

Retention and Job Satisfaction: A Study of Career and Technical Education Teachers in Midwestern State

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Abstract

The progressive interests in retaining teachers has long been studied in numerous educational settings. Extensive research pointed out the essential factors towards retaining teachers and understand their job satisfaction to ensure the quality of education is served. Unfortunately, far too little attention has been paid to research pertaining Career and Technical Education (CTE) teachers' job satisfaction and retention. The role of CTE teachers in preparing skilled- and semiskilled workers for employment is significant. This study focused on factors that affect whether or not CTE teachers stay in the teaching profession by using an online survey. From a population of 2607 teachers with valid email addresses, the total number of completed surveys was 581 participants. A two-phase of multiple linear regression was carried out. Five factors were found to be significant with the teachers' retention plan: salary, administrative workloads, teachers' evaluation, and assessment, motivation, and job satisfaction. A chi-square test was employed and showed significant relationships between the teachers' age when entering the profession and their satisfaction with teaching. The findings contribute implications for educational stakeholders in strategizing plan and action to retain CTE teachers in the CTE school system. To ensure CTE teachers, not only strive and survive in the teaching profession, understand their job satisfaction and reasons for them to remain in teaching is the essence of longevity of CTE school system in the educational paradigm.

Keywords: Retention, Attrition, Teaching Job Satisfaction, Career and Technical Education (CTE)

Introduction

Teachers' job satisfaction and the issue of teacher retention has continued to be a central issue in schools nationwide. Some consider teaching to be second-class profession which can lead to depression and frustration on the part of teachers. This perception can result in teachers making the decision to leave the profession. The half million of teachers leaving the

profession nationwide with only 16 percent of the teachers leaving due to retirement, (Boyd et. al., 2011), indicated the seriousness of the attrition problem in the United States. The reasons behind teachers deciding to leave the profession are many. Previous research has reported that school politics, time demands, low salaries, few benefits, little opportunity for advancement, excessive workloads, high-stakes testing, long working hours, disruptive student behavior, poor leadership and administration within schools, views of teaching as a temporary profession, and frustrations associated with motivating apathetic students were found to be the primary reasons (Billingsley, 2004; Boe, Cook, & Sunderland, 2008; Brill & McCartney, 2008; Gomba, 2015; Kearney; 2008; Perrachione, Rosser, & Petersen, 2008; Reynolds & Wang, 2005). Research specific to CTE teachers is often missing.

In CTE, relevance to the workplace is paramount which requires teachers who have recent work experience in their respective fields. Without this experience, students in their program will not have meaningful learning experiences and not be prepared adequately for successful employment. The loss is also compounded when one considers the bigger picture of the human capital development theory of a country. Noting the importance of CTE teacher retention, this research uncovered factors which affect CTE teachers' decisions to remain in teaching and factors which lead to job satisfaction.

Literature Review

Retention can be defined as "the continuation of a teacher in the career field in which they are licensed to teach" (Briggs, 2008, p.13). Retaining teachers in the educational system ensures the continuity of the school programs and mission. Factors toward retaining teachers are obvious and deductive in nature but yet at times conflicting. A study by Brill and McCartney (2008) reported the high attrition level was due to the geographical area of the school and high levels of minority students. Flores and Claeys (2011) found that the ethnicity background among teachers when different from those of their students caused attrition. They found that Hispanic teachers are more likely to leave the teaching profession compared to Caucasian teachers. Both findings indicated a problem with teachers struggling to be successful with students whose level of status and ethnicity differed from their own. With teachers' role as change agents in helping our society bridge cultural barriers, this is particularly problematic. In contrast, a study by Kearney (2008) indicated the factor of other teachers demographic (race) is not a mediating variable.

Salary, professional advancement opportunities, support, and recognition by administrators and safety of the school environment are factors that contributed towards teachers' job satisfaction in an urban public school. Reasons for dissatisfaction came from class size, society's esteem for teachers and student motivation to learn (Kearney, 2008). In addition to the factor of teacher job satisfaction; Dainty, Sanford, Su, and Belcher (2011) reported that educational preparation, teacher commitment, social integration, first-year teaching experience, skills and abilities, and institutional factors are also reasons for leaving. The findings are consistent with Boyd's study which suggested that lack of teaching experience which includes prior work experience is also significant.

