THE STATUS OF SCHOOL REFORM IN PENNSYLVANIA CAREER AND TECHNOLOGY SCHOOLS: SYSTEMIC ISSUES

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The Status of School Reform in Pennsylvania Career and Technology Schools:
Systemic Issues

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The purpose of this study was to investigate the issues and implementation of high school reform efforts in the 81 career and technology schools in the Commonwealth of Pennsylvania. The specific areas that were examined were those identified in the research as contributing to high school reform efforts of secondary schools. The researcher developed four research questions that guided the study. Pennsylvania Association of Career and Technical Administrators (PACTA) aided the researcher in reaching directors of the 81 career and technology schools in the commonwealth via e-mail. The e-mail asked directors to complete an electronic survey concerning high school reform issues with their sending school districts. Seventy-one of a possible eighty-one directors completed the survey. The results of the completed survey were analyzed using quantitative and qualitative analysis. The statistical outline includes discussions of correlation, central themes found and percentages.

The results of this study indicated that there is an overwhelming lack of communications between career and technology schools and their sending school districts. The researcher also found that comprehensive career and technology schools are more actively engaged in high school reform efforts than shared-time career and technology schools.

By surveying a statistically significant number of career and technology school directors about the reform efforts of their schools, this study provides a clear road map for improvement in the overall high school reform efforts. This road map suggests Pennsylvania policymakers and

school administrators need to make collaboration and communication a top priority to ensure that all students are provided the same high quality education regardless, of whether they chose career and technology or traditional academic education.

TABLE OF CONTENTS

LIST OF FIGURES

PREFACE

This dissertation is dedicated to my mentor and friend, Dr. Fred Monaco, a true icon of career and technical education.

I would like to extend my gratitude and appreciation to my family, who has supported me throughout this journey. I would like to express my deepest appreciation and thanks to my advisor, Dr. Charlene Trovato, for her advice, guidance, patience, and, most importantly, for believing in my abilities.

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1.0   INTRODUCTION

One of the greatest benefits of American public education is that of diversity (Cunningham, 2001). Having diverse educational experience options empowers students, because they can choose according to their proclivities. In Pennsylvania, one major component of public education, available to secondary students, is career and technical education.

Career and technical education in Pennsylvania is generally available in one of two different formats: comprehensive or shared-time. Students who attend comprehensive career and technical schools attend all day and receive both academic and career and technical education in the same school. Students who attend shared-time career and technical schools attend half-day at the career and technical school for instruction in traditional vocational education and then return to their home school district for the other half-day to receive academic instruction. In Pennsylvania, it is common for technical schools, also known as Area Vocational-Technical Schools (AVTS) or Career and Technology Centers (CTC), to be jointly owned by two or more school districts that share in the cost of operations.

Career and technology schools were established for two primary reasons. The first is to fulfill the local school board's responsibility to diversify educational experiences for high school students, who may or may not attend post-secondary education. Students who are unable or uninterested in pursuing the academic track are more likely to obtain higher paying jobs that are consistent with their career goals with a strong occupational career and technical education.

Second, many local businesses and industries are the backbone of the local communities. Being strong financial contributors of the local communities, these industries have influenced schools to, in essence, train their future workforce, thus reducing training costs associated with their overall operations.

Career and technical education, formerly known as vocational-technical education, has witnessed many changes throughout its existence. During the early years, career and technical education developed into apprenticeships where young people received education in a specific high-demand trade. As America changed, career and technical education programs became more widespread and diverse and were offered in the school curriculum as a matter of choice.

Parkway West Area Vocational-Technical School, now known as Parkway West Career and Technology Center, opened its doors for the first time in October, 1968. Over the past 39 years, a variety of career and technical education courses have been offered to the secondary students of the 12 sending school districts that make up the Parkway West Jointure.

Throughout the last 39 years, occupational career and technical education has played an integral part in Allegheny County's economical, social, and educational development. Local business and industry leaders have the expectation that Parkway West Career and Technology Center will continue to prepare career and technical students with the workplace readiness skills necessary for tomorrow's workforce.

1.1   PURPOSE OF THE STUDY

Career and technology centers (CTCs) play an important role in career and workforce development, yet CTCs have not been part of the conversation in regard to the high school reform agendas of their sending school districts. The purpose of this study is to understand what role, if any, CTC schools in Pennsylvania play in the high school reform efforts of their sending school districts and what they see as their role in effecting change in high school reform.

A critical review of the literature has revealed that limited research is available on career and technical education reform or the role of the career and technical school's involvement in K-12 reform.

1.2   DELIMITATIONS OF THE STUDY

This study is limited to the 81 jointly owned career and technology schools in the Commonwealth of Pennsylvania.

1.3   DEFINITION OF TERMS

Apprenticeship: Formal manual training conducted by a skilled journeyman.

Area Vocational-Technical School (AVTS)/Career and Technology Center (CTC): Vocational-technical school offering comprehensive or shared-time occupational training to students from supporting school districts.

Intermediate Unit (IU): Consortium organization offering services to local school districts and technical schools.

Jobs for The Future (JFF) Report: A statewide assessment of the current status of career and technology education in Pennsylvania ordered by the office of the Governor and the Pennsylvania Department of Education in 2005.

Joint Operating Committee (JOC): The board of school directors establishing any joint school or department who may supervise and direct its affairs in the same manner as the affairs of individual school districts (Pennsylvania School Code 24 PS17-1707).

Jointure Agreement: A legally binding agreement among a group of school districts or an intermediate unit for the purpose of forming a joint school. The agreement outlines the financial, participatory, and organizational responsibilities of the parties involved in forming the jointure (Pennsylvania School Code 24 PS 17-1701).

National Assessment of Vocational Education (NAVE): A national assessment of the status of vocational education in the United States ordered by Congress in 1976.

No Child Left Behind (NCLB): Law signed by President George W. Bush in 2002, which expanded testing requirements and introduced a far more aggressive federal role in holding states and school districts accountable for showing improved student performance.

Vocational-Technical Institute: A joint operating committee may establish, maintain, conduct and operate schools, departments, or classes to prepare for vocational industrial, vocational agricultural, vocational homemaking, business and vocational distributive occupations, technical

occupations, such as aides and assistants, in physical, biological, space, mathematics, engineering, construction and design, computer programming and maintenance, health occupations, and for any other occupations requiring vocational or technical training and education (Pennsylvania School Code 24 PS18-1841).

2.0   REVIEW OF THE LITERATURE

2.1   HISTORY OF PARKWAY WEST CAREER AND TECHNOLOGY CENTER

The history of Parkway West Career and Technology Center was written by the school's quality team in 2005. These details have been compiled through personal interviews with current and past school employees, anecdotal records from various official and unofficial school documents, and individual notes of current and past school employees. The information is unpublished, but available in the school's quality manual.

The history of Parkway West Career and Technology Center begins with the creation of vocational education in Allegheny County. The vocational system in Allegheny County was conceived by Dr. Alfred Beattie, Superintendent of Allegheny County Schools, in 1961. At that time, funding from the federal government, under the Manpower Development Act, was available to create vocational training facilities for adults. Forbes Trail, which was the first vocational school in the county, opened in Penn Hills School in 1961, and was later moved to an industrial park near Monroeville.

Vocational education in the western part of Allegheny County began with a machine shop course at North Braddock High School. The class lasted only one night before moving to Schwab School in Homestead.

In 1964, the program was moved to the former Pullman Garden Center on Campbells Run Road in Oakdale. The machine shop was furnished with war surplus machinery, donated by the federal government. It is interesting to note the donation of machinery to Parkway West is a microcosm of the national defense purpose of the Smith-Hughes Act of 1917 that will be discussed later in this review. Since there was a greenhouse available at the location, a horticulture program was also initiated. In September 1965, 26 secondary students from six area high schools were enrolled in the first machine shop class for public school students.

Dr. Saul Danovitz became the Director of Area Vocational Schools in Allegheny County, and John Garlick, a plumbing teacher in the Pittsburgh Schools System, was hired as the first director of Parkway West School.

As the school outgrew the facilities on Campbells Run Road, plans for a new school building were developed. After considerable deliberation, a 58-acre site on Old Steubenville Pike was selected. The former farm property was surrounded by rolling hills that included orchards and Deep Valley Lake.

Construction on the new building started in 1966. In September 1968, the Beth-El Congregation (church) of South Hills was used to house vocational classes while construction on the new building was being completed. The first classes moved into the partially completed structure in October 1968. Initial enrollment was 820 students from both public and parochial schools. In 1970, Frank Sanns became the first Assistant Director of Parkway West School. In 1971, Forbes Trail AVTS, under the direction of Archie McSperrin, and Parkway West AVTS, under the direction of John Garlick, seceded from Allegheny Intermediate Unit.

In 1972, a major fire occurred in the east wing of the Parkway West School, which destroyed a portion of the roof. In 1974, a building to house the administrative offices was built,

and a new program called "Materials Management and Distribution" began. Students in the construction programs completed most of the interior finish and utilities.

In the summer of 1978, a new food service building was added to the campus. In September 1978, due to poor workmanship, the Joint Operating Committee (JOC) fired the general contractor. The classrooms, hallways, and restaurant were completed during the next two years by the teachers and students in the carpentry, electrical construction, plumbing, and masonry programs. In 1982, a building connecting the food service building with the administrative/warehousing building was completed, including a second floor conference center, which accommodated 60 people. Once again, most of the interior walls, floors, and ceilings, as well as utilities and interior finish on the connecting building, were completed by the teachers and students in the carpentry, electrical construction, plumbing, and masonry programs.

At its peak, in the early 1980's, Parkway West AVTS enrolled approximately 1600 students and offered 27 programs including: small gas engines, television repair, appliance repair, chemical technology, and waiter/waitress, in addition to the current course offerings.

The early 1980's also brought a program called "General Vocational Skills" (GVS) to Parkway. Tenth grade students who were deemed to be at risk of not completing their high school program of studies could enroll in an exploratory course in GVS construction or GVS mechanical trades and had the opportunity to visit the other programs to develop an interest in a vocation. The program's name was changed to "Industrial Productive Maintenance Program" (IPM) in the second or third year of operation; however, due to a change in federal funding, the program was phased out.

In 1984, a new program was started in partnership with U.S. Air. Originally called "The U.S. Air Program," the name was changed to "Travel and Hospitality," which included training

for employment in a variety of positions in hotels, travel agencies, and car rental agencies, as well as jobs in the airline industry. This course was closed due to low enrollment in 2006.

A new building, to house the Auto Body Repair program, replaced the old greenhouse in 1984. A program called "Vocational Instruction Program" (VIP) was started by the Allegheny Intermediate Unit (AIU) in 1985 for students with learning disabilities who were chosen by a panel of home school representatives and Parkway staff. The program was transferred to Parkway West AVTS in 1987.

The Alternative Center for Education (ACE), an academic program for students in grades nine through twelve, was started in 1989. The Alternative Center provides secondary students who are at risk of not graduating with an alternative setting in which to pursue graduation.

A summer technology program was initiated in 1992 in partnership with several Pittsburgh corporations, including Bayer, Calgon Carbon, OK Grocery, and Mellon Bank. That program was supplanted in 2002 by a summer technology program called the "Manufacturing Pathways Initiative," operated by the Pittsburgh Technology Council and the Southwest Pennsylvania Industrial Resource Council. In 1993, the school received approval to offer three-year programs and began accepting tenth graders into the regular vocational programs.

In 1995, a new Protective Services program, which offers students the opportunity to train in the service roles, including Emergency Medical Technician (EMT), firefighter, and law enforcement, was offered. In the fall of 1996, the Commercial Baking, Culinary Arts, and Meat Cutting programs were merged into the Food Production Management program.

In August 2005, the Joint Operating Committee (JOC) approved a motion to begin the process of changing the name of the vo-tech school from "Area Vocational Technical School" to "Career and Technology Center."

In June 2006, due to low enrollment, the J.O.C. closed the travel and hospitality program. That fall, a new program titled "Information Technology Essentials" began with 20 enrolled students.

As can be seen by the history of Parkway West Career and Technology Center, a career and technology school can undergo extensive changes in a short period of time. Evolving from a training course for adults to an educational haven for high school students, Parkway West Career and Technology Center can either be viewed as progressive or capricious. With this in mind, let us shift to a review of the stabilizing factors that support the ongoing changes of the center and the effects that such a vibrant educational outlet have had on more predictable high school education.

2.2   A HISTORICAL REVIEW OF HIGH SCHOOL REFORM AFFECTING VOCATIONAL EDUCATION

The Keystone Report (2001) reported that accountability in career and technology schools is inconsistent and needs further investigation. As a result of the Keystone Commission Report, the Office of the Governor and the Pennsylvania Department of Education retained Jobs for the Future (JFF), a Boston educational and economic development consulting organization, to develop options and recommendations for state-level action to improve secondary level career and technology education statewide. According to the Jobs for the Future Report (2005), career and technical education in Pennsylvania is currently facing a dual challenge to prepare students for the 21st century and the new knowledge economy (Jobs for the Future Report, 2005). The JFF Report states, "Career and technical education programs must prepare students for careers in the

21st century and the new knowledge economy. Simultaneously, career and technical education must meet or exceed academic expectations and standards required of all students" (February 2005, p. 2). These changes came soon after the No Child Left Behind Legislation, which requires high levels of accountability and student success.

The JFF Report identified four categories of recommendations for the transformation and systemic reform of career and technical education. The first category of recommendations is "academic rigor." The study found that academic rigor is, in general, lacking across the state in career and technology schools as compared to traditional academic schools. As a result, career and technology schools must insist on higher academic standards for all career and technology programs. Along with higher academic standards, career and technology schools must also take steps to further integrate secondary school reform efforts. Although some career and technology schools have made progress towards this recommendation, no standards-based reform exists, such as the PSSA process, which is used to evaluate traditional academic school programs. The JFF report said that curriculum and expectations should be the same for career and technology programs as they are for traditional academic programs.

The JFF identifies "industry relevance" as its second category of recommendation. Again, in this category, there is little or no consistency in regard to what, if any, industry certifications are in place at respective schools. Industry certifications are real-world certifications that enable students to enter the workforce immediately after high school graduation. For example, a student earning Automotive Service Excellence (ASE) certification at a career and technology center would be more likely to obtain a higher paying mechanic position than a student who does not possess the ASE certification.

The report suggests these industry certifications demonstrate workplace readiness of the 21st century. The certifications should meet both local employer needs and local labor market trends. However, the state should conduct an analysis to determine what industry certifications are of the highest priority for local career and technology schools to implement.

The JFF's third category is that of "postsecondary transition." Post-secondary transitions allow students to enroll in colleges or trade school and receive advance standing for education already received at the career and technology center. The JFF reports that overall statewide articulation agreements are dated and are not a good representation of current student needs. Career and technology programs need to strengthen the links to postsecondary education with articulation agreements and other strategies that reduce barriers for student success.

The fourth category, identified in the JFF report is "state leadership and capacity." The report sates that currently no consistent message is being delivered in regard to the role of high-quality career and technical education at the state level. The report indicates that the Governor and the Pennsylvania Department of Education should require career and technology schools to be rigorous and prepare students for success on the PSSA and for industry certifications. Professional development for teachers also needs to be more systematic and to focus on key state priorities.

Except for comprehensive career and technology schools that are required to administer the PSSA, little state accountability or review has taken place since the mid 1980's. As shown in this review of literature, career and technology education is often an afterthought in the overall K-12 reform efforts. According to the JFF Report (2005), in order for these recommendations to become a reality, the Department of Education must provide a strong and consistent voice about the role of career and technical education. By doing so, parents, students, and school personnel

will have a clear understanding about the value of career and technical education in the commonwealth.

2.3   CURRENT STATUS OF CAREER AND TECHNICAL EDUCATION IN PENNSYLVANIA

Recently, the commonwealth, in an effort to hold career and technology schools accountable for higher student achievement, has begun to conduct approved program evaluations for all schools who receive state dollars to help fund their career and technology programs. Each approved program is evaluated according to Chapter 339 regulations of Pennsylvania School Code (Pennsylvania School Code 24 PS 18-1803). Each Chapter 339 on-site evaluation team will consist of current and retired career and technology educators and department of education personal. According to the Pennsylvania Department of Education's web site, the evaluation visit will review the following criteria; school-wide components, instructional staff, program content, community involvement, program accountability, and program transitions (Pennsylvania Department of Education, 2005).

Each of the criteria above will be more specifically evaluated as described in the following paragraphs. The school-wide components will review school admissions policies, individual educational plan policies and procedures, available student services, professional development plans, career guidance programs, student handbooks, and the course selection book.

The instructional staff component will include review of the school's instructional staff certification and professional development plan. The program content will include review of the scope and sequence, academic, technical and career development standards, minimal

instructional time requirements, work-based learning opportunities, pull-out or push-in supplemental instruction, educational and occupational objectives, safety, and career and technical student organizations.

The program accountability component will focus on quality measures, standardized tests, industry certifications, the Pennsylvania skills certificate, program completion, follow-up placement, current labor data, and high priority occupations. Program transition will review the school's methods for career guidance, parental involvement, articulations, dual enrollments, and involvement with project 720 schools, High Schools That Work, or Tech Prep Programs.

I have heard many career and technology educators in Pennsylvania describe their schools as "dumping grounds" for non-academically gifted students. "Career and technical education programs are not explicitly part of the commonwealth's priority education improvement or workforce development strategies, despite their potential to make substantial contributions on both fronts" (Jobs for the Future, February 2005, p. 29). Many factors such as socioeconomic conditions, geographical location, and school climate can determine how career and technology schools are perceived. With strong state leadership and accountability, career and technology schools in Pennsylvania can become a valued resource for their stakeholders.

2.4   THE NATIONAL EDUCATION IMPROVEMENT ACT OF 1963

Prior to the passage of the Smith-Hughes Act in 1917(SHA, 1917), signed into law by President Woodrow Wilson on February 23, 1917, vocational-technical education was a largely decentralized state and locally governed enterprise. Vocational-technical education is broadly

defined by the federal government as preparation for employment in positions requiring less than the baccalaureate degree (Hayward, p. 9).

The passage of the Smith-Hughes Act of 1917 was the first of its kind in providing money for vocational education (SHA, 1917). This began the federal role in vocational-technical education and was perhaps the pivotal indicator that vocational education would be forever embedded in our public education.

Several specific provisions of the federal Smith-Hughes Act led to the establishment of an instructionally segregated vocational education system. In order for states to receive federal funds under the Smith-Hughes Act, the following rules applied:

- States had to establish separate state boards for vocational education.

- States had to maintain a separation of funds, whereby federal dollars could only be utilized for vocational teachers' salaries.

- Any student who attended one class conducted by a teacher who was paid in full or in part from federal vocational funds could not receive more than 50% academic instruction. This became known as the 50-25-25 rule (Hayward, p. 7).

- Programs were established within vocational education that further segregated students according to curriculum, such as agriculture, homemaking, and trade and industry education.

From 1917 to 1963, while the basic elements of Smith-Hughes Act did not change, but the emphasis did change. In the early 1900's, the federal government's emphasis was to train young people for work, which was envisioned as an essential element in building a strong workforce as part of the overall national defense strategy. In the 1930's, the federal emphasis changed from the focus on national defense to the junior college concept. This concept was later

changed to the "community college model." During the 1940's and 1950's, the emphasis of vocational education shifted to providing the transition to a peacetime economy.

During the 1960's, vocational education experienced heavy enrollment growth. Because of employment trends during that time, the gap between the affluent and disadvantaged widened. Congress responded by enacting the Vocational Education Act of 1963. Although it had been almost 50 years since the passage of the Smith-Hughes Act of 1917, the definition and purpose of vocational education in the new Vocational Education Act of 1963 remained largely the same.

The Vocational Education Act of 1963, a reauthorization of the Smith-Hughes Act, authorized an increase in federal expenditures for vocational education from $50 million to $73 million for fiscal year 1964 (VEA, 1963). With this increase, portions of federal dollars were designated for specific "set-asides." This allowed the federal government to gain more control over state programs. One "set-aside" required that each state spend 25% of their total allotment on either training for persons who had completed or left high schools or on the construction of area vocational technical school facilities or a combination of both. This legislation led to the creation of Parkway West Area Vocational-Technical School.

In the mid-sixties, President Johnson's celebrated "War on Poverty" was moving into high gear and vocational-technical education became an essential part of the overall program (Herr, p. 19). Confrontation occurred during attempts to change schools from a sanctuary for the academically elite to a place of practical training dedicated to ensuring that students were qualified for good jobs. Despite interest in and support for vocational education, accountability was loosely enforced until the Educational Amendments of 1976. At that time, Congress ordered a National Assessment of Vocational Education (NAVE) to be conducted by the National

Institute of Education (Hayward, p. 20). As a result of this assessment, attention was focused on three points:

1. Federal legislation had been poorly drafted, and its provisions were ambiguous.

2. The federal government was trying to do too much with too little.

3. Disadvantaged populations were grossly underrepresented in programs that offered good prospects for career employment.

2.5   INDIVIDUALS WITH DISABILITIES EDUCATION ACT

As a result of the Vocational Education Act of 1963, area vocational-technical schools had begun to be established to meet the vocational and technical educational needs of secondary school students (VEA, 1963). It was not until the late 1960's and 1970's that vocational education became more widely accepted as an alternative educational setting for secondary students. During this time period, traditional schools were facing new federal legislation that would mandate free and appropriate education for special needs students. These rules and regulations would also affect area career and technical schools. The Education of the Handicapped Act of 1974 (EHA) was the first law that exclusively addressed students with disabilities. This law expanded federal grant programs available to elementary and secondary schools. This law was later amended in 1975 to include a requirement that states receiving federal funding had to adopt the goal of full educational opportunities for students with disabilities.

Despite the efforts of the EHA legislation, congressional findings in 1974 indicated that more than 1.75 million students with disabilities did not receive educational services. It was also discovered that more than three million students with disabilities did not receive an education

that was appropriate to their needs (Katsiyannis et al., p. 324). Huefner (2000) stated, "Education of students with disabilities was seen as a privilege, rather than a right." This led to Congress passing The Education of All Handicapped Children Act (EAHCA, 1975).

Since the passage of The Education of All Handicapped Children Act (EAHCA) in 1975, there have been numerous changes to the law. In fact, it is a provision of the law that it be reauthorized every four years. Each time Congress reauthorizes the law, changes are often made that affect the delivery of special education services.

Although there were revisions in 1986, it was not until 1990 that they began to drastically affect career and technology schools. In 1990, the name of the law changed from Education for All Handicapped Children Act to Individuals with Disabilities Education Act (IDEA). Congress also passed the Americans with Disabilities Act (ADA) in 1990 (ADA, 1990). The ADA expanded the rights of people with disabilities by outlawing discriminatory practices in employment, transportation, and telecommunications (Martin, p. 29). The major changes to IDEA included adding two categories of disability-autism and traumatic brain injury and adding the requirement that the Individualized Educational Plan (IEP) of students with disabilities, age 16, must include transition services.

IDEA is divided into four parts: A, B, C, and D. Part A is the section which justifies the need for the law and defines terms that are used throughout IDEA. Part B sets forth the funding mechanisms by which states obtain federal funding money, the principles under which students with disabilities must be educated, and procedural safeguards. Part B addresses students ages 3 through 21. Part C provides funding for infants and toddlers from birth to age 2. Part D mandates a variety of national activities to improve the education of children with disabilities through investments in research, training, and technical assistance.

Part B is the section that is most familiar to school administrators, including career and technical school administrators. Compared with school districts, career and technical schools do not receive federal funding to provide support services to students with disabilities. With this in mind, I will address each of the following six principles of Part B and outline the requirements, along with the special challenges, that career and technical schools face.

1. Least restrictive environment – This mandates that students with disabilities be educated alongside students without disabilities to the maximum extent possible. This principle causes extreme concern to career and technical school administrators because of the nature of the environment. Although some special needs students are capable of utilizing power tools and equipment with minimal supervision, others may not be able to operate the same equipment with even one-on-one supervision.

2. Protection in evaluation – Before receiving special education, a student must receive a full and individual evaluation conducted by a multidisciplinary team using a variety of instruments to assess all of a student's areas of need. This is often the point at which students are channeled into career and technical education to begin training for an occupational skill; however, input from career and technical educators is seldom sought. This often leads to delays in providing the student with appropriate educational experiences.

3. Free and Appropriate Education (FAPE) – Once students become eligible to receive special education services under IDEA, students have the right to receive free and appropriate special education and services that consist of specially designed instruction and support provided at public expense. Each student must have an Individualized Educational Plan (IEP) that outlines the student's educational needs

and the related services that will be provided. Many special education students are channeled into career and technical schools via the IEP process, often with little or no input from career and technical educators. This often creates situations that set the student up for failure. If given the opportunity to participate in the IEP process, students can be guided to programs that will allow them better opportunities to become successful and gain entry-level employable skills.

