

DISSERTATION

FACULTY AND STUDENT PERSPECTIVES ON THE DEVELOPMENT OF COMMUNITY
COLLEGE BACCALAUREATE DEGREES IN CAREER, TECHNICAL, AND
PROFESSIONAL PROGRAMS IN RURAL TEXAS

Submitted by

Ann Marshall Fry

School of Education

In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Summer 2015

Doctoral Committee:

Advisor: Linda Kuk

Gene Gloeckner
Sharon Anderson
Stephanie Clemmons

Copyright by Ann Fry 2015

All Rights Reserved

ABSTRACT

FACULTY AND STUDENT PERSPECTIVES ON THE DEVELOPMENT OF COMMUNITY COLLEGE BACCALAUREATE DEGREES IN CAREER, TECHNICAL, AND PROFESSIONAL PROGRAMS IN RURAL TEXAS

Cohen and Brawer (2003) identified community colleges as critical to the process of educational democracy in the United States. Community colleges have been a model for change, facing numerous challenges over time. Both societal and institutional perspectives contribute to the rationale for the community college baccalaureate. However, perceptions about the Community College Baccalaureate vary across the college campus. This study explored the perspectives of faculty, administrators, and student respondents from three community colleges in a rural area of Texas toward the development of baccalaureate programs at the community college level. The intent was to establish an initial framework for community colleges to follow in order to determine if the pursuit of community college baccalaureate degrees within their CTE and professional programs might be warranted.

Few studies have explored the lack of higher degree opportunities for Career and Technical Education (CTE) and professional programs as a reason for failure to transfer or complete a degree. Many career and technical professions are requiring education beyond associate degrees for entry-level positions, and many are looking for bachelor degree graduates with technical skills. It could be that the time has come for the development of baccalaureate programs at the community college level, especially for CTE and professional programs. This study was approached from a pragmatic perspective and utilized primarily quantitative methods,

but incorporated open-ended questions at the end of each survey and a focus group to support the findings of the quantitative data.

Factor analysis of two surveys (one for faculty/administrators, and one for students) determined three constructs: Student Access (to baccalaureate degrees), Workforce Needs, and Mission Expansion, also identified in other studies by Townsend and Bragg (2009), and Walker (2005), leading researchers in this area. Cronbach's alphas were computed for each of the three groups for both surveys. In the Faculty/administrator survey Student Access had a strong alpha score of $\alpha = .89$, Workforce Needs $\alpha = .75$ (moderate), and Mission Expansion $\alpha = .68$ (marginally acceptable level). Reliability results for the Student Survey showed Cronbach's Alpha was at an acceptable level of $\alpha = .825$, but the next two factors had low reliability ratings ($\alpha = .41$, $\alpha = .39$) probably due to a low number of items as well as lower loading numbers.

Results indicated that faculty were concerned with the logistics of developing baccalaureate programs at their institutions and that there would need to be a concerted effort across disciplines and throughout administrative levels in order to develop and provide for the sustainability of those programs. Several expressed concerns over existing and needed resources, as well as assurances of administrative support. Students were concerned with the availability of baccalaureate programs for their fields of study within a reasonable distance, and that the possibility of lower costs associated with ready access would affect their pursuit of education past an Associate's degree. Both results were in agreement with existing literature (Bragg, 2001; Hoffman, 1998; Floyd, 2006; Floyd and Walker, 2009).

Findings from this research study were significant in that they establish an interest by students and some faculty and administrators for baccalaureate development at the institutions participating in the study for selected Career and Technical and professional programs and an

initial framework for program development. However, as supported by this study and existing literature, extensive conversations with local, area, and regional industry should be held to help determine which programs should be considered for development into 4-year programs. The structure of the degree itself should be explored and defined according to institutional and workforce needs. Faculty should be evaluated for not only their educational qualifications, but for their industry connections as well. Institutions should consider innovative delivery methods to help meet the needs for programs quality and flexibility for the non-traditional student. How the community college would address non-technical skills (critical thinking, workplace etiquette, job-seeking skills, etc.) should also be considered. Conversations should take place with nearby universities with graduate programs to ensure the ability of students who wish to go further would be accepted into those graduate programs (Grothe, 2009). Community colleges are a model for change, facing numerous challenges over time. Perhaps it is time to look more seriously at the opportunities offered through development of baccalaureate degrees at the community college level in selected CTE and professional programs.

ACKNOWLEDGEMENTS

Completion of this academic journey could not have been accomplished without the guidance of each of my instructors and advisors and Colorado State University. They gave freely of their experience and wisdom as well as going that extra mile when needed. While we would all like to think that we are their most important student, I have to admit that in spite of being one of many students, Dr. Linda Kuk and Dr. Gene Gloeckner made me feel that I was their priority any time that I needed their help. Thank you. I would like to thank my colleagues at Amarillo College for their support as well. Dr. Lana Jackson pushed me when I had just about decided to let it drop. She absolutely would not allow that. Thank you. However, this journey would not have even been possible without the support of my husband, Gary Fry, and our family. I often stayed home while Gary visited our children and grandchildren across the country. He also ate peanut butter or take-out many evenings during the time I spent in my office studying or writing. Thank you, my love, for your support. I could not have done this without you! I hope that our children and grandchildren will see that learning is a lifelong process and that one is never too old to learn something new.

DEDICATION

I would like to dedicate this work to my father, John Marshall. A child of the depression, Dad recognized the value of an education from an early age. Following his service in World War II, he married and began a family. I will never be sure exactly why, but Dad decided not to go to college to pursue a degree, opting instead to take selected coursework that would enhance his job skills as well as taking advantage of seminars and correspondence courses. However, he never allowed me to even consider the possibility of not going to college. Being the only child, Mom and Dad made it possible for me to go to school without having to work or take out loans. After having children of my own, I understand what a blessing that was. Following the completion of my bachelor's, he was supportive of my staying to complete a master's degree. Dad passed away in 2004, prior to my pursuit of this program, and I believe that somewhere he has been watching, encouraging, and guiding me through the process. I just wish he could have been here to help me through stats!

TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS.....	v
DEDICATION.....	vi
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
CHAPTER I: INTRODUCTION.....	1
The Community College Baccalaureate in Context of Mission.....	2
Development of Vocational Education.....	4
Statement of the Problem.....	6
Background and Rationale for Study.....	7
Mission Expansion.....	8
Student Access to Baccalaureate Programs.....	9
Community Needs and Workforce Demands.....	10
Purpose Statement.....	11
Research Questions.....	11
Quantitative.....	11
Qualitative.....	14
Definition of Terms.....	14
Delimitations.....	15
Limitations and Assumptions.....	15
Researcher's Perspective.....	15

CHAPTER II: LITERATURE REVIEW.....	17
History of Community College Curriculum and Mission Development.....	17
The Mission of Transfer.....	20
Retention and Attrition.....	26
Persistence and Transfer.....	32
Post-College Earnings.....	37
Program Funding.....	37
Professional, Career, and Technical Education.....	41
The Community College Baccalaureate (CCB).....	42
CCB Models.....	43
Perceptions of the Community College Baccalaureate.....	45
CHAPTER III: METHODOLOGY.....	50
Research Questions and Sub-Questions.....	51
Quantitative.....	52
Qualitative	54
Pilot Testing and Proposed Sample.....	54
Overall Study Design.....	56
Instrument Description.....	56
Faculty and Administration Survey.....	58
Student Survey.....	59
Data Collection.....	60
Data Analysis.....	60
Reliability	62

Validity.....	63
Summary.....	64
CHAPTER IV: RESULTS.....	65
Demographic and Descriptive Data of Respondents	68
Clarendon College.....	69
Frank Phillips College.....	70
Amarillo College.....	71
Faculty/Administration Survey Respondent Demographics.....	73
Student Survey Respondent Demographics.....	74
Quantitative Analysis of Survey Responses	75
Research Questions.....	80
Question 1	80
Question 2.....	85
Question 3.....	92
Question 4.....	101
Qualitative Analysis of Survey Responses and Focus Group.....	102
Emerging Themes in Survey Responses.....	103
Student Survey Responses.....	103
Cost/Financial Considerations.....	104
Perception of the Institution and the Respondent's Experiences.....	105
Perception of Educational Requirements for Job Placement.....	106
Faculty/Administration Responses.....	107
Logistics of Development.....	107

Workforce Solutions/Community Relations.....	108
Mission.....	109
Focus Group Summary.....	109
CHAPTER 5: DISCUSSION.....	113
Question 1.....	113
Faculty/Administrator Respondents.....	114
Student Respondents.....	120
Question 2.....	122
Question 3.....	124
Question 4.....	125
Implications for Practice.....	128
Recommendations for Further Research.....	131
REFERENCES.....	133
APPENDICES.....	141
Appendix A: Permission To Use Survey.....	141
Appendix B: Letter of Introduction and Consent.....	142
Appendix C: Surveys.....	143
Student Survey.....	143
Faculty/Administration Survey.....	146
Appendix D: Responses to Open-Ended Questions.....	151
Student Respondents.....	151
Faculty/Administration Respondents.....	155

LIST OF TABLES

Table 1- Variables And Measurement Scale For Administration/Faculty Survey.....	57
Table 2- Variables And Measurement Scale For Student Survey	58
Table 3- Research Question Analysis Matrix	61
Table 4- Ethnic Demographics: Clarendon College	70
Table 5- Ethnic Demographics: Frank Phillips College	71
Table 6- Ethnic Demographics: Amarillo College	73
Table 7- Faculty And Administrative Personnel Numbers	74
Table 8- Highest Education Level Of Faculty/Administrators	74
Table 9- Number Of Years Involved At The Community College Level	75
Table 10- Current Institution Of Employment	75
Table 11- Reported Marital Status Of Student Respondents	76
Table 12- Student Respondent Rationale For Enrollment	76
Table 13- Factor Loadings For The Rotated Factors For The Faculty/Administration Survey	77
Table 14- Variables And Measurement Scale For Faculty/Administration Survey: Revised .	78
Table 15- Factor Loadings For The Rotated Factors For The Student Survey	79
Table 16- Variables And Measurement Scale For Student Survey: Revised.....	80
Table 17- Top Ten Factors For Faculty/Administration And Students.....	81
Table 18- Correlation Between Q10 And Q 44.....	84
Table 19- Summated Results: Perceptions Of Transfer Faculty And Faculty Of Career And Technical Programs Toward The Development Of Baccalaureate Degrees At Their Institutions.....	85
Table 20- Student Preferences: Community College Or University For Degree Attainment....	86
Table 21- Intercorrelations, Means And Standard Deviations For Student Commuting Distance.....	88
Table 22- Student Preferences In Location Of Bachelor's Degree.....	89
Table 23- One Way Anova Indicating Differences In Perceptions Between Student Groups (Family Dynamics).....	91
Table 24- Games-Howell Hsd Post-Hoc Indicating Individual Group Differences	91
Table 25- Comparison Of The Perceptions Of Traditional And Non-Traditional Students Toward Student Access With Regard To Baccalaureate Degrees.....	93
Table 26- Means Comparison For Student Access	94
Table 27- Means Comparison For Workforce Needs	96
Table 28- Means Comparison For Mission Expansion.....	97
Table 29- Summated Results: Perceptions Of Transfer Students And Students In Career And Technical Programs Toward The Development Of Baccalaureate Degrees At Their Institutions.....	98

Table 30- Summated Results: Perceptions Of Traditional Students And Non-Traditional Students In Career And Technical Programs Toward The Development Of Baccalaureate Degrees At Their Institutions.....	99
Table 31a- Means, Standard Deviations, And Intercorrelations For Student Preferences In Baccalaureate Development And Predictors Variables	100
Table 31b- Simultaneous Multiple Regression Analysis For Gender And Parental Education Levels Predicting Student Preferences In Baccalaureate Development.....	101
Table 32- Means Comparisons: Common Survey Questions For Student Access.....	102

LIST OF FIGURES

Figure 1- Commuting Distance Considered Reasonable By Faculty For Students Who Would Transfer To 4-Year Programs.....	83
Figure 2- Commuting Distance Considered Reasonable To Students.....	87
Figure 3- Proposed Framework for Developing Baccalaureate Degrees at the Community College Level.....	130

CHAPTER I: INTRODUCTION

Cohen and Brawer (2003) identified community colleges as critical to the process of educational democracy in the United States. Beginning in the early years of the twentieth century, the American community college developed as an answer to the need for trained workers in an ever-expanding industrial society as well as the drive for social equality. With the introduction of more subjects and occupations, a growing segment of the population gained increasing access. With the increasing number of demands placed on schools generally, the community college has strived to serve the needs of its local population in varying and diverse ways (Cohen & Brawer, 2003).

Community colleges have the ability to readily alter existing curriculum and develop new curriculum at will. Cohen and Brawer (2003) discussed the rapid adjustments made by community colleges to adapt to changing economic conditions as evidenced by increasing enrollments during the Depression and following WWII. By adapting and enhancing the curriculum, providing developmental courses, and embracing the concept of open access, community colleges continued to expand their mission of community service. Articulation agreements and other cooperative efforts between community colleges and universities continue to facilitate student transfer to university programs and continue to be a vital segment of the community college mission (Townsend, 2001). Community colleges have adjusted to the variety of transfer patterns developing within today's student population by continuing to seek new and creative ways to extend their mission throughout their service areas.

The Community College Baccalaureate in Context of Mission

When examining the mission of the community college, one may observe the changes over time. Never static, new missions appear and older ones change emphasis. Workforce and

economic development, adult education and community services, transfer and educational opportunity have been part of mission development since the inception of the community college. However, the concept of the community college baccalaureate (CCB) has emerged over the last thirty years as part of providing educational opportunity to community college students. Internal and external forces have combined to shape curriculum and development of community college programs. Societal changes and demands have played an important role in mission development, as well. The values and interest of government and other community college officials have led to the further development of adult education from developmental education to program development according to business needs. The support of government and business officials has not only enhanced the popularity of these officials, but has helped to establish a distinct niche for the community college in higher education (Dougherty & Townsend, 2006).

Like all organizations, community colleges have limited funds and resources, especially when it comes to conflicting missions. Occupational education is one of the main sources of mission conflict. Technical programs can be very expensive and may be associated with less institutional success in transfer. However, when one controls for the net differences in social background, high school preparation and student aspirations, any negative effect of vocational emphasis on transfer rates disappears (Cohen & Brawer, 2003). There are those that would argue that community college honors programs may be a larger source of conflict than vocationalism. Those critics say that those programs undercut the college commitment to serve the less advantaged student (Dougherty & Townsend, 2006).

The student should be the primary consideration while considering numerous challenges in in developing the community college baccalaureate. Floyd, Skolnik, & Walker (2005) cited results of an independent survey commissioned by the Community College Baccalaureate

Association (CCBA) sent to 500 randomly selected presidents with a response rate of slightly over 20%. Included in the key findings were the following: 1) greatest interest in CCB is in areas where students were place-bound, 2) one third of respondents affirmed geographical or financial barriers prevented student transfer to four-year universities, 3) approximately half responded that the necessary infrastructure, qualified faculty, and technology are well-positioned to develop four-year offerings, and 4) the necessary feasibility study, needs assessment, or impact studies have yet to be completed in their service areas. While these are only a few of the findings and the sample is admittedly small, this is the most current research on this topic.

