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by

Tabitha S. Davis

December 2015

AN EXAMINATION OF HIGH SCHOOL CAREER AND TECHNICAL EDUCATION
(CTE) TEACHERS', CTE PROGRAM DIRECTORS' AND CAMPUS
ADMINISTRATORS' PERCEPTIONS OF CTE TEACHER RECRUITMENT,
DEVELOPMENT, AND RETENTION EFFORTS IN A
LARGE URBAN SCHOOL DISTRICT

A Doctoral Thesis Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment
Of the Requirements for the Degree

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ABSTRACT

The purpose of this case study was to examine high school career and technology education (CTE) teachers', CTE program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study examined CTE teachers', CTE program directors', and principals' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district, district structures of support and professional development most beneficial to CTE teachers, perceived factors influencing CTE teachers' decision to leave or stay in an urban school district, and challenges faced in recruiting, developing and retaining high school CTE teachers.

Participants selected for this study included 57 CTE teachers (including department chairpersons) from eighteen centrally located high schools in a large urban school district in southeast Texas, five campus principals and two CTE program directors who work to support these eighteen campuses.

This study utilized three methods for data collection including an electronic teacher survey administered via Survey Monkey, two CTE teacher focus groups, and individual semi-structured interviews with five campus principals and two CTE program directors. The teacher survey containing open-ended and close-ended questions was coded inductively using an open coding technique in order to identify emerging themes (Glaser and Strauss, 1967) and descriptive statistics of close-ended responses are reported within this dissertation. Additionally, CTE teacher focus groups and semi-structured interviews with principals and CTE program directors were audio recorded, transcribed, and analyzed using a general inductive approach with open coding to identify themes.

Findings revealed that among all participant groups, personal referrals were perceived to be the most effective way to recruit new CTE teachers to an urban school district. Participants also suggested that it is helpful for urban school districts to staff recruiters who work to locate and secure qualified candidates specifically for CTE vacancies and to partner with professional organizations in order to obtain reliable referrals for CTE teacher candidates. Research suggests that CTE teacher candidates, particularly career changers, are attracted to teaching positions within urban school districts largely due to an inward desire to work with youth and to contribute to society and to one's community, and that personal connections are helpful in the recruitment process (Darling-Hammond & Berry, 1999; Wilkin & Nwoke, 2011; Woodrow Wilson Foundation, 2008 & 2010). With regard to the support and development of CTE teachers in an urban school district, participants reported that job-alike (teacher cohort) trainings, mentor teachers, and campus administration are most beneficial to CTE teachers. Research suggests that campus administration support and ongoing support and development programs that begin early in a teacher's career and continue throughout the life of their career are most beneficial (ACTE-NASD, 2009; NCTAF, 2011; Wong, 2004). On the topic of teacher turnover, campus administration support was noted by all participant groups and by various researchers as a primary factor that influences CTE teachers' decisions to leave or stay in an urban school district and in the profession (WWF, 2010). Other factors influencing CTE teachers to leave are infrequent and inauthentic professional development opportunities and burnout due to extensive responsibilities beyond the classroom with little or no additional compensation (Darling-Hammond & Berry, 1999; Hargreaves & Fullan, 2000; NCTAF, 2004; Wong, 2004;

WWF, 2010). Additional factors that influence CTE teachers to stay in an urban school district are the students they work with every day and annual compensation, especially in light of the number of days worked each year (Cuddapah, et al., 2011; Hargreaves & Fullan, 2000, Ingersoll & Smith, 2004; NCTAF, 2007; Shakrani, 2008; WWF, 2010, Wong, 2004).

Perceived challenges expressed by study participants and in research regarding the recruitment, development, and retention of CTE teachers in an urban school district were closely aligned. These challenges included locating and attracting qualified candidates, the ability to offer compensation commensurate with industry standards for career changers, lengthy hiring processes, and limited professional development programming availability and funding (Darling-Hammond & Berry, 1999; Darling-Hammond & Sykes, 2003; Darling-Hammond, Wise & Klein, 1999; WWF, 2010). While teacher turnover has huge budgetary implications for school districts throughout the U.S. (NCTAF, 2007; Shakrani, 2008), it was consistently perceived by all participants in this study that CTE teacher turnover is considerably lower than turnover in other content areas and has much less impact on the district budget than other subject areas.

In light of the findings of this study, with regard to CTE teacher recruitment, urban school district and campus administrators should consider utilizing employee referral programs that encourage employees to recommend qualified friends or acquaintances for posted vacancies and reward them if the referred individual is hired. Additionally, relationships with external organizations should be developed and supported as they are perceived as a reliable and trustworthy source of CTE teacher candidate referrals. In terms of support and professional development for CTE teachers,

school and district leaders should consider increasing their investments of time, materials, and financial resources in the area of professional development to ensure that CTE teachers are provided with meaningful, relevant, and impactful PD on a consistent basis throughout each school year. Lastly, urban school and district administrators should acknowledge that they make considerable contributions to the working conditions, employee morale, and overall job satisfaction of teachers (NCTAF, 2007; Shakrani, 2008).

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Chapter I

Introduction

The United States has long been a global leader in workforce preparation and trade diversity. American youth are exposed to career paths and skills as early as primary school and begin intense, specialized, job skills training in high school. School districts across the country offer high schools where students have the opportunity to take specialty, career-related, courses and graduate with comprehensive exposure and training in a career that suits their personal interests and long-term professional goals. Fifteen million students were enrolled in America's CTE programs during the 2006-2007 school year, marking a 6 million pupil increase in a seven year period (Kiker and Emeagwali, 2010). Career-training is not designed for students who fit a certain profile, it is for all students.

In a growing number of urban high schools across the nation, students gain not only career training, but also industry certification and/or an associate's degree in their chosen field prior to graduation (Association for Career and Technical Education – National Association of State Directors of Career Technical Education Consortium [ACTE-NASD], 2009). The rigor, relevance, and overall integrity of vocational/career training programs are dependent upon two critical factors: 1) Comprehensive curriculum – including all of the pertinent knowledge related to a career path with provision for lab-based hands-on practice, on-the-job training, and job shadowing; and 2) Highly qualified instructors - those who possess technical skills, practical industry experience, and pedagogical training.

Vocational training programs of past decades prepared students for a limited number of careers including hospitality, cosmetology, welding, plumbing, carpentry, and auto-mechanics. While skills for these careers are quite valid and useful in the United States workforce, this selection no longer reflects the full gamut of career options available to workers in the U.S. or in the global economy. Fortunately, vocational training programs continue to evolve in America's public schools in order to keep pace with new and emerging fields and to produce graduates who are equipped with the skills that employers look for in applicants (ACTE-NASD, 2009). The vocational programs of today, more commonly referred to as Career & Technical Education programs, now include careers in the medical, legal, and business fields, which were previously reserved for post-secondary study.

A primary purpose of Career and Technical Education programming is to prepare students for high-skill, high-wage, or high-demand occupations in new and emerging professions (Perkins IV, 2006). Giving students the option to train in a wide array of skill-sets and then select and specialize in one career before entering the workforce contributes to the development of a population of well-rounded workers with versatile skills and confidence in their life-long earning potential. High school CTE programs are responsive to changes in the American and global job markets and to the idea that 21st century jobs require students to be lifelong learners. Figure 1 shows that CTE graduates keep learning well beyond high school.

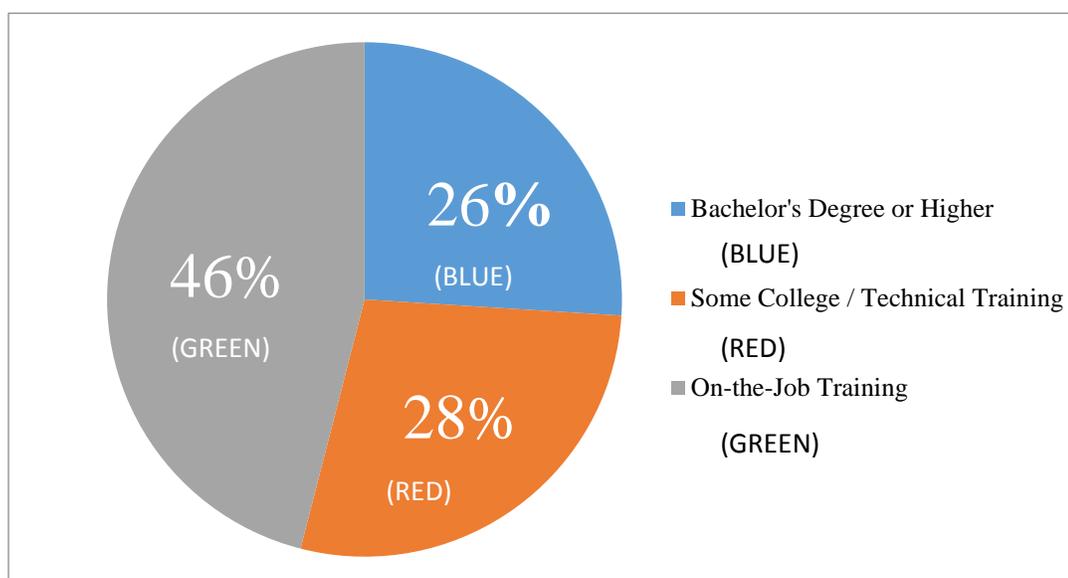


Figure 1. Educational Requirements for Jobs in 2014. This figure shows that over half of CTE graduates pursue a Bachelor's degree or some college or technical training, while the remaining 46% receive on-the-job training. U.S. Bureau of Labor Statistics – *Occupational Projection and Training Data* (per Illinois Career & Technical Education), (2011).

Eighty-two percent of CTE program completers seeking employment have historically obtained jobs within one year of graduation (Colorado Community College System [CCCS], 2011). High school graduates with career training qualify for better paying jobs than those without this training and, consequently, earn higher salaries and have more career latitude (Maguire, 2009). Those who also earn industry certifications and/or associate's degrees qualify for even higher salaries and career growth potential, and tend to experience a higher standard of living (Maguire, 2009). Individuals who earn a CTE-related associate degree or certification will earn \$5,000 to \$15,000 more per year than a person with an associate degree or certification in humanities or social sciences (Jacobson, 2009). In fact, students who participate in CTE programs, even without earning credentials, earn a higher annual salary than high school graduates who do not participate in such career training programs. (National Assessment of Vocational

Education [NAVE], 2004). The Georgetown University Center on Education and the Workforce reported 43% of young workers with industry licenses and certificates earn more than workers with associate degrees in non-CTE areas (2009). Additionally, in the state of Florida, high school graduates who participate in CTE programs and earn a career-focused associate degree earn about \$11,000 more per year than bachelor's degree recipients from the state's eleven public universities (Florida Department of Education, 2011). High school graduates with CTE-related credentials are also more likely to advance to a four-year university and earn a baccalaureate degree or additional training and credentials in their career field (ACTE, 2009).

Communities of CTE graduates tend to have more social benefits due to increased tax revenue (ACTE, 2009). According to the Washington State Workforce Training and Education Coordinating Board (2006), the state receives a return of seven dollars in the forms of social security, Medicare, and federal and state taxes for every dollar spent on a secondary CTE student. Table 1 reflects additional information regarding revenue benefits to cities and states across America.

Table 1
Investing in Career & Technical Education Yields Big Returns

U.S. Regions (West to East)	Benefits of CTE Programs
Salt Lake City, Utah	For every dollar put into CTE programs, there is an estimated return of \$4.30 to the community.
Washington State	For every dollar invested in secondary CTE programs, the state earns \$7.11 in additional tax revenues
Houston, TX	Houston earns \$4.1 billion each year from Houston Community College's current and past CTE students.
Oklahoma State	Each graduating class from Moore Norman Technology Center secondary CTE programs adds an additional \$3.78 million in tax revenues to the state of Oklahoma through increased salaries and wages.
Tennessee State	CTE overall returns \$2 for every \$1 invested. At the secondary level, CTE program completers account for over \$13 million in annual tax revenues.

Association for Career and Technical Education, (2011). *Investing in Career & Technical Education Yields Big Returns*.

It is important to note that CTE programs don't lead students away from post-secondary education in favor of career pursuits. Instead, CTE promotes success in both the academic and professional arenas (see Figure 2). According to the Southern Regional Education Board (SREB, 2010), high school CTE students who complete a rigorous academic program and career training program tend to exceed "college prep" students in standardized test performance. The CTE students are also more likely to earn a higher grade point average during their initial year in college and are less likely to drop out than their "college prep" counterparts (SREB, 2010). Also significant is the report that CTE

students are more likely than non-CTE students to develop skills necessary for success in higher education and in the workplace, such as problem-solving, project completion, research, math, communication, time-management, and critical thinking (Lekes et al., 2007).

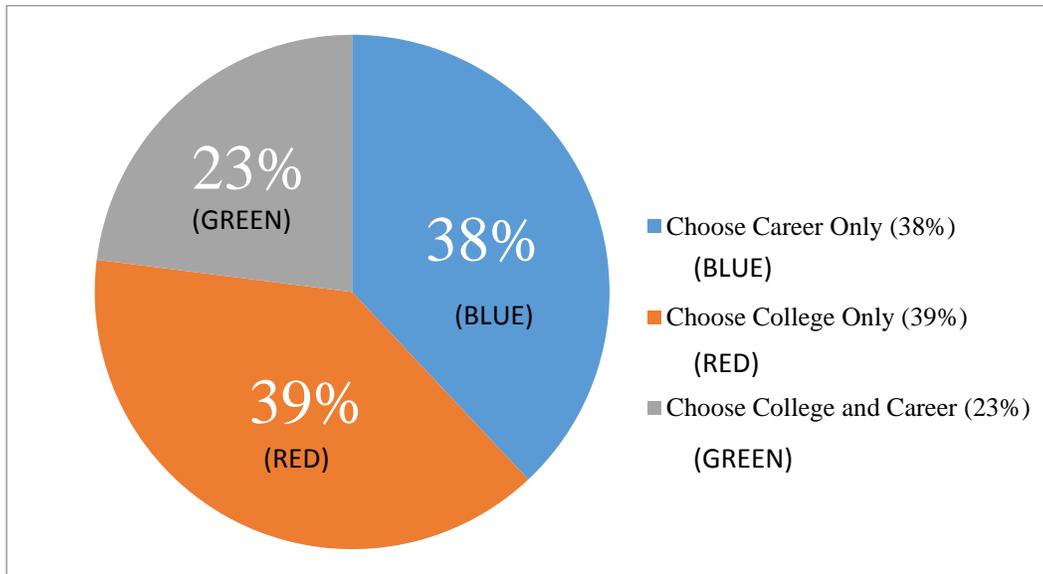


Figure 2. CTE Students Demonstrate Skills Needed for College and Careers. This figure shows about two-thirds of CTE students choose to pursue a college education after high school graduation. Illinois Career and Technical Education, (2011).

More than just an option for students, CTE is becoming the standard. In Texas, the recently implemented House Bill 5 has placed a newly-increased focus on College and Career Readiness (CCR) for high school students in Texas. As of January 30, 2014, high school students in Texas are now required to select one of five “pathways” by the end of their ninth grade year. The selected pathway will guide students’ high school course selection and graduation planning processes and, ultimately, inform their post-secondary study and career decisions. The pathways, also referred to as endorsements, include STEM (Science Technology Engineering and Math), Business and Industry, Arts and Humanities, Public Services, and Multi-disciplinary. Each endorsement includes

courses in Math (1), Science (1), and content-specific electives (2) for a total of four course credits that are added to the twenty-two Foundation graduation plan credits. Students who successfully complete the twenty-six credits (Core 22 + Endorsement 4) will now graduate with a Distinguished Achievement Diploma. In addition to the four courses that are specifically aligned to a student's chosen endorsement, they are also required to obtain either 12+ college hours (via dual-credit courses) with a minimum GPA of 3.0, Bi-lingual literacy in two or more languages, AP test scores of 3 and above, or a minimum SAT or ACT score plus a nationally or internationally recognized business/industry certificate or license. This change represents a significant raising of the bar with regard to Texas students' college and career readiness and requires more meaningful career exposure at the elementary and middle levels as well as an influx of highly qualified CTE teachers with specialized training and experience in the five endorsement areas.

The effectiveness of any instructional program hinges on the quality of its teachers. The Bill & Melinda Gates Foundation (2010) reported students' academic progress is largely dependent upon their teachers' knowledge and skills. How can schools prepare students for the careers of tomorrow and maintain rigorous and relevant CTE programs without highly qualified CTE teachers? Is that even possible? It seems fair to say that in order for today's Career & Technical Education (CTE) programs to successfully prepare tomorrow's professionals, they must employ instructors who are educated and experienced in the subject areas they teach. A policy brief prepared by the National Commission on Teaching and America's Future [NCTAF] (2007), states that well-prepared, effective teachers possess strong content knowledge, understand how

students learn, and demonstrate the skills necessary to propel their students toward high (academic and professional) standards. If urban school districts are committed to assuring that every student receives quality vocational training in their CTE programs, then special attention and consideration must be given to how districts recruit, develop and retain the most qualified and effective Career & Technical Education (CTE) instructors.

Career & Technical Education programs are a significant part of educational programming in the U.S. and an essential source of skilled workers for the American economy. According to ACTE (2009), CTE programs enhance students' academic achievement while meeting industry needs. They provide skills training to address the needs of high-growth industries and their importance to the school setting is especially true in urban schools where students would likely not, if otherwise have access to the career exposure and training gained via CTE courses. Students from low income families and those who become first-generation college-goers are twice as likely as their more affluent peers to enroll in CTE programs while in high school (Packard, Leach, Ruiz, Nelson, DiCocco, 2011).

Despite the documented successes and achievements of CTE high school programs, studies show many high schools are faced with serious challenges with regard to attracting qualified CTE teachers (Wilkin & Nwoke, 2011). The qualified CTE candidate is one who has a Bachelor's degree as well as a minimum of three to five years of experience in an industry closely related to the course(s) they will teach in the classroom. Candidates who meet these criteria are needed for schools to maintain rigorous instruction and high-quality training programs for the sake of program integrity

and relevance to students' future careers. Students want good jobs after graduation and employers want to hire qualified candidates for jobs in high-demand areas (Mokher, 2011). The recruitment and retention of highly qualified Career & Technical Education teachers are paramount to the ongoing relevance and sustainability of CTE programs and the successful matriculation of students into the workforce. The productivity and competitiveness of the American workforce, and its contribution to the global economy, hinge on ability to educate and train tomorrow's workers.

Problem Statement

CTE programs bear the great burden of preparing high school students for post-secondary careers, particularly careers that will still be relevant and in-demand years, and even decades, after students complete the training. In order for school districts to maintain rigorous and relevant instruction in high school Career & Technical Education programs, they must actively recruit, develop, and retain highly qualified instructors. CTE instructors provide students with knowledge and skills in today's high-demand jobs and anticipated high-growth industries. It is imperative that CTE teacher candidates have work experience and formal education relevant to the subjects they teach in the classroom as well as teaching certification, and that they are offered professional development opportunities in the schools and districts where they teach. Therefore, it is pertinent that school and district leaders implement effective practices for not only recruiting highly-qualified and highly-effective CTE teachers, but also for developing, and retaining those teachers.

Purpose of the Study

The purpose of this study was to examine high school teachers', program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study examined CTE teachers', CTE program directors', and principals' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district, district structures of support and professional development most beneficial to CTE teachers, perceived factors influencing CTE teachers' decision to leave or stay in an urban school district, and challenges faced in recruiting, developing and retaining high school CTE teachers.

Significance of the Study

There is a great need to recruit and retain highly qualified Career & Technical Education (CTE) teachers for today's urban high schools in order to solidify the integrity of CTE programs and their effectiveness in developing the next generation of workers. Secondary education programs throughout the nation have increased funding and efforts to prepare our students for post-secondary success through various efforts including dual-credit and Advanced Academics programs, as well as career training, mentoring, and certification. In order for Career & Technical Education programs to ensure rigor and relevance, campus and district administrators must be aware of "what works" with regard to recruiting talented and qualified teachers, and what it takes to retain those teachers. Investing in, and actively implementing, effective strategies for recruiting, developing, and retaining highly qualified CTE teachers will support and enhance school and district administrators' efforts to maintain a staff of highly qualified educators who possess both

pedagogical skills and content expertise, and to increase student achievement (which is a direct derivative of teacher quality).

Primary Research Questions

The primary research questions for this study were:

1. What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
2. What are high school CTE program directors' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
3. What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
4. What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in an urban school district?
5. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to leave an urban school district?
6. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to stay an urban school district?
7. What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?
8. How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?

Research Design

This qualitative case study utilized surveys, interviews, and focus group sessions to examine the perceptions of high school CTE teachers, program directors, and campus administrators regarding recruitment, development, and retention efforts in a large urban school district in southeast Texas. The setting for this study was chosen because it is one of the largest Metropolitan areas (by population) in the United States, and one of the most populous cities in the state of Texas and in the southern U.S. This metropolitan city is unique because of its cultural diversity and the fact that it provides a significant market for several industries including energy, healthcare, transit, and international export and import, to name a few.

The research process included an electronic survey issued to 90 CTE teachers (to which 57 teachers responded), two focus group sessions with CTE teachers (nine participants in the first and seven in the second), and individual semi-structured interviews with five campus principals and two district CTE program directors. The teacher survey contained open-ended questions as well as questions with multiple response options. The open-ended survey questions were coded using the open coding technique in order to identify emerging themes and the multiple response option questions were analyzed for frequency of response selection. The focus group responses were analyzed using coding, inductive, and grounded theory methods. The individual interviews with campus principals and CTE program directors were analyzed using the grounded theory method (Fram, 2013).

Theoretical Framework

This study was grounded in Herzberg's two-factor theory also known as the motivation-hygiene theory, which suggests that all humans have basic needs and maintenance needs and that these needs influence job satisfaction and dissatisfaction among employees. Our basic or hygiene needs are those that when met do not lead to satisfaction, but when not met cause dissatisfaction (Herzberg, 1968). An example of a basic need is the ability to use a clean lavatory facility when necessary or to work in a clean and functional work space / classroom. Having access to clean facilities does not lead to job satisfaction, but having to use unclean or poorly functioning facilities would likely lead to dissatisfaction. There is a second category of needs referred to as motivators. These are the things that when met actually contribute to individuals' satisfaction (Herzberg, 1968). Examples of workplace motivators include achievement, recognition, responsibility, professional development, professional growth/advancement, and the work itself. It is important to note that Herzberg's research suggests that satisfaction and dissatisfaction are not on a shared continuum, but are instead independent variables and must be managed separately. Motivators increase employees' job satisfaction while hygiene factors help to reduce the likelihood of dissatisfaction. In order to increase productivity and improve employees' attitudes concerning work, managers should be proactive in attending to employee satisfaction and dissatisfaction (Herzberg, 1964). Based on Herzberg's work, providing opportunities for employees to assume greater responsibility, gain recognition, and pursue self-actualization are promising means for increasing job satisfaction. This study obtained the perceptions of current urban high school CTE teachers, CTE program directors, and campus

administrators regarding the effectiveness of their school districts' recruitment, development, and retention efforts. The retention aspect of this study examined the district's management of CTE teachers' "motivator" needs and the impact of such management on the cyclical process of recruitment, development, and retention.

Assumptions, Limitations, and Scope

Several assumptions were made in conducting this study. Among them was the assumption that all high schools currently offer Career & Technical Education courses. Another assumption was that each high school offers a complete strand of courses for at least one career path. An additional assumption was that respondents would give candid feedback concerning their perceptions. The more significant assumptions driving this study were those that professional support for teachers from campus and district administration yields higher teacher retention rates and that the lack of structured support systems leads to teacher turnover. The scope of this study was limited to public high schools with 9-12 grade students (with a special focus on those within a centrally-located region in one large urban school district in Texas). The foci of this study were high school CTE teachers, district-level CTE program directors, and high school campus administrators in a large urban school district in southeast Texas. Access to data regarding local CTE teacher attrition statistics were initially inaccessible to the researcher, however, the researcher was able to built rapport with district-level CTE department administrators in order to convey the significance and relevance of this study and to gain access to data such as the list of current CTE teachers in the district and their contact information.

Definitions of Terms

The following key terms will guide this study:

Advanced Academics – advanced placement courses and exams that give students the ability to earn internationally-transferable college credit (designed, administered, and overseen by the College Board)

Campus – the grounds and buildings of a university, college or school; a university, college or school viewed as an academic entity

Career and Technical Education (CTE) – educational programming offering knowledge and skills that prepare students to gain entry-level, professional, employment in a high-skill, high-wage job and/or to continue their education in an Associate or Bachelor’s degree program upon graduation

Diverse – differing from one another: unlike (people with diverse interests); composed of distinct or unlike elements or qualities (a diverse population)

Exit Interview – a formal consultation conducted after an employee announces his or her resignation from an organization in order to evaluate reasons for the decision; a meeting at which information is obtained

High-Demand – jobs or career paths for which workers are needed in large quantities and/or on a consistent basis in order to meet industry demand

High-Growth - jobs or career paths that have shown growth at a rapid and/or consistent pace and are predicted to continue growing at a rapid or consistent pace for several years

Induction – a system-wide, coherent, and comprehensive process for preparing / training, supporting, and retaining new teachers

Inner-city (schools, districts) – schools and districts that are located in large, metropolitan areas; also referred to as Urban

Occupational – an activity in which one engages; the principal business of one's life

On-boarding – the process by which new employees acquire the necessary knowledge, skills, and behaviors to become effective members and contributors to an organization

Pedagogy – the art, science, or profession of teaching

Postsecondary (or post-secondary) – academic studies that are after, subsequent, later in life than one's secondary education

Practicum – a course of study designed especially for the preparation of teachers and clinicians that involves the supervised practical application of previously studied theory

Relevance – relation to the matter at hand; practical and especially social applicability

Rigor – strict precision

Urban (schools, districts) – schools and districts located in large metropolitan areas; sometimes referred to as inner-city

Vocational – of, relating to, or concerned with a vocation; of, relating to, or undergoing training in a skill or trade to be pursued as a career

Summary

This study gathered CTE teachers', campus-level program directors', and campus administrators' perceptions of urban school districts' recruitment strategies and programs for developing and retaining CTE teachers. The information gained during this study is useful for school and district administrators to examine their teacher recruitment, development, and retention efforts; challenges faced in these endeavors and strategies for overcoming the challenges; and the financial and human resources allocated for the

support of these programs. Administrators may also glean factors influencing high school CTE teachers' decisions to leave or stay in an urban school setting, affording them the opportunity to determine if their school and district policies contribute to teacher retention or turnover. Such analyses may likely lead to further examination and changes to the operational policies and practices of urban school districts in order to promote and secure greater career and technical education teacher retention.

Chapter II

Literature Review

Historical Perspective

Vocational training in the United States can be traced back to the 19th century and officially became a part of the public school system in the mid-twentieth century. Rich reports classes such as Home Economics (which included content such as Cooking and Sewing) were among the first in the modern era of vocational training offered in America's public schools (2013). The vocational training program at Prairie View Normal School for Negroes included carpentry and agriculture training for boys in 1882 and grew to include domestic economy (Home Economics) courses for girls in 1899 (Rich, 2013). A 1907 legislative bill required rural schools with 300 or more students to offer agriculture training, and in 1917, the Smith-Hughes Act provided federal funds to be matched at the state level in order to pay the salaries of vocational teachers. The funds provided by the Smith-Hughes Act were allocated specifically for teachers of agriculture, home economics, and industrial education courses. The George-Deen Act of 1936 and George-Barden Act of 1947 provided more funds for the support and progression of vocational training programs. In 1963, the Vocational Education Act provided grant funding to states in order to help underwrite existing programs and contribute to the development of new programs that trained citizens for in-demand occupations. The Governor's Conference on Technical Vocational Education acknowledged in 1973 that 75% of high school students were being prepared for college in public school systems while the workforce only demanded 20% of workers have baccalaureate and postgraduate degrees. With this acknowledgement it was determined that school systems should offer

“education for living” and “education for making a living”. (Rich, 2013) Vocational training programs have evolved with the changing career trends and demands since that time (ACTE, 2009).

In 2006, the Education sector embraced the newly coined term Career and Technical Education (CTE). More than just a name change, the new term “CTE” represented a philosophical change in the way that America viewed vocational training programs in secondary schools. Career training was no longer perceived as a program for youth who would likely not attend college but, instead, a system that prepares students for both employment and postsecondary education. With this change, CTE course offerings grew far beyond the initial agriculture, home economics, and industrial education courses of the previous era (ACTE-NASD, 2009).

While America’s vocational training programs traditionally focused on blue-collar trades, today’s CTE curriculum includes high-growth and high-demand fields. According to the ACTE-NASD (2009), Career & Technical Education programming includes 16 Career Clusters (also known as Occupational Groupings), which serve as models for instruction and career guidance and help provide students with a seamless transition from high school to postsecondary study and work opportunities. These clusters include Agriculture, Architecture & Construction, Health Sciences, Hospitality & Tourism, Information Technology, Law & Public Safety, Manufacturing, Marketing, Transportation & Logistics, to name a few. Each cluster’s curriculum is written by a team of CTE educators and industry professionals (ACTE, 2009). In fact, in the state of Colorado alone, more than 5,000 community and business leaders serve as board members for CTE advisory committees (CCCS, 2011). Among the 16 career clusters are

79 career pathways, which are more detailed areas of study and specialization. Modern CTE programming is designed to offer students a strong educational foundation and work experience in their selected field of study so they are able to matriculate into the professional setting upon graduation (Packard, Leach, Ruiz, Nelson & DiCocco, 2011). Each cluster contains a “strand” of offerings pertaining to the subject area, beginning with *Principles* (introductory-level) and progressing to *Advanced* levels and even *Practicum* courses that offer hands-on training in a lab or industry setting (ACTE, 2010). By the end of a student’s CTE studies, they’ve gained theoretical knowledge and comprehensive practical skills applicable to their desired career.

CTE Program Benefits to Society

Career & Technical Education programs in America’s high schools prepare the workers and business leaders of tomorrow and ultimately contribute not only to the United States’ national economy, but also the global economy (ACTE, 2009). CTE programs can only be successful in the mission to train and equip today’s high school students for current and emerging careers if they are staffed with highly qualified instructors. This literature review analyzes research data regarding teacher recruitment, development, and retention, with a special focus on high school CTE teachers. The purpose of this literature review was to obtain information that will be useful in guiding the research process for this thesis, which was designed to ultimately provide conclusive implications for administrative leaders in urban school districts for the successful recruitment, development, and retention of CTE teachers.

Identifying, Attracting, and Supporting Highly-Qualified CTE Teachers

The science of recruiting, developing, and retaining highly qualified Career & Technical Education (CTE) teachers is riddled with a myriad of factors. One factor is attracting the “right” candidates; those who possess industry experience and post-secondary diploma(s) and/or certification(s) relevant to the content area *as well as* pedagogical training. Another element is developing and maintaining systems that enable new teachers to become fully assimilated and supported in the role of classroom teacher (Wong, 2004).

The effective design and implementation of professional development is one of the most critical investments that school leaders can make in the careers of their teachers. It is also one of school leaders’ most significant contributions to their students’ academic success. Years of educational research reveal that recruiting the right teachers and supporting those teachers properly, especially during the first two to three years of their careers, play invaluable roles in teacher retention rates across the United States (NCTAF, 2007). The subsequent pages of this literature review address the issues noted above and identify strategies for achieving the goals of campus and district administrators with regard to recruiting, developing, and retaining highly qualified Career & Technical Education teachers.

The Teacher Shortage Issue

Baby Boomers in America are retiring at a rate of thousands per day, and every business sector in America is affected by this phenomenon, especially the Education sector. Executives in every industry have sought ways to sustain their workforce by replenishing the ranks with qualified candidates as Baby Boomers vacate their

professional roles. For the past 30 years, the American education system has viewed business professionals (in various industries) as a promising and fruitful pool of potential candidates for the teaching profession. (Woodrow Wilson Foundation [WWF], 2010).