4. Zero Reject – Students who are eligible to receive services under IDEA are entitled to free and appropriate education. This principle applies regardless of the severity of the disability. This can present serious safety issues for severely disabled students who elect to participate in career and technical education programs. For example, a blind student who wishes to be in a carpentry program could easily become injured.

5. Procedural safeguards – This principle contains an extensive system of procedural safeguards to ensure that all eligible students with disabilities receive free and appropriate education. This particular principle only involves career and technical schools when the CTE school itself requests that a meeting be scheduled.

6. Parent participation – Parents must be involved in evaluations, IEP meetings, and the placement decision. Again, this particular principle only minimally impacts career and technical schools.

In 1997, Congress passed amendments to The Individuals with Disabilities Act of 1997 (IDA, 1997). The major changes included strengthening the role of parents, emphasizing student progress toward meaningful, educational goals, adding discipline provisions and changing the IEP team and document. There was also an emphasis to encourage resolution of differences by

using non-adversarial mediation. Career and technology schools began to have a more active role in setting meaningful educational goals for students.

In 2004, Congress reauthorized the Individuals with Disabilities Education Act (IDEA, 2004). This reauthorization became known as IDEA-2004, and the following provisions became effective on July 1, 2005.

1. School districts are no longer permitted to require a child to obtain a prescription for medication as a condition of attending schools. This change can easily become a safety issue for students attending career and technical schools due to the environment. For example, a student who needs medication in order to maintain appropriate behavior could easily become a safety hazard with a hammer or knife.

2. Reevaluations will occur not more than once a year, unless the parent and district agree otherwise.

3. Assessments of students who transfer from one district to another in the same academic year should be coordinated to ensure prompt completion. Severe discrepancies between achievement and intellectual ability are not required to be a factor when determining if a child has a specific learning disability.

4. IEP's must include a description of benchmarks and short-term objectives for children who take alternative assessments aligned to alternate achievement standards. Also, IEP's must include a description of how the child's progress towards meeting annual goals will be measured and when periodic reports will be provided.

5. After the initial IEP meeting, parents and the school district may agree to modify the IEP without having a meeting. The law allows for states to give parents and

districts the option of developing a comprehensive multi-year IEP, not to exceed three years. However, only 15 states will be approved.

6. A provision for a resolution meeting states that within 15 days of receipt of the parents' complaint, the local education agency shall convene a meeting with the goal of resolving the complaint. If this issue is taken to due process, decisions must be based on whether the student is receiving a free and appropriate education.

7. School districts may recover attorney's fees against the parents' attorney, if the district prevails in a due process hearing.

Because career and technology schools are most often considered an extension of the individual student's home school, the home school districts bear much of the special education responsibilities. The career and technology school is required to actively participate in the IEP process and either provide accommodations or make it known to the IEP team if the career and technology center is unable to make specific accommodations. It is then the responsibility of the team to determine if the career and technology school is the most appropriate and least restrictive environment for the student.

Because the ultimate responsibility for special education services lies with the student's home school district, career and technology schools receive little funding to provide special education services. This funding issue will become a common theme which will be explored through the discussion of other national high school reforms in this review of literature.

2.6   THE CARL D. PERKINS VOCATIONAL EDUCATION ACT

Because Congress recognized the need to train more skilled or "vocational" workers in the United States, legislation was passed to financially assist school districts and postsecondary institutions in delivery of programs (CDPVEA, 1984). The following is a report on the authorization and subsequent reauthorizations of the Carl D. Perkins Vocational Education Act. After researching the act, there are several common themes throughout the act, from its inception to the current version of Perkins IV. The commonalities include:

1. Emphasis on high quality educational programs that integrate academic and vocational skills.

2. Emphasis on economic growth in order to improve productivity in the United States.

3. Emphasis on meeting the needs of special populations.

The acts, until recently, lacked a realistic and enforceable accountability. I will now discuss the initial law and each reauthorization.

In 1984, Congress created the Carl D. Perkins Vocational Education Act of 1984 (CDPVA, 1984). The law is named after the late chair of the House subcommittee on vocational education. The goals of the act were as follows:

1. Expand, modernize, and develop quality vocational education programs to meet the needs of the nation's existing and future work force.

2. Improve productivity and promote economic growth.

3. Assure that those served by vocational education programs are provided quality education programs, especially individuals who are disadvantaged, have special

needs, entering nontraditional occupations, single parents, homemakers, and limited in their proficiency in English.

Section 403 of the 1984 act mandated that a National Assessment of Vocational Education (NAVE) be completed. The executive summary of this report begins with:

> The National Assessment of Vocational Education (NAVE) has studied the implementation of the Carl D. Perkins Act of 1984 and the status of Vocational Education at the secondary and postsecondary levels. We conclude that the basic goals of increasing the access of special populations to high-quality vocational education and improving the overall quality of programs are sound, but the legislation is a weak instrument for achieving these goals (National Assessment of Vocational Education, 1989).

The report includes separate secondary and post secondary policy recommendations for performance indicator improvement. For secondary schools, each state would develop performance indicators to measure the success of vocational students from different populations. Indicators must include information on academic achievement, vocational attainment, occupational skills, employment outcomes, and continuity of training between secondary and post-secondary levels. States were required to report on student performance within two years of reauthorization.

In 1990, Congress reauthorized the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (CDPVATA, 1990). This law is also commonly known as Perkins II.

Language in this law is reflective of the 1989 NAVE recommendations. Section 115(b) (2) (a) through (d) required a state's system of core measurement of performance to include one

or more measures of performance selected from four basic categories of student attainment (National Assessment of Vocational Education, 1989):

1. Competency attainment. This could be measured by completion of a vocational or academic course.

2. Job or work skill attainment or enhancement, including progress in achieving occupational skills. This could be documented by completion of one or more vocational courses, short of program completion.

3. Retention in school or completion of secondary school or its equivalent. This could be satisfied by promotion to a higher grade or award of a General Educational Development (GED) certificate.

4. Placement into additional training or education, military service, or employment. This could be recorded by a former student's presence in postsecondary education, military service, or employment, without any other descriptors of the transition destination from vocational education.

Despite the fact that the act required state committees to develop performance measures by August 1992, the act does not require the measures to be implemented. At this time, most states were still in the process of developing their plans and deciding which measure to use (Congressional Research Service, 2005). Because of this, most school districts and postsecondary institutions seemed to be waiting to see how their state's plan would affect them; therefore, little was done to implement the guidelines.

This legislation represented the most significant policy shift in the history of federal involvement in vocational education funding. This was the first time in federal vocational-technical legislation that an emphasis was placed on academic as well as occupational skills.

Also, this was the first effort on the part of the federal government to hold school districts accountable for vocational education.

On October 31, 1998, President Clinton signed into law the Carl D. Perkins Vocational and Applied Technology Education Amendments of 1998 (CDPVATEA, 1998). This law is also commonly known as Perkins III. The new changes were generated by the concern that firms in the United States were losing their competitive edge in world markets; therefore, the overall purpose of the reauthorization was to develop more fully the academic, vocational, and technical skills of secondary and postsecondary students who elect to enroll in vocational and technical education programs.

The key features of Perkins III include:

1. A federal-to-state funding formula based mainly on states' populations in three age groups.

2. Distribution of at least 85% of funds to the local level.

3. Use of 10% of total funds for state leadership activities, programs for individuals in state institutions, and services related to non-traditional employment.

4. Retention of up to 5% of the total grant or $250,000 for state administration.

5. Establishment of core indicators of performance with levels negotiated between each state and the Secretary of Education.

6. Authorization of sanctions based on states' failing to meet these performance levels and incentive grants to states for exceeding performance levels established under Perkins.

The reauthorization stipulated how each eligible local recipient must use the funds. The funds were to be used to support programs that:

1. Are of sufficient size, scope, and quality to be effective.

2. Strengthen academic, vocational, and technical components of vocational and technical education programs.

3. Conduct program evaluations to include assessment of whether the needs of special populations are met.

4. Provide understanding of all aspects of technology.

5. Provide professional development.

6. Develop, improve, or expand the use of technology.

7. Initiate, improve, expand, and modernize quality vocational and technical education programs.

8. Link secondary and postsecondary programs.

This reauthorization also authorized another National Assessment of Vocational Education. The research team was to provide a report to Congress in mid-2002.

Finally, in June 2004, the National Assessment of Vocational Education Final Report was released to Congress. The conclusions about vocational education that pertain to secondary schools include (National Assessment of Vocational Education, 2004):

1. The impact of vocational education on secondary school student outcomes is mixed. The most notable outcome is the increased earning potential in the short and medium term. In other areas, such as academic achievement, no impact is apparent.

2. Current Perkins strategies for improving vocational education, such as integrating academic and vocational education, may be too vague and unfocused to have an impact.

3. Few schools have comprehensively implemented the Tech-Prep program.

4. The Perkins Performance Measurement System appears to have had limited impact on program improvement.

The NAVE's recommendations included:

1. Clarify, focus, and limit the objectives of the Perkins Act.

2. Eliminate separate Tech-Prep programs.

3. Streamline the accountability requirements of the act to reduce data collection and reporting burden and to focus on limited key objectives.

On August 12, 2006, President Bush signed the Carl D. Perkins Vocational and Technical Education Act of 2006 into law (CDPVTEA, 2006). Exactly how the law will be interpreted and what changes will be made as a result of this reauthorization still remains to be seen at each state's department of education level. As with previous reauthorizations, there is a definite emphasis on accountability, student achievement, and collection of data.

At the beginning of this section, the researcher claimed that the following could be a common theme throughout the original Perkins authorization and reauthorizations:

1. Emphasis on high quality educational programs that integrate academic and vocational skills.

2. Emphasis on economic growth in order to improve productivity in the United States.

3. Emphasis on meeting the needs of special populations.

Although this has proven to be true, a fourth theme, accountability, has also emerged. Accountability seems to find a place in every reform issue that I have examined, and I am confident that I will find a very strong presence in further reform investigation. Although at

present, "holding accountability accountable" has not been very consistent. For any reform issue to have merit, school districts must have a collective say in reform and accountability – not "told" how they will be accountable and the repercussions of not meeting said mandates.

2.7   THE ELEMENTARY AND SECONDARY EDUCATION ACT

On April 11, 1965, President Lyndon B. Johnson signed the Elementary and Secondary Education Act into law to provide Title I program financial assistance to help low income students succeed (ESEA, 1965). Prior to this federal legislation, dealing with education provided funding for land for schools and special programs, but was careful not to intrude on states' rights to make decisions on curriculum and general operations of schools (Standerfer, 2006). With this increased federal funding, the desire for accountability rose-a theme we are seeing more than ever today.

In 1968, Congress expanded the ESEA with new programs and titles, including programs for migrant children and the Bilingual Education Act of 1968 (BEA, 1968). In 1970, in response to reports of misused federal funding, Congress clamped down on how Title I aid was spent. The legislation, signed by President Richard M. Nixon, demands that the federal aid "supplement, not supplant" money spent by states and localities and that Title I schools receive state and local aid comparable to that received by other schools in the state (BEA, 1970).

In the ESEA 1978 revision, signed by President Jimmy Carter, Title I aid, for the first time, could be spent school-wide if at least 75% of children in the school were eligible for the aid.

In the 1980's, the National Commission on Excellence in Education's report, *A Nation at Risk*, stated that schools were failing, and if corrective measures were not implemented into the educational system, the nation would not remain economically competitive in the global market (National Commission on Excellence in Education, 1983). As a result of this report, the United States Secretary of Education, William J. Bennett, commissioned the Alexander-James study group in the mid-1980's to make suggestions on how NAEP testing could be expanded to allow for comparison between and among states' results in order to increase accountability for schools.

The 1989 Education Summit, held by the National Governors' Association during the term of President George H.W. Bush, led to a commitment to develop content standards at the national level for each core subject area. This was an initiative that President Bill Clinton continued in the 1990's. In 1994, President Clinton signed into law the Goals 2000 legislation and the reauthorization of the ESEA as the Improving American's Schools Act, which mandated that states create academic standards in core areas that would be assessed.

In 2002, President George W. Bush signed into law the No Child Left Behind Act of 2001 (NCLB, 2002). This law expanded the ESEA's testing requirements and introduced a far more aggressive federal role in holding states and school districts accountable for showing improved student performance (Robelen, April 2005). Accountability begins on the basis of the 2001-2002 test scores. The new NCLB legislation set many new requirements for school districts (NCLB, 2002). For the 2002-2003 school year:

1. Reading and math tests must be given once in each of three grade spans: 2-5, 6-9, and 10-12.

2. Newly hired teachers and paraprofessionals must meet NCLB requirements.

3. Title I schools identified as "in need of improvement" for two consecutive years must offer students the option of transferring to a higher-performing school.

4. Title I schools identified as "in need of improvement" for three consecutive years must offer supplemental services to eligible students.

At least 19,664 schools nationwide failed to make adequate yearly progress in 2002-2003, while at least 11,008 schools were identified as "in need of improvement" (Weaver, 2006).

In 2005, states began to feel the pressures of the NCLB requirements (Stephenson, 2006). Texas was fined $444,282 for exempting too many students with disabilities from regular state testing. Utah ruled that its own state assessment system held priority over NCLB on cases of conflict. The Connecticut Attorney General filed a lawsuit to preserve the state's system of testing every other year.

In 2005-2006, reading and math tests had to be administered annually in grades 3-8 and once in grades 10-12. By June 30, 2006, all teachers were expected to be highly qualified. In 2007-2008, science tests will have to be given once in each of three grade spans: 3-5, 6-9, and 10-12.

What do all of these regulations mean for career and technology schools? Like most other legislations related to education, career and technical education is an afterthought. Career and technical schools, which include full-day comprehensive schools, are subject to the same accountability as are traditional academic high schools. However, occupational half-day career and technical high schools are faced with sanctions of a different nature. Sending school districts, feeling the pressures of the NCLB legislation, are holding more students back from attending the career and technology school in order to provide additional core subject courses in an attempt to increase standardized test scores. This presents a new challenge for career and technical school

administrators; they must demand more rigorous inclusion of the academic standards in occupational program curriculums.

Many career and technical schools have also taken steps to provide academic remediation of some sort to all students in order to "do our part" to help students make steady forward progress on state tests.

2.8   EDUCATIONAL REFORM TRENDS

While American education has changed over the years, the struggle to find a balance between all of the competing forces related to schooling has not changed (Fenske, 1997). These forces include changes in society, funding sources, teaching methods, content, procedures, priorities, and much more. The 1960's focused on equality for all children; the 1970's focused on the reform of curriculum and instruction, the 1980s focused on the need for standardization and rigor within the curriculum, the 1990s focused on accountability and the 2000s focused on even higher accountability.

In the 1960's, equality in education for all children of all races was the focus. As a result of the Civil Rights Act (CRA, 1964), the federal government could withhold federal funding from schools that did not comply with desegregation laws (Horn, 2002). In 1965, the Elementary and Secondary Education Act (ESEA) was enacted to provide Title I program financial assistance to help economically disadvantaged students succeed (ESEA, 1965). This provided school districts with federal funds to improve education for all children and to address the cycle of poverty. The founding of the Head Start program (Head Start Act, 1965), a federal program that focused on providing early education to children of poverty, was among one of the most

distinguished characteristics of this act. The ESEA continues to exist since 1965, emerging as different names, such as Goals, American 2000, and the No Child Left Behind Act (2001), but all had the same general idea – all students can and should be provided the opportunity to learn.

In the 1970's, curriculum and instruction reform became the center of attention. It included small group learning, mastery learning, and open classrooms (Horn, 2002). The federal government continued to focus on inequality in education, as was seen in the addition of Title IX to the Civil Rights Act (Education Amendments, 1972). Title IX gave the federal government the power to withhold money from school districts if they were found to be discriminating against women. Additional critical legislation of this decade included the Education for All Handicapped Children Act (EHA, 1975), National Assessment of Educational Progress (NAEP, 1969), and the creation of the Department of Education and Office of Educational Research and Improvement (Education Research, Development, Dissemination, and Improvement Act, 1972). Again, the government was adding resources that were aimed to make school districts more accountable for the education provided to children.

In the 1980's, President Ronald Regan emphasized the importance of schools and universities to American families (National Commission on Excellence in Education, 1983). President Regan continued to address the need for reform by assessing our educational system and making recommendations for improvement. In 1983, the National Commission on Excellence in Education wrote a report titled *A Nation At Risk: The Imperative for Educational Reform.* Among the several recommendations made in *A Nation at Risk* (1983), one related to standards and expectations that read:

>We recommend that schools, colleges, and universities adopt more rigorous and
>measurable standards, and higher expectations, for academic performance and student

conduct, and that four-year colleges and universities raise their requirements for admission. This will help students do their best educationally with challenging materials in an environment that supports learning and authentic accomplishment (p. 27).

This report stressed the need for standardization and rigor within curriculum and that, if these findings were not addressed, the continued success of our country in the global market was at risk. As a result, there was an enormous reaction from prominent educators and business leaders, which prompted the standards movement.

After the report was released, an enormous reaction from prominent educators and business leaders occurred. Leaders in both fields worked to provide analytic responses and suggest strategies to help improve education in this country. The business community became deeply involved with schools in order to maintain the financial security created by good workers and a good economy (Lund & Wild, 1993). This involvement led to the integration of business models and the development of a more deliberate, comprehensive accountability system for the world of education.

The focus on educational outcomes and accountability exploded throughout the 1990's. Many states began to put educational standards and testing into place; however, not without challenge by educational interest groups who were opposed (Evers, 2001).

Regardless of controversy among the country's educational interest groups and educators, the reauthorization of the Elementary and Secondary Education Act (ESEA, 1994), including Goals 2000, encouraged systemic and systematic school reform in order to meet national goals. The *Goals 2000: Educate America Act* formalized national goals for education and the development of content standards guided by national professional organizations. By 1998, forty-seven states had developed academic standards for each of the major disciplines (Webb, 2003).

In 2001, Congress passed President George W. Bush's No Child Left Behind Act (NCLB), signed into law on January 8, 2002. According to The National Education Trust (2003), an independent foundation dedicated to improving the quality of education nationwide by shaping its future and working to help close the achievement gaps, the NCLB requirements were established because our schools were not keeping pace with other developed nations. The legislation calls for all students in grades 3-8 to be tested every year in math and reading and for students in grades 4, 8, and 11 in science. These tests must be developed by individual states and aligned to their state academic standards. The results of these tests determine if schools make adequate yearly progress. Adequate yearly progress (AYP) is the measure by which schools, districts, and states are held accountable for student performance under Title I of NCLB. Making AYP keeps districts on target for 100% proficiency in reading and math by the year 2014. Schools who do not meet AYP for two years in a row are put on a warning list and, if improvement is not forthcoming, will be restructured by the state. This is why it is critical for K-12 schools and career and technology schools to collaborate their reform efforts. NCLB also requires that all students, including those with special education needs, meet proficient levels on approved state tests by the year 2014. In order to accomplish this feat, the collaboration and cooperation among all stakeholders, including schools, career and technology centers, communities, and the local, state, and federal governments, must exist.

In response to the pressures of NCLB (2001), several organizations have published articles, reports, and books on the topic of high school reform over the last five years, such as the Association of Career and Technical Education's (ACTE) *Reinventing the American High School for the 21st Century* and the Bill and Melinda Gates Foundation's *High Schools for the New Millennium (2006).* This sense of urgency around high school reform stems from the shift in

the job market. "Technology and the globalization of industry have changed the needs of business workers" (Priesz, 2006). In the opinion of the researcher, despite the widespread change in business and industry, schools remained fairly unchanged for the past one hundred years.

While the push for high school reform comes from several places, according to the American School Board Journal (2007), Bill Gates has been leading the way via the Bill and Melinda Gates Foundation. The foundation's goal is to ensure that every student in the United States graduate from high school ready for college, work, and citizenship.

Elmore (2000) tells us that, in most respects, schools are the same as they were in the nineteenth and twentieth centuries. What has remained the same about schooling over the course of time is the basic internal organization of schools. In general, the building level administrator or principal has been the individual charged to manage and lead change within the building. In order for reform efforts to be undertaken, the principal must keep the school running as smoothly as possible. This requires that the principal create a culture in which teachers can teach and students can learn without interruption from outside influences.

Bamford (1967) stated, "Principals stood between the schools and the outside world, both as shields and spokesmen" (p. 135). Elmore (2000) agrees and also says that principals must protect the teachers from outside scrutiny while protecting them from outside distractions.

Although many factors influence teaching and learning, "the game of school learning is won or lost in the classrooms" (Sizer, 1984, p.5). The principal must see that teachers are sheltered from any obstacles that may hamper their abilities to teach. In order for teaching and learning to happen, the principal must create learning communities within their school (Hallinger & Heck, 2000; Leithwood, 1996), ensure that all people are focused on the same goals and share a common vision (Hallinger & Heck, 2000; Conger & Kanungo, 1998; Leithwood, 1996), and

manage the organization in order for teaching and learning to occur (Hallinger & Heck, 2000; Leithwood, 1996). According to Leithwood (2004), all of these categories have been proven useful for educational organizations (p. 23). What is meant by transformational approach to leadership is one's ability to build capacity for high performance.

Clear progression in high school reform is evident over the last several decades; however, a fair amount of neglect towards issues facing non-traditional schools, such as career and technology centers (CTCs) is also evident. When talking about high school reform, seldom do we hear about reform in CTCs; however, these schools are expected to take an active role in the overall high school reform efforts.

2.9   CONCEPTUAL FRAMEWORK

Secondary education reform, more often than not, starts in the sending school districts then carries over to the career and technology schools. In other words, jointly owned career and technology schools are often an afterthought in K-12 reform initiatives, despite the important role they play in career and workforce development. Therefore, it is important to understand what role, if any, CTC schools in Pennsylvania play in the high school reform efforts of their sending school districts and what they see as their role in effecting change in high school reform.

QUESTIONS	RESEARCH
1. To what extent are Career and Technology Schools in the Commonwealth of Pennsylvania actively engaged in collaborative academic	Keystone Report and Jobs For The Future Report

reform efforts with their sending school districts?	
2. Are comprehensive career and technology schools more actively engaged in reform efforts than shared time schools? If so how?	No Child Left Behind
3. How do Career and Technology Schools align their reform efforts with their sending schools efforts?	Chapter 339 Regulations, Perkins ,and Priesz
4. What is the role of CTCs in the high school reform initiatives of their sending school districts?	Chapter 339 Regulations, National Assessment of Vocational Education, and Perkins

The remaining chapters of this dissertation will investigate what role, if any, career and technical education plays in high school reform efforts and, specifically, the perception of the 81 vocational directors in the Commonwealth of Pennsylvania.

3.0   RESEARCH METHODOLOGY

The purpose of this study was to investigate the implementation of high school reform efforts in the 81 career and technology schools in the Commonwealth of Pennsylvania. The collection of data will be accomplished by using a gray area minimum qualitative approach (Creswell, p.11). This mixed methods approach was chosen to allow the researcher to analyze the qualitative responses and validate the quantitative findings. Quantitative data includes closed-ended information such as that found on attitude, behavior, or performance instruments such as surveys (Creswell, p. 6). In contrast, qualitative data consists of open-ended information such as that collected through open-ended questions (Creswell, p. 6). By utilizing this mixed approach, the investigator hopes to discover what, if any, reform efforts are being deployed in the career and technology schools across the commonwealth. Each school's chief administrator was chosen as the source of information. This approach allowed the researcher to learn of each school's administrative and Joint Operating Committee reform efforts. This chapter describes the context, participants, statement of problem, research questions, and procedures for the study.