There are programs within community colleges (metropolitan and rurally located) that are not addressed by area colleges. Most of those programs fall within the vocational realm. The new CCB is currently applied primarily with a workforce focus and could be viewed as a vehicle to satisfy the demands of the political economy as well as the needs of the local community (Levin, 2004). Many colleges and universities that serve areas with strong community college-based vocational programs have developed Bachelor of Applied Arts and Sciences (BAAS) and/or Bachelor of Applied Technology (BAT) degrees to enable the vocational student to continue with a relatively generic, but viable baccalaureate degree. Other programs, however, do not have corresponding fields of study available for qualification through a particular field's accrediting body. In this instance, the CCB would be of great value to the community college student, especially those who are place-bound.

Community colleges leaders are also faced with an increasing demand for accountability (Cohen & Brawer, 2003). With "assessment" initiatives beginning to threaten funding formulae, a re-evaluation of competency-based education may be in order. Vocational programs have traditionally used competencies to gauge student progress. These built-in assessment tools could

place these programs in an advantageous position politically. Budgets will continue to tighten and legislators will search for rationale to limit funding while community college leaders continue to search for ways to confirm existing and increase future funding. Adoption of the community college baccalaureate in certain vocational programs would have the advantage of existing assessment tools and could facilitate the validation process establishing baccalaureate degrees for selected program areas, contributing to the funding stream.

Development of Vocational Education

The conflict between academic and vocational has been the subject of studies and philosophers throughout the 20th century. John Dewey argued for “education through occupations”, while the Smith-Hughes Act of 1917 separated vocational from academic education. The results were not positive. Rather than promote secondary vocational education, it forced state boards of education to create separate vocational programs in public schools through funding incentives (Cohen & Brawer, 2003). These separate education tracts continued throughout the 20th century. Vocationalism emerged as a strong movement within the two-year institutions as an effort to enhance community relations, local economies, and fulfill the mission of community service during the 1940s and 1950s following World War II (Witt, Wattenbarger, Gollattscheck, & Suppigner, 1994). This development was not without criticism, however. Clark (1960) identified vocationalism as contributing to the “cooling out” function within the community college; redirecting marginal students away from traditional transfer options into less challenging areas of study. A possible answer to this “cooling out” function is the current trend toward the community college baccalaureate. In adding the bachelor degree at the community college, Clark’s observations could still hold, or the perception of the community college could simply shift to that of a four-year institution. Either way, reaching toward additional

opportunities for students to succeed is another example of community colleges expanding their mission through changes in curriculum.

In 1996, Payne found in that the establishment of strong links between industry, business, and community colleges in Texas was one of the most significant developments during the last decade in workforce education. Payne's study also showed that business and industry were cognizant of the capability of community colleges to develop quality career and technical programs. In 1991, the Texas introduced legislation to establish the Texas Skills Development Corporation to address a skill standards system. While this bill never became law, it opened the door for a panel of representatives from business, industry, and labor to provide recommendations that led to the establishment of The Skill Standards Research and Communications Project. A partnership of The Texas Higher Education Coordinating Board, The Texas Education Agency, and The Texas Department of Commerce, it was charged with the review of literature, surveying employers in Texas, establishing focus groups, and meeting with skill standards officials. The National Skill Standards Act was passed in 1994, which promoted the idea of developing and adopting voluntary skill standards in technical education curricula with the standards being defined and recognized by industry (Davis, 2008).

This chapter will introduce the concept of the community college baccalaureate (CCB) as it relates to the vocational mission of the community college as well as identify the problem, its background and rationale, limitations and assumptions, and the researcher's bias.

Statement of the Problem

Few studies have explored the lack of higher degree opportunities for Career and Technical Education (CTE) and professional programs as a reason for failure to transfer or complete a degree. Community colleges are criticized for their perceived attention to

vocationalism over transfer, but few universities offer degrees beyond associates in vocational areas. Professional programs fair better, but they are still comparatively few and scattered across the country, perhaps forcing the nontraditional student to make life choices that may not include transfer from the community college to a university program. Many career and technical professions are requiring education beyond associate degrees for entry level positions, and many are looking for bachelor degree graduates with technical skills. As an example, in the State of Texas, to become a Registered Interior Designer (RID), one must graduate from a 4-year program that has been accredited by the Council for Interior Design Education Accreditation (CIDA), work two years for a registered interior designer, and pass the National Council for Interior Design Qualification exam (Texas Board of Architectural Examiners, 2010). CIDA only accredits 4-year programs (Council for Interior Design Accreditation, 2011). Not all associate degree graduates from community college programs such as interior design have the opportunity or ability to transfer to a 4-year program. Finances and distance can be insurmountable barriers to some students. The current state of the economy and decreasing federal and state funding for higher education is forcing colleges and universities to cut programs and evaluate their plans for future growth. It could be that the time has come for the development of baccalaureate programs at the community college level, especially for CTE and professional programs.

Background and Rationale for Study

There are issues and challenges in the process to determine the efficacy of offering baccalaureate degrees through community colleges. Historically, the most popular model has been university partnerships, but in some rural areas, this is neither practical nor desirable. According to Floyd and Walker (2009), a serious examination by administration, local leaders, and policymakers who consider offering a community college baccalaureate (CCB), must

include questions about the following: mission consistency, political support, political opposition, curriculum models, needed resources (fiscal, physical, and human), faculty and internal stakeholders' views, internal infrastructure, and accreditation. State leaders and policymakers must evaluate not only mission, political support/opposition and curriculum issues, but must also consider fiscal ramifications, oversight by college leaders and decision makers, overall statewide ramifications, and the value of the policy to the state's education system (Floyd & Walker, 2009). Three main factors currently influence the growth of community college baccalaureate degrees: the increasing cost of university tuition coupled with tougher university admission requirements; many entry-level jobs that pay a living wage now require a bachelor degree rather than an associate degree; and the need to bring baccalaureate programs to rural areas serving non-traditional students. The higher costs of university tuition have limited access for many low-income, underserved populations. Community colleges located in rural areas serve typical 18-22 year-olds, but older students, single parents, and students with families are increasingly looking to the community college for access to higher education (Bemmel, Floyd, & Bryan, 2009).

Several studies have examined administration, faculty, and student perspectives of their existing baccalaureate programs (Petry, 2006; Glennon, 2005; Petrosian, 2010; Rice, 2007). Petry (2006) surveyed faculty and administrators at five community colleges in Florida with established baccalaureate programs. Adapting Petry's survey, Petrosian (2010) examined faculty and administrator perspectives at three rural community colleges in Texas with newly established baccalaureate programs. This study concentrated on three issues in community college baccalaureate development: mission expansion, student access, and community/workforce need as identified by Floyd, Bragg, Walker, Townsend, and Petry.

Mission Expansion

The most frequently cited concern in the development of the CCB is the possibility of mission creep. Judith S. Eaton, as president of the Council for Higher Education Accreditation in 2005, argued that in offering the CCB, community colleges would betray their mission, especially in developmental education, and low tuition. Critics fear that the purpose and philosophy of community colleges will change by altering admissions policies, allocated limited resources and space to the most qualified candidates; limiting access to those students needing developmental education and others with simply the motivation to learn (Glennon, 2005). In answer to Easton's concerns, Rice (2007) conducted an ex post facto study examining the effect of community college baccalaureate programs on the traditional community college mission. Enrollment trends in lower-division university transfer coursework, developmental courses, and in applied career and technical education programs showed that the community college baccalaureate did not negatively affect the traditional community college mission as indicated by changes in enrollment. Overall, developmental coursework showed aggregate gains of 71%, with gains in lower-division university transfer enrollment at 16%. There was a decline of 3%, in the aggregate, for applied career and technical education programs.

Student Access to Baccalaureate Programs

There have been numerous studies researching persistence, retention, time to degree, etc. and the reasons for them (Atkinson, 2007; Burke & Minassians, 2004; Deitrick, 2008; Henry, 2003; Tinto, 2000), including developed articulation agreements, positive connections between the student and their institution (faculty, organizations, other students, etc.), availability of financial aid, and ease of transference of credits. However, few have targeted the lack of higher degree opportunities for CTE and professional programs as a reason for failure to transfer or

complete a degree. Community colleges are criticized for their perceived attention to vocationalism over transfer, but few universities offer degrees beyond associates in vocational areas. Professional programs fair better, but they are still comparatively few and scattered across the country, perhaps forcing the nontraditional student to make life choices that may not include transfer from the community college to a university program.

The current state of the economy and decreasing federal and state funding for higher education is forcing colleges and universities to cut programs and evaluate their plans for future growth. In his State of the State address in 2011, Texas Governor Rick Perry challenged the higher education community to develop a bachelor's degree costing no more than \$10,000, including books. Currently, Texas has three community colleges authorized to offer a Bachelor of Applied Technology. At Brazosport Community College, the tab comes to \$9,168 without books (The Texas Tribune, 2011). While the cost of books could run the cost well over the targeted amount, it shows that community colleges may be in a position to offer basic professional, career, and technical degrees at or near the \$10,000 mark. Perhaps the time has come for the development of baccalaureate programs at the community college level, especially for CTE and professional programs.

Within the geographic area where this study was conducted, there is one small university with limited offerings. The nearest major university is more than 100 miles away for most of the participants in the study. Community college transfer programs are geared toward traditional students majoring in traditional academic fields and most university systems do not offer bachelor degrees in vocational areas. Licensure and registration of many professional and technical fields are evidence of the increasing complexity and government regulation of various professions. The development of baccalaureate degrees at the community college level could

offer more options and democratic access to an underserved population in professional and CTE programs. However, individual community colleges must determine if the development of such programs would be cost effective and needed prior to their development. In Florida, the Council for Education Policy Research and Improvement (CEPRI) established an evaluation proposal to evaluate expansion of community college programs to baccalaureate degrees. Six issues were identified by CEPRI to guide a review of potentially expanded program offerings: need, potential impact, use of resources, implementation, accountability, and cost effectiveness (Council for Education Policy Research & Improvement, 2002). The evaluation plan expanded each area of concern with additional questions for the institution to explore, but had no guidance for how to reach any conclusions.

Community Need and Workforce Demands

Both societal and institutional perspectives contribute to the rationale for the community college baccalaureate. The CCB can meet the need for a baccalaureate-educated workforce, likely increasing workers' income and contributions to society. Institutionally, many occupations have raised their basic education requirement to the baccalaureate degree level, areas where community colleges have traditionally provided training. Changing population demographics, demands for access and affordability, changing job market have policy makers and college presidents viewing the community college to answer these demands with convenient locations, lower costs, flexibility, and a history of meeting community needs. Another rationale for the CCB is in response to the trend in the creation of corporate universities. Companies are creating their own colleges or are asking for-profit universities to train their employees because universities are perceived as being too slow to respond to corporate needs (Walker, 2000).

Purpose Statement

This study will explore the perception of students, faculty, and administration of the community college baccalaureate (CCB) at three community colleges without established CCB programs. The intent is to establish an initial framework for community colleges to follow in order to determine if the pursuit of community college baccalaureate degrees within their CTE and professional programs might be warranted.

Research Questions

The intent of this study was to provide a place for community colleges to begin their exploration of mission expansion toward development of baccalaureate programs, especially in professional, and career and technical programs. The following over-riding questions will be explored in the study (additional sub-questions will be identified in the Methods Section):

Quantitative Questions:

1. What issues surrounding mission expansion, community/workforce need, and student access do faculty, administration, and students see as major factors in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. What major factors do administration and faculty identify as imperative to the development of professional and career and technical community college baccalaureate degrees?
 - b. What commuting distance is considered reasonable by faculty for students who would transfer to 4-year programs?

- c. Is there a correlation between faculty and administration perceptions of their community college's instructional resources with regard to their perception of development of community college baccalaureate programs?
 - d. Is there a difference in perceptions of a community college baccalaureate between faculty of traditional transfer programs and those who teach professional, career and technical programs?
2. What factors are regarded by students as major elements in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
- a. Is there a difference between students under 25 (traditional students) versus those 25 and over (non-traditional students) in their preference as to where (community college or university) they receive a bachelor's degree? What commuting distance is considered reasonable to students?
 - b. To what extent does commuting distance determine the preference of a student to transfer to a 4-year program?
 - c. Is there a difference between professional, career, and technical students and students who plan to transfer to 4-year programs with regard to their self-rated preference in location of a bachelor's program (4-year university versus community college)?
 - d. Do parental education levels make a difference in the self-reported preferences for a student's desired location of a baccalaureate degree (4-year university versus community college)?

- e. Is there a difference between individual family dynamics (single with children, etc.) and their self-ratings with regard to the decision to support a community college baccalaureate from a near-by community college over transfer to a university?
3. What factors would influence students currently preparing for transfer to a 4-year institution to likely enroll in a selected professional or career and technical program at the community college that offers a community college baccalaureate?
 - a. Is there a difference between traditional and nontraditional students as to their perspective of a community college baccalaureate?
 - b. Is there a difference in faculty/administrative perspectives and student perspectives toward community college baccalaureate development?
 - c. Is there a difference between students of professional, career, and technical programs and students enrolled in transfer programs with regard to a positive perception of a community college baccalaureate degree?
 - d. How do traditional and non-traditional students differ in their desire to have a baccalaureate degree from a university or community college?
 - e. Are there a combination of demographic factors that can predict a student's preference for the development of a community college baccalaureate program in professional and career and technical education programs?
 4. Is there a difference between perspectives of faculty/administration and students with regard to the following factors in community college baccalaureate development:
 - a. Acceptable commuting distance for students?
 - b. Qualifications of existing faculty?
 - c. The need for baccalaureate programs at the community college level?

d. Value of lower costs at the community college?

Qualitative Sequential Explanatory Questions Directed at Focus Group:

1. Given the results of the survey, the focus group will be shown prelim results and asked to help the researcher better understand faculty, administration, and student perspectives of the quantitative survey.
2. How does the information provided by the focus group combined with the quantitative data explain the feelings and perceptions of the need for a community college baccalaureate program?

Definition of Terms

Career and Technical Education (CTE) - Cutting-edge, rigorous and relevant career education that prepares students for a wide range of high-wage, high-skill, high-demand careers.

Community College Baccalaureate (CCB) – A bachelor’s degree coming from public community colleges or two-year institutions that are approved to confer baccalaureate degrees in one or more areas

Mission Expansion – Alteration/expansion of an institution’s stated mission including but not limited to development of non-traditional community college-level programs, degrees, etc. beyond the historical focus of those institutions.

Place-bound – Those students of limited mobility due to family obligations, finances, or other barriers that would prevent that student from relocating for educational opportunities.

Rural Institution – Those institutions of higher education located in lower-population areas as categorized by the Carnegie Classification of Institutions of Higher Education.

