). Ingersoll concluded that because teacher retirements accounted for only a small portion of total teacher turnover, preretirement teacher turnover was a significant cause of school staffing problems. The results from this study support Ingersoll's conclusion because the figure for this study was still a relatively small percentage of total teacher turnover.

The results of the future-plans analysis on teacher demographic and teacher qualification variables indicated that only current school teaching experience influenced participants' reported decisions to remain at their current school. Teaching experience, age, gender, grade level, and highest degree earned were not significant.

The lack of statistical significance for age and teaching experience contradicted findings from previous studies. Hughes (2012) and Kukla-Acevedo (2009) found that beginning teachers were more likely to leave teaching than experienced teachers. Previous studies that examined age and teacher retention reported a pattern of high attrition for young teachers and very low attrition for mid-career teachers until a threshold was reached where attrition rates rose sharply between age and teacher retention (Borman & Dowling, 2008; Grissmer & Kirby, 1997; Guarino et al., 2006; Harris & Adams, 2007; Ingersoll, 2001; Ingersoll & May, 2012). Though the results for the present study for teaching experience and age were not significant, the percentage of teachers who planned to remain increased as total teaching experience and age increased. Less surprising was the lack of statistical significance for a relationship between gender and teacher retention. The literature reviewed indicated mixed results for gender and teacher retention with some studies finding females more likely to stay than males (Harris & Adams, 2007; Ingersoll & May, 2012; Watlington et al., 2004) and other studies finding males more likely to stay than females (Borman & Dowling, 2008; Guarino et al., 2006; Ingersoll, 2001). This study found that males and females planned to stay at about the same rate (80%). There was also no statistical significance between grade level and highest degree earned with teacher retention. This finding supported findings by Hughes (2012) as well as Ingersoll and May (2012), in contrast to findings by Borman and Dowling (2008). However, Borman and Dowling (2008) found that elementary teachers were only 1.02 times more likely to leave the teaching profession than secondary teachers. The finding of no significance for highest degree earned supported findings by Hughes (2012) as well as Perrachione et al. (2008), in contrast with findings by Borman and Dowling (2008), who found that teachers with graduate degrees were only slightly more likely to leave the teaching profession than teachers without graduate degrees. The strongest reasons participants provided for remaining at their current schools were intrinsic teacher characteristics associated with teacher efficacy. The results support the findings by Perrachione et al. (2008) who found that teachers who declared their intent to remain teaching were influenced by teacher efficacy and working with students. The finding of a strong relationship between teacher efficacy and participants' reported decision to remain suggested that teacher retention may be influenced by teachers' beliefs in their capacity to make a difference in the lives of their students. Teacher perceptions of feeling comfortable working at a school was a strong intrinsic teacher characteristic related to participants' decisions to remain. The finding supports conclusions by Wiegand (2003) who also found a strong connection between teacher retention and teachers' feelings of comfort at a school. Although comfort level was slightly more important for elementary participants and middle-school participants than for high-school participants, most participants reported needing to feel comfortable working at their schools if they were to stay. Wiegand (2003) described comfort as unique to each person and meeting a person's comfort needs requires getting to know an individual teacher's desires and abilities similar to the way that teachers and other school personnel support students

by getting to know their needs and strengths. Personal relationships teachers had with their colleagues were reportedly strong influences on participants' reported decisions to remain. This finding supports research by Wiegand (2003) who found that collegial friendships had a stronger influence on teacher retention for teachers planning to remain at their current schools compared with teachers planning to leave. Not surprisingly, *collegial friendships* became a stronger reported reason to remain the longer participants continued to teach at their current schools, suggesting that friendships among colleagues appeared to grow over time. Respect from students was the strongest organizational characteristic related to participants' reported decisions to remain at their current schools. The item *I feel respected by students* was used to measure the impact of positive student behavior on teacher retention. Previous studies identified problematic student behavior as a reason for teachers to leave their schools or leave teaching altogether (Boyd et al., 2011; Gonzalez et al., 2008; Ingersoll, 2001; Ingersoll, 2002; Kukla-Acevedo, 2009; Ingersoll & May, 2012). This study found that positive student behavior, specifically student respect, impacted participants' reported decisions to remain at their current schools.

The item *I feel respected by staff* and *there is a great deal of cooperation among staff* were also strong school climate conditions related to teacher decisions to remain. The results supported the findings by Boyd et al. (2011) and Inman and Marlow (2004) who found that staff relations were related to the retention decisions of beginning teachers. Another school climate condition that influenced participants' reported decisions to stay at their current schools was *school safety*. Interestingly, *school safety* was not a strong variable among the reviewed studies that examined school safety as a predictor of teacher turnover. Boyd et al. (2011) found no relationship between school safety and first-year teacher retention decisions in New York City and Ingersoll (2001) found that only 2% of teachers who were dissatisfied with teaching and left the profession reported an unsafe environment as a reason for leaving. However, Ingersoll (2001) found that 26% of teachers from urban or high poverty public schools who were dissatisfied with teaching reported an unsafe environment as a reason for leaving. Although the literature revealed that an unsafe environment was not a strong reason to leave, the data from the present study indicated that a safe environment was a strong reason to stay.

