

**STUDENTS' VIEWS OF CAREER AND TECHNICAL EDUCATION:
A QUALITATIVE STUDY**

A Thesis
presented to
the Faculty of the Graduate School
at the University of Missouri-Columbia

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
ANGELA BROWDER

Dr. David Bergin, Thesis Advisor
AUGUST 2007

The undersigned, appointed by the dean of the Graduate School, have examined the [thesis or dissertation] entitled

STUDENT'S VIEWS OF CAREER AND TECHNICAL EDUCATION

presented by Angela Browder,

a candidate for the degree of Master of Arts and hereby certify that, in their opinion, it is worthy of acceptance.

Professor David Bergin

Professor Peggy Placier

Professor Norm Gysbers

ACKNOWLEDGEMENTS

I would like to thank Professor David Bergin for providing me with support and guidance throughout my research. Through my experiences working with him I learned a great deal about the research process and how to structure my writing and feel better prepared to move forward with research in the future.

I would also like to thank my thesis committee members who provided me with a lot of feedback on how to improve my research topic and gave me ideas to build on in future research studies.

A great amount of thanks goes to the schools sampled in this study. The director of the Area Career Center was very welcoming and open to my research topic allowing me to gain as much exposure to career and technical education and their students as I wanted. Without the ACC's interest in my study this research would not have been possible. I also want to thank the local high school that allowed me access to a few students even though they had very demanding schedules. Gaining insight from Advanced Placement students creating an interesting element to my study that I have found very valuable.

Finally, I thank the University of Missouri-Columbia's campus IRB who approved my research study

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	iv
ABSTRACT	v
Chapter	
1. INTRODUCTION	1
Purpose and Research Questions	2
2. LITERATURE REVIEW	5
History of Career and Technical Education	5
Career and Technical Education Research	9
Sources of Influence	13
Cultural Capital	14
3. METHOD	20
Site Information	20
Participant Information	23
Procedure	25
Data Analysis	25
4. FINDINGS	28
Student's Views of CTE	36
Sources of Influence	43
Cultural Capital and Views of CTE	51
5. SUMMARY AND DISCUSSION	54
REFERENCES	60
APPENDICES	62
Appendix A: Recruitment Forms	63
Appendix B: Interview Questions	67
Appendix C: Supplemental Tables	76

LIST OF TABLES

Table	Page
1. Participants' High School Courses.....	23
2. Participants' Future Plans.....	24
3. Parents' Education.....	24
4. Parents' Occupation	24
5. Career Clusters, Missouri Public Schools.....	76
6. City Demographics.....	77
7. Codes.....	78

ABSTRACT

The current study addresses students' views of career and technical education at an Area Career Center in mid Missouri. Newer programs that combine career and technical education courses with traditional high school instruction can benefit students in allowing them to connect their academic training with real world careers and practical concepts. This study looks at students' perceptions of CTE, the sources of influence they reported on their decisions to take or not take CTE courses in high school and the role cultural capital played in their views.

Utilizing a qualitative method of data collection eight high school seniors enrolled in either CTE only classes, AP only classes or a combined CTE and AP course load were interviewed about their views of CTE at the local area career center. All of the students were white and there were four boys and four girls interviewed in the study.

Results show that all students in the study associated CTE with some form of hands on education, with students enrolled in CTE courses reacting more favorably to CTE instruction and its connection to careers and occupations. The most significant influences on students' decisions to take or not take CTE classes were their future academic or career goals and how CTE knowledge would or would not help them. Other reported influences include teachers, family members and personal experiences. Finally, the role of cultural capital in students' views of CTE is explored reaching the conclusion that more data and analysis is needed to find more arguable claims.

CHAPTER 1: Introduction

In this study, I interview high school students in order to understand their thoughts on career and technical education programs in high school. One reason why this is important is that according to a 2002 survey by the U.S. Chamber of Commerce Center to Workforce Preparation, nearly 75 percent of employers report difficulty when trying to hire qualified workers. Forty percent say that applicants are poorly skilled and 30 percent say that applicants have the wrong skills for available jobs (*The Association for Career and Technical Education (ACTE)* www.acteonline.org). I believe this means that career and technical education can play a vital role in helping promote this environment and help students succeed through hands on education coupled with challenging high school curriculum.

The current high school curriculum in the United States faces challenges with the No Child Left Behind legislation that mandates a standards-based education. This initiative makes career and technical education harder to promote in public schools because CTE courses are elective classes. It rests on the students to enroll themselves in courses that will provide them with the best preparation for post high school opportunities. In this study, I ask students about their attitudes toward CTE courses.

Research on comprehensive education programs suggests combining more rigorous forms of education, such as advanced placement (AP) with CTE (Association for Career and Technical Education, 2006; Stern, D., Dayton, C., Paik, I.-W., Weisberg, A., & Evans, J., 1988). Because of this I include students who are taking AP courses in this study to gauge their responses to CTE. While government statistics show that most high school students

take at least one “vocational” course in their high school careers such as typing or home economics (<http://www.ed.gov/about/offices/list/ovae/pi/cte/index.html>), it seems unfortunate that high school students do not pursue a more advanced career and technical education if it is available to them alongside their academic coursework. Students who are interested in a more academic route with AP courses can balance their studies with career and technical coursework. While benefits of career and technical education can appear obvious to some, it is not difficult to understand the rejection of this alternative form of education when at least a college degree is becoming a requirement for the majority of jobs.

Purpose and Research Questions

Newer programs that combine career and technical education courses with traditional high school instruction can benefit students in allowing them to connect their academic training with real world careers and practical concepts. Research on career and technical education in the U.S. has a history of highlighting the faults of CTE education such as not delivering on its promises and in some cases being a one-way ticket to a working class life (Claus, 1990). These out-dated reports are representative of Career and Technical Education programs in the older sense and not the newer, academically and career focused model being utilized in many high schools today.

There is little research on why students take their chosen classes in high school and how students connect their high school curriculum to their post high school decisions and careers. There is also little research on how social class might impact students’ views and use of career and technical education. In this study I addressed students' views of current high

school career and technical education programs in an Area Career Center (ACC) in Missouri. Area career centers fall under the umbrella of CTE housing career focused coursework and training in a separate building from local high schools. I investigated how students' reports of cultural capital seem to influence these views. I chose to conduct a qualitative study because qualitative research allows one to investigate the idiosyncratic meanings that people construct about their lived experience. I was able to pursue in-depth reasons that the students give for their decisions, and was able to use follow-up questions to elaborate on understandings.

The present study will address the following research questions:

Research Question 1: How do students who are enrolled in CTE or AP classes perceive CTE?

Research Question 2: What sources of influence do they report experiencing regarding academic versus CTE coursework?

Research Question 3: What role does cultural capital play in students' views of CTE coursework and their decisions to take or not take CTE classes in high school?

Limitations to the Study

There were a few limitations to my method of recruiting students and the transferability of the findings. First, there are over 1100 students from the high school enrolled in CTE classes at the Area Career Center so eight participants is not a very representative sample of students. However, qualitative research methods required that I keep my participant pool small. Second, at the local high school, I did not have as much control over the students selected for participation as I did at the ACC. the site counselor who helped me in my

recruitment process may have introduced bias into the process. Third, all of the participants were white and there were more males than females in CTE classes and more females than males in AP/Advanced classes. Also, the three AP students in this study were all interested in theatre, an area of study not offered at the ACC so there was probably a general feeling of lack of interest in CTE because no courses were offered in their specific area of interest.

Future qualitative studies would benefit from more diverse students from underrepresented populations. Also, because student recruitment took place in the spring, it was hard to recruit students, especially those enrolled in AP courses (either AP only or CTE/AP combined), because end of the year AP exams take place during the spring. Recruitment of students in the fall might create a wider participant pool.

CHAPTER 2: Literature Review

History of Career and Technical Education

Career and technical education began as vocational education in Europe in the 19th century in response to the increase in demand for skilled workers who were educated in industrialized professions. Other factors that influenced the birth of career and technical education include the interest traditional European elites had in their children receiving both an education as well as certification in skills. They wanted their children to gain access to positions in law and theology, and the middle class parents wanted their children to attain the necessary educational credentials to help them enter careers in the civil service or managerial positions (Benavot, 1983).

In the U. S., federal funding for career and technical education was initiated with the passing of the Smith-Hughes Act in 1917. Over the next 65 years and four modifications to the act in 1947, 1958, 1963 and 1968, career and technical education increased funding, expanded programs to improve in the areas of science, math, and foreign languages, offered support for technical occupations related to national defense, and included work study programs. In 1968, a National Advisory Council on Vocational Education was initiated to start collecting information about the progress and development of vocational education programs and students.

In 1984, the Vocational Education Act was renamed the Carl D. Perkins Vocational Education Act (Perkins I, P.L. 98-524). While continuing federal support for vocational education, it established programs emphasizing the acquisition of job skills through both vocational and technical education. The act also sought to make vocational education

programs accessible to “special populations,” including individuals with disabilities, disadvantaged individuals, single parents and homemakers, and incarcerated individuals.

The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 (Perkins II, P.L. 101-392) made several revisions to the 1984 Act. Notably, the act created the tech-prep program designed to coordinate secondary and postsecondary vocational education activities into a coherent sequence of courses. Programs to eliminate sex bias were designed to prepare students for nontraditional training and employment (e.g., training women to be welders or men to be nurses). Also, the law also required states to develop and implement performance standards and measures (e.g., program completion and job placement) to assess gains in learning and in program performance.

The Perkins Act of 1998 provided specific federal assistance for secondary and postsecondary vocational education (Skinner and Apling, 2005). The reauthorized 1998 Act also made modifications to performance standards and measures of the 1990 Act. A core set of performance indicators were included in the 1998 Act that resulted in sanctions if the level of performance was not reached or increased funding if performance exceeded the requirements. A key element of the 1998 Act was a greater focus on accountability with states required to “provide data for four core performance indicators focusing on: (1) student attainment; (2) credential attainment, (3) placement and retention, and (4) participation in and completion of non-traditional programs.” (CRS Report for Congress)

Under its most recent amendment in 2006, the Carl D. Perkins Act became the Carl D. Perkins Career and Technical Education Improvement Act. The 2006 amendment showed one of the most notable revisions to the act since it was established by replacing the term

‘vocational education’ with ‘career and technical education.’ This name change is especially significant in research on the influences student report in their decisions to take CTE classes because of the stigma associated with the word ‘vocational.’ ‘Vocational’ education resonates with many as being representative of vocational education in the traditional sense and not academically focused or resulting in a college degree or high status occupations the way career and technical education can be perceived. Changing the name could help change the image of CTE towards a viable and legitimate option for secondary schooling.

The 2006 revision also set in place a system of accountability to coincide with the No Child Left Behind Standards mandated for public education in the United States. Under this system of accountability, academic attainment and graduation rates of students enrolled in CTE at the secondary level will be measured. These new accountability measures create a greater need for research on how students perceive CTE in order to discover additional methods for recruiting new students and drawing greater attention from parents who steer their children towards a more college prep, academically focused course load. If students' decisions not to take CTE classes rests in their view that to go to college and be a doctor they have to take advanced high school classes and CTE doesn't look good on his transcript, administrators can use this information to create better recruitment methods. They can focus on educating students and parents on the goals of CTE and how these goals align with the traditional or advanced coursework.

The subject areas most commonly associated with career and technical education are the following: Agriculture (careers related to food and fiber production and agribusiness); Business (accounting, business administration, management, information technology and

entrepreneurship); Family and Consumer Sciences (culinary arts, management and life skills); Health Occupations (nursing, dental, and medical technicians); Marketing (management, entrepreneurship, merchandising and retail); Technology (production, communication and transportation systems); and Trade and Industrial (skilled trades such as automotive technician, carpenter, computer numerical control technician). One difficulty in defining career and technical education coursework is the existence of district regulated definitions on what qualifies as a CTE course and how many courses a student needs to take to be classified as a CTE student. In the state of Missouri, there are 16 career clusters (See Appendix C, Table 1).

“Career Clusters can give all students the academic preparation, guidance, career-related knowledge and flexibility to help them plan studies that are in line with their interests, abilities, and career goals. The Career Clusters framework offers a practical way for educators in all disciplines to create relevant contexts for their students' learning. At the same time, it reinforces the schools' fundamental objectives of academic accountability and improved achievement for all students.” (Source: Missouri Department of Elementary and Secondary Education, Division of Career Education

http://dese.mo.gov/divcareered/career_clusters.htm)

In response to the need for a redesigned educational system in U.S. public schools to fit the needs of the 21st century, the Association for Career and Technical Education (ACTE) compiled a report on their views of how the remodeled education system should look (Association for Career and Technical Education, 2006). The report proposes that Career and Technical Education should be modified to do the following: (1) Support students in the acquisition of rigorous core knowledge, skills, habits and attitudes needed for success in

postsecondary education and the high-skilled workplace, (2) Engage students in specific career-related learning experiences that equip them to make well-informed decisions about further education and training and employment opportunities, and (3) Prepare students who may choose to enter the workforce directly after high school with levels of skills and knowledge in a particular career area that will be valued in the marketplace (Association for Career and Technical Education, 2006).