Student Access – Availability of higher education opportunities to all students.

Vocationalism – an emphasis on vocational training.

Workforce Needs – Educational requirements of the local and regional job market.

Delimitations

This study was delimited to three community colleges located in a relatively rural area of Texas and to data collected from faculty, administration, and students enrolled in transfer as well as professional and career and technical education programs at these three community colleges. It was recognized that while online programs are available for those in rural areas, not all technical programs are able to effectively reproduce hands-on education in an online format.

Limitations and Assumptions

Using a convenience sample limited the generalization of this study for community colleges located in urban areas. It was assumed that traditional transfer students enrolled in primarily general education courses would not have an interest in the development of a community college baccalaureate in professional, career, and technical programs.

Researcher's Perspective

As a proponent of Career and Technical Education (CTE), I am concerned that many students who opt for vocational programs within community colleges do not aspire to education beyond associate degrees, do not know what further education opportunities are appropriate and available to them, or are unable to pursue available degrees and programs due to circumstances beyond their control. Educational requirements for many professional and technical careers are being raised for entry-level employees. Rural communities struggle with economic development and are at a disadvantage when competing with metropolitan areas due to the lack of educational opportunities, as well as the possible lack of an educated and upwardly mobile workforce. With the cost of higher education constantly rising, alternative pathways such as community college baccalaureate degrees should be explored wherever feasible and appropriate.

CHAPTER II: REVIEW OF THE LITERATURE

History of Community College Curriculum and Mission Development

One can track curriculum development within community colleges by examining the origin of the community college system. Initially, community colleges were extensions of the local high school, sharing facilities, and instructional staff. There was a growing demand for secondary education and the demand for college rose proportionately. In 1924, 30% of students graduated from high school, increasing to 75% in 1960. By 1960, 45% of 18 year olds entered college, up from 5% in 1910 (Cohen & Brawer, 2003). Called junior colleges until the 1940s, these post-secondary institutions joined together to form The American Association of Junior Colleges. At their second annual meeting in 1922, they formally defined a junior college as “an institution offering two years of instruction of strictly collegiate grade.” By 1925, the definition had expanded to include the development of a “different type of curriculum suited to the larger and ever-changing civic, social, religious, and vocational needs of the entire community in which the college is located”. As expected, coursework met required educational levels appropriate to high school graduates. With the implication of collegiate level instruction, the integration of a general education component in addition to any vocational training was imperative (Cohen & Brawer, 2003).

During the 1920s, university transfer was the most popular segment of the junior college curriculum. Essentially, many junior colleges duplicated the first two years of university undergraduate programs. Most courses offered were components of the general education variety: science, history, foreign language, etc. Adult and continuing education courses also played a part in course offerings to include everything from fine arts to auto mechanics. However, most junior colleges had yet to offer any type of degree (Witt, Wattenbarger,

Gollattscheck, & Suppigner, 1994). During the Depression, while university education became an impossible dream for many, junior college enrollments increased. With the enactment of government aid programs, new campuses were established and new students enrolled. Since the junior college system was already accommodating working class students, they were in an excellent position to offer workforce education to thousands of unemployed adults. Prior to the market crash of 1929, American junior colleges graduated 3,253 students. Three years later, the number swelled to 14,000. This enrollment/graduation trend has been consistently repeated over the decades in every subsequent depression, recession, and economic down turn since 1929 (Witt, et al. 1994).

Economic factors led junior colleges to expand their vocational curricula and by extension, their mission. Various governmental actions such as the Smith-Hughes Act, which provided matching funds for vocational equipment in high schools, gave impetus to this development. Many junior colleges used this equipment while sharing facilities with high schools during the Depression, thus promoting a vocational agenda. During the 1930s, this pragmatic view continued as a way to respond to the growing need for workers in the defense-related industries prior to the United States' involvement in WWII. Following the attack on Pearl Harbor and the U.S. plunge into war, American junior colleges added new wartime courses to the curricula including courses involving aeronautics, mechanics, surveying, chemical technologies, medical services, and many others. While offering accelerated degree programs to those facing the draft, community colleges trained civilians in urban agriculture and other do-it-yourself functions. As a response to the defense effort, the broadened scope and acceptance of vocational program development to suit the needs of industry became commonplace and continued after the conclusion of WWII (Witt, et al. 1994).

Following WWII, there was an influx of veterans into the economic landscape of the United States. With the gearing down of the war machine, and subsequent re-direction of manufacturing, the return of thousands of young men into the workforce had the possibility of creating another economic crisis. However, enactment of the Serviceman's Readjustment Act by the Roosevelt administration channeled returning vets out of the workforce into higher education. The GI Bill opened the doors of colleges nation-wide to a diverse and highly motivated population, very different from the typical college student of prior generations. With expanding enrollments came crowded facilities and again the federal government acted. With the Veterans' Educational Facilities Program, the Bureau of Community Facilities was formed to distribute war surplus structures, equipment, and furniture primarily to educational institutions. With an allocation of millions of dollars to public work projects, junior colleges used the funds to design and build needed facilities (Witt, et al. 1994). The academic needs of veterans also differed from the typical college student. Many had never graduated from high school, thus the establishment of developmental education programs aided in veterans' readjustment, as well as new technical programs, accelerated educational tracts, and mid-semester enrollments.

The 1950s and 1960s brought new wars and new issues to the American junior college. State officials in the 1960s and 1970s recognized that community colleges could meet the expanded enrollments more economically than 4-year universities since they did not require extensive dorms, libraries and research facilities (Dougherty, 2003). State legislatures began to extend their control over the college educational system; legislative mandates noted various curricular functions: academic transfer preparation, vocational-technical education, continuing education, developmental education, and community service. All of these functions had been present in community college mission statements since the beginning, but professional education

organizations and governmental mandates provided a certain amount of standardization to the typical community college curriculum.

While community colleges did not experience the political upheavals that plagued the universities in the 1960s and 1970s, the student population of community colleges became increasingly non-traditional throughout the later decades of the twentieth century, driven by the concept of open door admission policies. High school dropouts, students with marginal academic achievements, and students with English as their second language were all accepted within the community college environment. As a result, the curriculum expanded again to include developmental courses to serve an academically challenged section of the student population, as well as providing advanced placement programs to exceptionally talented students (Witt, et al., 1994).

The Mission of Transfer

Citing a 1986 U.S. Department of Education publication, Brint and Karabel (1989) found that over one-half of all college freshmen were enrolled in two-year institutions, and they credited the development of the junior college with fundamentally changing the educational landscape by adding a new level into the existing educational system of America. By not offering the cornerstone of the college experience, the bachelor's degree, junior colleges established themselves as a completely different type of institution, playing an important role in the process of upward mobility of the masses through education. However, many researchers, including Brint and Karabel (1989), have also stated that there are existing pressures on community colleges to both extend as well as limit opportunities to those whom the institution served. According to their research, by supporting the community college mission, the four-year universities, by default, restricted the number of students who applied for transfer. By offering

transferable liberal arts courses, junior colleges established their credentials as “real” colleges. However, in developing this model, many educators questioned the idea of educating everyone to attain the same level when not everyone was capable of that attainment. As a result, junior colleges developed a separate vocational track to extend the idea of true democracy in education. In addition to relieving the pressure to offer access to higher levels of education, vocationalism was seen as the pragmatic solution to the economic division of labor, offering more “realistic” goals of success to the masses (Brint & Karabel, 1989).

The goal of transfer to university programs has continued as the primary mission of community colleges. However, the growth of vocational programs has caused some researchers to question as to whether or not a conflict exists between the mission of transfer and vocationalism. Clark (1960) identified conflicting purposes within the community college mission. Rather than summarily dismiss a student with marginal skills, he found that the community college system took a different approach. Sidetracking a student into less demanding fields of study was perceived as a softer response than allowing the student to fail. Clark also described a process of reorientation for the marginal student through pre-entrance testing and a counseling interview. During a college orientation course, students took interest inventory and aptitude tests to identify their strengths and weaknesses. Through additional counseling, the student developed a vocational plan of study to facilitate the decision-making process concerning future educational goals. By closely monitoring the student’s progress through progress reports, probation procedures could be enacted if warranted. Clark described this as a systematic method of allowing the student to come to the realization that transfer may not be the best pathway. The dominant features of this process as identified by Clark were: identification of alternative achievement, gradual disengagement, objective denial, counselors as agents of consolation, and

an avoidance of standards. Dougherty (2003) theorized that the vocational mission of community colleges unintentionally re-directed students away from the transfer option. He also identified the very act of transferring from an institution with one set of academic standards to another with different expectations as a roadblock for students. Dougherty saw the lack of campus activities to engulf students in an active social life, lack of dorm facilities, and the lower cost of a community college education as subverting students' educational ambitions.

Students arrive at post-secondary institutions from many backgrounds and with a wide level of skills. Programs at both the secondary and post-secondary levels exist to promote college readiness, persistence, and retention. Dual credit, dual enrollment, and concurrent enrollment programs at the secondary level help students in high school to gain valuable skills prior to full-time enrollment in a college program of study. Present in all fifty states, dual credit is the most prevalent of academic pathways. Many states endeavor to use dual credit as means to reach low-income, racial and ethnic minority, low-achieving, first-generation, and rural students and ease their transition into the college environment. Distance learning (instruction delivered remotely) exists and is growing in all fifty states. In reaching a broader base of students, it serves as a method to increase student access to college, targeting the underserved. Tech Prep was created in 1990 through the Carl D. Perkins Vocational and Technical Education Act. A federally funded program, Tech Prep was designed to be a combined sequence of two years of high school plus two years of post-secondary education. Almost all community colleges in the United States have demonstrated some level of involvement in the program (Bragg, Kim, & Barnett, 2006)

In the early 1990s, the Texas Higher Education Coordinating Board began a study to determine the extent to which vocational/technical programs in all public community and technical colleges in Texas had implemented competency-based instruction. By providing a

process by which students develop measurable performance competencies specified by business and industry, graduates were better prepared to obtain gainful employment based on their ability to perform in a productive manner. Implementation of competency-based instruction could be seen as an answer to Clark's "cooling out" function by enabling vocational/technical programs to serve special populations without "diluting" the curriculum. In the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990, competency-based instruction was supported as a method of meeting the requirements for using Perkins funds (Lovelace & LaBrecque, 1993).

The 2006 update of the Perkins Act strengthened connections between secondary and postsecondary education by adding several new elements. The one receiving the most attention is the new requirement for programs of study. Programs of study must be designed linking secondary and postsecondary education elements by including academic, career, and technical content in a coordinated progression of courses leading to an industry-recognized credential or certificate, an associate's degree, or a bachelor's degree (Carl D. Perkins Career and Technical Education Improvement Act of 2006). These career clusters build upon existing initiatives including Tech Prep, career pathways, and career academies, serving as seamless transitions from high school through colleges, guiding students toward high-wage, high-skill, and high-demand careers (Hyslop, 2009).

Additionally, dual or concurrent enrollment may provide students with additional educational options. Unless career and technical education (CTE) programs adhere to these guidelines, they will not be eligible for Perkins Funding (Carl D. Perkins Career and Technical Education Improvement Act of 2006). In an age of diminishing educational funding, receiving Perkins money could determine if a program of study survives.

Community needs and technical education have also had an effect on community college curriculum. Since the 1950s, state governments have offered financial support to community colleges for contract training as a way to establish a more diversified industrial economy. A national survey in 1989 showed that private corporations and firms paid for 72% of all contract training, with 20% paid by governmental agencies and 8% by non-profit organizations (Lynch, Palmer, & Grubb, 1991).

Colleges have seen an increase in revenue resulting from new funds directly through completion and acquiring of contracts, as well as the possible increase in tax revenue from new and emerging industries. Contract training may bring additional non-traditional students into the community college arena. While little hard data exists, there is a general acceptance that many students from contract training experiences continue their education within the community college system. While contract training can create a positive public perception and visibility, negative criticisms also exist. Increased support for vocational programs from business promotes increased involvement in curriculum development by business and industry.

Contract training encourages changes in course organization and teaching methods, and brings faculty in touch with new technologies and equipment. Increased revenues generated from vocational programs may cause discontent within general education/transfer course faculty because they see this involvement with industry as conflicting with the traditional transfer initiative (Dougherty & Bakia, 2000).

In spite of all the expansions in programs and opportunities offered to an expanding population, transfer remains as one of the primary goals of a community college education. In 2001, Townsend noted changes in the traditional transfer patterns associated with the community college and proposed a redefinition. Many students transfer prior to the completion of a two-year

transfer degree, and others transfer with non-liberal arts courses or programs. An additional trend in transfer is termed *swirling* where students transfer from multiple colleges in no particular order. High school students are participating in dual credit classes offered by community colleges and are transferring these credits to universities. Many university students return home during summer break, enrolling in general education courses at the local community college to take advantage of lower costs. Finally, many post-secondary students are participating in concurrent enrollments between their local community college and the university (Townsend, 2001).

Another example of students' nontraditional passage through higher education is the inverse, upside down, or reverse degree. Whether labeled as a bachelor's of general studies (BGS), a bachelor of professional studies (BPS), or a bachelor of applied studies (BAS), the pattern differs from the traditional degree. With the inverse degree, the traditional curriculum sequence is reversed. Courses in the student's major are completed at the community college level while additional general education courses taken at the university level, satisfying the balance of coursework for the bachelor's degree. When designed to articulate only with the applied associate degree, it is classified as a form of applied baccalaureate. Students already possessing an associate degree may qualify for the BAS program at New Mexico State University through its College of Extended Learning that gives students a broader scope of learning opportunities. However, the degree may not be considered a BAS unless articulated through types of associate degrees other than the AAS (Townsend, Bragg, & Ruud, 2009).

A relatively recent trend in mission expansion to affect curriculum is the community college baccalaureate. Floyd (2005) discusses this controversial topic by describing a case scenario involving a typical non-traditional student who is place-bound following attainment of

an associate degree despite the desire to complete a 4-year degree at a distant university. Traditionally, the term “community college baccalaureate” has been used to describe cooperative programs between the community college and the university involving articulation agreements and transfer credits with the university conferring the actual degree. Some community colleges have added baccalaureate degrees independent of a university partner, addressing the increased need for access to the degree program. In the past, universities have had the authority to control the baccalaureate degree, and have not been effectively challenged until this point in time. While this movement could be seen as a logical and sequential curriculum expansion to the community college mission, an unintentional result of this process is the difficulty in categorization of the institution by accrediting bodies. The Southern Regional Education Board has identified associate/baccalaureate institutions as “hybrids,” while in Texas, the Texas Coordinating Board may classify these type of institutions as four-year, not community colleges; a classification which could create problems in funding issues as well as institutional accreditation (Floyd, 2005).

Retention and Attrition

The changes in determining funding formulae have forced colleges to examine attrition and retention issues more closely. Community colleges serve a high number of nontraditional students. As illustrated by Townsend (2001), students are entering and exiting at various times during their college careers, whether at the community college or university level. Societal issues such as childcare, marital status, employment status, gender, ethnicity, and age also affect nontraditional students. There has been an increase in the number of part-time students resulting from the decline in the absolute number of eighteen year olds, increasing numbers of students combining work and school, and the increase of women students (Cohen & Brawer, 2003).