The NCTAF estimated in 2009 that one-third of our nation's most effective educators would be lost to retirement. Former U.S. Secretary of Education, Richard W. Riley, forewarned in 1994 that there would be a need for two million new teachers by 2004 in light of impending Baby Boomer retirements. The nation hired enough teachers to surpass Riley's projected turnover by hiring 2.25 million teachers, but this number was still not enough given the actual number of teachers that left the profession during that time was 2.7 million. Interestingly, only about 600,000 teachers left as retirees. The other 2.1 million left prior to retirement (NCTAF, 2007).

While hundreds of thousands join the teaching ranks each year, the number of teachers leaving the profession every year is greater than the number of new entrants (NCTAF, 2007). Teacher shortage issues in America are not limited to the number of qualified teachers available, but are largely affected by the number of teachers lost each year due to attrition. (Cuddapah, Beaty-O'Ferrall, Masci, & Hetrick, 2011). Baby Boomer retirement is only one concern with regard to the loss of teachers in America each year. In fact, not including those who retire, about 1,000 teachers leave the profession every school day (Shakrani, 2008).

Addressing Teacher Shortage in CTE Programs

There are three major factors contributing to teacher shortage in CTE programs:

- 1) increased demand for vocational training courses (which has outpaced CTE teacher recruitment),
- 2) the elimination of specialized CTE teacher preparation programs (in

favor of generalized teacher education programs), and 3) the increased number of teachers leaving the profession for various reasons, including retirements (Kiker & Emeagwali, 2010). States have been responsive to the need to recruit and develop highly qualified CTE teachers in numerous ways. Idaho developed the Leadership Institute to produce innovative, change-oriented CTE teacher leaders via a 27-month training program that includes administrative mentoring. The Kentucky Teacher Internship Program offers a one-year internship for beginning CTE teachers. Missouri's Career Education Statewide Mentoring Program for New and Returning Teachers pairs new teachers with mentors who teach the same subject/courses for a two-year period. Nebraska and North Dakota offer the Transition to Teaching (TTT) program, which uses federal grant funds to attract and train mid-career professionals for CTE teaching positions. Oklahoma's department of CTE partnered with colleges and universities to implement a two-year new teacher induction program for new CTE teachers at comprehensive high schools. Texas hosts an annual CTE recruitment and retention conference for first- and second-year teachers who are transitioning from the business sector. Utah's New Teacher Academy offers ongoing professional development and support and teaches instructional skills to novice teachers for a period of three years (Kiker and Emeagwali, 2010). These statewide initiatives provide targeted recruitment, training/development/support, and retention efforts for qualified CTE teachers, including career changers. Studies indicate that programs such as the statewide endeavors noted above are very effective in terms of increasing teacher effectiveness and reducing teacher attrition.

Career Changers: An Unlikely Yet Promising Solution to CTE Teacher Shortage

As evidenced in the 2010 Woodrow Wilson Foundation report, research shows that business professionals who become teachers are as likely to be effective and successful in the classroom as those who enter the profession via the traditional route, and they are generally highly committed to the profession despite commonly troublesome issues such as ineffective preparation programs and unsupportive school administrators. There are other potential benefits to hiring career changers as well. Since career changers are typically older and more mature than college graduates, residual benefits of hiring candidates from other industries include positive work ethic, increased productivity and commitment to work-related duties, increased dependability regarding work attendance, and greater patience and tolerance (Cuddapah, Beaty-O’Ferrall, Masci, & Hetrick, 2011).

Recruiting new teachers, for Career & Technical Education or any content area, for that matter, requires campus and district administrators to first determine what the “ideal” candidate should possess and what tasks he or she should be able to perform within the given campus or district. Darling-Hammond and Sykes (2003) reported that teacher candidates should possess characteristics such as dedication and perseverance, enthusiasm and passion for helping others, tenacity and flexibility, and, above all else, concern for the welfare of children. In addition to these foundational traits, there are other (more tangible) criteria that teacher candidates may need to possess or fulfill in order to demonstrate competence as a teacher. For example, teacher certification exams and coursework have been required by states’ education departments since the 1980s as measures to ensure teacher competence. School districts’ procedures for determining teacher candidate preparedness and competence may include measures such as

assessment scores, panel and individual interviews, submission of lesson plan(s) or instructional portfolio, and/or instruction of a sample lesson. Teacher preparation, certification, and hiring practices across districts and states include highly variable standards and procedures (Wise, Darling-Hammond, & Berry, 1987; Darling-Hammond, Wise, & Klein, 1999, Darling-Hammond & Sykes, 2003).

The Mandate for Highly-Qualified Teacher Candidates

According to No Child Left Behind (Title IX, Part A, Section 9101), teacher candidates should be highly qualified, which means that they should be fully licensed or certified by the state and must not have had any certification or licensure requirements waived on an emergency, temporary, or provisional basis. Additionally, teacher candidates must demonstrate competence relative to the subject matter they will teach in the classroom. Teachers may obtain licensure via traditional or alternative certification programs for the “highly qualified” designation. Content-area competence may be demonstrated via an array of methods, including content-based exams, service records from previous employment related to the subject, teaching sample lessons, work portfolio or other artifacts that evidence successful instruction, lesson planning, and assessments.

In many cases, teachers may be deemed “highly qualified” before obtaining certification as long as they are enrolled in a certification program, and may assume the role of a classroom teacher at that time. In fact, in some regions it is common that teaching candidates be hired as teacher of record while they are still working toward gaining certification via an alternative certification program (Darling-Hammond & Sykes, 2003). Again, it is important to note that campuses and districts may have stricter requirements for teachers. In some districts, a teacher candidate may be hired while

pursuing teacher certification, but only as an hourly lecturer, long-term associate (substitute teacher), or part-time teacher, not as teacher of record. District- or State-administered exams, sample lessons, resumes, student-teaching portfolios, recommendations, and other factors may also be considered in the hiring of new teachers. Before recruiting efforts begin, the organization must first detail its expectations for new teachers and define its standard for “highly qualified”, which includes determining whether they will simply adhere to state and national requirements only *or* require standards beyond those set by statute or national policy (Darling-Hammond & Sykes, 2003).

Teacher Preparation Programs

The teacher development process begins with a certification program, which is purposed to prepare teachers to assume the responsibilities associated with managing a classroom, preparing and facilitating lessons, parent communication, and the other various tasks associated with teaching. Teacher certification programs, traditional and alternative, alike, are designed to equip new teachers with the tools necessary for successful entry into the profession (WWF, 2010). The Woodrow Wilson Foundation (2010) reports learning acquired in teacher certification programs includes the pedagogical learning process, content-specific teaching strategies, instructional modification, identifying and responding to varied student needs based on intellectual ability, supporting English language learners and students with disabilities, classroom management, and parent communication. Greater, more in-depth, knowledge is acquired via on-the-job practice, mentoring, and campus- and district-level supports such as

instructional coaches, curriculum specialists, and administrators (assistant principals, deans, principals, executive principals, assistant superintendents).

Traditional teacher certification programs are embedded in degree plans with accredited four-year colleges and universities. When this track is pursued, teaching candidates obtain classroom experience via campus-based student-teaching assignments simultaneous with, or immediately following, their formal studies. In the student teaching role, teacher candidates gain practical experience in areas such as classroom management, lesson planning, parent communication, disciplinary interventions, and documentation. Teacher candidates who follow the traditional route usually graduate with a degree in Education with a minor or second major in the content area of their choice. The minor or second major selected by teacher candidates following the traditional certification path is usually aligned with, or closely related to, the subject they plan to teach at the primary or secondary level (WWF, 2008).

Alternative teacher certification programs are offered by independent entities and are typically not affiliated with colleges or universities. These programs require fewer courses than traditional programs and are shorter in duration, normally one year or less. The fact that alternative certification programs require fewer courses also makes them less expensive than traditional programs and more attractive to many prospective teachers, particularly midcareer or second career teachers, also referred to as career changers (WWF, 2008). Alternative certification is the most common route among teachers for whom education is not their first career (WWF, 2008; WWF, 2010). As illustrated in Figure 3, the majority of teachers who enter the profession via alternative certification are over the age of 30.

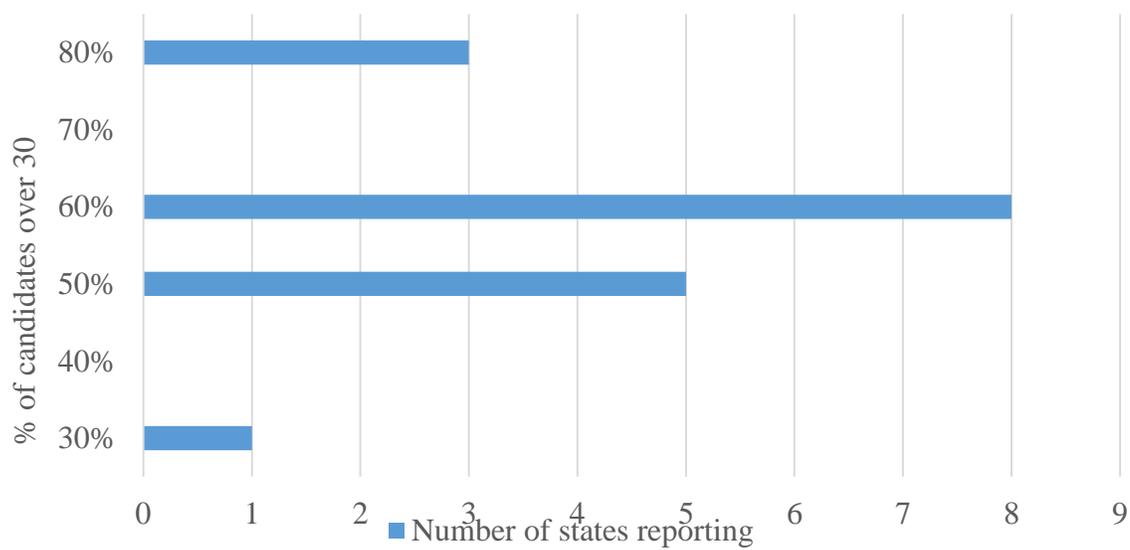


Figure 3. Percentages of Alternative Certification Candidates Over Age 30 (17 States Reported). This figure illustrates the overwhelming number of career changing teachers age 30 or above. Haselkorn, D. and Hammerness, K. of the The Woodrow Wilson Foundation. Encore Performances- Tapping the Potential of Midcareer and Second-Career Teachers. p. 6

A pool of potential career changing entrants to the teaching profession who were interviewed by the Woodrow Wilson Foundation cited that the most important factors affecting their selection of a teacher preparation program and a school district to teach within were “geographic location of the teacher education program (68%), obtaining real classroom experience as they learn to become teachers (65%), teaching preparation tailored to adults with work experience (63%), and mentoring support (56%)” (WWF, 2010). Career changers’ feedback reveals that programs for teacher certification and training should be easily accessible, comprehensive, practical, and helpful. Also revealed in this survey feedback is that even new entrants to the teaching profession realize and acknowledge the need for mentoring and ongoing professional support.

The Woodrow Wilson Foundation (2010) reports about one third of new teachers in America enter the profession via alternative certification programs, while the other two thirds go through traditional programs with colleges or universities. Teacher certification preparation processes vary among traditional and alternative programs, and even among institutions within each category. There are some arguments that one entry path to teaching is better than another, but it's not *how* teachers are prepared, but *how well* they're prepared and supported that makes the difference in their effectiveness and in the ultimate academic achievement of their students (NCTAF, 2007; WWF, 2010).

Teachers who entered the profession as career changers generally indicated that their alternative preparation programs were "excellent" or "good" when surveyed by the Woodrow Wilson Foundation with regard to overall program quality and helpfulness. However, upon closer examination of more detailed questions, it became clear that many alternative teacher preparation programs fail to adequately prepare new teachers for the profession. When survey respondents were asked to rate their teacher preparation programs in 13 specific areas, the majority of respondents cited that their training was less than sufficient in several criteria. Among the areas of deficiency were preparation to work with students with varied intellectual abilities, teaching to state standards, successfully implementing feedback from mentor and administrator classroom observations, classroom behavior management, analyzing student assessment data to determine most appropriate instructional strategies, parent communication, technology use, and teaching English Language Learners (WWF, 2010). Weaknesses in these critical areas equate to ill-prepared teachers in our children's classrooms and increased difficulty for these career changers to successfully transition into our schools. To add

insult to injury, 64% of new teachers from alternative certification programs are placed in schools with students who have low socioeconomic backgrounds, learning disabilities, and are deemed “the hardest to reach” children (WWF, 2008). As previously noted, it is essential that professional development and training extend beyond the certification process in order to adequately prepare teachers for the instructional and behavior management challenges they face in the classroom. Such support also helps to prevent the disillusionment and burnout that teachers, especially those who work with students from low socio-economic backgrounds, tend to experience within their first few years in the profession (Ingersoll & Smith, 2004; Wong, 2004).

Teacher preparation programs are essential for new teachers. Darling-Hammond (1999) reports that teachers who lack content expertise and pedagogical training are less effective in the areas of content-based lesson planning and facilitation, student engagement, and classroom behavior management, to name a few. Lack of competency in any of the aforementioned areas yields lower-quality instruction and a lower threshold of academic achievement for students (Darling-Hammond, 1999).

Many teacher preparation programs continue to train teacher candidates for a homogenous environment that once characterized the public school setting. Because our nation’s population has changed so drastically over the past several decades and the populations of our public school systems have followed suit, the teacher preparation curriculum and methods of yesterday are no longer adequate (Darling-Hammond & Berry, 1999; Darling-Hammond & Sykes, 2003). New teachers whose certification training programs follow the older model are less prepared to successfully handle the challenges associated with culturally diverse students and those with varying prior

knowledge, intellectual ability, and instructional needs (Darling-Hammond & Berry, 1999). Since schools with the highest populations of students of color and those from low socioeconomic families tend to have the most challenges and the least parental support, these are the campuses where teachers are more likely to experience burn-out and eventually leave the school (and possibly even the teaching profession).

Consequently, these campuses tend to experience more turnover and have greater staffing needs from year to year. In some cases, it is deemed necessary to hire less-than-highly-qualified teachers in order to simply have an adult present in each classroom. The failure of some alternative teacher certification programs to provide adequate training for new, career changing, teachers may explain why the retention rate among this group is lower than among teacher groups who are trained and certified via traditional (university-based) programs. This disparity is illustrated in figure 4.

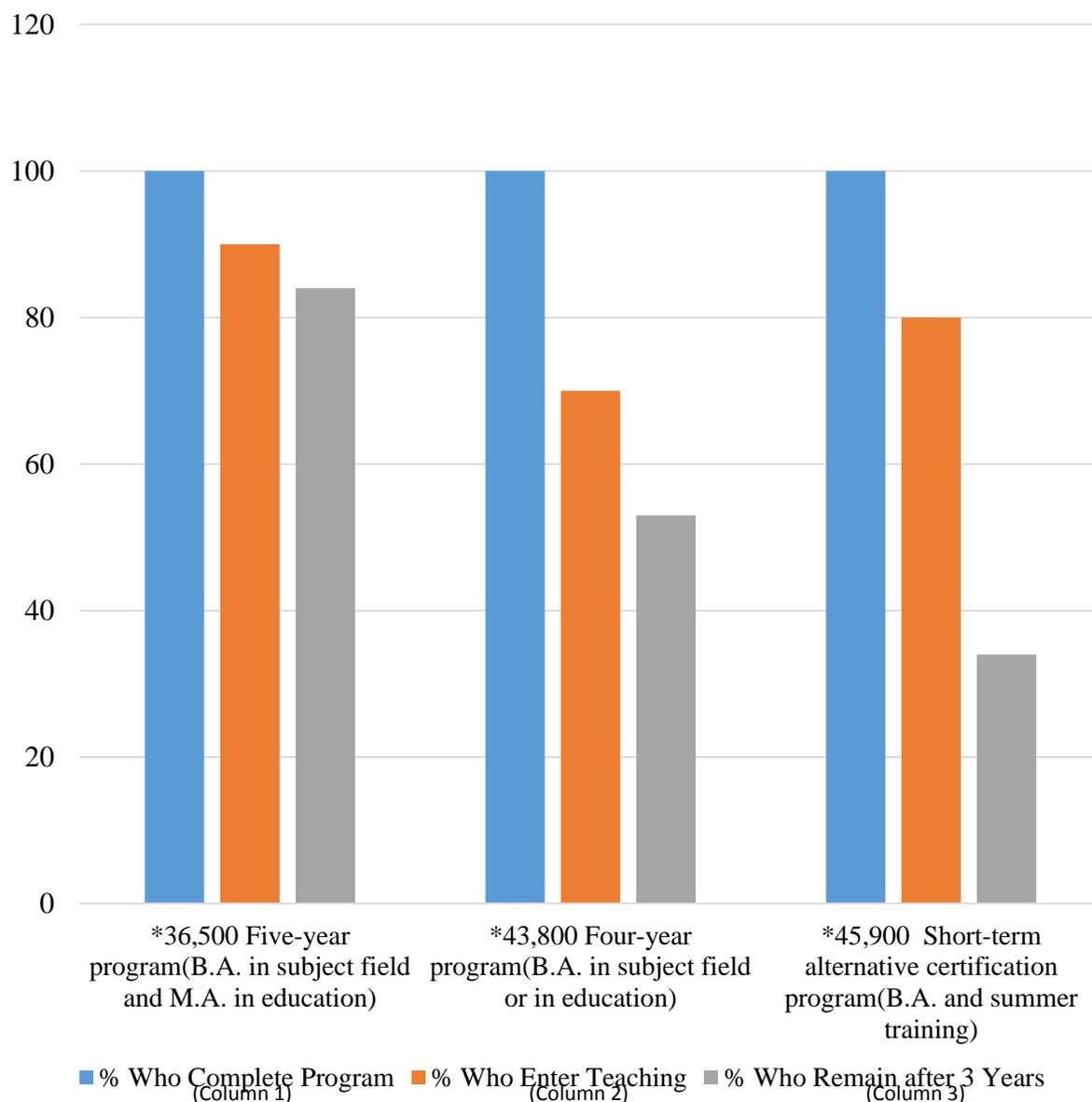


Figure 4. Average Retention Rates for Different Pathways into Teaching. This figure shows that while each path to entering the teaching profession has a 100% completion rate, the percentages of those who enter the profession and then remain in the classroom beyond the initial three-year period varies. Darling-Hammond and Berry, (1999). p. 268

Recruiting and Hiring Career Changers

It is common that Career & Technical Education teacher candidates come from the business sector and have no prior teaching experience, unlike teachers in most core

subject areas who typically study education in college and gain experience as a student teacher during that time (WWF, 2008). Are the “career changing” CTE candidates expected to join the teaching ranks having already completed the teacher certification and pedagogical training, or is it acceptable to the institution if this training is in progress when the CTE candidate assumes the role of classroom teacher? Will “career changer” candidates be hired when they lack student teaching experience and other credentials that traditionally certified candidates possess? These questions, and others like them, must be considered and discussed by school leaders so that a clear set of expectations can be established for teacher applicants, especially career changers (WWF, 2008). These details are beneficial when established and clearly defined prior to the implementation of a recruiting plan to attract new teachers.

In light of the fact that many of the prospective CTE teachers are working in the business sector, school district administrators must realize that they may not be able to reach these prospects in the same ways as traditional teacher candidates (WWF, 2010). Since the career-changing teacher candidates are not on the traditional track to a career in education, identifying and reaching them requires wit, creativity, and a healthy dose of out-of-the-box thinking. Non-traditional recruitment advertising methods are essential to attracting non-traditional teacher prospects (WWF, 2010). “What do we know about the demographics of those who enter teaching in midcareer, or as a second career? What motivates career changers to choose teaching? How are they being prepared?” (p. 2) (WWF, 2008). When school districts have identified effective methods for reaching potential CTE teachers, they must determine how to best appeal to these prospects. In order to successfully appeal to career changing prospects, school leaders should identify

and truly understand the factors that might lead an industry worker to consider the change in the first place.

Why Career Changers Choose Teaching

Of the career changers studied by the Woodrow Wilson Foundation (2010), 89% cited “contributing to society and making a difference” as their reason for pursuing the teaching profession and 63% cited “allows greater time for family and personal interests”. Additionally, 80% of respondents said that they liked the idea of “teaching a subject that really interests” them. As noted by Haselkorn and Hammerness (2008) in a study conducted by the Woodrow Wilson Foundation, the desire to teach lies within many potential career changers, but their desire must be met with fair and reasonably attractive financial and intangible incentives, adequate training and preparation, and provisions for ongoing professional support and development (WWF, 2008).

Understanding the reasons why career changers consider teaching will help school and district leaders to better communicate with these individuals when attempting to recruit them our nation’s classrooms (WWF, 2010). Teacher compensation is not on the same salary scale as most professional careers, so it is important that school districts highlight the factors that would appeal most to working professionals (WWF, 2008). The most important things to communicate to potential career changers, according to the Woodrow Wilson Foundation report are the intangible and intrinsic benefits of teaching. Things such as increased time to pursue personal interests and to spend with family & friends, the satisfaction of making a difference in young lives, and the opportunity to inspire and invoke long-term good in the community via societal improvement, are things that may appeal to working professionals. These themes should be the central points in

school districts' recruiting advertisements, promotions, and informational texts or social media posts pertaining to teaching opportunities (WWF, 2008; WWF, 2010). Building upon the foundation of what already works in terms of attracting career changers will ensure that schools and districts maximize efficiency of their limited recruitment resources and get the maximum return (candidate interest, applications, new hires, and retained teachers) on their investment.

Compensation and Attracting Career Changers

In addition to identifying and utilizing the most appropriate mediums for reaching college students and working professionals (potential career changers), and delivering messages that appeal to their inner desires to contribute to societal change, have a career that allows for more personal time, and to share their personal interests with others, districts may also need to "sweeten" the deal (WWF, 2010). Financial incentives such as signing bonuses may help to attract more candidates, but they are not the only option to offer new recruits. In addition to signing bonuses, larger salaries and results-based incentives would help to attract teaching candidates (Darling-Hammond & Berry, 1999; Darling-Hammond & Sykes, 2003; WWF, 2008). Regardless of the industry, compensation is always an important factor when candidates consider a career change, however, compensation is not the only factor. As was previously stated, "the call to teach resonates with many potential career changers, but their desire to serve must be matched with adequate incentives, appropriate and thorough preparation, and continuing supports" (p. ii) (WWF, 2008). Generous salaries and signing bonuses may attract teacher candidates to the classroom, but compensation, alone, won't cause new teachers to stay in this profession (WWF, 2008). School leaders tend to devote much of their attention to

teacher recruitment, but this is just one-third of the solution to the teacher shortage issue. The remaining, and equally important, factors are development and retention.

Following Preparation Initiatives with Professional Development and Ongoing Support

Preparation programs and ongoing support systems are essential factors to teacher development and retention (Ingersoll & Smith, 2004). Without effective preparation and supports, teacher recruitment efforts are undermined and perpetuated (NCTAF, 2004). Teacher retention is often a greater staffing problem in American schools than recruitment, and it is critical to the rectification of the teacher shortage issue (Darling-Hammond & Sykes, 2003). If teachers are not retained, then recruitment efforts are meritless; this is why professional development and proactive retention methods are so critical to every campus and school district.

On-boarding

New hires in any industry or occupation require on-boarding in order to learn and fully understand what a new job entails. On-boarding, otherwise referred to as orientation and induction, reveals details pertinent to what the professional should know and be able to do as part of the job. The teaching profession has not historically offered the structured, formal, induction programs that are commonly used in the corporate sector (Ingersoll & Smith, 2004). On-boarding is a significant practice because a job description doesn't fully disclose what an employee should expect in their day-to-day activities or what they need to know and be able to do. Even if a new employee has held a similar job or performed similar duties for another organization, it is likely that the methods or procedures are not identical to those practiced in the new organization or

school district. Successful on-boarding programs acclimate new employees to the organization, but also, more specifically, to their specific worksite and the team of professionals they will work alongside. Moreover, successful on-boarding leads to ongoing support for professional growth and development (Hargreaves & Fullan, 2000).

The on-boarding process in Education is referred to by practitioners as *Induction* and is based on four major /defining principles: “1) building and deepening teacher knowledge, 2) integrating new practitioners into a teaching community and school culture that supports the continuous professional growth of all teachers, 3) supporting the constant development of the teaching community in the school, and 4) encouraging a professional dialogue that articulates the goals, values, and best practices of a community” (p. 7) (NCTAF, 2007). In order to support this four-fold endeavor, teachers are provided with a support package that includes a mentor, supportive interactions and communication with the principal and other campus administrators and department chairpersons, time for collaboration and common planning with instructional peers (such as participation in a professional learning community (PLC)), and other supports such as reduced course load(s) and teaching assistants/aides (NCTAF, 2007). The NCTAF reports this package of professional support, which is characteristic of comprehensive induction programs, reduces teacher turnover and increases teacher effectiveness (2007).

Research by Darling-Hammond and Berry (1999) supports the idea that inadequate preparation for the role and duties of a classroom teacher and ineffective or non-existent support systems, especially for new teachers, often undermine educators’ desires to stay in this profession and to invest additional finances, time, or effort in order to develop more knowledge and skills for proficiency in the job. In order to positively

impact teacher development and retention, school districts and educational service organizations that offer professional development services for teachers should maintain a high level of rigor as well as relevance to the actual day-to-day demands of teaching (Darling-Hammond & Sykes, 2003). It is also very significant that teacher training and development programs deliver content with a focus on teachers' preparation to be successful in terms of delivering instruction and implementing practices that making meaningful positive impacts on student achievement. Sessions should include literature and activities that are meaningful and relevant to teachers' actual experiences in the classroom, not just theory (National Research Center for Career and Technical Education (NRCCTE), 2011). Relevance and rigor help to enrich the training and development process while empowering teachers with practical knowledge (WWF, 2008).

The Argument for Teacher Quality

Research by Harry K. Wong (2004) explains that the ultimate reason schools and districts exist is the academic achievement and success of students. Teacher quality is the most essential aspect of the educational process and the greatest indicator of students' future success (Darling-Hammond & Berry, 1999; Darling-Hammond & Sykes, 2003; Wong, 2004; Shakrani, 2008; WWF, 2010). It is the strongest force affecting student achievement, and is more impactful than all other instructional variables. An analysis of 900 Texas schools, by Darling-Hammond and Berry (1999), revealed that about 40% of the measured variance in student's academic achievement in reading and mathematics in grades one through eleven is attributable to teacher expertise. Another study conducted by Sanders (1996) yielded the conclusion children who have highly effective teachers for three consecutive years show academic performance growth 54% higher over the three-

year period than students with ineffective teachers over the same amount of time. Since teacher quality is the single most significant determining factor in students' academic achievement and success, developing and retaining good teachers is the most important thing that district leaders can do. In classrooms that lack teacher expertise, the likelihood of quality instruction and content illumination are rare, if at all possible. High quality instruction and subsequent academic success are sustainable only when knowledgeable, skilled teachers are recruited, developed, and retained. Principals make optimal student achievement attainable by way of their selection and hiring of highly qualified teachers, and the measures implemented to develop and retain those teachers over time (Wong, 2004).

There has been enormous focus on teacher quality in America since the inception of the No Child Left Behind Act of 2001 and teachers are now held to an increasingly stringent standard of excellence for all children, not just the special population groups (students who are selected for programs such as gifted & talented, magnet, and vanguard, and others based on intellectual ability and academic performance) (Darling-Hammond & Berry, 1999). Making academic success attainable for all students is essential and preparation for instructional rigor in increasingly diverse communities and schools requires training beyond teacher certification programs. Campuses and districts should provide professional development programs and supports for teachers to be successful in the classroom and to maintain interest in their teaching career (NRCCTE, 2011). The effects of such supports are plentiful, but the most significant is our ultimate goal as educators, increased academic achievement for our students. When school and district administrators realize that the development process does not end when a teacher obtains

certification and that this is, instead, only the first step, more resources and concerted efforts will be devoted to ongoing instructional development and professional support for teachers.

Professional Development

Teacher development is an essential process that must be implemented purposefully in order for teachers to master the instructional process and to make positive, lasting, impacts on students' academic achievement. To provide students with highly effective teachers, districts must provide professional development programs that improve skills throughout teachers' careers (Wong, 2004). Campus and district leaders play a critical role in the development of new teachers. The support offered and resources allocated by school and district administrators determine the effectiveness of teacher induction and development programs. As illustrated below, by the National Research Center for Career & Technical Education (2011), high quality professional development must be matched by administrative support for the highest impact on teacher success and, consequently, student achievement.

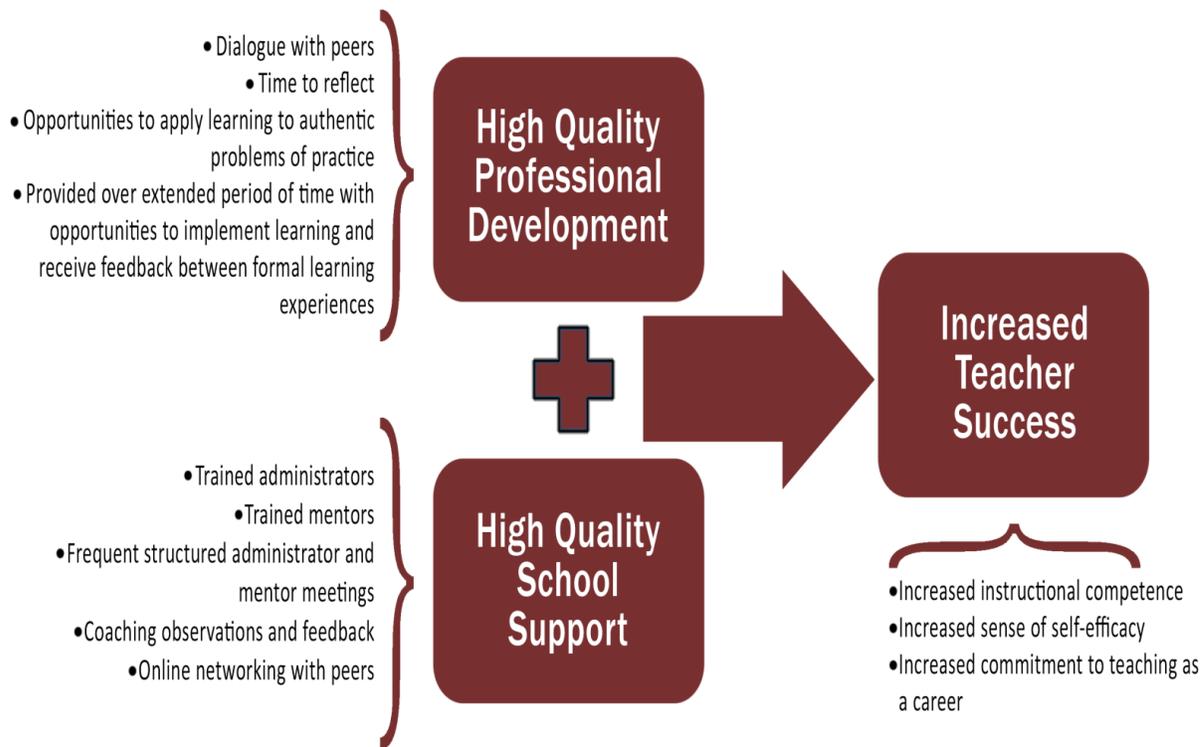


Figure 5. Impacts of Professional Development and School Support. National Research Center for Career and Technical Education (2011). Improving Secondary CTE through Professional Development. p. 13

Hargreaves and Fullan’s (2000) research on teacher retention and mentoring reveals that professional support given early in a teacher’s career and consistently throughout their career is very instrumental in the development of effective instructional practices and teachers’ likelihood to remain in the profession. Unfortunately, the culture of today’s schools is a continuation of the practice of solo teaching that characterized the school environment decades ago. In most cases, there is little opportunity or incentive for teachers to share their knowledge and expertise with peers (NCTAF, 2007). There is much to gain from collaborative planning and mentor teaching. Mentoring and induction programs are great ways to boost new teacher morale, performance, and career longevity.