Career and Technical Education Research

Research on CTE tends to fall most often in two areas: the likelihood of students dropping out of school and how to serve at risk students (Plank, 2001; Stern, *et al.*, 1988; Catterall, 1986), and longitudinal effects of CTE programs (Plank, 2001; Arum & Shavit, 1995).

In 1986, Catterall and Stern looked at the use of alternative high school programs in preventing students from dropping out. They utilized the California sub-sample of the 1980 and 1982 High School and Beyond surveys (involving nearly 3,000 sophomores and 3,000 seniors) and studied the impact alternative education programs had on labor market outcomes for students. The High School and Beyond Survey in 1980 asked students how many courses they had completed in each of four CTE areas: business, office, or sales; trade and industry; technical courses; or other vocational courses. In addition to finding mixed support for alternative programs to prevent drop outs, they also found positive results on employment and wages.

Stern, et al (1988) conducted a study in California that yielded similar results. Their

research reported the results from the first two years of an effort in 10 high schools to replicate the California Peninsula Academies. The students in the Academy school were identified by school counselors as “low performance students” with a high risk of dropping out of school (Stern, *et al.*, 1988). They were then placed into the Peninsula Academy, which was a school within a school, for grades 10 through 12. These low performing students took most of their remaining classes together at the school including coursework in English, math, and science as well as a course in the particular Academy's focus (Stern, *et al.*, p.163, 1988).

The “Academy” model combines the core academic curriculum with technical instruction in a particular occupational field. Local employers representing that field participate in various ways by donating equipment to the school and serving as mentors to the students. For example, Hewlett-Packard contributed computer expertise and hardware. The companies also provide summer jobs for some of the students at the Academy school. “Having a paid summer job which is related to the Academy’s instructional focus creates a powerful connection between school work and “real” work” (Stern, *et al.*, p.163, 1988).

Academy students generally compiled better grades and more course credits than students in comparison groups at the same high schools. At three sites in particular, Academy students consistently out-performed comparison groups in the first two years. The authors also found that results were replicated at other sites and helped prevent students from dropping out of school.

Claus (1990) conducted an ethnographic analysis of the student experience in a single CTE program, looking to answer two questions: (1) why did the students in the program report satisfaction and improved attitudes in association with their CTE program and (2) how

was CTE related to increasing the opportunity of these primarily working to lower class, academically-alienated youth? The CTE experience tended to reinforce class-related inequalities. “The ethnographic fieldwork and analysis suggest that while the students found their CTE program enjoyable and rewarding, this response was often rooted in a classroom experience which limited their development and reinforced their tendency toward working to lower class work and lives after school” (Claus, 1990, p.13).

Arum and Shavit (1995) utilized the 1987 “High School and Beyond” data to study individuals’ early labor market outcomes after high school and their track placement while in high school. They found that “vocational secondary education is neither as pernicious nor as detrimental as some of its opponents have maintained.” (p.199) They found that CTE inhibited students in their decisions to continue on to college or achieve success in high prestige occupations, but also found that CTE programs serve as “a safety net for those high school graduates who are unlikely to go on to college.” (p.199)

Plank’s 2001 report for the National Research Center for Career and Technical Education looked at the balance between CTE and academic course-taking during high school for members of a longitudinal study beginning in 1988 with their eighth grade year. The students in the study were broken down into four groups: purely academic concentrators, purely CTE concentrators, dual concentrators who took both academic and CTE course work, and a group of students who took neither the purely academic or CTE coursework. Plank found the following: (1) academic concentrators showed the highest 1992 achievement, followed by dual (academic and vocational) concentrators, then students who fulfilled neither concentration, and then CTE concentrators; (2) almost all students were either in

postsecondary education or working, or both, in 1994, with academic concentrators most likely to be in full-time school and CTE concentrators most likely to be in full-time employment. The study concluded that further research is needed to determine what characteristics of CTE or academic education increase the risk of dropping out, and what types of integration of academic and vocational education are most successful.

Gaunt and Palmer (2005) conducted a quantitative study that investigated students' attitudes towards career and technical education (CTE), what influenced their views, and their course selection decisions. They utilized the data from a previous study in Michigan of over 450 high school seniors. They were interested in the career and technical education funding crisis that is occurring in the wake of No Child Left Behind. Gaunt and Palmer (2005) found the majority of students citing social relationships with their friends and parents as the prime influencers of their views of career and technical education. In addition, students offered responses on how course structure, the benefits offered from each program, and advertising of the CTE programs affected their views of CTE. These results provide support for further research on the subject of career and technical education that puts an emphasis on academic training alongside CTE instruction in career-related fields.

What was interesting about Gaunt and Palmer's (2005) data was that more than half of the students not enrolled in career and technical education courses saw the courses as helping students prepare for college immediately after high school in comparison to 81% of students enrolled in CTE courses who saw this same connection. More than 80 percent of both groups of students saw the ACC as preparation for work after high school and close to 80 percent of all students saw the ACC in Michigan as designed for students of all ability levels.

Utilizing a qualitative methods approach with open ended interviewing methods, my study gives the students a greater opportunity to express their views of CTE education and how they compare it with their purely academic coursework. Gaunt and Palmer's (2005) research is a big step forward in literature on career and technical education and I hope the dialogue of the participants in my study help take research even more forward.

Sources of Influence

How students perceive career and technical education and the their high school course-taking decisions can be attributed to a variety of factors. In this study one of my research questions examined what are these factors and how do they influence student choices. Previous research on the influences students experience while choosing their high school classes include parents and friends, current labor markets, and school social networks including teachers and counselors.

The most detailed account of influences that impact a student's decisions to pursue a CTE curriculum in high school is Rossetti's 1991 study about the influenced students who chose not to enroll in a Vocational School in Ohio. While evaluating the external factors that contributed to students' decisions to enroll in CTE classes, Rossetti found that friends were the most influential with fifty-three percent stating that they had consulted their friends. (Rossetti, 1987) The next most influential figures were mother/female guardian (49%); father/male guardian (44%); brother/sister (39%); counselor (35%); girl/boyfriend (32%); other relative (32%); teacher(s) (28%); and athletic coach(es) (21%).

A report by Dunham and Frome (2003) took a closer look at the role teachers and

counselors can play in encouraging and influencing students in their high school course selections. Their results were similar to Rossetti's (1991).

Current labor markets can also affect a students' decision to enroll in CTE coursework. A publication by the National Center for Educational Statistics reported "students may be more likely to concentrate in vocational areas that prepare them for occupations with increasing job opportunities" (p. 1). In the case of the current U.S. job market, this would mean that students who take advanced courses in math and science and focus their studies towards engineering careers could be doing so not for their interest in those subjects but because they recognize the labor market's shift to careers in engineering fields. This would also mean that these same students would specifically withdraw from involvement in courses focusing on low demand careers. This study was completed in 1998 and concluded that the reason for the decline in CTE courses was due to the job market not requiring those skills. New forms of career and technical education need to emphasize academics and career training in electronics and computer fields because the job market has made a turn towards careers of a more technical nature.

Social Class and Cultural Capital

The theoretical framework of this study relies upon cultural capital theory. Cultural capital can be defined as "high status cultural signals used in cultural and social selection" (Lamont and Lareau, 1988). According to Bourdieu's definition, cultural capital "consists mainly of linguistic and cultural competence and that relationship of familiarity with culture which can only be produced by family upbringing when it transmits the dominant culture"

(Bourdieu, 1977). Cultural capital, according to Bourdieu, includes things such as going to museums, appreciating art and listening to classical music. “[Bourdieu] argues that individuals in privileged social locations are advantaged in ways that are not a result of the intrinsic merit of their cultural experiences. Rather, cultural training in the home is awarded unequal value in dominant institutions because of the close compatibility between the standards of child rearing in privileged homes and the (arbitrary) standards proposed by these institutions.” (Lareau, p.276)

In a dominant institution like education, the role of cultural capital translates to the practices of the school staff, teachers, organizational processes and authoritative relationships set in place as a method of exclusion for those who are unfamiliar with the institutional practices. In the U.S., children from high cultural capital backgrounds, according to cultural capital theory, have been taught directly or indirectly the value of raising one’s hand to be called on, working independently on homework assignments, and possessing a sense of entitlement to resources and extra help from teachers and other figures of authority (Lareau, 2000). It is argued that “children from higher social locations enter schools already familiar with these social arrangements” (Lareau, 1987, p.288) and therefore succeed at a higher level than those not familiar with these practices. Being more familiar with the skills and knowledge valued by the dominant culture, students of the dominant culture are better able to adapt their skills to new settings to help negotiate their way to higher, more prestigious education and jobs. This creates a higher economic class position and allows their children to be exposed to the same culture, which is congruent with cultural reproduction theory (Aschaffenburg and Maas, 1997).

Bourdieu used the term “cultural reproduction” to describe the way society stratifies members of the population by reproducing the values, lifestyle and culture of the dominant classes which inadvertently leaves the lower classes at a disadvantage in trying to get ahead in academics and the workplace (Bourdieu, 1977).

Paul Kingston (2001) criticizes cultural capital theory and cultural reproduction, saying that they account for only a small piece of social privilege and academic success. He feels that there are too many variables under the umbrella of “cultural capital” (Kingston, 2001). In the United States it is hard to disagree with this notion because of a lack of consensus on what is valued by the dominant culture (Lamont and Lareau, 1987) and how quickly what is “popular” can change. The problem with Kingston’s views of cultural capital, however, is that he maintains cultural capital theory’s definition based on traditional definitions of Bourdieu (1977). Knowledge of classical music and attendance at museums are not the capital that most people in the U.S. refer to today when talking about the utilization of capital to get ahead or stay ahead in society, and this is one criticism of some versions of cultural capital theory; it has yet to be adapted to modern society.

While Kingston does not support the theory of cultural reproduction or cultural theory, he does provide insight that is relevant. Kingston (2001) suggests that the simple possession of cultural capital does not influence one’s academic achievement, but rather the key issue is how this cultural capital is used. I find this statement to be more powerful than Kingston’s rejection of cultural reproduction theory.

In a study that examined SES, Schulenberg, Vonracek and Couter (1984) studied the influence of the family on vocational development. They focused on how the characteristics

of the family influenced the vocational development of adolescent children. Their definition of socioeconomic status incorporated elements such as parents' education, income and occupational status. They noted that "if one were permitted only a single variable with which to predict an individual's occupational status, it surely would be the SES of that individual family of orientation." (p.130, 1984)

Lareau's (2003) work on social class influences on parental involvement in the educational experiences of their elementary school children emphasize the value of middle class parents' "knowledge of the system" and the possession of cultural and social capital to yield positive educational outcomes for their children.

Hearn (1991) also found an effect of capital in a study focusing on the relationships between high school graduates' personal characteristics (ability, achievements, expectations, socioeconomic status, race-ethnicity, and gender) and the nature of the postsecondary institutions they attend. Based on national data for students who attended college from the high school class of 1980, the findings suggest that nonacademic factors, particularly socioeconomic background, affected graduates' postsecondary destinations.

Lamont and Lareau (1987) emphasize the role cultural capital plays in American society, moving towards a more modernized definition of cultural capital beyond Bourdieu's (1977) traditional and more European thoughts. Lamont and Lareau's research discusses how the dominant American culture puts greater emphasis on the access to goods rather than the actual consumption of goods emphasized in the French culture of original cultural capital thought. They recognize the methodological problems with Bourdieu's original concept of cultural capital not stating clearly how to measure the weight of the each element of capital

(e.g. wine vs. sports) and taking into account the different social environments. What is valued by the dominant culture in the U.S. is always changing, and in order to make a clear representation of cultural capital, the theory needs to reflect what the current dominant culture values.

Lamont and Lareau (1987) create a variation to the definition of cultural capital in response to the difficulty in making a clear understanding from Bourdieu's original work. They recognize the idea of exclusion from jobs, resources, and high status groups as a vital component of cultural capital theory. They also define cultural capital as "institutionalized cultural signals, i.e., widely shared, high status cultural signals used for social and cultural exclusion." In this new definition they propose that 'high status cultural signals' include attitudes, preferences, formal knowledge, behaviors, goods and credentials (Lamont and Lareau, 1988). An example of these high status cultural signals in practice in U.S. culture today is provided:

"Owning a luxury car or a large house [possession of a good], being thin and healthy [preference and behavior], being at ease with abstract thinking [attitude], knowing how to send signals of one's competence [behavior], being a good citizen [attitude], knowing the appropriate range of topics of conversation in specific settings [behavior], and having scientific expertise, and a well rounded culture [formal knowledge]" (Lamont and Lareau, p.156, 1988)

It could be argued that of these high status cultural signals, 'behavior' is the most important because it requires not only knowledge of high status cultural ideas and topics of conversation but also when and where to use it, or how to 'activate' the cultural capital. "Unfortunately,

Bourdieu's empirical work has not paid sufficient attention to the difference between the possession of capital and the activation of capital" (Lareau, 2003, p.277).