When considering funding changes to completion rates, community colleges must be concerned as to how a “completer” will be defined. As previously noted, nontraditional students tend to enter and exit differently than traditional students where transfer is the typical goal. In addition to previously mentioned rationale for the lack of retention of nontraditional students, Hoffman (1998) cited students identified credit transfer, scheduling, financial aid issues, family demands, job demands and the student’s own doubt in his/her ability to succeed as factors determining their decisions to re-enroll in college classes.

The type of educational program determines the length of time it takes a full-time student to complete it. Vocational certificate and associate degrees can take from several months to three years to complete. Bachelor’s degree programs take four to five years to complete. The issue of student retention through completion is the subject of several studies. Lotkowski, Robbins, and Noeth (2004) identified both academic and non-academic factors in the design and implementation of retention programs. Their study determined that when combined with assessment scores, institutional commitment, academic goals, social support, academic self-confidence, and social involvement combined to have a positive relationship to college retention. By showing the overall relationship between academic and non-academic factors, the study could have significant implications in the design of effective retention programs. It shows that while students could have academic success, they may still fail to develop the academic self-confidence, identify educational goals, make an institutional commitment, or develop a social support system thus remaining at risk for dropping out.

When examining retention issues, factors go beyond societal issues. A student’s personal attitude also has a significant impact upon continuing enrollment within a program of study. In a qualitative research study, Atkinson (2007) found that there was a significant relationship

between educational goals and student retention no matter what attainment goal the student identified as important. Class level was found to be a factor as was the availability of financial aid. The farther the student had progressed, the more likely the student was to continue to graduation or goal attainment. Recognizing that students come to the institution with some expectations, Atkinson found that those with realistic expectation are more likely to continue, as were those whose experience was positive and where students felt a sense of belonging. The same study also found that gender, ethnicity and employment status of the student had little or no relationship to student retention, but age was significant for prediction of retention. While this study targeted the traditional student, one could predict that many of the same issues would also be of importance to the nontraditional student (Gagnon, 1990).

Retention issues are at the core of any number of college course offerings to address student issues: Freshman Seminar, courses in diversity, gender studies, etc. However, many researchers have identified the need to change the overall character of the college itself to improve retention. The impact of the education setting has also been identified as having an impact. Classrooms, laboratories, and studios on campus influence student decisions as does the involvement levels of faculty.

Tinto (2000) identified five conditions that support student learning and retention: expectations, support, feedback, involvement, and relevant learning. When high and clear expectations exist for students, they are more likely to persist. Academic and social support promotes retention as well. Since few students enter college fully prepared for the educational rigor of university programs, the availability of study groups, in-program supplemental instruction, counseling, mentoring, and ethnic student centers provide needed support for individual students and safe havens for minority students.

Many studies have also pointed to faculty involvement as another indicator of student retention. By representing an authority figure, mentor, and role model, faculty can exert a great deal of influence over retention. In the spring of 2001, the Arts and Humanities department at Atlantic Cape Community College (ACCC) personalized academic advisement for student seeking degrees with their department. Using direct and personal mailings with a phone call campaign to reach each student in the department, faculty introduced themselves to their advisees, and encouraged contact from the student. While this contact was recommended, it was up to the student to initiate dialog. Questionnaires were sent not only to students in Arts and Humanities, but also to the general population to gauge the effectiveness of the faculty initiative. Overall, students in the general population were unaware of and generally unsatisfied with their assigned faculty advisor. However, those students in the Arts and Humanities showed a high level of satisfaction with their advisement procedures and were much more connected to their faculty members (McArthur, 2005).

In community colleges, students rotate in and out of programs for a number of reasons. Students can obtain associate degrees, enhance general job skills, or enroll simply for personal enrichment. As a result, tracking retention is more difficult than with students in university programs. Theories about retention abound. Astin's Student Involvement Theory (1984) stated that when students increased their physical and emotional investment on their college campus, the rate of retention increased. However, a number of variables exist including admission test scores, gender, ethnicity, living situations, and institutional size. With all of the variables, do orientation courses promote retention? If one looks to Student Involvement Theory (Astin, 1984) to find a relationship between orientation courses and student retention, it would suggest that as

students increase their personal investment in their college campus, their rate of retention and persistence increases.

Orientation classes help students acclimate to campus life and through it meet other students, learn about the various opportunities on campus, and to set personal goals. By understanding the campus better, and learning how to realize the best way to achieve their personal goals, students who participate in orientation courses come to better understand the campus and make that physical and emotional investment in campus life (Derby & Smith, 2004).

While orientation classes seem to promote retention, rapidly changing demographics within student populations also affect retention rates. The largest and fastest growing minority population, Hispanics, now constitutes over 50% of all foreign-born Americans and 13% of the total population of the United States while African Americans represent 13% as well (Lotkowski, Robbins, & Noeth, 2004). The U.S. Census Bureau in 2002 projected that Hispanics and African Americans will represent over one third of the American population within 30 years. In order to maintain a competitive workforce, more students, especially those from minority backgrounds will need to be college educated in order to survive in the developing global workplace (Lotkowski, Robbins, & Noeth, 2004).

Schmitgal's (2009) qualitative study used Tinto's Theory of Individual Departure and Paces' Concept of Quality of Effort (Tinto, 1993) in developing interview questions to provide community colleges and universities with strategies and suggestions to help improve student retention. Three universities and three community colleges with experience in development of articulation agreements between the institutions and a history of offering completion degrees participated in the study. The university center model was examined with regard to student's perceptions of baccalaureate completion programs at community colleges and their academic

readiness for transfer. Schmitigal conducted one-on-one interviews with students from community colleges enrolled in on-campus university degree programs in order to learn directly about their experiences. Only twenty students were interviewed for this study, limiting the generalization of the results. Accuracy of results depended upon the honesty of the students' replies. Four themes became apparent: (1) perceived differences in university faculty versus community college faculty expectations, (2) academic strategy changes employed by these students, (3) student transfer shock experiences, and (4) students' use of academic resources. Schmitigal noted that the institution type (urban, rural, and small city) did not change the student's experiences, which could help strengthen the conclusions of the study. While students expected coursework to become increasingly difficult, most did not feel prepared for the writing skills required at the 300/400 level. Community college faculty was considered as more supportive of student needs as learners, while university faculty were perceived as less approachable and less directly available. Students perceived that university faculty would have higher academic expectations and changed their study habits to accommodate a higher level of preparation required. This perceived lack of rigor in community college courses often leads to difficulty in the transfer process for community college students (Townsend, 1993).

Texas has taken steps to mitigate the transfer process through the establishment of a common core of general academic courses (Wellman, August 2002). Increased expectations and some decreased GPAs created some transfer shock with the students interviewed. Some students' GPAs increased because they anticipated an increase in the rigor of university coursework and adjusted their study habits accordingly. However, few utilized academic resources from the university to supplement their course information, preferring instead, to utilize the more familiar resources of the community college, even online resources (Schmitigal 2009).

Persistence and Transfer

Barbara Henry (2003) conducted a non-experimental ex post facto study using existing data taken from student transcripts and college records to survey 552 community college students transferring to a regional 4-year university over a 7-year period to determine factors contributing to persistence rates in attainment of a baccalaureate degree. Six research questions guided the study to determine to what extent characteristics, experiences, and achievements separate persisters (completers) from non-persisters at Bowling Green State University (BGSU) after having complete 12 or more credit hours at Owens Community College (OCC). The study collected selected data using official OCC transcripts and BGSU records. Henry's study found that the typical persister was female, white, and 21 years old at enrollment at OCC. She took one developmental class and maintained a B average GPA, but did not earn an associate's degree while transferring 53 credits to BGSU. For those students continuously enrolled at the university level, there was a mixed pattern of full-time and part-time including a summer session with an average of 27 years of age at graduation. In an accumulation of 134 credit hours over 6 years of college attendance, these students maintained a B average. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to describe characteristics and experiences of persisters and non-persisters to determine those factors that predict successful baccalaureate degree attainment for two-year college transfer students. Chi-square tests were conducted to determine the randomness of the number of occurrences across categories and *t*-tests were used to determine whether the two sample means were significantly different at the selected probability levels. Using logistic regression, Henry determined the effect of pre-college background and the students' experiences regarding persistence at the university level and conducted hierarchical regression analysis to determine the relationship between persistence and

the independent variables (GPA, Credits earned, etc.). Chi-square tests showed a significant difference ($p < .001$) between persisters and non-persisters regarding enrollment patterns, with persisters more likely to be continuously enrolled. Using an independent t -test, Henry analyzed cumulative GPA, ACT composite scores, and community college and university experiences showing that for the pre-college background only high school GPAs were significant ($p < .05$). Regression analysis showed that the main factors shown as significant for positive predictors of persistence toward attainment of a bachelor's degree were the total number of years enrolled at the university, a pattern of continuous enrollment (both at $p < .001$), and the student's GPA while attending the community college used in the study ($p < .05$). This ex-post facto study was relatively small, using only 552 students from one community college who transferred to one particular university. Henry concluded that further research should be conducted to determine if these results could be applied to the community college transfer population as a whole.

Transfer from community colleges to university programs is also facilitated through articulation agreements. Using ex post facto data, Deitrick (2008) looked at the completion and/or graduation numbers of community college students matriculating into a university as part of program-to-program articulation agreements. Four main independent variables (native students at the public four-year institution, community college transfer students, native students at a private 4-year institution, and community college student transfers at the private 4-year institution), and two dependent variables (attrition rates and the completion/graduation rates for both the transfer and native students). Using frequency computations and percentages, Deitrick determined if there was a significant difference in the completion/graduation rates and attrition rates between community college transfer students and native students. Frequency tables and percentages determined if there was a significant difference in the rates of completion/graduation and attrition rates of the same

populations. While not all institutions included in the study tracked native versus transfer students, 75% of transfer students at the reporting public institution persisted to complete a baccalaureate degree. None of the private institutions tracked this type of data at the time of the study. In comparing transfer students to native student, 75% of the transfer students completed the program compared to 24.5% of the native students. The sample size in this study was limited because most of the institutions involved did not track this type of data at the time of the study. However, the results suggested that students who have matriculated through a community college articulation program into a university program are more likely to complete/graduate with a baccalaureate degree.

Clark (2006) also studied the academic success rate of community college transfer students, detecting and examining differences in academic persistence among students having transferred from the selected community colleges and those who were native to Middle Tennessee State University (MTSU). The quantitative part of the study used statistical analysis to examine the relationships between demographic and academic characteristics and persistence to the baccalaureate degree completion. The population sample identified through the MTSU Student Information System database concentrated on students who entered MTSU during the fall semesters of 1998 and 1999. A total of 5,741 records were returned: 698 transfer students and 5,043 students MTSU natives. Data extracted included students' age, ethnicity, gender, first-, second- and third-semester MTSU GPAs, college of enrollment, ACT/SAT scores, high school or community college GPA, name of community college or high school, associate degree attainment, and number of hours transferred where applicable, and whether or not the student graduated by the end of the spring 2005 semester.

Clark (2006) used analysis of variance (ANOVA) to determine if the populations differed, and regression analysis to predict a categorical variable from any predictor variables. With a significance level of $p < .001$, the study showed that transfer students tend to be older than their native counterparts. Women made up over 50% of both populations and there were more white students in the transfer group (87%) than in the native group (84%). The significance level of $p < .05$ would support research that has indicated that minorities do not often transfer to 4-year institutions, even if they begin their education experience at community colleges. There were no differences in persistence or retention rates, but transfer students have a statistically significantly higher graduation rate than MTSU natives at approximately 53% to 41% of natives at the $p < .001$ level. Logistic regression analysis determined whether any of the demographic or academic variables were significant predictors of graduation. With a significance level of $p < .001$, transfer was found to be a predictor of graduation along with gender, first semester GPA, an increase between first-and second-semester GPAs, increase between second- and third – semester GPAs, and persisting to enroll in the third semester.

Successful navigation of a growing global economy requires a greater percentage of enrollments in postsecondary education programs. Through Tech Prep initiatives, many schools are creating partnerships between high schools, community colleges, and local businesses. Several studies have supported the importance of community colleges in educating professionals in technology (Bragg, 2003; Mattis & Sislin, 2005). Through such initiatives, students can be prepared for many high-tech, high-wage jobs that have yet to be defined (Draeger, 2006). Workforce projections and rapidly changing demographics illustrate the need to increase the number of well-prepared participants in a global economy.

Community colleges are well aware that many students do not intend to transfer to colleges or universities, but are pursuing their own needs. In order to promote retention and award accomplishment, secondary and post-secondary institutions have launched several initiatives. Career clusters build upon existing initiatives including Tech Prep, career pathways, and career academies. By serving as seamless transitions from high school through college, students are guided toward high-wage, high-skill, and high-demand careers (Hyslop, 2009). A study by Palmer & Gaunt (2007) identified the typical Career Technical Education (CTE) students and non-CTE students from a selected career technical center with 451 high school seniors responding to the survey. Out of 451 students enrolled in a CTE program at the center, 126 students were enrolled in CTE programs with 325 solely in academic programs. A self-reporting survey centered on the students' academic standing, socio-economic status and their perceptions toward the center with regard to what factors influenced their decision to attend. Results of the study indicated that non-CTE students had higher grades than CTE students by one grade with a significance of $p < .0001$ using the Mann-Whitney test. There was a significant difference ($p < .047$) between non-CTE and CTE students with respect to their economic status with non-CTE students slightly better overall, a circumstance supported by other research studies. It was also found through Chi-Square analysis that non-CTE students (57%) are more likely to live with both parents than CTE students. This study found that CTE students live with both the mother and father in only 38.9% of the cases, mirroring studies by Gaunt & Palmer (2005) and the National Center for Education Statistics (2007).

Post-College Earnings

To examine post-college earnings, Maguire (2009) conducted a study analyzing selected career clusters. Maguire's study analyzed the predictive power of the background characteristics

of community college students and their fifth-year annual earnings. The ex post facto study used existing data sets to obtain information on student's education and earnings. Maguire (2009) examined four clusters: Manufacturing, Science, Technology, Engineering and Math (STEM), Transportation/Distribution and Logistics, and Architecture and Construction. Gender, age, economic status, community college degree, and annual gain in earnings showed to be significant predictors of fifth-year earnings. Using regression analysis, seven of these variables had a significance of $p < .001$ and one variable was significant at $p < .01$ in the STEM Cluster. Size and direction of the relationship showed that males, 25 and older, not receiving a Pell award, receiving an associate degree and annual gains were the most important predictors, as indicated by the statistical significance of the independent variables. Certificate and diploma awards were not statistically significant for prediction of fifth-year annual earnings. In the Transportation/distribution and Logistics Cluster, similar results were found. In Arts, Architecture and Construction, being male and over 25 was more predictive of fifth-year annual earnings at a significance level of $p < .05$. In Arts, Audiovisual Technology, and Communication program areas, male students ($p < .001$), associate award recipients ($p < .01$), and gain in annual median earnings ($p < .001$) were all positive predictors of fifth-year post college-earnings.