They offer reciprocal benefits for teachers who are in need of assistance as well as those who offer assistance (Hargreaves & Fullan, 2000; Shakrani, 2008). New and struggling teachers receive guidance and support in the new and challenging experiences they encounter while mentors reflect on their own experiences, failures, and successes in the classroom in order to provide practical advice, guidance, and support for the mentee (Shakrani, 2008). While mentor teachers are the experts in terms of classroom management, lesson-planning and execution, and experiential knowledge relating to instruction and assessments, new teachers are often the experts in terms of modern instructional techniques, newly-discovered best practices, technology integration in the classroom, and up-to-date content knowledge (Hargreaves & Fullan, 2000). Both individuals in the mentor-mentee relationship have knowledge to offer, and both parties can benefit by learning from and sharing with the other.

When 486 new teachers in four states – California, Florida, Massachusetts, and Michigan – were surveyed, 56% revealed they received no extra assistance from a mentor / veteran teacher and 43% reported they were never observed by a mentor or veteran teacher during their initial year in the classroom, as reported by Wong (2004). These statistics exposed tragic truths about the on-boarding processes of new teachers across this country. Although the benefits of induction are widely known in the education community, there are still organizations where they are not utilized. New teachers who are not guided in the processes of teaching and classroom management are inevitably going to make potential mistakes that may impact student achievement. Common new-teacher errors include lack of understanding for students' different learning styles and failure to plan and redirect instruction to meet student needs (Darling-Hammond &

Berry, 1999). Learning how to perform one's job duties in the clinical sense is only the beginning of the road to mastery. Greater synergy takes place during practical application of information, and ultimately when one is able to reflect on his or her practice and identify strengths and weaknesses. As the four-states' new teacher mentoring survey feedback revealed, beginning teachers often feel thrown into their new roles without sufficient preparation and support, and they, consequently, frequently perceive the career change as a sink or swim scenario (Wong, 2004). According to Ingersoll and Smith (2004), it is also important to note that in districts that do not offer a formal induction program, including mentoring, many new teachers are left to succeed or fail behind the closed doors of their classrooms.

When implemented properly, mentoring programs dissolve the feelings of isolation that many new teachers experience during their initial years in this career (Hargreaves & Fullan, 2000). This is especially significant for career changers since they come from various industries and typically do not have a professional background or extensive training in education, and are even more likely to feel thrown into the classroom. Interestingly, according to a Woodrow Wilson (2010) report, less than one third of all teachers who enter the profession as career changers receive formal weekly mentoring. Mentoring and other induction strategies are incredibly significant onboarding processes for new teachers, and ongoing professional supports are critical (Wong, 2004). This is true of almost every occupation, but especially in those that are stressful and emotionally-draining (Hargreaves & Fullan, 2000).

Ongoing Supports

Hargreaves and Fullan (2000) report teachers remain in this profession when they are part of a professional learning and support community wherein there is the opportunity to share and exchange experiences, ideas, and best practices. Of course, there are exceptions to this rule and there are teachers who persevere in this occupation despite non-existent induction and support systems, but they are rare in comparison to those who leave in light of these challenges (Darling-Hammond & Berry, 1999). A teaching community (also referred to as a professional learning community (PLC)) is a group of teachers that can plan collaboratively and share best practices (NCTAF, 2007; Shakrani, 2008). Teaching communities (PLCs) foster a collaborative learning and support community for new and veteran teachers (Shakrani, 2008). The professional conversations and reflective activities, mentor-mentee relationships, and PLCs help to develop effective teachers (Shakrani, 2008).

As with other professions, teachers thrive in environments where there is collegial support for learning and professional development (Cuddapah, Beaty-O’Ferrall, Masci, & Hetrick, 2011; NCTAF, 2007; Shakrani, 2008, WWF, 2010). As mentoring and induction programs train and develop new teachers, they also, possibly more importantly, re-culture campuses and districts while establishing and supporting standards of instructional excellence and professional camaraderie (Hargreaves & Fullan, 2000). The support derived from these programs positively impact teacher retention and decrease attrition rates (Hargreaves & Fullan, 2000; Ingersoll & Smith, 2004; Shakrani, 2008; Wong, 2004).

Teacher Attrition

According to a 2011 report by Cuddapah, Beaty-O’Ferrall, Masci, & Hetrick, more than 85% of respondents in a teacher survey about career satisfaction indicated they planned to leave the profession, and over 14% were undecided about their intentions to remain classroom teachers or to pursue a different occupation instead. The majority of teacher respondents were female and Caucasian (76% and 75.3%, respectively) and more than one-third (35.7%) were between the ages of 26-30. Although this sample may seem rather homogenous at first glance, it is important to note 44% of America’s schools have no teachers of color (Darling-Hammond & Berry, 1999) and that the average teacher tenure in many urban districts is about three years (NCTAF, 2007). When all factors are considered, this sample is representative of the teaching ranks in the United States’ public schools. Feedback from this survey indicates that only about 10% of the respondents were confident about their desire and willingness to remain in the classroom, which is very telling since our nation’s teacher turnover rate is presently 16.8% (a 50% increase over the past 15 years). The turnover rate in urban schools (20%) is even higher than the national average (NCTAF, 2007; Kopkowski, 2014). The respondents’ feedback as to their intentions and their reasons varied, however, there were trends around pregnancy/childrearing (32.5%), dissatisfaction with teaching as a career (24%), and heavy workload (26.8%) as reasons for leaving the profession (Cuddapah et al., 2011). Table 2 is an illustration of the respondents who participated and provided feedback for Cuddapah’s teacher survey. Table 3, which follows, gives details regarding their feedback regarding reasons indicated for leaving the teaching profession.

Table 2
Respondent Demographics

Leavers and Undecided Combined *n* (%)

Note: Values rounded to the nearest tenth

Gender	
Female	117 (76.0)
Male	35 (22.7)
No Response	2 (1.3)
Age	
21-25	18 (11.7)
26-30	55 (35.7)
31-39	52 (33.8)
40-49	20 (13.0)
50-59	6 (3.9)
60+	2 (1.3)
No Response	1 (0.6)
Ethnicity	
African American	13 (8.4)
American Indian	1 (0.6)
Caucasian	116 (75.3)
Latino/Latina	4 (2.6)
Asian	12 (7.8)
Other	5 (3.2)
No Response	3 (1.9)

Cuddapah, et.al (2011). *Exploring Why Career Changers Leave Teaching*. p. 121

Table 3
Multivariate Responses for Personal, Career, and School Satisfaction Reasons for Leaving Teaching

Leavers and Undecided Combined <i>n</i> (%)	
Personal Reasons	
Other personal reasons	52 (33.8)
Pregnancy / childrearing	50 (32.5)
Not Applicable	47 (30.5)
Change in Residence	24 (15.6)
Health	5 (3.2)
Retirement	4 (2.6)
Career Reasons	
Pursued education position other than K-12	50 (32.5)
Dissatisfied with Teaching as a Career	37 (24.0)
Not applicable	34 (22.1)
Return to school to improve opportunities within education	32 (20.8)
Return to school to change career outside of education	28 (18.2)
Want better salary or benefits	34 (22.1)
More opportunities for professional development	23 (14.9)
Other career reasons	19 (12.3)
Affected by involuntary staffing action	7 (4.5)
School Satisfaction Reasons	
Not applicable	66 (43.1)
Heavy workload	41 (26.8)
Not enough planning time	39 (25.5)
Poor administration support	37 (24.2)
Problematic student behavior	34 (22.2)
Lack of influence over school policy	33 (21.6)
Lack of parental support	28 (18.3)
Too many students in classroom	27 (17.6)
Other school satisfaction reasons	24 (15.7)
Student motivation	20 (13.1)
School or teaching assignment	19 (12.4)
Professional development requirements did not match career goals	18 (11.8)
School facilities	14 (9.2)
School facilities	9 (5.9)
Computer resources	7 (4.6)
Relationships with colleagues	

Cuddapah, et.al (2011). *Exploring Why Career Changers Leave Teaching*. p. 122

Nearly one third of teachers leave the profession before making it past the three-year mark and almost one half leave within the first five years (NCTAF, 2007; Shakrani, 2008; Kopkowski, 2014). This rate is even higher in some regions of the country, and in some cases the teacher dropout rate is even higher than the student dropout rate. In Philadelphia, Pennsylvania, for example, 70% of new teachers left the district (and perhaps the profession) within a 6-year period from 1999-2005. Of the 919 new teachers that joined the district and 12,000 students started ninth grade in 1999, 58% of the students had graduated from high school six years later, but only 30% of the new teachers remained (NCTAF, 2007). According to Ingersoll (2001), most teachers who leave the profession do so because they become frustrated and eventually dissatisfied due to the lack of adequate preparation and support for the issues they face in the classroom. A few of the specific reasons given by resigning teachers who transfer to another campus are “lack of planning time (65%), heavy workload (60%), problematic student behavior (53%), and lack of influence over school policy (53%), to name a few (Shakrani, 2008). Among those who leave the profession, the reasons varied slightly: 30% left due to retirement, 57% were dissatisfied or wanted to pursue another profession, 10% left for personal reasons, and 3% left involuntarily (perhaps due to reduction in force or some other form of termination) or for unstated reasons. The feedback reported by Ingersoll (2004) shows the same themes as Cuddapah’s (2011) study (dissatisfaction with the career, heavy workload, lack of influence over school policy, and retirement) with regard to reasons why teachers leave the profession. Figure 6 illustrates Shakrani’s findings, which are also consistent with these trends.

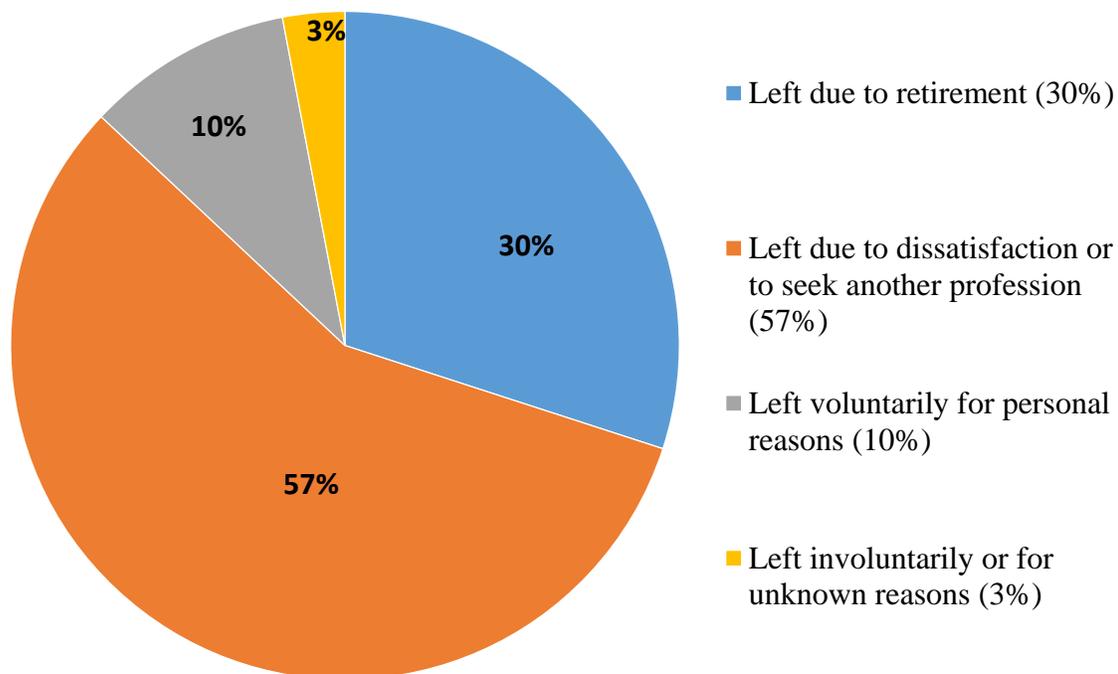


Figure 6. Reasons why Teachers Leave the Profession. Shakrani, S. (2008). Teacher Turnover. p. 3

Although recruiting and hiring new teachers is an immediate remediation for the vacancies created, it doesn't fix the reasons why teachers leave. Simply recruiting new teachers to replace leavers is not the solution since the problem isn't about finding teachers, it's about keeping them (Darling-Hammond & Sykes, 2003; NCTAF, 2007; Shakrani, 2008). Teacher turnover is not completely beyond the control of school leaders. Principals and other school and district administrators make considerable contributions to the working conditions, employee morale, and overall job satisfaction of teachers (NCTAF, 2007; Shakrani, 2008). School leaders can help reduce teacher turnover via management and allocation of human and financial resources to provide much-needed support to teachers (NCTAF, 2007). The practice of hiring replacement teachers without addressing the issues that drive others out is comparable to pouring sand

into a bucket with holes in the bottom (Kopkowski, 2014). Teacher turnover can only be remediated when school leaders focus on hiring well prepared teachers and giving them adequate support via comprehensive induction programs (NCTAF, 2007).

The problems cited by resigning teachers are issues that can be remediated by campus and district administrators. In order to maximize instructional time, teachers need time to do the things that support instruction such as lesson-planning, preparing seating charts, calling parents, and recording grades, to name a few (NCTAF, 2007). Without adequate planning time during the school day, teachers carry a significant portion of their work home in the evenings, which leads to premature burnout. Another result of inadequate planning time is the unfortunate use of instructional time to perform tasks such as grading papers, which compromises the process of teaching and learning (NCTAF, 2007).

Reduced course loads and the utilization of teaching assistants are noted by NCTAF as effective means for reducing teacher workloads and stress that commonly lead to burnout and, ultimately, resignation (NCTAF, 2007). These methods may cause campuses and districts to incur additional expense, but it is meager in comparison to the cost of teacher turnover that they help to prevent. The management of student behavior is an issue that is addressed in teacher certification preparation programs, but isn't fully understood until teachers and teaching candidates gain practical experience of managing groups of teens or youth (WWF, 2008; WWF, 2010). Beyond the implementation of effective behavior management strategies, it is vital that campus administrators offer teachers the appropriate supports when discipline issues escalate beyond classroom-based management. When administrative responses to discipline issues are inconsistent or,

even worse, passive, teachers lose ground in their classroom discipline management and confidence in the support of their administrators.

According to Cuddapah, Beaty-O'Farrell, Masci, and Hetrick (2011), teachers want to be included in decision-making processes that affect their students, and many teachers have left the profession because their input was not welcomed by campus or district leaders. This report is consistent with the findings of Ingersoll (2004) and Shakrani (2008). Teacher inclusion in campus decision-making could be facilitated via town hall meetings, teacher surveys, suggestion boxes, and open door office policies for administrators.

NCTAF (2007) reports teacher attrition was pretty consistent year-after-year prior to 1990, with about 180,000 teachers leaving the profession annually. Since that time, however, there has been a sharp increase in teacher turnover and the upward trend continues today. Two hundred eighty-seven thousand three hundred seventy teachers left the profession during the 1999-2000 school year. Of that number, about 23% retired while the other 77% left for other pursuits. During the 2003-2004 academic year, 332,700 teachers left the profession. That year, 26% retired and the remaining 74% left for other reasons (NCTAF, 2007). The graph below illustrates teacher attrition rates before and after the trend change in 1990. Implications and costs of this trend are discussed thereafter. This information is significant because it marks the start of an upward trend in teacher turnover, which continues today.

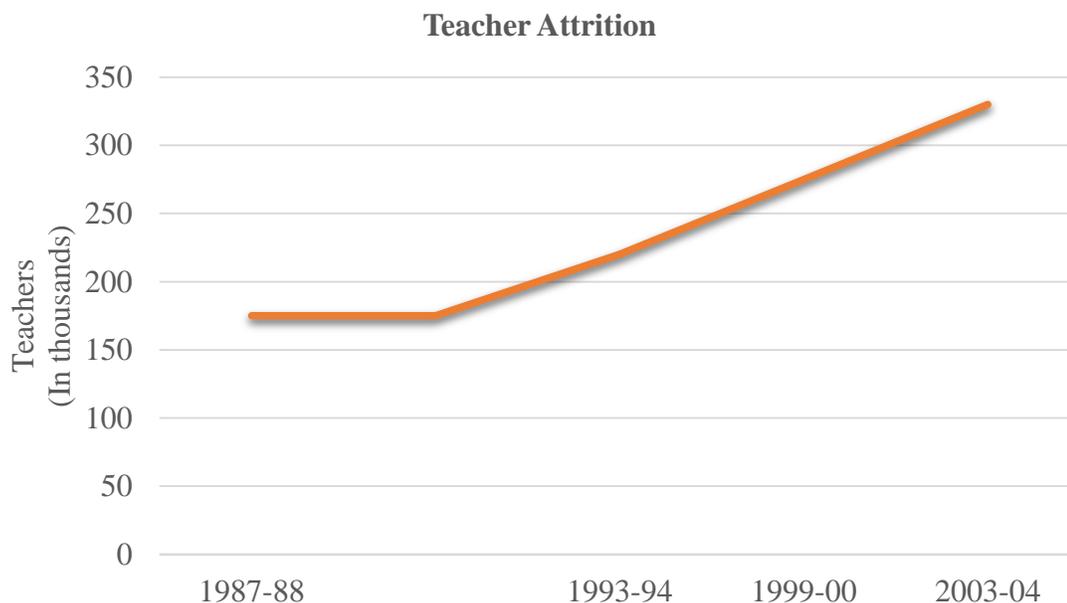


Figure 7. Teacher Attrition. National Commission on Teaching and America's Future (2007). Policy Brief – The High Cost of Teacher Turnover. p. 2

In 2005, America's public schools lost nearly 275,000 teachers. Of that number 30% were retirees and 56-57% cited that they left the profession because they were dissatisfied and/or to pursue other careers (Shakrani, 2008; Kopkowski, 2007).

According to the Woodrow Wilson Foundation (2010), "Many of those who become teachers are driven away by poor support systems, inadequate preparation for their teaching responsibilities, and a reward system that recognizes time in the job rather than talent and effectiveness" (p. iv). Darling-Hammond and Sykes (2003) report mentoring and induction programs are invaluable resources for teacher support, and school and district leaders who fail to implement such programs only contribute to the perpetuation of a "revolving door of ill-prepared individuals who cycle through the classrooms of disadvantaged schools, wasting district resources and valuable learning time for their students" (p. 4). Shakrani's 2008 report that teacher turnover is 50% greater in schools

with large populations of students from low socio-economic backgrounds than in schools where students from affluent backgrounds are the majority underscores a 2003 report by Darling-Hammond and Sykes. Schools that serve students from low socio-economic backgrounds tend to have more disciplinary challenges, less parental support, and less funding for essential resources. This combination is a formula for a stressful teaching environment. However, it is important to note that teachers eagerly remain in schools where they feel supported, regardless of the challenges they face in the classroom.

National teacher survey results reveal that meaningful participation in professional learning communities with mentors and peers (as part of induction processes), and the support of campus and district administration have greater impact on teachers' decisions to remain in the profession than student demographics, classroom behavior, or parental involvement (Darling-Hammond & Berry, 1999; Wong, 2004). These supports give new teachers a sounding board for venting about their experiences with peers who truly understand and relate to their concerns because they've had the same or similar experiences. Mentor teachers and other experienced colleagues can offer advice and practical solutions for dealing with difficult situations and strategies for increasing student achievement from professionals who have been there and done that. It is evident that a growing number of America's school leaders now recognize the significance of induction and mentoring programs since teacher participation in such programs nearly doubled during the ten year period from 1990 to 2000, as reported by Ingersoll and Smith (2004).

Staffing Challenges Faced by Urban Schools and Districts

Schools compete to hire the best and brightest teacher candidates and, since salary schedules are usually very similar in the public education sector (in a given state or region of the country), the only other factors differentiating one campus from another in a candidate's perception may be location, campus size, and student demographics. Small campuses with small classes and low student-teacher ratios are the most attractive to new and veteran teachers, alike, and this setting is most commonly found in affluent schools. Similarly, schools in low-poverty (affluent) areas are more desirable worksites for teachers because they tend to have more parental involvement and support, less disciplinary challenges, and more resources for students and teachers (Darling-Hammond & Berry, 1999). Darling-Hammond and Berry (1999) also reported that campuses in high-poverty areas typically receive the least funding, have the highest populations of students from low socio-economic backgrounds, and have "fewer and lower quality books, curriculum materials, laboratories, and computers; significantly larger class sizes; and less-qualified and less-experienced teachers" (p. 256). This theory is underscored by the NCTAF (2007), which reports that high-need schools in urban and rural areas are commonly staffed with inequitable numbers of inexperienced and under-prepared teachers. These schools, consequently, spend outrageous sums of human and financial capital in the cyclical process of recruiting and hiring new teachers (NCTAF, 2007; Shakrani, 2008). New teachers commonly, and understandably, struggle with instruction and classroom management, but with additional knowledge and experience, they gain the ability to positively impact student achievement (NCTAF, 2007). The most troubling aspect of the teacher turnover reality, according to Darling-Hammond and Berry (1999)

and the NCTAF (2007), is that the least qualified teachers are usually assigned to the least privileged students. It is also true that African American students have double the chance of being taught by the least experienced teachers and are half as likely to have a highly effective teacher as White students (Darling-Hammond & Berry, 1999). Is this significant in the grand scheme of the educational setting? According to Darling-Hammond and Sykes (2003), the great disparities in academic achievement between Black and White students are almost completely attributable to differences in teacher quality. These facts represent a two-edged sword that cuts the academic aptitude and eventual economic independence of people of color. This inequity is a very alarming reality that many American youth experience daily. Not only is teacher turnover highest in high-poverty, high-minority, low-performing schools, but these schools also have the greatest tendency to hire inexperienced, under-qualified teachers. Both teacher turnover and ineffective teaching have negative implications on student achievement, and many students in America have the unfortunate reality of attending schools where both of these conditions are prevalent (Darling-Hammond & Sykes, 2003). The equal opportunity rights afforded to our nation's citizens are compromised when unqualified teachers are hired and entrusted with the responsibility of educating our youth, and the victims are not only the students, but ultimately the larger society (Darling-Hammond & Sykes, 2003). In addition to the harm done to the integrity of the instructional process and children's academic futures when inexperienced teachers are placed in difficult working conditions without adequate training and supports, the teachers are likely to become overwhelmed and are highly unlikely to remain in the profession (Darling-Hammond & Berry, 1999; NCTAF, 2007; Shokrani, 2008).

Because teacher quality takes a sharp upward turn after the initial 2-3 years and hard-to-staff schools frequently lose their new teachers before that time, they never benefit from the investments associated with recruitment and hiring. Students benefit most from teachers who have mastered the ability to create a successful learning environment for their students (NCTAF, 2007). Losing teachers before they reach the peak of their instructional capabilities contributes to the unfortunate sum that hard-to-staff schools are hard-pressed to close the achievement gap when they cannot close the teacher quality gap due to constant staffing attrition and turnover (NCTAF, 2007; Shakrani, 2008). Until the problem is addressed in an effective manner and remediated, at-risk students in America's urban schools are left to contend with a parade of inexperienced teachers who pass through their classrooms and then jump off the education bandwagon before they reach instructional effectiveness.

The High Cost of Teacher Turnover

In 2003, the state of Texas had a 15.5% teacher turnover rate with more than 40% of new teachers leaving the profession within their first three years, and it is reasonable to believe that today's teacher turnover rate was not much different from this figure based on the national average. The costs of teacher turnover have financial and student achievement implications. Darling-Hammond and Sykes (2003) reported the separation costs, replacement / hiring costs, training costs, and learning curve loss due to teacher turnover in Texas equates to an annual financial loss of at least \$329 million for teachers who leave the profession. This figure is even greater when teachers who leave one campus or district to transfer to another are also included. According to several researchers and educational organizations, the impact of teacher turnover on student

achievement is even greater than the financial loss, and the primary victims are the millions of students who attend hard-to-staff inner-city schools, where ill-prepared teachers are most frequently hired (often before they've even acquired all of the credentials necessary to be deemed a highly qualified teacher) (Darling-Hammond & Sykes, 2003; NCTAF, 2007; Shakrani, 2008).

Table 4 reflects teacher turnover costs in six states as reported by Shakrani (2008).

Table 4
Teacher Attrition Costs

State	Total No. of Teachers	Teachers Leaving the Profession	Cost Related to Teachers Leaving the Profession	Teachers Transferring to Other Schools	Cost Related to Teachers Transferring to Other Schools	Total Teacher Turnover Cost (Not Including Retirements)
CA	279,945	14,417	\$206,213,616	17,444	\$249,518,976	\$455,732,592
IL	137,204	5,662	\$78,961,817	10,405	\$145,106,049	\$224,067,866
MI	100,221	4,558	\$67,056,880	7,610	\$111,971,866	\$179,028,746
NY	208,278	13,760	\$210,614,387	9,999	\$153,046,225	\$363,660,611
OH	123,370	8,900	\$110,627,905	7,708	\$95,816,606	\$206,444,511
TX	266,661	19,034	\$214,509,448	25,768	\$290,407,937	\$504,917,385
Total	2,998,795	173,442	\$2,158,074,357	220,700	\$2,709,805,064	\$4,867,879,422

Shakrani, S. (2008). *Teacher Turnover*. p.2

Every time a teacher leaves this profession, thousands of dollars leave with them (NCTAF, 2007). The actual amount lost with each resignation varies, but the average range is \$4,366-\$17,872. The cost of teacher turnover in Chicago Public Schools is over \$86 million per year. On a national scale, teacher turnover and attrition add up to \$7 billion annually (up from \$4.9 billion in 2005), with the lion-share of this figure

attributable to Texas, which has the nation's largest turnover rate (NCTAF, 2007; Shakrani, 2008). The \$7 billion figure does not include school district costs associated with teachers who move from one campus to another within the same district in search of better working conditions or the federal and state investments that are lost when teachers leave the profession (NCTAF, 2007). Sadly, there are school leaders who believe that high teacher turnover is a source of cost savings for districts because it lowers the average teacher salary – since these schools have more new teachers, which are at the bottom of the tenure-based pay scale. The NCTAF (2007) reports that this is a “false economy” (p. 3). The costs associated with the recruitment, hiring, and training of new teachers, and the separation costs incurred each time a teacher resigns must be factored into the *savings* equation. When all things are considered, there is no savings associated with high teacher turnover rates (NCTAF, 2007; Shakrani, 2008). Worse than the financial loss is the academic achievement loss experienced by the students who are forced to contend with novice teachers, who have not yet reached instructional effectiveness, year after year.

Retention

Dr. Harry Wong (2004) suggests that what keeps good teachers is the combination of structured, sustained, and student achievement-focused professional development programs wherein new teachers can observe veteran teachers, be observed and receive meaningful feedback on their instructional practices, and participate in a collaborative group of teachers where they are able to reflect, share, and learn from one another's experiences. Without adequate preparation and the ongoing supports mentioned, the new teacher attrition rate is 25%, whereas, with appropriate training and

supports, new teacher attrition decreases to only 12% (a 13-point difference) (Shakrani, 2008). So what does this mean? Research suggests induction works! All of this suggests leaders must recognize the significance of teacher retention and develop and implement comprehensive induction systems for teacher training and support in order to positively impact, and eventually remediate, the teacher turnover problem.

Interestingly, in most districts' induction programs, teachers who serve as mentors or coaches usually also have their own classes to manage, and the combination of supporting new, often struggling, teachers, in addition to a mentor's own students often overburdens the few experienced teachers in the hardest-to-staff schools. Additionally, mentors in many school districts are not trained and supported as part of a formal mentoring program, according to Wong (2004), mentoring in most districts is not part of a comprehensive induction program. Mentor programs are commonly designed to support only first-year teachers and the mentor-mentee relationship lasts only one year. Wong (2004) adds that it takes several years for one to learn to teach, and that becoming an effective teacher is a developmental process, which cannot be condensed to one year. Based upon Wong's research, it can be argued that all induction programs should be no less than two to three years in duration. Limited resources at under-funded campuses that serve economically disadvantaged students are perpetually stretched thin and the schools rarely keep their teachers long enough to receive an equivalent return on the investment required for an effective, district-wide teacher induction program that includes mentoring among other supports. The significant investment of human capital and other resources necessary to develop and implement these programs may explain why they are not utilized in every school district and why they are normally limited to one year in districts

that use them. While the investments are considerable, it is important to note that induction program costs are meager in comparison to the costs of teacher turnover when they are not utilized (Darling-Hammond & Sykes, 2003; NCTAF, 2007; Shakrani, 2008).

Mentoring

Since comprehensive induction programs with mentoring have shown meaningful, quantifiable benefits with regard to teacher attrition rates, it seems only natural that school districts would invest more financial and human resources into these programs (NCTAF, 2007). It has been concretely established that overwhelming amounts of money are spent each year recruiting and hiring new teachers to replace those who leave the profession and that hiring more teachers does not address the problems that caused others to leave the classroom in search of other careers. Greater investment into induction and mentoring to support new and struggling teachers would yield results that could significantly reduce the need to replace teachers and the billions of dollars devoted to this effort annually (NCTAF, 2007). The savings gained from reduced teacher turnover rates could enable school districts to provide additional supports for new and struggling teachers and to add more instructional support personnel such as reading specialists and instructional coaches, and to implement supplemental professional development programs for teachers.

Authentic support is critical to the development of teacher efficacy and effectiveness. Mentoring programs are commonly used as a way for school districts to provide support for new teachers, primarily those who are new to the profession, not necessarily for experienced teachers who are new to a campus or to the district. However, some districts offer mentoring to all teachers who enter the district, not just

those who are new to teaching (Ingersoll and Smith, 2004). Mentoring has traditionally been reduced to a few brief visits during passing periods or informal hellos in the teacher workroom. The practice of teaching was done in complete isolation and help for new teachers was available “when needed”, which often meant only if they asked for help. It was commonly held that only those who were struggling or incompetent in the profession needed help and, consequently, many new teachers would commonly just wing it rather than ask for help and appear weak or incapable to their colleagues (Hargreaves & Fullan, 2000).

The principal’s role in the mentor-mentee relationship includes the selection of mentors for new teachers, managing the manner in which mentors and mentees are paired, determining how formal or informal the mentor-mentee relationship should be and how closely it should be monitored, how mentors will be provided the time to spend with their mentees, and how they will be compensated or rewarded for their contributions (Hargreaves & Fullan, 2000). In most districts, the pairing of new teachers and mentors is left to the absolute discretion of the campus principal. More often than not, a veteran teacher is selected and assigned to assist and offer guidance to a first (or second) year teacher for a particular school year. Sometimes the mentor teaches the same subject and/or grade level as the novice teacher, but this is not always the case. Teaching the same subject and grade level is ideal, but usually not required of a mentor. The best mentor candidates are those who utilize instructional best practices, yield stellar results on standardized exams, and practice effective classroom management.

In many cases, districts’ mentoring programs are glorified buddy systems wherein mentor teachers are expected to assist and guide their assigned novice teacher as needed

with little direction from campus or district administration (Hargreaves & Fullan, 2000; Wong, 2004). The new teacher is expected to seek out his or her mentor in times of crises or when they simply need help with a student or classroom issue, and the mentor is supposed to check on the new teacher regularly and offer assistance when appropriate. Mentoring is a secondary priority for most veteran teachers since they still have their own class-loads to oversee (instruction, assessments, grading, behavior management, parent conferences, etc.) (Hargreaves & Fullan, 2000; Ingersoll & Smith, 2004; Wong, 2004). Without an extra conference / planning period, the mentor teacher does not have opportunities to visit with the mentee during the school day to observe instruction and classroom management, or to offer coaching.

While mentoring programs have the propensity to be very successful tools for training, developing, and supporting new teachers, they have greater likelihood of reaching desired results when closely managed and heavily supported by campus and district level administration (Wong, 2004). Mentor-mentee conferences, co-teaching, classroom observations, collaborative lesson-planning, and analysis of student data should be scheduled to alleviate the ad-hoc style that characterized mentoring programs of the past. Also, mentor teacher initiatives are more effective when they are part of comprehensive induction programs, rather than as isolated endeavors. Wong reports that mentoring must be used in conjunction with the other induction methods in order to be effective in teacher training and on-boarding (2004).