Schulenberg, Vonracek and Couter (1984) discuss how just possessing the SES background of a given class does not automatically provide access, that a person must also know how to act upon the presented opportunities. Families socialize their members on the activation of capital allowing the reproduction of values and lifestyles. As an example, a child from a high SES family who is exposed to the culture of travel, books, music and museums, and then is instructed to activate these experiences in conversation about someone else's travels to Italy or another person's interest in a particular play, is socially rewarded by inclusion and knows to use this capital again in the future.

Portes (1998) also comments about the understanding of activating cultural capital by stating, "social networks are not a natural given and must be constructed through investment strategies oriented to the institutionalization of group relations, usable as a reliable source of other benefits." (p.3)

CHAPTER 3: Method

This purpose of this study was to examine the perceptions students have of CTE courses, how these perceptions are related to socioeconomic factors of cultural capital and the influences they reported that impacted their academic and occupational decisions. To answer these questions I utilized qualitative interviews and observations and as described below.

Site Information

The local high school (LHS) used in this study is one of three high schools in a district of more than 16,000 students. LHS was chosen because it has the closest proximity to the Area Career Center (ACC), and is within easy walking distance for the students. LHS is composed as follows based on 2006 enrollment data: total enrollment was just over 1,717 with 81.1% of the students identifying as White, .3% Indian, 2.6% Hispanic, 11.1% Black, and 5% Asian. About 11% of students were on reduced or free lunch. The average attendance rate was 90.9% with a lower than state average dropout rate of 3.1% (the total for the state of Missouri is 4%) (<http://dese.mo.gov/planning/profile/building/bp0100931075.html>).

The primary site in this study, the ACC is a separate building from the rest of the schools in the district and houses most of the CTE classes in the district (some CTE classes are offered at the other high schools). The ACC serves all students as well as adults in the area. Enrollment data at the ACC are as follows: total enrollment for the 2006-07 school year was 2,204. For the 2005-06 school year, when there was a total enrollment of 2,308 students with 1,189 of the students coming from the LHS. The rest come from the other schools in the district. Of the 1,189 LHS students, 234 were classified as CTE concentrators. A CTE

concentrator is a student who has completed three or more courses in one area of CTE concentration.

Access to the Area Career Center and the local high school was gained through approval from the district school board as well as the ACC director. I worked with the director of the ACC and the counselors to identify potential CTE classes from which to recruit students. In order to be able to compare CTE students' views of CTE courses with AP students' views of CTE, I wanted the students enrolled in AP classes to have similar interest in the CTE subject matter as those students enrolled in the identified CTE class. To do this I identified CTE classes that consisted of similar content to AP course offerings. I used this approach because a student who chose to take an AP class in biology might have similar interest in a CTE class like Health Professions because the subject matter overlaps. In addition to discovering how students view CTE, I wanted to find out why one class would be more appealing to a student than another. I chose to recruit students from four classes at the ACC: Electronics, Health Professions, Graphic Design and Digital Media. All of the classes were majority seniors. My motivation for choosing seniors was that they were far enough along in school to reflect on their experiences, and their post high school plans were much more definite than a junior or sophomore's. Research on CTE discusses the role CTE has in preparing students for work environments and seniors are much closer to real world work environments than juniors or sophomores.

I selected the Graphic Design and Digital Media classes because a lot of students enrolled in those classes also took AP classes at the high school and these classes were not offered in any form at the local high school. Because of the overlapping interests I thought

these students would have similar motivations to take a CTE or AP course. However, no students from these classes ended up participating in the study.

I approached the teachers of the identified ACC classes in early January, 2007 in a face-to-face discussion explaining the purpose and goals of my study. For the teachers who agreed to allow me to speak with their students, I conducted a 5-10 minute presentation to the students and asked for volunteers. Students interested in participating filled out a contact sheet with their preferred contact method and a consent form to participate. Any students under 18 were provided a parental consent form for their parents to sign. I made five different presentations at the ACC and had 22 students volunteer. Of these 22 students who showed initial interest, six completed the recruitment process by returning their forms and following up with interviews. One of these six students was not included because he attended a different high school.

At LHS, I established contact with a counselor at the school who helped me gain access to students enrolled in AP courses only (non CTE students). Students were identified by their senior status and their AP course selections in either AP Biology, AP Algebra or Calculus or AP Literature. The AP Literature and AP English classes were a common course for students who took the Graphic Design or Digital Media classes at the ACC so I felt there was some overlap in interests by those students that I wanted to explore. The site counselor identified fifteen AP only students and the information packets were provided to the students by the counselor. Of the fifteen students, six returned their consent forms and three of those six students responded to my initial contact for interviews creating a total participant pool of eight students (five from CTE and AP and three from AP only).

Participant Information

There were eight participants in the study, all high school seniors, attending the LHS. All of the participants were white and included four female and four male students. Below are tables describing each participant. Table 1 represents the participants' current high school classes and previous CTE or AP classes they have taken. Table 2 represents the participants' future plans including college and career aspirations. Table 4 represents the highest level of education received by the participants' parents while Table 5 represents their parents' current occupations.

Table 1 Participants' High School Courses

Participant Name (coded)	*H.S. Course Emphasis	**H.S. Classes
Mary	CTE	Healthcare, Culinary Arts, Early Childhoods
Steve	CTE	Electronics 1,2,3, Culinary Arts Intro and 2, Intro to Welding, Small gas engines,
Greg	CTE	Electronics 1,2,3 and C++ Programming
Mike	Combined	Electronics 1 and 2, Computer Technician Certification, C++ Programming, AP Psychology, AP Statistics
Henry	Combined	Electronics Essentials, Electronics 2, Welding, German AP, Integrated 3 Honors
Tina	AP/ Advanced	AP Statistics, AP Lit, AP Euro, AP World, AP English, AP Psychology, AP German
Lisa	AP/ Advanced	AP Graphic Design, AP Drawing and Painting, AP World History, AP US History, European History, AP Literature, AP English Language, AP Drawing and Painting, and AP 3-D Design
Rachel	AP/ Advanced	AP Euro, AP Literature, AP Calculus AB, AP US History, AP Language, English Language

**H.S. Course Choice: CTE=Career and Technical Education student with no current or previous AP courses; Combined= Currently and previously enrolled in both career and technical education and Advanced Placement (AP) courses; AP/Advanced: Currently enrolled in AP courses with no current or previous courses in CTE*

***H.S. Classes: Current and previous course subjects in high school (grades 10-12)*

Table 2: Participants' Future Plans

Participant	Post High School Plans (college majors)	Future Career Plans
Mary	Local 4-year university (nursing)	Work as an RN then Nurse Practitioner
Steve	Local 4-year university (business marketing and management)	Self employed business owner
Greg	Work for 2 years then local 4-year university (engineering)	Wants to be an electrical engineer
Mike	Local 4-year university (electrical engineering)	No plans yet
Henry	4-year, in-state liberal arts college (music technology)	Work in the production side of the music industry
Tina	In-state fine arts college (theatre performance or theatre management/stage management)	Work as an actor or graduate school
Lisa	East Coast Art School with scholarship (studio art)	Work in an art gallery, travel, set up a working studio
Rachel	East coast, small, liberal arts college (environmental policy and theatre)	Using college to decide what she will do in the future

Table 3: Parents' Education

Participant	Mom's Education*	Dad's Education*
Mary	PhD	PhD
Steve	BA or master's (unsure)	Bachelor's degree
Greg	High school	High school
Mike	Master's Degree working on her PhD	PhD
Henry	Master's degree	Bachelor's degree
Tina	PhD	Master's degree
Lisa	H.S./some college	H.S./some college
Rachel	High School	H.S./some college

*Education= Highest level of education completed

Table 4: Parents' Occupation

Participant	Mom's Occupation	Dad's Occupation
Mary	College professor	Staff member at local university
Steve	Head of National Parent/Teacher org.	Construction
Greg	Rehabilitation program at local university	Landlord for apartment complex
Mike	was working as a nurse	College Professor (Business)
Henry	Teacher	Teacher
Tina	College Professor (Public Affairs)	Co-owner of a local business
Lisa	Real estate agent	Banker
Rachel	Branch administrator- Investment Co.	Unemployed (on disability)

Procedure

I interviewed participants over a one-month period. Three of the interviews took place at the Area Career Center, three at the University of Missouri-Columbia campus, one at the local high school, and one at a coffee shop near the high school. The interviews lasted about one hour per participant. [see appendix B for interview questions]. I started each interview with a small overview of the study. Each interview was audio taped using a digital recorder.

I modified the interview questions after interviewing the first three participants because my focus shifted towards more in depth questioning on issues of cultural capital. Despite my follow up emails and phone calls, this resulted in two participants who lack complete data for SES and cultural capital. In addition to interviews, I conducted approximately 30 observations at the local high school and the ACC from September, 2006 through May, 2007 in 10 minute to one-hour increments. I conducted approximately 2000 observation minutes in the LHS and the ACC. The observations were conducted both formally during scheduled site visits and informally during scheduled meetings, interviews and visits to the sites to pick up papers or answer questions. The observations allowed me to experience the differences between an AP class environment and a CTE classroom environment. I had no prior experience inside a CTE classroom, and the ability to see this method of instruction gave me a better frame of reference for CTE.

Data Analysis

I transcribed the recordings immediately following each interview and in some cases a few days later with the assistance of a computer software program called Transcriva. I used a

software program called HyperResearch for data analysis. In the coding process, I started out by looking at the data with my three main research questions as a reference: How do students who are enrolled in CTE or AP classes perceive CTE courses?; What sources of influence do they report experiencing regarding academic versus CTE coursework?; What role does cultural capital play in students' views of CTE coursework and their decisions to take or not take CTE classes in high school?

Second, using these three master codes, I identified all data related to these codes, finding over 100 smaller codes in the interview data. Third, I organized these smaller sub-codes into matching code categories to identify repetitive and overlapping codes in the data. Fourth, I created a master code list of just under 100 codes and analyzed the data again to ensure accurate coding. Fifth and finally, I organized the data into 120 sub-codes. These sub-codes were hierarchically represented in the six major data codes of 1) Student Characteristics, 2) SES/Cultural Capital, 3) Views of School (including CTE and AP classes), 4) Influences and Motivation, 5) Performance and Skills, and a sixth code for the miscellaneous codes [Refer to appendix C]. Observation data were not coded but will be used to help in the discussion and analysis sections.

I chose to use markers of cultural capital such as parent's education and occupation, neighborhood, home resources such as books and computers, travel experiences, out-of-school activities, language use, and participant-reported family interactions.

I chose this approach because reports of social class in my study come from the participants themselves who are high school seniors and who cannot speak factually about the actual economic position of their family. However the participants can discuss the

occupations of their parents, describe the neighborhood they live in and their home environment, report on the activities and experiences they engage in, and discuss their future plans beyond high school. With this knowledge and the previously cited literature on cultural capital I should be able to say something about the role of the participants' background plays on their academic decisions.

CHAPTER 4: Findings

The purpose of this study was to discover 1) How do students who are enrolled in CTE or AP classes perceive CTE? 2) What sources of influence do they report experiencing regarding academic versus CTE coursework? 3) What role does cultural capital play in students' views of CTE coursework and their decisions to take or not take CTE classes in high school?

I begin with a detailed account of each participant in the study including his or her background, family makeup and instances of cultural capital. Then I discuss students' views of CTE and their reported influences on their decisions to enroll or not enroll in CTE courses.

MARY, *CTE Concentrator*

Of all the participants in this study, Mary has the clearest view of her future and is the most focused on pursuing education and experiences that will serve her in her future career as a nurse. She comes from a background of highly educated parents, has worldwide travel experience, and describes her family's economic position as being in the middle. *"Just middle class. I mean we could afford the huge house you know, incredibly brand new house if we wanted but we spend our money on traveling instead."* In the past she has been involved in career oriented clubs associated with her school and has put in a lot of volunteer hours with the local hospital in addition to the hands on experience gained from involvement in her career classes at the ACC.

At home, Mary has access to a computer, TV, encyclopedias. She refers to her parents as *"a good resource to have."* She often talks with her parents about her classes and

the observations she makes while working at the hospital. They have recently been engaging in conversations about her upcoming college experiences. It appears that she has a good relationship with her parents and family and spends lots of time with them. *“As a family, we’ll take weekend trips to the lake and shop, go out on a boat, we eat dinner together; we do spend time together at home and we’ll watch movies or play card games.”* Mary also has a younger sister who is studying abroad as part of a high school exchange.