3.1   CONTEXT

3.1.1 Setting

The Commonwealth of Pennsylvania currently has 81 Career and Technology Centers (CTCs), formally known as area vocational-technical schools (AVTS) that had a total enrollment of 57,096 students during the 2004-2005 school year. These schools are clustered into Western, Central, and Eastern regions (see Figures 3.1and 3.2).
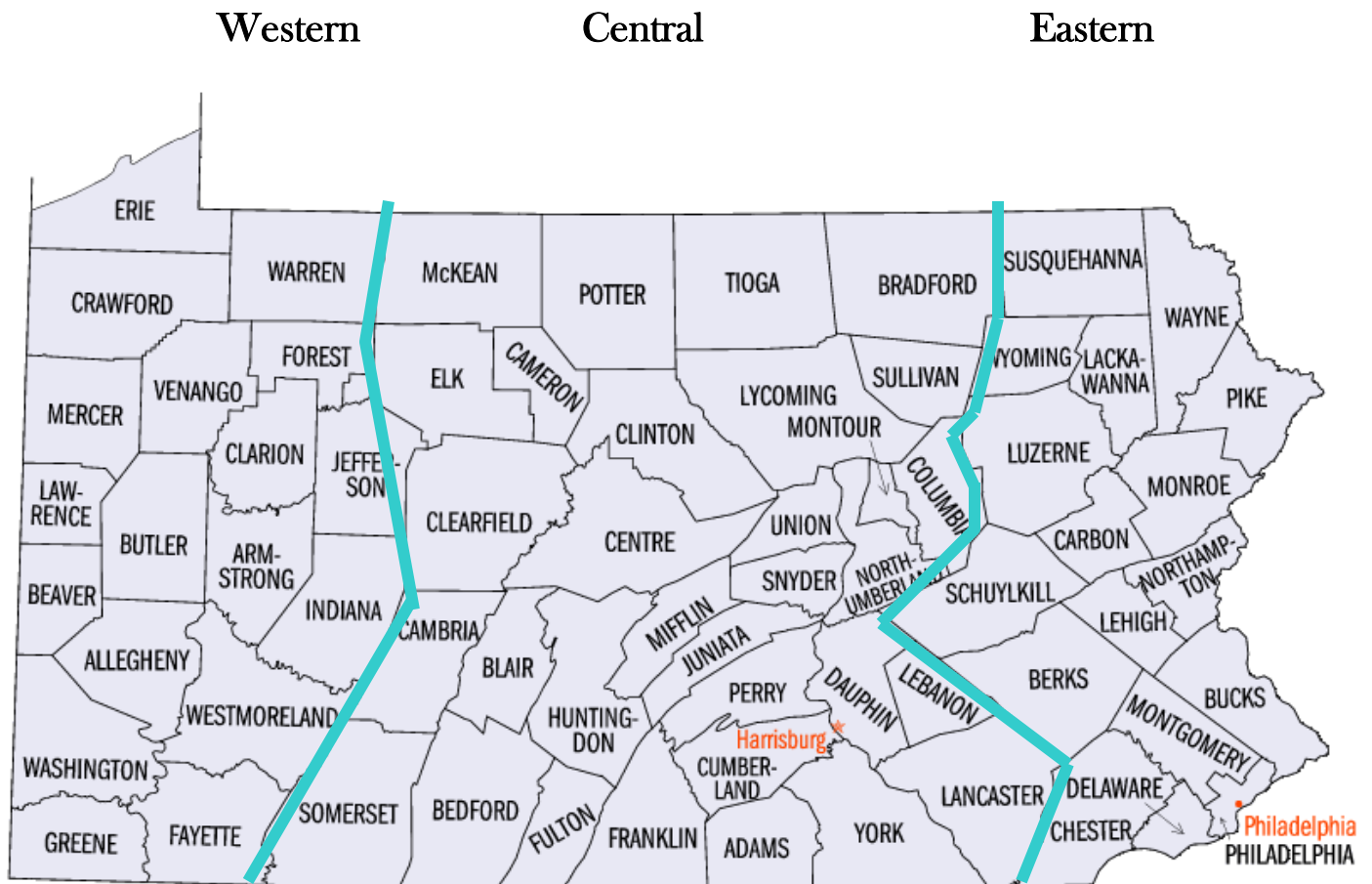

Figure 3.1: Geographical Regions by Region

Western Region	Allegheny County	Armstrong County	Beaver County
	Butler County	Cambria County	Clarion County
	Crawford County	Erie County	Fayette County
	Forest County	Greene County	Indiana County
	Jefferson County	Lawrence County	Mercer County
	Somerset County	Venango County	Warren County
	Washington County	Westmoreland County	
Central Region	Adams County	Bedford County	Blair County
	Bradford County	Cameron County	Centre County
	Clearfield County	Clinton County	Columbia County
	Cumberland County	Dauphin County	Elk County
	Franklin County	Fulton County	Huntingdon County
	Juniata County	Lancaster County	Lebanon County
	Lycoming County	McKean County	Mifflin County
	Montour County	Northumberland County	Perry County
	Potter County	Snyder County	Sullivan County
	Tioga County	Union County	York County
Eastern Region	Berks County	Bucks County	Carbon County
	Chester County	Delaware County	Lackawanna County
	Lehigh County	Luzerne County	Monroe County
	Montgomery County	Northampton County	Philadelphia County
	Pike County	Schuylkill County	Susquehanna County
	Wayne County	Wyoming County	

Figure 3.2: Geographical Regions by County

These 81 schools offer 1,405 approved vocational programs (Pennsylvania Department of education, 2006). Approved programs are categorized into one of sixteen career clusters. The clusters are as follows: Agriculture – Food & Natural Resources, Architecture & Construction, Arts – A/V Technology & Communications, Business Management & Administration, Education Training & Finance, Government & Public Administration, Health Sciences, Hospitality & Tourism, Human Services, Information Technology, Law – Public Safety & Security, Manufacturing, Marketing – Sales & Service, Science Technology – Engineering & Mathematics, and Transportation Distribution & Logistics. There are 57,096 students enrolled in Career and Technology schools (Pennsylvania Department of Education, 2006). Thirty-five thousand eighty-six of these students are male while 22,010 of the students are female (see Figure 3.3).
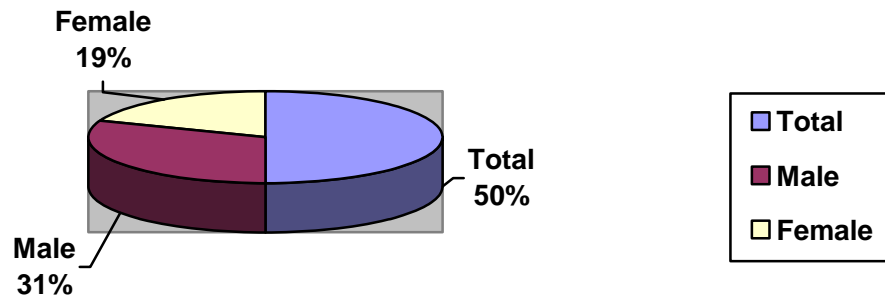

Figure 3.3: Student Population

The racial classification of these students is: 47,821 white, 5,508 black, 3,315 Hispanic, 357 Asian, and 95 American Indian (see Figure 3.4).
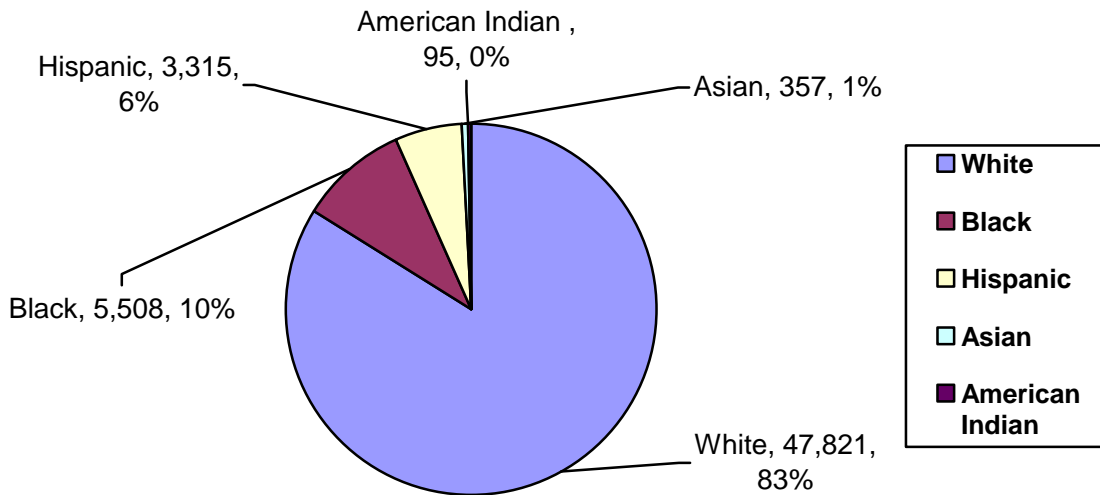

Figure 3.4: Racial Classification

Fifty-eight percent or 33,554 of the 57,096 students have special needs (Pennsylvania Department of Education, 2006). Students who completed the career and technology education program requirements and met the approved program performance standards as facilitated by the planned instruction documented within the technical component of the program's approved scope and sequence are considered program completers. Those who do not meet the criteria for program completer status are labeled non-completers. Thirteen thousand five hundred and sixty-six of these students were classified as program completers, while the remaining 43,530 were classified as non-completers (Pennsylvania Department of Education, 2006). (See Figure 3.5.)
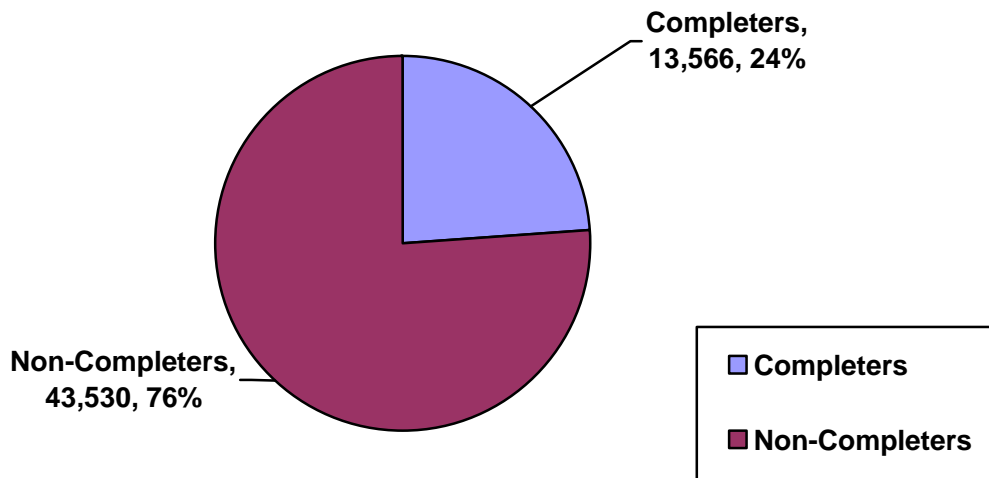
Figure 3.5: Completer Status

3.1.2 Participants

Although many of the commonwealth's 501 school districts offer approved career and technical programs, this study includes only directors of the 81 Career and Technology Schools (CTC) in the Commonwealth that are jointly owned and operated by two or more sending school districts. Sending school districts are the school districts that form the jointure that owns and operates career and technology centers. A jointure agreement is a legally binding agreement among a group of school districts or an intermediate unit for the purpose of forming a joint school (Pennsylvania School Code 24 PS 17-1701). A jointure agreement outlines the financial, participatory, and organizational responsibilities of the parties involved in forming the jointure. Each CTC is governed by a Joint Operating Committee (JOC) consisting of school board members from each of its sending school districts. The number of sending school board members varies among CTCs, but is usually one or two per sending school district. The official chief

school administrator of each CTC is the superintendent of record, a position usually filled by one of the superintendents of the CTC's sending districts on a rotating basis. The JOC employs a Director to serve as the school's chief administrative officer (see Figure 3.6).
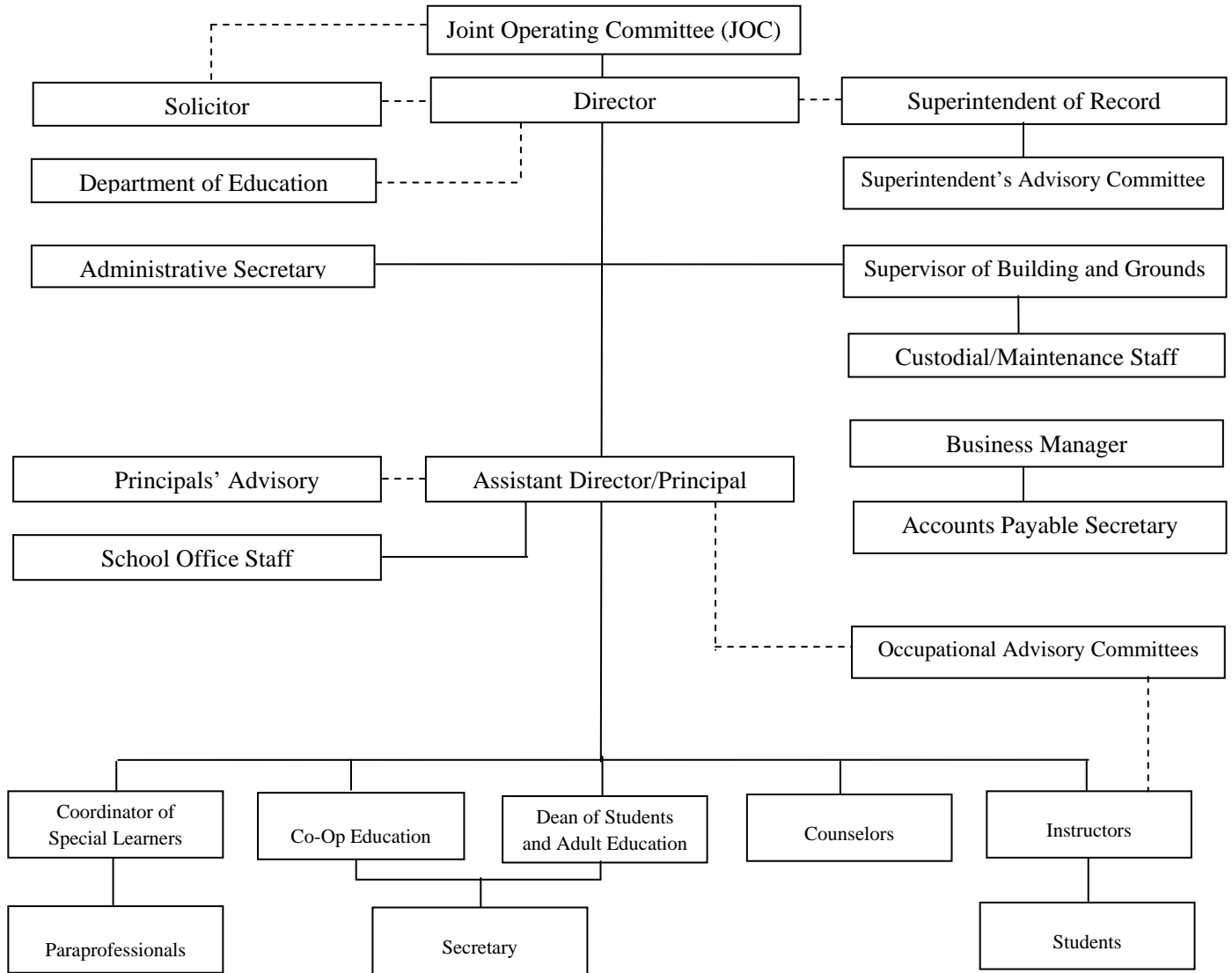
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                           Joint Operating Committee (JOC)
      Solicitor                    Director                  Superintendent of Record
 Department of Education                              Superintendent's Advisory Committee
 Administrative Secretary                             Supervisor of Building and Grounds
                                                         Custodial/Maintenance Staff
                                                              Business Manager
 Principals' Advisory       Assistant Director/Principal
                                                           Accounts Payable Secretary
 School Office Staff
                                                        Occupational Advisory Committees