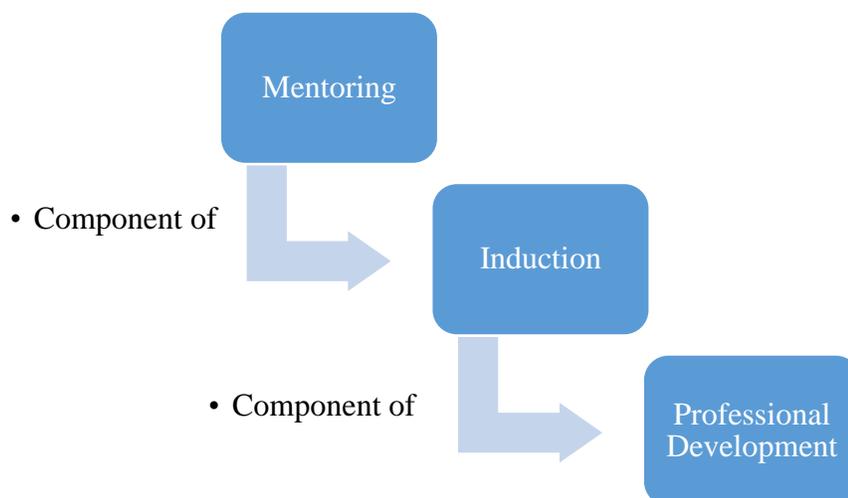


Figure 8. Mentoring, induction, and professional development relationship. NASSP Bulletin, Volume 88 No. 638 March 2004. Wong, H. K. (2004). Induction Programs that Keep New Teachers Teaching and Improving. p. 44

Induction Programs

Induction is the process of comprehensively preparing (training), assimilating, supporting, and retaining new teachers (Wong, 2004). This process is a major component of comprehensive professional development training and support to teachers who are new to a school or district, or to the profession altogether. Induction should last several years (2-3 years minimum) and include components such as orientation, mentoring, and professional learning community participation, to name a few (Wong, 2004). The purpose of induction programs is to integrate new teachers into the profession and into the organization (district) successfully, and to develop highly effective teachers who will positively impact student achievement and, hopefully, remain in the profession for many years. The induction phase of professional development should include training in areas such as working with diverse student groups, communication and collaboration with parents as partners in the students' educational success, analyzing and utilizing student

assessment data, learning and implementing instructional best practices, contributing to educational reform, and constantly refueling one's passion for teaching in order to prevent burnout (Hargreaves and Fullan, 2000).

Although the terms induction and mentoring are often used in tandem, they are, in fact, different things (see figure 9 for a side-by-side comparison) (Wong, 2004).

Mentoring is the part of the induction process that provides a one-on-one coach or mentor to the new teacher. The mentor is an experienced teacher with whom the new teacher can consult weekly (or sometimes more often) as concerns arise and assistance or guidance is needed. Mentors are assigned only to first year teachers in many districts, and to first and second year teachers in other districts, but the support process should not end there. For the greatest benefit of mentor-mentee relationships, mentors should be trained and supported at the campus and district levels. Additionally, mentor support should always be viewed as one of many components of the induction process for new teachers, not as the support system in and of itself (Wong, 2004). Mentoring is part of the overall induction process and induction is part of the comprehensive professional development process that occurs during the career of a teacher.

Table 5
Difference between mentoring and induction

Mentoring	Comprehensive Induction
Focuses on survival and support	Promotes career learning and professional development
Relies on a single mentor or shares a mentor with other teachers	Provides multiple support people and administrators – district and state assistance
Treats mentoring as an isolated phase	Treats induction as part of a lifelong professional development design
Limited resources spent	Investment in an extensive, comprehensive, and sustained induction program
Reacts to whatever arises	Acculturates a vision and aligns content to academic standards

Successful induction programs include an orientation and initial training prior to the start of the school year. This initial training and subsequent trainings should introduce new teachers to basic instructional strategies and classroom management techniques appropriate to their assigned subject and grade level, and familiarize them with the mission, vision, and academic goals of the district (Hargreaves & Fullan, 2000; Ingersoll & Smith, 2004; Wong, 2004). Over the course of the initial two to three years, new teachers participate in study groups with their peers in a professional learning community setting where they can share and reflect on professional experiences. Successful induction programs also include a mentoring component, as previously mentioned, as well as opportunities for new teachers to observe veteran teachers and to also be observed and receive feedback (Wong, 2004). See figure 9 for a sample illustration of the multi-tiered structure of comprehensive induction programs.

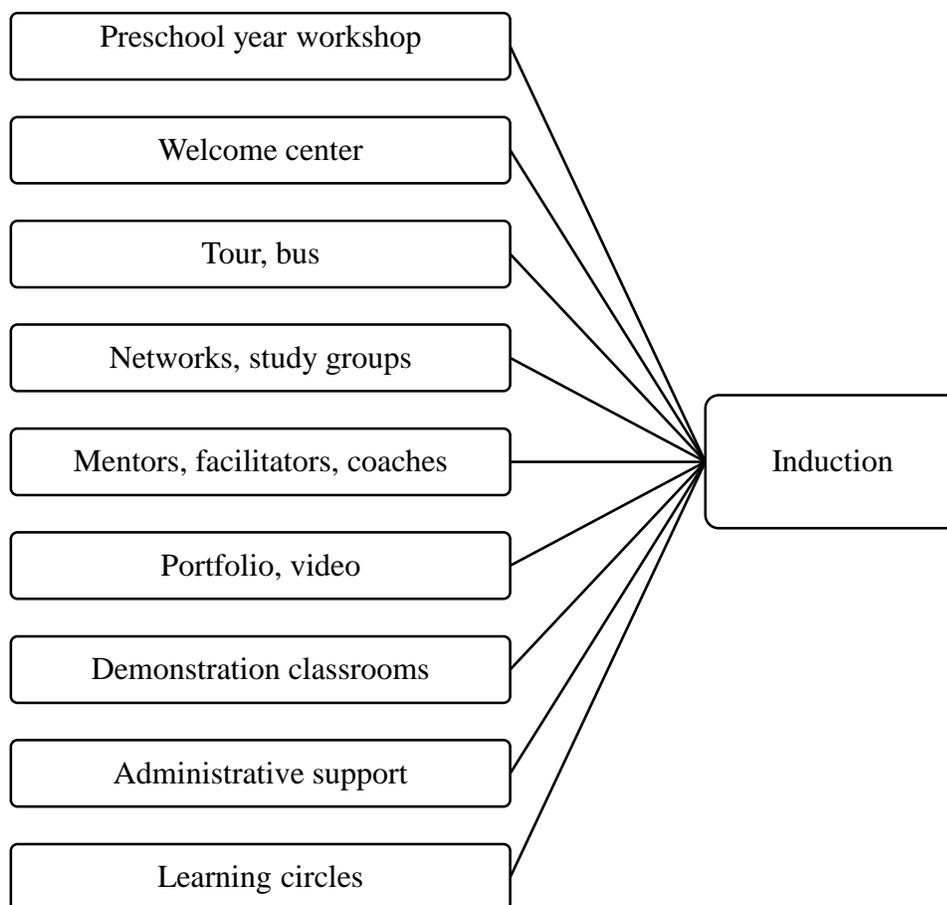


Figure 9. Some Components of Induction Programs. NASSP Bulletin, Volume 88 No. 638 March 2004. Wong, H. (2004). Induction Programs that Keep New Teachers Teaching and Improving. p. 49

Examples of Successful Induction Programs in Urban Schools and Districts

In Hopewell, Virginia, the new teacher induction program provides each teacher with an assigned mentor, four instructional coaches and five lead teachers at his or her campus, staff developers (trainers), administrative support at the campus and district levels, and a district administrator who coordinates and monitors the induction program (Wong, 2004). This approach ensures that help is never far away or out of reach for new teachers. It also provides new teachers with an enormous professional network from the very beginning, which typically takes years to establish in most districts. New teachers in

Hopewell have the opportunity to build collegial relationships with over a dozen individuals who have been where they are and if, for some reason, the mentor is not as visible or supportive as they should be, there are several other resources available to the new teacher. Perhaps Hopewell is onto something, Ingersoll and Smith report that attrition of first year teachers declines as more supports are added.

Wong (2004) reports that the Dallas Public School System has a similar approach to new teacher induction. Instead of support being limited to the assigned mentor teacher on campus, new teachers also have access to a team of twelve expert teachers, known as instructional facilitators, who respond to new teacher concerns within 72 hours. The instructional facilitators each have a set of campuses they are assigned to support, and they visit those campuses for regular check-ins with new teachers and upon request for special issues. The primary focus of the twelve-person team of instructional coordinators is to assist the new teachers who entered this profession via alternative certification methods, but they are available to assist all new teachers as needed.

Wong (2004) also reported another program with special focus on alternatively certified teachers is the Educational Career Alternative Program (ECAP) in Fort Worth, TX. This program includes content-specific training to new teachers as well as classroom visits and observations by field advisers who support the new teachers in addition to their assigned mentor teachers. ECAP supports about 1,000 new teachers annually and its services are available only to new teachers who enter the profession via alternative certification.

Whereas most induction programs are organized and implemented at the district level, the three-year Beginning Educator Support & Training (BEST) Program is a

statewide initiative coordinated by the state of Connecticut, which started in the mid 1980s (Wong, 2004). In the BEST Program, new teachers have one mentor or a team of mentors for a minimum of one year. During their second year, the new teachers create a professional portfolio containing content-specific material pertinent to the subject they teach, lesson plans, videos of their instruction, student work samples, and other experiential artifacts. The finished portfolio is reviewed and graded by a team of teachers commissioned by the Connecticut Department of Education. Each new teacher has two chances to obtain a passing portfolio score in order to earn a license to teach in the state's public school system.

Conclusion

In light of the information presented in this literature review, it seems conclusive that school districts' CTE teacher recruitment, development, and retention practices are vital and have several implications. Among these implications are budgeting, human resources management, and student achievement, to name a few. Chapter 3 discusses and explains the methods that were used for obtaining feedback from CTE teachers, CTE program directors, and campus administrators' regarding their perceptions of the CTE teacher recruitment, development, and retention practices in a large urban school district in Texas.

Chapter III

Methodology

Introduction

The purpose of this study was to examine high school CTE teachers', CTE program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study identified and examined perceived factors that influence teacher attrition in Career & Technical Education (CTE) programs as well as identify promising strategies and resources for recruiting, developing, and retaining highly-qualified CTE teachers.

The research methods outlined in this report were selected by the researcher because they were deemed the most appropriate means for acquiring the perceptions of CTE teachers (including department chairpersons), CTE program directors, and campus principals in a large, urban, school district in Southeast Texas.

Research Design

This qualitative study used surveys, interviews, and focus group sessions to examine the perceptions of high school CTE teachers, CTE program directors, and campus administrators regarding recruitment, development, and retention efforts in a large urban school district in southeast Texas. The researcher anticipated that this qualitative approach would yield the identification and examination of factors that CTE teachers', CTE program directors', and campus administrators' perceive to influence CTE teachers' job satisfaction and decisions to leave or stay in a large, urban school district.

Primary Research Questions

The primary research questions for this study were:

1. What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
2. What are high school CTE program directors' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
3. What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
4. What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in an urban school district?
5. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to leave an urban school district?
6. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to stay an urban school district?
7. What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?
8. How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?

Setting

The setting for this study was a large urban school district in Texas. This school district was chosen because it is located in a large Metropolitan area, one of the largest (by population) in the United States, and one of the most populous cities in the state of

Texas and in the southern U.S. This metropolitan city is uniquely diverse with an abundance of communities that represent various nations. Additionally, this city provides a significant market for the energy, healthcare, transit, and international export and import industries, to name a few. Because of the size, population, and diversity represented in this city and in the chosen school district, the researcher believes that the information gained from this study will be applicable to many urban school districts throughout the United States.

According to the 2011-12 Academic Excellence Indicator System (AEIS report) from the Texas Education Agency (TEA), Tables 6-11 reflect the demographics for the selected school district and the selected 18 high school campuses.

Table 6*Ethnic Distribution of Students (at Selected 18 High School Campuses)*

Campus	African American	Hispanic	White	American Indian	Asian	Pacific Islander	2+ Races
A	11.8%	71.4%	12.3%	0.0%	2.9%	0.0%	1.6%
B	18.7%	27.3%	10.2%	0.1%	42.0%	0.5%	1.1%
C	94.4%	3.7%	1.2%	0.0%	0.0%	0.0%	0.6%
D	90.5%	8.4%	0.2%	0.2%	0.1%	0.2%	0.3%
E	4.0%	94.3%	1.1%	0.3%	0.2%	0.1%	0.0%
F	1.2%	95.4%	1.9%	0.2%	1.0%	0.2%	0.0%
G	21.9%	66.2%	9.5%	0.0%	2.0%	0.0%	0.5%
H	51.0%	40.4%	4.5%	0.4%	1.7%	0.2%	1.9%
I	42.6%	50.0%	4.4%	0.2%	1.4%	0.0%	1.4%
J	17.2%	20.3%	51.4%	0.3%	8.2%	0.1%	2.6%
K	29.1%	37.8%	27.0%	0.2%	4.1%	0.2%	1.7%
L	12.2%	26.5%	41.1%	0.3%	17.1%	0.2%	2.6%
M	19.4%	75.6%	3.6%	0.2%	1.2%	0.0%	0.0%
N	3.2%	91.7%	0.9%	0.0%	3.6%	0.6%	0.0%
O	55.3%	43.4%	0.5%	0.5%	0.1%	0.1%	0.1%
P	42.7%	51.3%	3.4%	0.3%	1.8%	0.3%	0.3%
Q	10.8%	88.0%	0.9%	0.1%	0.1%	0.0%	0.1%
R	11.2%	83.3%	4.0%	0.4%	0.5%	0.2%	0.4%

Texas Education Agency. (2011-12). Academic Excellence Indicator System (AEIS Report).

Table 7
Ethnic Distribution of Students (District-Wide)

Ethnicity	Count	Percent
African American	50,778	25.2%
Hispanic	126,149	62.6%
White	15,879	7.9%
American Indian	465	0.2%
Asian	6,611	3.3%
Pacific Islander	216	0.1%
Two or More Races	1,496	0.7%

Texas Education Agency. (2011-12). Academic Excellence Indicator System (AEIS Report).

Table 8
Ethnic Distribution of Teachers

Ethnicity	Count	Percent
African American	50,778	36.1%
Hispanic	126,149	27.1%
White	15,879	30.4%
American Indian	465	0.3%
Asian	6,611	4.6%
Pacific Islander	216	0.1%
Two or More Races	1,496	1.4%

Texas Education Agency. (2011-12). Academic Excellence Indicator System (AEIS Report).

Table 9
Additional Student Information, Abbreviated

Student Population	Count	Percent
Economically Disadvantaged	162,699	80.7%
Limited English Proficient	60,546	30.0%
At-Risk	125,224	62.1%
High School (Grades 9-12)	47,841	4.21%
Career & Technical Education	32,885	16.3%

Texas Education Agency. (2011-12). Academic Excellence Indicator System (AEIS Report).

As reported in the 2011-12 AEIS report from TEA, this district has almost 11,000 teachers (10,920) and pays an average teacher salary of \$51,866. This district's teachers' experience and college degrees are as listed in Tables 10 and 11.

Table 10
Teachers by Years of Experience

Teacher Tenure	Count	Percent
Beginning Teachers	534.8	4.9%
1-5 Years Experience	3,003.2	27.5%
6-10 Years Experience	2,531.5	23.2%
11-20 Years Experience	2,669.5	24.4%
Over 20 Years Experience	2,181.0	20.0%
Average Years Experience	12	
Average Years with District	10	

Texas Education Agency. (2011-12). Academic Excellence Indicator System (AEIS Report).

Table 11
Teachers by Highest Degree Held

Teacher Tenure	Count	Percent
No Degree	62.8	0.6%
Bachelors	7,458.8	68.3%
Masters	3,194.8	29.3%
Doctorate	203.6	1.9%

Texas Education Agency. (2011-12). Academic Excellence Indicator System (AEIS Report).

Participants

Subjects for this study included 57 CTE teachers, two CTE program directors at the district office, and five high school campus principals within a large urban school district in Texas. The campus-level personnel selected for this study consisted of CTE teachers (including department chairpersons) and school principals. District-level personnel included in this case study consisted of program directors who plan, implement, and oversee district-level operations for the CTE department.

The campuses selected for teacher- and administrator-participation in this study were centrally-located within the large urban school district and offered various curricular foci and House Bill 5 endorsements for students. These schools represent varied campus formats including comprehensive high schools, specialty high schools, and early college / college prep high schools. The demographics of the selected campuses reflect the ethnic and socioeconomic demographics of the district and the curricular programs that are offered at high schools throughout the district. The selected campuses are “schools of choice” in the district because any high school student who lives within the district’s geographical borders may attend these schools regardless of their address

and the school they are “zoned” to attend. In order to enroll in a school of choice in this district, students must apply and meet specific criteria (minimum standardized test score requirement, interview, audition, and/or perform satisfactorily on an entrance exam). In order to maintain the anonymity of the selected district, campuses were given an alphabetic code for reference in this study rather than the actual school names.

Some of the CTE teacher participants invited to this study work within large CTE departments while others are the only CTE instructor at their respective campuses. All of these individuals plan and deliver lessons based on district curriculum and state-wide objectives (Texas Essential Knowledge & Skills – TEKS) for their courses.

Campus principals in this district are authorized to actively recruit for instructional positions (including those for CTE teachers), interview and select from available teacher candidates, and ultimately extend an offer of employment on behalf of the school district. Principals also plan and coordinate campus-based supports for teachers and play a critical role in CTE teacher development and retention. Because the selected district is so large and also has a decentralized leadership structure, the researcher deemed it important to obtain CTE teachers’ (including department chairpersons’), and campus administrators’ perspectives from varied campus environments in order to triangulate the information gathered to identify themes related to effective CTE teacher recruitment, development, and retention strategies throughout this district.

The district-level personnel participant group included individuals who work in the selected district’s administrative offices and conduct program planning and implementation for district-wide CTE initiatives. These participants are referred to as

Program Directors for the purpose of this study. The researcher deemed it significant to include both campus- and district-level CTE personnel in this study since the district's decentralized format leads to varied hiring, development, and retention practices for CTE teachers at different campuses.

Procedures

After approval from the University of Houston IRB was received, the research process included the distribution of an electronic survey to 90 subjects (CTE teachers) via Survey Monkey. The survey was sent via email to CTE teachers (including department chairpersons) at the 18 selected high school campuses. Via Survey Monkey, the numbers of complete and incomplete surveys was accessible to the Researcher. This feature was helpful as it allowed the researcher to determine whether there were enough responses at the end of the survey period of two weeks. The Researcher's goal was to have survey responses from at least 50 of the 90 CTE teachers at the 18 selected high school campuses.

Survey recipients were given a period of 14 days to complete it. A reminder message was sent to recipients who had not completed the survey after the seventh day and teachers were offered another period of seven days to complete the survey. After the fourteenth day had passed following the date of the initial survey distribution, the researcher closed the survey data collection process, tallied the responses to the multiple-choice questions and began coding the open-ended question responses using the open coding technique (Glaser & Strauss, 1967). Questions with the open value box were coded and analyzed for emerging themes using the open coding technique and questions with multiple answer choices were reviewed for answer frequency.

One of the survey questions asked participants if they were willing to participate in a focus group survey. Subjects who replied yes to this question were sent an email to explain the study further and to confirm their interest. Teachers' email responses were recorded on a table titled "Focus Group Guest Email Response Log" (See Appendix C). After all participant interest was confirmed, focus group participants received a Focus Group Confirmation Letter (see Appendix B).

Two focus group discussions were conducted (with nine participants in the first focus group and seven in the second) at a centrally-located site within ten to 15 minutes of each of the participants' worksites. For each session, focus group participants were given a start time 15 minutes prior to the time of the discussion in order to afford them time to sign-in and get food before the discussion. At each focus group session, a light lunch (sandwiches, chips, cookies) and beverages were provided to participants during the first 15 minutes.

The researcher facilitated each focus group discussion. Behavioral norms for the focus group were established by the researcher at the start of each session, before beginning the focus group. After norms were set, the researcher distributed the focus group participant consent form to each subject. The researcher reviewed the consent form aloud with the group in its entirety and explained that participation in this study was a voluntary process and that participants could choose not to participate at any time without consequence. The researcher also explained that participant identity will not be shared during or after the study and that all study records will be maintained in a locked storage cabinet in a locked office with access limited to the researcher and one University of Houston College of Education staff member. After reviewing the IRB consent form,

participants were asked to sign the form to indicate their understanding and agreement to the terms listed therein.

In each focus group discussion, the researcher asked engagement questions as well as exploratory questions (as evidenced in Appendix E), and each discussion was brought to a close using an exit question. Each focus group discussion lasted about one hour. After the conclusion of each focus group discussion, participants wrote their names on the backs of raffle tickets and those tickets were tossed into a cup for inclusion in the drawing for a \$75 Visa gift card. The gift card was given to the participant whose name was pulled randomly from the cup.

All focus groups were audio-recorded, and each focus group recording was transcribed by the software program, Dragon Dictation. Focus group participant responses were coded by the researcher, using the open coding technique, for emerging themes (Glaser and Strauss, 1967).

The research process also included individual semi-structured interviews with district-level CTE program directors and campus principals at their respective offices. District-level CTE program directors and campus principals at the 18 selected high school campuses received a letter explaining the purpose of this study and the intended use of gathered information (Appendix H). The letter sent to these individuals also invited them to participate in this study as interviewees. All interviews were audio-recorded. The recordings from each interview were transcribed by the software program, Dragon Dictation, and the responses coded by the researcher, using the open coding technique, for emerging themes (Glaser and Strauss, 1967).

Instruments

In order to gather the necessary data to examine high school teachers', program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district, the researcher used the following instruments for this study: electronic surveys including open- and close-ended questions, focus group sessions, and individual semi-structured interviews.

Surveys

The survey consisted of 10 questions and should have taken each participant no more than 10 minutes to complete. Six of the ten questions were open response questions where respondents could enter unique feedback into an open text box. The remaining four questions offered multiple response options that the respondent could choose from. The survey began with two general questions that allowed the researcher to obtain an understanding of the respondents' tenure in the teaching profession and with the district. Subjects' responses to those questions provided descriptive participant demographic data. The third and fourth questions in the survey pertained to CTE teacher recruitment. Questions five and six related to CTE teachers' professional support and development. Question seven asked respondents if they were willing to participate in a focus group discussion, and the last three questions (8, 9, and 10) pertained to CTE teacher retention.

The survey questions were developed by the researcher and were not tested for validity and reliability. The survey questions were closely aligned with the research questions for this study and were designed to obtain the information necessary to answer the research questions and to yield feedback that is meaningful and useful to urban school districts for analysis of and redesigning their procedures for effective recruitment,

development, and retention of highly-qualified CTE teachers. The researcher consulted with five high school CTE teachers, three campus principals, one CTE program director, and the dissertation committee chairperson (UH faculty member) to obtain feedback regarding the survey questions. Based on the feedback from these individuals, the researcher determined that the questions are comprehensible, unambiguous, and closely aligned with the research questions for this study. Trustworthiness of the data gathered from the electronic survey was triangulated with the information gathered during the focus groups and individual semi-structured interviews given that validity and reliability of the survey instrument were not tested.

See Appendix A for a complete list of survey questions.

Focus Group(s)

Teachers were invited to participate in a focus group session if they'd responded "yes" to the survey question that asked if they'd be interested in participating in such. Those who responded "yes" to the focus group question on the survey received an email to confirm their interest and then a letter explaining the focus group discussion in further detail. The first focus group session included nine participants and the second one included seven participants. Both focus group sizes were within the ideal range of six to ten participants (Eliot & Associates, 2005).

The researcher facilitated the discussions by asking a mixture of engagement and exploration questions, and closed each discussion with an exit question. In order to maintain a balanced exchange of ideas and perspectives throughout the session, the researcher encouraged feedback from all participants during the discussion. The focus group questions were developed by the researcher and were not tested for validity and

reliability. The focus group questions were closely aligned with the research questions for this study and were designed to obtain the information necessary to answer the research questions and to yield feedback that is meaningful and useful to urban school districts for analysis of and redesigning their procedures for effective recruitment, development, and retention of highly-qualified CTE teachers. The researcher consulted with five high school CTE teachers, three campus principals, one CTE program director, and the dissertation committee co-chairperson (UH faculty member) to obtain feedback regarding the focus group questions. Based on the feedback from these individuals, the researcher determined that the questions were comprehensible, unambiguous, and closely aligned with the research questions for this study. Focus group questions are listed below. See Appendix E for a complete list of focus group questions.

At the close of each focus group session, the researcher thanked the participants for their time and contributions to the discussion. After the verbal thank you, the researcher distributed a raffle ticket to each participant and asked that they'd write their name on the back of the ticket. All of the tickets were placed in a cup and the Researcher drew one ticket from the cup to determine the winner of the \$75 Visa gift card.

Interviews

A letter explaining the purpose of this study and the intended use of gathered information (see Appendix H) was sent to the campus principals at the 18 selected high schools and to five district-level CTE program directors. Of this group, the researcher's goal was to secure and conduct individual semi-structured interviews with at least five principals and two program directors. The researcher reviewed the research subject

consent form with each interview participant and obtained their signature on the consent form prior to conducting each interview.

The interviews were conducted in person at the worksites of the interviewees, and each was audio-recorded. (None of the interviews were video-recorded.) Interview participants signed the informed consent form prior to the start of each interview.

Each interview consisted of fourteen questions and took about 30 minutes. The interview questions were developed by the researcher and were not tested for validity and reliability. The interview questions were closely aligned with the research questions for this study and were designed to obtain the information necessary to answer the research questions and to yield feedback that is meaningful and useful to urban school districts for analysis of and redesigning their procedures for effective recruitment, development, and retention of highly-qualified CTE teachers. The researcher consulted with five high school CTE teachers, three campus principals, one CTE program director, and the dissertation committee chairperson (UH faculty member) to obtain feedback regarding the interview questions. Based on the feedback from these individuals, the researcher determined that the questions were comprehensible, unambiguous, and closely aligned with the research questions for this study. The interview questions are included in Appendices F and G along with additional procedural details.

The researcher used a semi-structured interview format, which allowed flexibility for natural conversation and the revision of questions as needed during the flow of the discussion. Interview responses were analyzed using the open coding method. The interview questions were developed by the researcher and were not tested for validity and reliability. The researcher consulted with five high school CTE teachers, three campus

principals, one CTE program director, and the thesis committee chairperson to obtain feedback regarding the survey, focus group, and interview questions. Based on the feedback from these individuals, the researcher determined that the questions were comprehensible, unambiguous, and aligned with the research questions for this study.

Limitations

Several assumptions were made in preparing to conduct this research study. Among them is the assumption that all high schools currently offer Career & Technical Education courses. In order to avoid wasting time and resources in the process of conducting this study, the researcher eliminated high schools in the selected district and geographical region that do not offer CTE courses, such as non-traditional high school programs for drop-out recovery/prevention, those designed to transition life skills students to the college environment and workforce, and those that service homebound students and offer only the core/basic curriculum courses.

Another assumption is that each high school offers a complete strand of courses for at least one career path. This assumption is supported by the newly adopted House Bill 5, which requires that high schools offer students enough course options in a particular content area that students are able to qualify for and graduate with an endorsement in that content area. Large, comprehensive high schools are required to offer all five endorsement strands for students to choose from and smaller high schools (such as specialty and early college / college prep high schools) are required to offer at least three. The five graduation endorsements available to high school students since the implementation of House Bill 5 are:

1. Arts & Humanities

2. STEM (Science, Technology, Engineering, and Mathematics)
3. Business & Industry
4. Public Service
5. Multidisciplinary Studies

An additional assumption is that respondents gave candid feedback on the electronic survey, as well as in the focus group sessions and individual interviews concerning their perceptions about the districts' practices for recruiting, developing/support, and retaining CTE teachers. In order to overcome some participants' initial aversion to participate as a research subject, the researcher established rapport (as a former CTE teacher and current school administrator in the selected district) with participants. The researcher also emphasized to potential participants that their identities and input would remain confidential during and after the study. During the focus groups and interviews, the researcher began the conversations with an icebreaker (a light-hearted introductory question) before getting into the real discussion questions. The researcher also strived to maintain a positive and welcoming atmosphere in these discussions.

The scope of this study was limited to public high schools with 9-12 grade students (with a special focus on those within a centrally-located region in one large urban school district in Texas). The foci of this study were high school CTE teachers, district-level CTE program directors, and high school campus administrators in a large urban school district in southeast Texas. The researcher established rapport with district-level CTE department administrators in order to obtain access to data regarding local CTE teacher names, worksites, and email addresses.

The final limitation to this study was that the survey, focus group, and interview questions were developed by the researcher and were not tested for validity and reliability. The survey questions were closely aligned with the research questions for this study and were designed to obtain the information necessary to answer the research questions and to yield feedback that is meaningful and useful to urban school districts for analysis of and redesigning their procedures for effective recruitment, development, and retention of highly-qualified CTE teachers. The researcher consulted with five high school CTE teachers, three campus principals, one CTE program director, and the dissertation committee chairperson (UH faculty member) to obtain feedback regarding the survey, focus group, and interview questions. Based on the feedback from these individuals, the researcher determined that the questions were comprehensible, unambiguous, and closely aligned with the research questions for this study.

Table 12 lists the research questions guiding this study and the methods used to gather data in order to answer each research question.

Table 12

Data Analysis Process Table

Research Question	Data Source	Collection Procedure	Data Analysis Method
1. What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?	Electronic survey, questions 3 and 4 Focus Group questions 1, 2, and 3	Survey Monkey	Open Coding as well as Frequency Measures.
2. What are high school CTE program directors' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?	CTE program director Interviews questions 1, 2, and 3	Audio Recording and Transcription of Interviews	Open Coding and Grounded theory Method.
3. What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?	Campus Principal Interviews questions 1, 2, and 3	Audio Recording and Transcription of Interviews	Open Coding and Grounded theory Method.
4. What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in an urban school district?	Electronic survey, questions 5 and 6 Focus group questions 4, 5, 6, 7, and 8 Interview questions 5, 6, 7, 8, and 9	Survey Monkey	Open Coding as well as Frequency Measures.
5. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to leave an urban school district?	Electronic survey, questions 7, 8 Focus group questions 9 and 10 Interview question 10	Survey Monkey	Open Coding as well as Frequency Measures.
6. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to stay an urban school district?	Electronic survey, question 9 Individual Interviews question 11	Audio Recording and Transcription of Interviews	Open Coding and Grounded theory Method.
7. What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?	Individual Interviews question 12 and 13	Audio Recording and Transcription of Interviews	Open Coding and Grounded theory Method.
8. How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?	Individual Interviews question 14	Audio Recording and Transcription of Interviews	Open Coding and Grounded theory Method.

Chapter IV

Results

Introduction

The purpose of this study was to examine CTE teachers', campus principals', and CTE program directors' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study aimed to identify and examine perceived factors that influence teacher attrition in Career & Technical Education (CTE) programs as well as identify promising strategies and resources for recruiting, developing, and retaining highly-qualified CTE teachers.

The research processes for this study included an electronic survey completed by fifty-seven CTE teachers, two focus group discussions with sixteen CTE teachers (nine in the first one and seven in the second), and individual semi-structured interviews with five campus principals and two CTE program directors. The teacher survey containing open-ended and close-ended questions was coded inductively using an open coding technique in order to identify emerging themes (Glaser and Strauss, 1967) and descriptive statistics of close-ended responses are reported herein. CTE teacher focus groups and individual semi-structured interviews with CTE program directors and campus principals were audio-recorded, transcribed, and analyzed using a general inductive approach with open coding to identify themes.

The research questions that guided the direction of this study were:

1. What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

2. What are high school CTE program directors' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
3. What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
4. What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in an urban school district?
5. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to leave an urban school district?
6. What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decision to stay an urban school district?
7. What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?
8. How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?

Several themes emerged during the data-collection process among the teacher, campus principal, and CTE program director participant groups. There were several shared perceptions among the participant groups as well as significant differences in perceptions of the recruitment, development, and retention practices in this urban school district. The data collected during the research process are described throughout this chapter and are organized by research question.

Results

Research Question 1

What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

Fifty-seven CTE teachers were surveyed electronically and 16 of the 57 participated in two focus groups to discuss their perceptions of effective recruitment strategies to attract CTE teachers to an urban school district. Questions three and four of the electronic survey and questions one through three of the focus group discussions were directly related to this issue.