STEVE, CTE Concentrator

Steve doesn’t have as strong of aspirations as Mary for his desired future career as a self-employed business owner. Steve’s parents are both employed with college degrees and have built a home in a *“nice and relaxed”* neighborhood. Steve’s concept of his family’s economic position is somewhere in the middle as well. *“I mean we make this amount of money but we don’t have a lavish lifestyle. I mean I don’t have a brand new car, my brother is not gonna get a brand new car um, we don’t have a huge house, I mean, it’s a big house compared to what a lot of people live in but it’s not like we live in a four story house, we don’t have a three car garage, we don’t have a pool. I mean everything is nice.”*

Steve wrestles for the LHS; he coaches youth soccer; likes to work on cars; and is involved in a career skills club as well as Boy Scouts. In the past he has worked in retail, run his own lawn mowing business, and has about six months experience working in a specialized sports store, an experience that has influenced his desire to pursue a career as a business owner. Data on cultural capital are limited for Steve because he was one of the first participants interviewed in this study and he was not available for follow up questioning.

Greg, CTE Concentrator

Greg is the only participant in the study with no immediate plans to begin college after graduation from high school and falls at the lowest income level compared to the rest of the participants. Greg's parents each have a high school diploma and according to Greg, they make around \$25,000-\$30,000 a year combined which he classifies as middle class. *"I guess, middle class is becoming even larger but, the upper class is the total family income annual family is upwards of \$60,000 and then the lower class are the people who get downwards of \$10-15K annually and I think, I'm not quite sure, my parents get about \$30, between \$25-\$30k a year, combined."*

Greg's mom is employed with a rehabilitation program with the local university and his dad is the landlord of an apartment complex. Greg's home is the top floor of the landlord's living quarters that he shares with his parents and younger sister. Greg is not close with his family. *"If I don't have work I pretty much come home, go into my bedroom, and come out only if I have dishes or if I have trash I take out the trash. If I run into someone in the hallway or going down the stairs I might say hey, how was your day but there's really not a conversation."* They occasionally take trips together but his goal is to move and get a place of his own.

Greg is not involved in any school activities and spends his free time either working at a local grocery store, playing his guitar or hanging out with his friends talking or playing hacky sack. Though he is not starting college in the fall, Greg is planning on saving up for two years and then going to college to major in engineering.

Mike, Combined (CTE and AP)

Like Steve, Mike was one of the first participants interviewed and was unreachable for follow up cultural data. His parents are highly educated like Mary's with both having PhD's His mom is employed as a nurse and his dad as a college professor at the local university. His reference for how much money his parents' make is related to the forms he had to fill out for college applications where he checked *the "over \$100,000 income box"*. In his neighborhood he identifies his family as less well off compared to the neighbors. *"Everyone [in the neighborhood] is kind of more well off that we are but it's kind of obvious, people are driving these expensive cars and uh, definitely, we're comfortable, so, but we, uh, we don't have a lake house, we don't have fancy cars, so we're not quite, we're not upper class but we're close..."*

Though he has plans to major in electrical engineering, Mike has no career plans beyond college. *"In five years I probably I see myself out of undergrad. It depends on how much I like college. I might go in for more school or, uh, work, it's, there's lots of options there's always, there's military, the peace corps thing, uh, um, more school, but most likely just a job right out of engineering, having to do with electronics probably, electrical engineer."*

In school, Mike is involved in cross-country and track. He previously held a job in construction

Henry, Combined (CTE and AP)

Henry's experiences in school and preparation for his future career are similar to

Mary's except he has chosen to include AP courses in his schedule. Henry plans to pursue a career in the music industry with hopes of one day owning his own production company. To prepare for this career, Henry has focused his ACC classes primarily around electronics CTE coursework and pursued advanced courses in math as well as a foreign language to *"open up more career opportunities"* and to travel...I mean that just broadens my horizon."

Henry's parents are both college educated, both with a bachelor's degree and his mom with a master's. His mom is a teacher and his dad is an auto claims adjuster. He classifies his income as *"around \$100,000 a year"*. *"I think my dad makes like 60-65 a year, my mom makes 40-45 a year. I don't know how that will stack up to most people. I think we're maybe in the upper middle class a little bit I guess."* He also lives in a nice neighborhood with a couple of "decent size houses."

Henry is very involved in activities both in and out of school. He used to wrestle for his high school and now runs on the track team. He plays in the school band and outside of school he's involved in Boy Scouts and volunteers with out-reach programs for kids in the city. He also works part time.

In talking about his relationship with his family, Henry comments that they travel together and there is time set aside each week to spend together to watch a movie or eat together and they spend a lot of time traveling through the country. He says that the lines of communication with his parents are open, *"Pretty much any question I have my mom will answer it to her, to the best of her knowledge, anything, doesn't matter what it is. My mom is pretty open....she's like they're gonna find out sooner or later at least we can tell them what's right about it instead of learning about what's wrong and then them using it (drugs??)... So, they're pretty informative and open with us."*

Tina, AP Coursework

Tina's view of the world is structured around upper class ideals. She believes that there is one way to achieve success through life. She is the only participant whose parents are divorced, and she lives with her mother. She hopes to use her experience in theatre and AP coursework to pursue a career in acting or theatre management. Though she mentioned a step-sister, she did not mention a step father so all references to her father are her birth father. Her mom has a PhD and is a professor at the local university and her father has earned his master's and is co-owner of a local business.

Tina's mom lives in an urban neighborhood. Their home is filled with books on history, politics, religion and other non-fiction works her mother uses for her research. "The fiction books" are in her and her sister's room or over at her dad's house which is out in the county, where there are big houses, big lots. She classifies their incomes separately: *"Um, well my parents are divorced and my dad is co owner of his own business so I know that he makes more money than my mom cause she works at a university. My mom, we're probably lower middle class and my dad's probably upper middle class but other than that I don't really know."*

Though her parents are divorced, Tina appears to have a balanced relationship between them that benefits her in the area of cultural capital. *"At my dad's house we try and eat dinner together every night and at my mom's house we eat dinner together but it's not necessarily like the same thing...we plant flowers, he also lives close to a bike trail so we go on family walks with the dogs. We go to concerts...my dad gets tickets to stuff at [the*

university] so we'll go to that...” Tina also engages in conversations about current events and listens to NPR with her dad.

Tina does not work because her parents believe that school should be her full time job. Tina fills her free time on stage acting or managing productions, and when she travels, there is always a purpose in mind such as visiting family or touring colleges.

Lisa, AP Coursework

Lisa will attend a prestigious art college upon graduating from high school and has aspirations to work in an art gallery and set up a working studio of her own. Lisa’s parents are divorced like Tina’s, but neither of her parents graduated from college although they both have completed some coursework. Lisa lives with her mom and sees her dad often but did not mention if her mother had remarried. She made reference to discussing what her dad “*did in court*” but when asked her father’s occupation she said he was a banker. It can be assumed that her mother remarried to a lawyer but that Lisa has had a long relationship with him that he refers to him as her “dad” along with her birth father who she mentioned as being single. Her parents’ reasons for leaving college were referred to as “family related.” However, even without a college degree, Lisa classifies her parents in a high income bracket by reference of her “*checking the last box*” on college applications of \$100,000 and above and describes their neighborhood as “*affluent.*” “*It's a nice neighborhood, we have a lake; it's nice. On our street there are lots of big houses but you leave our street and all the houses are like nice, um, \$150K to \$300K homes. You know, nice, normal neighborhood.*” Lisa’s mom is a real estate agent and her dad is a banker.

At home, Lisa has access to her own personal art studio that her parents converted from an old closet. She reads a lot of history books and does a great deal of traveling. Lisa's experiences traveling include annual trips to New York and a three month Europe trip that she went on last summer by the "orders" of her mom who wanted her and her sister to learn a language and "be productive" over the summer. In previous years Lisa attended pre-college events at universities that supplied the college experience. Interactions with her family involve conversations centering on each others daily event recaps.

Rachel, AP Coursework

Rachel plans to attend an elite liberal arts college upon graduating from high school, and though she plans to major in environmental policy and theatre, she will allow her college courses and experiences to help her decide her future career plans, *"I kind of have a wide variety of interests so planning to use college to take different classes in those different areas and find out what I really am most interested in, um I also want to take film classes and after that kind of I guess whatever I decide I really love the best or can make work I'll do from there, so...."*

Neither of Rachel's parents graduated from college though her dad has some college credits. Her mom is an administrator at a local investment company and her father is receiving disability benefits for a work-related injury. She places her family's income in upper middle class with around \$100,000 a year total income. She has a younger sister and they all go on family trips about once a year. She describes her neighborhood as *"nice, safe, good. Everyone knows everyone else sort of thing and we, you know, at different holidays, get together and it's a really positive, great neighborhood to live in."*

Rachel spends a lot of time with her family whether it is riding bikes on trails or through the town, watching educational documentaries together, discussing world news, music, politics, current events and other things going on in their lives. Her dad makes a point to take everyone to lots of plays and stage productions throughout the year. *“Anytime there’s anything kind of cool around....I guess the arts I’m kind of on the look out for anything and my dad also has always brought us up going to concerts and different things like that.”* At home they have a lot of biographies as well because her dad is a *“history buff.”*

What sets Rachel apart from the other participants is her immense involvement in community activities. In addition to her acting performances and clubs, Rachel is involved in about a dozen community organizations including those that are environmentally focused such as cleaning streets, outreach programs for kids and disabled individuals, local political organizations for students, and academic clubs and organizations.

Research Question 1: Students’ Views of CTE

To gauge students’ views of career and technical education I used the interview questions that highlighted their descriptions of CTE and how the students compared CTE to their traditional or AP courses. What I found to be most prominent was that most of the students identified CTE as “hands on learning” and “career oriented or industry focused” with current CTE students highlighting the sense of community they felt with CTE teachers and their CTE peers. AP students who had not taken CTE courses saw the benefit of CTE classes for some students but most often saw CTE as lower quality education than their AP classes or had no idea what CTE was. I begin with an overview of some of the participants’ initial impressions of CTE coursework.

Initial Impressions

The participants first exposure to the CTE happened either during a tour of the facility or in their first day of classes. Steve had never had a tour of the facilities prior to enrolling in classes. He found himself looking at CTE as an extension of the elective courses he had taken in previous years of school. *“We always had, you always had electives like we always had electives in 6th7th, 8th, 9th...finding out that you know this class is offered at the ACC but there are all these other classes offered from the ACC for high school students. Just to help them excel.”*

Tina was a student who had toured the facilities, most likely as part of a field trip or suggestion from her parents because she never showed any interest or acceptance in a “vocational” form of learning. She remembered quite a lot about her experience though, commenting on the structure of the rooms: *“I remember looking at like we went into a computer lab type place and every desk had its own computer because that was the whole point, you know you had to work on the computer.”* She described the activities that she observed, saying, *“I think it was like a digital media, they were doing like commercials or animation or something like that and it was really neat watching all the students do their little process that they were in, their different stages of production they were in.”* While she seemed interested in what the students were doing, her use of the words *“little process”* and referring to the students *“having to work on a computer”* gives the impression that she not only has low regard for a CTE form of education but also that she might not have any interest or skill in CTE. It does also show that she has been given a narrow view of what CTE is and all that it has to offer students. However, above anything else, even though she chose not to take

classes at the CTE she seems quite approving of the relaxed and engaging atmosphere that CTE provides its students: *“that's totally different from what you get at [our LHS] where you're sitting at a little desk, it's very, very, very uncomfortable and you're taking notes and it's easy to fall asleep that way if you don't care about what the teacher is talking about.”*

CTE students also mention this relaxed environment, even highlighting it as one of the best things about CTE. Henry enjoys being able to transfer to a different way of learning with his CTE classes. *“I think it kind of gets you a little away from like just like I guess the general education subjects.”*

CTE as hands on learning

Claus (1990) found that students from working or lower class families, students with negative views of school, and poor performing students tended to view CTE classes more favorably than higher income students and higher achieving students. This rings true in almost all instances in my study.