 Coordinator of      Co-Op Education    Dean of Students      Counselors        Instructors
 Special Learners                       and Adult Education
 Paraprofessionals          Secretary                                             Students
```

Figure 3.6: Sample Career and Technology School Organizational Chart

The CTC Director is responsible for the total operations and management of the career and technology center. For this reason, I have chosen the directors to be the individuals surveyed for the purpose of data collection in this study. The directors serve as the chief administrative officers of the 81 career and technology schools that are operated by jointure agreements. Sixty-six CTCs are shared-time programs where students are provided specialized instruction in career and technical fields. These students receive their basic education classes, English, social studies, math, and science, in their sending high schools. Fifteen CTCs are comprehensive schools that offer full-time programs where students receive both their basic and career and technical education.

3.2   STATEMENT OF THE PROBLEM

Career and technology centers (CTCs) in Pennsylvania play an important role in career and workforce development, yet CTCs have not been part of the conversation in regard to the high school reform agendas of their sending school districts. Therefore, it is important to understand what role if any CTC schools in Pennsylvania play in the high school reform efforts of their sending school districts and what they see as their role in effecting change in high school reform.

3.3   RESEARCH QUESTIONS

The following chart reflects the embedded questions that were considered by the researcher when constructing the survey questions.

QUESTIONS	RESEARCH
1. To what extent are career and technology schools in the Commonwealth of Pennsylvania actively engaged in collaborative academic reform efforts with their sending school districts?	Survey of Pennsylvania vocational directors.
2. Are comprehensive career and technology schools in Pennsylvania more actively engaged in reform efforts than shared time schools? If so, how?	Survey of Pennsylvania vocational directors.
3. How do career and technology schools in Pennsylvania align their reform efforts with their sending schools efforts?	Survey of Pennsylvania vocational directors.
4. What is the role of CTCs in Pennsylvania in the high school reform initiatives of their sending school districts?	Survey of Pennsylvania vocational directors.

3.4   PROCEDURES

Fowler (2002) states "to provide data special-purpose surveys have become a prevalent part of American life since the 1930's" (p. 2). The purpose of the study is to collect data regarding the nature and extent of the reform efforts currently being implemented in career and technology centers across the Commonwealth. More specifically the intent is to ascertain what instructional strategies, instructional technologies, and remedial measures are currently being implemented by career and technology schools in Pennsylvania to increase student achievement. The researcher prepared a letter of introduction and permission to conduct the survey which will be sent with each Internet survey. Permission to conduct this research was approved by the University of Pittsburgh Institutional Review Board.

Internet surveys utilizing Survey Monkey online survey tool software (http://surveymonkey.com) with a letter of introduction (Appendix A) and survey (Appendix B) will be e-mailed to each director of the 81 CTC schools in Pennsylvania. In an attempt to get the highest response possible, Ms. Jackie Cullen, Executive Director of Pennsylvania Association of Career and Technical Administrators (PACTC), has agreed to distribute the letter of introduction and survey via the PACTA's e-mail system. The 81 directors will be asked to complete their responses of the survey back within two weeks of the receipt of the original survey. The researcher sent a reminder e-mail to the directors in two weeks to ask non-respondents to respond.

3.4.1 Data Processing and Analysis

The survey instrument will be comprised of 11 questions with an estimated ten to fifteen minute completion time. The Internet survey contains three open-ended questions and eight closed-ended questions. The open-ended questions gain information about the student achievement. The closed-ended questions gain demographic, student achievement, and reform information. The survey was designed to allow the researcher to answer the following research problem: Career and technology centers (CTCs) play an important role in career and workforce development, yet CTCs have not been part of the conversation in regard to the high school reform agendas of their sending school districts. Therefore, it is important to understand what role if any CTC schools in Pennsylvania play in the high school reform efforts of their sending school districts and what they see as their role in effecting change in high school reform.

The results of the completed survey will be analyzed using quantitative and qualitative analysis. The data will first be discussed using quantitative analysis. Quantitative data includes closed-ended information, such as that found on the survey's instrument (Creswell, p. 6). Then the researcher will evaluate the qualitative themes. Qualitative data consists of open-ended information such as that collected through open-ended questions on the survey instrument (Creswell, p. 6). The data will be downloaded directly from Survey Monkey's web site into an Excel spreadsheet. The data will be described first with descriptive statistics of the close ended questions. In addition, the open-ended responses will be reported qualitatively. The statistical outline will include discussions of correlation, central themes found (themes are abstract, often fuzzy, constructs that are identified during and after data collection) and percentages. Correlations will be generated using Statistical Package for the Social Sciences (SPSS) software.

The responses to the open-ended questions will be analyzed using rubrics to ascertain the degree of implementation of specific reform initiatives activities that support and enhance compliance with the goals of the No Child Left Behind Act. This data will then be compared and contrasted with the responses to the close-ended questions utilizing SPSS software to show the various degrees of correlation in comprehensive and shared-time CTCs in the three regions of the state. The data analysis will allow for the following research questions to be addressed:

1. To what extent are career and technology schools in the Commonwealth of Pennsylvania actively engaged in collaborative academic reform efforts with their sending school districts?

2. Are comprehensive career and technology schools in Pennsylvania more actively engaged in reform efforts than shared time schools? If so how?

3. How do career and technology schools in Pennsylvania align their reform efforts with their sending schools efforts?

4. What is the role of CTCs in Pennsylvania in the high school reform initiatives of their sending school districts?

RESEARCH QUESTION	SURVEY QUESTIONS
1	2, 7, & 8
2	2, 5, 6, & 10
3	4,7,8, & 9
4	5,7, 9, & 11

4.0   FINDINGS

4.1   DEMOGRAPHIC CHARACTERISTICS

The purpose of this study was to investigate the implementation of high school reform efforts in the 81 career and technology schools in the Commonwealth of Pennsylvania. Of the 81 career and technology centers in the Commonwealth of Pennsylvania, 71 (88%) responded to the survey. Demographic information included the following: geographical location of the participant's school, classification of participant's school, and total number of sending school districts that attend the participant's school.

A survey invitation was sent to the directors of the 81 career and technology schools (CTC) in the Commonwealth that are jointly owned and operated by two or more sending school districts. Of the 71 respondents to the question, "Where is your school located?" 27 (38%) were from Eastern Pennsylvania, 29 (40.8%) were from Western Pennsylvania, and 15 (21%) were from Central Pennsylvania (see Figure 4.1).
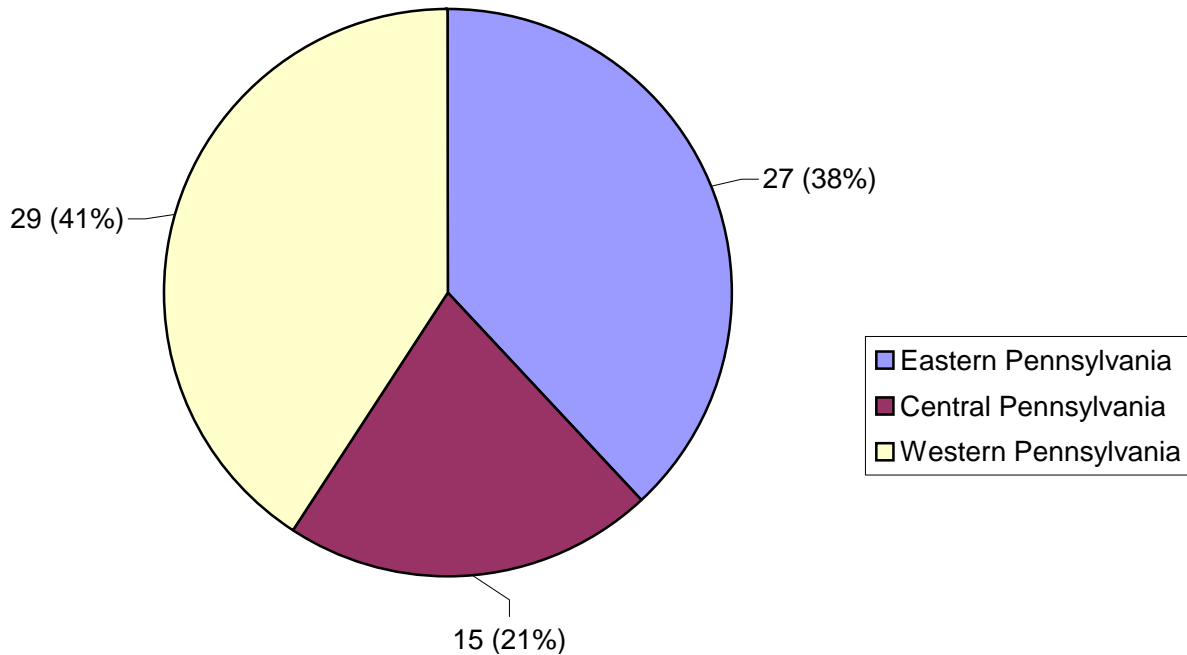
Figure 4.1: Geographical Location of Schools

Regions are determined by the geographical location of the county in which the schools are located. The Eastern Region consists of the following counties: Berks, Bucks, Carbon, Chester, Delaware, Lackawanna, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Pike, Schuylkill, Susquehanna, Wayne, and Wyoming. The Central Region includes the following counties: Adams, Bedford, Blair, Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Cumberland, Dauphin, Elk, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Lycoming, McKean, Mifflin, Montour, Northumberland, Perry, Potter, Snyder, Sullivan, Tioga, Union, and York. The Western Region includes: Allegheny, Armstrong, Beaver, Butler, Cambria, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Somerset, Venango, Warren, Washington, and Westmoreland.

When asked about the classification of schools, 58 (81.7%) answered shared-time school, which is defined as part-time programs where students are provided specialized instruction in

career and technical education. Thirteen schools (18.3%) answered comprehensive school, which is defined as full-time programs where students receive both their basic and career and technical education (see Figure 4.2).
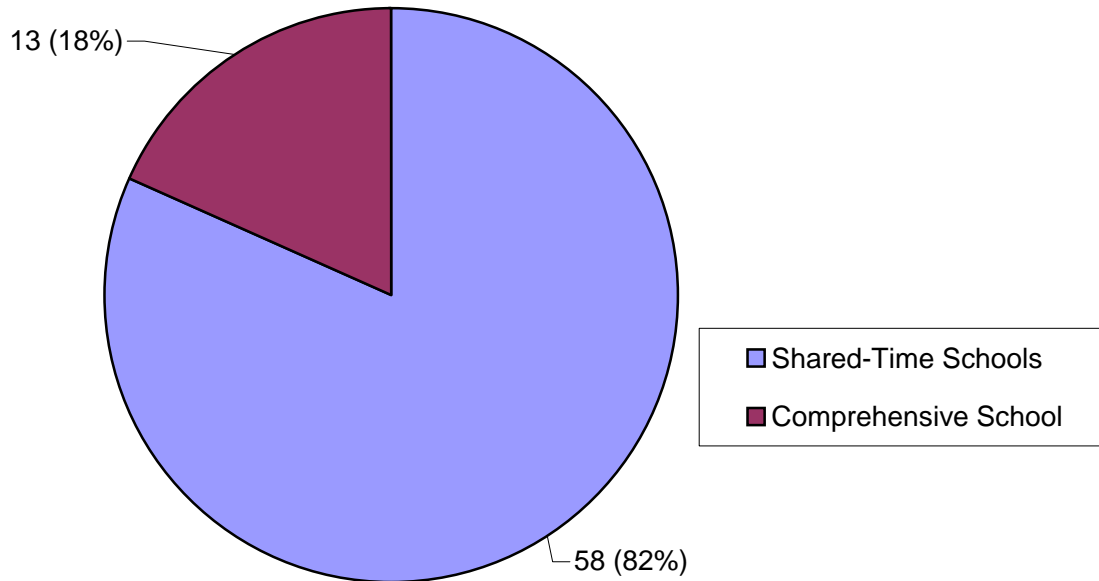

13 (18%)

☐ Shared-Time Schools
☐ Comprehensive School

58 (82%)

Figure 4.2: Classification of Schools

Of the 71 respondents to the question, "How many sending school districts attend your school?" five (7%) were disqualified because the respondents answered zero or one. Of these five, one was a comprehensive school in the Central region, two were in the Eastern region (one shared and one comprehensive), and two were comprehensive schools in the Western region. Of the sixty-five other responses, 12 (17%) has between one and three sending school districts. Of these 12, two were comprehensive schools in the Central region, three schools were located in the Eastern region (one comprehensive and two shared-time), and seven were located in the Western region (one comprehensive and six shared-time).

Seventeen schools (23.9%) had between four and six sending school districts. Of these 17 schools, four shared-time schools were located in the Central region, six shared-time schools were located in the Eastern Region, and seven schools were located in the Western region (one comprehensive and six shared-time).

Twenty-two schools (31%) had between seven and nine sending school district. Of these 22 schools, four shared-time schools were located in the Central region, 12 schools are located in the Eastern region (one comprehensive and 11 shared-time), and six shared time schools are located in the Western region.

Eight schools (11.3%) had between ten and twelve sending school districts. Of these eight, none were comprehensive schools. One shared-time school was located in the Eastern region and seven shared-time schools were located in the Western region. Five schools (7%) had between 13 and 15 sending school districts. Of these five, three were located in the Central region (two comprehensive and one shared-time), and two shared-time schools were located in the Western region.

Two schools (2.8%) reported having between 16 and 18 sending school districts. Both schools were shared-time schools (one located in the Central region, and one located in the Eastern region).

Much of the demographic information has equal representation. Geographical location of schools was evenly represented. Also the classification of schools was evenly represented, with 13 (86.7%) of the 15 eligible comprehensive schools responding and 58 (87.9%) of 66 eligible shared-time schools responding. The question regarding number of sending school districts was answered only by 60 (84.5%) of the 71 respondents. The researcher believes that not all respondents understood the question.

4.2   RESEARCH QUESTIONS

The researcher developed four research questions to fulfill the purpose of this study. What follows in this section is a presentation of findings as they relate to each research question.

4.2.1   Research Question # 1

To what extent are career and technology schools in the Commonwealth of Pennsylvania actively engaged in collaborative academic reform efforts with their sending school districts?

The researcher analyzed responses to the survey relating to type of school, strategies implemented to align reform issues with sending districts, and collaboration with sending school districts to align school reform efforts