Reynolds and Wang (2005) also found incentives and rewards to be significant in retaining teachers. In a population of professional development program graduates, over 70 percent of graduates who chose to continue as teachers reported that personal rewards, and enjoyment

of working with students to influence their career decisions. Interestingly, a majority of the teachers (85 percent) perceived teaching as a valuable profession, indicating appreciation of their chosen profession. Effective teaching and learning are positive outcomes from high-quality education, and retention of teachers play a significant role in making a reality (Su, Dainty, Sandford, Townsend, & Belcher, 2011).

However, on the other side, teachers have cited challenges of new policies and regulations which limit their freedom and creativity in instruction (Giles & Hargreaves, 2006). Educational systems are based on examinations which focus on student performance and teachers struggle to maintain a high-quality educational experiences as well as recognizing other forms of students' success besides high stakes testing. Travers & Cooper, 1996, found this struggle can contribute to depression and anxiety of teachers and cause them to leave the profession.

Job satisfaction factors and retention rates are not only impacting traditional secondary school teachers, but also those who might not have chosen teaching as their first career such as teachers in the CTE system. These teachers first had a career in industry and now have come to teaching as a second career (Boyd et al., 2011). A CTE school employs different specializations of teachers who enter the teaching profession with various types of certification as former industry-based practitioners. They often lack knowledge of various pedagogical approaches. CTE teachers are valued due to their field experience and specialization on subject matter knowledge and knowledge of the workplace (D'Ascoli & Berger, 2012). The motivation toward the teaching profession often becomes a complicated decision for them about whether or not to stay in teaching as they often start teaching with little or no preparation pedagogically.

Theoretical Perspectives

For this study, the Motivation-Hygiene theory (Herzberg, 1966; Herzberg, Mausner, & Snyderman, 1959) served as the theoretical perspective. The theory examines the factors that measure employee job satisfaction based on outcomes of work completed such as personal growth, career advancement, responsibility, recognition and new positions. These outcomes serve as motivators to encourage teachers to stay in the teaching profession. Appreciation shown by the employer for these successful outcomes leads to the central idea of 'motivators' as defined by Herzberg (1966). Perceiving the completion of the successful job based on the employees' greatest effort produced motivation to continue working in the same environment and position. This setting is similar to the teachers' setting in which they feel satisfaction with their jobs, which in turn increases their desire and motivation to remain in teaching.

The motivators are defined as 'intrinsic' and include job satisfaction, belief in their self-efficacy and increased morale that encourages retention (Herzberg, Mausner, & Snyderman, 1959). In contrast, hygiene are extrinsic factors that lead to dissatisfaction. The hygiene factors include such things as new policies, supervision in a strict manner, insufficient benefits and salaries, poor working conditions and discipline issues with students. When the motivators perceived by the teachers are greater than the hygiene or extrinsic factors, the teachers decide to stay. If the opposite occurs, when the hygiene factors are higher than the motivators are, the teachers decide to leave.

Purpose and Research Questions

The purpose of this study is to uncover the factors that influence job satisfaction of teachers in a Midwestern state CareerTech educational system and to investigate the relationship between teachers' demographic characteristics and factors in retaining them in the teaching profession. The research questions that guided this study are as follows:

1. What factors of job satisfaction influence teachers to remain in the teaching profession?
2. What is the relationship between the teachers' demographic characteristics (gender, marital status, age, age when entering the profession, highest degree earned, ethnicity, and teaching position) and factors in retaining teachers in the teaching profession?

Research Hypothesis

H0 There is no difference between teachers' demographic characteristics (gender, marital status, age, age when entering the profession, highest degree earned, ethnicity, and teaching position) and their satisfaction with teaching as a profession

H0 There is no difference between teachers' demographic profile (gender, marital status, age, age when entering the profession, highest degree earned, ethnicity, and teaching position) and their decision whether to stay or leaving the teaching profession.