Greg did not like school, found no purpose in it, and did not perform well. He was also from a low-income family. His views of CTE and the ability to use his hands as he learned were overwhelmingly positive. *“What you learn in your math class and your science class you don't learn how to actually do something you learn the concept of what other people are using to do something but you're not actually doing it. With CTE you're actually sitting there doing something.”*

Tina on the other hand comes from a well off family, performs very well in school and generally loves learning and being in school. Tina is not enrolled in CTE courses and her views

of CTE seem reflective of her upbringing as an upper middle class child with highly educated parents: *“since meeting [my boyfriend] and realizing, you know how smart you have to be to work with your hands was a big shift for me because, I guess this could be a sign of my ignorance but you know I didn't think about how this table was made or how this building was made or how the lights were wired I just expected it to be there.”*

While CTE can teach students job skills, how to work as a team and preparation for careers in healthcare, agriculture and computer programming, Tina only sees CTE working as working towards a career in hands on jobs resembling working class occupations. It appears that for students like Tina, connecting CTE to real world experiences such as building furniture or buildings or computer systems that exist in her day-to-day experiences can aid in their redefining what CTE really is. Tina comments that prior to meeting her boyfriend, *“I was in my own little academic world where the only way to make a living, the only like acceptable way, socially, to make a living is to use your head, to think and to write and to do numbers and sit in an office, that was the white collar jobs, I thought those were acceptable and that's what everyone should strive to be.”*

Mary and Henry fall in between Greg and Tina in terms of their backgrounds and their views of CTE. Mary and Henry both entered CTE because of their personal and professional interests and were looking for ways to extend their knowledge. They perform very well in school and have a great deal of capital from their parents and their backgrounds. Neither one of them showed any doubt in their decisions to take CTE or reservations about the education they would be receiving. Henry saw CTE being directly related to the field of technology and computers that he was interested in but in a hands on way: *“Uh, I think to me, it is a little*

more hands on, hands on kind of activities that allow you to like learn about like technology and how its advancing in society nowadays and like how to keep up with it a little bit and I guess it depends on what you do.”

Emphasis on career-oriented coursework

One of the principles of CTE is the emphasis on learning skills transferable to one’s future occupation. Participants’ in this study echo this principle in their views of CTE. Steve was clearly impacted by the ACC’s message on CTE by highlighting the school’s four principles of attendance, safety, responsibility and teamwork. *“You have to be able to make it [to your job] attendance, you have to be able to respect your managers, you have to respect the people that come in and buy your product, safety, if you're not safe you can be sued, the company can get sued and then, no one gets anywhere, responsibility. I mean, like to have deadlines, without deadlines you won't ever get anything done.... Then teamwork, in school, like now, as far as like high school, you're not taught to work in a team.”*

This response from Steve about group work is an important element to the discussion of the benefits of CTE compared to traditional high school instruction. In a business or other work environment you almost always work as a team with each member required to complete certain tasks to achieve some goal or reach a certain point. The AP students who had never attended CTE coursework also found benefits in the few group work experiences that they had in their advanced classes though they weren’t as comfortable accepting the concept as typical practice, just something to be used on certain occasions. Tina spoke of her group work experience very positively but felt the need to real quickly comment that *“it isn’t*

cheating its collaboration.” High school teachers should really take this information into account when deciding their lesson plans. The group work allowed Tina the ability to experience the process of working with others and encouraged her to seek out opportunities where she could continue those experiences with other students in other classes.

The difference between the collaboration at the ACC as compared to high school group work is whether or not is assigned. At the ACC, students naturally flow into a group experience seeking help whenever they need it. But in courses in advanced or traditional classes, students appear to need direct instructions by the teacher that it is okay to work with others. Henry commented on this. *“There are certain group projects you can only do when the teachers assign it at the LHS but if you're struggling with something at the ACC no matter what it is you can have a buddy help you out a little more.”*

Whether it is for the collaboration or the training in a specific field, students seemed open to the idea of learning applicable skills. Rachel had never taken AP classes because she couldn't find anything that interested her “over there.” However she had spent many hours involved with acting and theater in her clubs and community activities and saw this out of school work as serving the same purpose for her as CTE serves CTE students: *“I guess I kind of consider tech theatre, which I take, similar to that or for me, I guess, acting, the acting classes are kind of my, um career classes, I guess, even though they're not at the ACC they're that same sort of thing.”* Rachel was the only AP student to comment on the similarities she found in her extra curricular activities to classes at the ACC. Both Lisa and Tina, the other two AP students, had the same out of school learning experiences with art and theater but did not characterize their experiences as being reflective of a CTE form of education which could suggest either a class based response or a lack of a clear definition and explanation on what

CTE really is for students. This suggests a promising area for CTE. There are no theater or art courses at the ACC. If there were, these three AP students' opinions of CTE might be different.

Value in sense of community

Students enrolled in CTE courses find a sense of community in their CTE classes that seems to be the most appealing aspect of CTE. The AP students find this same sense of community in their AP classes, which in turn influences their views of AP and CTE.

Mary finds her CTE classes to be “*more personal*” than her LHS classes. She couldn't be sure if it was because of the smaller class sizes or the teachers but she found the environment in her CTE classes to be a better fit for her and her interests. “*I always felt that the class, since everyone has something in common, is a lot more tightly knit and you are around other people who are interested in what you're interested in.*” Making the connection to students of similar interests seemed to be the most positive aspect of the ACC classes. Mary found more in common with her CTE classmates because they could “*talk about [similar things] and question things [they] know... take it a step further.*”

Steve's sense of community at the ACC centered on the role his teacher played. He found his teachers treated him like an adult, giving him tasks to do and leaving it up to him to get it done without “babying” him every step of the way. He saw students responding well to this and being encouraged by the teacher to continue interacting with each other.

For the AP students, their sense of community in AP was, in some cases, the only thing that got them through their classes. Lisa found one of her AP history classes to be the

hardest and found the “massive community feeling” driving her towards completing each assignment and working hard. She mentioned “*making some of her best friends in that class*” and focusing her interests because of the encouragement she got from them.

Tina’s interest in her theater and acting takes a lot of time out of her day, but she invests the time because she really likes “*the family part of it.*” She referred to her fellow peers as “sisters more than friends” because of all the time they spend together and the experiences they share. The key element is all of them “*understanding what’s going on...and understanding each other...carrying the same viewpoint on life.*”

In their school, the participants seemed to find a need for a support network and they each found that in their CTE classes, AP classes or extra curricular activities.

Research Question 2: Sources of Influence on CTE decisions

The most significant influences on students’ decisions to take or not take CTE classes were their future academic or career goals. Family members and the students’ home experiences had some impact on their views of the different academic options in high school, but most participants reported greater influence from their counselors and teachers. Either by directly suggesting courses or by creating an atmosphere in their classroom that students wanted to experience again, counselor and teachers motivated students to pursue a similar class environment or subject.

In their freshman year, students in the district are given the opportunity to tour the ACC while they are in the process of putting together their high school course schedules (grades 10-12). Others wait until during their 10th grade year when they need to begin filling their elective requirements for graduation and notice that ACC courses fill these requirements.

Some never tour the facility but rather just enroll in the classes based on the descriptions in the course schedule books. Steve was one of these students. Steve ended up taking classes at the ACC simply because they looked interesting. *“I originally just, someone said oh, you should sign up for electronics it's a really fun class so I signed up for electronics and Intro to Culinary Arts thinking you know, well this is really cool that they offer these classes in high school I didn't even realize that they were from a totally different I guess you could say school.”*

Greg took CTE courses because he had a skill in mind that he wanted to learn. *“I've always had a knack for computers ...cause pretty much now everything is running with something....so I said, oh, let's learn how to write programs.”*

Influence of future academic/career plans

After high school, most of the participants planned to enter college in order to progress in some career plan they were working towards. Rachel's desire to pursue academics and her interests in environmental policy and acting have led her towards AP courses to fulfill her immediate plans; however, she has no specific career or occupation in mind. She uses *“the different classes that I take to kind of figure out where I go from here and what I want to do with the world and so I guess I've taken, I take a lot of acting classes as well as my AP classes.”*

Lisa sees the “conditioning” of school similar to a working environment with the employer being the school and the tasks being work assignments. Her performance is measured by the grades she receives. *“Part of what's school teaching you to do you're*

employer is giving you an assignment and you have to complete it. It doesn't matter if you think it's ridiculous, you have to do it in the real world. So school does that to an extent."

She doesn't see CTE helping her fulfill any course requirements because CTE courses fill electives mostly. This contributes to her complete lack of interest in CTE coursework.

Steve's experiences in CTE and his traditional courses reflect the same "conditioning" apparent in Lisa's motivation to take her chosen courses. He is a wrestler and in order to remain eligible to wrestle in high school, Steve has a GPA requirement to meet. He compares this grade requirement to the requirements of a job and the multitasking and balance he sees in business careers. *"I eventually want to be able to open my own business and you have to be able to put the work in, even at school cause when you get a business its going to be so much harder cause you have to run like everything. You have to be self reliant."*

In addition to the transferable skills, interest in CTE coursework was also directly related to the applicable skills of technology training and experience in healthcare. Steve saw the world moving towards a more technology oriented way of life and wanted to find a way to capitalize on this transition. One day *"everything is going to be run through a computer or other electronic software/hardware"* and Steve wanted to be prepared for that.

Mike found an opportunity in the certification training available upon completion of certain CTE courses and thought the idea was "cool" providing him with *"a better way to get a job"* in the future. Though he still has not received his certification, he has found value in his CTE courses. *"It's useful if you know how to use lasers and, you can do a lot, like uh, there's just a lot of jobs with it, I mean everything is using lasers. You've got like lasers on your cd players, you've got laser eye surgery, you know lasers in weaponry, all this kind of*

stuff, it's just, it's always increasing, out in the market."

Henry has known he wanted to go into the music industry since he was a kid, but it was his electronics courses at the ACC that directed him towards a path on the production and technology side of things. His exposure to CTE coursework helped broaden his knowledge of the opportunities available to him and has led him towards pursuing a career that he can even build on. *"I mean its all tied in I guess but I wanna eventually own my own studio one day, or work for a big name, record label and produce music cause I like music a lot."*

Mary also took classes at the ACC to extend her interest and knowledge in her desired future career. With plans to go into nursing, Mary was able to learn the *"medical terminology"* at the ACC to be better prepared to go into patient care.

For AP students, Rachel, Tina, and Lisa, the decision to take AP over CTE was most influenced by their college plans. All three of them commented that taking AP courses in high school allowed them the ability to graduate early or on time, giving them the flexibility in college to pursue study abroad opportunities, take internships, or spend more time on their creative pursuits such as acting. Rather than leaving high school prepared to work, they were choosing to leave high school ready go to college and would then use college to get ready for transitioning to work. Rachel commented that because of her desire to pursue acting in college, *"working with the AP classes to get some of the requirements out of the way before hand."*

Lisa was concerned about not finishing college "on time" after taking into account how long it has taken other people she knows. *"So, AP classes knocks that back down to four and, you know, you know that is nice. I'm going in to, I think I'm going in with something"*

ridiculous like I get like 36 college credits. So, that should knock it back down to four years.”

Tina was going to be attending a completely theater focused school so her decision to take AP fell in with her belief that she didn't think she would get a strong education from an *“acting and theater focused curriculum at college.”*

Influence of family

There were not many reports on the influence of parents on these students' decisions to enroll in CTE coursework, which is conflicting with previous research. Rossetti (1987) found parents to be the most influential figure in students' decisions and Dunham and Frome (2003) investigated influence by teachers and counselors, but found parents as the source students looked to most frequently. The difference in these results I think can be attributed to the difference in questioning. Rossetti (1987) and Dunham and Frome (2003) asked students directly in surveys who were most influential, but I asked students about each influence giving students the opportunity to elaborate. From the responses I was able to find a greater response to questioning regarding how students feel about their teachers from the interview questions about “what a good teacher is;” “how they describe the differences in instruction” in their classes; “who has influenced your decisions;” and “at what level of influence would you describe that.”

For the AP students, it was not a direct influence that was reported but rather a lifestyle they were taught. Consider Tina who *“comes from a family who really values like education and knowing.”* Tina believes the purpose of school is to “inform.” She comments that she gets this idea from her mom and grandmother who value education a great deal. Her mom has a PhD and is a college professor. Tina feels *“like you should learn everything, as*

much as possible so you have a very well rounded education and background and you can make better decisions. I don't think you should be an expert in just one area but you should know a bunch of different things."

This idea of "family values" is not just a concept for AP students though. Mary also reflected on her upbringing and the value of education in her family. She also comes from PhD educated parents like Tina. Her parents have always given her the support to do whatever she wanted to do and become whatever she wanted to be which has influenced her to pursue her interests of nursing and her activities in child care and health care. The biggest influence she has received from her parents is that level of support, *"that's a big thing having parents that are proud of you cause I've got the friends who their parents don't really care and so they don't care so. That's pretty much what my parents have done."* It is difficult to understand why Mary and Tina have such different beliefs about CTE with their backgrounds being so similar. One possibility could be the occupations of their parents. Mary's dad's profession puts him in a field where he has to know practical concepts with the body and how things work while Tina's mom is in an occupation of ideas and thinking as a professor in the social sciences. Coming from that "practical" form of education could have impacted Mary's views of CTE because she sees the purpose of practical knowledge she can "use" rather than just "know."

Greg did not come from a family with the same level of resources or family support. His parents have encouraged him to pursue college though. He is influenced by his dad who never got to go to college and has faced hardships in trying to obtain employment. He is influenced by his mom not going to college because of lack of money. *"They don't have an education and that little college diploma they've been having a hard time finding jobs that*

they're wanting to go work for to get better pay. And so, they're saying we don't want you going down the road that we've gone down and everything."