Program Funding

Community colleges across the United States are funded by a variety of methods. From local, to county, to state systems, funding for programs is under constant scrutiny. In Texas, the changes in determining funding forces institutions to examine attrition and retention issues more closely. Community colleges serve a high number of nontraditional students. As illustrated by Townsend (2001), students are entering and exiting at various times during their college careers,

whether at the community college or university level. Societal issues such as childcare, marital status, employment status, gender, ethnicity, and age also affect nontraditional students.

There has been an increase in the number of part-time students resulting from the decline in the absolute number of eighteen year olds, increasing numbers of students combining work and school, and the increase of women students (Cohen and Brawer, 2003). When considering funding changes to completion rates, community colleges must be concerned as to how a “completer” will be defined. As previously noted, nontraditional students tend to enter and exit differently than traditional students where transfer is the typical goal. Hoffman (1998) cited students identified credit transfer, scheduling, financial aid issues, family demands, job demands and the student’s own doubt in his/her ability to succeed as factors determining their decisions to re-enroll in college classes.

With state funding for community colleges seemingly decreasing with each legislative session and depressing economic indicators at the national level, many colleges are seeking ways to tighten budgets without significantly affecting services to students. In addition, states are considering changing funding formulae or changing the basis upon which funding is awarded. Many are revisiting funding based upon completion rates and performance assessments as opposed to outcomes assessment. This accountability change for colleges began in the 1990s, but Burke and Minassians (2004) found that many state performance indicators ignore the specific purposes and diverse student population of community colleges. Colleges determined their own goals, indicators, and reporting methods, but accountability did not satisfy assessment mandates in three ways. Initial reactions of most campuses were external observance or passive resistance of the process. Seeming incompatibility resulted from demonstration of external accountability and improvement of institutional performance. In addition, governmental entities were

dissatisfied with assessment tailored to each institution failing to enable comparison of campus results (Burke & Minassians, 2004).

Accountability, institutional performance and funding formulae will most certainly contribute to the decision-making process when exploring mission expansion toward baccalaureate degrees in the community college. Few studies have been conducted to test the cost-effectiveness of the community college baccalaureate. In Texas, Steve Castañada (2000) completed a study to determine the impact of vocational education on baccalaureate attainment, identifying several common variables within the sample community college student population. Using chi-square and regression analysis Castañada (2000) illustrated relationships to provide possible explanations for student performance. The dependent variable was attainment of a baccalaureate degree within eight years and the independent variables included a combination of student and institutional characteristics (ethnicity, gender, full-time/part-time status, major type, number of semester credit hours attempted, proximity, award status, student orientation, GPA, age, size of Fall 1990 enrollment, proximity, and community college orientation toward vocational and academic programs). The convenience sample consisted of approximately 60,000 first-time-in-college freshmen enrolled at a Texas public community college in fall 1990 (as reported to the Texas Higher Education Coordinating Board). Limitations to the study included use of data from only Texas public institutions of higher education limiting generalization beyond the study. Intent, hours earned, typed of courses enrolled in, and work status were not included because the Texas Higher Education Coordinating Board does not collect that data, but Castañada reported that other researchers have found these variables to be important predictors of transfer and transfer success. Gathering data on some 60,000 students tracked over a nine-year period also created its own set of issues, including incorrect identification numbers on some

participants. Chi-square analysis showed a significance level of $p < .05$ indicated a relationship between gender and baccalaureate attainment with females having a greater likelihood to attain the baccalaureate degree, however, in the over-all study, it was only by about 1%. With a significance of $p = .001$, ethnicity played a role in prediction of attainment, but not in all cases. Asians and non-resident aliens had higher attainment rates than whites, whose attainment rate was higher than Hispanics, American Indians, and Blacks. Type major was significant at $p = .001$. Academic and undecided majors had a higher attainment rate than technical majors. In testing the relationship between baccalaureate attainment and community college award status, the Pearson Chi-Square of .829 was not significant. Eight independent t -tests were conducted with an overall alpha level of .006, so that each individual t -test would have to score below .006 to indicate significance of the variables on baccalaureate attainment to avoid a Type I error. Those variables shown to be substantively significant Community College Orientation, student orientation, semester credit hours attempted prior to transfer, GPA and Age. Those students oriented toward academics had a higher percentage of baccalaureate attainment than those with vocational orientations. Point-biserial correlations pairing the variables were computed showing significant correlations suggesting baccalaureate attainment increases as the number of semester credit hours attempted at a community college prior to transfer increases. Higher GPAs were associated with baccalaureate attainment, and attainment decreased as age increased. Attainment decreased slightly as distance from the nearest public senior institution increased.

In 2008, Bemmell completed a quantitative cost-effectiveness analysis on two programs in Florida comparing the cost effectiveness of community college baccalaureate programs versus university programs. Based on Levin's cost-effectiveness model, a per-credit hour as the per-unit cost was used. Actual expenditures, degrees awarded, generated student credit hours information

and the passing rates for the Florida Teacher Certification Examination (FTCE) and NCLEX exams were used to calculate cost effectiveness. Only teacher education-related programs were selected to reasonably compare the cost of offering a baccalaureate degree at the community college and the university. By adjusting university costs to arrive at a reasonable estimate of the program's full cost, and multiplying the direct costs by indirect cost rate, the calculated indirect cost was added to the direct cost. Each institution's cost per credit hour was divided by the effectiveness factors to determine the cost-effectiveness ratio. Overall, the community college effectiveness ratios were higher than the university effectiveness ratios indicating that the university programs were more cost effective; however, with each year and as credit hours increased at the community college, cost effectiveness ratios at the community college continuously improved.

Professional, Career, and Technical Education

Tom Pauken, Texas Workforce Commission Chairman, stated in a press release on June 4, 2008 that more progress was needed in "aligning career and technology education with what is needed in the workforce" (Pauken, 2008). Employers are reporting the need for applied skills such as critical thinking, teamwork, and effective communication as essential for the workplace. Currently, parents are bombarded with the message that their children must complete a bachelor's degree. However, many well-paying jobs are in the technical areas which may be met through quality high school education followed by associate degrees or advanced certification programs. Pauken recommended that the education system shift to a more market-driven one to take into account the skills needed by employers (Pauken, 2008). In September of 2008, Pauken wrote about the need to replace an aging workforce in the area of skilled trades. In Texas, the energy industry is seeking workers in more "blue collar" areas where jobs require the

development of workplace skills as opposed to traditional book skills. Graduates of technical programs, especially within the energy sector, are finding high-wage jobs where many with traditional bachelor's degrees are having difficulty in finding jobs (Pauken, 2008).

The rapid increase in jobs requiring no more than an associate's degree has been described by the term: *new economy* (Carnevale, 2000). Bragg (2001) described *new vocationalism* as the changing role of vocational education for preparation for jobs in the new economy. New vocationalism involves training for jobs that are "characterized by international activity, cyberspace, every-changing market demands and standards, rapid product life cycle, ever-increasingly sophisticated computers and the need for a more thorough knowledge of the holistic (the gestalt) of the business environment rather than just specific skills or narrow job tasks" (Lynch, 2000, p. 162). With this new economy and new vocationalism come re-defined terms. *Vocational education* may refer to more traditional forms of workforce training. *Career and technical education* (CTE) indicates the ever-changing aspect of workforce training (Laanan, Compton, & Friedel, 2006). Part of the changing face of the workforce is the transition from low-wage, low-skill jobs to high-tech, high-skill jobs. Requiring strong math, science, and language skills, training for these jobs requires a strong academic component. Competitiveness in this environment may require many of these students to be prepared to pursue a 4-year degree following the completion of an associate's degree (Bailey & Matsuzuka, 2003).

The Community College Baccalaureate

Baum and Ma (2007) presented detailed evidence of private and public benefits for those who pursue higher education. Considering both monetary and nonmonetary advantages, they showed a positive correlation between higher levels of education and higher earnings extending across all racial/ethnic groups and for both men and women. Besides higher wages, college

graduates were more likely to have employer-provided health insurance, contribute more to tax revenues, be less dependent on social programs, to have lower smoking rates, have a more positive perception of personal health and healthier lifestyles, and have higher levels of civic participation than those who did not graduate from college. With this in mind, some people feel a need for expanded access to baccalaureate level programs. “The Community College Baccalaureate (CCB) represents a nontraditional model through which community colleges can participate in baccalaureate education” (McKinney & Morris, 2010).

More community colleges in the United States began offering baccalaureate degrees in the 1990s to provide access to place-bound students who would not have been able to earn a bachelor’s degree otherwise. (Walker, 2005). In offering a bachelor’s degree, community colleges are challenging traditional definitions of the community college role. Often offered as an expanded version of the Associate in Applied Sciences (AAS) degree, the Bachelor of Applied Arts and Sciences (BAAS) offers specialized, technical training (Cook, 2000).

CCB Models

Floyd and Walker (2009) provided a typology of seven programmatic models for baccalaureate education programs: the articulation model, the university center model, the university extension model, workforce baccalaureates, applied baccalaureates, inverted baccalaureate, and the community college baccalaureate. Articulation baccalaureates are the least integrated of these four models, but the most common. A partnership degree tied through a 2 + 2 cooperative between the community college and university, the articulation model ensures the student of guaranteed transfer to a specific university for the remaining two years of a baccalaureate degree. Situated on the community college campus, a university center hosts upper division programs in the university center model with the university awarding the degree. An

expansion of the articulation model, university faculty brings courses directly to students on the community college campus. University extension models may or may not rely on partnerships, but may be separate extension centers located away from the university itself. They rely on university governance and accreditation structures, often using online instruction with the degree awarded by the branch or extension campus in the name of the university.

Workforce baccalaureates are generally applied to professional areas such as teacher education, allied health, law enforcement, and public service. They are awarded by community colleges through proper authorization and by universities. Applied Baccalaureates articulate directly with an associate of applied science in specialized fields of study such as technology management, business management, certain health fields, and information technology. Often named a bachelor of technology, a bachelor of applied technology (BAT), or a bachelor of applied science (BAS), they are awarded by community college with proper authorization, and by universities.

Inverted baccalaureates (3 + 1) are a four-year baccalaureate degree, often in a technical field. The student front loads the technical courses during the first three years at the community college, and then completes general education requirements in the last year at the university. Four-year colleges and universities award inverted baccalaureates. The Community College Baccalaureate (CCB) is a degree granted by community colleges that are approved for associate degree awards as well as limited baccalaureate degree approval in specialized fields. Most include the same general education requirements as university programs, but some may focus more on workforce preparation than general education. In Texas, West Virginia, and Florida, legislative language requires that the community colleges must continue its original mission as baccalaureate options are added (Floyd & Walker, 2009).

The trend toward the CCB has been building for about forty years. In the 1970s, New York's Fashion Institute of Technology received approval to grant baccalaureate degrees in fashion. In the 1980s, Parkersburg Community College began to grant baccalaureates as well. Today, more community colleges are gaining approval with the consistent emphasis on meeting local employment and workforce demands. The community college baccalaureate garners controversy and arguments from both sides with many fearing that CCB degrees will shift the community college's focus away from their core mission and standard curricular offerings (developmental, transfer, community and technical education). Proponents argue the CCB is simply a response to expanding workforce needs not being met by universities and are overwhelmingly applied workforce degrees in areas such as technology, management, business, nursing, law enforcement, agriculture, engineering, and teacher education (Floyd, 2006).

Perceptions of the Community College Baccalaureate

Petry (2006) used a descriptive closed-question survey with a Likert-type scale to evaluate the transformation of five Florida community colleges through their process of converting to baccalaureate degree-producing programs. Respondents came from five of the Florida community colleges that have experienced the transition from exclusively two-year programs to baccalaureate-producing programs. Surveys were sent to individuals within administration and faculty who had been directly involved in the process of establishing or developing a baccalaureate degree program in their respective community colleges. Fifty questions out of the original sixty-six were selected for survey use and five more were removed to enhance the alpha results. Petry (2006) also conducted a factor analysis of the survey responses to identify the most significant inquiry areas of interest. The findings of the study parallel the limited, existing literature. There was strong agreement about the need for new

Community College Baccalaureate (CCB) programs and providing trained individuals in specific work fields, as well as ensuring high quality, excellence and rigorous evaluation. The study also showed that over time, community college costs were less than similar university programs. This was supported by several chi-square tests of independence showing $p < .001$ to $.05$ indicating that the results were significant. Chi-square tests determined whether differences between observed and expected frequencies were statistically significant, and whether two variables measured on a nominal scale were related or associated. The alpha score of the survey resulted in a reliability of $.795$ ($N=38$); after the elimination of the five additional questions, a new alpha of $.852$ was established. Two stages of the factor analysis were conducted and confirmed questions using a principal components analysis confirming that need, accountability, and mission were the three primary factors that should determine development of a community college baccalaureate program.

Gonzales (2004) identified community college baccalaureate peer institutions offering select baccalaureate degree programs to determine common characteristics and degrees awarded to their respective student populations. Using the 2000 Carnegie Classifications and Integrated Postsecondary Education Data System (IPEDS), Gonzales addressed the public policy problem of collecting data on peer group institution on a continual basis. IPEDS data sets provided information to enable him to undertake an empirical analysis of common institutional characteristics and completions via the Peer Analysis System (PAS) made available by the National Center for Education Statistics (NCES) database (IPEDS). By collecting and organizing the information available within the NCES database, Gonzales showed how this information could serve as an accountability tool and resource for longitudinal peer group research.

Grothe (2009) surveyed employers who had hired at least one CCB graduate from one of the three institutions involved in the study as well as graduates who had graduated from one of the three selected institutions. Twenty-five interviews were conducted to determine employer and graduate perceptions of the CCB programs. Two themes emerged from the employer interviews. Employers observed that the CCB programs adequately prepared the graduates for work because the community college was better connected to industry needs. Employers also agreed that community colleges involved helped prepare local people for local employment. Students felt that the community colleges provided them access to a baccalaureate degree that would otherwise be unavailable in their present circumstances. Graduates felt courses/programs were relevant to their work as well as preparing them for the possibility of attaining a higher degree. The alternative delivery options such as night and online classes effectively met their needs to work while attending classes. The study was limited to three community colleges, but they were located in British Columbia, Florida, and Nevada, offering a variety in local needs (Grothe, 2009). While the study may not be used as a generalization due to the small sample, it offered a wide spectrum of local perspectives that could be explored in other studies.

Petrosian (2010) collected data from a random sample of 530 from three community colleges in Texas currently offering CCB degrees through a Web-based questionnaire. Four variables from which correlation coefficients were computed included student need, workforce need, college, relations, and college mission to determine possible correlations between all possible pairs of variables and what associations existed. All four variables were positively correlated with the strongest relationship between student need and workforce need with a Pearson correlation coefficient of $r(359) = .82, p < .008$. With a much larger than typical effect size (Gliner, Morgan, & Leech, 2009), the study recommended that colleges seeking to develop

CCB programs assess student need and workforce need in the area prior to beginning the process.