Question three of the electronic teacher survey asked, "How were you recruited to this district?" This question offered six multiple-choice options (Website, Job Fair, Personal Referral, Newspaper Ad, Billboard, and Other). The last option, "Other", included an open response box for participants to indicate the manner in which they were recruited to this district.

Table 13

Recruitment Methods that Attracted Current CTE Teachers

Recruitment Strategies that Attracted Survey Respondents	Number	Percentage
Personal Referral / Word of Mouth	27	47.37
District's Website	10	17.54
Job Fair	10	17.54
Other	10	17.54
Referrals from Friends	3	5.26
Former Substitute Teacher	2	3.51
Online Employment Application	2	3.51
Former Parent Volunteer	1	1.75
HR Dept Recruitment	1	1.75
Article / Advertisement	1	1.75

Nearly half (27) of the survey respondents (47.37%) reported that they were recruited by way of personal referral, and each of the following recruitment methods was selected by ten (17.54%) participants: the district's website, job fair, and "other" means. Of the participants who were recruited by "other" means, three (5.26%) indicated that they'd received referrals from friends. These respondents can actually be counted in addition to 27 participants (47.37%) who selected personal referral from the multiple-choice options as previously mentioned for a total of 30 respondents (52.63%) who were recruited to the district via personal referral / word of mouth. Interestingly, none of the respondents indicated that they were recruited to the district via Newspaper Ad or Billboard. The responses to question 3 of the electronic survey reveal the overarching theme that personal referrals have frequently been useful in recruiting CTE teachers to this urban school district since over half of the survey participants were recruited in this manner.

Question four of the electronic teacher survey asked, "What recruitment strategies do you think are most effective in attracting CTE teachers to an urban school district?" This question presented an open text box for respondents to answer freely. The feedback varied, but the most frequent responses were "better salaries, stipends/bonuses", "job fairs / recruitment fairs", "word of mouth / personal referrals", "website", and "communicating the significance of the work / the programs". All of the responses to this question are included in the following table, Table 14.

Table 14

CTE Teacher Perceptions on Effective Recruitment Practices

Effective Recruitment Strategies Reported by Respondents	Number	Percentage
Better salaries, stipends/bonuses	11	19.29
Job Fairs / Recruitment Fairs	8	14.03
Word of Mouth / Personal Referrals	7	12.28
District Website	5	8.77
Significance of the Work	4	7.02
Funded programs with necessary resources & technology	4	7.02
Work hours & Vacation/non-work days throughout the year	3	5.26
Partnerships with Colleges/Universities and Professional Organizations	3	5.26
Ongoing professional development for CTE teachers	2	3.50
More administrative support	2	3.50
Promoting the lack of CTE Standardized exams	1	1.75
Social Media	1	1.75
Recruit existing teachers from other content areas	1	1.75

The responses to question four of the electronic survey reveal that CTE teachers perceive that compensation (salaries and stipends/bonuses), job fairs, and personal referrals / word of mouth are the most effective ways to recruit CTE teachers to an urban school district. Personal referrals remains a top method for recruiting CTE teachers as was expressed in question three of the survey.

Question one of the teacher focus group discussions asked, “From your own experience, what recruitment strategies were most effective in attracting you to this urban school district as career and technology education teacher?” Participant responses included the following:

- “Well I think there are two things that help with recruitment. Number one, the salary - if you look at the amount of time that you work a year compared to what you work in corporate America, it’s a significance difference. And if

you actually put those days side-by-side for a very close comparison, no matter how much you make it's more than you'd probably make per day in Corporate America. It's not as bad as it seems. The salaries are actually pretty good."

- "I was trying to figure out how I could make a difference and where that difference could have the biggest impact. I realized that we have a huge demand for STEM-related, CTE-related skilled individuals and if someone doesn't step up and start teaching those again and make those engaging, then we might lose that child for whom the economic door might be opened via CTE training."
- "I think the most effective recruitment strategy for attracting CTE teachers to this school district is word of mouth. (Four other focus group participants nodded in favor of this respondents' comment about word of mouth/personal referrals as an effective recruitment strategy). I went through the ACT Houston program and I was sitting at home and really didn't know where to go from there until I got a call from someone who informed me that there was an opening at Milby High School and that's when I got into the district."
- "I agree with that. (Four other participants nodded and/or raised their hands during this comment to express their agreement.) The way that I found out about my job was also via word of mouth when I received a call from a friend. At the time, I wasn't certified, so I found out what I needed to do to obtain certification and the rest is history."

The teachers who participated in the focus group sessions repeatedly cited compensation, personal commitment (giving back to the community or society), and word of mouth / personal referrals as effective recruitment methods to attract CTE teachers to an urban school district. Based on the feedback provided by CTE teachers for question 1 of the focus group discussions, word of mouth (personal referrals) is the most effective way to attract new CTE teachers to an urban school district. This is consistent with the responses to question three of the electronic survey. The personal touch of learning of a career opportunity from a trusted source is evidently impactful in a candidate's decision of whether or not to pursue a vacancy.

Question two of the teacher focus group discussions asked, "Why were these strategies effective in recruiting you to this urban district?" Just as was the case with regard to question one of the teacher focus groups, participants overwhelmingly referenced word of mouth / personal referrals, personal commitment (giving back to the community or society), and compensation in their responses to this question. Participant responses included the following:

- "If you really want to serve, to teach kids, or give something back to the community or make sure that other people can follow in your footsteps, its really a no-brainer."
- "Recruitment for me goes back to my alma mater because they had several vacancies and I ran into my previous teacher and found out they were actually recruiting teachers to teach health science because there was a shortage there. It was an easy transition for me to go back to my old school and teach a subject that I had experience in and was very familiar and comfortable with."

- “The number one was the salary.”
- “I think word of mouth is effective because you know the person.”
- “I agree, when someone puts their name on the line for you, you’re more likely to put forth your best effort and really do a good job. Also, personal recommendations are pretty reliable because most people will not take the chance of putting their name at risk to recommend someone they don’t know well or really trust or believe in.”
- “That’s true. I love my friends, but if I don’t feel that they can do a job well, I will not recommend them.”

The CTE teachers’ perspectives that were shared after question two of the teacher focus groups revolved around the same themes that emerged in question one of the focus groups and questions three and four of the electronic survey, with the most frequently recurring theme being word of mouth / personal referrals. Personal referrals are considered valid and trustworthy because of the unlikelihood of someone referring an individual who they do not consider capable of successfully completing the duties of the available job or of referring a friend, colleague, or mentee to a job that would not be a good fit for the individual.

Question three of the teacher focus group discussions asked, “Do you think there are other effective strategies for attracting CTE teachers to an urban school district? If so, what are they?” Each of the focus group discussions erupted into a volley of opinions and comments after this question was asked. Participant responses were very passionate and included the following:

- “They’re not recruiting CTE teachers, they’re recruiting for everything but CTE.”

- “Job-alike training during the summer would be the perfect opportunity to recruit CTE teachers.”
- “It seems that the district spends all of its time and resources for recruitment actually looking for teachers in the four core-content areas.”
- “CTE is an after-thought in this district. If we don’t break that stigma and make it clear that CTE is significant here, then we will not be able to recruit qualified CTE teachers.”
- “Their focus is placed on the four content areas.”
- “There is a lack of respect for career changers.”
- “The ASPIRE bonus system caters to core content teachers.”
- “The district needs to host career fairs specific to CTE prospects.”
- “They need to allow current CTE teachers to talk to prospects to help “sell” the programs and attract people from the business industry.”
- “CTE teachers teach kids skills and knowledge in every area including writing, presentation and communication skills, math skills for financial computation and business planning, etc., but we do not receive any of the financial perks (bonuses) associated with students’ performance in those areas.”
- “I was recruited via word of mouth and I’m not aware of any other recruitment strategies by the district.”
- “When I was recruited to teach Science, I received a sign-on bonus plus annual bonuses based on my students’ performance. When I switched to CTE, it was because I was tired of the stress that goes along with teaching a tested subject area

and I wanted the freedom to teach freely and love what I do. However, when I switched to CTE there was no sign-on bonus and there are no annual or performance-based bonuses. The pay just is what it is.”

- “Some districts have specific recruiters just for CTE. In fact, that’s what our former specialist is doing now in Lamar Consolidated ISD. He’s out there recruiting for specific CTE programs and vacancies. That’s what we need. There are recruitment efforts specifically geared toward core areas in this district, but not for CTE.”
- “CTE is now certified as a critical shortage area due to the push for college and career readiness, but they still don’t give us all the benefits that the other critical shortage areas – like special education and the core content areas – receive.”
- “I remember when I was in the eighth grade at Welch, Exxon used to send professionals to our classes and we would learn how our class topics tied to industry from the perspective of a business professional.”
- “Yeah, that was called Junior Achievement. That’s a great way to expose business professionals to the art of teaching and recruit them to this profession.”
- “There could be a partnership where professionals could do their work half-time and teach half-time. That’s a good way to keep the person in the professional setting so they’re teaching is based on the current and relevant practices in that industry.”
- “Something that will work is to recruit CTE students as they’re graduating from high school. The teachers, graduation coaches, and counselors can encourage students to get their college education and/or industry certifications and a few

years' experience in those areas, and then come back and share what they've learned with the students at their old high school.”

The teachers' responses to question 3 of the focus group discussions make it very clear that this district could capture and attract more CTE teacher candidates by way of focused, targeted recruitment programs and job fairs, with financial incentives, such as sign-on bonuses, and by staffing recruiters whose sole focus is attracting and hiring CTE teachers. There was also mention of corporate partnerships as a meaningful and effective means of attracting potential CTE teachers from the business sector.

Emerging Themes

The following themes emerged with regard to high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district:

- CTE teachers perceive that personal referrals / word of mouth is, and has been, as a very effective way of recruiting new CTE teachers to this urban school district.
- CTE teachers perceive that competitive salaries and incentives, such as bonuses, are also effective strategies for attracting qualified CTE teachers.
- CTE teachers perceive that the district could strengthen its search for, and attraction of, CTE teachers by utilizing recruiters who focus exclusively on CTE vacancies.
- CTE teachers perceive that partnerships between the school district and professional organizations are effective for finding CTE teacher candidates with the education and experience necessary.

Research Question 2

What are high school CTE program directors' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

Two CTE program directors participated in individual semi-structured interviews as part of this study. The interviews were audio-recorded and transcribed, then coded using the open coding technique and grounded theory method. Question one of the CTE program director interviews asked, "In what ways do you work with campus principals and the district's HR department to recruit candidates for Career and Technical Education teacher vacancies?" Program Director One shared,

"We work with campus principals to find out what [CTE] vacancies have been created at their campuses, and we work with the HR department to create postings for those vacancies and advertise them online." He went on to explain "we also work with external organizations, professional organizations, and notify them of the vacancies that are created so that they can make recommendations of qualified personnel who have the experience required by TEA for the CTE vacancies. They are very instrumental in helping us to find potential candidates who might be willing to change career paths and enter the teaching field."

Recruitment by way of partnerships with external organizations was also noted by CTE teachers in their responses to question four of the electronic survey and question three of the focus group discussions.

Program Director Two replied, "CTE Managers and Program Specialists work with Principals and HR directly quite often. Some principals provide us a list of their CTE vacancies as they arise. The principals ultimately do the hiring... Some want our

help, some don't." She went on to explain that some principals tend to hire people they know or those who are referred to them by current teachers on their campuses rather than seeking referrals from the CTE Department. She also mentioned that some principals work directly with professional organizations or staffing agencies to find qualified candidates.

Question two of the CTE program director interviews asked, "From your own perspective, what recruitment strategies do you think are most effective in attracting CTE teachers to this urban school district?" Program Director One responded, "The recruitment strategy that is the most effective in attracting teachers to the district has been working with professional organizations for individuals who hold professional certifications and work in specific industries. Program Director Two stated, "We work with external professional agencies and alternative certification programs – like Texas Teachers, to find candidates to fill vacancies for specific programs and specific campuses." The CTE program directors each stated that partnerships with professional organizations have been the most effective recruitment tool for attracting CTE teachers to this urban school district. This perspective was addressed by CTE teachers as an effective recruitment strategy, but was not acknowledged as the most effective. CTE teachers overwhelmingly noted word of mouth / personal referrals as the most effective way to recruit CTE teachers to this district.

Question three of the CTE program director interviews asked, "Why do you think these strategies are effective in recruiting CTE teachers to this urban district?" Program Director One shared,

"Working with external organizations has been very effective because they

recommend to us qualified individuals who have the business experience and expertise to earn state certification to teach our courses. These organizations are also helpful with identifying individuals who are early enough in their career that they've gained the necessary experience, but have not reached their salary peak in that industry.”

This strategy is very unique and unusual with regard to teacher recruitment, in general, and to the specific recruitment of CTE instructors. Program Director Two replied,

“It’s important that we find candidates who meet the qualifications for a specific course, not just a program, because the state certification requirements vary so much from course to course. Working with the professional organizations and alternative certification programs help us to narrow the search to those who have all of the required qualifications and background experience.”

When interviewing the CTE program director participants, they each mentioned working with the Human Resources department to create and post online advertisements for CTE teacher vacancies. CTE program directors also noted that they work with professional organizations in order to advertise CTE teacher vacancies and to identify qualified candidates who possess the knowledge and skills relevant to specific vacancies and also have the required years’ experience and training/education in order to obtain certification and teach CTE courses.

Table 15

CTE Program Director Perceptions of Effective Recruitment Practices

Recruitment Method	# of Respondents	% of Respondents
Professional Organization Referrals	2	100%
Online Vacancy Postings by HR Dept.	2	100%

Findings

The following findings emerged during the individual semi-structured interviews with the CTE program directors with regard to their perceptions of effective recruitment strategies to attract CTE teachers to an urban school district.

- CTE program directors perceive that it is effective to work with campus principals in order to obtain information pertaining to CTE vacancies.
- CTE program directors perceive that it is effective to work with the district's HR Department in order to get CTE vacancies posted on the district's website.
- CTE program directors perceive that it is effective to work with professional organizations in order to advertise CTE vacancies and to identify qualified candidates who have the necessary industry experience.

Research Question 3

What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

Five campus principals participated in individual semi-structured interviews as part of this study. The interviews were audio-recorded and transcribed, then coded using the open coding technique and grounded theory method. Question one of the campus

principal interviews asked, “In what ways do you work with the district’s Career and Technical Education & Human Resources departments to recruit candidates for Career & Technical Education teacher vacancies?” Each of the principals interviewed shared that they rely upon the HR and/or CTE Departments to help with locating qualified candidates to fill CTE vacancies, and one of the principals mentioned that she obtains assistance from the CTE Department with onboarding new teachers. Overall, the principals tend to look to the HR Department to post / advertise vacancies and they rely upon the CTE Department to match them with candidates who have the experience and expertise necessary to fill those vacancies. Campus principals’ responses to this question are listed below.

- “I often work with the CTE and HR Departments to obtain referrals for qualified candidates. Normally, when I talk to them I ask for the names of current CTE teachers or external candidates that they feel are qualified and valuable candidates. Our rep in the CTE Department also helps us to onboard new CTE teachers and to establish the expectations for the candidate as they enter a CTE teaching role.” (Principal A)
- “We’ve been pretty fortunate in not having a lot of vacancies in the (campus) CTE Department, but when we do, the biggest thing the (district) CTE Department can do for us is help us reach out and find quality candidates.” (Principal B)
- “When I need candidates I call the HR and CTE Departments because the teacher selection pool is kind of shallow, especially in the areas of electronics and maintenance instructors.” (Principal C)

- “I’ve gone through the CTE department directly. HR, they do the posting but with the posting a lot of people who have no reason to apply for certain positions apply for them, so it’s better to go through CTE; using the connections with outside agencies to find people that fit the actual vacancy.” (Principal D)
- “Unfortunately, the HR department is normally not very helpful with locating qualified candidates for the CTE programs. They post the positions on the district’s website for us, but they don’t actively search for qualified people to fill those vacancies. We, as principals, have to sort through all of those applications to find people who actually have the required experience and education to be able to teach those courses.” (Principal E)

Question 2 of the campus principal interviews asked, “From your own perspective, what recruitment strategies do you think are most effective in attracting CTE teachers to this urban school district?” Campus principals’ responses to this question are included below.

- “Online postings by the HR Department for vacancies have been very helpful, but I get such overwhelming responses and interest from candidates that it can be a little overwhelming.” (Principal A)
- Principal B shared, in brief, “There is no difference between CTE, Math, English, with regard to recruiting teachers. The biggest thing we can do when recruiting the teachers we need is to create a climate of respect, security, and professional growth. Our salaries are good, but salaries are not everything.” His perspective is very interesting with regard to this study as he was the only principal to express this point of view. This feedback also contradicts the opinions of CTE teachers as

compensation was mentioned several times in the electronic survey and focus group discussions as a significant factor in the recruitment of CTE teachers to an urban school district. (Principal B)

- “The building principal is the most influential individual in convincing industry professionals to come to an urban school district - particularly when openings are in at-risk schools. Building principals must market their schools to candidates in a very attractive and compelling way in order to overcome negative stereotypes that are in the media and/or online.” (Principal C)
- Principal D reemphasized the importance of working with industry organizations via the CTE Department as a successful means of locating qualified candidates, but also shared a non-traditional way of finding qualified candidates as well. He shared, “One thing I know that worked for one of my schools was actually posting positions on Craig’s List. Yes, because there is a job posting board on there and I guess a lot of small organizations would use those.” Partnerships between the district and professional organizations have been noted as effective recruitment tools by CTE teachers, CTE program directors, and Campus Principals, alike. The idea of using social media and/or online marketplace sites is a unique and unconventional approach to CTE teacher recruitment. This is an authentic example of out-of-the-box thinking for attracting teacher candidates. (Principal D)
- Principal E stated, “Word of mouth is normally how I find qualified candidates. I also network within professional organizations such as the National Council for Women in Technology.” Word of mouth / personal referral has consistently been suggested by all participant groups as a powerful and effective recruitment

strategy. (Principal E)

Question 3 of the campus principal interviews asked, “Why do you think these strategies are effective in recruiting CTE teachers to this urban district?”

- “It’s helpful to get input from the CTE department in terms of weeding out those that are not what we’re looking for so that I can focus on the ones who are the best fit for the position. The CTE recommendations and referrals are so valuable in that process.” (Principal A)
- Principal B shared, “Helping candidates feel valued and secure in this profession is a barrier to recruitment. Changing the way people perceive the profession is the most impactful way to recruit qualified CTE teachers to this district – and any district for that matter.” He went on to explain that no recruitment effort is successful in attracting candidates unless they are also made to feel confident about the organization and the opportunity associated with the available vacancy. (Principal B)
- Principal C explained, “My strategy is to invite the individual to meet with me and to get to know their interests and goals. I share with them the great things about the school and the fact that they’d be making an invaluable contribution to society by taking on this role. This personal touch really appeals to candidates and normally helps them to confirm their desires to teach and then make the decision to come on board.” Her practice of building rapport with candidates actually speaks to the personal connection referenced when CTE teachers spoke of word of mouth / personal referrals in the focus group discussions. Taking the time to get to know candidates and to learn their goals and then help connect their

personal goals to the campus goals and programs is nothing less than genius. This approach to recruitment is much more impactful and personal than any of the traditional recruitment strategies presently used by the district, such as its website postings and job fairs. (Principal C)

- Principal D shared, “I think people are using those sites (like Craig’s List) with more frequency so its as easy as looking at your phone and looking up jobs once in a while if you get bored or are sitting around somewhere. It’s easy access rather than having to go to every school districts job board and clicking on three different links to get to CTE teacher.” Online advertisement of CTE vacancies via sites that potential candidates already use on a regular basis is an innovative and underutilized approach to recruitment. If this approach were utilized district-wide, it could truly transform the teacher recruitment process. (Principal D)
- Principal E responded, “When we get personal referrals via word of mouth, candidates have a deeper sense of commitment and interest in the position.” Her perspective is consistent with the CTE teachers’ sentiments expressed during the focus group sessions, including the quote, “when someone puts their name on the line for you, you’re more likely to put forth your best effort and really do a good job.” (Principal E)

After being asked questions two and three of the campus principal interviews, participants mentioned a variety of effective recruitment strategies including referrals from the HR and CTE departments as well as external (professional) organizations, online vacancy postings by the HR department, social media website postings, personal referrals / word of mouth, and their role as campus principal in attracting candidates by

creating an attractive work environment / campus culture. The mention of personal referrals / word of mouth is consistent with feedback obtained from CTE teachers and program directors. Overall, personal connection with candidates - either via recommendation from a friend, colleague, or professional membership organization, online access on high-traffic sites, or by established rapport from meaningful dialogue - is the greatest way to attract CTE teacher candidates, according to CTE program directors and campus principals. Fully understanding and grasping this fundamental concept will allow this urban school district, and others, to revise and even redevelop their strategies for reaching and attracting qualified CTE teacher candidates.

Table 16

Campus Principals Perceptions of Effective Recruitment Practices

Recruitment Methods Noted by Respondents	Count	Percentage
CTE Dept. Referrals	4	80
HR Dept. Referrals	3	60
Professional Organization Referrals	2	40
Online Vacancy Postings by HR Dept.	2	40
Other – Personal Connection	3	60
Campus Principal’s Comm. w/ Candidates	2	40
Social Media Sites	1	20
Word of Mouth	1	20

Emerging Themes

Here are the themes that emerged with regard to high school administrators’ perceptions of effective recruitment strategies to attract CTE teachers to an urban school district.

- Most (80%) of the campus principals interviewed indicated they rely upon referrals from the district's CTE department to locate and/or identify qualified candidates for CTE vacancies.
- Sixty percent of the campus principals interviewed indicated they rely upon candidate referrals from and/or online postings by the district's HR department to fill CTE vacancies at their campuses.
- Another sixty percent noted that they utilize personal connection with candidates (via personal communication, social media or online job boards, and/or word of mouth) to recruit CTE teachers.

Research Question 4

What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in an urban school district?

In order to triangulate the gathered data and to identify perception trends and gaps, if any, regarding the district structures of support / professional development found to be the most beneficial to CTE teachers in this urban school district, teachers, CTE program directors, and campus principals were all asked about their perceptions around this issue. Questions five and six of the electronic teacher survey, four through eight in the teacher focus group discussions, and five through nine in the individual semi-structured interviews with campus principals and CTE program directors all addressed this topic.

Question five of the electronic teacher survey asked, "What district structures of support / professional development for CTE teachers have you received?" The following six multiple-choice options were available to respondents: Job-alike Training, Cohort

Trainings on early-dismissal days, Mentor Teacher, Teacher Appraisal and Development System, Teacher Development Specialist, and Other (please specify). Participants' responses to this question are outlined in Table 17.

Table 17

District Structures of Support / Professional Development Provided to CTE Teachers

Support / Professional Development Methods Provided by Respondents	Count	Percentage
Job-Alike Training	32	56.14
Teacher Appraisal & Development (TADS) System	9	15.79
Mentor Teacher	8	14.04
Cohort Trainings on Early Dismissal Days	3	5.26
Other (Free Response / Open Text Box Entries)		
All of the Above	3	5.26
Several of those named Above	3	5.26
Specialized Training for the content they teach	1	1.75
Professional Learning Communities (PLCs)	1	1.75

Over one-half of the survey respondents (56.14%) selected Job-Alike Training. Fifty-six percent is not bad, generally-speaking, but in consideration of the fact that Job-Alike Training is a mandatory PD offering that is required of each CTE teacher in the district, this method should have been selected by 100% of the teachers who completed the survey. This selection led the responses for district structures of support / professional development by far, with the next most frequent selection Teacher Appraisal and Development System (TADS) being cited by only nine (15.79%) respondents. The fact that TADS was only selected by about 16% of respondents is startling as this should system should be implemented district-wide to all teachers, regardless of subject/content area. Mentor Teacher was the third most frequently selected answer choice for this question with five (8.77%) respondents, and then Cohort Trainings on Early Dismissal

Days with three (5.26%) respondents. Additionally, three respondents noted that they'd received all or several of the named structures of support / professional development in this urban school district. Based on the feedback provided for question five of the survey, Job-alike training is by far the most effective source of support and professional development available to CTE teachers in this district.

Question six of the electronic teacher survey asked, "What district structures of support / professional development for CTE teachers did you find to be the most beneficial to your professional growth?" This question presented an open text box for participants to answer freely. Participants' responses to this question are outlined in the following Table.

Table 18

Effective District Structures of Support / Professional Development for CTE Teachers

Support / Professional Development Methods Provided by Respondents	Count	Percentage
Job-Alike Training	14	24.56
Mentor Teacher	11	19.3
Specialized Trainings	11	19.3
Interaction/Collaboration with other CTE teachers	8	14.04
No support / professional development received	8	14.04
Campus administration, Teacher Development Specialist, and/or Teacher Appraisal & Development System (TADS)	5	8.77
Industry internship program	1	1.75

One-fourth of survey respondents (14) indicated they found Job-Alike Training to be the most beneficial, while Mentor Teacher and Specialized Trainings were each selected by 11 (19.3%) respondents as the most beneficial support / professional development structures in this district. Eight respondents (14.04%) cited

Interaction/Collaboration with other CTE teachers in Cohort Trainings was their most beneficial source of support/professional development and another eight respondents (14.04%) reported that they'd received no support/professional development from the district. This is startling. There should not be a single CTE teacher in the district who hasn't received support or professional development. The teachers who reported that they'd not received any support or professional development did not include explanations for why no support / PD had been provided, such as late employment/start dates with the district during the school year or absences on PD days, or other factors that impeded their ability to attend professional development sessions that were offered. This reality does shine a light on the fact that less than 100% of the CTE teachers in this district have received support or professional development. Because this fact applies to 14% of the teachers surveyed and this participant group is representative of the entire CTE teacher population in this district, it may be safe to assume that there is a considerable number of CTE teachers, district-wide, who have received no support or professional development. Knowledge of this fact may cause one to wonder if the CTE Department has a record of teachers who have not participated in job-alike trainings, have not been paired with a mentor teacher on their campuses, have not been visited regularly by a CTE Specialist, or have been otherwise left out of support initiatives. If a database is maintained and there is CTE department awareness of this lack of support / professional development, then what measures are in place to ensure that such lack is remediated? If such information is not maintained the by CTE department, then there is a considerable knowledge gap that impedes the department's ability to ensure the support and development of each of its teachers.

Question four of the teacher focus group discussion asked, “After being hired to this urban school district, what district structures of support and professional development specific for CTE teachers have you received?” Participant responses were very telling with regard to past and present structures of support / professional development for CTE teachers in this district. Because of the rich content shared during this portion of the teacher focus group discussions, many of the participants’ quotes are included in their entirety below:

- “CTE specialists assigned to each campus - in the past, they helped with planning, with obtaining equipment through requisitions. They really supported us.”
- “I agree; they were also our unofficial mentors. We could call or email them whenever we needed support and they were there to help us.”
- “Mine actually helped me learn how to plan my lessons and to teach a lesson cycle. They were really there to help us not for an “I gotcha”. Their purpose was really to help us become better CTE teachers.”
- “The specialists were very knowledgeable back then. Now, it seems like they just get people off the street.”
- “I agree; these new folks want us to train them.”
- “We used to tell our specialists what we needed and they’d help us get it. Now we have to identify what we need, find it at a district-approved vendor, complete the requisition, submit it to them – not knowing if it will even be approved, and half the time it’s not. All of these steps take us away from what we should really be focusing our time and attention on – planning, teaching, and ensuring student success.”

- “I’ve asked for technology and equipment several times and was completely ignored.”
- “The people we work with in our campus CTE departments are our support system.”
- “We really don’t get support from administration. As a CTE department, we should have the best of everything. I can’t prepare my students to be successful in a 21st century job when I’m still using 20th century equipment and technology in my classroom.”
- “When I came into CTE in this district, I started in January and I was not very welcomed. I had a lot of ideas and I was shunned whenever I would share those with my department. They felt that I should just shut up and go along with the ways they’d always done things. But when I shared those ideas with CTE directors and specialists at the district office, they loved the ideas and started implementing them. That’s where I found my support. However, as things have changed over the past few years, that has changed. All of those individuals are gone now.”
- “We used to meet periodically with CTE teachers of like kind. We would network and share best practices and help one another. I’ve noticed that with the trainings over the past few years, we’re not grouped with other teachers who teach what we teach, we’re just all lumped together and the trainings are not as meaningful. It would benefit us so much more if we got targeted PD that really applies to what we teach everyday and what we need to successfully do our jobs.”

- “I have a new program and have had the hardest time finding resources, answers, and really anything to get started.” Three other participants nodded in agreement that it is difficult to find answers and resources among the CTE Department, when needed.
- “The good thing about you having that new program is that the district is launching it this year and they want it to be successful, so of course they’re gonna give you everything you need to teach that subject.” There were several affirmative nods and statements of agreement that newer programs receive more resources, funding, and support than the legacy CTE courses and programs.
- “The new programs get all the support and resources.”
- “The lack of support runs off very talented people... Especially young people because they know that they can leave and go do something else.”
- “When I came into the district, CTE teachers were paid on an 11-month contract rather than 10-month. The eleventh month yielded a higher salary plus extra time to get professional development and training, and to plan for the upcoming year. Now they’ve done away with that model and we get this one-day to train and collaborate during the summer, which is just not enough. They’re trying to cram 30-days worth of training and preparation into one day. They don’t want to pay us for an additional month of training, but principals who take on lower-performing schools get a six-figure salary plus a \$20K sign-on bonus and a \$20K performance bonus.”

The overarching themes from the CTE teachers’ responses to this question include the following perceptions: CTE Specialists are no longer a resource or source of

support for teachers, teachers want support from the CTE Specialists with instructional planning and acquisition of instructional materials, there is a widespread perceived lack of campus administration support for CTE teachers, and that current/recent CTE PD efforts lack authenticity as they are now more generalized rather than targeted to specific courses/programs. While the district still has CTE Specialists that are assigned campuses to support, it seems that the experienced personnel are no longer with the district and new hires are in need of more experience, training, and information in order to provide more meaningful support to CTE teachers. Based on the feedback from CTE teachers, there is a need for more support from campus administrators with regard to accessing opportunities for professional development and being provided resources and equipment for more modern and impactful instructional practices. Lastly, CTE teachers' responses to this question reveal that the district's CTE PD would be more effective if teachers were provided more information and resources specific to what they teach every day. The general sessions may provide helpful information, but they lack targeted, specific training and support relevant to the subjects taught by attendees.

Question five of the teacher focus group discussion asked, "What are your initial thoughts about the supports and professional development you have received in this urban school district?" Participant responses in each focus group discussion consistently conveyed an underwhelming perspective of the district's support / professional development for CTE teachers. After this question was asked, the verbal responses included, "Not enough", "Inadequate", "Ineffective", "Misaligned", "Sporadic", and "Very ineffective", to name a few. While not every participant gave a verbal reply, they each expressed their views in some manner. While some participants spoke, others

actively nodded in agreement. One participant replied, “I would rate them a one on our new appraisal system.” There was not a single CTE teacher in either focus group who had positive things to say about the effectiveness of the support / professional development they’ve received in this district. In light of this feedback, it seems clear that enhancements to the support / professional development programs for CTE teachers in this district would likely yield greater teacher preparedness and instructional effectiveness.

Question six of the teacher focus group discussion asked, “What district structures of support and professional development for CTE teachers have you found to be the most beneficial to you in your own professional growth?” The most frequently recurring participant responses are included below:

- “Well, the specialists used to be the most beneficial, but that has not been the case for the past few years. I saw my specialist one time and that was only because she stopped by my campus to introduce herself to me and tell me that she was my specialist.”
- “For most of us, our greatest resource is each other.”
- “I think that the new specialists are so chained to the admin office that they don’t get to visit the campuses as often as we need them to.”
- “The new specialists need to be trained right so they can truly support the teachers. Many of them have never been CTE teachers so they really don’t know what we need and how to truly support us.”
- “The problem is that the district let go all the experienced CTE teachers and hired all these new people who have no idea about our programs.”