The results indicated that administrative support was an important reason teachers provided for remaining supporting the findings from several previous studies that found a relationship between administrative support and teacher retention (Boyd et al., 2011; Certo & Fox, 2002; Gonzalez et al., 2008; Guarino et al., 2006; Ingersoll, 2001; Ingersoll, 2002; Ingersoll & May, 2012; Kukla-Acevedo, 2009). However, the relationship between administrative support and teacher retention varied by gender, current school teaching experience, and grade level. Female participants and elementary participants reportedly perceived a supportive principal as a stronger reason to remain than male participants and high-school participants. A supportive principal was also a reportedly stronger reason to remain for participants with less than five years of current school experience than teachers with 20 or more years of current school experience, providing support for research conducted by Wiegand (2003) who found that beginning teachers wanted more support from the principal than did veteran teachers. Good facilities and necessary instructional materials had some influence over teacher retention decisions. The finding on instructional materials supported the research by Ingersoll and May (2012) who found that teachers were more likely to leave schools where the necessary teaching materials were not generally available. The finding on facilities supported the research by Boyd et al. (2011) who found that facilities were related to first-year participants' reported decisions to both leave teaching and transfer to different schools in New York City. This study did not provide support for a relationship between teacher induction programs and participants' reported decisions to remain. Of importance to note is that only one item was used and the results were based on teacher perceptions. Ingersoll and Smith (2004) used data from the 1999-2000 SASS and 2000-2001 TFS to determine the impact of induction programs on teacher retention for beginning teachers. Using multinomial regression analysis to determine how different induction supports impacted participants' reported decisions to stay, Ingersoll and Smith (2004) found that teachers who experienced the most support were less than half as likely to depart at the end of their first year as teachers who received no induction support. Perhaps the results of the present study are not entirely conclusive on the impact induction programs may have on teacher retention because the survey item did not address the many facets of induction programs. Satisfaction with teaching salary was not a statistically

significant reason participants provided for returning to their current schools. Although results from this study did not find a relationship between salary and participants' reported decisions to stay, previous studies found a strong relationship between dissatisfaction with salary and teachers' decisions to leave (Borman & Dowling, 2008; Certo & Fox, 2002; Gonzalez et al., 2008; Guarino et al., 2006; 2012; Ingersoll, 2001; Ingersoll, 2002). The qualitative analysis of the open-ended items from this study indicated that teacher salary may influence teachers' decisions to remain over time. The two open-ended items provided participants opportunities to address other considerations that may be present at their schools that influence them to stay and other considerations that may not be present at their schools but would influence them to stay. The thematic category that had the most responses to the item *other consideration that influences me to stay* was personal or family reasons. The strongest thematic category that emerged in response to the item *other consideration that would influence me to stay if it were present* was not found in the literature reviewed and is possibly unique to Wisconsin. The thematic category was salary and benefits plan. This theme had more responses than the themes with the second and third highest responses combined. At the time of the survey many school districts in the State of Wisconsin were operating without a formal or clear compensation plan. The elimination of traditional teacher-pay scales dates back to 2011 when Wisconsin Governor Scott Walker signed into law a bill commonly known as Act 10. Prior to this time, teachers had been part of the collective bargaining of salary schedules, benefits packages, and working conditions. Act 10 limited collective bargaining for most public employees including public school teachers. A provision of the bill required the termination of collective bargaining agreements and limited collective bargaining to base wages prohibiting base wage increases to exceed the consumer price index unless approved by referendum (Wisconsin Budget Repair Act, 2011). The termination of collective bargaining agreements eliminated traditional teacher salary schedules. In responses that fit the thematic category salary and benefits plan, participants reportedly felt stuck and uncertain of their financial future.

5. Conclusions

Pre-retirement teacher turnover may lead to staffing problems for Wisconsin schools, but there may be ways to mitigate them. First, this study showed that school-level teacher-turnover rate evidently reduced by nearly 50% after participants remained at their current schools for at least five years. Of the participants who reportedly planned to leave, nearly half said that they planned to remain in education. School-level teacher-turnover rates could be reduced if school leaders could encourage new teachers to remain a little longer or persuade those who are leaving for other schools to remain where they are. A related way administrators may reduce teacher turnover at the school level could be to develop school climates to support teachers' decisions to remain at their current schools. In this study, participants who were reportedly more likely to remain were those who responded that they made a difference in the lives of their students, felt a sense of comfort working within their school, felt safe at their schools, and developed relationships with colleagues within their buildings. Administrative support could influence organizational conditions, provide professional development opportunities, and build positive relationships that may improve teacher retention in their schools. District-level administrators could provide training for school-level administrators to improve their effectiveness at developing positive school climates conducive to teacher retention.

Of demographic and qualification characteristics, grade level had the strongest relationship with the reasons participants provided for remaining. Findings by grade level provided additional insight into the types of professional development and relationship building techniques that would be useful at elementary-, middle-, and high-school levels. Administrators should review these findings when evaluating and developing retention strategies for their schools.