When asked, "What strategies have you implemented to align your reform issues with your sending school districts?" Of the possible 15 comprehensive schools, 13 responded. Of the thirteen, five (24%) reported that they explicitly aligned all eligible content (grade level skills that are assessed on the PSSA and aligned with the Pennsylvania Academic Standards and the PSSA) in all programs; six (28%) reported the integration of eligible content into technical competencies and/or projects; three (14%) reported they explicitly aligned academic standards with content in all technical programs; five (24%) reported they explicitly aligned assessment anchors (Assessment Anchors clarify the standards assessed on the PSSA and can be used by

educators to help prepare their students for the PSSA) with all technical programs; and two (10%) cited other strategies such as regional accountability and credentialing that were implemented.

Of the possible 66 shared-time schools 58 responded. Eight (10%) reported that they explicitly aligned all eligible content in all technical programs; 27 (33%) reported the integration of eligible content into technical competencies and/or projects; 22 (27%) reported they explicitly aligned academic standards with content in all programs; and 24 (30%) reported they explicitly aligned assessment anchors with all programs (see Figure 4.3).
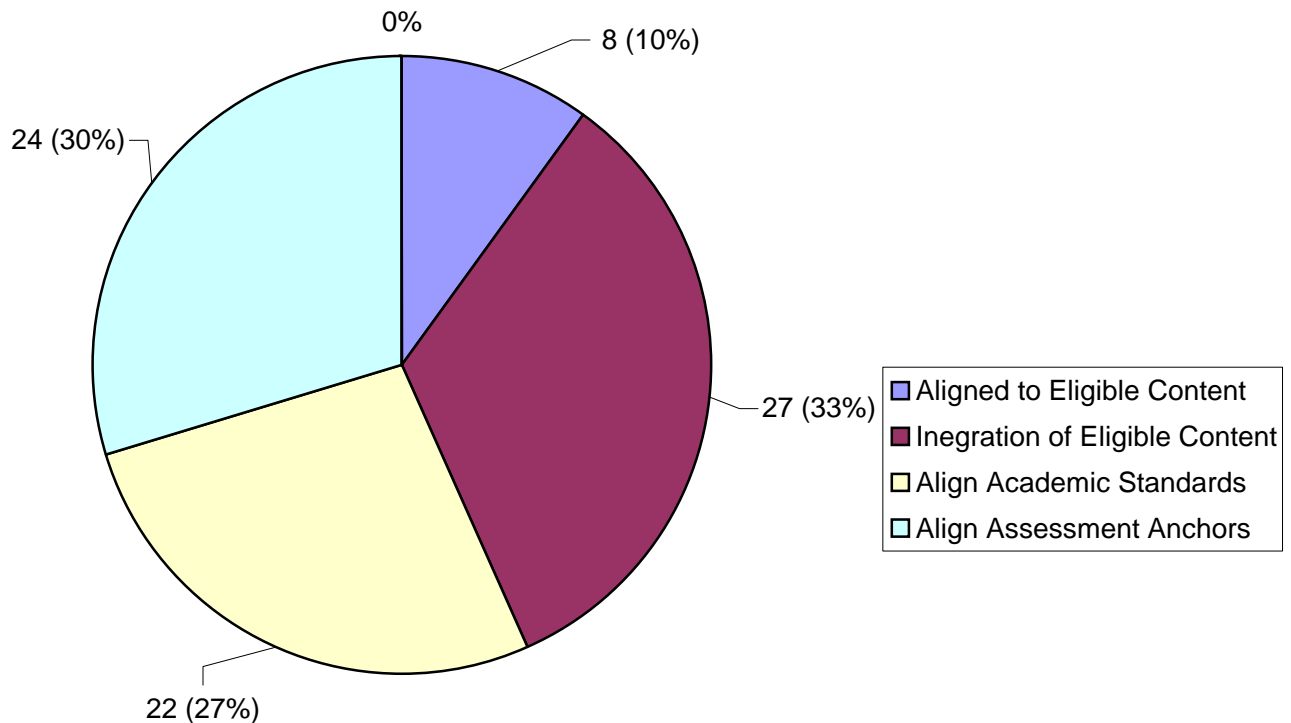

Figure 4.3: Strategies Implemented to Align Reform: Shared-Time Schools

Both comprehensive and shared-time schools listed integration of eligible content (28% and 33% respectively) as the most common strategy implemented to align reform efforts with sending school districts.

When asked the question, "How have you collaborated with your sending school districts to align school reform efforts?" None (0%) of comprehensive schools reported professional development; two (50%) reported curriculum collaboration; one (25%) reported little or no collaboration; and one (25%) reported other collaboration (see Figure 4.4).
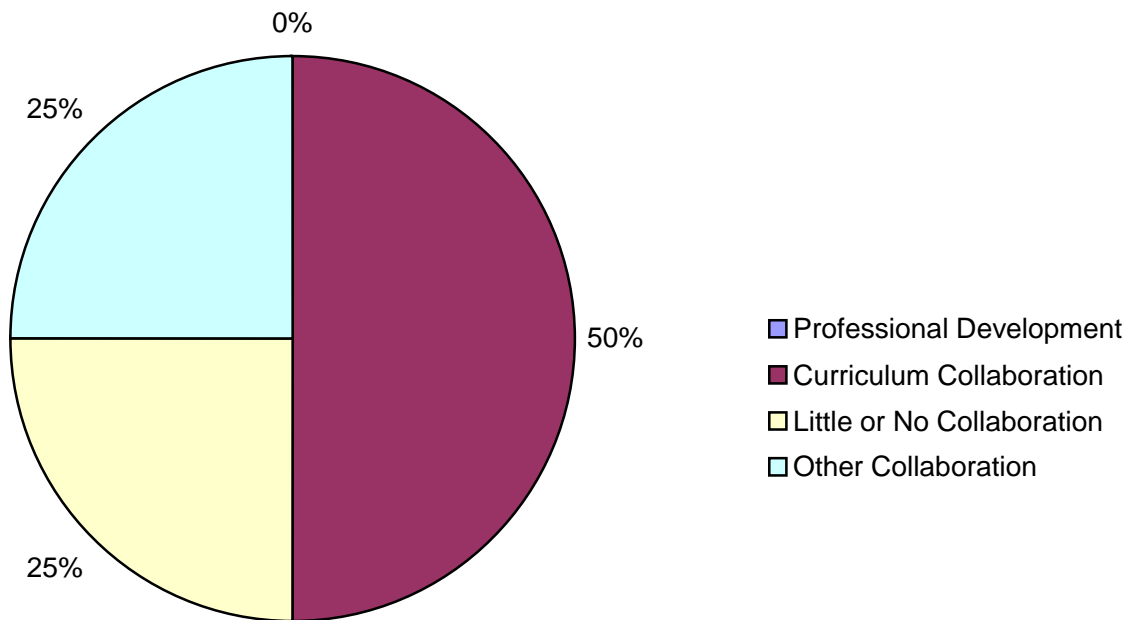

Figure 4.4: Percent of Collaboration with Sending Districts: Comprehensive Schools

Five (19%) shared-time schools reported professional development; six (22%) reported curriculum collaboration; 12 (44%) reported little or no collaboration; and four (15%) reported other collaboration (see Figure 4.5).
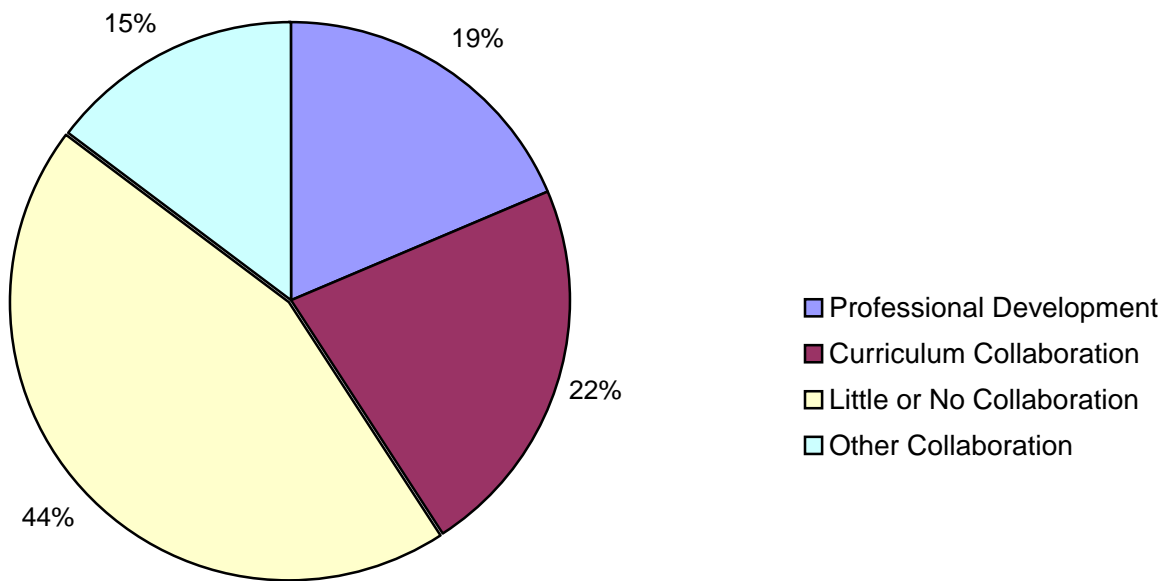
Figure 4.5: Percent of Collaboration with Sending Districts: Shared-Time Schools

More shared-time schools use professional development to collaborate with sending districts, than with comprehensive schools (19% and 0% respectively). Comprehensive schools, however, collaborate more through curriculum (50%). Both comprehensive and shared-time schools reported little or no collaboration (25% and 44% respectively) between career and technology schools and sending districts in their open-ended responses.

4.2.2 Research Question #2

Are comprehensive career and technology schools in Pennsylvania more actively engaged in reform efforts than shared time schools? If so how?

Responses to the survey relating to the type of school (comprehensive or shared-time), types of interventions implemented, and obstacles faced in implementing reform efforts were analyzed.

When asked, "Is your school shared-time or comprehensive?" Of the possible 81 respondents (66 shared-time and 15 comprehensive), 71 responded. Fifty-eight (81.7%) reported shared-time schools, while 13 of a possible 15 (18.3%) reported comprehensive schools (See Figure 4.6).
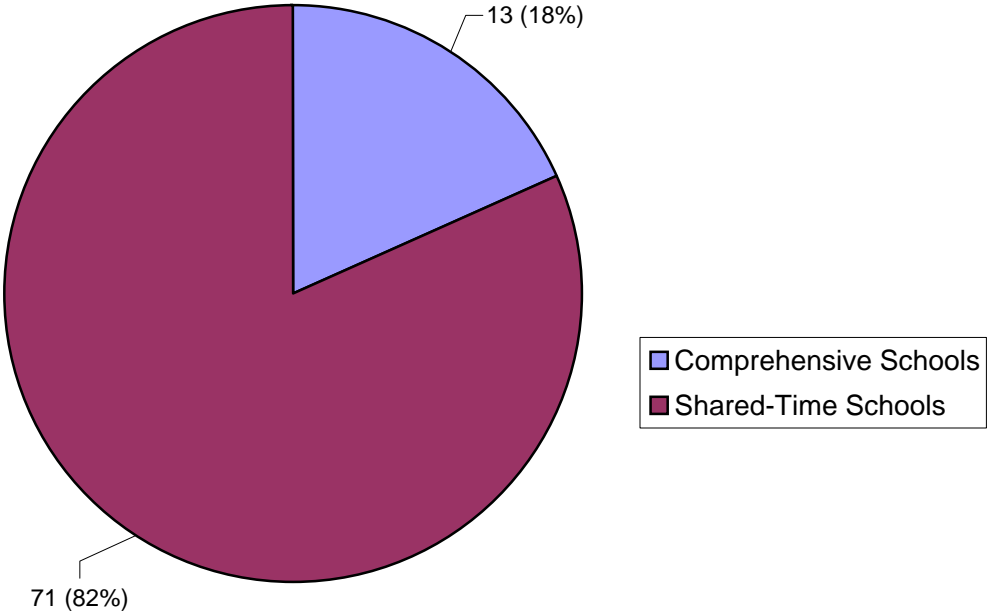

Figure 4.6: Classification of Schools

In response to the question, "What obstacles do you face in implementing reform efforts in your school?" Overall, 16 (20%) reported financial issues, 18 (22%) reported personnel issues, 19 (23%) reported time issues, and 24 (30%) reported a combination of financial, personnel, and time issues. Four schools (5%) reported other issues related to communications with sending school districts (See Figure 4.7).
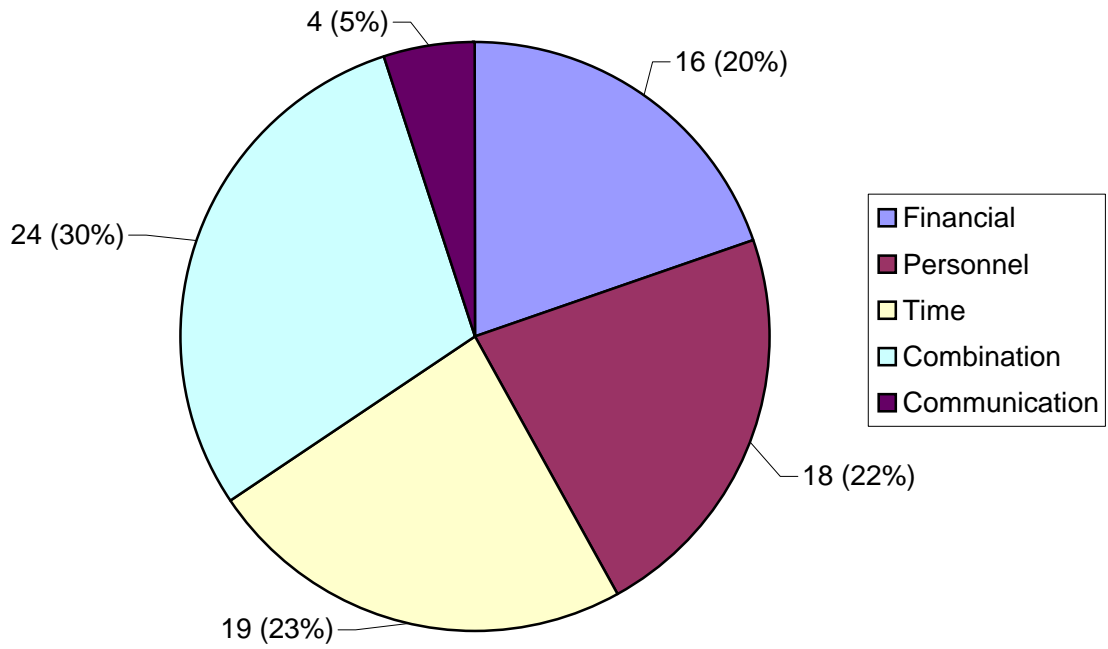
4 (5%)

16 (20%)

24 (30%)

Financial
Personnel
Time
Combination
Communication

18 (22%)

19 (23%)

Figure 4.7: Reform Efforts: All students

Regardless of location, comprehensive schools reported money and time as the greatest

obstacles as barriers to reform efforts (see Figure 4.8).

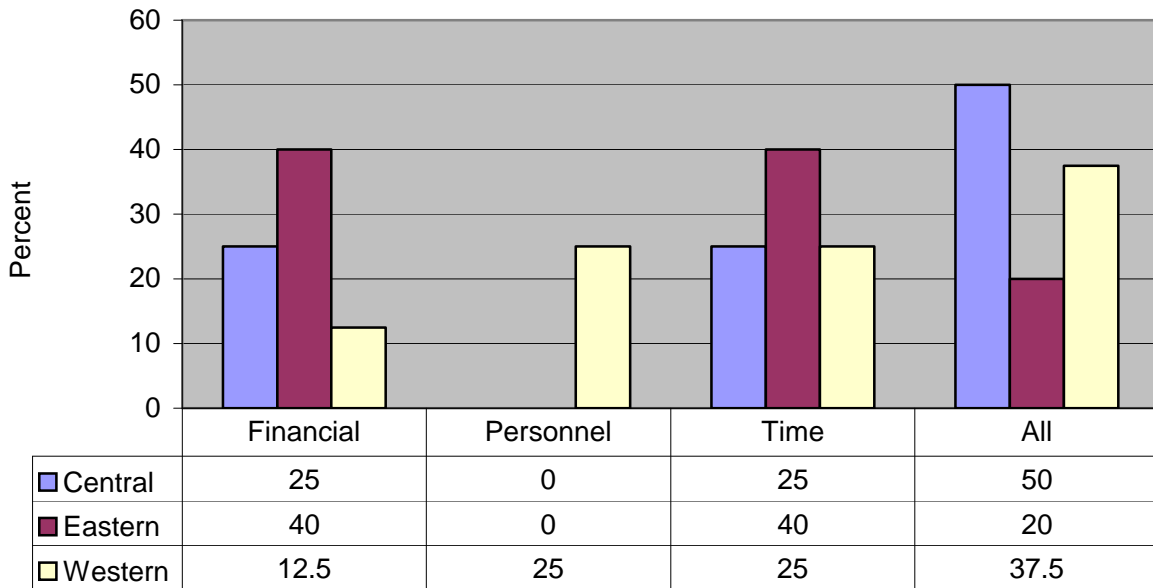| Percent	Financial	Personnel	Time	All
Central	25	0	25	50
Eastern	40	0	40	20
Western	12.5	25	25	37.5

Figure 4.8: Reform Effort Obstacles: Comprehensive Schools

Regardless of region, finances and time are reported as the greatest obstacles to reform efforts. Interestingly, schools in Western Pennsylvania cited personnel as their greatest obstacle (see Figure 4.9).
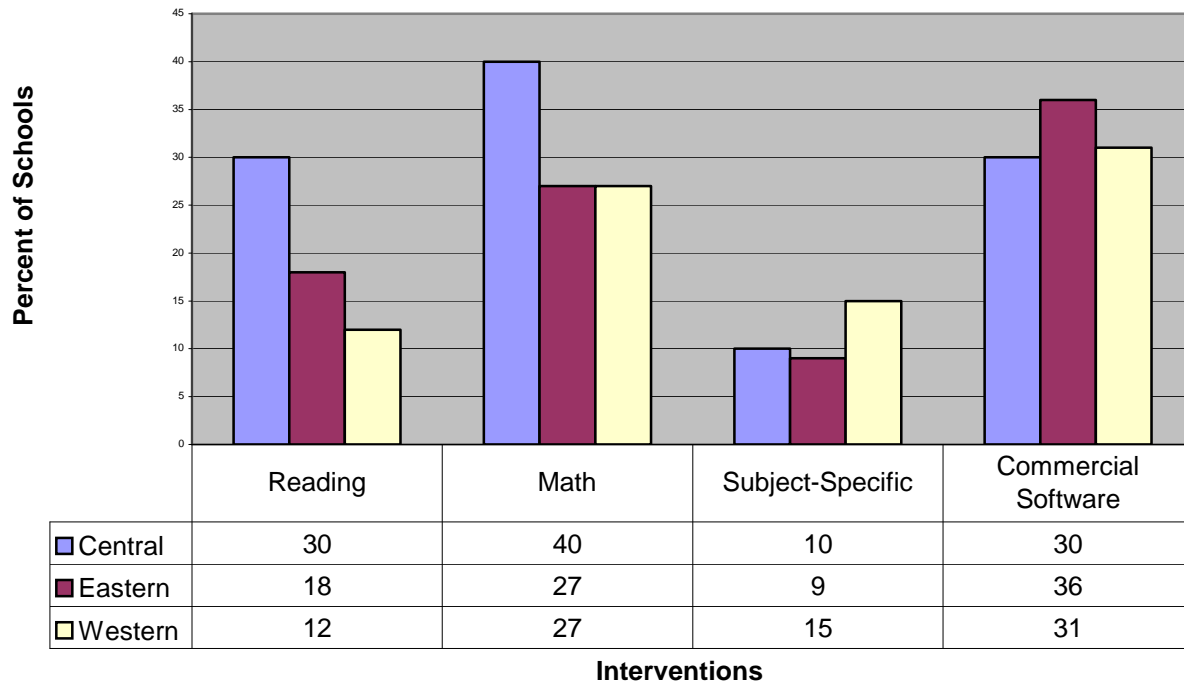
	Reading	Math	Subject-Specific	Commercial Software
Central	30	40	10	30
Eastern	18	27	9	36
Western	12	27	15	31

Interventions

Figure 4.9: Reform Effort Obstacles: Shared-Time Schools

When asked, "What interventions have you implement based on your analysis of the PSSA?" 17 (20%) reported reading interventions; 25 (30%) reported math interventions; 12 (14%) reported subject-specific developmental courses; and 29 (36%) reported commercial software (see Figure 4.10).
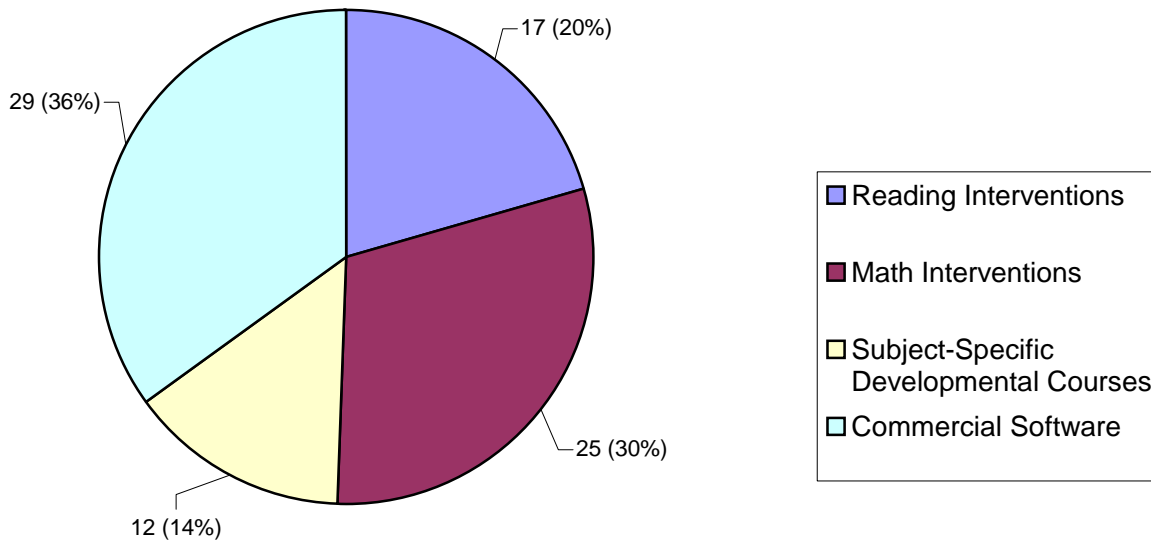
Figure 4.10: Implemented Interventions

The ratio of interventions per school in comprehensive schools is 2:1. The ratio of interventions in shared-time schools is 1:1. Thus, for sample size, comprehensive schools are implementing twice the number of interventions as shared-time schools.

Among the four categories, comprehensive schools listed 30 interventions: seven (28%) reading intervention programs; eight (32%) math intervention programs; five (20%) subject-specific developmental intervention programs; and ten (40%) commercial software interventions (see Figure 4.11).

Among the four categories, shared-time schools listed 53 interventions: ten (18.8%) reading intervention programs; 17 (32%) math intervention programs; seven (13%) subject-specific developmental intervention programs; and 19 (35.8%) commercial software interventions (see Figure 4.11).
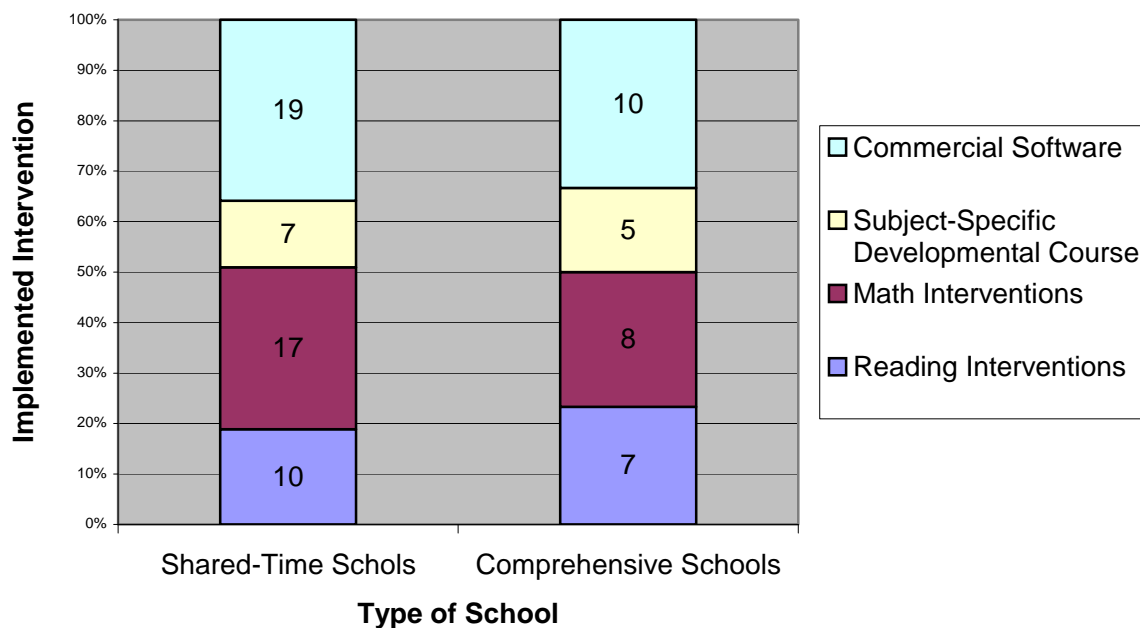
Figure 4.11: Comparison of Interventions by School Type

Of the thirteen responding comprehensive schools, five (38%) are located in Central Pennsylvania, three (23%) are located in Eastern Pennsylvania, and five (38%) are located in Western Pennsylvania. While they have the fewest schools represented in this survey, Eastern Pennsylvania implements the same number of intervention programs as Western Pennsylvania, and more than Central Pennsylvania schools. Eastern Pennsylvania Comprehensive schools reported 11 intervention programs; Central Pennsylvania reported eight intervention programs, and Western Pennsylvania reported 11 intervention programs (see Figure 4.12).

In Eastern Pennsylvania comprehensive schools, three (60%) implement reading intervention programs, three (60%) implement math intervention programs, two (40%) implement subject-specific developmental courses, and three (60%) implement commercial software applications (see Figure 4.12).

In Central Pennsylvania, two (40%) implement reading intervention programs, two (40%) implement math intervention programs, one (20%) implements subject-specific developmental courses, and three (60%) implement commercial software applications (see Figure 4.13).

In Western Pennsylvania, two (40 %) implement reading intervention programs, three (60%) implement math intervention programs, two (40%) implement subject-specific developmental courses, and four (80%) implement commercial software programs. Of all intervention programs implemented across the three regions, commercial software applications are most commonly implemented (see Figure 4.12).

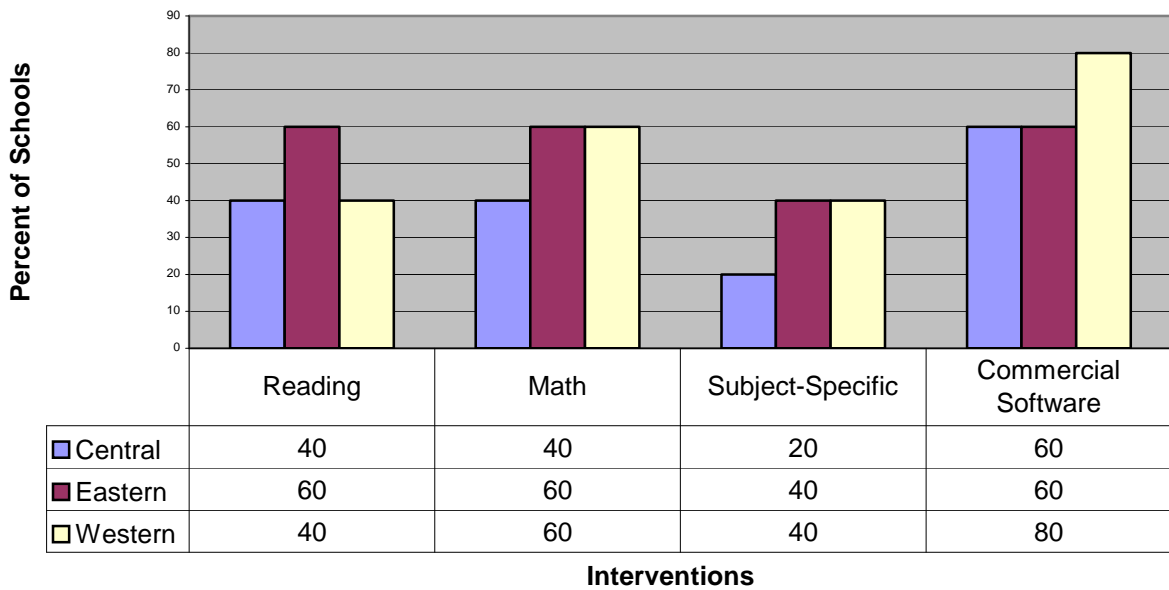|	Reading	Math	Subject-Specific	Commercial Software
■ Central	40	40	20	60
■ Eastern	60	60	40	60
□ Western	40	60	40	80

Interventions

Figure 4.12: Percent of Schools Implementing Interventions: Comprehensive Schools

Of the 58 responding shared-time schools, 10 (17%) are located in Central Pennsylvania, 22 (38%) are located in Eastern Pennsylvania, and 26 (45%) are located in Western Pennsylvania. Eastern Pennsylvania shared-time schools reported 20 intervention programs; Central Pennsylvania reported 11 intervention programs, and Western Pennsylvania reported 22 intervention programs. Although Central Pennsylvania's shared-time schools comprise the smallest sample size, they implement more interventions than Eastern or Western schools. In relationship to sample size, Central Pennsylvania shared-time schools implement 19 percent more interventions than Eastern Pennsylvania schools and 25 percent more than Western Pennsylvania schools (see Figure 4.13).

In Central Pennsylvania's shared-time schools, three (30%) implement reading intervention programs, four (40%) implement math intervention programs, one (10%) implements subject-specific developmental courses, and three (30%) implement commercial software applications (see Figure 4.13).

In Eastern Pennsylvania shared-time schools, four (18%)implement reading intervention programs, six (27%) implement math intervention programs, two (9%) implement subject-specific developmental courses, and eight (36%) implement commercial software applications (see Figure 4.13).

In Western Pennsylvania shared-time schools, three (12%) implement reading intervention programs, seven (27%) implement math intervention programs, four (15%) implement subject-specific developmental courses, and eight (31%) implement commercial software programs. While commercial software applications are the most commonly implemented intervention in Eastern and Western Pennsylvania's shared-time schools, math

interventions are the most common format of intervention provided in Central Pennsylvania's shared-time schools (see Figure 4.13).
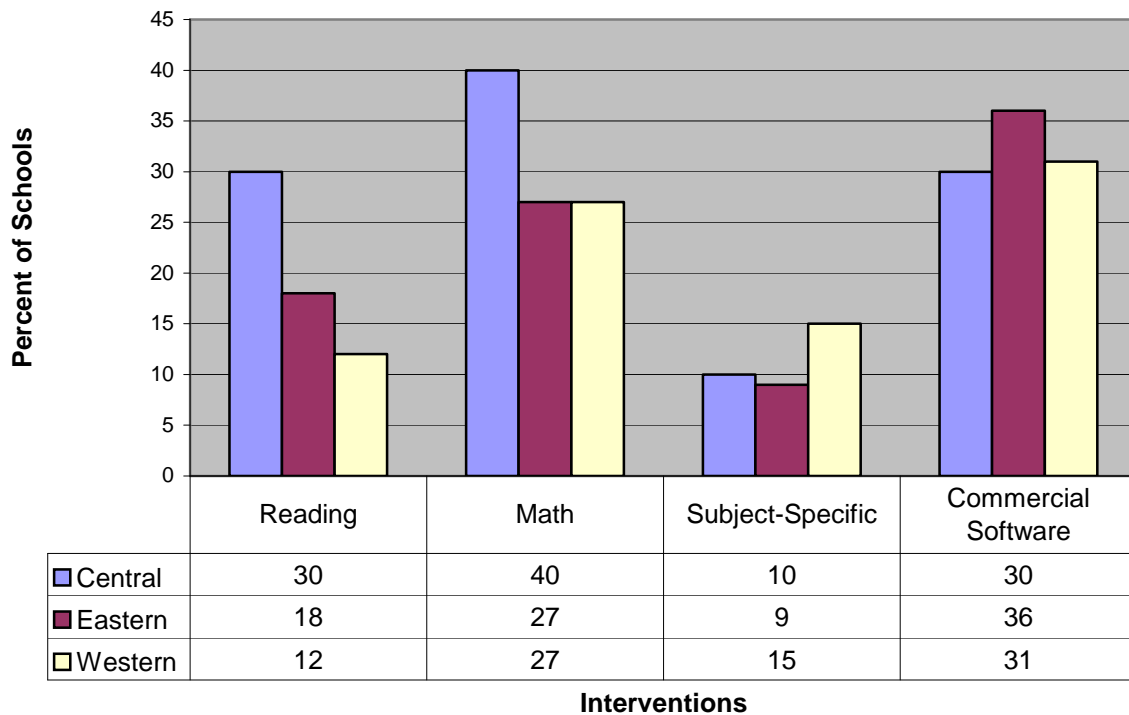
	Reading	Math	Subject-Specific	Commercial Software
Central	30	40	10	30
Eastern	18	27	9	36
Western	12	27	15	31

Interventions

Figure 4.13: Percent of Schools Implementing Interventions: Shared-Time Schools

4.2.3   Research Question #3

How do career and technology schools in Pennsylvania align their reform efforts with their sending schools efforts?

The researcher analyzed levels of PSSA scores obtained, interventions implemented based on analyses of PSSA scores, strategies implemented to reform issues with sending school districts,

collaborations with sending school reform efforts, and concerns expressed by sending school districts. When asked, "What grade level PSSA scores do you receive from your sending school districts?" twenty-five (53.2%) reported 8[th] and 11[th] grade, nine (18.8%) reported only 11[th] grade, seven (14.6%) reported 8[th] grade only, and six (12.5%) reported none (see Figure 4.14).
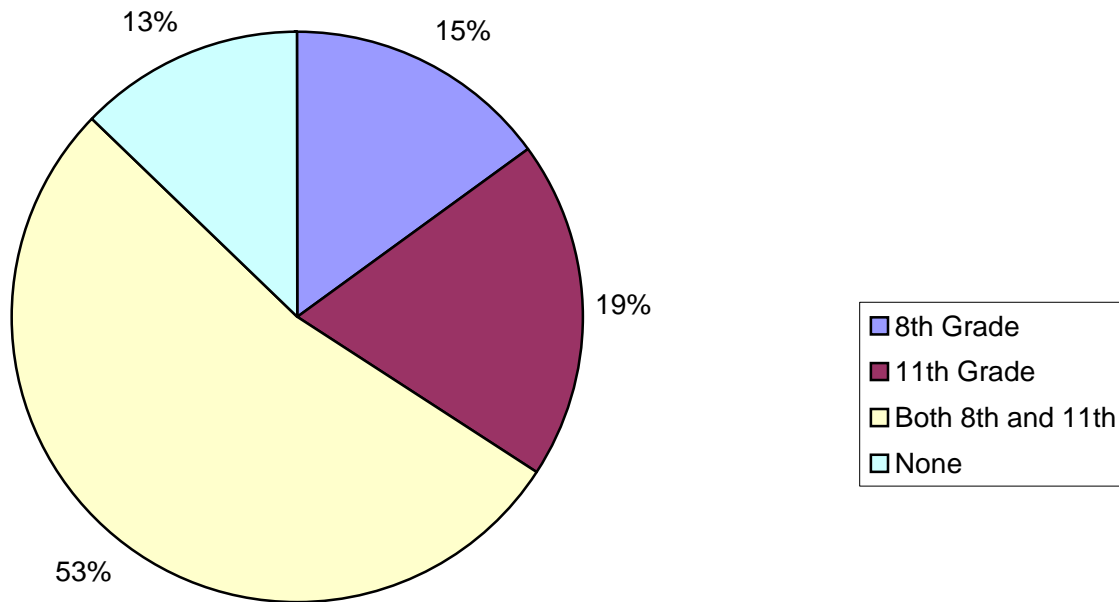

Figure 4.14: Access to PSSA Scores

Comprehensive schools reported; four (30.7%) 8[th] and 11[th] grade, three (23.1%) only 11[th] grade, two (15.4%), 8[th] grade only, and four (30.7%) reported none. This means that, for the same number of schools who receive both 8[th] and 11[th] grade data, there are an equal number of schools that receive no data at all (see Figure 4.15).

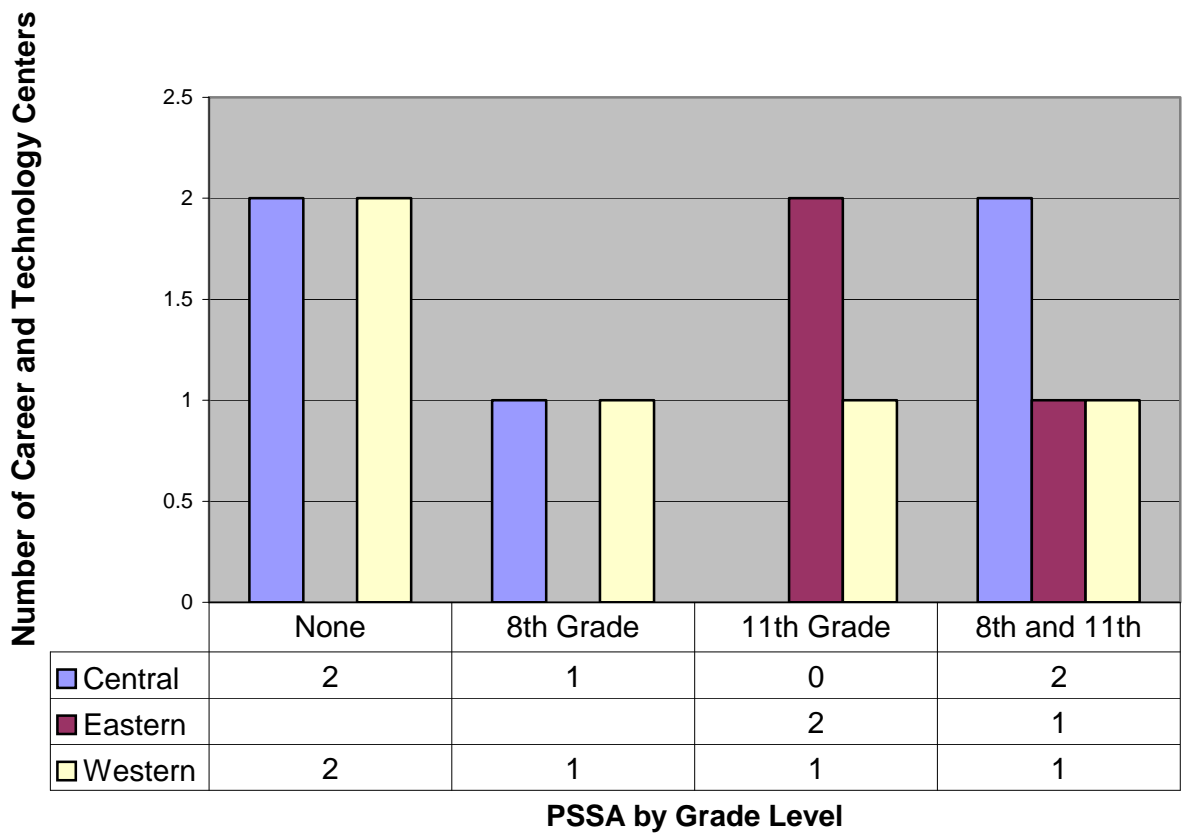| PSSA by Grade Level	None	8th Grade	11th Grade	8th and 11th
☐ Central	2	1	0	2
■ Eastern			2	1
☐ Western	2	1	1	1

Figure 4.15: Access to PSSA Scores: Comprehensive Schools

When shared-time schools were asked what grade level PSSA scores they receive from their sending school districts, 12 (23%) reported 8th and 11th grade, 13 (25%) reported only 11th grade, seven (13.5%) reported 8th grade only, and 20 (38.5%) reported none. The majority of shared-time schools do not receive PSSA scores (see Figure 4.16).
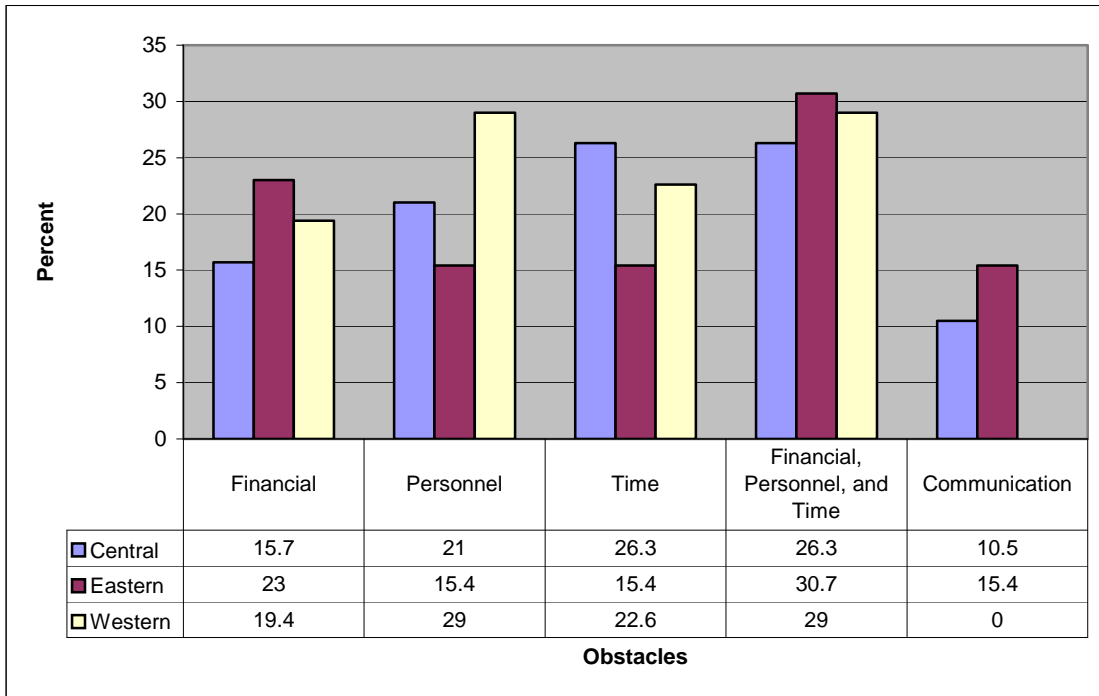
69

	Financial	Personnel	Time	Financial, Personnel, and Time	Communication
Central	15.7	21	26.3	26.3	10.5
Eastern	23	15.4	15.4	30.7	15.4
Western	19.4	29	22.6	29	0

Obstacles

Figure 4.16: Access to PSSA Scores: Shared-Time Schools

When asked to rate what interventions were most successfully implemented based on their analysis of the PSSA, 25 (64.1%) reported Math tutoring, 29 (74.4%) reported commercial software, 17 (43.6%) reported Reading tutoring, and 12 (30.8%) reported subject-specific developmental course (see Figure 4.17).
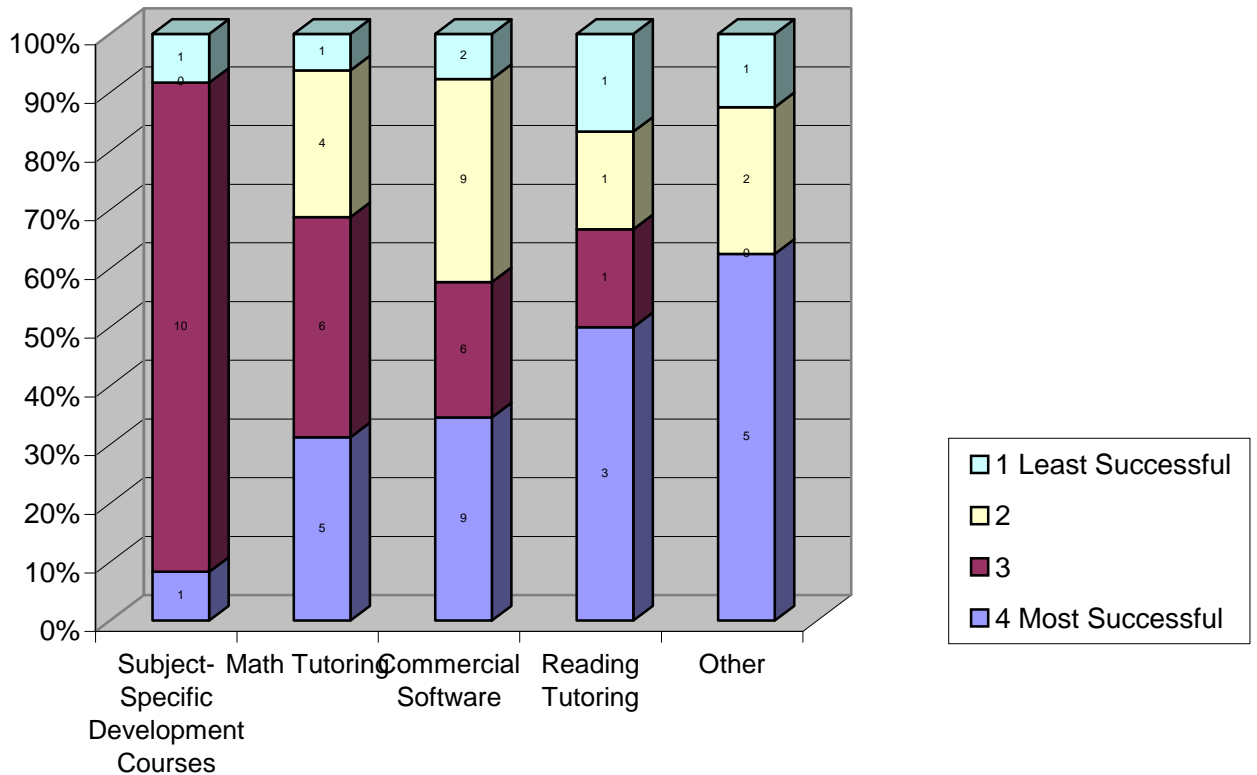
Figure 4.17: Interventions Success Rate

Of the 13 comprehensive schools, one (25%) selected commercial software programs as the most successful; one (25%) selected subject-specific developmental courses as most successful; and two (50%) added other options as the most successful. These strategies included "differentiated instruction" and "hiring retired math teachers" to target tutoring efforts. Both of these other options could be aligned with tutoring or subject-specific developmental courses (see Figure 4.18).
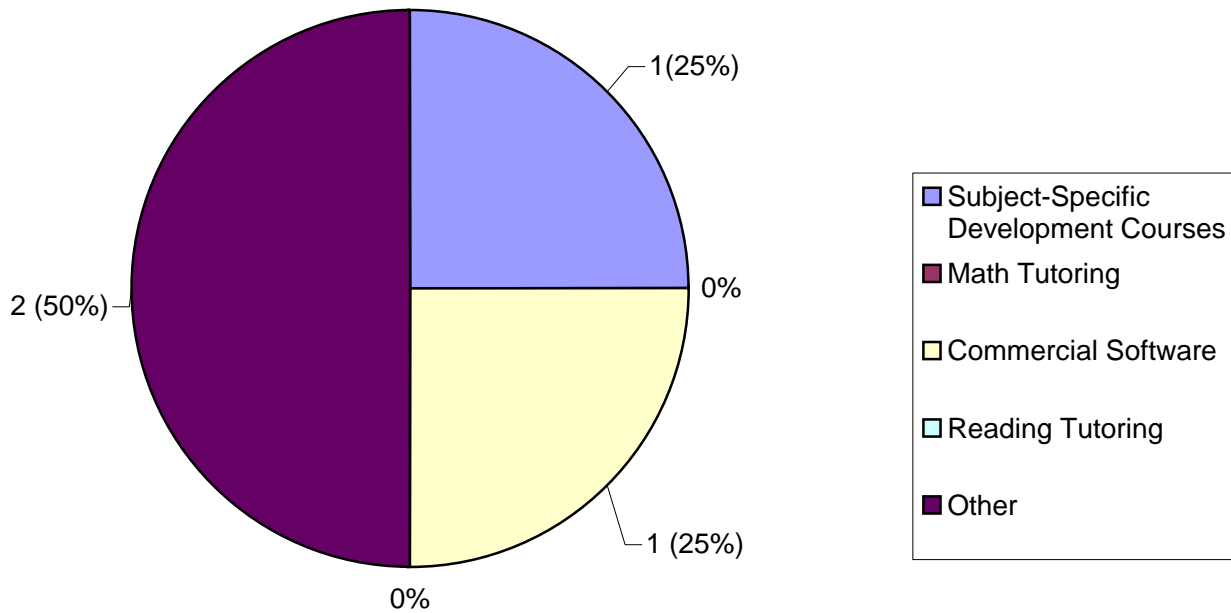