- “Many of these specialists are just coming out of industry. They were hired straight from the workforce and never got the classroom experience.”
- “Also, the training made available to us as CTE teachers is the exact same for all teachers regardless to our years’ experience in the classroom, our industry experience, our specific programs, and our levels of proficiency in what we teach. The district doesn’t differentiate our instruction and training although they want us to differentiate the instruction we give our students.”
- “It has been very ineffective and not at all beneficial.” Several other participants expressed their shared sentiments via affirmative head nodding and the statements, “Agreed”, “I agree”, “Yes, I would say the same”, “Same here”, and “Indeed.”

Focus group participants’ responses consistently conveyed that while there is a void with regard to “effective” structures of support / professional development for CTE teachers in this district, there is potential for improvements in this area via current district personnel and resources.

Question seven of the teacher focus group discussion asked, “Why were these support structures and professional development beneficial to you in your professional growth?” Again, participant responses were underwhelming with regard to the current structures of support and professional development. Most participants responded, “N/A” or “They’re not”, while others shook their heads in agreement.

Because the answers were limited with regard to the effectiveness of current structures of support and professional development, the Researcher asked teachers to elaborate on why the former supports were so effective. Fourteen out of 16 teachers

(87.5%) expressed that they felt they had a real support system in the previous years of CTE in this district. Their CTE Specialists would visit their campuses, observe their classes and give meaningful, constructive feedback. They sat with them and helped them to understand and analyze the Scope & Sequence documents and Texas Essential Knowledge & Skills (TEKS) for their courses and to develop lesson objectives and student learning goals around them. When instructional equipment was outdated or in disrepair, the Specialist would help them navigate the school budget (with the assistance of the campus Business Manager) in order to access the Perkins Grant funds and order necessary replacements. Lastly, targeted PD sessions for each course/subject were offered frequently during the summer months and all throughout the school year. In those sessions, CTE teachers acquired knowledge and skills they could take back into the classrooms and they had opportunities to network with other teachers who teach the same subjects.

Question eight of the teacher focus group discussion asked, “What other support structures and professional development that you didn’t receive might have been beneficial to you in your professional growth?” Participant responses repeatedly referenced targeted/specific professional development, networking and professional engagement opportunities, as well as career growth opportunities. Some of the strongest participant quotes are included below:

- “Career-specific, program-specific trainings. Not during the summer, let us enjoy our summer, they should do more during the school year. Also, the district should be willing to pay for trainings with other organizations instead of us having to pay

out-of-pocket for trainings to help us become better CTE teachers. At least they could pay half or three-fourths, maybe.”

- “More professional dialogue with teachers who teach the same thing.”
- “There should be career tracks for veteran CTE teachers to advance as lead teachers to mentor and support new teachers at different campuses.”
- “More relevant trainings that are specific to what we teach.”
- “PD that is targeted for the CTE strands at a particular campus rather than these generic meetings.”

The need for targeted/specific trainings was a recurring theme regarding professional development for CTE teachers throughout each of the focus group discussions. Based on teacher feedback, this was a frequent occurrence until a couple years ago when a change in CTE leadership was implemented. The teachers elaborated on how helpful it was to dialogue, exchange ideas, and share best practices with others who taught the same subjects. CTE teachers come from the professional setting, in which career growth opportunities are almost naturally occurring. As they transition to teaching, however, they find that the only way to advance professionally is to stop teaching, and that promotion opportunities are most often made available to core content teachers.

Question five of the campus principal and CTE program director interviews asked, “What district structures of support and professional development specific for CTE teachers are available for CTE teachers at your campus?” The principals’ responses to this question varied, but there was a consistently underwhelming tone with regard to the support and professional development offered for CTE teachers by the

district's CTE department.

- “The CTE Department keeps in touch with teachers and campus administrators to provide support and to help problem solve throughout the year, especially when it comes to technology, equipment, and certifications for students. However, we need more support from them in the area of instructional coaching,” Principal A shared. Her response is closely aligned with the feedback from CTE teachers regarding the need for more instructional support. As CTE teachers stated, this is something that the CTE Specialists used to help with before the new regime of CTE department leadership. Principal A went on to explain that she would like to see more campus visits/observations and instructional dialogue from the districts’ CTE department for her teachers, “It would be nice if they did classroom observations and gave teacher feedback to ensure that teachers are teaching the business and technology content in a way that’s consistent with the scope and sequence and what’s been covered in the job-alike trainings. They’re the experts in that area, so they really know what to look for and they can offer those teachers more meaningful coaching than I could or another administrator who has no technology background. (Principal A)
- This district’s CTE Department “provides various opportunities for teachers to grow professionally”, although he was not familiar with them and could not think of any specific examples at the time. His inability to name any opportunities provided by the CTE Department for teacher development could be due to a temporary memory lapse or, more likely based on teacher feedback, due to a lack of the existence of meaningful opportunities for support and development.

(Principal B)

- Principal C expressed her discontentment with perceived outdated and inadequate district structures of support/professional development, “The district structures of support and professional development for CTE teachers are not strong and are very antiquated. The current CTE trainings are the exact same as they were over a decade ago.” She added, “Do our culinary art teachers train with master chefs at the art institute? No. Instead, their engaging in the same PD they did last year and the other year.” The lack of advancement in professional development opportunities for CTE teachers resembles the lack of advancement of instructional tools and equipment, as expressed by teachers during the focus group discussions.

(Principal C)

- “Right now with Linked-Learning there’s a lot more training than there was. Especially around project-based learning and how to get teachers to incorporate the field into their curriculum. That’s about it honestly.” (Principal D)
- “The only thing they’ll do is perhaps have a meeting every so often. We really need to study the other schools and districts to see what they’re doing and how we could improve.” (Principal E)

Similar to the feedback shared by CTE teachers concerning the CTE department’s offerings of support and professional development, the sentiments shared by campus principals was underwhelming. While problem-solving assistance (regarding classroom technology and student certifications) and opportunities for teacher growth & development, particularly in terms of project-based learning were cited by campus principals as the most effective forms of support and PD offered by the district’s CTE

department, there were just as many needs for improvement. Growth areas named by principals included more instructional support for CTE teachers, PD grounded in modern technological use & current industry practices, and implementation of best practices from other school districts.

Program Director One stated, “The district supports that are available to CTE teachers include the job-alike training as well as some district-wide events that are hosted on early dismissal days during the school year.” It is significant to note that CTE teacher feedback indicated that job-alike training has been reduced from several days to two days and now to a one-day training, and that the early dismissal PD sessions only occur 1-2 times during the school year. Program Director Two replied,

“We host a series of PD workshops on the district-wide early dismissal days. The meetings are designed to support a specific CTE strand at each training. Some of the meetings are at our campuses and others are on-site at companies. For example, last year we hosted a training for our auto mechanics teachers at a Toyota facility here in town.”

Her last comment shows that more meaningful, targeted trainings are beginning to take place, and it directly addresses a concern shared by Principal C with regard to the modernity and relevance of the trainings offered to CTE teachers in this district. While the Toyota training only included a small number of CTE teachers, that program and others like it will be continuously expanded until they’re available to all CTE teachers in the district on a frequent and regular basis throughout the year.

Question six of the campus principal and CTE program director interviews asked, “What are your initial thoughts about the supports and professional development CTE

teachers receive in this urban school district?” Campus principals’ responses are listed below.

- “There’s not a lot of PD opportunities for CTE teachers. They really need more input, coaching, and mentorship from other CTE teachers and from the CTE department at the district level.” Her perspective mirrors that of CTE teachers as focus group participants repeatedly mentioned their collaboration and camaraderie with department colleagues at their campuses, and the need for more instructional support from their Specialists. (Principal A)
- “In a district this size, the challenge is to provide meaningful opportunities for all of the CTE teachers from different campuses and with different needs,” Principal B replied. He elaborated to say that each of the 45 high schools in this district offers CTE programs and that some of them offer multiple. “With that much going on, it’s nearly impossible for the CTE Department to keep up with the needs of each campus and each teacher at those campuses.” (Principal B)
- “The strategies have not progressed overtime”. She shared that as she visits her CTE teachers’ classrooms, she sees many of the instructional practices she utilized 20 years ago and that much of the technology she inherited after becoming principal was tremendously outdated. She stated, “With adequate coaching and supports from the CTE Department, that would not be the case.” She closed her remarks related to this question by sharing that she normally keeps her CTE teachers on campus when the district-wide CTE trainings are offered off-site because the trainings available to teachers on-campus are far more relevant and rigorous in terms of impacting teachers’ instructional practices. (Principal C)

- “I think it could be improved.” He was not able to give specific examples of what should be differently or what enhancements were needed, but he insisted that the CTE teachers at her campus “need more”. (Principal D)
- “It’s insufficient; minimal, at best.” She further expressed that her CTE teachers tend to seek additional training outside the district on a regular basis because they, “just don’t get enough from the CTE Department”. (Principal E)

Interestingly, when expressing the perceived deficiencies with the support / professional development offered to CTE teachers from the district level, principals rarely ever mentioned campus-based initiatives they’ve implemented to ensure that CTE teachers are receiving adequate support / professional development. In fact, only one principal mentioned such. The principal participants shared a lack-luster perspective of the frequency, intensity, and effectiveness of the district structures of support and professional development available to CTE teachers in this district.

Program Director One shared,

“The supports and professional development that we offer to CTE teachers are effective but, of course, there's always room for growth and improvement. There are some things that we’re working on now to enhance the effectiveness of our support systems and professional development for CTE teachers to make sure that they are as beneficial and impactful for our teachers as possible.”

His response clearly acknowledged that there are aspects of the district’s support and professional development for CTE teachers that could be more effective with the proper enhancements. He also indicated that the CTE Department is aware of the needs and is actively working to improve the way it supports and develops teachers. Program

Director Two commented, “Our support and professional development for teachers is tailored to meet the needs of our teachers, and to give the tools and resources necessary for the success of their specific programs and courses.” Her reply gives the general impression that the CTE Department offers specific and targeted trainings and support to teachers according to what they teach, and that these supports are administered with the appropriate levels of frequency, rigor, and relevance.

Question seven of the campus principal and CTE program director interviews asked, “From your perspective, what district structures of support and professional development for CTE teachers have you found to be most beneficial to CTE teachers in their professional growth?” Campus principals’ responses to this question are listed below.

- “E-mail correspondence with CTE teachers and campus administrators and periodic check-ins at the campus have been the most beneficial at this point”. She shared that the CTE Specialist assigned to her campus frequently communicates with the CTE teachers concerning trainings, materials requests, business competitions/events for students, lesson planning Career & Technology Student Organization (CTSO) sponsorship. (Principal A)
- “Skills-based training with regard to the specific skills that students need to gain in the CTE courses.” He explained that the CTE Department has provided multiple opportunities for his teachers to expand their knowledge and skills with regard to course content in order to strengthen their instructional practices. (Principal B)
- “Beneficial and effective are strong words. I wouldn’t classify any of the current

CTE PD in this district as beneficial or effective based on what I've seen". She referred to her response to the previous question and reminded the Researcher that she normally offers trainings on-campus for the CTE teachers because those offered at the district-level have not proven effective. She further expressed, "When teachers go to PD and there is no change in their instructional practices, what was achieved? Nothing." (Principal C)

- "I'm not sure any have been truly beneficial". He shared that there has been more emphasis on Project-Based Learning (PBL), but that teachers are still giving instruction in the same manners as they have for the past 20 years – lecture. (Principal D)
- "None. The effective ones have been the trainings that teachers have sought out on their own, like at Region IV and other organizations." (Principal E)

The Principal participants named several strategies that they believed are effective for their CTE Teachers' support and professional development, including electronic correspondence and site visits, specialized trainings (through the district's CTE Department as well as external organizations), and campus-based PD. However, it is important to note that the most frequent response concerning the support / PD offered by the district's CTE Department, specifically, was that those efforts have been ineffective and unfruitful with regard to teachers' instructional practices.

Program Director One cited,

"The most beneficial professional development opportunity at this point has been the hands-on experience that our CTE teachers have gained through externships. We worked with about 10 to 15 campuses and external organizations to

coordinate externships at professional organizations for teachers.”

Program Director Two explained,

“Support at the campus level is more beneficial and impactful than the supports offered by the CTE Department at the district level because that’s what impacts the teachers’ practice on a daily basis. Also, we’ve come to know that campus principals sometimes prevent their teachers from attending and participating in the district level trainings.”

CTE Teachers and campus administrators also expressed that hands-on trainings are practical, meaningful, and effective in terms of professional development for teachers. In light of this feedback, the district’s CTE Department have had greater impact on CTE teachers’ success in terms of instructional effectiveness and student achievement by incorporating more hands-on trainings as part of the district’s professional development activities.

Question eight of the campus principal and CTE program director interviews asked, “Why do you think these support structures and professional development are beneficial to CTE teachers in their professional growth?” Campus principals’ responses to this question are listed below.

- “These trainings translate into better instructional practices that are very important to students’ development in the skills they learn in their CTE courses.”

(Principal A)

- “Ensuring that CTE teachers have the opportunities to engage and exchange ideas is vital”. He further expressed that the sharing of knowledge and best practices specific to courses taught in the CTE curriculum is invaluable dialogue that

cannot be substituted in terms of support for CTE teachers. (Principal B)

- “When I have teachers attend trainings and return to continue the exact same practices, there is no benefit. There hasn’t been anything in the district-wide PD that has sparked my teachers’ interests or brought about positive change in their instructional practices. The most effective trainings for my CTE teachers have been the ones offered on campus because we focus on pedagogy, classroom management, and other things that are essential, especially to career changers with no extensive background in education.” (Principal C)
- “They’re not. I’d go back to the PLC idea where they are working together and I would do that with a focus on pedagogy. Not that they are just getting together and talking about different internships they provide and different structures they put in place, but actually talking about how they teach their class and how they get kids to understand (the content).” (Principal D)
- “The trainings at the external organizations have proven to be more organized, structured, purposeful, and meaningful and beneficial to teachers.” (Principal E)

The feedback from principals with regard to the reasons certain supports and professional development efforts are most effective included collaboration among CTE teachers and site-based trainings at industry sites, but the most frequent theme that arose was focus on pedagogical development. While content knowledge was an important factor to principals, they had the greatest appreciation for teachers’ abilities to effectively teach the content.

Program Director One responded,

“Through these partnerships, our teachers have been able to work one-week

externships in a professional environment at worksites that directly relate to the subjects they teach. Of course, to be honest, there's always more benefit and relevance in PD when teachers are given the opportunity to gain skills and knowledge of modern technologies and techniques they can take back into the classroom and use with her students.”

Program Director Two said, “The most beneficial supports / professional development have been the hands-on, project based workshops, especially those at the professional sites.” Among the CTE Program Director participant group, there was a consensus that hands-on trainings at industry sites are most effective because of the practical knowledge gained by teachers and its relevance to teaching current industry practices and technologies to CTE students.

Question nine of the campus principal and CTE program director interviews asked, “What other support structures and professional development that are not currently provided do you think might be beneficial to CTE teachers in their professional growth?”

- “TDS support and visits at least twice per semester would be ideal. Classroom observations, meaningful feedback, coaching, and guidance on a consistent basis would be tremendously helpful.” (Principal A)
- “More coordination with the PD department. CTE teachers have the content-specific knowledge and skills for their subject area, but may need more support and development in the areas of instructional practice and pedagogy. Heavier emphasis on pedagogical models is necessary. Also, assisting CTE teacher candidates in the certification process would be very helpful since obscure certification combinations are sometimes necessary in order to meet the state’s

standards for having highly-qualified teachers in each area of CTE. This is not a district issue, but rather a state issue.” (Principal B)

- “More partnerships with external organizations in professional industry, such as teacher internships and externships”. She went on to share, “This week I have three teachers and one CTE administrator training at the Cisco facility. They are working from 11:00 p.m. until 6:00 a.m. spending a day in each department (produce, shipping and receiving, warehouse, forklift operation, etc.). Giving teachers this type of experience is so beneficial. Is this type of experience being replicated at “job-alike”? I doubt it. Having real-world experience in today’s work climate for the professions they teach gives teachers a fresh perspective. All of my teachers and the administrator at Cisco this week are so excited about their experiences that they’ll be talking about this well into the school year. Their excitement will be passed down to the students and their experience will translate to newer and more relevant practices in the classroom.” (Principal C)
- “More financial support in the form of differentiated pay for CTE teachers (based on years’ experience and industry certifications) and more support for the programs at each campus.” (Principal D)
- “We need to offer more industry-expert-lead trainings for CTE teachers in order to maintain the relevance of the instruction to current industry practices.” (Principal E)

In addition to the support / professional development offered by the CTE Department, campus principals believe that the following structures would be of great benefit to CTE teachers: more focus on instruction via pedagogical training, classroom

observations, and coaching; more exposure to industry technology and processes applicable to courses taught, and increased financial support/emphasis for CTE teacher salaries and course programs.

Program Director One replied,

“Enhancing our labs, providing more hands-on training for teachers, and providing more training opportunities for them at their campuses as well as on the site so that the locations of some of our corporate partners are additional structures of support and professional development that we’re currently not using. Enhancing or expanding the externship program opportunities will also be beneficial not only to teachers but also to the students because of the skills they will bring back to the classroom.”

Program Director Two shared, “We are currently working to expand our focus on project-based learning and our teacher externship program is growing. Teachers will hold one-week externships at 15-20 different companies at a rate of \$25/hour during winter, spring, and summer breaks.” Both CTE program directors suggested that more industry site based trainings and externships would be beneficial to CTE teachers in terms of support and professional development. Externships and hands-on experience were also suggested by the campus principal participant group.

Emerging Themes

These are the themes that emerged concerning perceptions of the district structures of support / professional development that have proven beneficial to CTE teachers in an urban school district.

- Campus principals and CTE teachers tend to share the sentiment that the supports

and professional development opportunities available to teachers from the district's CTE department are lacking in frequency, effectiveness and relevance.

- CTE teachers and Program Directors agree that focused support and professional development for specific groups of teachers based on courses taught would be more beneficial to CTE teachers than the current general trainings.

Research Question 5

What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decisions to leave an urban school district?

CTE teachers, CTE program directors, and campus principals were all asked about their perceptions around the factors that influence high school CTE teachers' decisions to leave an urban school district. Questions seven and eight of the electronic teacher survey, nine and ten in the teacher focus groups, and ten in the individual semi-structured interviews with campus principals and CTE program directors (identified below) all addressed this topic.

Question seven of the electronic teacher survey asked, "Are you planning to leave this district after the 2015-16 school year?" This question presented three multiple-choice options; Yes, No, and Undecided. About two-thirds (39 of 57) of survey participants (68.42%) selected "No" to indicate that they do not plan to leave this district after the 2015-2016 school year, 14 (24.56%) responded that they are "Undecided", and only four (7.02%) of the survey respondents selected "Yes" to indicate that they plan to leave the district after the 2015-2016 school year.

Question eight of the electronic teacher survey asked, "If you are planning to leave the district, what factors have influenced your decision to leave?" This question

presented an open text box for respondents to answer freely. Thirty-six of 57 survey participants (63.16%) indicated that they do not plan to leave the district. Interestingly, the number of participants who indicated that they do not plan to leave the district in response to this question is different than on the last question (less by 3). Seven of 21 participants who were either planning to leave the district or were undecided (33.3%) cited “Lack of campus admin support” as their reason for planning to leave the district, 5 (23.8%) cited “Money or Compensation” as their reason for planning to leave the district, and 2 (9.5%) cited “Lack of Career Advancement Opportunities”. The following responses were each provided by one survey participant (4.76% of respondents): Continuing Education, Family Responsibilities, Retirement, To Accept a Campus Administration Role, Relocating, Classroom/Campus Facilities.

Question nine of the teacher focus groups asked, “From your perspective, what factors do you think influence high school CTE teachers’ decisions to leave an urban district?” The most revealing participant responses are included below:

- “Disrespect from administration.”
- “Belittling.”
- “CTE teachers are treated like extra adults on campus not as significant instructors.”
- “CTE teachers have no say in what they teach at their campuses.”
- “When it’s time for PD at the campuses, there are specific trainings for the core content areas, but we get lumped in with PE, art, and every other elective.”
- “Now they’re requiring us to host a CTSO (Career & Technical Student Organization) at our campuses in addition to our course load, tutorials,

internships, field trips, etc. I'm a single parent and my child is my greatest investment. The little money they pay for us to host a CTSO does not compare to the amount of time we have to put in and the amount of time we're away from our families. Nor does it cover the amount of child-care we have to pay to be able to attend all of the extra events and stay late for practices and take kids to competitions on the weekends. That little \$500-700 stipend does not cover all of that."

- "Half the time, the school won't even cover the cost of a bus to take my kids to the competitions so I end up driving them in my own car or paying out of my own pocket to rent a van to drive them in."
- "I actually work six days a week rather than five most weeks of the school year because of all the extra competitions and events that I'm required to take students to."
- "Money and support are the biggest factors that cause CTE teachers to leave this district."
- "It's burnout... You get tired of having too many preps, too many kids, too little planning time and no support. Then our classes get treated like dumping grounds for a place to throw kids when they don't have any place else to put them."
- "Then we're appraised by people who do not have a background in CTE and don't understand what we do."
- "There is no coaching."

- “I feel disrespected when they just dump kids in my classroom. Each CTE strand is tied to a career. Kids should not be thrown into CTE classes that have nothing to do with their interests and career goals.”
- “The lack of support runs off very talented people.”
- “Especially young people because they know that they can leave and go do something else.”
- “When I came into the district, CTE teachers were paid on an 11-month contract rather than 10-month. The eleventh month yielded a higher salary plus extra time to get professional development and training, and to plan for the upcoming year. Now they’ve done away with that model and we get this one-day to train and collaborate during the summer, which is just not enough. They’re trying to cram 30-days worth of training and preparation into one day. They don’t want to pay us for an additional month of training, but principals who take on lower-performing schools get a six-figure salary plus a \$20K sign-on bonus and a \$20K performance bonus.”

Participant responses included various points of significance, but the most frequently recurring responses regarding the perceived reasons why CTE teachers leave an urban school district were lack of respect, support, and coaching; viewed as less significant than core content teachers, additional requirements beyond classroom instruction with little or no compensation, and burnout.

Question ten of the campus principal and CTE program director interviews asked, “From your perspective, what factors do you think influence high school CTE teachers’ decisions to leave an urban district?”

- “Lack of opportunities for growth, development, autonomy. More support is needed for new teachers”. She went on to explain that her campus is very small and that there is only one CTE teacher. “Without a department of colleagues to exchange ideas with and to learn from”, she explained, “My teacher is completely isolated”. As a new CTE teacher, they really need more support from the CTE Department in order to become proficient in their content area. (Principal A)
- “Lack of security, respect, and value at the campus and district levels. There is a perceived lack of respect for teachers, which runs off many teachers and deters many qualified candidates from pursuing this as a career. When teachers are not supported, they do not stay.” (Principal B)
- “What they feel children can do, their classroom management and ability to develop systems and structure in the classroom. Teaching must be done from the heart and the teacher must truly enjoy working with kids. If they choose this profession simply for the 7:00-3:00 schedule and the weekends and summers off, then they will not be successful and they will do a disservice to students. When coming into an urban district and working with low SES students, teachers must understand that students will work hard and they will meet the teacher’s expectations, but it will not happen immediately.” (Principal C)
- “Isolation, it depends on the school, but sometimes they feel they are on an island.” His feedback mirrors that of Principal A. It appears that this may be a common problem in this school district. (Principal D)
- “I perceive that they normally leave for better pay, because of lack of support, lack of continuity of programs and leadership at the district level, lack of

resources and materials to successfully do their jobs”. He really seems to be in touch with CTE teachers’ perceptions as her feedback is very closely aligned with the feedback provided by CTE teachers via the electronic survey and focus group discussions. (Principal E)

Campus principal participants cited several reasons that might influence CTE teachers to leave the district including the perceived absence of opportunities for growth and development, lack of respect, disconnect from students, and isolation, but the most frequently-recurring response was lack of support (noted by 40% of principals).

Program Director One replied,

“Competitive salary is a big factor that helps with attracting and keeping CTE teachers. This factor has a big part to do with teachers’ decisions to leave in the district. Other districts are always looking for qualified CTE teachers, particularly in specialty areas where there are not a lot of people certified to teach specific courses. We need to pay what other districts pay or more in order to remain competitive when trying to attract these candidates. Our pay should also somewhat resemble the salaries that those individuals earn in their respective professional settings.”

Program Director Two answered, “There are challenges associated with working in an urban school district. To complicate matters, lack of support from campus or district administration is a reason why many teachers leave the district – they simply do not feel supported.” The responses from the CTE program directors captured the perceptions of both CTE teachers and campus principals. Pay is a factor that influences

CTE teachers' decisions to leave a district, but is not nearly as significant as campus administration support or the ability to positively impact the lives of students.

Emerging Themes

There are several themes that emerged when CTE teachers discussed their perceptions of the factors that influence CTE teachers' decisions to leave an urban school district.

- Lack of support from campus administration was cited by each participant group as a major factor that influences CTE teachers' decisions to leave an urban school district. This was the most frequently-recurring response overall concerning factors that influence CTE teachers' decisions to leave an urban school district.
- CTE teachers also perceive that a lack of respect and appreciation for CTE programs as major contributing factors in CTE teachers' decisions to leave an urban school district.
- Campus administrators also perceive that isolation and inadequate opportunities for professional growth and development may be factors influencing CTE teachers' decisions to leave an urban school district.
- CTE program directors also perceive that compensation and the overall challenges associated with serving the inner-city population are factors that contribute to CTE teachers' decisions to leave an urban school district.

Research Question 6

What are CTE teachers' perceptions of the factors that influence high school CTE teachers' decisions to stay in an urban school district?

In order to identify and capture a 360-degree view regarding perception trends

and gaps, if any, regarding the factors that affect CTE teachers' decisions to stay in an urban school district; teachers, CTE program directors, and campus principals were all asked about their perceptions around this issue. Question nine of the electronic teacher survey and question 11 of the individual semi-structured interviews with campus principals and CTE program directors (identified below) addressed this topic.

Question nine of the electronic teacher survey asked, "From your perspective, what factors have the greatest influence on a CTE teacher's decision to stay within an urban school district?" This question presented respondents an open text box to answer freely. Participant responses are illustrated in table 19.

Table 19

Factors that Influence CTE Teachers to Stay Within an Urban School District

CTE Teacher Retention Influencers	Count	Percentage
Support & Resources from Campus Administrators	22	38.59
Compensation	15	26.32
Mentoring & Professional Development Activities	10	17.54
Interaction with / Contribution to Students	9	15.8
Enjoyment for Teaching / Internal Motivation	4	7.02
Commute / Work Location	2	3.50
Job Security	2	3.50
Work Environment	1	1.75
Acknowledgment	1	1.75
Professional Autonomy / Creativity	1	1.75
Unsure	1	1.75

Over one-third of the survey respondents (38.59%) cited Support & Resources from Campus Administrators as a reason why CTE teachers might stay in an urban school district. This was followed in frequency by Compensation (cited by 15 respondents - 26.32%), Mentoring and Professional Development activities (cited by 10

respondents - 17.54%), and Interaction with / Contribution to Students (cited by 9 respondents - 15.8%). This feedback is consistent with CTE teachers' feedback for question eight of the electronic survey, which asked about perceived factors that influence CTE to leave an urban school district. Based on this feedback from CTE teachers, campus administration support has a considerable impact on CTE teachers' decisions to leave or stay within an urban school district.

Question ten of the teacher focus groups asked, "From your perspective, what factors do you think influence high school CTE teachers' decisions to stay in an urban district?" Participant responses are included below:

- "Schedule and work hours... Breaks for Thanksgiving, Christmas, Easter, Summer, and all the others."
- "The kids."
- "My students, for sure."
- "Working with the clubs and organizations I sponsor."
- "Not the paycheck!"
- "Immortality – what you teach will be passed down to the next generation and possibly the one after that."
- "Job security – what's the likelihood of any of us being laid off?"
- "The kids."
- "I stay because of my students."

- “The kids know that we care about them and they genuinely care for us in return. I receive notes from students telling me how much they appreciate what I taught them and how I helped them.”
- “After I had knee surgery, I received an outpouring of support from my students. Several of them sent me cards or called to check on me.”
- “My students put their money together and bought me a bracelet for my birthday.” I said, “Y’all know you didn’t have to do this for me.” They said, “We wanted to, Ms. You’re always so nice to us.”

While teacher feedback in response to this question included work schedule, immortal contribution to society, and job security, the most frequently recurring response was the students. CTE teachers feel an incredible commitment to the students and to those students’ post-secondary success.

Based on the CTE teachers’ feedback during the focus group discussions, the primary factor that influences them to return to the classroom year after year is their students. None of the teachers cited that they remain in this profession because of the support they receive from campus admin staff although that was frequently listed on the survey. The ability to discuss their perceptions and to exchange ideas with other CTE teachers yielded a much heavier focus on students as the primary reason CTE teachers stay in the classroom and within an urban school district.

Question 11 of the individual semi-structured interviews with campus principals and CTE program directors asked, “From your perspective, what factors do you think influence high school CTE teachers’ decisions to stay in an urban district?” Campus principals’ responses to this question are listed below.

- “Support and having campus administrators who listen to their visions and goals. Opportunities to work in the professional setting, maybe during the summer or one of the breaks during the school year, to maintain relevant experience and a pulse on what’s going on in the business-technology world with regard to what they teach.” (Principal A)
- “Security, respect, and value - when implemented effectively at the campus level by building principals”. He continued to press the point that administrative respect for teachers drives the way teachers are treated and supported at the campus level, and that this dynamic is incredibly influential on decisions to enter and remain in this profession. (Principal B)
- “If teachers like the atmosphere of the campus, they will stay. This has a lot to do with the principal’s leadership style, the teachers’ rapport with students, and their passion for teaching. Also, when people receive competitive pay, they are more likely to stay and not look for work elsewhere. Lastly, teachers who feel that they are fulfilling a purpose in their role and who are invested in the children will stay.” (Principal C)
- “The biggest thing right now; number one is pay, number two would be personal interest. If teachers are paid well and are able to teach a subject that is of personal interest to them, they are much more likely to stay in the profession.” (Principal D)
- “Campus support is the biggest factor in CTE teachers’ decisions to stay in this district. My engineering teacher tells me all the time that she never had the level of support she receives here when she was at other campuses.” (Principal E)

Campus principal participants' feedback concerning the factors that influence CTE teachers to stay in an urban school districts included compensation, personal interest in subject(s) taught, and opportunities for externships, but the most frequently recurring theme (named by 60% of participants) was respect / support from campus administration. The feedback from this group is very similar to that which was provided by the CTE teacher participants via the electronic survey, especially with regard to support from campus administration and compensation.

Program Director One reported,

“The amount of support and coaching that teachers receive plays a huge part in their decision to stay in this district. Some of the support offered to teachers comes from the district level and we do everything we can to orchestrate meaningful professional development and to give the support if needed, but a bigger part of the support teachers receive happens at the campus level. School principals and the culture at each campus also have a lot to do with teachers' decisions to leave or stay in this district. Since we're decentralized, many factors vary from campus to campus. Even if we weren't decentralized, it would be impossible to guarantee uniformity across a district this size.”

Program Director Two replied, “If teachers enjoy working in an urban school district and with students from diverse backgrounds, and receive the support they need to be successful, they will stay in the district.” Both Program Directors cited support as a major factor influencing CTE teachers to stay within an urban school district. This is consistent with the feedback provided by CTE teachers and campus principals concerning the reasons why CTE teachers stay within an urban school district. Each of the Program

Directors also mentioned other significant factors that were also raised by the teacher and campus principal participant groups, including the role of the campus principal in supporting and providing a campus culture that is attractive to teachers, as well as the significance of CTE teachers working with and contributing to the lives of students.

Emerging Themes

The following theme emerged with regard to CTE teachers' perceptions of the factors that influence high school CTE teachers' decisions to stay in an urban school district.

- CTE teachers perceive that rapport with students and the enjoyment of giving back to one's community and making a lasting impact on the future are essential factors that contribute to CTE teachers' decisions to stay in an urban school district. Other significant factors raised by CTE teachers were support from campus administration and compensation.
- Campus administrators perceive that administrative support, compensation, personal interest in subject(s) taught, and opportunities for meaningful professional development/trainings are the biggest factors influencing CTE teachers to stay within an urban school district.
- CTE Program Directors perceive that support is the primary factor influencing CTE teachers to stay within an urban school district.

Research Question 7

What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?