Methodology

A purposive sampling strategy was used to identify the participants of the study. The population of teachers was accessible from the online 2015 - 2016 Personnel Directory in the public domain and did not require specific permission from any group. The directory included the instructor name, specialization, phone number, and email address. There were 2,620 teachers from three types of school systems under the purview of this Midwestern state's CTE system. Technology center teachers numbered 1,303; teachers from comprehensive high schools were 1,280 and 37 teachers have incarcerated students in the skill centers. Thirteen were found to have invalid email addresses leaving 2,607 who could be contacted. Approval from the Institutional Review Board (IRB) was obtained upon the actual study conducted.

Two different instruments were used. Selected questions fitting the research's purpose were taken from the Perrachione, Rosser, and Petersen instrument (2008). The instrument from Johnsrud and Rosser (1999) assessed the relationship between job satisfaction factors and teachers' retention plan using quantitative analysis. A request to use the instrument was granted by the developers via email conversation. This research study was administered online using Qualtrics. The teachers were asked to provide their answers via Qualtrics software within a month, and three reminder e-mails were sent during the duration of the open survey.

Five sections divided the survey. The first section (Section A) was the job satisfaction, which consisted of 25 questions, the answers to which could be marked on the 7-point Likert type scale: strongly disagree, disagree, somewhat disagree, neither disagree nor agree, somewhat agree, agree, and strongly agree. Section B was comprised of three questions indicating intentions to remain in teaching, using the same rating scale. Section C contained questions about job satisfaction and allowed more detail to be given in open-ended questions. Section D had three questions regarding decisions about leaving the teaching profession to move to

another career and what contributed to their answer. Section E consisted of 11 demographic questions including gender, marital status, age, ethnicity, age when entering the profession, highest degree earned, ethnicity, teaching position, content area, teaching experience, and teachers certification program. The participant could skip any questions that they did not wish to answer. They were expected to complete the questionnaire once, taking about 30 minutes to complete. The participant could only answer the survey once. The researcher had set the instrument that the IP address of the participant would have only one chance to respond to the survey. All of the possible 2,620 teachers received the request to participate. Of that number, 581 individuals responded.

Research Finding

The mail addresses were sorted automatically by Qualtrics. The speed at which the survey was completed was interesting to the research. Within the first four hours of the survey being sent, 164 participants had responded. The cooperation and interest given by teachers was impressive. The total number of completed surveys was 581 after three e-mail reminders were sent. This is a 22.29% response rate, which is sufficient given the guidelines provided by Nulty (2008).

Demographic Profile

Demographic backgrounds were derived from the descriptive analysis. The frequency of each demographic represents the number or participant who responded to the survey. The missing row indicates the number of participant who did not answer the survey question. The details on teachers' demographic backgrounds is stated as follows:

Table 1.

Demographic Profile for Descriptive Analysis Accumulates the Sample of the Study

Variables		Frequency	Percentage
Gender	Male	220	37.87
	Female	342	58.86
	*Missing	19	3.27
Marital Status	Single, never married	34	5.86
	Married	457	78.65
	Widowed/divorced/ Separated	68	11.70
	*Missing	22	3.79
Ethnic Background	American Indian/Alaska	66	11.36
	Asian/Pacific Islander	2	0.34
	African America/Black	17	2.92
	Hispanic	5	0.86
	Caucasian/white	457	78.66
	Other	12	2.07
	*Missing	22	3.79
Age	35 or under	96	16.52
	36-45	131	22.55

	46-55	202	34.77
	56-65	122	21.00
	66 or older	10	1.72
	*Missing	20	3.44
Age when entering the profession	25 or under	175	30.12
	26-35	192	33.05
	36-45	144	24.78
	46 or older	52	8.95
	*Missing	18	3.10
Highest Degree	Bachelor's Degree	295	50.77
	Master's Degree	223	38.38
	Education Specialist	37	6.37
	Doctorate Degree	8	1.38
Teacher's Profile	*Missing	18	3.10
	Fit a definition of teacher	305	52.50
	Did not fit a definition of teacher	256	44.06
	*Missing		
Career Choice		20	3.44
	Choose teaching as their first career	212	36.49
	Did not choose teaching as their first career choice	349	60.07
	*Missing		
Teaching Position	Full-time teacher	20	3.44
	Full-time teacher with a side-business	449	77.28
	Part-time teacher with a side-business	107	18.42
	Part-time teacher	3	0.52
	*Missing	2	0.34
		20	3.44

Note. Demographic Background for Teachers.