Figure 4.18: Most Successful Interventions: Comprehensive Schools

Of the 58 shared-time schools, eight (13.8%) selected commercial software programs as the most successful; three (5.1%) selected subject-specific developmental courses; five (8.6%) selected math tutoring programs; four (6.8%) selected reading tutoring programs; and four (6.8%) selected unspecified tutoring programs. Among the open-ended responses, two shared-time schools indicated that PSSA interventions are the obligation of sending school districts. "PSSA interventions are the responsibility of the sending schools. Our CTC does not provide any such assistance." (See Figure 4.19).
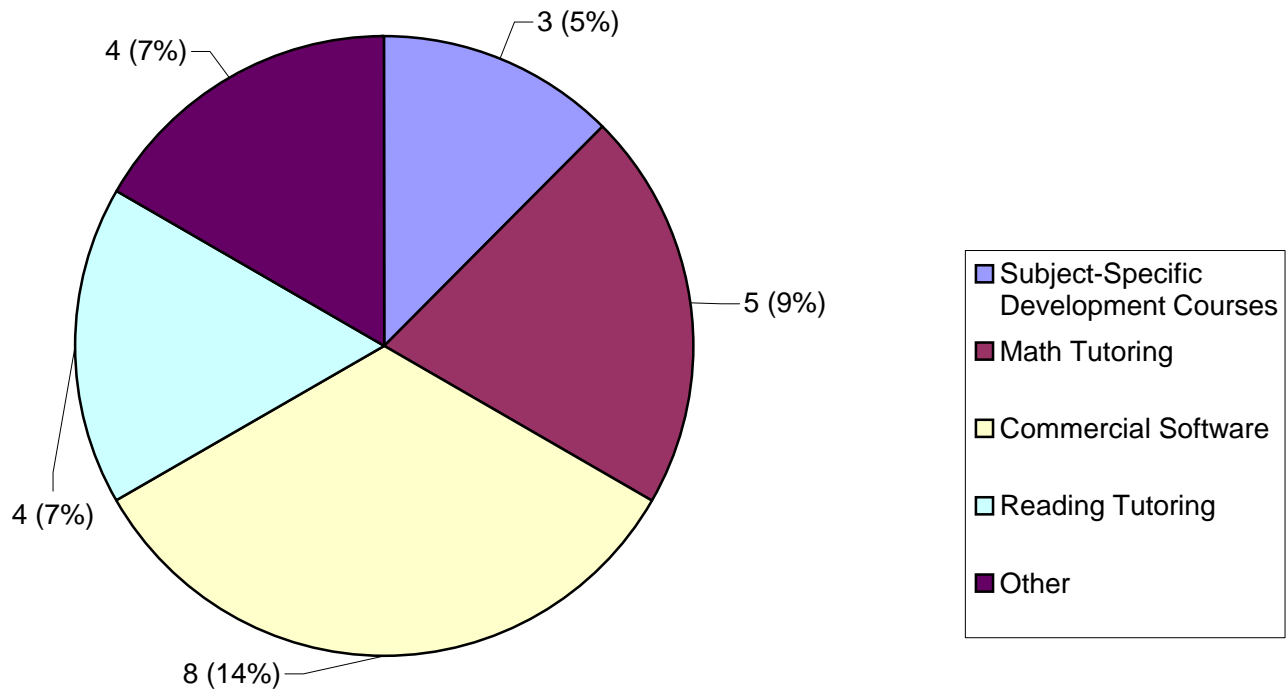
Figure 4.19: Most Successful Intervention: Shared-Time Schools

When asked, "What strategies have you implemented to align your reform issues with your sending school districts?" thirty-three (73.3%) reported integration of eligible content into technical competencies and/or projects, 29 (64.4%) reported they explicitly aligned assessment anchors with content in all program areas, 25 (55.6%) reported they explicitly aligned academic standards with content in all program areas, 13 (28.9%) reported they explicitly aligned all eligible content in all programs and three (6.7%) reported they have not implemented any strategies (see Figure 4.20).
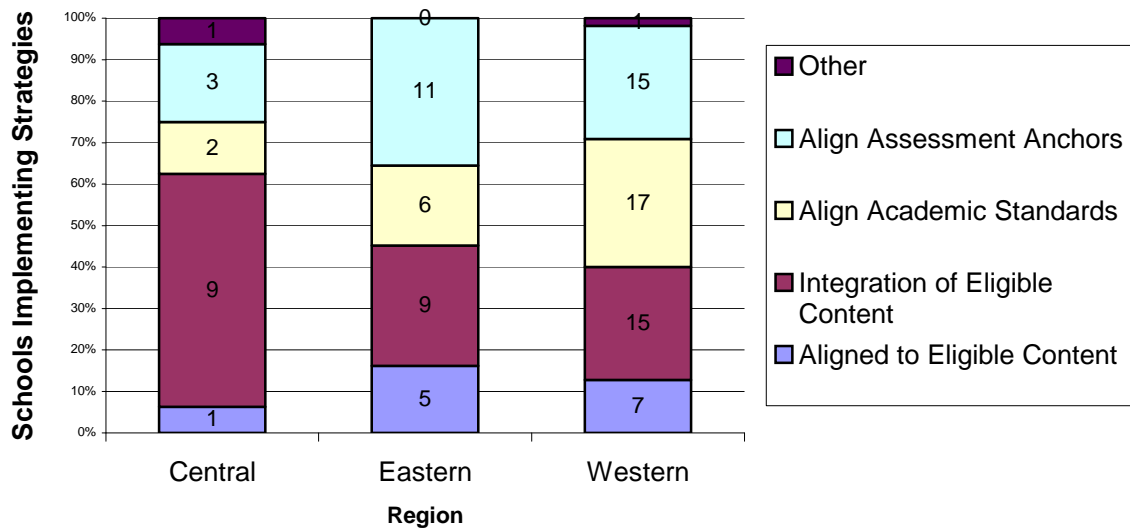
Figure 4.20: Strategies Implemented to Align Reform Efforts

Of the 13 comprehensive programs, five (24%) align all eligible content in all programs; six (28%) integrate eligible content into technical competencies and/or projects; three (14%) align academic standards with content in all programs; five (24%) align assessment anchors with content in all programs; and two (10%) provided other strategies (see Figure 4.21). The other responses included "shared responsibility through Regional Accountability Team, Corrective Action Planning, and Staff Development" and ". . . have not aligned our curriculum with the 14 sending schools." Due to the diversity in the number of schools reporting by region, it is difficult to determine the ratio of implemented strategies to schools.

	Aligned to Eligible Content	Integration of Eligible Content	Align Academic Standards	Align Assessment Anchors	Other
Central	0	2	0	0	1
Eastern	2	1	1	2	0
Western	3	3	2	3	1
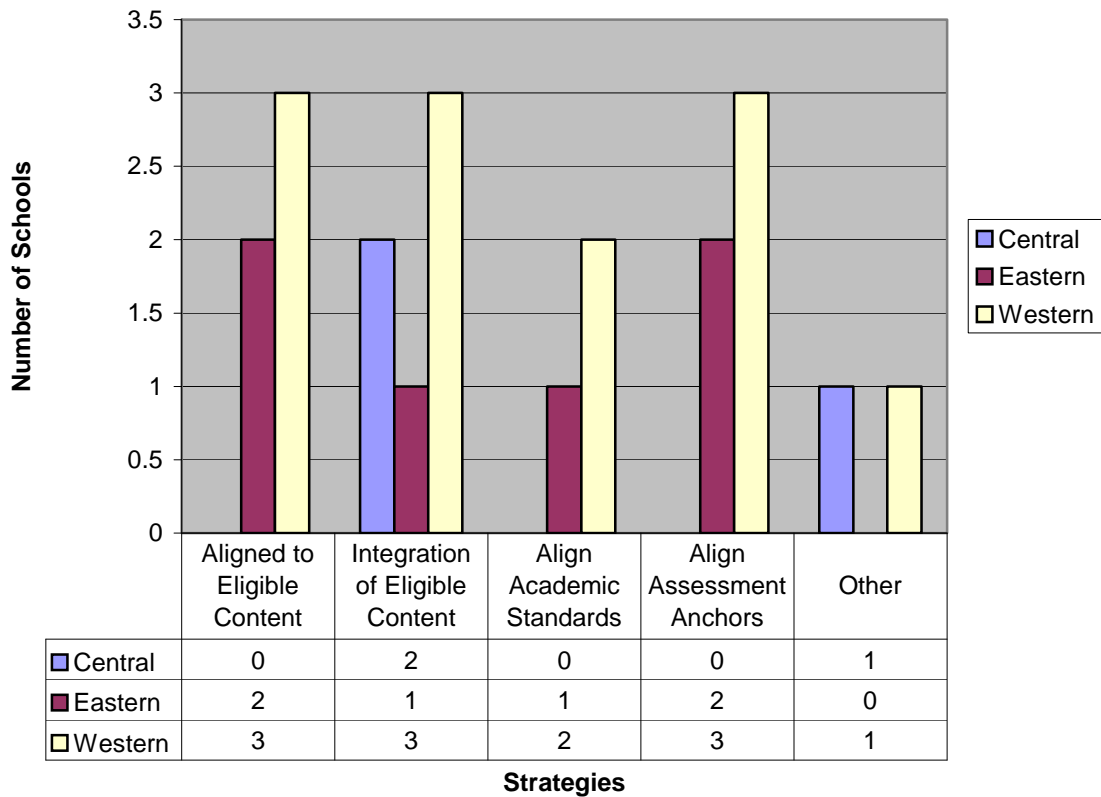
Strategies

Figure 4.21: Strategies Implemented to Align Reform Efforts: Comprehensive Schools

Eight (9%) of shared-time schools reported that they explicitly aligned all eligible content in all programs; 27 (36%) reported the integration of eligible content into technical competencies and/or projects; 22 (23%) reported they explicitly aligned academic standards with content in all programs; and 24 (29%) reported they explicitly aligned assessment anchors with all programs (see Figure 4.22).

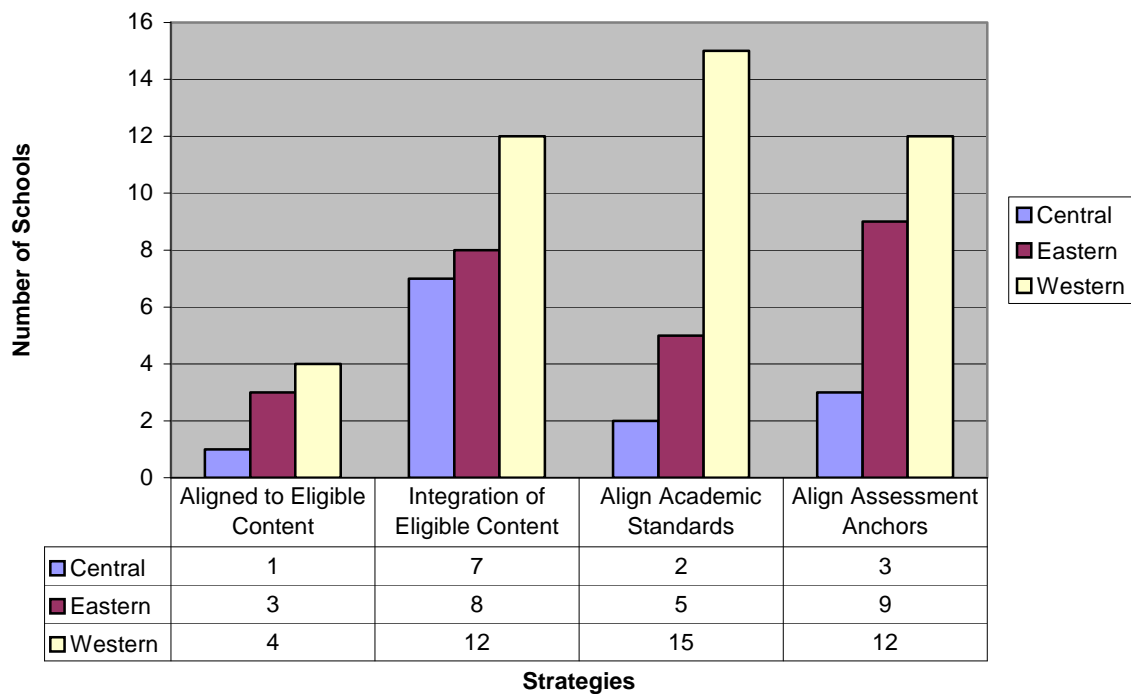| Strategies	Aligned to Eligible Content	Integration of Eligible Content	Align Academic Standards	Align Assessment Anchors
Central	1	7	2	3
Eastern	3	8	5	9
Western	4	12	15	12

Figure 4.22: Strategies to Align Reform Efforts: Shared-Time Schools

The majority of schools, regardless of type, have integrated the eligible content into technical competencies and/or projects

When asked the open-ended question, "How have you collaborated with your sending school districts to align school reform efforts?" responses were grouped onto four categories according to the similarities in responses. The four categories were: professional development collaboration, curriculum collaboration, little or no collaboration, and other. Four (12.5%) reported professional development collaboration, ten (31.3%) reported curriculum collaboration, 14 (43.8%) reported little or no collaboration, and four (12.5%) reported other types of collaboration efforts (see Figure 4.23).

Professional Development Collaboration	Curriculum Collaboration	Little/No Collaboration	Other Collaboration
4 (12.5%)	10 (31.3%)	14 (43.8%)	4 (12.5%)
Through in-services.	Working with curriculum office.	Not at this time	On individual student plans
Dozens of integration workshops, conferences and joint in-services.	Jointly planned math curriculum.	None	Encourage all students to schedule rigorous academic courses
Held joint in-service training with CTC instructors and home school academic instructors.	Scope and sequences planned with sending schools.	Home schools have little or no interest other than to push blame onto vocational school.	Through mutual admiration, communication, and joint committee work.
Common in-service topics.	Math and English departments collaboration.	Not much – topic comes up but it is more about them placing blame on us for "The Tech Kids."	Receive information on which students need extra help.
	Information sharing related to academic standards. Had math teachers from districts help align and identify standards.	No collaboration to date	
	Employee a curriculum coordinator.	Have not	
	Established a curriculum committee that has representation from all sending school districts.	Very little	
	Our current curriculum revision includes development of PA academic standards. Two math teachers offer daily PSSA practice problems. Our teachers have attended the Governor's institutes on math and reading.	Reform efforts for academic instruction are left to the academic educators in our sending districts	
		Currently working on	
	Align anchors in curriculum to address the need to improve upon PSSA scores.	Have been few opportunities – invited sending school principals and counselors to assist in reviewing/updating scope and sequence for each CTE program. They had very little interest	
	PSSA remediation testing.	Very little	
		None	
		No	
		No	

Figure 4.23: Collaboration with Sending Districts

Of the 13 comprehensive schools, none reported professional development collaboration, two (50%) reported curriculum collaboration, one (25%) reported little or no collaboration, and one (25%) reported other types of collaboration efforts (see Figure 4.24).
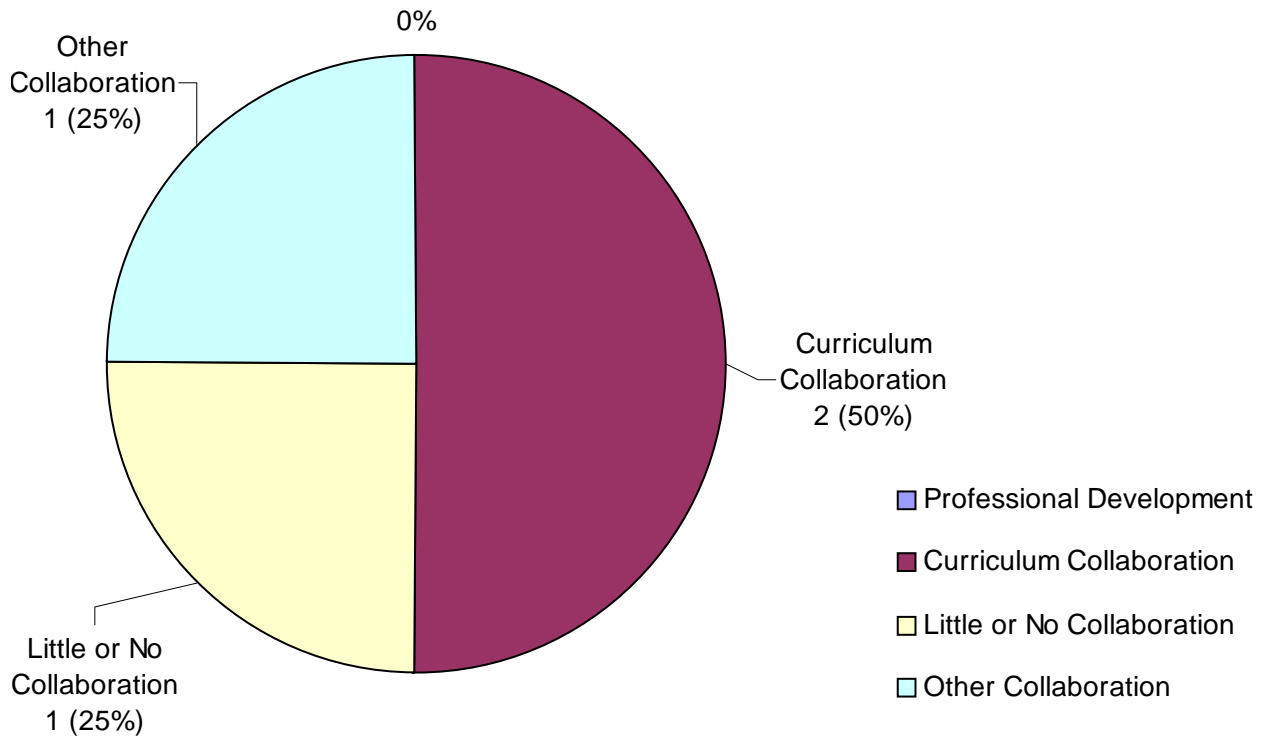

Figure 4.24: Percent of Collaboration with Sending Districts: Comprehensive Schools

Of the 58 shared-time schools, five (19%) reported professional development collaboration, six (22%) reported curriculum collaboration, 12 (44%) reported little or no collaboration, and four (15%) reported other types of collaboration efforts (see Figure 4.25).
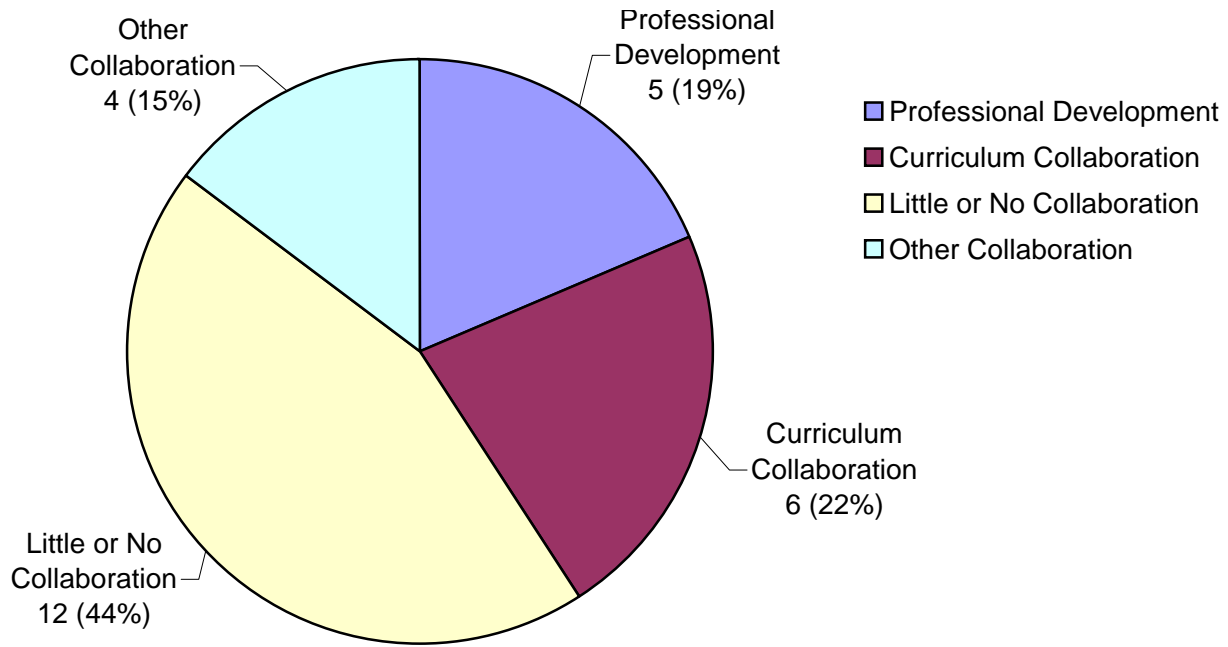
Figure 4.25: Percent of Collaboration with Sending Districts: Shared-Time Schools

Although the majority of comprehensive schools most frequently reported curriculum collaboration, both comprehensive and shared-time schools reported little or no collaboration with sending districts (25% and 44% respectively). A lower percentage of shared-time schools are collaborating with sending districts.

When asked the open-ended question, "What are the concerns that your sending school districts have expressed to you, regarding the academic performances of CTE students?" nine (23.1%) reported no concerns, while 30 (76.9%) reported concerns related to low PSSA test scores such as:

> *They are concerned that most CTC students are not motivated to do well and only want to come to the CTC where learning is fun.*
>
> *They say that because the students are sent here, they don't pass PSSAs.*

Sending school staff sometime questions the use of half of the school day to attend vocational training. This competes with PSSA preparation.

CTC students tend to have the lowest PSSA scores

The most frequently reported concerns focus on PSSA scores. Although vocational programs do not comprise a subgroup that is identified for districts meeting adequate yearly progress (AYP) on the PSSA, it is evident that career and technology centers must consider the needs of their sending districts or face a decline in enrollment.

4.2.4 Research Question #4

What is the role of CTCs in Pennsylvania in the high school reform initiatives of their sending school districts?

Responses to the survey related to strategies implemented to align reform issues, collaboration with sending school districts to align school reform efforts, concerns that sending school districts have expressed regarding academic performance of CTE students, and cultures implemented for reform.

When asked to rate what interventions were most successfully implemented based on their analysis of the PSSA, 25 (64.1%) reported math tutoring, 29 (74.4%) reported commercial software, 17 (43.6%) reported reading tutoring, and 12 (30.8%) reported subject specific developmental course (see Figure 4.26).
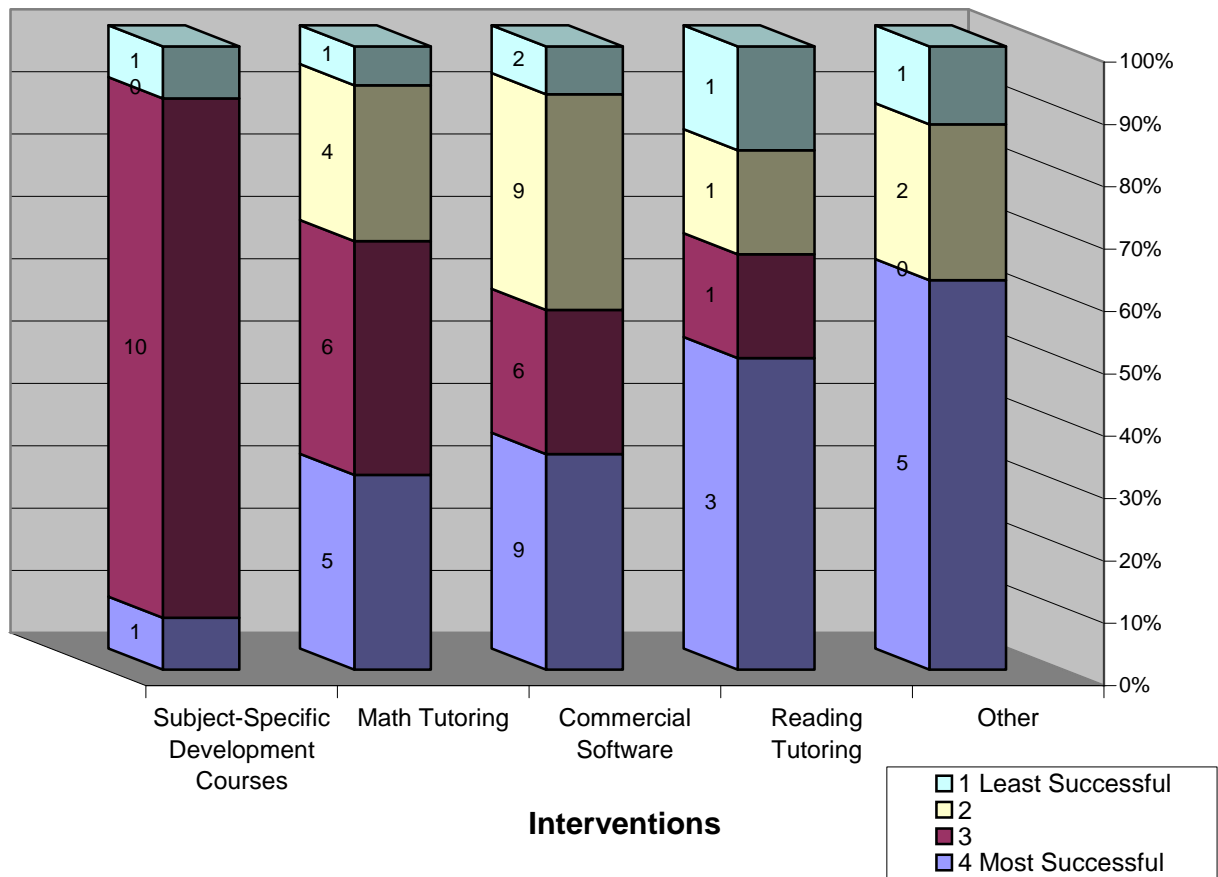
Figure 4.26: Interventions Success Rate

Of the 13 comprehensive schools, one (7.6%) selected commercial software programs as the most successful; one (7.6%) selected subject-specific developmental courses as most successful; and two (15.4%) added other options as the most successful. These strategies included "differentiated instruction" and "hiring retired math teachers" to target tutoring efforts. Both of these other options could be aligned with tutoring or subject-specific developmental courses (see Figure 4.27).
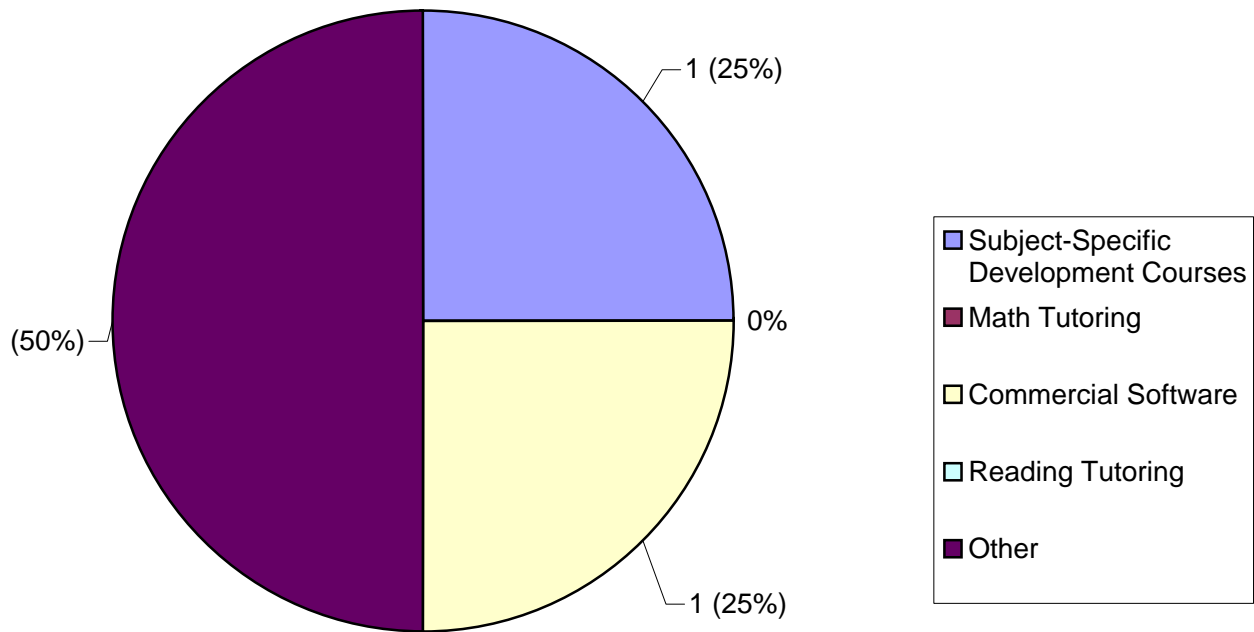
Figure 4.27: Most Successful Interventions: Comprehensive Schools

Of the 58 shared-time schools, eight (13.79%) selected commercial software programs as the most successful; three (5.1%) selected subject-specific developmental courses as most successful; five (8.6%) selected math tutoring programs; four (6.8%) selected reading tutoring programs; and four (6.8%) selected unspecified tutoring programs. Among the open-ended responses, two shared-time schools indicated that PSSA interventions are the obligation of sending school districts. "PSSA interventions are the responsibility of the sending schools. Our CTC does not provide any such assistance." (See Figure 4.28)
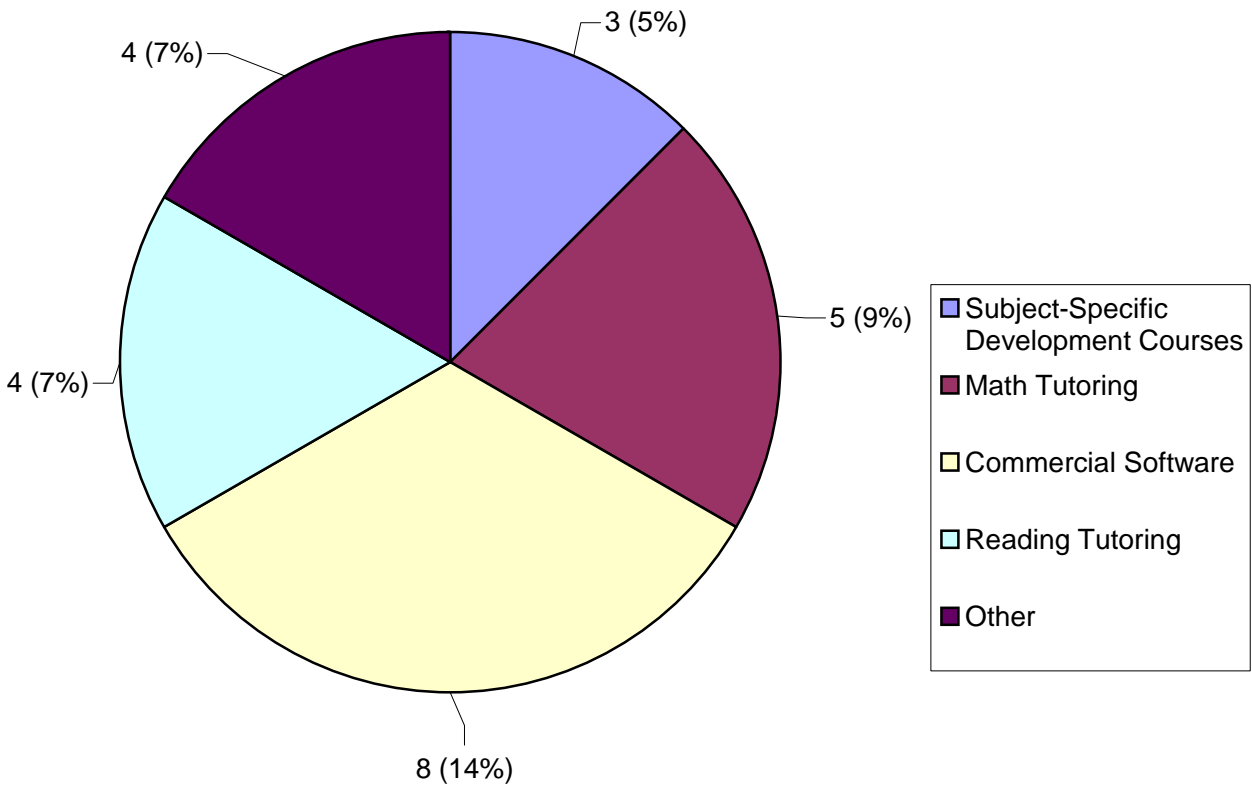
Figure 4.28: Most Successful Interventions: Shared-Time Schools

When asked what strategies they have implemented to align their reform issues with their sending school districts, 33 (73.3%) reported integration of eligible content into technical competencies and/or projects, 29 (64.4%) reported they explicitly aligned assessment anchors with content in all program areas, 25 (55.6%) reported they explicitly aligned academic standards with content in all program areas, 13 (28.9%) reported they explicitly aligned all eligible content in all programs, and three (6.7%) reported they have not implemented any strategies (see Figure 4.29).
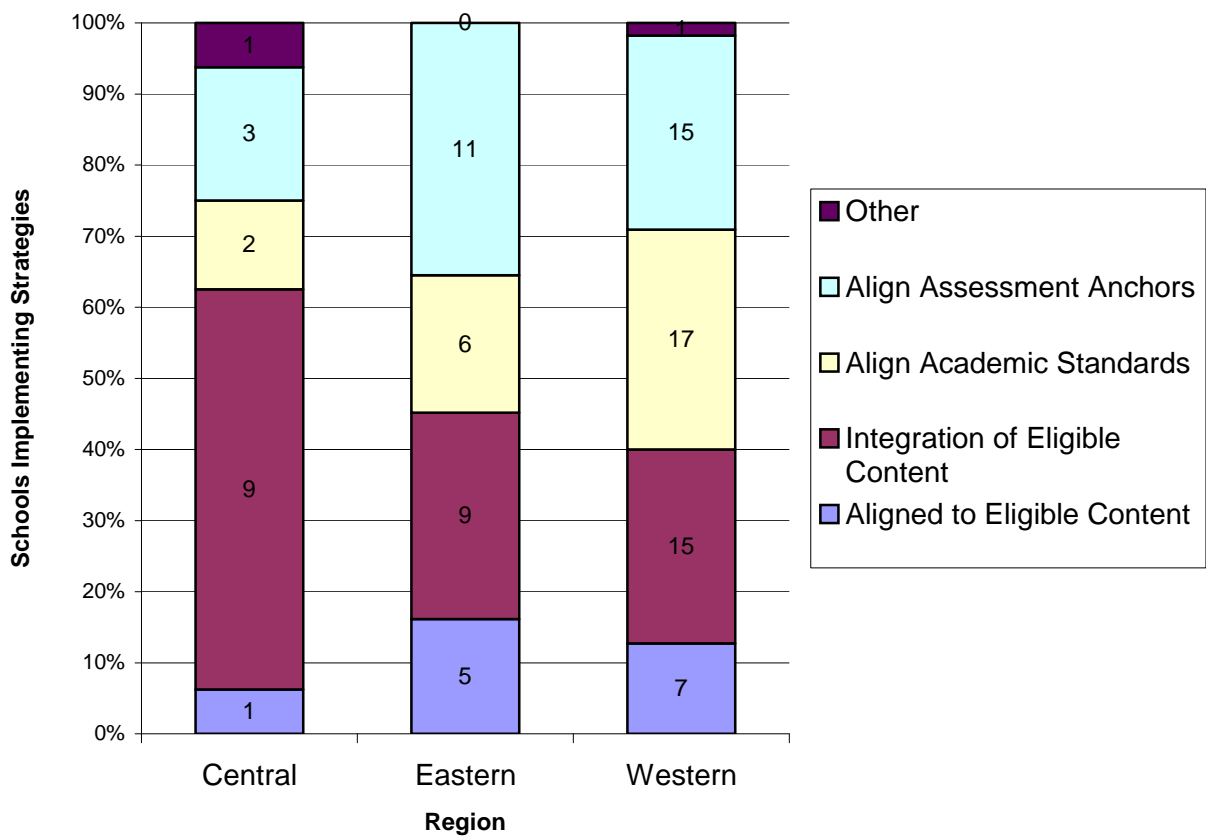
Figure 4.29: Strategies Implemented to Align Reform Efforts

Of the 13 comprehensive programs, five (24%) align all eligible content in all programs; six (28%) integrate eligible content into technical competencies and/or projects; three (14%) align academic standards with content in all programs; five (24%) align assessment anchors with content in all programs; and two (10%) provided other strategies (see Figure 4.31). The other responses included "shared responsibility through Regional Accountability Team, Corrective Action Planning, and Staff Development" and ". . . have not aligned our curriculum with the 14 sending schools." (See Figure 4.30)

	Aligned to Eligible Content	Integration of Eligible Content	Align Academic Standards	Align Assessment Anchors	Other
Central	0	2	0	0	1
Eastern	2	1	1	2	0
Western	3	3	2	3	1
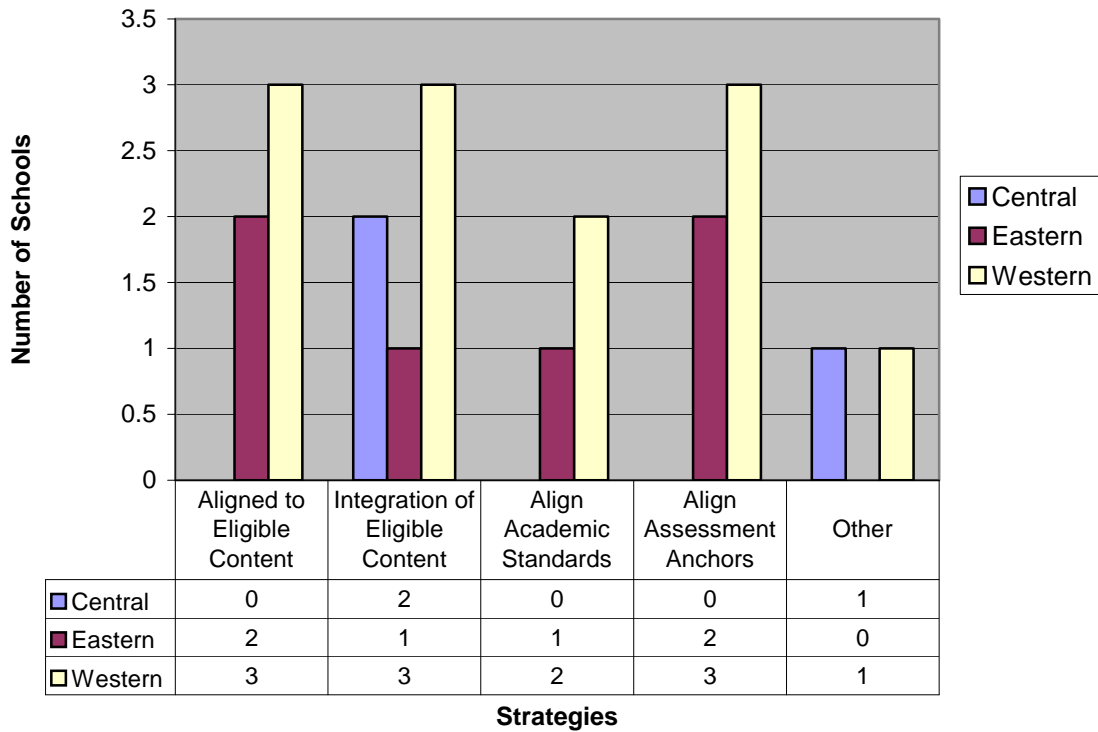
Strategies

Figure 4.30: Strategies Implemented to Align Reform Efforts: Comprehensive Schools

Eight (9%) shared-time schools reported that they explicitly aligned all eligible content in all programs; 27 (36%) reported the integration of eligible content into technical competencies and/or projects; 22 (23%) reported they explicitly aligned academic standards with content in all programs; and 24 (29%) reported they explicitly aligned assessment anchors with all programs (see Figure 4.31).

	Aligned to Eligible	Integration of Eligible	Align Academic	Align Assessment
Central	1	7	2	3
Eastern	3	8	5	9
Western	4	12	15	12
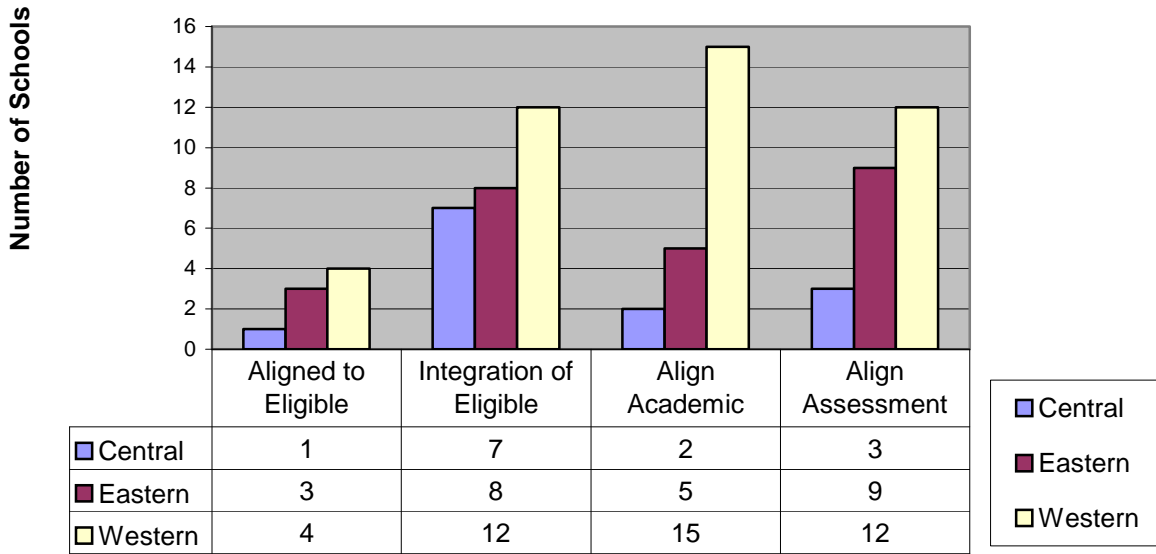
Figure 4.31: Strategies to Align Reform Efforts: Shared-Time Schools

When asked, "How have you created a culture for reform efforts in your school?" thirty-five (67.3%) reported developing a shared vision among the school; 15 (28.8%) reported developing a learning community; and two (3.8%) open-ended responses focused on communication including parent participation on committees and collaborative discussions with educators in our districts (see Figure 4.32).

	Shared Vision	Learning Community	Communication
☐ Western	16	6	1
■ Eastern	7	6	1
☐ Central	7	3	0
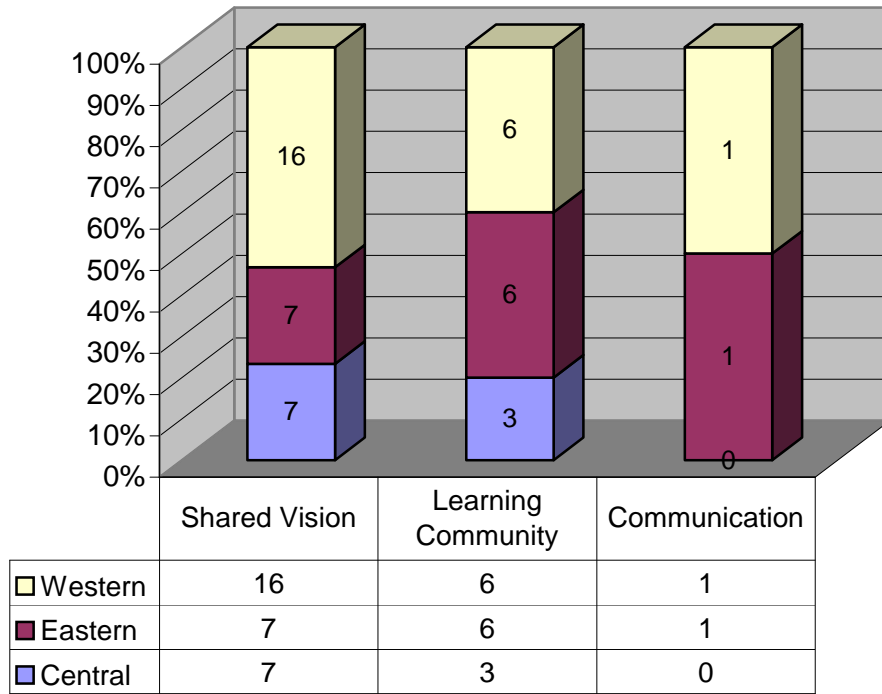
Figure 4.32: Culture for Reform Efforts