Influence of school staff members (teachers and/or counselors)

Lisa commented that prior to taking a particular AP class, she hated U.S. history, but it was a requirement in high school that she couldn't avoid. In her junior year she found a teacher in her AP class who *"made me love and adore American History and it doesn't make any sense cause nothing about it was particularly interesting but, seeing how enthusiastic he was about it and how excited he was to tell us about it and the way he structured his lectures and the activities that we did in class."* She went on to state how she found this to be special only to AP classes. From the dialogue of CTE students this style of teaching created similar feedback.

Greg recalled the way his electronics teacher structured his classes to make the students constantly question ideas and problem solve on their own: *"In my electronics class [at the ACC] our teacher will constantly say, "all right so what should we do?" some of us will give an answer and he'll be like are you sure? Uh, I don't know and he'll be like well "I don't know" so he kind of gives it more, that's what it should be. Having a student figure it out, if it really is what it is or isn't. Rather than just having the teacher telling you everything."*

Teachers also directly influenced students to make the initial decision to take CTE courses. In their ninth grade years, both Greg and Mike received suggestions by counselors or teachers to take CTE courses at the ACC. Greg was in a science and engineering class and loved it. He was so interested that he asked his teacher if there were any similar classes he could take, and the teacher recommended the electronics courses at the ACC. Greg had a

enough trust in his teacher to know what to take and even greater trust to follow what the teacher said. His teacher could have probably suggested any course and Greg would have followed those instructions. Lareau (2003) found working class children to be more submissive to adults and less questioning of their authority than high-income children. Lareau's points are important to keep in mind for teachers who advise working class students because the power they have over those students' futures is greater than students from a higher social class and who have greater knowledge of the academic options and have greater cultural capital.

Mike's exposure to CTE happened at an open house event with the school. He found the subject matter of the CTE courses interesting and saw the potential to *"make my own radio or something"* but talking with one of the teachers at the open house *"really caught my attention, I thought it was going to be a good class, like, jumped on it."*

Henry was also citing teachers as influencing his decisions to enroll in certain classes. One of Henry's teachers in high school recommended he take an advanced math class. Even though he was not confident in his math skills, he has always been *"pretty trusting of my teachers on what they recommend. I mean I've struggled a bit in that class. I've struggled with math, I mean I don't know, the only time I didn't struggle in math is like in 6th and 7th grade but like my teacher was amazing in that. Um, I've always had trouble with math, um, I guess I did really good last year for her to you know, say hey maybe you should take honors and I was like okay."* Even though he did not have confidence in himself, he trusted the confidence that his teacher had in him and he took the recommendation for the advanced math class.

Research Question 3: Cultural Capital and Views of CTE

When I considered cultural capital, I chose to look at parents' education and occupation, and students' experiences with travel, choice of activities, and resources available at home. Parents' education has long been considered to be a contributing factor to academic and occupational success (Bourdieu, 1977). However, in this study, parents' education was not particularly valuable in understanding students' views of CTE. Of the eight students in this study, three have parents who did not graduate from college. Greg, Lisa, and Rachel share this attribute but their lives are completely different, including their choice of courses. Greg only took CTE classes and Lisa and Rachel were AP only students. Greg's parents did not go to college, and Greg's background and experiences place him at the lowest economic and cultural capital level. He and his parents live a working class life in the landlord quarters of an apartment complex. Greg is not involved in any school activities and only works part time to maintain the few luxuries he does possess such as a car and cell phone. Greg sees CTE as saving him and bringing new interest in school, *"Uh, [without taking classes at the] I would probably still be kind of a wandering person. Before I was just kind of floating through high school. Not failing but not succeeding just kind of barely getting by. And if I hadn't taken any classes at the career center I would probably still be floating if not failing because there was nothing for me to do."*

Lisa and Rachel's parents, on the other hand, make up for their lack of education credentials with high incomes from their occupations giving them more opportunities to expose their children to cultural experiences in the home and encouraging them to understand the world around them. Lisa talks about her experience with travel that her mom encouraged.

“Well, all of last summer I went backpacking through Europe with my sister. I guess like my mom wants us to be productive over the summers...so she plopped us down in Spain for a month with credit cards and international cell phones and was just like go. And, it was the coolest thing in the world.”

When it came time for her to fill out her college applications, these experiences benefited Lisa a great deal. One application asked for a list of all the museums that she had been to in the past two years, and she was able to list every major museum in Europe and most of the minor ones. Lisa’s knowledge of museums and culture gave her the right capital to impress with her applications. She also was able to build a world-view of other cultures that will prove to be valuable in other situations when activated. Without the income of her parents this experience would not have been possible for Lisa

Lisa also has an art studio at home, a huge resource that allows her to work on her craft as often as she like at her own convenience. This could have had a huge impact on her choice to pursue art in high school and college. Her studio also allowed her to create an impressive art portfolio that contributed to her acceptance to a prestigious art college and receipt of a large scholarship. Again, without the income from her parents, her art experiences might not have been possible.

Rachel’s background seems to encompass a little bit of everything. Her parents did not graduate from college but have managed to maintain what appears to be a well off lifestyle for Rachel and her sister. Though her dad spends his days at home on disability from his job and his mom works part time at an investment company, they appear to have a high enough income not only to provide a great deal of cultural experiences for Rachel but also a home stable home life where Rachel is encouraged to pursue anything she wants to do. She is

ambitious, a self-starter and takes control of her own learning. Rachel is highly invested in her academic life and does her best to create as many opportunities for her future by performing well in school, *“I tend to push myself very hard. I definitely take a lot of notes and complete all the homework assignments and you know, do every bit of the reading.”* She goes the extra mile to learn all she can and understand it. When faced with a situation where she doesn’t understand something, she takes a cue from Lareau’s research that highlights the “sense of entitlement” higher-class individuals feel as they approach life. Rachel mentioned a situation where she was in an advanced math class but she considered the teacher as too difficult to learn from. She earned her first ‘D’ on a test but rather than accept her low performance, she sought help from her previous math teacher who she viewed as effective. Lareau refers to higher income individuals as believing that they are “entitled to receive customized attention from adults in institutions [while] working class individuals are taught to defer.” (Lareau, 2003, p.67) Based on her initiative and help seeking mentality, Rachel has a better chance at success in her classes than Greg because when in trouble she will seek out the help she needs.

I cannot claim that cultural capital is the reason for these students thinking the way they do about CTE but cultural capital does seem to play a role in how some of these students approach the topic. It seems like for these students their biggest motivator for their choice of courses in high school is their plans after high school. Those students who have their eyes on a specific occupation, like Mary and It does appear that the possession of cultural capital is not as meaningful to the discussion as activating cultural capital by knowing in what situation it is most useful (see Lamont and Lareau, 1987; Schulenberg, Vonracek and Couter, 1984; and Portes, 1987). Understanding the activation of cultural capital has a lot to do with students’ upbringing and how their parents structured their activities and making

opportunities for them. Further research is needed to better understand this concept.

Chapter 5: Summary and Discussion

In this study I set out to learn what a group of high school seniors felt about CTE classes, what influenced their views, and what impact cultural capital might have on these views. Qualitative research methods allowed me the opportunity to include the rich dialogue from the participants' responses that I hope will serve to further the research on CTE.

Advocates of CTE should find comfort in the fact that all students who had taken courses in CTE in this study responded favorably to CTE instruction, its teachers, and the preparation they were receiving for their future careers. What is most prevalent in the students' views of CTE are their descriptions of CTE as "hands on learning" and "career oriented." CTE students enjoyed the opportunity they had in their classes to not just learn about a subject but to actually do it and apply what they were learning. One thing the majority of CTE students mentioned about their dislike for the traditional high school curriculum was emphasis on "*book work*" and note taking. The AP students also commented on their occasional dislike of spending so much time taking notes and sitting in class and some found it to be more representative of "play time" than serious learning. Tina discussed how she liked the aspect of the career center that didn't emphasize sitting at a desk taking notes where things can get "*boring*" but also referred to CTE students as "*doing their little process*." She stated how she would have liked to take a cooking class at the ACC because she can't cook and at home that is one thing you need to be able to do. Lisa, on the same level referred to her friends taking CTE classes as "*toying around on computers*." Neither Tina nor

Lisa connected CTE to career oriented skills but rather a form of social or recreation entertainment.

Henry discussed how he loved the relaxed environment and it helped him learn more than the “*same math and English*” repeated each year. He enjoyed getting away from the more academic lessons and not being as stressed out in his CTE classes being surrounded by other guys where they could “*burp and fart and just be*” guys. Mary made similar comments about her CTE classes compared to traditional courses. She found her self not getting as bored in CTE compared to “*things like English and Social Studies that [she] cannot stand*”

With these few instances it appears that Claus’s (1990) argument holds some weight in the students he found to be most welcoming of CTE in his study to be of either lower class, low performing or low interest in traditional courses with students of low interest in traditional being the most synonymous with this study. Mary and Henry liked their CTE courses but also weren’t that found of their traditional classes while Lisa who was high performing, higher class and high interest in her AP courses did not find interest in CTE. For Tina, though she suffered from boredom in some of her classes, her higher class and high performance in her AP classes outweighed this negative feeling of taking notes providing no interest in CTE either.

Another factor that seemed to contribute to students’ interest in a particular course subject or form of instruction was the classroom environment. Both CTE and AP students felt that a sense of “community” was important in the classroom. Students found a great deal of comfort in the shared experiences in classrooms with their peers and were very receptive to teachers who encouraged group work interactions with other students. CTE students were

exposed to more opportunities for group work than the AP students. They liked the ability to connect with other students in their specific field and enjoyed being surrounded by others, even their teachers, who could understand their dislike for traditional methods of instruction.

AP students also emphasized the importance of a sense of community, though the benefit they received from interacting with their peers rested more on their getting through the challenging material together. For AP students in theater and art, teamwork was similar to the classroom peer interactions the CTE students valued.

In addition to students' views of CTE, I was also interested in discovering the sources of influence that the participants felt when deciding on CTE vs. advanced academic coursework. The most significant source of influence reported by the participants was their future plans after high school. Students with plans of going into engineering or healthcare found CTE coursework to be the best option for them to learn in high school. They believe that they would learn skills that would put them ahead of their future peers in college. Other students found the environment of CTE to be similar to the world of work they pictured ahead of them and found a great deal of value in receiving those "working" skills so early in life. For the AP students in the study, their future plans of college and finding better preparation in their AP classes was the most significant influence on their NOT taking CTE classes.

Additional sources of influence reported included the participants' family and their teachers. Some students were influenced by the encouragement of their parents, but the majority was influenced by the quality of the teachers and the method of instruction. Teachers who challenged the students to achieve at a higher level and encouraged them to

attain their own potential had the greatest influence on students. A teacher who cared was more often listened to in their suggestions. For CTE students, knowing they would be allowed a more relaxed atmosphere was also a factor that came into play when they decided to take CTE classes. For some AP students, the belief that better quality teachers instructed the AP classes influenced them towards AP instruction over CTE instruction even though the education credentials of CTE teachers are equal to or greater than traditional high school teachers. I don't think students were aware of this fact.

As stated earlier parents did not play a big role in directly influencing their children to pursue or not pursue CTE courses but rather provided experiences in the home or society that might influence how students thought about different subjects. Mary's parents did not advise her to take CTE classes but she mentioned that the reason for her planned future career as a nurse was influenced by her parents' occupations. She also made many references to her future career being the motivator for her taking healthcare classes at the ACC in high school. Tina chose not to take CTE classes not because of her parents advising her not to but rather because she came from a family that "valued learning and knowing" something she did not think was representative of CTE coursework. It was this level of influence that parents had in these students' decision to take or not take CTE courses. Interviews with parents might help understand the role they play in students' decisions of high school classes that should be looked into with future research on the subject.

Parents' education was found to be less of a factor than parents' occupation on how students viewed CTE coursework. Of the three AP students who had never taken CTE classes and viewed CTE classes less favorably than the other participants, two of these

students had parents who had never graduated college. Of the remaining six students who had taken CTE or CTE/AP combined coursework and viewed CTE coursework favorably, only one had parents who had not graduated from college. The two AP students whose parents did not graduate from college were accepted by the most prestigious colleges from the entire group of students in the study and seemed to possess greater capital in terms of travel and knowledge of the dominant culture. This could have a lot to do with the economic capital from their parents as well as the “missed opportunities” their parents were trying to make up for. As mentioned previously, Lisa has had a lot of experiences and exposure to her art interests made possible only with a lot of money available from her parents who sent her to Europe and built her an art studio. Rachel mentioned how her mother’s home situation growing up without a mother and a father raising four kids on his own did not make college a viable option for her. Rachel’s dad goes the extra mile planning activities for her and her sister to go to concerts and plays, sends her to college “camp” experiences over the summer and supports her in all of her involvement with activities. With all of these experiences taking place without a college degree, Lisa and Rachel’s parents seem to have a better knowledge of the dominant culture ideals that they have passed along to their children influencing their children’s outlook on their future.