* Missing indicates non-responsive participants

Teachers' Job Satisfaction

Teachers were asked how satisfied they are with teaching as a profession, how satisfied they are with teaching job this current school year, and whether or not will they leave the teaching profession for another occupation using a 5-point Likert-type scale. The details on the findings are described in table 2:

Table 2.

Teachers Teaching Job Satisfaction

Question	Level of Agreement	Frequency	Percentage	\bar{X}	SD
How satisfied are you with teaching as profession?	5= Very satisfied	223	38.4	4.01	1.08
	4= Somewhat satisfied	221	38.0		
	3= Neutral	41	7.10		
	2= Somewhat dissatisfied	66	11.4		
	1= Very dissatisfied	15	2.6		
	*Missing	15			
How satisfied do you feel with your job this current school year	5= Very satisfied	209	36.0	3.97	1.06
	4= Somewhat satisfied	220	37.9		
	3= Neutral	61	10.5		
	2= Somewhat dissatisfied	63	10.8		
	1= Very dissatisfied	13	2.2		
	*Missing	15			
If the opportunity arose, would you leave the teaching profession for another occupation?	5= Certainly would	58	10.0	2.85	1.12
	4= Probably would	91	15.7		
	3= Chances about even	176	30.3		
	2= Probably would not	188	32.4		
	1= Certainly would not	52	9.0		
	*Missing	16			

Note. *Missing indicates non-responsive participants

Teachers' Retention Plan

Teachers' retention plan questions were asked in this section. The teachers were asked their level of agreement on the three questions: (1) I plan to remain in this position, (2) I plan to remain in this school, and (3) I plan to remain in this profession. The 7-point Likert-type scale was used to indicate their retention plan. The result from descriptive analysis is as stated in table 3:

Table 3.

Teachers Retention Plan

No.	Retention Plan	N	\bar{X}	SD
1.	I plan to remain in this position	579	5.83	1.48
2.	I plan to remain in this school	579	5.87	1.46
3.	I plan to remain in this profession	579	5.89	1.47
Overall			5.86	

Note. *Mean value for the total sample of 579. Two participants did not respond to this question.

Research Question 1: What factors influence teachers to remain in the teaching profession?

A multiple linear regression analysis was conducted to evaluate how closely job satisfaction factors predict teachers' retention plans. The predictors were the 25 job satisfaction factors, while the criterion variable was the overall teachers' retention plan from the calculated mean. The dependent variable was the average of responses to "I plan to remain in this position," "I plan to remain in this school," and "I plan to remain in this profession" (see table 3). Out of 25 factors, there are five factors were found significant in the regression analysis: (1) I am satisfied with my teaching salary, (2) Routine duties and paperwork interfere with my teaching, (3) I am evaluated fairly in this school, (4) I sometimes feel it is a waste of time to try to do my best as a teacher, and (5) I am generally satisfied with being a teacher at this school. These five factors were used to run the second phase of the regression analysis.