When asked the open-ended question, "How have you collaborated with your sending school districts to align school reform efforts?" responses were grouped into four categories according to the similarities in responses. The four categories are: professional development collaboration, curriculum collaboration, little or no collaboration, and other. Four (12.5%) reported professional development collaboration, ten (31.3%) reported curriculum collaboration, 14 (43.8%) reported little or no collaboration, and four (12.5%) reported other types of collaboration efforts (see Figure 4.33).

Professional Development Collaboration 4 (12.5%)	Curriculum Collaboration 10 (31.3%)	Little/No Collaboration 14 (43.8%)	Other Collaboration 4 (12.5%)
Through in-services.	Working with curriculum office.	Not at this time	On individual student plans
Dozens of integration workshops, conferences and joint in-services.	Jointly planned math curriculum.	None	Encourage all students to schedule rigorous academic courses
Held joint in-service training with CTC instructors and home school academic instructors.	Scope and sequences planned with sending schools.	Home schools have little or no interest other than to push blame onto vocational school.	Through mutual admiration, communication, and joint committee work.
Common in-service topics.	Math and English departments collaboration.	Not much – topic comes up but it is more about them placing blame on us for "The Tech Kids."	Receive information on which students need extra help.
	Information sharing related to academic standards. Had math teachers from districts help align and identify standards.	No collaboration to date	
	Employee a curriculum coordinator.	Have not	
	Established a curriculum committee that has representation from all sending school districts.	Very little	
	Our current curriculum revision includes development of PA academic standards.	Reform efforts for academic instruction are left to the academic educators in our sending districts	
	Two math teachers offer daily PSSA practice problems. Our teachers have attended the Governor's institutes on math and reading.	Currently working on	
	Align anchors in curriculum to address the need to improve upon PSSA scores.	Have been few opportunities – invited sending school principals and counselors to assist in reviewing/updating scope and sequence for each CTE program. They had very little interest	
	PSSA remediation testing.	Very little	
		None	
		No	
		No	

Figure 4.33: Collaboration with Sending Districts

Of the 13 comprehensive schools, none reported professional development collaboration, two (50%) reported curriculum collaboration, one (25%) reported little or no collaboration, and one (25%) reported other types of collaboration efforts (see Figure 4.34).
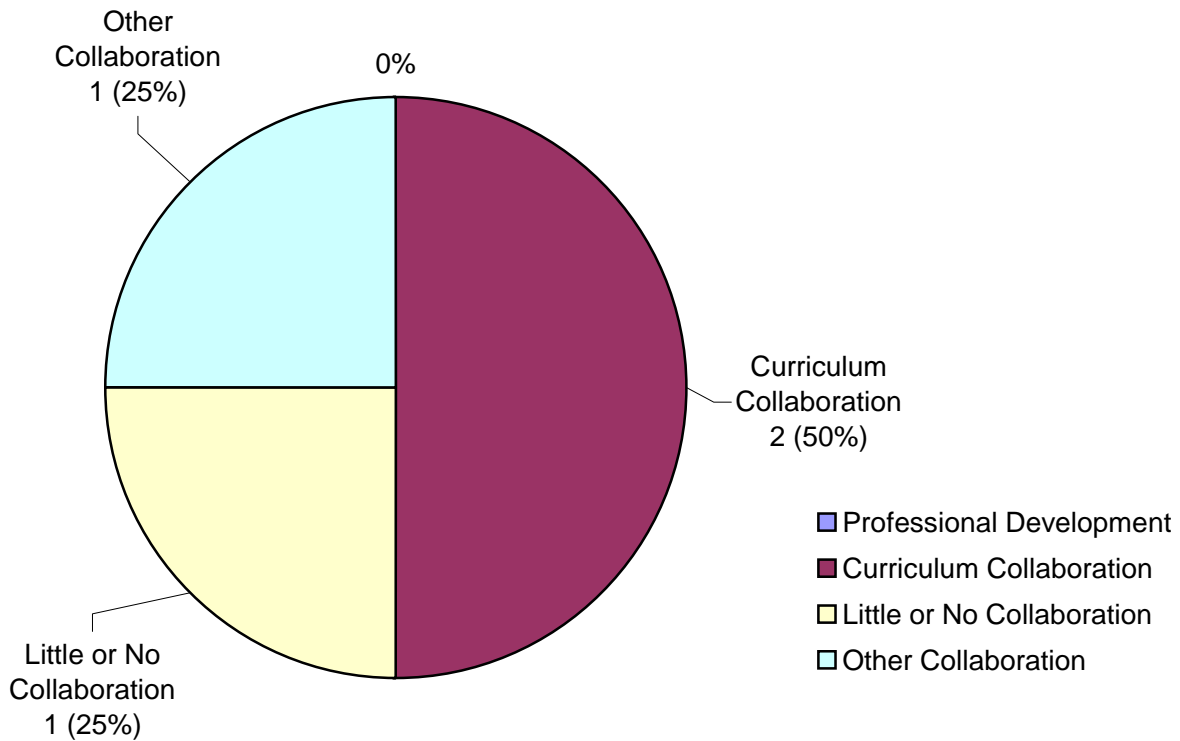

Figure 4.34: Percentage of Collaboration with Sending Districts: Comprehensive Schools

Of the 58 shared-time schools, five (19%) reported professional development collaboration, six (22%) reported curriculum collaboration, 12 (44%) reported little or no collaboration, and four (15%) reported other types of collaboration efforts (see Figure 4.35).
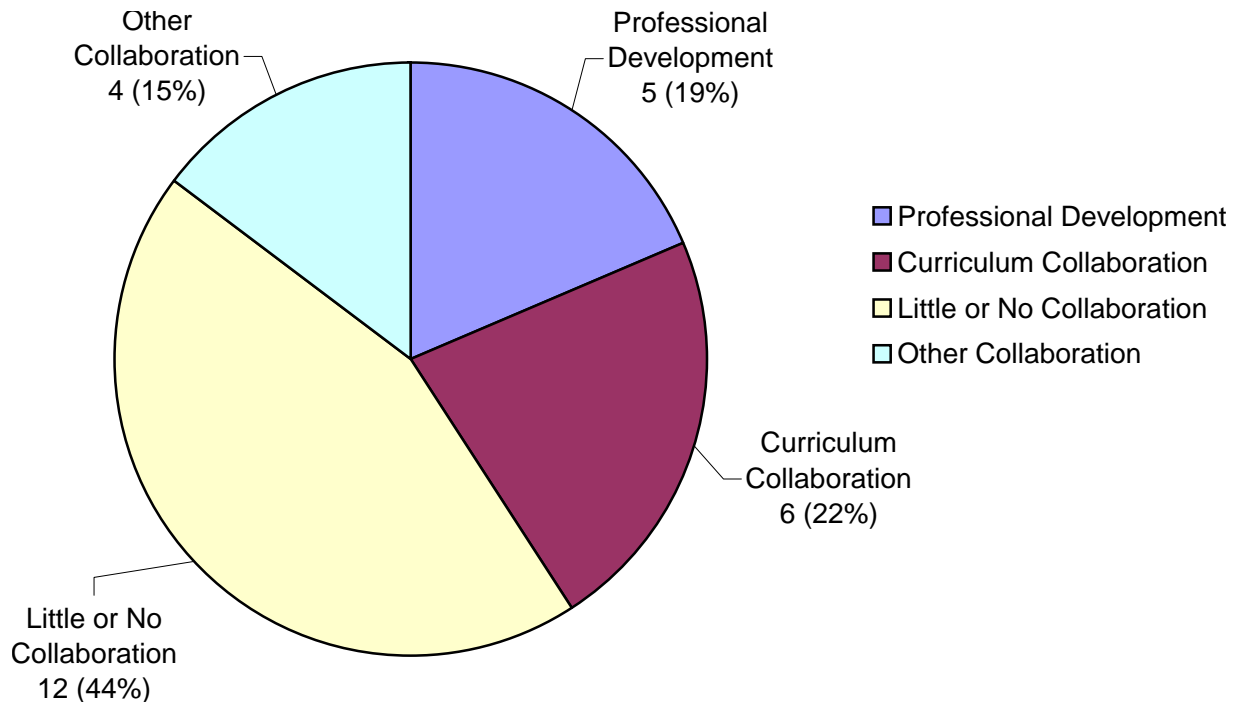
Figure 4.35: Percentage of Collaboration with Sending Districts: Shared-Time Schools

When asked the open-ended question, "What are the concerns that your sending school districts have expressed to you regarding the academic performances of CTE students?" nine (23.1%) reported no concerns, while 30 (76.9%) reported concerns related to low PSSA test scores such as:

> *They are concerned that most CTC students are not motivated to do well and only want to come to the CTC where learning is fun.*
>
> *They say that because the students are sent here, they don't pass PSSAs.*
>
> *Sending school staff sometime questions the use of half of the school day to attend vocational training. This competes with PSSA preparation.*
>
> *CTC students tend to have the lowest PSSA scores*

4.3   SUMMARY OF FINDINGS

This chapter presents the results of a study of career and technical education in high school reform, in the 81 career and technology centers in the Commonwealth of Pennsylvania, which are jointly owned and operated by two or more sending school districts. The literature on high school reform initiatives, which also involves career and technology education (formerly vocational education), was studied. Some of the major trends revealed in the literature were the following:

1. Career and technology schools must take steps to further integrate secondary school reform efforts (Jobs for the Future Report, 2005).

2. Emphasis on high quality educational programs that integrate academic and vocational skills (CDPVEA, 1984).

3. Overall quality of vocational education is sound, but the legislation is weak (National Assessment of Vocational Education, 1989).

4. The most notable outcome of vocational education is the increased earning potential in the short and medium term. In other areas such as academic achievement, no impact is apparent (National Assessment of Vocational Education, 2004).

5. Current strategies for improving vocational education, such as integrating academic and vocational education, may be too vague and unfocused to have any impact (National Assessment of Vocational Education, 2004).

6. Schools in most respect are the same as they were in the nineteenth and twentieth century (Elmore, 2000).

Four research questions were developed from this literature:

Research Question One asked, "To what extent are career and technology schools in the Commonwealth of Pennsylvania actively engaged in collaborative academic reform efforts with their sending school districts?" The researcher analyzed data derived from the electronic survey concerning type of school, strategies implemented to align reform issues with sending districts, and collaboration with sending school districts to align school reform efforts.

Research Question Two asked, "Are comprehensive career and technology schools in Pennsylvania more actively engaged in reform efforts than shared time schools? If so how?" Survey responses were analyzed relating to the type of school (comprehensive or shared-time), types of interventions implemented, and obstacles faced in implementing reform efforts.

Research Question Three asked, "How do career and technology schools in Pennsylvania align their reform efforts with their sending schools efforts?" Survey responses were analyzed relating to levels of PSSA scores obtained, interventions implemented based on analysis of PSSA scores, strategies implemented to reform issues with sending school districts, collaboration with sending school reform efforts, and concerns expressed by sending school districts.

Lastly, Research Question Four asked, "What is the role of CTCs in Pennsylvania in the high school reform initiatives of their sending school districts?" The researcher answered this question by analyzing the responses of survey participants concerning strategies implemented to align reform issues, collaboration with sending school districts to align school reform efforts, concerns that sending school districts have expressed regarding academic performance of CTE students, and cultures implemented for reform.

Of the 81 recipients, 71 responded for an 88% response rate. Despite the outstanding overall response rate, several respondents skipped one or more questions. The researcher

speculates, based upon his years of experience in career and technology education, that many of the twenty-three people who skipped question four do not collect PSSA scores, many of the thirty-two people who did not respond to question five either do not collect PSSA data or do not implement interventions based on collected PSSA data, many of the twenty-six people who did not respond to question seven did not understand the question, many of the thirty-one people who did not answer question eight do not collaborate with their sending school districts to align reform efforts, many of the thirty-two people who did not answer question nine do not align reform efforts with their sending school districts, many of the twenty-seven people who did not answer question ten did not understand the question, and many of the twenty-eight people who did not answer question eleven have not created a culture for reform efforts in their schools.

Even though the response rate to certain questions was low, the data collected raise important questions that can help policymakers and educators in the Commonwealth of Pennsylvania understand where career and technology centers stand in regard to high school reform efforts.

One of the most significant findings from this study was the lack of communication in this sample of career and technology schools and their sending school districts in regard to implementing reform efforts. As previously stated, 25 percent of comprehensive schools and 44 percent of shared-time schools reported little or no collaboration with their sending districts. An additional 44 percent of respondents did not answer the question, which leads the researcher to speculate that they do not collaborate with their sending school districts to align reform efforts. As stated in the literature review seldom do we hear about reform in CTCs; however, these schools are expected to take an active role in the overall reform efforts. Career and technology schools and their sending districts would benefit by instituting policies to reduce the lack of

communication, collaboration in professional development activities, and active participation in meetings that impact students' progress in school.

The literature tells us that schools should adopt more rigorous and measurable standards and higher academic performance (National Commission on Excellence in Education, 1983). However, the results of the study show that 40 (77%) of shared-time schools and 8 (69%) of comprehensive schools do not collect 8th and 11th grade PSSA scores as required by Chapter 339 regulations. Schools must obtain and analyze PSSA scores to develop actions plans to improve weak areas of instruction, in order to promote higher academic performance. Therefore, the Department of Education must enforce Chapter 339 regulations and require career and technology centers to collect and analyze PSSA data.

The researcher also found that comprehensive schools are more actively engaged in high school reform efforts. When considering the ratio of interventions to number of schools reporting, comprehensive schools have a 2:1 ratio while shared-time schools have a 1:1 ratio. The researcher believes that this is directly related to the fact that comprehensive schools are subject to adequate yearly progress, while shared-time schools are not. This puts comprehensive schools at a disadvantage. Depending upon the jointure agreement, some schools are grade ten, eleven, and twelve, while others are grades eleven and twelve. Therefore, a three-year school will have students for a maximum of seventeen instructional months, while two-year schools have students for approximately eight instructional months, opposed to years of instructional time districts enjoy. Therefore, policymakers must seriously consider how career and technology schools are evaluated for adequate yearly progress.

Although, both comprehensive and shared-time schools listed integration of eligible content as the most common strategy implemented to align reform efforts with sending school

districts, few report that they explicitly align eligible content (grade level skills that are assessed on the PSSA and aligned with the Pennsylvania Academic Standards and the PSSA). The literature tells us that, while American education has changed over the years, the struggle to find a balance between all of the competing forces related to schooling has not changed (Fenske, 997). Although shared-time vocational programs do not compromise a subgroup that is identified for districts meeting adequate yearly progress on the PSSA, the researcher stresses that career and technology schools must meet the needs of their sending districts or face a declined enrollment.

Overall, there is little collaboration between career and technology schools and their sending school districts. Twenty-five percent of comprehensive schools and forty-four percent of shared-time schools reported little or no collaboration with sending districts. In addition, forty-four percent of respondents did not answer the question, which leads the researcher to believe that they do not collaborate with their sending school districts to align reform efforts.

As stated in the literature, the Department of Education must provide a strong and consistent voice about the role of career and technical education (Jobs for the Future, 2005). Forty-three percent of comprehensive and shared-time schools identified money and time as the greatest obstacles to reform efforts, while another thirty percent list a combination of obstacles, also including money and time. Due to the common obstacles cited in the research, the Department of Education must do a better job in providing state leadership and capacity to schools to overcome these obstacles and develop high-quality career and technical education courses as specified in the *Jobs for the Future (2005)* report.