It can also be said that based on the data from this study it seems important for teachers and administrators to include more hands-on instruction and group work in their classes, whether traditional, AP or CTE. All students found this method of instruction to be positive for learning and beneficial for all students. Second, teachers need to realize how important the role they play in the classroom experiences of their students is. A teacher who

goes the extra mile to support his or her students will have a much easier time encouraging them to succeed in the future by establishing a relationship of trust and understanding. Third, for CTE administrators and site directors, methods of recruitment need to be modified to make sure students and parents are aware of the benefits of CTE instruction. More opportunities for dual credit and college credit need to be made available to increase enrollment and interest, and a wider variety of classes that includes topics like art and theatre could benefit CTE as well.

References

- Arum R.; Shavit, Y. (1995). Secondary Vocational Education and the Transition from School to Work. *Sociology of Education*, 68(3). 187-204.
- Arum, R. (1998). Invested Dollars or Diverted Dreams: The Effect of Resources on Vocational Students' Educational Outcomes. *Sociology of Education*, 71(2), 130-151.
- ASCHAFFENBURG,K. & MAAS,I. (1997) Cultural and educational careers: the dynamics of social reproduction, *American Sociological Review*, 62, pp. 573-587.
- Association for Career and Technical Education, (2006). *Reinventing the American High School: Strengthening a New Vision for the American High School through the Experiences and Resources of Career and Technical Education*.
- Benavot, A. (1983). The Rise and Decline of Vocational Education. *Sociology of Education*, 56(2), 63-76.
- Bogdan, R. C. & Biklen, S. K. (1992). *Qualitative Research for Education: An Introduction to Theory and Methods*. Needham Heights: Allyn and Bacon
- Bourdieu, P. (1977). Cultural Reproduction and Social Reproduction. In J. Karabel & A. H. Halsey (Eds.), *Power and Ideology in Education* (pp. 486-510). New York: Oxford University Press US.
- Catterall, J. S., & Stern, D. (1986). The Effects of Alternative School Programs on High School Completion and Labor Market Outcomes. *Educational Evaluation and Policy Analysis*, 8(1), 77-86.
- Claus, J. (1990). Opportunity or Inequality in Vocational Education? A Qualitative Investigation. *Curriculum Inquiry*, 20(1), 7-39.
- Dunham, C. & Frome, P. (2003). *Guidance and Advisement: Influences on Students' Motivation and Course-Taking Choices*. Southern Regional Education Board, 1-27
- Gaunt, D. (2005). *High School Seniors' Perceptions of Career and Technical Education and Factors Influencing their Decision to Attend an Area Technical Center*. Unpublished doctoral dissertation, Western Michigan University, Kalamazoo, MI.
- Hearn, C. (1991). Academic and Nonacademic Influences on the College Destinations of 1980 High School Graduates, *Sociology of Education*, 64(3),158-171.

- Kingston, P. W. (2001). The Unfulfilled Promise of Cultural Capital Theory. *Sociology of Education*, 74(Extra Issue: Current of Thought: Sociology of Education at the Dawn of the 21st Century), 88-99.
- Lamont, M.; Lareau, A. (Autumn, 1988). Cultural Capital: Allusions, Gaps and Glissandos in Recent Theoretical Developments. *Sociological Theory*, 6(2). (Autumn, 1988), 153-168.
- Lareau, A. (1987). Social Class Differences in Family-School Relationships: The Importance of Cultural Capital. *Sociology of Education*, 60(2), 73-85.
- Lareau, A. (2003). *Unequal Childhoods*. Berkeley: University of California Press
- Plank, S. (2001). Career and Technical Education in the Balance: An Analysis of High School Persistence, Academic Achievement, and Postsecondary Destinations. *Career and Technical Education National Research Center*.
- Portes, A. (1998). SOCIAL CAPITAL: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24, 1-24.
- Rossetti, R. (1991). *An examination of factors influencing students not to enroll in secondary vocational education. Summary of research 53*. Columbus, OH: Ohio State University Department of Agricultural Education. (ERIC Document Reproduction Service No. ED 338 915)
- Schulenberg, J. E., Vondracek, F. W., & Crouter, A. C. (1984). The Influence of the Family on Vocational Development. *Journal of Marriage and the Family*, 46(1), 129-143.
- Skinner, R. R. & Apling, R. N. (2005) CRS Report for Congress, Order Code RL31747. May 10, 2005
- Stern, D., Dayton, C., Paik, I.-W., Weisberg, A., & Evans, J. (1988). Combining Academic and Vocational Courses in an Integrated Program to Reduce High School Dropout Rates: Second-Year Results from Replications of the California Peninsula Academies. *Educational Evaluation and Policy Analysis*, 10(2), 161-170.
- Terrell, N. (Spring, 2007). STEM Occupations: High-tech jobs for a high-tech economy. *Occupational Outlook Quarterly*, (Spring). 26-33.
- U.S. Department of Education. National Center for Education Statistics. Vocational Education in the United States: Toward the Year 2000, NCES 2000-029, by Karen Levesque, Doug Lauen, Peter Teitelbaum, Martha Alt, and Sally Librera. Project Officer: Dawn Nelson. Washington, D.C.: 2000

APPENDICES AND TABLES

Appendix A: Recruitment Documents

RESEARCH STUDY INFORMATION SHEET
Student Views of Career and Technical Education
University of Missouri-Columbia

Dear Potential Student Participant,

What do you think about the ACC and about Career and Technical Education? I am looking for high school seniors to participate in a research study that I will be doing with the School District during the months of February and March, 2007. I am interested in learning about the experiences and opinions students have of Career and Technical Education courses in the school district.

I am seeking students who have different backgrounds, including those who have taken CTE courses and those who have not.

I hope that you will agree to be interviewed and possibly participate in a follow up focus group or follow up phone interview. The interview will last approximately 50 minutes and can be scheduled at your convenience, perhaps during a lunch period, a free block period or after school. I will be asking questions about your motivation for school, your interest in Career and Technical Education and other school courses, and questions about your future plans after high school.

Attached to this information sheet you will find a written consent form as well as a contact information sheet for you to read, fill out and sign. If you are under 18 you will need to have a parent or guardian sign the consent form as well.

If you would like to participate in this study, please call or email me with the information below **by April 8, 2007** so we can set up a time for an interview.

This study has been approved by the School District as well as the University of Missouri's campus. I look forward to hearing from you soon.

Sincerely,

Angela Browder, Master's student

University of Missouri-Columbia

Department of Educational, School and Counseling Psychology

Columbia, MO 65211

Email: ajb67a@mizzou.edu

Phone: (816) 809-8087

Dr. David Bergin, Academic adviser

University of Missouri-Columbia

Department of Educational, School and Counseling Psychology

Columbia, MO 65211

Email: bergind@missouri.edu

Phone: (573) 882-130

INFORMED CONSENT
Angela Browder
Student Views of Career and Technical Education
University of Missouri-Columbia

I am asking you to take part in a research study in which I am researching the experiences of high school students enrolled in traditional and non-traditional education courses. You are being asked to participate because of your varied school experiences.

If you agree to be in this study, you will participate in at least one audio taped interview with me. This session will last approximately 45 to 60 minutes. You will be given the opportunity to share both your academic and non-academic experiences in and outside school. Additionally, you may be asked to participate in a follow-up interview via telephone and a focus group with other students.

There are no risks associated with your participation in this study beyond what you face in normal life. Audiotapes and interview notes will be kept in a secure cabinet with a lock for my access only. Also, your decision participate or not to participate in this study will have no effect on your future relationship with the University of Missouri-Columbia or the relationship with your current high school, your teachers, or your grades.

As a participant in this study, you will benefit from being allowed to share your high school experiences, which will allow educators to better understand vocational schooling practices in order to make suggestions for possible improvements.

If you do not want to be in this study, you do not have to participate. Remember, being in this study is entirely up to you and no one will be upset if you do not want to participate. If you do participate, you can decline to answer questions that you do not want to answer. If you change your mind later, you can withdraw your agreement to participate at any time without any negative consequences.

All information that you provide in this research study will be kept strictly confidential and any report of this research will not identify you personally.

You can ask any questions that you have about the study. If you have a question later that you did not think of now, you can email me, Angela Browder at ajb67a@mizzou.edu or at 816-809-8087. You can also contact my academic advisor, Dr. David Bergin, at (573) 882-1303.

If there are any problems or questions regarding human subjects please direct them to the UMC Campus IRB Office at (573) 882-9585.

Signing your name at the bottom means that you agree to be in this study.

Investigator's Responsibility: I have fully explained to (participant's name) _____ the nature and the purpose of the above described research procedures and the risks and benefits involved in its performance. I have answered all (and will continue to answer all) questions to the best of my ability. I will inform the participant of any changes in the procedures or risks and benefits if they should occur during or after the course of this study. I have provided a copy of the consent form for the participant.

Investigator's signature _____ Date _____

Participant's Consent: I have been satisfactorily informed of the above-described procedure with its possible risks and benefits. I agree to participate in this research study. I understand that my participation in this research study is voluntary and that I am free to stop participating at any time, without any consequences, even after signing this form. I have been offered a copy of this form.

Name of participant _____ Date _____

Participant's signature _____ Date _____

Parent/Guardian Signature _____ Date _____

Contact Sheet for Student Participation
Angela Browder, master's student
“Student Views of Career and Technical Education”
University of Missouri-Columbia

This form will be used for the sole purpose of coordinating interview times with interested participants and communicating information to those who voluntarily choose to participate in the study.

Your Name (please PRINT): _____

Please select only one (1)- I am enrolled in:

Career and Technical Education Courses Only: ____, Name of Course (s):

Advanced or Honors Courses Only: ____, Name of Course (s):

Both Vocational AND Advanced or Honors Courses: ____, Names of Courses:

Preferred Contact Method (please check one (or both) and include information:

Phone ____, Phone #: _____ / Email ____, Email Address:

Please attach this sheet to your signed consent form and leave in the envelope with

Appendix B: Interview Questions

INTERVIEW PROTOCOL-CTE ONLY STUDENTS

Angela Browder, master's student

Student Views of Career and Technical Education

University of Missouri-Columbia

Interview Protocol:

I am interested in gaining a better understanding of the views that students have regarding CTE courses in high school. I will follow the interview protocol listed below. I will ask follow-up questions based upon student responses. Due to the qualitative nature of the study, I cannot specify every question in advance. Exact questions will emerge during the conversation. I will not ask questions about illegal activity, sexual behavior, or other sensitive topics. However, I will ask for demographic information as listed below. Any question the student does not want to answer they do not have to.

The interviews will be audio taped using a digital voice recorder.

School Performance

1. What do you think the purpose of school is?
2. How are you doing in school? Has your performance changed over the years? Why do you think so?
3. What do you think of grades? Tell me more about that. How do you view grades on homework and tests in school? (why do you view them that way?)
4. What motivates you to do well in school? How often does that motivator occur?
5. What school activities, sports or clubs are you involved in?
What about activities outside of school such as a job or other experiences?
What other activities are you involved in?

How did you get involved with these activities?

How do you balance school activities with these other activities?

Future plans

6. What do you plan to do after you graduate from high school?
7. If going to college, what major/area of study interests you? If working, what type of career?
 - a. How did you decide on these particular areas of study/ careers?
8. What role do you see your high school education playing in your future career?

9. Who/what has influenced you to pursue your future education/career plans (based on answers to previous questions)
10. How else are you preparing for entrance into college or work?
11. What role have your parents played in your future college or career decisions? What about your friends? Has anything or anyone else contributed to your decisions not yet mentioned?

Views of CTE School

12. How would you describe career and technical education?
13. How would you describe the ACC? Why do you think that way?
14. How did you hear about the CCC?
15. What was your initial opinion of the CCC before taking courses here? What is your opinion now? (what changed your opinion if it did change?)
16. What factors contributed to you deciding to take classes at the CCC?
17. When did you take your first classes at the CCC?
18. What types of classes have you taken at the CCC?
19. What was it that interested you about those particular classes? (what/ who influenced your choices?)
20. How does the CCC compare to your classes in your local high school?
21. How might your future goals/ decisions/ choices be different if you hadn't taken classes at the CCC?
22. Are there any classes at the ACC or your local high school that you wish you could have taken but never had the opportunity?
23. What role do you see your career-tech education courses playing in your future education or career? How do you see your courses at the CCC helping you in the future?

Additional Questions

24. Have you found something of interest to you in your courses at your local high school that you have pursued outside of school/ in your own time?