Judith S. Eaton, as president of the Council for Higher Education Accreditation in 2005, argued that in offering the CCB, community colleges would betray their mission, especially in developmental education, and low tuition. The cost of delivering advanced degrees could increase the traditionally lower tuition of the regional, and often rural, community college choosing to expand its offerings to the baccalaureate degree in any area of study. Instead, Eaton advocated partnerships between two-year institutions and four-year universities. Articulation agreements, university center models, and university extension models would allow the sharing of faculties, joint programs, and support of the transfer mission without the costs to the institutions or the students (Eaton, 1994). In answer to Easton's concerns, Rice (2007) conducted an ex post facto study examining the effect of community college baccalaureate programs on the traditional community college mission. Enrollment trends in lower-division university transfer coursework, developmental courses, and in applied career and technical education programs showed that the community college baccalaureate did not negatively affect the traditional community college mission as indicated by changes in enrollment. Overall, developmental coursework showed aggregate gains of 71%, with gains in lower-division university transfer enrollment at 16%. There was a decline of 3% in the aggregate for applied career and technical education programs.

The review of literature may indicate that few studies have targeted the lack of higher degree opportunities for CTE and professional programs as a reason for failure to transfer or complete a degree. While the primary mission of the community college will continue to be transfer, many factors contribute to the expansion and evolving mission of the institution.

Changing demographics, attrition and retention rates, the emerging global economy, rapidly developing technologies, needs of local business and industry, as well as increasing competition for funding will continue to affect community college curriculum and program development. One example of this expansion could be the community college baccalaureate for professional, and career and technical programs. Several studies have examined administration, faculty, and student perspectives of their existing baccalaureate programs (Pettry, 2006; Glennon, 2005; Petrosian, 2010; Rice, 2007). Florida's Council for Education Policy Research & Improvement (2002) determined criteria for establishment of a community college baccalaureate (CCB), however, there few studies examine the perspectives of administration, faculty, and students prior to the development of a CCB, especially in career and technical programs. This step should be crucial to determine if the baccalaureate program would attract students, have community support, and be cost effective for the college.

The conceptual framework utilized for this study was based upon the work of Townsend (1993), Townsend (2001), Bragg (2001), Green (2004), Floyd (2006), Floyd & Walker (2009), Pettry (2009), and Petrosian (2010). Using a pragmatist approach, this study did not rely on any one system, but drew from both quantitative and qualitative assumptions in the collection of data. Pragmatism comes from "actions, situations, and consequences rather than antecedent condition" with the focus on the research problem rather than methods (Creswell, 2009, Pg. 10). This study adapted previous surveys to explore administration, faculty, and student perspectives toward the community college baccalaureate at three community colleges in rural Texas where no current CCB exists.

CHAPTER III: METHODOLOGY

This chapter provides an overview of the methodology for the study. By exploring the perception of students, faculty, and administration of the community college baccalaureate (CCB), the intent was to establish an inexpensive and practical way for community colleges to determine if the pursuit of community college baccalaureate degrees within their career, technical, and professional programs was warranted. The results could enable administrations within the community college arena to have an information base from which to decide if a more extensive feasibility study should be completed.

Using a mixed methodology, the quantitative portion provided analysis through surveys with a Likert style format. Likert scales were constructed through the development of a number of statements about the topic, some unfavorable and some favorable. Each type of answer was weighted or given a numerical value in order to summate a scale score, thus providing a representative sample of the attitudes or opinions about the subject (Gliner, Morgan, & Leech, 2009). Each respondent was also given the opportunity to make additional comments about their perspective on community college baccalaureate programs, providing qualitative data for the study. Mixed methods research integrates qualitative and quantitative databases by merging the data (Creswell, 2009). This study explored the perception of students, faculty, and administration of the community college baccalaureate (CCB) at three community colleges without established CCB programs. The intent was to establish an initial framework for community colleges to follow in order to determine if the pursuit of community college baccalaureate degrees within their CTE and professional programs might be warranted. The qualitative data acted as a secondary database to provide a supporting role for the study. Information through comments provided by the participants at the end of each survey was analyzed using open coding. Open

coding is the naming and categorizing of responses to find relationships and commonalities (Sharan B. Merriam and Associates, 2002). The qualitative responses of the participants were categorized according to the three main constructs previously identified for measurement: mission expansion, student access, and community/workforce needs.

In addition to the qualitative information voluntarily provided by respondents, a sequential strategy of inquiry was used to summate the results. Following analysis of the qualitative data, a focus group comprised of selected stakeholders from each of the three community colleges was asked to comment on the results. Comments were recorded and analyzed using sequential explanatory strategy. Sequential explanatory design explains and interprets quantitative results through the collection and analysis of the qualitative data. If the results are different from expected, qualitative data could be used to examine the results more closely (Creswell, 2009).

Research Questions and Sub-Questions

This study explored the perception of students, faculty, and administration of the community college baccalaureate (CCB) at three community colleges without established CCB programs. The intent was to establish an initial framework for community colleges to follow in order to determine if the pursuit of community college baccalaureate degrees within their CTE and professional programs might be warranted. In consideration of the literature and existing studies on perspectives toward the community college baccalaureate, the following questions and sub-questions guided the research in the study:

Quantitative Questions:

1. What issues surrounding mission expansion, community/workforce need, and student access do faculty, administration, and students see as major factors in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. What major factors do administration and faculty identify as imperative to the development of professional and career and technical community college baccalaureate degrees?
 - e. What commuting distance is considered reasonable by faculty for students who would transfer to 4-year programs?
 - f. Is there a correlation between faculty and administration perceptions of their community college's instructional resources with regard to their perception of development of community college baccalaureate programs? (Pearson r)
 - g. Is there a difference in perceptions of a community college baccalaureate between faculty of traditional transfer programs and those who teach professional, career and technical programs?
2. What factors are regarded by students as major elements in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. Is there a difference between students under 25 (traditional students) versus those 25 and over (non-traditional students) in their preference as to where (community college or university) they receive a bachelor's degree? What commuting distance is considered reasonable to students?

- b. To what extent does commuting distance determine the preference of a student to transfer to a 4-year program?
 - c. Is there a difference between professional, career, and technical students and students who plan to transfer to 4-year programs with regard to their self-rated preference in location of a bachelor's program (4-year university versus community college)?
 - d. Do parental education levels make a difference in the self-reported preferences for a student's desired location of a baccalaureate degree (4-year university versus community college)?
 - e. Is there a difference between individual family dynamics (single with children, etc.) and their self-ratings with regard to the decision to support a community college baccalaureate from a near-by community college over transfer to a university?
 - f. What factors would influence students currently preparing for transfer to a 4-year institution to likely enroll in a selected professional or career and technical program at the community college that offers a community college baccalaureate?
3. Is there a difference between traditional and nontraditional students as to their perspective of a community college baccalaureate?
- a. Is there a difference in faculty/administrative perspectives and student perspectives toward community college baccalaureate development?
 - b. Is there a difference between students of professional, career, and technical programs and students enrolled in transfer programs with regard to a positive perception of a community college baccalaureate degree?
 - c. How do traditional and non-traditional students differ in their desire to have a baccalaureate degree from a university or community college?

- d. Are there a combination of demographic factors that can predict a student's preference for the development of a community college baccalaureate program in professional and career and technical education programs?
- 4. Is there a difference between perspectives of faculty/administration and students with regard to the following factors in community college baccalaureate development:
 - a. Acceptable commuting distance for students?
 - b. Qualifications of existing faculty?
 - c. The need for baccalaureate programs at the community college level?
 - d. Value of lower costs at the community college?

Qualitative Sequential Explanatory Questions Directed at Focus Group:

- 1. Given the results of the survey, the focus group was shown prelim results and asked to help the researcher better understand faculty, administration, and student perspectives of the quantitative survey.
- 2. How does the information provided by the focus group combined with the quantitative data explain the feelings and perceptions of the need for a community college baccalaureate program?

Pilot Testing, and Proposed Sample

A pilot study or test refers to a trial run to check a proposed questionnaire and the implementation procedures on a survey population prior to a more general distribution of the instrument (Dillman, Smyth, & Christian, 2009). It may work as a measure to alert the researcher to clarity of the survey, ambiguity, or other problems with the instrument itself (Calabrese, 2006). To test the student survey instrument prior to general distribution, 20 associate degree graduates from one of the targeted institutions were asked to complete the student survey. Each

was also asked for comments about the clarity of the questions, the wording of the survey, and if they have any additional comments. These participants were a convenience sample chosen by this researcher because these graduates could be considered as prospective enrollees into a community college baccalaureate program, thus having a stake in the eventual outcome if their program is approved for development of a baccalaureate program. In addition, the survey was administered to a small group of graduate students to obtain a different student perspective regarding the wording and organization of the survey instrument. Upon obtaining the results, the questions and comments were reviewed to determine if any changes need to be made in the instrument.

For the general survey, administration, faculty, and students from three community colleges in a rural area of West Texas were requested to participate. Only one small university (enrollment less than 8,000 students) with limited offerings (61 undergraduate degrees, 45 masters', and 1 doctorate) is within a central location to the institutions surveyed. The nearest major university (over 30,000 students) is more than 100 miles away for most of the participants. The e-survey instrument developed with Qualtrics was sent through institutional email after obtaining permission from each institution's review board. No identifiers for individuals were requested so that complete anonymity was secured. Additionally, it should be noted that I am a faculty member at one of the institutions and have worked with my administration to secure cooperation with the administrations of the two other institutions. An introductory letter was sent to the administrative contact at each institution to introduce me as the researcher and to explain the focus, purpose, and significance of the study (See Appendix B).

The sample survey should estimate closely the distribution of a characteristic within a population with relatively few elements of that population. The number of respondents needed to

provide an adequate sample may be calculated by determining the acceptable level of error within a given confidence level, the amount of confidence desired, the variation within the population with respect to the characteristic of interest, and the size of the population from which the sample is to be taken (Dillman, Smyth, & Christian, 2009). With a student population of approximately 14,000 students between the three institutions, it was estimated that 972 responses would be needed. For faculty and administration, 28 respondents would be required.

Overall Study Design

Using a pragmatist approach, this study did not rely on any one system, but drew from both quantitative and qualitative assumptions in the collection of data. Pragmatism comes from “actions, situations, and consequences rather than antecedent condition,” with the focus on the research problem rather than methods (Creswell, 2009, Pg. 10). Since the study is a between groups factorial design, there are no repeated measures. Each participant in the research was in only one group and was measured only once on the dependent variables (Gliner, Morgan, & Leech, 2009). Both surveys collected demographic data. Demographic data acted as intervening or mediating variables rather than as predictors (Creswell, 2009). Many studies focus on age or date of entry (program, job, etc.) for their primary attribute variables. However, analyses should examine the full impact of a demographic profile rather than only one or two demographic characteristics (Tsui & O'Reilly III, 1989).

Instrument Description

The surveys for this study requested demographic information beyond age, gender, and race to include family profile and marital status (students), job title (administration and faculty), as well as personal and parental education levels. Additional survey items included perceptions

of the community college baccalaureate, career and technical education opportunities, and the individual community college.

In addition to questions establishing demographic information, data were collected about each research question using an ordinal measure. The primary constructs/variables measured were mission expansion, workforce/community need, and student access. Several questions measured each variable, and the scores of the questions were combined to calculate a single ratio. Tables 1 and 2 list the three variables (constructs) and the scale developed using several survey questions, and the measurement scale. Responses for this survey pertaining to questions using the Likert scale were rated with a 5-point value scale from 1 to 5, with a rating of 1 being at the lower, or negative end of the scale and 5 at the upper or positive end of the scale. Any number more than 2.5 was considered a positive response or in positive agreement with the survey statement. The values for negatively worded questions were reversed. Independent *t* tests were conducted to compare groups as established by the demographics.

Table 1

Constructs and Measurement Scale for Administration/Faculty Survey

Constructs	Scale Survey Questions	Measurement Scale
Mission Expansion	15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 30, 33, 35, 36	Scale/ Approximately Normal
Workforce Need	8, 11, 14, 26, 48	Scale/ Approximately Normal
Student Access	7, 9, 12, 13, 17, 29, 31, 32, 34, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47	Scale/ Approximately Normal

Members of the administration, faculty, and students from three rural area community colleges in Texas were asked to participate in this study by completing one of the two surveys. The survey for administration and faculty was adapted from the survey designed by Petry (2006), which was adapted in 2010 by Petrosian. Petry's questions were pulled from the review of literature as well as from criteria established by Florida's Council for Education Policy Research & Improvement (2002) to enhance validity. The survey initially consisted of 66 questions, 45

Table 2

Constructs and Measurement Scale for Student Survey

Constructs	Scale Survey Questions	Measurement Scale
Mission Expansion	21, 22, 24, 29, 31, 32	Scale/ Approximately Normal
Workforce/Community Need	28	Scale/ Approximately Normal
Student Access	13, 14, 15, 16, 17, 18, 19, 20, 23, 25, 26, 27, 30	Scale/ Approximately Normal

were ultimately selected as a result of factor analysis and pretested. Cronbach-alpha analysis was conducted to measure reliability. Based on a correlation matrix, alpha should be positive and greater than .70 to provide good support for internal consistency reliability (Morgan, Leech, Gloeckner, & Barrett, 2007). Petry's survey indicated an alpha of .884, thus providing internal reliability.

Faculty and Administration Survey

The survey for faculty and administration was adapted from the study by Petry (2006), with permission (see Appendix B). Petry used pre-testing to improve the validity of the survey and to enhance the Chronbach's alpha results. Petrosian (2010) adapted Petry's survey and

researched the perspectives of administration, faculty, and students at community colleges with established baccalaureate programs. Their results both indicated that student need, workforce (community) need, and relations with area universities contributed to the development of the CCB at the institutions included in their studies. The results from this study were compared with those from both of the previous student to show if the some of the same relationships exist at institutions that have yet to develop baccalaureate programs.

Student Survey

The researcher developed the survey administered to students. Several questions were repeated from the faculty and administration survey in order to be able to compare results. According to Floyd and Walker (2009), a serious examination by administration, local leaders, and policymakers who consider offering a community college baccalaureate (CCB), must include questions about the following: mission consistency, political support, political opposition, curriculum models, needed resources (fiscal, physical, and human), faculty and internal stakeholders' views, internal infrastructure, and accreditation. Questions on both surveys address these issues through measuring administration/faculty and student perspectives on three constructs: Mission Expansion, Workforce/Community Need, and Student Access (stakeholder/s views). By determining the perception of students, faculty, and administration of the community college baccalaureate (CCB) prior to its development, the intent of the surveys was the initial collection of relevant data for community colleges to utilize in determining if the pursuit of community college baccalaureate degrees within their CTE and professional programs is warranted.