Comprehensive career and technology schools are defined as full-time programs where students receive both their basic and career and technical education. The response rate for comprehensive schools in this study was 13 of the possible 15, or 87% of comprehensive schools.

Comprehensive career and technology schools in the Commonwealth of Pennsylvania are more actively engaged in collaborative academic reform efforts with sending school districts than shared-time schools. This collaboration takes place in the form of curriculum development. This collaboration is most likely driven by the No Child Left Behind mandates which make full-day comprehensive schools subject to the same accountability as traditional academic high schools (NCLB, 2002).

Comprehensive schools are implementing twice the number of reform interventions as shared-time schools. This evidence of increased reform interventions answers the call established by *A Nation at Risk* (National Commission on Excellence in Education, 1983), which states, "We recommend that schools, colleges, and universities adopt more rigorous and measurable standards, and higher expectations, for academic performance and student conduct" (p. 27).

Not until No Child Left Behind have schools been encouraged to actively engage in systematic and systemic reform in order to meet national goals (Webb, 2003). Comprehensive schools have systematically and systemically aligned reform efforts with sending districts with the integration of eligible content (grade level skills that are assessed on the PSSA and aligned with the Pennsylvania Academic Standards and the PSSA) in all programs.

According to the *Jobs for the Future Report* (2005), career and technical education in Pennsylvania faced a dual challenge to prepare students for the 21st Century and the new knowledge economy (Jobs for the Future Report, 2005). Three years later, the same holds true.

While comprehensive schools are held to the same accountability mandates, it is interesting to note that one out of every two schools do not collect and analyze PSSA data.

Shared-time career and technology schools are defined as part-time programs where students are provided specialized instruction in career and technical education. The response rate for shared-time schools in this study was 58 of the possible 61, or 82% of shared-time schools.

While shared-time schools share their students with sending school districts, there is less collaboration among them than between comprehensive schools and their sending districts. This echoes the finding of the *Jobs for the Future Report* (2005), which states that there is, "no consistent message being delivered in regard to the role of high-quality career and technical education" (p. 62) and "career and technical education also must meet or exceed academic expectations and standards required of all students" (p. 2). In addition, a lack of collaboration is further demonstrated by the number of shared-time schools that do not receive their students' PSSA scores.

With this in mind, it is alarming to learn that shared-time schools rarely engage in reform efforts with their sending school districts. According to Sizer (1984), "The game of learning is won or lost in the classroom" (p. 5). Not only do they rarely engage in reform efforts, they are implementing half the number of interventions as comprehensive schools.

The collaboration that does take place in shared-time schools comes in the form of professional development. The literature on professional development identifies that in order for teaching and learning to happen, principals must create learning communities within their schools (Hallinger & Heck, 2000; Leithwood, 1996). With this in mind, career and technology education (CTE) administrators should focus on increasing reform efforts with their sending school districts.

Another form of collaboration between shared-time schools and sending districts is the integration of eligible content (grade level skills that are assessed on the PSSA and aligned with the Pennsylvania Academic Standards and the PSSA) in all programs. By integrating eligible content, shared-time schools are preparing students for their annual standardized assessment, as required by No Child Left Behind. In addition, this addresses one component of the Carl D. Perkins Vocational and Technical Education Act of 2006, which emphasizes high-quality educational programs that integrate academic and vocational skills.

Shared-time schools are implementing half the interventions that comprehensive schools implement. Of the interventions implemented, commercial software applications are the most commonly implemented intervention in Eastern and Western Pennsylvania's shared-time schools, while math interventions are the most common format of intervention provided in Central Pennsylvania's shared-time schools. The diversity of these interventions will support students' academic growth measured by the PSSA.

In summary, this study helped to unveil problems between career and technology schools and the overall high school reform efforts of their sending school districts. It is clear that career and technology schools in the commonwealth are engaged in reform efforts; however, their engagement level and styles vary.

5.0   DISCUSSION AND IMPLICATIONS

This chapter includes two sections: discussion and recommendations for further research.

5.1   DISCUSSION

In order for true high school reform to happen there should be a reciprocal relationship between the career and technology school and their sending school districts. Although many school districts would claim they do indeed work collaboratively with their career and technology schools, the findings of this study indicate that that the two different cultures have not communicated well about educational reform. This study includes evidence that this lack of communication and collaboration has been present for years. One may speculate that this has occurred due to the ever-changing world we live. When area vocational-technical schools (now known as career and technology centers) were established in the sixties the cultural expectation was to graduate from high school and seek employment in factories and mills opposed to the notion in our current culture that in order to be successful one must go to college to become a doctor or lawyer. Because of this dichotomy school boards and superintendents gain prestige based upon the number of students who go on to higher education schools, not how may students become gainfully employed in a trade they learned at the career and technology center.

Unlike traditional academic schools, students who attend career and technology schools do so out of choice. This often creates a disconnect between the home school and the career and technology school, thus creating a systemic stalemate. Career and technology schools have been engaged in a battle of perception for years. Perhaps this battle results from academic and career and technology educators operating in two different systems opposed to one. For example, vocational directors do not have the same authority as superintendents do despite the similarities in their job duties. Academic educators seem to think less of vocational educators and vice versa. Due to the systemic etiology of this issue, it would require a systemic change to rectify this situation. This is not unlike other systemic issues in society that continue to be problematic, consequently we get comfortable with the problem and thus less attention is emphasized on correcting it. School district superintendent's have the responsibility to facilitate this type of systemic change; however, one may speculate that in today's culture of college equals success, that is not likely to happen. Despite this cultural barrier, superintendents and career and technology directors should work collaboratively in order to provide students with diverse educational options, which empower students to choose according to their individual proclivities.

5.2   RECCOMMENDATONS FOR FURTHER STUDY

From this study, the following recommendations for future research can be drawn if the same study were to be repeated:

1. Use more open-ended response questions to learn more about the system issues that undermine collaboration and communications between career and technology schools and their sending districts. There would have been a benefit to asking questions about why

they felt their sending school districts did or did not effectively communicate with the career and technology school.

2. Do a limited number of interviews with directors from each geographical region of the Commonwealth in order to obtain additional information that may not be obtainable from the electronic survey such as why they feel they have good or bad communications with their sending school districts.

TO: Vocational Director

FROM: Darby L. Copeland, Doctoral Candidate
                  College of Education
                  University of Pittsburgh

DATE: December 4, 2007

You are being asked to participate in a graduate research study. The purpose of this study is to explore how regional vocational education programs in Pennsylvania are integrating the school reform agenda as defined by No Child Left Behind.

This study was designed to complete the dissertation requirements for the doctoral degree in K-12 administration and leadership. You were selected as a participant for this study because you are the director of a regional vocational school in Pennsylvania.

There is no financial compensation for participating in the study. If you elect to participate in this study, you will be asked to log into the survey system. The system will be available 24 hours a day, seven days a week from December 4, 2007 to December 23, 2007.

The researcher expects that it will take approximately 10-15 minutes to complete the on-line survey. The survey asks for general demographic information and for specific information related to the reform efforts in your school.

The information from this survey will be published in a dissertation. For your protection and to minimize any risk associated with participation in this study, the identities of respondents will not be tracked. Neither your name, nor your institution's name, nor any other identifying information will appear in the data or the finished manuscript. Only the researcher will have access to this information.

Thank You,

Darby L. Copeland
Darby08@sbcglobal.net

http://www.surveymonkey.com/s.aspx?sm=maRy_2bXUgNRuHUx4j17EXIA_3d_3d

Career and Technical Education In High School Reform

1. Demographic Information

1. Where is your school located?
- ⚪ Eastern Pennsylvania
- ⚪ Western Pennsylvania
- ⚪ Central Pennsylvania

2. Is your school comprehensive or shared time?
- ⚪ Comprehensive School
- ⚪ Shared Time School

3. How many sending school districts attend your school?
[ ]

2. Student Achievement

4. What grade level PSSA scores do you receive from your sending school districts?
- ⚪ 8th Grade Only
- ⚪ 11th Grade Only
- ⚪ 8th and 11th Grade
- ⚪ None

5. What interventions do you implement based on your analyses of the PSSAs?
- ☐ Reading Tutoring
- ☐ Math Tutoring
- ☐ Subject Specific Developmental Courses
- ☐ Commercial Software (Keys@Work, Study Island, etc.)

6. What interventions have been most successful? Please rate the interventions.

	1. Least Successful	2.	3.	4. Most Successful
Reading Tutoring	⚪	⚪	⚪	⚪
Math Tutoring	⚪	⚪	⚪	⚪
Subject Specific Developmental Courses	⚪	⚪	⚪	⚪
Commercial Software	⚪	⚪	⚪	⚪
Other	⚪	⚪	⚪	⚪

Other (please specify)
[ ]

7. What strategies have you implemented to align your reform issues with your sending school districts?
- ☐ Explicitly align all eligible content in all programs.
- ☐ Integration of eligible content into technical competencies and/or projects.
- ☐ Explicitly align academic standards with content in all programs.
- ☐ Explicitly align assessment anchors with content in all programs.
- ☐ Other (please specify)
[ ]

8. How have you collaborated with your sending school districts to align school reform efforts?

9. What are the concerns that your sending school districts have expressed to you regarding the academic performance of CTE students?

3. Reform

10. What obstacle(s) do you face in implementing reform efforts in your school?

☐ Financial Issues
☐ Personnel Issues
☐ Time
☐ All of The Above
☐ Other (please specify)

11. How have you created a culture for your reform efforts?

☐ Develped a Learning Community
☐ Developed a Shared Vision Among The School
☐ Other (please specify)

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