25. If a course on the above topic/subject existed at the CCC would you take a class on it there?

Background/Demographics

26. How would you describe your family's income? What makes you think so?

27. How would you describe the neighborhood you live in?

28. How much education does your father have? Your mother?

29. What do your parents do for a living?

30. Do you have any siblings? Ages? Highest level of education?

31. What kinds of books and music do you have at home? What other resources do you have available to you such as technology?

32. What types of activities do you do with your family?

33. Do you and your family travel often? If so, what types of places do you go to?

34. How often do you attend museums or stage productions such as plays or musicals?

35. What kinds of things do you like to talk about with friends and family?

INTERVIEW PROTOCOL- AP COURSES STUDENTS

Angela Browder, master's student

Student Views of Career and Technical Education

University of Missouri-Columbia

Interview Protocol:

I am interested in gaining a better understanding of the views that students have regarding career and technical education courses in high school. I will follow the interview protocol listed below. I will ask follow-up questions based upon student responses. Due to the qualitative nature of the study, I cannot specify every question in advance. Exact questions will emerge during the conversation. I will not ask questions about illegal activity, sexual behavior, or other sensitive topics. However, I will ask for demographic information as listed below. Any question the student does not want to answer they do not have to.

The interviews will be audio-taped using a digital voice recorder.

School Performance

1. What do you think the purpose of school is?
2. How are you doing in school? Has your performance changed over the years? Why do you think so?
3. What do you think of grades? How do you view grades on homework and tests in school? (why do you view them that way?)
4. What motivates you to do well in school? How often does that motivator occur?
5. What school activities, sports or clubs are you involved in?
What about activities outside of school such as a job or other experiences?
What other activities are you involved in?

How did you get involved with these activities?
How do you balance school activities with these other activities?

Future plans

6. What do you plan to do after you graduate from high school?
7. If going to college, what major/area of study interests you? If working, what type of career?
 - a. How did you decide on these particular areas of study/ careers?
8. What role do you see your high school education playing in your future career?

9. Who/what has influenced you to pursue your future education/career plans (based on answers to previous questions)
10. How else are you preparing for entrance into college or work?
11. What role have your parents played in your future college or career decisions? What about your friends?

Views of CTE School

12. How would you describe career and technical education?
13. Have you heard of the ACC? What do you think of the ACC? Why do you think that way?
14. Have you ever taken classes at the ACC? **OR** Have you ever thought about taking classes at the ACC? Why or why not- what or who contributed to your decision?
15. Do you know students who take courses at the ACC? What do they say about it?
16. What role do you see career-tech education courses playing in your future education or career/ How do you see your courses at the CCC helping you in the future?

Views of Advanced/Honors Classes

17. What types of AP or honors classes have you taken at The local high school- currently and in past classes?
18. Why did you choose those particular classes (what/ who influenced your choices?)
19. What do you think about the courses you've taken at the local high school? (like them, not like them - why/why not?)
20. What do you think of the teachers in your AP classes at the local high school? How would you describe the instruction you have received from the teachers in your AP classes at The local high school?
21. How do you see the local high school classes comparing to the CCC classes? What do AP/advanced classes offer you that you don't get with CCC courses and vice versus?
22. How might your future aspirations be different without your AP/advanced classes?

Additional Questions

23. Have you found something of interest to you in your courses at The local high school that you have pursued outside of school/ in your own time?
24. If a course on the above topic/subject existed at the CCC would you take a class on it there?

Social Class Questions

25. How would you describe your family's income? What makes you think so?
26. How would you describe the neighborhood you live in?
27. How much education does your father have? Your mother?
28. What do your parents do for a living?
29. Do you have any siblings? Ages? Highest level of education?
30. What kinds of books and music do you have at home? What other resources do you have available to you such as technology?
31. What types of activities do you do with your family?
32. Do you and your family travel often? If so, what types of places do you go to?
33. How often do you attend museums or stage productions such as plays or musicals?
34. What kinds of things do you like to talk about with friends and family?

INTERVIEW PROTOCOL- COMBINED COURSES STUDENTS

Angela Browder, master's student

Student Views of Career and Technical Education

University of Missouri-Columbia

Interview Protocol:

I am interested in gaining a better understanding of the views that students have regarding CTE courses in high school. I will follow the interview protocol listed below. I will ask follow-up questions based upon student responses. Due to the qualitative nature of the study, I cannot specify every question in advance. Exact questions will emerge during the conversation. I will not ask questions about illegal activity, sexual behavior, or other sensitive topics. However, I will ask for demographic information as listed below. Any question the student does not want to answer they do not have to.

The interviews will be audio-taped using a digital voice recorder.

School Performance

1. What do you think the purpose of school is?
2. How are you doing in school? Has your performance changed over the years? Why do you think so?
3. What do you think of grades? Tell me more about that. How do you view grades on homework and tests in school? (why do you view them that way?)
4. What motivates you to do well in school? How often does that motivator occur?
5. What school activities, sports or clubs are you involved in?
What about activities outside of school such as a job or other experiences?
What other activities are you involved in?

How did you get involved with these activities?
How do you balance school activities with these other activities?

Future plans

6. What do you plan to do after you graduate from high school?
7. If going to college, what major/area of study interests you? If working, what type of career?
 - b. How did you decide on these particular areas of study/ careers?
8. What role do you see your high school education playing in your future career?
9. Who/what has influenced you to pursue your future education/career plans (based on answers to previous questions)

10. How else are you preparing for entrance into college or work?
11. What role have your parents played in your future college or career decisions? What about your friends? Has anything or anyone else contributed to your decisions not yet mentioned?

Views of CTE School

12. How would you describe career and technical education?
13. How would you describe the ACC? Why do you think that way?
14. How did you hear about the CCC?
15. What was your initial opinion of the CCC before taking courses here? What is your opinion now? (what changed your opinion if it did change?)
16. What factors contributed to you deciding to take classes at the CCC?
17. When did you take your first classes at the CCC?
18. What types of classes have you taken at the CCC?
19. What was it that interested you about those particular classes? (what/ who influenced your choices?)
20. How does the CCC compare to your classes in the local high school or other school?
21. How might your future goals/ decisions/ choices be different if you hadn't taken classes at the CCC?
22. Are there any classes at the ACC or the local high school that you wish you could have taken but never had the opportunity?
23. What role do you see your career-tech education courses playing in your future education or career? How do you see your courses at the CCC helping you in the future?

Views of Advanced/Honors Classes

24. What types of AP or honors classes have you taken at the local high school- currently and in past classes?
25. Why did you choose those particular classes (what/ who influenced your choices?)
26. What do you think about the courses you've taken at the local high school? (like them, not like them - why/why not?)

27. What do you think of the teachers in your AP classes at The local high school? How would you describe the instruction you have received from the teachers in your AP classes at The local high school?
28. How do you see The local high school classes comparing to the CCC classes? What do AP/advanced classes offer you that you don't get with CCC courses and vice versus?
29. How might your future aspirations be different without your AP/advanced classes?

Combined Education Questions

30. Why did you choose to take courses at both the CCC as well as advanced or honors courses at (The local high school)?
31. Do you have a plan for how you hope to use your combination of CCC and AP courses? How do you see the combination of these classes helping you in the future?

Additional Questions

32. Have you found something of interest to you in your courses at The local high school that you have pursued outside of school/ in your own time?
33. If a course on the above topic/subject existed at the CCC would you take a class on it there?

Background/Demographics

34. How would you describe your family's income? What makes you think so?
35. How would you describe the neighborhood you live in?
36. How much education does your father have? Your mother?
37. What do your parents do for a living?
38. Do you have any siblings? Ages? Highest level of education?
39. What kinds of books and music do you have at home? What other resources do you have available to you such as technology?
40. What types of activities do you do with your family?
41. Do you and your family travel often? If so, what types of places do you go to?
42. How often do you attend museums or stage productions such as plays or musicals?
43. What kinds of things do you like to talk about with friends and family?

Appendix C: Supplemental Tables

Table 5: Career Clusters, Missouri Public Schools, Source:

http://dese.mo.gov/divcareered/career_clusters.htm

Cluster	Description
Agriculture, Food and Natural Resources	The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
Architecture and Construction	Careers in designing, planning, managing, building and maintaining the built environment.
Arts, A/V Technology and Communications	Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.
Business, Management and Administration	Careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.
Education and Training	Planning, managing and providing education and training services and related learning support services.
Finance	Planning, services for financial and investment planning, banking, insurance, and business financial management.
Government and Public Administration	Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels.
Health Sciences	Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development..
Hospitality and Tourism	Encompassing the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services
Human Services	Preparing individuals for employment in career pathways that relate to families and human needs.
Information Technology	Careers relating to the design, development, support and management of hardware, software, multimedia, and systems integration services.
Law, Public Safety, Corrections and Security	Planning, managing and providing legal public safety, protective services and homeland security, including professional and technical support services.
Manufacturing	Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.
Marketing, Sales and Service	Planning, managing, and performing marketing activities to reach organizational activities.
Science, Technology, Engineering, and Mathematics	Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering), including laboratory and testing services, and research and development services.
Transportation, Distribution and Logistics	Planning, management, and movement of people, materials, and goods by road, pipeline air, rail and water and related professional and technical support services, such as transportation infrastructure planning and management, logistics services,

Table 6, **City Demographics** (2000 Census Data)

	Total	Percent
Population	112,803	x
Race		
<i>White</i>	93,860	83.2%
<i>Black or African American</i>	11,285	10%
<i>American Indian and Alaska Native</i>	452	.4%
<i>Asian</i>	3,974	3.5%
<i>Native Hawaiian and Other Pacific Islander</i>	42	0.0%
<i>Hispanic or Latino</i>	2,169	1.9%
<i>Other Race</i>	851	.8%
Urban Population	98,266	87.1%
Rural Population	14,518	12.9%
Employment (over 16 years of age)	90,629	80.4%
<i>Civilian Labor Force</i>	64,966	71.7%
<i>Employed in Manufacturing</i>	3,560	5.8
<i>Employed in Retail Trade</i>	6,772	11.1
<i>Employed in Education</i>	12,446	20.3
<i>Employed In Health Care & Social Assistance</i>	11,058	18.1
<i>Employed in Other Industries</i>	27,340	44.7
<i>Unemployed Persons</i>	3,791	5.8%
Education (Person's over 25)	63,112	56%
<i>Less Than 9th Grade</i>	1,769	2.8
<i>9th thru 12th grade, No Diploma</i>	4,299	6.8
<i>High School Grad or GED</i>	12,751	20.2
<i>Did Not Attend College</i>	18,819	29.8
<i>Some College, no degree</i>	15,168	24.0
<i>Bachelors</i>	15,810	25.0
<i>Masters</i>	7,338	11.6
<i>Prof School Degree or PhD</i>	5,977	9.5
<i>Graduate or Professional Degree</i>	13,315	21.1
Median HH Income	\$36,715	
Average Household Income	\$49,576	
HHs W Income < \$200,000	43,663	98.2
Avg HH Income of HHs < \$200k	44,392	

Table 7, Codes

<u>STUDENT CHARACTERISTICS</u>	<u>SES</u>	<u>VIEWS OF SCHOOL</u>
classes current	SES connections	Comparison of different H.S. classes
Classes previous	SES cultural capital (travel, music, books, activities with fam, conversations and interactions with family)	descriptions of AP classes
future aspirations	SES family activities	descriptions of CTE classes
Future goals career related	SES family conversations	descriptions of H.S. general
future plans back up	SES income level	experiences AP
future plans college	SES neighborhood	experiences CTE
future plans general	SES parent's education	experiences HS
Interests academic	SES parent's occupation	other sense of community in classes
interests changing	SES resources in the home	other suggestions for change
interests inherited	SES siblings	Views of AP classes and environment
Interests personal	SES support for income response	Views of CTE classes and environment
Participation in Activities	SES use of technology	Views of grades
performance in school	SES value of money	Views of HS classes and environment general
views of self		Views of school purpose
		views of school value of education
		Views of Teachers

<u>INFLUENCES/MOTIVATION</u>		<u>SKILLS LEARNED, APPLICATION, FUTURE</u>	<u>OTHER</u>
influences aspirations	motivation financial incentives	Application of skills learned in H.S.	OTHER
influences career choice	motivation for college choice	Career and work preparation	other competition
influences financial	motivation to go to college	College preparation	other definition of success
influences from experiences	motivation to perform	College prior experience	other determination
influences from friends	motivation to take AP	experiences work environments	other empowerment
influences from other family	motivation to take CTE	outlook on the future positive	other need for independence
influences from others	Participation in activities motivation	skills learned AP classes	other relationship with family
influences from parents	support from parents	skills learned CTE classes	other scheduling and time management
influences from personal experiences	support from teachers	skills learned from activities	other self confidence
influences from siblings	other sense of community in classes	skills learned HS general	other self doubt
influences from society	influences social	Views of college and college environment	other sense of community in classes
influences from teachers		views of the real world and work	other suggestions for change
influences on college choice			
influences on hs course choice			
Influences on interests class choice			
influences on performance			