Seven campus and district leaders (five campus principals and two CTE program

directors) participated in individual semi-structured interviews during this study.

Questions 12 and 13 of all individual semi-structured interviews addressed the perceived challenges school and district leaders face when recruiting, developing, and retaining high school CTE teachers.

Question 12 of the interviews for campus principals asked, “What challenges do you face as a campus principal when recruiting, developing, and retaining high school Career and Technical Education teachers?”

- “The biggest challenge is finding good, qualified, CTE teachers. Also, most principals don’t have a CTE background and, with limited knowledge in that area, they really need the CTE department to be a consistent presence in supporting and developing those teachers.” (Principal A)
- “The biggest challenge is convincing them (new recruits) to enter this profession amidst overall perceived lack of security, respect, and value.” (Principal B)
- “Keeping them on track with modern teaching strategies and technology use in the classroom through effective coaching and professional development. Keeping them motivated – happy teachers make happy kids (happy students).” (Principal C)
- “I think more than anything it’s trying to win them over with personality. Sometimes the principal just has to put on the charm and really sell the school in order fully convince a candidate to come on board.” (Principal D)
- “There is a lack of qualified CTE candidates. We recently had to hire an uncertified computer science teacher as an hourly lecturer in order to be able to offer the course for our students”. She went on to explain that “When searching

candidate profiles on the district's job portal, there were no interested parties who had the required certification at that time and some didn't even have on-the-job experience or formal training in Computer Science. She ended up receiving a referral from a CTE teacher at her campus and, since the person who was referred had several years' experience in the Computer Science industry as an employee at Google, an employment offer was extended." (Principal E)

The most common theme expressed by campus principals around the topic of recruiting, developing, and retaining high school CTE teachers was that of finding qualified candidates and convincing them to pursue teaching as a career.

Question 12 of the interviews for CTE program directors asked, "What challenges do you face as a program director when recruiting, developing, and retaining high school Career and Technical Education teachers?" Program Director One cited,

"Some of the challenges that we face when recruiting, developing and retaining CTE teachers include the salary. In order to get people to leave industry we have to be able to offer them a competitive salary, that's a very big piece. Also, we have to be able to speed up the process of welcoming them into the district. The hiring process has to be improved because we lose qualified candidate sometimes because it takes so long for their references, their background, and their professional experience to be verified. Because of the extensive delays, many candidates choose to stay in their current jobs or take another position in the professional sector rather than coming into the district. With regard to developing teachers, we have to improve our facilities. We're trying to give them more training in environments that reflect the real industry, so we also need better

facilities to make sure that those trainings provide experiences that are meaningful and more relevant to today's practices in those industries.”

Program Director Two explained,

“Salary is always the biggest factor for incoming CTE teachers as career changers. Recruiting for the critical shortage CTE areas is the most challenging. Another challenge is competing with industry for top talent because they can make a lot more money there.”

The Program Director participants each mentioned that salary is a major factor when recruiting CTE teacher candidates to enter this profession. Other factors mentioned by this participant group regarding challenges faced when recruiting, developing, and retaining CTE teachers included the length of the hiring process within the district, the ability find qualified candidates in the critical shortage CTE areas, and the ability to offer relevant and meaningful PD sessions in settings that reflect industry.

Question 13 of the interviews for campus principals asked, “How do you address the challenges you face in recruiting, developing, and retaining high school Career and Technical Education teachers?”

- “By empowering them across the board. CTE teachers are normally very creative by nature and they want to be able to flourish and think outside the box. It’s important for us to give them autonomy in a lot of their instructional and PD activities. I give my CTE teacher autonomy and the ability to serve as a lead teacher on campus.” (Principal A)
- “We’ve not had many challenges with regard to recruitment and attracting candidates. In fact, when a job is posted for this campus, we normally have more

applicants than we bargain for. The challenging part is sifting through all of them to select the right candidate for the job. This took years of reputation-building to develop. We have a strong reputation in the Houston area, so this is a school of choice for many educators in all content areas. Once they're here (CTE teachers), we support them and make resources and training available to them on an ongoing basis. There is a very low, virtually nonexistent, CTE teacher turnover rate at this campus, so retention is not a concern.” (Principal B)

- “I am very honest and straight-forward with my teachers about expectations. I communicate to them that we are responsible for student success and we do what we have to do to be sure that each student learns, grows, and attains success. This honesty is coupled with relevant, meaningful PD and tons of support throughout the year.” (Principal C)
- “By prioritizing the program. Each student at this campus will take a CTE course each year. First thing I looked at was how they [this campus] only had five CTE teachers for over a thousand students. That’s too many kids per teacher, so I’m expanding the CTE team by hiring more teachers. Smaller, more manageable student loads, are a big plus for CTE teachers and treating their programs as priorities gives them a sense of security and appreciation they don’t get at most campuses.” (Principal D)
- “Through creative scheduling. The hourly lecturer opportunity makes it possible to bring candidates in while they’re working to obtain certification, but it pays less, which makes it less attractive to many candidates. This option has been a life-saver for our Computer Science program. The biggest thing to consider when

developing and keeping people is to support them and to work with them. When people know they're important to the campus and that they matter, they're more likely to stay." (Principal E)

The campus principal participants mentioned several methods for addressing the challenges faced in the processes of recruiting, developing, and retaining CTE teachers, but the most frequently-recurring response was that of support. Support has been noted by all participant groups as a major factor in CTE teacher retention.

Question 13 of the interviews for CTE program directors asked, "How do you address the challenges you face in recruiting, developing, and retaining high school Career and Technical Education teachers?" Program Director One replied,

"In order to address the challenges we face recruiting, developing and retaining high school CTE teachers in this district, we are working with the HR department to streamline the hiring processes for those coming in from industry. We're also working to improve the salary scale for those coming in from the business sectors so they're more aligned with industry compensation and more attractive for teacher candidates. The 10-month work schedule is enough to entice some, but not all. Salary is always an issue. We are working to improve our professional development so that it is more relevant to current business practices and is delivered in appropriate settings. Giving externship opportunities to teachers as well as improving external learning opportunities, including internships, for students."

Program Director Two said, "Sign-on bonuses, stipends, and revising the CTE teacher salary schedule to the Master's level are ways that we address these challenges."

The CTE Program Director participants each shared that they are working to improve compensation for CTE teachers. They also mentioned that they are working to overcome the challenges faced when recruiting, developing, and retaining CTE teachers by streamlining the hiring process and improving PD for more industry relevance.

Emerging Themes

These are the themes that emerged with regard to perceived challenges school and district leaders face when recruiting, developing, and retaining high school CTE teachers.

- Campus principals and CTE program directors perceive that the biggest challenges are finding qualified principals to fill CTE vacancies and convincing/enticing those individuals to choose the teaching profession.
- CTE program directors perceive that the hiring and certification process delays and the teacher salary schedule pose challenges to hiring CTE teachers.
- Outdated facilities and bond construction delays are perceived by CTE program directors as challenges that hamper the ability to offer modern professional development opportunities in environments that reflect industry settings.

Research Question 8

How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?

Seven campus and district leaders (five campus principals and two CTE program directors) participated in individual semi-structured interviews during this study.

Question 14 of the individual semi-structured interviews asked campus principals and CTE program directors “From your perspective, what impact does Career and Technical Education teacher turnover have on the district budget?”

- “I don’t really know, but I would guess that it’s not more than in the other departments.” (Principal A)
- “Teacher turnover is a big deal for districts all across the state of Texas, including ours. CTE teachers are not unlike core teachers, they’re all looking to be respected and valued. When that need is met, teachers tend to stay.” (Principal B)
- “I think that teacher turnover is a major concern and big expense in this district in all areas, including CTE. However, the exact costs associated with this turnover are beyond me.” (Principal C)
- “Very low in comparison with turnover in other areas. I’m willing to go out on a limb and say that turnover is much greater and costlier in the tested (core) subject areas because of the stress associated with those high-stakes tests.” (Principal D)
- “Very low, not much at all. Luckily, we’ve had a very low rate of teacher turnover among our CTE department. I imagine that CTE teacher turnover is pretty low district-wide and has hardly any impact on the overall district budget.” (Principal E)

The campus principal participants really struggled with answering this question. While they perceived that CTE teacher turnover has some impact on district budget, they expressed considerable uncertainty concerning the extent of such impact. The sentiments expressed by campus principals convey an overall perception of low turnover among the CTE teachers in the district and correspondingly low impact on the district budget.

Program Director One answered,

“CTE teacher turnover has a considerable impact on the district budget. Teacher turnover, in general, has a huge impact on the budget in this district and that's a

common problem in other districts and throughout the state. I don't have an exact number, but I know that it has had a tremendous impact on our district budget.

The cost of hiring teachers, training them and then having to replace them when they leave the district is something we need to address and we can only address it by improving our strategies to develop, support, and compensate teachers.”

Program Director Two said,

“I'm not sure, but I would assume that the number would be much less than the impact from teacher turnover in the core content areas. CTE teachers are usually a little older and more mature because they are career changers. Also, they are less likely to leave the profession after the financial investment associated with the alternative certification process.”

The CTE Program Directors expressed slightly different perceptions regarding the impact of CTE teacher turnover on the district budget. One perceived a very high impact on the district budget, while the other perceived much less impact, however, they agreed that this impact is much less than that of core content subject areas.

Emerging Themes

Here are the themes that emerged with regard to campus principals' and CTE program directors' perceptions of CTE teacher turnover impacts on district budget considerations.

- Campus principals and CTE program directors agree that CTE teacher turnover has an impact on the district budget.
- Campus principals and CTE program directors agree that the impact of CTE teacher turnover is much less than turnover in core content areas and overall

teacher turnover in the district.

Conclusion

In summary, several themes emerged via the electronic survey, CTE teacher focus groups, and individual semi-structured interviews with campus principals and CTE program directors. With regard to the recruitment, development, and retention of high school CTE teachers, there were shared perceptions among the CTE teacher, program director, and campus administrator groups as well as varied viewpoints. The strongest perceptions and most frequently-recurring themes are detailed below.

Recruitment

Word of mouth / personal referral is perceived by CTE teachers as the most effective way to recruit CTE teachers to an urban school district. Campus principals perceive that referrals from the CTE department and personal referrals are the most effective recruitment methods, and CTE program directors perceive that referrals from professional organizations are most effective for recruiting qualified high school CTE teachers. The personal touch associated with hearing of a job opportunity or a qualified candidate from a trusted source is incomparable with regard to recruitment. This applies to personal referrals whether from a friend, a CTE program director, or a professional membership organization. The greatest perceived need with regard to CTE teacher recruitment in this urban school district is for recruiting personnel who find qualified candidates specifically for CTE vacancies, as opposed to HR generalists/recruiters.

Development

CTE teachers noted that job-alike training is the most consistent and most effective form of support and professional development presently available to them in

this urban school district, but that it was more effective when it involved specialized trainings for specific courses and CTE strands and when it lasted more than one day. CTE teachers also adamantly expressed that CTE specialists were once an invaluable resource for instructional support as well as for the acquisition of necessary classroom resources and technology. In general, CTE teachers and campus administrators expressed the perception that the current support and professional development offerings from the CTE department are ineffective due to infrequency, lack of specialization for varied courses/programs, and inexperienced and unhelpful CTE specialists.

Retention

There was no mention of intentional retention efforts in this district by members or either participant group such as longevity awards, bonuses, or enhanced career growth potential. It is unclear whether this district currently offers such incentives for longevity, however, it appears that they do not exist since there was no mention of such from CTE teachers, program directors, or campus administrators. Based on the feedback from the aforementioned participant groups, it seems that greater support and respect, particularly from campus administrators, would yield greater CTE teacher retention in this district.

Improvements In Progress

The CTE program directors who participated in this study mentioned ways that the district is working to improve the recruitment, development, and retention of CTE teachers in this urban school district. The improvements in progress included streamlined higher processed for quicker on-boarding of new CTE teachers, improved compensation (salary schedules and bonuses) for CTE teachers – especially those coming to district directly industry positions, and more authentic and relevant training opportunities for

CTE teachers throughout the year, including corporate/site-based externships.

Budgetary Implications

While it was acknowledged by all program directors and campus administrators that CTE teacher turnover has some impact on the overall district budget, none of the participants could earnestly assess a monetary value to this phenomena. All program directors and campus administrators expressed they perceive CTE teacher turnover to be much less frequent and much less costly to the district than teacher turnover in other subject areas, particularly tested (core) subject areas.

Chapter V

Conclusion

Introduction

American youth are exposed to career paths and skills as early as primary school and begin intense, specialized, job skills training in high school. School districts across the country offer high schools where students have the opportunity to take specialty, career-related, courses and graduate with comprehensive exposure and training in a career that suits their personal interests and long-term professional goals. The effectiveness of any instructional program hinges on the quality of its teachers. The Bill & Melinda Gates Foundation (2010) reported students' academic progress is largely dependent upon their teachers' knowledge and skills. In order for schools to prepare students for the careers of tomorrow while maintaining rigorous and relevant CTE programs they need highly qualified, skilled, and supported CTE teachers. If urban school districts are committed to assuring that every high school student receives quality vocational training in their CTE programs, then special attention and consideration must be given to how districts recruit, develop and retain the most qualified and effective Career & Technical Education (CTE) instructors. This chapter will include an overview of this study, a summary of the results discussed in Chapter Four, discussions of results data as they align with literature, implications for school leadership, and implications for further study.

Overview of the Study

The purpose of this qualitative study was to examine CTE teachers', campus principals', and CTE program directors' perceptions of recruitment, development, and

retention efforts in a large urban school district in southeast Texas. Specifically, this study aimed to identify and examine perceived factors that influence teacher attrition in Career & Technical Education (CTE) programs as well as identify promising strategies and resources for recruiting, developing, and retaining highly-qualified CTE teachers.

The research questions that guided the direction of this study were:

1. What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
2. What are high school CTE program directors' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
3. What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?
4. What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in an urban school district?
5. What are CTE teachers' perception of the factors that influence high school CTE teachers' decision to leave an urban school district?
6. What are CTE teachers' perception of the factors that influence high school CTE teachers' decision to stay an urban school district?
7. What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?
8. How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?

This qualitative case study utilized surveys, interviews, and focus group sessions to examine the perceptions of high school CTE teachers, program directors, and campus administrators regarding recruitment, development, and retention efforts in a large urban school district in southeast Texas. The setting for this study was chosen because it is one of the largest Metropolitan areas (by population) in the United States, and one of the most populous cities in the state of Texas and in the southern U.S. Within this large, urban school district, 18 high school campuses were selected for this study. The 18 campuses were selected by the researcher because this group includes every type of high school campus available to students in this district (large comprehensive schools, small specialty schools, and early college / college prep schools). This group of campuses also has student body demographics that resemble those of the district, as a whole, and the demographics on high school campuses throughout the district.

The research processes for this study included an electronic survey completed by fifty-seven CTE teachers, two focus group discussions with sixteen CTE teachers (nine in the first one and seven in the second), and individual semi-structured interviews with five campus principals and two CTE program directors. The teacher survey containing open-ended and close-ended questions was coded inductively using an open coding technique in order to identify emerging themes (Glaser and Strauss, 1967) and descriptive statistics of close-ended responses are reported herein. CTE teacher focus groups and individual semi-structured interviews with CTE program directors and campus principals were audio-recorded, transcribed, and analyzed using a general inductive approach with open coding to identify themes (Fram, 2013).

Discussion of the Results

What are high school CTE teachers' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

For the past 30 years, the American education system has viewed business professionals (in various industries) as a promising and fruitful pool of potential candidates for the teaching profession (WWF, 2010). Research shows that business professionals who become teachers are as likely to be effective and successful in the classroom as those who enter the profession via the traditional route, and are generally highly committed to the profession (WWF, 2010). Despite the documented success and achievements of CTE high school programs, however, studies show many high schools are faced with serious challenges with regard to attracting qualified CTE teachers (Wilkin & Nwoke, 2011).

When CTE teacher participants were asked to cite the manners in which they were recruited to this urban school district as part of the electronic survey, the most frequently recurring answer was word of mouth / personal referral. When CTE teachers were asked which recruitment method they felt was most effective, word of mouth / personal referral was still among the top three answers selected by CTE teachers, but was preceded by compensation and personal commitment/the desire to give back to youth and community on the electronic survey. During the focus group discussions, CTE teachers overwhelmingly expressed perceptions that word of mouth / personal referral is the most effective recruitment strategy to attract CTE teachers to an urban school district. When a job opportunity or employment candidate is referred by a trusted source, there is a greater likelihood of job-candidate match accuracy and commitment.

In order to successfully appeal to career changing prospects, school leaders must first identify and truly understand the factors that might lead an industry worker to consider the change (WWF, 2008). Of the career changers studied by the Woodrow Wilson Foundation (2010), 89% cited “contributing to society and making a difference” as their reason for pursuing the teaching profession and 63% cited “allows greater time for family and personal interests.” The desire to teach lies within many potential career changers, but their desire must be met with fair and reasonably attractive financial and intangible incentives, adequate training and preparation, and provisions for ongoing professional support and development (WWF, 2008). A dedicated staff of CTE recruiters could focus on the unique needs and motivators of potential career changers and work exclusively toward attracting these individuals to high schools in urban school districts.

What are high school CTE program directors’ perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

The CTE program director participants indicated that they tend to work with campus principals in order to obtain information pertaining to CTE vacancies at the high schools and they work with the district’s HR department to ensure that vacancies are posted on the district’s website for public viewing. In order to locate qualified candidates and attract them to this urban school district, CTE program directors work with professional organizations and alternative certification programs because of their interaction with potential career changers who have industry experience and an interest in teaching. These are very effective recruitment methods because recommendations received from these institutions have yielded highly qualified candidates who have been great matches for the district’s CTE vacancies. Business professionals in many industries

participate in professional membership or networking organizations and all teachers who come into education from the professional sector, without a degree in Education, are required to complete an alternative certification program. Alternative certification is the most common route among teachers for whom education is not their first career (WWF, 2008; WWF, 2010). In fact, about one-third of new teachers in America enter the profession via alternative certification programs (WWF, 2010).

What are high school administrators' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district?

High school campus principals who participated in this study indicated that they tend to work with the district's HR department in order to ensure that CTE vacancies at their campuses are posted to the online job board and they work with the CTE department to obtain recommendations and referrals for qualified candidates for their specific program needs. The most effective recruitment strategy reported by this participant group was that of personal connection with candidates. Examples of personal connection with regard to CTE teacher recruitment included word of mouth / personal referrals from friends, colleagues, existing CTE faculty members, the CTE department, and/or professional organizations; talking to and establishing rapport with candidates; and connecting with candidates via postings on social media and job boards on online marketplace sites.

Personal connection is cited as a significant factor in recruiting candidates because people tend to have a greater sense of commitment to a job when they acquired it on the basis of a personal referral. Also, personal referrals tend to be a reliable source of recruitment because individuals are not likely to risk their name and reputation by

referring someone who would not represent them well or fulfill the duties of the job. Darling-Hammond and Berry (1999) report teachers choose to enter (and remain) in schools where they feel supported in their efforts to teach. The personal connection established by Principal C in her one-on-one conversations with teacher candidates is a perfect example of establishing this type of rapport with incoming teachers.

What are CTE teachers' perceptions of the district structures of support / professional development they found to be most beneficial to them in this urban school district?

One-third of the CTE teachers who participated in this study indicated they'd participated in annual job-alike training. While one-third is a considerable portion of the group, participation in job-alike training should have been selected by 100% of respondents as this is a required annual training for all CTE teachers in the district. This feedback leaves one to wonder how two-thirds of the respondents have not participated in job-alike training and how the district's CTE department holds teachers accountable for this important PD activity.

With regard to which support and PD activities were most beneficial to their instructional practices, 25% of CTE teachers chose job-alike training, mentor teachers and specialized trainings were tied with 19.3% each, and 14% of respondents indicated they'd received no support or professional development since working in this urban school district. Of those who acknowledged receiving support and PD in this district, the overarching theme was that the supports have been infrequent and ineffective and that CTE department staff was more knowledgeable and more supportive under previous district administration. With regard to those who reported they'd received no support and

PD in this district, there is a resurgence of the question as to the CTE department's accountability measures to ensure that all teachers are adequately trained, developed, and supported each year. It was frequently mentioned by teachers that CTE Specialists were a former source of support and development, but such personnel was no longer an asset to teachers due to staffing changes within the CTE department at the district level. The new CTE Specialists have the propensity to be great assets to CTE teachers with the proper training and development. Additionally, CTE Specialists can be of greater assistance to teachers if they have instructional experience and not just industry experience. While CTE teachers develop natural bonds of camaraderie and tend to support one another, their availability and accessibility are limited in light of their own class loads. Lastly, targeted and specific meetings and PD trainings are essential to the ongoing development of CTE teachers' knowledge and skills pertaining to the courses they teach. Campus principals shared that analyzing the CTE teacher support and professional development programs in other districts could be a great way to assess improvement needs in this district.

A primary purpose of Career and Technical Education programming is to prepare students for high-skill, high-wage, high-demand occupations in new and emerging professions (Perkins IV, 2006). In order to do so, vocational training programs must continue to evolve in order to keep pace with new and emerging fields and to produce graduates who are equipped with the skills that employers look for in applicants (ACTE-NASD, 2009). Modern CTE programming is designed to offer students a strong educational foundation and work experience in their selected field of study so they are able to matriculate into the professional setting upon graduation (Packard, et al.) It is essential that campuses and districts develop and maintain systems that enable new

teachers to become fully assimilated and supported in the role of classroom teacher (Wong, 2004). To provide students with highly effective teachers, districts must provide professional development programs that improve skills throughout teachers' careers (Wong, 2004). Additionally, high quality professional development must be matched by administrative support for the highest impact on teacher success and student achievement (NCTAF, 2011).

What are CTE teachers' perception of the factors that influence high school CTE teachers' decision to leave an urban school district?

CTE teacher participant responses included various points of significance, but the most frequently recurring responses regarding the perceived reasons why CTE teachers leave an urban school district were lack of respect/support at the campus level.

Additional significant perceived reasons for CTE teachers leaving this urban school district were infrequent and inauthentic professional development opportunities, lack of voice with regard to subjects taught, added responsibilities beyond classroom instruction with little or no additional compensation, and burnout. About two-thirds of the CTE teacher participants indicated they do not plan to leave this urban school district after the 2015-16 school year, 25% were undecided, and 7% indicated that they plan to leave the school district after this school year.

Campus principal participants cited several reasons that might influence CTE teachers to leave the district including the perceived absence of opportunities for growth and development, lack of respect, disconnect from students, and isolation, but the most frequently-recurring response was lack of support (noted by 40% of principals). The responses from the CTE program directors captured the perceptions of both CTE teachers

and campus principals. Pay is a factor that influences CTE teachers' decisions to leave a district, but is not nearly as significant as campus administration support or the ability to positively impact the lives of students. Ruhland (2001) reported that salary was the reason most often reported as former teachers' reason for leaving the profession, however, this researcher is in the minority on the topic of salary and teacher attrition. Most studies reveal that salary is reported by teachers and former teachers as much less significant than support from campus administration and other factors affecting their decisions to leave the classroom.

Many teachers are driven away by poor support systems (WWF, 2010). Ongoing support systems are essential factors to teacher development and retention (Ingersoll & Smith, 2004). Without effective supports, teacher recruitment efforts are undermined and perpetuated (NCTAF, 2004). If teachers are not retained, then efforts to recruit the best are meritless as these professionals pass through schools and districts, but do not remain in the profession. This is why professional development and proactive retention methods are so critical to every campus and school district.

Ineffective or non-existent support systems, especially for new teachers, often undermine educators' desires to stay in this profession (Darling-Hammond & Berry, 1999). Teachers remain in this profession when they are part of a professional learning and support community wherein there is the opportunity to share experiences and share ideas and best practices (Hargreaves and Fullan, 2000). National teacher survey results reveal that meaningful participation in professional learning communities with mentors and peers, and the support of campus and district administration have greater impact on

teachers' decisions to remain in the profession than student demographics, classroom behavior, or parental involvement (Darling-Hammond & Berry, 1999; Wong, 2004).

What are CTE teachers' perception of the factors that influence high school CTE teachers' decisions to stay in an urban school district?

Based on CTE teachers' responses to the survey question that asked about factors that influence CTE teachers' decisions to stay in an urban school district, support/respect from campus administration was the most significant determinant (selected by nearly 40% of participants). During the CTE teachers' focus group discussions, however, the primary factor that influences them to return to the classroom year after year is their students. As previously noted, the Woodrow Wilson Foundation reported (2010) that 89% of career changers cited "contributing to society and making a difference" as their reason for pursuing the teaching profession. Also significant is the fact that 86% of the respondents to the 2010 Woodrow Wilson Foundation survey reported "working with children" as the primary factor that attracted them to this profession and influences them to remain in the classroom (WWF, 2010). "In several studies, teachers cited relationships with students, connecting with students, and interactions with students as important reasons for continuing to teach" (Cuddapah, et al., 2011, p. 117).

Other significant factors reported by CTE teachers were compensation (selected by 26.32% of respondents) and mentoring and PD activities (selected by 17.54%). The 2010 Woodrow Wilson Foundation report cites about 46% of career changers experienced a salary increase when they entered the teaching profession and about 21% reported that their salaries stayed about the same (WWF, 2010). As noted by CTE teacher focus group participants in this study, this factor is incredibly impactful in light of

the number of days worked during the year as a classroom teacher versus the number of days worked each year in the business sector. It was reported by Cuddapah and associates that salary is rarely noted among the reasons reported by teachers who are surveyed regarding their decisions to leave the profession, and that salary correlated positively with teacher retention in several national surveys (Cuddapah, et al., 2011).

Campus principals also cited support/respect as the most significant and most common reason CTE teachers choose to stay in this urban school district. Additional factors that lead CTE teachers to stay in this urban school district, as perceived by campus principals, were campus atmosphere/culture and compensation. Along the same lines, CTE program director participants cited campus administration support as a factor contributing to CTE teachers' decisions to stay in this school district.

Research on teacher attrition in urban school districts shows that professional support given early in a teacher's career and consistently throughout their career is very instrumental in the development of effective instructional practices and teachers' likelihood to remain in the profession (Hargreaves and Fullan, 2000). Building and deepening teacher knowledge, integrating new practitioners into the teaching community, supporting the constant development of the teacher community, and encouraging professional dialogue among teachers is a four-fold endeavor known as Induction (NCTAF, 2007). The support derived from Induction and comprehensive professional development programs positively impacts teacher retention and decreases teacher attrition rates (Hargreaves & Fullan, 2000; Ingersoll & Smith, 2004; Wong, 2004; Shakrani, 2008). Such support helps to prevent the disillusionment and burnout that teachers, especially those in challenging campuses and communities, tend to face in this

profession (Ingersoll & Smith, 2004; Wong, 2004). This process of ongoing, authentic support for teachers via comprehensive Induction reduces teacher turnover and increases teacher effectiveness (NCTAF, 2007).

What perceived challenges do school and district leaders face when recruiting, developing, and retaining high school CTE teachers?

The most common theme expressed by campus principals around the topic of recruiting, developing, and retaining high school CTE teachers was that of finding qualified candidates and convincing them to pursue teaching as a career. The program director participants each mentioned that salary is a major factor when recruiting CTE teacher candidates to enter this profession. Perceived low teacher compensation was reported by 44% of career changers as an initial deterrent to entering this profession (WWF, 2010). Darling-Hammond & Berry (1999) report wealthy districts tend to pay as much as 35% higher teacher salaries than poorer districts. The school district that is the focus of this study recently increased all of its teachers' salaries in order to enhance its ability to compete with suburban districts in the area that offered higher salaries for teachers. Over the past several years, several urban districts across the nation have offered bonuses of up to \$10,000 for teachers who are hired to teach critical shortage subject/content areas. While such efforts aid in teacher recruitment by attracting more candidates, there is little evidence of the effectiveness of increased salaries and other financial incentives such as signing bonuses on teacher retention in urban school districts.

Other factors mentioned by this participant group regarding challenges faced when recruiting, developing, and retaining CTE teachers included the length of the hiring process within the district, the ability find qualified candidates in the critical shortage

CTE areas, and the ability to offer relevant and meaningful PD sessions in settings that reflect industry. Darling-Hammond, Wise, & Klein (1999) reported teacher education, licensing, and hiring practices often involve highly varied criteria, standards, and requirements, as well as cumbersome procedures that are often discouraging to teacher candidates. Similarly, Darling-Hammond & Berry (1999) reported the hiring processes in many large school districts are so “cumbersome and dysfunctional that they literally chase the best-prepared candidates away”. Darling-Hammond and Sykes (2003) reported that teacher candidates should possess characteristics such as dedication and perseverance, enthusiasm and passion for helping others, tenacity and flexibility, and, above all else, concern for the welfare of children. In addition to these basic characteristics, teachers must also possess content mastery in the subject area(s) of their instruction (Darling-Hammond & Sykes, 2003).

How do principals and CTE program directors perceive CTE teacher turnover impacting campus and district budget considerations?

While campus principals perceived that CTE teacher turnover does impact the district budget, there was considerable uncertainty concerning the extent of such budgetary impacts. In general, the sentiments expressed by campus principals conveyed an overall perception of low turnover among the CTE teachers in the district and correspondingly low impact on the district budget. This perception was shared by one CTE program director participant, but the other perceived that CTE teacher turnover has a considerable impact on the district budget. However, even the CTE program director who perceived that CTE teacher turnover has a considerable impact on district budget indicated that the impact of such is tremendously lower than that of turnover in other

subject areas. There is no evidence that this school district tracks teacher turnover data specific to the Career & Technical Education department.

While hundreds of thousands join the teaching ranks each year, the number of teachers leaving the profession every year is greater than the number of new entrants (NCTAF, 2007). Our nation's teacher turnover rate is presently 16.8% (a 50% increase over the past 15 years). The turnover rate in urban schools (20%) is even higher than the national average (NCTAF, 2007; Kopkowski, 2014). On a national scale, 26.8% of teachers who leave the profession do so because of heavy workload and 24% leave because of dissatisfaction with teaching as a career (Cuddapah, et al., 2011). Nearly one third of teachers leave the profession before making it past the three-year mark and almost one half leave within the first five years (NCTAF, 2007; Shakrani, 2008; Kopkowski, 2014). According to Ingersoll (2001), most teachers who leave the profession do so because they become frustrated and eventually dissatisfied due to the lack of adequate preparation and support for the issues they face in the classroom. The schools that lose teachers year after year spend outrageous sums of human and financial capital in the cyclical process of recruiting and hiring new teachers (NCTAF, 2007; Shakrani, 2008). Every time a teacher leaves this profession, thousands of dollars leave with them (NCTAF, 2007). The actual amount lost with each resignation varies, but the average range is \$4,366-\$17,872. National teacher turnover costs districts about \$7 Billion annually, with about \$505 of that yearly cost attributable to Texas.

In light of the overwhelming participant feedback that referenced campus administration support in regards to CTE teachers to leave or stay in an urban school district, it's important to note research on the topic of teacher turnover reports the new

teacher attrition rate is 25% where teachers have inadequate preparation and ongoing supports, but is only 12% (a 13-point difference) with these systems in place (Shakrani, 2008).

Implications and Recommendations for School and District Leaders

The following perceived significant factors were noted among all participant groups with regard to the recruitment, development, and retention of high school CTE teachers in an urban school district:

- CTE teacher candidates are best recruited to an urban school district via personal connections, such as word of mouth / personal referrals via trusted sources including friends, colleagues, and professional organizations.
 - In light of this finding, urban school district and campus administrators should utilize employee referral programs that encourage employees to recommend qualified friends or acquaintances for posted vacancies and rewards them if the referred individual is hired. Additionally, relationships with external organizations should be developed and supported as they are a reliable and trustworthy source of CTE teacher candidate referrals.
- Support for teachers is a critical factor in terms of their ability to successfully manage and teach their classes and to grow & develop professionally.
 - In addition to acknowledging this important finding, school and district leaders should increase their investments of time, materials, and financial resources in the area of professional development to ensure that CTE

teachers are provided with meaningful, relevant, and impactful PD on a consistent basis throughout each school year.