A second-phase of multiple linear regression analysis was conducted to evaluate job satisfaction factors predict teachers' retention plans using only the five predictors based on the significant coefficient. The predictors were the five job satisfaction factors, which were found significant in the first regression analysis. The criterion variable was the overall teachers' retention plan from the calculated mean of retention plan items (see table 3). The linear combination of job satisfaction factors was significantly related to the teacher retention plan, $F(5,572) = 51.351, p < .01$. The sample multiple correlation coefficient was .56, indicating that approximately 31% of the variance of the teacher retention plan in the sample can be accounted for by the linear combination of job satisfaction factors. The equation for the current coefficient analysis is:

$$Y = .066 (B1) - .066 (B2) + .093 (B3) - .063 (B4) + .449 (B5) + 2.897$$

Table 4 presents indices of the relationship between each job satisfaction predictor with the dependent variable, average retention plan. Two out of five bivariate correlations between the job satisfaction factors and the retention plan were negative, and the five indices were statistically significant at $p < .05$. Though each variable was statistically significant, judgments about the relative importance of four of the five of the predictors are difficult due to the small regression coefficient and small correlation with the dependent variable. Only one predictor is meaningful in the influence: "I am generally satisfied with being a teacher at this school."

Table 4. The Coefficients, Bivariate, and Partial Correlations of the Six Job Satisfaction Predictors with Retention Plan

No.	Predictors	Standardized Regression Coefficient (β)	p value	Correlation between each predictor and the retention plan	Correlation between each predictor and the retention plan controlling for all other predictors
B1	I am satisfied with my teaching salary.	.10	.01	.28**	.11**
B2	Routine duties and paperwork interfere with my teaching	-.08	.03	-.20*	-.10*
B3	I am evaluated fairly in this school	.09	.02	.30*	.10P*
B4	I sometimes feel it is a waste of time to try to do my best as a teacher	-.08	.03	-.29*	-.09*
B5	I am generally satisfied with being a teacher at this school.	-.41	.00	.52**	.38**

Note. * $p \leq .05$, ** $p \leq .01$

Research question 2: What is the relationship between the teachers' demographic characteristics (gender, marital status, age, age when entering the profession, highest degree earned, ethnicity, and teaching position) and factors in teachers' satisfaction and retaining teachers in the teaching profession?

A Chi-square test of independence was conducted to assess whether teachers' demographic characteristics (gender, marital status, current age, age when entering the profession, highest degree earned, ethnicity, and teaching position) influence teachers job satisfaction with teaching as profession. The results of the test showed only one variable namely age when entering teaching profession was significant ($\chi^2(12, N = 571) = 26.20, p < .01$). This indicated that age when entering teaching profession more likely influence teachers' job satisfaction with teaching as a profession. However, the number of teachers among the category of age is not much different between 'somewhat satisfied and very satisfied.' Teachers at an earlier age and at the later age are more likely to be satisfied with teaching as their chosen profession.

Table 5.

Contingency Table of Age When Entering the Profession and Teachers Satisfaction with Teaching as Profession

How satisfied are you with teaching as profession?	<u>Teachers age when entering the profession</u>				
	25 or under	26-35	36-45	46 or older	Total
1. Very dissatisfied	7	4	5	0	16
2. Somewhat dissatisfied	35	17	12	4	68
3. Neutral	11	12	10	8	41
4. Somewhat satisfied	64	81	60	16	221
5. Very satisfied	60	79	59	27	225
Total	177	193	146	55	571

A Chi square test of independence indicated that three variables were found to be significantly related to whether or not the teachers would leave the teaching profession for another occupation. The results of the test showed three variables significantly contributed to whether or not the teachers would leave the teaching profession for another occupation, teachers' age, $\chi^2(16, N = 569) = 59.75, p = .00$, age when entering teaching profession, $\chi^2(12, N = 571) = 34.51, p = .00$, and teachers' current position, $\chi^2(12, N = 561) = 28.70, p = .00$. There is a difference between the teachers' age, age when entering profession, and the teacher's current position with their decision of whether or not to leave the profession for another occupation.

Table 6 describes the relationship between the teachers' current age and their decision whether or not to leave the profession. Teachers in the group of 46-55 are the majority who have decided not to leave the profession followed closely by those who are undecided. It is interesting to note that, within the same group of teachers between 46-55 were high numbers who would probably leave the profession indicating a fluctuation in their decision making.

Table 6.