The participants in studies by Petry and Petrosian (2010) were connected to institutions with established baccalaureate programs, as a result, the wording for this study's surveys were

changed to reflect this study's concentration on institutions where no CCB exists. Petry and Petrosian solicited student perspectives in their studies, but neither established student perspectives prior to the implementation of the CCB. The researcher developed the survey administered to students also using Petry's survey as a guide, but adapting questions to address student concerns, especially the issue of access.

Data Collection

Data were collected in three phases of research. Phase I consisted of a survey adapted from ones developed by Petry (2006) to determine the perspectives of administration and faculty of the community college baccalaureate (CCB) at three community colleges in a rural part of Texas that do not have existing CCB programs. Phase II examined student perspectives from the same three institutions to determine their awareness and interest in the development of CCB programs at their institution. Phase III compared answers to selected questions included on both surveys to examine the collective need or desire for CCB development. Each survey gave respondents the opportunity for additional comments to complement the quantitative data. This mixed-methods approach provided for the collection of quantitative data with the qualitative portion providing supportive information (Creswell, 2009).

Data Analysis

Demographic information collected through the survey instruments (See Appendix C) established targeted groups between which differences could be determined. In addition to descriptive statistics and frequency tests summarized the demographic data collected, independent t-tests were conducted to determine any differences between student perspectives and those of faculty and administration toward community college baccalaureate program development. ANOVA was also used to compare the means of the samples or groups (see Table

3). In this way, inferences could be made about the population means and was necessary in order to compare three or more groups (levels) in a single analysis (Morgan, et al, 2007). The strength of those relationships is relevant to the issue of practical significance. Effect size is defined as “the strength of the relationship between the independent variable and the dependent variable” (Morgan, et al, 2007). Some relationships may show a statistically high significance, but if the implementation of the studied process would cost more than it would be worth, having statistically high significance has no practical application. Because the financial aspect of developing baccalaureate degrees at the

Table 3

Research Question Analysis Matrix

Statistical Relevance	Survey Questions	Analysis Method
Descriptive	1c, 1b, 2b, 2g	Qualitative Support
Associational	1c, 2c	Pearson r
Difference	1d, 2a, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e, 3f, 4a, 4b, 4c, 4d	ANOVA or Independent t -test

community college level is a substantial investment, these relationships should not only be well defined with high effect size, but also prove to be practical for the institution to implement. The results were also compared to those by Petry and Petrosian to see if any parallels existed.

This study was primarily quantitative, but qualitative data were collected from the respondents at the end of each survey and was used to validate and clarify the quantitative data (Miles & Huberman, 1994). All comments were evaluated using open coding to identify commonalities throughout the sample populations. Those comments referring to the three main

variables of mission expansion, student access, and community/workforce needs were highlighted to determine if there were any developing themes between the different populations. Using a basic interpretive approach to the study, each group's view of the community college baccalaureate was explored and any patterns that might develop within each population or between groups were identified. Individual comments are included in Appendix D. At the end of the study following data analysis, a focus group comprised of stakeholders from each group surveyed (faculty/administration, students) was held to discuss the results and reactions to them. Participants in the focus group were asked at the end of each survey if they would be interested in participating in the focus group discussions of the survey results by voluntarily providing their name and email address for contact information. Participants were then randomly selected from the total group who expressed an interest and supplied contact information. It was the intent to hold one focus group discussion of about 20 participants, but with sufficient interest, a second focus group discussion could be held.

Reliability

The quality of a study is dependent on the quality of the design and of the sample as well as the consistency and accuracy of measurement. Reliability is the consistency of a series of measurements that must exist in order to ensure useful data. Expressed as a coefficient, reliability is a ratio between the variance of true scores to the variance of observed scores. Past reliability of data produced by an instrument should also be considered a factor, but not the sole measure of reliability. Using a standard error of measurement, a range of scores (confidence interval) is established in which a true score should exist. Internal consistency is measured through Cronbach's alpha. When using a Likert scale, alpha (α) is the most commonly used index of reliability and should be at .80 or above. For some studies, an α score slightly lower than .80 is

acceptable, but the closer the score is to .80 or above, the more reliable the score is perceived to be (Gliner, Morgan, & Leech, 2009).

Validity

“Measurement validity is concerned with establishing evidence for the use of a particular measure or instrument in a particular setting with a particular population for a specific purpose” (Gliner, et al, 2009, pg. 165). Content validity relies on an accurate description of the construct to be measured, evidence of connection to the literature, and a generation of items that could measure the concept. In this study, the survey for faculty and administration was developed from an existing survey by Petry (2006). The survey for faculty and administration was adapted from a study developed by Petry (2006), with permission (See Appendix B). Petry’s questions were pulled from the review of literature as well as from criteria established by Florida’s Council for Education Policy Research & Improvement (2002) to enhance validity. The survey initially consisted of 66 questions, 45 were ultimately selected and pretested. Pre-testing and factor analysis were conducted to improve validity and enhance Chronbach’s alpha results (Morgan, et al, 2007). Petry’s results indicated an alpha of .884, thus providing internal reliability. Petry also conducted several Chi-square tests of independence showing $p < .001$ to .05 indicating that the results were significant. Chi-square tests determined whether differences between observed and expected frequencies were statistically significant, and whether two variables measured on a nominal scale were related or associated. However, no effects sizes were reported. Pearson correlation coefficient (r) give the strength or the relationship between the independent variable and the dependent variable. With Pearson r , the effect size is always a value less than 1.0, varying between -1.0 and +1.0, with an r value $\geq .70$ being much larger than typical and .01 indicating a small or smaller than typical effect size.

In qualitative studies, internal validity may be reached through “pooled judgment and using outside sources to validate case study materials” (Forman, 1948, p. 413). In this study, where content analysis was used to evaluate the qualitative data, the results were compared to the findings of Petry and Petrosian. This provided an opportunity to use multiple data collection to strengthen the validity of the study (Merriam and Associates, 2002).

Summary

Considering the purpose of the study, quantitative correlations and noting differences in populations were well-suited for the design of the study because the goal was not to establish causal relationships (Creswell, 2009). Using Web-based survey instruments, administration/faculty and students from three community colleges in a rural area of West Texas were requested to participate. Mission expansion, workforce/community need, and student access were the targeted variables in the study that were presented to the respondents through several questions per construct in each survey. Demographic data were collected to establish groups for comparison. The respondents were also asked to provide additional comments about their perspective on the development of the community college baccalaureate in order to provide qualitative data to support the quantitative results. Qualitative data was also collected from a focus group discussion involving stakeholders from the three community colleges used in the study.

CHAPTER IV: RESULTS

This study explored the perception of students, faculty, and administration of a community college baccalaureate at three rural community colleges in Texas that do not have established baccalaureate programs. Data were collected using two surveys that were adapted from ones developed by Petry (2006) in an exploration of the issues concerning community college baccalaureate degrees in the state of Florida. The intent of the current study was to establish an initial framework for community colleges to follow in determining if the pursuit of community college baccalaureate degrees within their Career and Technical, and professional programs was warranted. The four over-riding questions were:

1. What issues surrounding mission expansion, community/workforce need, and student access do faculty, administration, and students see as major factors in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. What major factors do administration and faculty identify as imperative to the development of professional and career and technical community college baccalaureate degrees?
 - b. What commuting distance is considered reasonable by faculty for students who would transfer to 4-year programs?
 - c. Is there a correlation between faculty and administration perceptions of their community college's instructional resources with regard to their perception of development of community college baccalaureate programs?

- d. Is there a difference in perceptions of a community college baccalaureate between faculty of traditional transfer programs and those who teach professional, career and technical programs?
- 2. What factors are regarded by students as major elements in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. Is there a difference between students under 25 (traditional students) versus those 25 and over (non-traditional students) in their preference as to where (community college or university) they receive a bachelor's degree? What commuting distance is considered reasonable to students?
 - b. To what extent does commuting distance determine the preference of a student to transfer to a 4-year program?
 - c. Is there a difference between professional, career, and technical students and students who plan to transfer to 4-year programs with regard to their self-rated preference in location of a bachelor's program (4-year university versus community college)?
 - d. Do parental education levels make a difference in the self-reported preferences for a student's desired location of a baccalaureate degree (4-year university versus community college)?
 - e. Is there a difference between individual family dynamics (single with children, etc.) and their self-ratings with regard to the decision to support a community college baccalaureate from a near-by community college over transfer to a university?

3. What factors would influence students currently preparing for transfer to a 4-year institution to likely enroll in a selected professional or career and technical program at the community college that offers a community college baccalaureate?
 - a. Is there a difference between traditional and nontraditional students as to their perspective of a community college baccalaureate?
 - b. Is there a difference in faculty/administrative perspectives and student perspectives toward community college baccalaureate development?
 - c. Is there a difference between students of professional, career, and technical programs and students enrolled in transfer programs with regard to a positive perception of a community college baccalaureate degree?
 - d. How do traditional and non-traditional students differ in their desire to have a baccalaureate degree from a university or community college?
 - e. Are there a combination of demographic factors that can predict a student's preference for the development of a community college baccalaureate program in professional and career and technical education programs?
4. Is there a difference between perspectives of faculty/administration and students with regard to the following factors in community college baccalaureate development:
 - a. Acceptable commuting distance for students?
 - b. Qualifications of existing faculty?
 - c. The need for baccalaureate programs at the community college level?
 - d. Value of lower costs at the community college?

Qualitative Sequential Explanatory Questions Directed at Focus Group:

1. Given the results of the survey, the focus group will be shown prelim results and asked to help the researcher better understand faculty, administration, and student perspectives of the quantitative survey.
2. How does the information provided by the focus group combined with the quantitative data explain the feelings and perceptions of the need for a community college baccalaureate program?

Each of the above had underlying sub-questions that combined to address the issues in the main question. In several instances, an independent samples *t*-test was used to measure differences using one question as a dependent variable. While not standard practice, this is an exploratory study and results from that non-standard procedure added to the descriptive data to more completely answer the over-riding questions of the study. Some tests were run comparing several dependent or independent statistical tests on a single data set which increased the possibility of type I errors (Gliner, et al, 2009). The Bonferroni correction could have been used to adjust the *p* values to reduce this chance. However, since this was an exploratory study, it was determined that effect sizes would be more useful in the analysis. The results of this study are presented in three parts: demographic and descriptive statistics of the respondents, quantitative analysis of responses to the survey in answer to the study questions, and summary of the qualitative responses to the survey.

Demographic and Descriptive Data of Respondents

Currently, there are three community colleges in the State of Texas offering baccalaureate degrees: Midland College, South Texas College, and Brazosport College. Located in the southern part of Texas, these colleges were allowed to develop baccalaureate degrees due to their relative isolation in rural West and South Texas, and their distance from major four-year

institutions. The colleges used in this study were selected because of their relative isolation from major four-year institutions in the Texas Panhandle.

Clarendon College

The oldest of the three institutions used in this study, Clarendon College was established in 1898 by the Methodist Episcopal Church, South. Successfully administered by the church into the 20th century, the original college moved to Abilene and became McMurry University. The Clarendon Independent School Board purchased the college property and Clarendon College was re-established as a non-sectarian junior college in 1927, being partially maintained by property taxes in the Clarendon College District (Donley County, Texas). In 1968, the college separated from the school district, moved to its present location and now operates from a 107-acre campus on the west side of Clarendon. The service area is comprised of eight counties (History of Clarendon College, 2011). The service area covers 7,130 square miles with a population density of 6.96 residents per square mile, with statewide density estimated to be 91.95 residents per square mile. The total population within the service area was estimated by the Texas State Data Center to be 49,657 in January 2008. The Census Bureau estimated the region's race/ethnic distribution in 2000 as follows in Table 4.

Fall 2013 enrollment headcount for Clarendon College was 1,214 students. This number included students from the Clarendon, Pampa, and Childress campuses as well as Dual Credit, On-line students, and those enrolled through the Texas Department of Criminal Justice (National Center for Education Statistics, 2014). In 2012, there were 95 Associate degrees and 130 certificates of completion awarded. Clarendon College offers 14 Vocational/Technical

Table 4

Ethnic Demographics: Clarendon College

Race/Ethnicity	Percent
White	64.3%
Black	7.5%
Asian	.02%
Hispanic	22.2%
Native American	2.1%
Other	3.88%

IPEDS College data 2013-2014

degrees and certificates and Associate Degrees in 26 areas of concentration, both academic and technical. Traditional students (age 18-24) comprise 77% of the student population with non-traditional students (25-64) at 21% (Institute of Education Sciences, 2014).

Frank Phillips College

Named after the founder of Phillips Petroleum, Frank Phillips College was established by a vote of local citizens in June of 1946. Sharing a building with Borger High School until 1956, primarily arts and sciences courses were offered until 1973 when vocational courses were included in the curricula. Off-campus sites in Canadian, Dalhart, and Perryton were established in the 1970s, and offerings in 2014 extend throughout the top nine counties of the Texas Panhandle. The headcount during Fall 2011 was recorded as 839 students in credit courses with 271 students in career and technical courses (Institute of Education Sciences, 2012). The district covers approximately 9000 square miles and has an estimated population per square mile of 8.65, slightly higher than Clarendon College (Hoque, 2010). Table 5 below shows the ethnic demographics of Frank Phillips College in 2013 (Institute of Education Sciences, 2014).

Table 5

Ethnic Demographics: Frank Phillips College

Race/Ethnicity	Percent
White	70 %
Black	5 %
Asian	1 %
Hispanic/Latino	17 %
Native American	3%
Other	3%
IPEDS College data 2013-2014	

Frank Phillips College offers 18 transfer programs and 11 areas of study in Professional and Technical Education. The Texas Higher Education Coordinating Board reported actual enrollment at Frank Phillips College in 2012 (Texas Higher Education Coordinating Board, 2013) to be 1,185 students.

Amarillo College

Amarillo College, organized independently of a school district in 1929, continued to share a board of regents until 1958. Moving into its first constructed permanent building at its present location in 1937, the college served primarily as a junior college with arts and science courses. Vocational courses were not offered until 1942. An independent board of regents was granted in 1958 and, like other community colleges throughout the nation, the 1960s brought expansion in facilities and programs including a number allied health, occupational-technical programs, continuing education, and community service courses. A 42-acre site was purchased on the west side of Amarillo to become the School of Vocational Arts. Today, the campus is the location of Allied Health and Nursing, Dental, Emergency Medical Services Professions, a variety of Medical technician training programs, Pharmacy Technology, Occupational, and

Physical Therapist assistant, Criminal Justice, and Mortuary Science programs. The former Texas State Technical College in Amarillo was transferred to Amarillo College in 1995. This transaction included the buildings and the acreage located at the former Amarillo Air Base located on the east edge of Amarillo. Most existing programs made the transition by integrating and adding to the existing programs at AC. Moore County Campus in Dumas was opened in January 2000 and the Hereford Campus was opened in the Fall of 2009. Following the move of Amarillo High School to a new building, the remaining campus buildings were occupied by the Amarillo Senior Citizens Center (old cafeteria) and the remaining buildings were refurbished to accommodate AC's department of Continuing Education and a center for professional and personal lifelong learning becoming the Downtown Campus of Amarillo College (History, 2015).