- Support from campus administrators is also a significant theme with regard to factors that influence teachers' decisions to leave or stay within an urban school district.
 - Principals and other school and district administrators make considerable contributions to the working conditions, employee morale, and overall job satisfaction of teachers (NCTAF, 2007; Shakrani, 2008). School leaders can help reduce teacher turnover via management and allocation of human and financial resources to provide much-needed support to teachers (NCTAF, 2007).

Implications for Further Research

The findings of this study have presented several opportunities for further research around campus administration awareness of the significance of CTE programs and ways that they can support those programs for maximized efficiency and benefit to students, how district administrators can take advantage of underutilized district-wide recruitment methods for CTE teachers, and how differentiated compensation structures for CTE teachers – particularly for those entering the urban classroom directly from industry – may strengthen CTE teacher recruitment and retention. As future researchers continue the work begun in this study, they are encouraged to consult the prior work of Harry K. Wong regarding effective teacher induction processes, that of Linda Darling-Hammond regarding teacher recruitment practices and the impacts of teacher quality on student achievement, the work of the Woodrow Wilson Foundation with regard to the

recruitment, development, and support of career changing teachers, and studies by the National Commission on Teaching and America's Future on the topic of teacher turnover (attrition and retention factors) in the U.S.

Future studies should track the work of urban school districts in the areas of CTE teacher recruitment, development, and retention, and the impact of these efforts on turnover rates and district budget.

Conclusion

The United States has long been a global leader in workforce preparation and trade diversity. This can be attributed, in large part, to the rigorous and relevant CTE programs available in high schools and the teachers who deliver CTE instruction. If urban school districts are committed to assuring that every student receives quality vocational training in their CTE programs, then special attention and consideration should be given to how districts recruit, develop and retain the most qualified and effective Career & Technical Education (CTE) instructors. Career & Technical Education programs are a significant part of educational programming in the U.S. and an essential source of skilled workers for the American economy. In order for school districts to maintain rigorous and relevant instruction in high school Career & Technical Education programs, they will need to actively recruit, develop, and retain highly qualified instructors.

The findings of this study reveal several important factors that campus and district leaders in urban school districts should consider to improve and positively impact efforts to recruit, develop, and retain high school CTE teachers. How can campus and district leaders maximize their efforts to attract qualified teachers, including career changers, to

deliver instruction in their high school CTE programs? The participants in this study and various researchers have indicated that it is essential for campus and district leaders to appeal to potential CTE teacher candidates' desires to contribute to society and to their communities, and there's no better way to appeal to these individuals than through personal connections. The development and retention of high school CTE teachers in urban school districts are determined, more than any other factor, by amount, frequency, and authenticity of support received from campus administrators.

So what does this all mean and why is it significant? In order for urban school and district leaders to hire and retain highly-qualified high school CTE teachers – those with at least three years' industry experience, content expertise, teacher certification or certification eligibility, and the desire to work with inner-city youth – the following should be given careful attention. Urban school and district leaders should appeal to these individuals' desires to teach in a very authentic way and then support them in an intentional and consistent manner from the day they're hired into the district and all throughout their tenure.

With the aforementioned plans in place, urban school and district leaders are sure to attract, develop, and retain highly-qualified high school CTE teachers, lower the teacher turnover rate in CTE departments and the resulting impacts on district budgets, and continue to make great contributions to the develop of America's workforce.

References

- Association for Career and Technical Education (2006). Facts About Career and Technical Education
- Brooks, D. M., (1987). Teacher induction: A new beginning. Papers from the National Commission on the Teacher Induction Process. Reston, VA: Association of Teacher Educators.
- Carroll, T. (2007). *Policy Brief - The High Cost of Teacher Turnover*
- Chirban, JT. (1996). *Interviewing in depth: The interactive relational approach*. Thousand Oaks, CA. Sage Publications.
- Colorado Career and Technical Education (2009), *CTE Fact Sheet*
- Cuddapah, J., Beaty-O’Ferrall, M., Masci, F., & Hetrick, M. (2011). *Exploring Why Career Changers Leave Teaching*. p. 115-123
- Darling-Hammond, L. (1997). Doing what matters most: Investing in quality teaching. New York: National Commission on Teaching and America’s Future.
- Darling-Hammond, L. (1999). *Solving the dilemmas of teacher supply, demand, and standards: How can we ensure a competent, caring, and qualified teacher for every child*. Washington, D.C.: National Commission on Teaching and America’s Future.
- Darling-Hammond, L. (1999). *Teacher Quality and Student Achievement: A Review of State Policy Evidence*
- Darling-Hammond, L. & Barnett, B. (1999). Journal of Negro Education. *Recruiting Teachers for the 21st Century: The Foundation for Educational Equity*. p. 254-260, 268

- Darling-Hammond, L. & Berry, B. (1999). Recruiting Teachers for the 21st Century: The Foundation for Educational Equity. *The Journal of Negro Education*, Vol. 68, No. 3, Recruiting, Preparing, and Retaining Qualified Teachers to Educate All of America's Children in the 21st Century (Summer, 1999).
- Darling-Hammond, L. & Sykes, G. (2003). *Wanted: A National Teacher Supply Policy for Education: The Right Way to Meet The "Highly Qualified Teacher" Challenge*. p. 1-8, 15-16, 19-20, 34
- Darling-Hammond, L., Wise, A. E., & Klein, S. P. (1999). *A License to Teach: Building a Profession for 21st Century Schools*. San Francisco: Jossey-Bass.
- Debus, Mary. (1990). *Handbook for excellence in focus group research*. Washington, D.C.: Academy for Educational Development. Fram, S. (2013). Qualitative Report, v18 *The Constant Comparative Analysis Method Outside of Grounded Theory*
- Feiman-Nemser, S., Schwille, S., Carver, C., Yusko, B., (1999). A conceptual review of literature on new teacher induction. National Partnership for Excellence and Accountability in Teaching. Washington, D. C.
- Feistritzer, E. C., (2010). *Alternative Teacher Certification: A state by state analysis 2010*, National Center for Education Information.
- Glaser, Barney, G. & Strauss, Anselm L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine De Gruyter.
- Gold, Y. (1996). *Beginning teacher support: Attrition, mentoring, and induction*. New York: Simon & Schuster Macmillan.
- Gray, K. C. & Herr, E. L. (1998). *Workforce Education: The basics*. Needham Heights, MA: Allyn and Bacon.

- Greenbaum, Thomas L. (1998). *The handbook for focus group research*. Thousand Oaks, CA: Sage.
- Grossman, P. L. (1990). *The making of a teacher: Teacher knowledge and teacher education*. New York: Teachers College Press.
- Guajardo Barrow, Julia. (2014). *An Examination of the Impact of Positive Normative Culture and Intentional Positive Peer Influence on Student Attitudes, Positive Behaviors, and Achievement in Reading and Math*. p. 49-69
- Gubrium, JA, & Holstein, JA. (2001). *Handbook of interview Research: Context and Method*. Thousand Oaks, CA. Sage Publications. Hargreaves, A. & Fullan, M. (2000). *Mentoring in the New Millennium*. p. 50-55
- Hargreaves, A. & Fullan, M., (2000). *Mentoring in the New Millennium*. *Theory Into Practice*, Vol. 39, No. 1, New Visions of Mentoring.
- Hart, Peter D. Research Associates, Inc. (2010). *Career Changers In The Classroom: A National Portrait*. p. iii-xii
- Haselkorn, D. & Hammerness, K. (2008). *Encore Performances. Tapping the Potential of Midcareer and Second-Career Teachers*. p. ii-iii, 1-2, 6-24. The Woodrow Wilson National Fellowship Foundation.
- Hayes, Thomas J. & Tatham, Carol B. (Eds.). (1989). *Focus group interviews: A reader*. (2nd ed.) Chicago: American Marketing Association. Herzberg, F. (1964). *The Motivation-Hygiene Concept and Problems of Manpower*. *Personnel Administrator* (27). p. 3-7
- Herzberg, F. (1964). *The Motivation-Hygiene Concept and Problems of Manpower*. *Personnel Administrator* (27): pp. 3-7.

- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH. Holland.
- Herzberg, F. (1968). *One more time: how do you motivate employees?* Harvard Business Review (January-March). p. 53-62.
- Hoddinott, P. & Pill, R. (1997). *Qualitative research interviewing by general practitioners. A personal view of the opportunities and pitfalls*. Family Practice. 14(4), 307-312.
- Huling-Austin, L. (1992). Research on learning to teach: Implications for teacher induction and mentoring programs. *Journal of Teacher Education*, 43 (3), 173-180.
- Humphrey, D. C., Adelman, N., Esch, C. E., Riehl, L. M., Shields, P. M., & Tiffany, J. (2000). *Preparing and supporting new teachers: A literature review*. Menlo Park, CA: SRI International.
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.
- Ingersoll, R. & Smith, T. (2004). *Do Teacher Induction and Mentoring Matter?* p. 28-32, 35
- Johnson, S. & Birkeland, S. (2003). Pursuing a sense of success. New teachers explain their career decisions. *American Educational Research Journal*. 40(3), 581-617.
- Johnson, S., Kardos, S., Kauffman, D., Liu, E., Donaldson, M. (2004). *The Support Gap: New Teachers' Early Experiences in High-Income and Low-Income Schools*.
- Kardos, S. M., Supporting and sustaining new teachers in schools: The importance of professional culture and mentoring. Harvard University, Cambridge, MA.
- Kiker, J. & Emeagwali, S. (2010). *A Snapshot of States' Teacher Education and Training Programs*. Association for Career and Technical Education.

- King, Nathan (1970). Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction. *Psychological Bulletin* 74 (1):pp. 18-31
- Kopkowski, C. (2014). *Why They Leave*. National Education Association.
- Krueger, Richard A. (1998). *Developing questions for focus groups*. Thousand Oaks, CA: Sage.
- Krueger, Richard A. (1998). *Moderating focus groups*. Thousand Oaks, CA: Sage.
- Krueger, Richard A. (1998). *Analyzing and reporting focus group results*. Thousand Oaks, CA: Sage
- Krueger, Richard A. & Casey, Mary Anne (2000). (Third edition) *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: Sage.
- Kvale, S. (1983). The qualitative research interview: A phenomenological and hermeneutical mode of understanding. *Journal of Phenomenological Psychology*. 14(2), 171-196.
- Kvale, S. (1996). *InterViews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, CA: Sage Publications.
- Lerner, P. K., Zittleman, K., (2002). *Career Changers: Women (and Men) Who Switch to Teaching*.
- Lewis, M., Hodes, C., Foster, J., Kelley, P., Pritz, S., Sass-Boggs, H., Bottoms, G. (2011). *Improving Secondary Career and Technical Education through Professional Development: Alternative Certification and Use of Technical Assessment Data*. p. 6-18
- Lieberman, A. (1996). Practices that support teacher development: Transforming conceptions of professional learning.

- Merton, Robert K., Fiske, Marjorie, & Kendall, Patricia L. (1990). (Second edition) *The focused interview*. New York: The Free Press.
- Mokher, C. (2011). *Aligning career and technical education with high-wage and high-demand occupations in Tennessee*. p. i
- Morgan, David L. (1997). *Focus groups as qualitative research*. Newbury Park, CA: Sage.
- National Commission on Teaching and America's Future (1996). What matters most: Teaching for America's Future. New York: Author.
- National Commission on Teaching and America's Future (2007). Policy Brief: The High Cost of Teacher Turnover.
- National Research Center for Career and Technical Education, (2011). Improving Secondary Career and Technical Education through Professional Development: Alternative Certification and Use of Technical Assessment Data.
- O'Connor, P. (2012). The Professional Development Needs of Academic Teachers Adding Career-Technical Education Licenses. *Journal of Career and Technical Education*, Vol. 27, No. 1, Spring 2012.
- Packard, Leach, Ruiz, Nelson, DiCocco, (2010). School-to-Work Transition of Career and Technical Education Graduates.
- Patton, Michael Q. (1990). *Qualitative evaluation and research methods*. (Second edition) Newbury Park, CA: Sage.
- Riggs, L. (2014). Why Do Teachers Quit? *The Atlantic Magazine*.
- Rosenholtz, S. (1989). *Workplace Conditions That Affect Quality and Commitment: Implications for Teacher Induction Programs*. p.423-432

- Rubin, H.J., Rubin, I. S. (2004). *Qualitative Interviewing: The Art of Hearing Data*. Second Edition. Thousand Oaks, CA: Sage Publications.
- Ruhland, S. K. (2001). Factors influencing the retention of secondary business teachers. *Delta Pi Epsilon Journal*, 43(4), 215-228.
- Sanders, W. (1996). *Cumulative and residual effects of teachers on future student academic achievement*. Knoxville, TN: University of Tennessee Value-Added Research & Assessment Center.
- Schwill, S. & Wolfe, N. (1996). *Mentoring as a professional practice*. East Lansing, MI: Michigan State University, National Center for Research on Teacher Learning.
- Scott, J. L. & Sarkees-Wircinski, M. (2007). *Overview of Career and Technical Education*, American Technical Publishers, 4th Edition.
- Shakrani, S. (2008). *Teacher Turnover*. p. 1-4. Michigan State University, College of Education.
- Tesch, Renata (1990). *Qualitative research: Analysis types and software tools*. New York: Falmer.
- Texas Education Agency (2011-12). *Academic Excellence Indicator System (AEIS Report) [Data File]*.
- University of Wisconsin (2006). *Morale and Job Satisfaction Focus Group and Interview Report*. Stout.
- Vaughn, Sharon et al. (1996). *Focus group interviews in education and psychology*. Thousand Oaks, CA: Sage.

- Viviano, Thomas (2012). What 21st Century Leadership in Career and Technical Education Should Look Like. *Journal of Career and Technical Education*, Vol. 27, No. 2, Winter, 2012.
- Wai-Ling Packard, B., Leach, M., Ruiz, Y., Nelson, C., & DiCocco, H. (2010). *School-to-Work Transition of Career and Technical Education Graduates*.
- Wilkin, T. & Nwoke, G. (2011). *Career and Technical Education Teacher Shortage: A Successful Model for Recruitment and Retention*
- Wise, A. E., Darling-Hammond, L., & Berry, B. (1987). *Effective Teacher Selection: From recruitment to retention*. Santa Monica, CA: The RAND Corporation.
- Wong, H. (2004). *Induction Programs That Keep New Teachers Teaching and Improving*. p. 41-51. NASSP Bulletin, Vol. 88, No. 638, March 2004

Appendix A

Teacher Survey Questions

1. How many years have been teaching? _____
2. How many years have you been with the district? _____
3. How were you recruited to the district?
 - a. District Website
 - b. Job Fair
 - c. Personal Referral
 - d. Newspaper
 - e. Billboard
 - f. Other, please specify _____
4. What recruitment strategies do you think are most effective in attracting Career and Technical Education teachers to an urban school district?

5. What district structures of support / professional development for Career and Technical Education teachers have you received?
 - a. Job-alike training
 - b. Cohort training on Early Dismissal days
 - c. Mentor Teacher
 - d. Teacher Appraisal & Development System (TADS)
 - e. Teacher Development Specialist
 - f. Other, please specify _____

6. What district structures of support / professional development for Career and Technical Education teachers did you find to be the most beneficial to your professional growth?
-
7. Would you be willing to participate in a focus group discussion with other Career and Technical Education teachers?
- a. Yes
 - b. No
8. Are you planning to leave the district after the 2014-15 school year?
- a. Yes
 - b. No
 - c. Undecided
9. If you are planning to leave the district, what factors have influenced your decision to leave?
-
10. From your perspective, what factors have the greatest influence on a Career and Technical Education teachers' decision to stay within an urban school district?
-

Appendix C

Focus Group Confirmation Letter

March 10, 2015

Dear _____,

Thank you for your willingness to participate in the Career and Technical Education (CTE) Teacher Focus Group. As discussed via email, we would like to hear your experiences and opinions concerning CTE teacher recruitment, development, and retention in a large urban school district. You will be in a group with 5 to 9 other CTE teachers. Your responses to the questions will be kept confidential and your identity will not be revealed in the research study report or data presentation. As a participant in this focus group, you will be eligible to win a \$75 Visa Gas gift card via drawing at the end of the session. The date, time, and place of the discussion are listed below. When you arrive, please look for signs directing you to the meeting room.

DATE
TIME
PLACE

If you need directions to the focus group or will not be able to attend for any reason, please contact me at tdavis26@houstonisd.org or (832) 661-8131. Otherwise, we look forward to seeing you.

Kind regards,

Tabitha Davis

Appendix D Research Subject Consent Form



UNIVERSITY OF HOUSTON CONSENT TO PARTICIPATE IN RESEARCH

PROJECT TITLE:

You are being invited to take part in a research project conducted by Tabitha Davis from the College of Education at the University of Houston.

NON-PARTICIPATION STATEMENT

Taking part in the research project is voluntary and you may refuse to take part or withdraw at any time without penalty or loss of benefits to which you are otherwise entitled. You may also refuse to answer any research-related questions that make you uncomfortable.

PURPOSE OF THE STUDY

The purpose of this study is to examine high school career and technology education (CTE) teachers', CTE program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study aims to examine CTE teachers', CTE program directors', and principals' perceptions of effective recruitment strategies to attract CTE teachers to an urban school district, district structures of support and professional development most beneficial to CTE teachers, perceived factors influencing CTE teachers' decision to leave or stay in an urban school district, and challenges faced in recruiting, developing and retaining high school CTE teachers.

PROCEDURES

A total of 100 subjects at 18 locations will be invited to take part in this project. You will be one of approximately 8 subjects invited to take part at this location.

This research will involve the following procedures over a two-month time frame:

- Subjects will receive an electronic survey via email. The online survey contains 10 questions and takes about 10 minutes to complete. In addition to answering the research questions contained in the survey, subjects will be asked to indicate their willingness to participate in a focus group.
- Subjects who express interest in focus group participation will receive a phone call to confirm their interest and a formal letter inviting them to participate in a focus group.
- Focus group participants will engage in a discussion lasting about 1.5 hours on a specified day and time.

CONFIDENTIALITY

The identity of all participants will be held in confidence.

- Subjects who express interest in focus group participation will receive a phone call to confirm their interest and a formal letter inviting them to participate in a focus group.
- Focus group participants will engage in a discussion lasting about 1.0-1.5 hours on a specified day and time.

CONFIDENTIALITY

The identity of all participants will be held in confidence.

If confidential: Every effort will be made to maintain the confidentiality of your participation in this project. Each subject's name will be paired with a code number by the principal investigator. This code number will appear on all written materials. The list pairing the subject's name to the assigned code number will be kept separate from all research materials and will be available only to the principal investigator. Confidentiality will be maintained within legal limits.

RISKS/DISCOMFORTS

There are no foreseeable physical, psychological, social, or legal risks, discomforts, or inconveniences.

BENEFITS

While you will not directly benefit from participation, your input may help investigators better understand high school CTE teachers', CTE program directors', and campus principals' perceptions of recruitment, development, and retention efforts for CTE teachers in a large urban school district in southeast Texas.

ALTERNATIVES

Participation in this project is voluntary and the only alternative to this project is non-participation.

INCENTIVES/REMUNERATION

Subjects who participate in an entire focus group discussion or individual interview will be eligible to receive a \$75 Shell Gas gift card (via drawing).

PUBLICATION STATEMENT

The results of this study may be published in scientific journals, professional publications, or educational presentations; however, no individual subject will be identified.

AGREEMENT FOR THE USE OF AUDIO/VIDEO TAPES

If you consent to take part in this study, please indicate whether you agree to be audio/video taped during the study by checking the appropriate box below. If you agree, please also indicate whether the audio/video tapes can be used for publication/presentations.

- I agree to be audio/video taped during the interview.
 - I agree that the audio/ video tape(s) can be used in publication/presentations.
 - I do not agree that the audio/ video tape(s) can be used in publication/presentations.
- I do not agree to be audio/video taped during the interview.

Subjects may not participate in this study if they do not agree to the audio/videotaping.

SUBJECT RIGHTS

1. I understand that informed consent is required of all persons participating in this project.
2. I have been told that I may refuse to participate or to stop my participation in this project at any time before or during the project. I may also refuse to answer any question.
3. Any risks and/or discomforts have been explained to me, as have any potential benefits.
4. I understand the protections in place to safeguard any personally identifiable information related to my participation.
5. I understand that, if I have any questions, I may contact Tabitha Davis at 832-661-8131. I may also contact Dr. Robin McGlohn, faculty sponsor, at 713-743-5046.
6. **Any questions regarding my rights as a research subject may be addressed to the University of Houston Committee for the Protection of Human Subjects (713-743-9204). All research projects that are carried out by Investigators at the University of Houston are governed by requirements of the University and the federal government.**

SIGNATURES

I have read (or have had read to me) the contents of this consent form and have been encouraged to ask questions. I have received answers to my questions to my satisfaction. I give my consent to participate in this study, and have been provided with a copy of this form for my records and in case I have questions as the research progresses.

Study Subject (print name): _____

Signature of Study Subject: _____

Date: _____

I have read this form to the subject and/or the subject has read this form. An explanation of the research was provided and questions from the subject were solicited and answered to the subject's satisfaction. In my judgment, the subject has demonstrated comprehension of the information.

Principal Investigator (print name and title): _____

Signature of Principal Investigator: _____

Date: _____

Appendix E

Focus Group Moderator Script and Questions

Upon Participant Entry

Subjects will be assisted with the sign-in process and invited to get light refreshments / light dinner.

Welcome

Thank you for agreeing to be part of the focus group. We appreciate your willingness to participate.

Introductions

I am Tabitha Davis, Researcher and former Career and Technical Education Teacher in this District, and I will be moderating our discussion today.

Purpose of the Focus Group

This focus group is part of a study designed to examine perceptions of Career and Technical Education (CTE) teacher recruitment, development, and retention efforts in this large urban school district. The reason for this focus group is to find out which recruitment strategies have been most successful in attracting CTE teachers to this district, which support and development programs have been most effective for CTE teachers, and which factors contribute to CTE teachers' decisions to leave or stay in this district. At any time during this session, you may decide not to participate without consequence.

Group Norms for this Discussion

1. I want to hear from each of you. Your opinions and perspectives are very important, so please remain engaged in the discussion.

2. There are no right or wrong answers. Every participant's views, opinions, and experiences are important to this discussion.
3. Please feel free to speak candidly during this discussion.
4. In order to ensure that I capture all of your feedback to inform my report of the results of this study, I will audio record our discussion. The recording will be used for the purpose of transcription only. Participant identities will not be included in the report.

Opening Question

What is your favorite aspect of teaching Career & Technical Education course(s)?

Questions

1. From your own experience, what recruitment strategies were most effective in attracting you to this urban school district as career and technology education teacher?
2. Why were these strategies effective in recruiting you to this urban district?
3. Do you think there are other effective strategies for attracting CTE teachers to an urban school district? If so, what are they?
4. After being hired to this urban school district, what district structures of support and professional development specific for CTE teachers have you received?
5. What are your initial thoughts about the supports and professional development you have received in this urban school district?
6. What district structures of support and professional development for CTE teachers have you found to be the most beneficial to you in your own professional growth?

7. Why were these support structures and professional development beneficial to you in your professional growth?
8. What other support structures and professional development that you didn't receive might have been beneficial to you in your professional growth?
9. From your perspective, what factors do you think influence high school CTE teachers' decisions to leave an urban district?
10. From your perspective, what factors do you think influence high school CTE teachers' decisions to stay in an urban district?
11. This focus is coming to a close. In thinking about the discussion here today regarding attracting, developing and retaining CTE teachers in a large urban school district, are there any last thoughts you would like to share?

At the close of each focus group session, the researcher will thank the participants for their time and contributions to the discussion. After the verbal thank you, the researcher will distribute a thank you card to each participant prior to drawing a name from a box to determine the winner of the \$75 Visa Gas gift card.

Appendix F

Program Director Interview Format

Thank you for agreeing to participate in this research study as an interviewee. I'd like to remind you that the purpose of this study is to examine high school CTE teachers', CTE program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study aims to identify and examine perceived factors that influence teacher attrition in Career & Technical Education (CTE) programs as well as identify promising strategies and resources for recruiting, developing, and retaining highly-qualified CTE teachers.

Also, please be reminded that your identity will not be revealed in the report or presentation of the findings of this study. I will be taking notes during the interview, but I am also using a recording device to ensure that I don't miss any of your invaluable feedback. At any time during this session, you may decide not to participate without consequence.

1. In what ways do you work with campus principals and the district's HR department to recruit candidates for Career and Technical Education teacher vacancies?
2. From your own perspective, what recruitment strategies do you think are most effective in attracting CTE teachers to this urban school district?
3. Why do you think these strategies are effective in recruiting CTE teachers to this urban district?

4. Do you think there are other effective strategies not currently utilized for attracting CTE teachers to an urban school district? If so, what are they?
5. What district-level structures of support and professional development specific for CTE teachers are available for CTE teachers across the district?
6. What are your initial thoughts about the supports and professional development CTE teachers receive in this urban school district?
7. From your perspective, what district structures of support and professional development for CTE teachers have you found to be most beneficial to CTE teachers in their professional growth?
8. Why do you think these support structures and professional development are beneficial to CTE teachers in their professional growth?
9. What other support structures and professional development that are not currently provided do you think might be beneficial to CTE teachers in their professional growth?
10. From your perspective, what factors do you think influence high school CTE teachers' decisions to leave an urban district?
11. From your perspective, what factors do you think influence high school CTE teachers' decisions to stay in an urban district?
12. What challenges do you face as a program director when recruiting, developing, and retaining high school Career and Technical Education teachers?
13. How do you address the challenges you face in recruiting, developing, and retaining high school Career and Technical Education teachers?

14. From your perspective, what impact does Career and Technical Education teacher turnover have on the district budget?

Thank you again for your time and input. I really appreciate your contribution to this study and I will be happy to share the findings with you after the conclusion of my analysis. Please accept this token of my appreciation for your time and participation.

Appendix G

Principal Interview Format

Thank you for agreeing to participate in this research study as an interviewee. I'd like to remind you that the purpose of this study is to examine high school CTE teachers', CTE program directors', and campus administrators' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. Specifically, this study aims to identify and examine perceived factors that influence teacher attrition in Career & Technical Education (CTE) programs as well as identify promising strategies and resources for recruiting, developing, and retaining highly-qualified CTE teachers.

Also, please be reminded that your identity will not be revealed in the report or presentation of the findings of this study. I will be taking notes during the interview, but I am also using a recording device to ensure that I don't miss any of your invaluable feedback. At any time during this session, you may decide not to participate without consequence.

1. In what ways do you work with the district's Career and Technical Education & Human Resources departments to recruit candidates for Career and Technical Education teacher vacancies?
2. From your own perspective, what recruitment strategies do you think are most effective in attracting CTE teachers to this urban school district?
3. Why do you think these strategies are effective in recruiting CTE teachers to this urban district?

4. Do you think there are other effective strategies not currently utilized for attracting CTE teachers to an urban school district? If so, what are they?
5. What district structures of support and professional development specific for CTE teachers are available for CTE teachers at your campus?
6. What are your initial thoughts about the supports and professional development CTE teachers receive in this urban school district?
7. From your perspective, what district structures of support and professional development for CTE teachers have you found to be most beneficial to CTE teachers in their professional growth?
8. Why do you think these support structures and professional development are beneficial to CTE teachers in their professional growth?
9. What other support structures and professional development that are not currently provided do you think might be beneficial to CTE teachers in their professional growth?
10. From your perspective, what factors do you think influence high school CTE teachers' decisions to leave an urban district?
11. From your perspective, what factors do you think influence high school CTE teachers' decisions to stay in an urban district?
12. What challenges do you face as a campus principal when recruiting, developing, and retaining high school Career and Technical Education teachers?
13. How do you address the challenges you face in recruiting, developing, and retaining high school Career and Technical Education teachers?

14. From your perspective, what impact does Career and Technical Education teacher turnover have on your campus budget?

Thank you again for your time and input. I really appreciate your contribution to this study and I will be happy to share the findings with you after the conclusion of my analysis. Please accept this token of my appreciation for your time and participation.

Appendix H

Letter to Principals and Program Directors

Dear Principal,

My name is Tabitha Davis, and I am a Doctoral student in the College of Education at the University of Houston. I am conducting a research study and you are invited to participate. The purpose of this study is to examine high school CTE teachers' perceptions of recruitment, development, and retention efforts in a large urban school district in southeast Texas. I will use this information gathered in this study to identify promising strategies for recruiting, developing, and retaining CTE teachers.

If you agree to participate in this study, I will visit your campus to conduct a semi-structured interview with you. The interview will include 6-9 questions and should take no more than 15-25 minutes of your time. During the interview, I will take notes and operate an audio recording device in order to ensure that I accurately capture your feedback.

Your participation is completely voluntary and you may withdraw from this study at any time without penalty.

No participants in this study will be identified or linked to the results. All information obtained in this study will be kept strictly **confidential**.

If you have any questions or concerns about this study, please contact me at tsdavis3@UH.edu, tdavis315@gmail.com, or (832) 661-8131.

Kind regards,

Tabitha Davis

Appendix I

Research Approval Letter from School District



HOUSTON INDEPENDENT SCHOOL DISTRICT
Hattie Mae White Educational Support Center
4400 West 18th Street • Houston, Texas 77092-8501

Terry B. Grier, Ed.D.
Superintendent of Schools

www.HoustonISD.org
www.twitter.com/HoustonISD

Carla J. Stevens
Assistant Superintendent
Research and Accountability Department
Tel: 713-556-6700 • Fax: 713-556-6730

April 10, 2015

Tabitha Davis
3306 Orchid Trace Lane
Houston, TX 77047

Dear Ms. Davis:

The Houston Independent School District (HISD) is pleased to approve the study "An Examination of High School CTE Teachers', CTE Program Directors' and Campus Administrators' Perceptions of CTE Teacher Recruitment, Development, and Retention Efforts in a Large Urban School District". The study is being conducted in partial fulfillment of doctoral degree requirements at the University of Houston. The purpose of the study is to examine factors and identify strategies for supporting highly-qualified CTE teachers. The projected date of study completion is July 1, 2015.

Approval to conduct the study in HISD is contingent on your meeting the following conditions:

- The target population is campus administrators, central office administrators, and CTE teachers at 18 centrally-located HISD high schools. An electronic survey will be distributed to CTE teachers. The electronic survey will take less than 10 minutes to complete and can be done at any time as it is online.
- Interviews and focus groups will be conducted with approximately 6–10 teachers and selected administrators, after school hours, to discuss their perceptions of the CTE program. The interviews may be conducted face-to-face or electronically via Skype or FaceTime.
- It is at the principal's discretion to have the study conducted at their campus.
- Voluntary consent is required of staff who participate in the study.
- The researcher must follow the guidelines of HISD and the University of Houston regarding the protection of human subjects and confidentiality of data.
- The HISD Department of Research and Accountability will monitor this study to ensure compliance to ethical conduct guidelines established by the Department of Health and Human Services, Office for Human Research Protection (OHRP) as well as the disclosure of student records outlined in Family Educational Rights and Privacy Act (FERPA).
- In order to eliminate potential risks to study participants, the reporting of proposed changes in research activities must be promptly submitted to the HISD Department of Research and Accountability for approval prior to implementing changes. Noncompliance to this guideline could impact the approval of future research studies in HISD.
- The final report must be submitted to the HISD Department of Research and Accountability within 30 days of completion.

Any other changes or modifications to the current proposal must be submitted to the Department of Research and Accountability for approval. Should you need additional information or have any questions concerning the process, please call (713) 556-6700.

Sincerely,

A handwritten signature in cursive script that reads "Carla Stevens".

Carla Stevens

CS: vh
Attachment: Schools

cc: Daniel Gohl
Shonda Huery Hardman

Harrison Peters
Delesa O'Dell-Thomas

School Principals

Targeted Schools

Challenge Early College High School
DeBakey High School for Health Professions
Hope Academy
Yates High School
Austin High School
Eastwood Academy
Energy Institute High School
Young Women's College Preparatory Academy
Houston Academy for International Studies
The High School for the Performing and Visual Arts
Lamar High School
Carnegie Vanguard High School
The High School for Law Enforcement and Criminal Justice
East Early College High School
Wheatley High School
Mickey Leeland College Preparatory Academy for Young Men
Davis High School
Reagan High School