Qualitative analysis revealed a finding unique to Wisconsin. Several participants indicated need for a district-wide teacher-compensation plans. They expressed concern over low salaries, lack of pay raises, and no clear plans for advancement. The development of clear compensation plans for districts that do not have them should be a top priority to improve teacher retention in their schools. The future-plans analysis revealed that the total teacher turnover rate was higher in participant schools than national averages, suggesting that

Wisconsin schools may struggle to adequately staff their classrooms with highly effective teachers.

6. Summary

Providing students with highly qualified teachers is a complex challenge for schools and school districts across the nation. This study examined teacher retention at the school level. Participants reportedly favored retention in preferred assignments, as well as administrative communications and support. School leaders would do well to use these measures to help good teachers stay.

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Appendix A. Tables

Table 1. Characteristics Studied

Teacher	Organization
Gender	Teacher influence
Ethnicity	School safety
Age	Staff relations
Grade level	Student behavior
Highest degree earned	Administrative support

Table 2. Future Plans

	Frequency	%	Valid %	Cumulative %
Teaching at this school	336	79.1	80.4	80.4
Teaching at another school in the district	4	.9	1.0	81.4
Teaching at a school in another district	15	3.5	3.6	85
In a school counseling career	6	1.4	1.4	86.4
In a school administrator career	7	1.6	1.7	88.1
In a district administrator career	1	.2	.2	88.3
In a non-education career	10	2.4	2.4	90.7
Retired	14	3.3	3.3	94
At home with child or family member	2	.5	.5	94.5
On sabbatical or other break from teaching	3	.7	.7	95.2
Other	20	4.7	4.8	100
Total	418	98.4	100	

	Frequency	%	Valid %	Cumulative %
Missing System	7	1.6		
Total	425	100		

Table 3. Paired-samples *t* -test Results for Four Subscale Comparisons

Pairs	Subscale Constructs	<i>n</i>	<i>M</i>	<i>SD</i>	Mean Diff.	<i>df</i>	<i>t</i> -test	<i>p</i>	Cohen's <i>d</i>
1	Intrinsic & Extrinsic	319	4.82	.62	2.05	318	27.91	.000	1.56
2	Intrinsic & School climate	319	4.82	.62	.30	318	9.94	.000	.56
3	Intrinsic & School resources	319	4.82	.62	1.26	318	30.07	.000	1.68
4	Extrinsic & School climate	319	2.77	1.03	-1.75	318	21.67	.000	-1.21
5	Extrinsic & School resources	319	2.77	1.03	-.79	318	10.20	.000	-.57
6	School climate & School resources	319	4.52	.76	.96	318	24.89	.000	1.39

Table 4. Significant ANOVA Test Results for Current School Experience

Dep. Var.	Subscale	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Collegial friendships*	Intrinsic	3	5.13**	.002**	.06
Not old enough to receive retirement benefits*	Extrinsic	3	3.75**	.012**	.04
Principal is supportive*	School Climate	3	3.28**	.023**	.03
Respected by students	School Climate	3	3.71	.012	.03
Adequate planning time	School Resources	3	2.81	.040	.03

* Equal variances not assumed. ** Welch's Robust ANOVA test results

Appendix B. Survey

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Table 5. Significant ANOVA Test Results for Age

Dep. Var.	<i>Subscale</i>	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Positive impact on student achievement	Intrinsic	2	4.72	.010	.03
Positive impact on student personal growth*	Intrinsic	2		.032**	.02
No teaching opportunities in another school out of the district*	Extrinsic	2	3.48**	.035	.02
Professional growth opportunities	School Resources	2	6.01	.003	.04
Induction program*	School Resources	2	9.66**	.00**	.05
Adequate planning time*	School Resources	2	3.22**	.041**	.02

* Equal variances not assumed. ** Welch's Robust ANOVA test results

Table 6. Significant ANOVA Test Results for Grade Level

Dep. Var.	<i>Subscale</i>	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Comfortable working at this school	Intrinsic	2	5.22	.006	.03
Connection to students	Intrinsic	2	3.84	.023	.03
Feel needed at this school*	Intrinsic	2	10.10**	.00**	.05
Positive parent involvement	School Climate	2	30.43	.00	.17
Respected by staff*	School Climate	2	8.40**	.00**	.05
Involved with decision making*	School Climate	2	15.07**	.00**	.09
Principal is supportive*	School Climate	2	12.43**	.00**	.09
Unique student program in which I am involved	School Climate	2	4.21	.016	.03
Respected by students	School Climate	2	3.56	.030	.02
Cooperation among staff*	School Climate	2	14.49**	.00**	.08
Principal enforces rules & backs me up*	School Climate	2	23.89**	.00**	.12
Feel safe	School Climate	2	4.07	.018	.03
I have the necessary instructional materials*	School Resources	2	6.44**	.002**	.05
Adequate planning time*	School Resources	2	3.65**	.028**	.03
Satisfied with salary*	School Resources	2	6.17**	.003**	.04

* Equal variances not assumed. ** Welch's Robust ANOVA test results