Contingency Table of Teachers Current Age and Teachers' Decision of Whether or Not Will Leave the Teaching Profession for another Occupation

If the opportunity arose, would you leave the teaching profession for another occupation?	<u>Teachers Current Age</u>					
	35 or under	36-45	46-55	56-65	66 or older	Total
1. Certainly would not	6	10	10	19	7	52
2. Probably would not	28	45	74	41	2	190

3. Chances about even	28	47	72	29	1	177
4. Probably would not	21	18	30	22	1	92
5. Certainly would not	13	13	19	13	0	58
Total	96	133	205	125	11	569

Table 7 indicates the relationship between teachers age when entering the profession and whether or not they will leave the teaching profession for another occupation. The result from the one-sample chi-square test shows that a majority of the teachers probably would not leave the profession followed by teachers who are undecided about staying or leaving the profession.

Table 7.

Contingency Table of Teachers Age When Entering the Profession and Teachers' Decision of Whether or Not Will Leave the Teaching Profession for another Occupation

	Teachers Age When Entering Teaching Profession				Total
	25 or under	26-35	36-45	46 or older	
If the opportunity arose, would you leave the teaching profession for another occupation?					
1. Certainly would not	22	11	13	7	53
2. Probably would not	39	74	53	24	190
3. Chances about even	52	62	46	18	178
4. Probably would not	33	33	23	3	92
5. Certainly would not	31	13	11	3	58
Total	177	193	146	55	571

Table 8 describes the relationship between teachers' current position and their decision whether or not to leave the teaching profession for another occupation. Full time teachers contribute to the majority of the sample. Most full time teachers probably would not leave the profession however; many teachers are uncertain whether or not they will leave.

Table 8.

Contingency Table of Teachers Position and Teachers' Decision of Whether or Not Will Leave the Teaching Profession for another Occupation

If the opportunity arose, would you leave the teaching profession for another occupation?	<u>Teachers Position</u>					Total
	Full-time teacher	Full-time teacher with a side-business	Part-time teacher	Part-time teacher with a side-business		
1. Certainly would not	44	6	1	0	51	
2. Probably would not	157	30	0	0	187	
3. Chances about even	140	35	1	0	176	
4. Probably would	75	14	1	1	91	
5. Certainly would	33	22	0	1	56	
Total	449	107	3	2	561	

Conclusion and Discussion

Teachers in the CTE school system indicated the importance of extrinsic factors towards their decision in remaining in the teaching profession. These extrinsic factors included salary and administrative workloads, and teachers' evaluation and assessment. These factors are congruent with teachers' intrinsic factors such as teachers' job satisfaction and motivation. Findings by Muller, Gorrow, and Fiala (2011) also found similar factors such as low pay, student discipline, lack of administrative support, and burnout as the reasons they left teaching. The findings correlated with Kearney (2008) study that indicated salary was the major influence towards teachers' retention.

The combination of both intrinsic and extrinsic factors are major influences in teachers' decisions. Teachers have been burdened with administrative workload and unnecessary jobs that are not related with their teaching jobs, including responsibilities as student body advisors, club advisers and community board members. Understandably, teachers are struggling with students' performance and grading systems that demand teachers' time and commitment leading to excessive workload, which extends beyond capabilities and capacities of the teachers to fulfill such jobs (Sass, Claeys, & Perez, 2012). Having time to prepare teaching materials and CTE curriculum, collaborating with local industries and keeping current with technology adds to the workload. The teachers simply become overwhelmed and frustrated to the point of exhaustion and leave.

This study found that the participants perceived themselves to be fairly evaluated and assessed in their teaching practice. This fair treatment contributed to satisfaction in their chosen careers and their decision to remain in teaching. These teachers are unique in their rich industry experience despite limited pedagogical preparation.

Teachers struggle to overcome classroom problems that involve student discipline and lack of motivation. With limited preparation as a CTE teacher, this can lead to leaving the profession (D'Ascoli & Berger, 2012). School administrators can do much to mitigate these concerns by providing support in both contexts: mental and physical. The mentoring and induction project is one of the best solutions in giving ongoing support to the teachers, not only striving but also thrive in the teaching profession (Ingersoll & Strong, 2011). Retaining CTE teachers in the school system is important to ensure the continuity of educating the future workforce.

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