For the fall of 2013, Amarillo College reported 10873 students. Of that number, 39% were male and 61% were female. AC defines itself as a primarily transfer college and the reported numbers support that description with 6,715 students (59%) classified as academic transfer (68 Applied Science/Arts Degree programs) and 4,432 students (40%) enrolled in technical programs (117 Associate of Applied Science/Arts and Certificate programs). The split between full-time and part-time students was 29% to 71%. Fifty-three percent of Amarillo College students were under the age of 22, with the remaining 47% nontraditional students over the age of 22. The Data Book published by Amarillo College indicates that these numbers have been fairly consistent over the last 5 years, with the possible exception of a modest rise in Hispanic students from 26% in the fall of 2008 to 36% in the fall of 2013 (Institute of Education Sciences, 2012). The Table 6 illustrates the ethnic demographics at Amarillo College for Fall 2013.

Table 6:

Ethnic Demographics: Amarillo College

Ethnic Group	Percent
White	54%
American Indian	1%
Black	5%
Asian	3%
Hispanic	36%
Unknown	1%
IPEDS College data 2013-2014	

Faculty/Administration Survey Respondent Demographics

Total numbers of faculty and administration were compiled by reviewing online directories and organizational charts of each institution. Numbers are approximate because some members of administration are considered as faculty members, as well as the fact that the number of adjunct faculty is fluid from one semester to the next. Table 7 indicates those numbers. One hundred twelve members of the faculty and administration from the three community colleges responded to the survey. Sixty percent were self-identified as full-time or adjunct faculty with 25% self-identified as members of the administration. Compilation of teaching areas indicated that 60 of the respondents taught in the transfer program areas, 30 in Career and Technical Education programs, and 3 in Developmental Education and First Year Seminar. Tables 8 & 9 show the education levels and the number of years taught at the community college level as reported by survey respondents. Table 10 indicates how each institution was represented.

Table 7

Faculty and Administrative Personnel Numbers

College	FT Faculty	PT Faculty	Administration
Clarendon College	30	63	20
Frank Phillips College	31	35	20
Amarillo College	225	125	20
Totals	286	223	60

Student Survey Respondent Demographics

Of 467 responses, 27% ($n = 467$) were male, 73% ($n = 467$) were female. Seventy-nine percent ($n = 467$) of the respondents self-identified as non-traditional students (age 22 or older), and 21% ($n = 467$) identified themselves as traditional students between the ages of 16 and 22.

Marital status as reported by student respondents is shown in Table 11.

Table 8:

Highest Education Level

Earned Degree	Response	Percentage
Associate Degree	2	2
Bachelor's Degree	20	18
Master's Degree	72	64
EdD	4	4
PhD	14	13
Total	112	100

Students were also asked to identify their reasons for enrolling in community college. Students were allowed to select multiple options. Of 395 responses, 64% ($n = 395$) enrolled to obtain an Associate's Degree, 49% ($n = 395$) were preparing for transfer to a bachelor's

program, and 47% ($n = 395$) wanted to expand their job opportunities. Table 12 shows the responses and percentages for student rationale for enrollment.

Table 9:

Number of Years Involved at the Community College Level

Number of Years	Response	Percentage
0 to 5	36	32 %
6 to 10	24	22 %
7 to 15	16	14 %
16 to 20	14	12 %
21 to 24	8	7 %
Over 25	15	13 %
Total	113	100 %

Table 10:

Current Institution of Employment ($n = 113$)

Institution	Percentage
Clarendon College	6 %
Frank Phillips College	7 %
Amarillo College	87 %
Total	100 %

Quantitative Analysis of Survey Responses

As discussed in Chapter 3, both survey instruments (one for faculty/administration and one for students - see Appendix A) consisted of questions adapted from the survey designed by Petry (2010). For this study, one survey was directed at identifying perspectives of faculty and administration toward development of baccalaureate degrees at the community college level with the second survey designed to identify student perspectives. Negatively worded questions were

reverse-scored during tabulation so that any mean score of 2.5 or above could be regarded as in agreement with the premise of the study. Both Likert-style surveys showing the questions and response selections are included in Appendix A.

Table 11:

Marital Status of Student Respondents (n = 468)

Reported Status	Responses	Percentage
Single, no Children	135	29%
Single Parent, never Married	38	8%
Married, no Children	27	6%
Married with Children at Home	134	29%
Married with Children Who no Longer Live at Home	56	12%
Divorced, no Children	5	1%
Divorced, with Children Living at Home	51	11%
Divorced, with Children Who no Longer Live at Home	22	5%
Total	468	100%

Table 12

Rationale for Enrollment (n = 395)

Survey Choices	Response	Percentage*
Obtain an Associate's Degree	252	64%
Prepare for transfer to a Bachelor's Program	192	49%
Expand job Opportunities	187	47%
Expand personal knowledge and curiosity	145	37%
Gain Skills and Education in a Professional or Technical Field	140	35%
Total Responses	395	

*Respondents were asked to check all that applied

Factor analysis of the faculty/administration survey, indicated eight items indexing student needs had moderate to strong loadings from .591 to .831. The second factor indexed workforce needs, also with moderate to strong loadings from .517 to .924 on 7 items. The third factor (mission expansion) showed moderate to strong loadings from .428 to .748 on 4 items. Loadings less than .40 were omitted to improve clarity. In Table 13, the loadings for each item are displayed. Cronbach's alphas were computed for the each of the three groups indicated in Table 13:

Factor Loadings for the Rotated Factors for the Faculty/Administration Survey

	Factor		
	1	2	3
10. Community colleges should offer baccalaureate degrees in selected Career and Technical education programs.	.831		
14. Establishment of selected community college baccalaureates in career and technical education programs at this community college would contribute significantly to meeting workforce need in this service area.	.813		
45. Community colleges should consider offering baccalaureate degrees in certain career and technical programs.	.804		
26. Establishment of selected community college baccalaureates in career and technical education programs at this community college would be supported by local industry.	.740		
13. There is a need for greater student access to baccalaureate programs in career and technical education in this area.	.719		
7. The need for community college baccalaureate programs at my institution is high.	.698		
42. My community college has the existing instructional resources, from my point of view, for selected bachelor's degree programs.	.655		
37. Establishment of selected community college baccalaureates in career and technical education programs at this community college could be cost-effective for the state.	.591		
30. There must be a clear provision for the compilation and reporting of performance data to accountability.		.924	

33. Internal assurances regarding structure and facility must be in place before initiating new programs.		.717	
48. My community college is responsive to the needs of the community.		.517	
40. The costs to students in selected community college baccalaureates in career and technical education programs would be less than other available alternatives.			.748
43. The possibility of lower cost factors would make a community college baccalaureate program attractive to students at this institution.	.484		.615
39. The incremental costs to establish these new programs (including capital outlay) to the state would be less than other available options.			.478
31. Establishment of selected community college baccalaureates in career and technical education programs at this community college must comply with common prerequisites and other applicable state articulation agreements.			.428
% Variance	31.9	12.3	11.2

Note: Loadings < .40 are omitted

indicated in Table 13. Factor 1 (Student Access) had a strong alpha score of $\alpha = .89$, Factor 2 (Workforce Needs) $\alpha = .75$ (moderate), and Factor 3 (Mission Expansion) $\alpha = .68$ (marginally acceptable level). Indicated in Table 14 are the final items used for each construct.

Table 14

Variables and Measurement Scale for Administration/Faculty Survey - Revised

Construct	Revised Scale Survey Questions	Measurement Scale
Student Access	7, 10, 13, 14, 26, 37, 42, 45	Scale/ Approximately Normal
Workforce Needs	30, 33, 48	Scale/ Approximately Normal
Mission Expansion	31, 39, 40, 43	Scale/ Approximately Normal

Factor analysis was also used to evaluate items from the Student Survey. Table 15 shows the loading factors for those items. The structure for the three targeted factors (mission expansion, workforce need, and student access) was assessed for each item. The first factor was associated with Student Access with moderate to high loadings from .544 to .862. Factors two (workforce needs) and three (mission expansion) both had low to moderate loadings. Indicated in Table 15 are the groupings of items for each of the three constructs to be explored from the student survey in this study.

Table 15

Factor Loadings for the Rotated Factors for the Student Survey

	Factor		
	1	2	3
28. Community colleges should consider offering baccalaureate degrees in certain professional, career an...	.862		
26. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.	.718		
23. Offering a bachelor's degree at my community college would increase access to higher education for m...	.659		
24. There is a need for a bachelor's degree program in my program/field of study at my community college...	.631		
21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and finish that degree.	.582		
12. My program/field of interest offers/requires a bachelor's degree for certification/registration/licensure		.494	
11. My program/field of interest offers/requires a bachelor's degree for advancement		.404	
20. I am _____ with the quality of education at my community college.			.560
31. My community college is responsive to my needs as a student.			.520
% Variance	16.1	7.9	6.9

Note: Loadings < .40 are omitted

Indicated in Table 16 are the groupings of items for each of the three constructs to be explored from the student survey in this study. As with the previous results from the Faculty/Administration Survey, reliability was tested for the Student Survey using Cronbach's alpha. For Student Access, Cronbach's Alpha was at an acceptable level of $\alpha = .825$, but the next two factors had low reliability ratings ($\alpha = .41$, $\alpha = .39$) probably due to a low number of items. As a result, only the factor of Student Access will be used for comparisons with Faculty and Administration results.

Table 16

Variables and Measurement Scale for Student Survey – Revised

Constructs	Revised Scale Survey Questions	Measurement Scale
Student Access	21, 23, 24, 26, 28	Scale/ Approximately Normal
Workforce Needs	11, 12	Scale/ Approximately Normal
Mission Expansion	20, 31	Scale/ Approximately Normal

Research Questions

Four primary research questions were addressed for this study and each research question had several sub-questions. Both surveys were designed to provide information in response to the sub-questions thereby answering the over-riding questions of the study. Individual questions and sub questions are restated below with the resulting analysis following each sub-question.

1: What issues surrounding mission expansion, workforce need, and student access do

faculty, administration, and students see as major factors in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs? (Results from sub-questions a-d below provide information to answer Question 1)

- a. What major factors do administration and faculty identify as imperative to the development of professional and career and technical community college baccalaureate degrees?

Means for each question in the Faculty/Administration and Student surveys were determined and the top ten factors to be considered for development of baccalaureate degrees at the community college level were ranked and listed in Table 17. The most important factor for faculty was that the college should be responsive to the needs of the community ($M = 4.45$, $n = 87$). For students, greater access to baccalaureate degrees at the community college level was most important ($M = 4.49$, $n = 333$).

Table 17

Top Ten Factors for Faculty/Administration and Students

<i>Faculty Factors (N = 86)</i>	Means
48. My community college is responsive to the needs of the community.	4.45
28. Program quality issues should receive high priority in the development of any community college baccalaureate program.	4.39
36. Community colleges must do more to reach beyond state funding resources to other sources of funding.	4.29
31. Establishment of selected community college baccalaureates in career and technical education programs at this community college must comply with common pre-requisites and other applicable state articulation agreements.	4.17
33. Internal assurances regarding structure and facility must be in place before initiating new programs.	4.15

43. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.	4.11
30. There must be a clear provision for the compilation and reporting of performance data to accountability.	4.09
35. Community colleges must provide for performance standards, which include outcomes assessment measures, before implementation of new programs.	4.09
8. Local workforce needs assessments are essential before initiating new programs.	4.02
25. Community colleges should consider collaboration with other institutions before taking an independent road to baccalaureate degrees.	3.95

Student Factors (N = 330)

23. Offering a bachelor's degree at my community college would increase access to higher education for more people	4.49
28. Community colleges should consider offering baccalaureate degrees in certain professional, career and technical programs.	4.44
20. I am _____ with the quality of education at my community college.	4.43
21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and complete that degree.	4.39
26. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.	4.39
27. The faculty at my community college are qualified to teach upper level courses.	4.24
31. My community college is responsive to my needs as a student.	4.23
24. There is a need for a bachelor's degree program in my program/field of study at my community college.	4.06
25. My community college has the existing instructional resources, from my point of view, for a bachelor's degree in my program/field of study.	3.71
17. My program/field of interest's bachelor's program is a reasonable distance from my location and I plan to transfer to its 4-year program of study.	3.28

- b. What commuting distance is considered reasonable by faculty for students who would transfer to 4-year programs?

Faculty/administration (84%, $n = 90$) agreed that a reasonable commuting distance one way was up to 60 miles as shown in Figure 1.

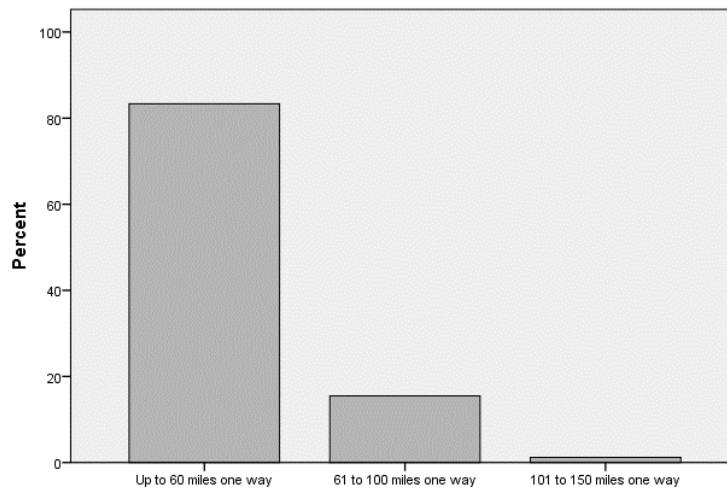


Figure 1. Commuting distance considered reasonable by faculty for students who would transfer to 4-year programs.

- c. Is there a correlation between faculty and administration perceptions of their community college's instructional resources with regard to their perception of development of community college baccalaureate programs?

A correlation between Question 10 (Should community colleges offer baccalaureate degrees in selected CTE and professional areas?) and Question 44 (regarding perception of faculty qualifications) was computed to determine if there was a significant association between the faculty and administration perspectives of the community college baccalaureate and available instructional resources at their college. Descriptive statistics indicated that 69% ($n = 107$) of faculty and administration respondents agreed that community colleges should offer baccalaureate degrees in selected career and technical education programs with 75% ($n = 93$) agreeing that their faculty were qualified to teach at this level. Using Pearson r , the correlation

was shown to be statistically significant ($r = .351$, $p = .001$) where $p \leq .05$, and the effect size was typical.

Table 18
Correlation between Q10 and Q 44 (N = 87)

	Q44 Perceptions of Faculty Quals.	
10. Community colleges should offer baccalaureate degrees in selected Career and Technical education programs.	Pearson Correlation	.351**
	Sig. (2-tailed)	.001

**Correlation is significant at the 0.01 level (2-tailed).

- d. Is there a difference in perceptions of a community college baccalaureate between faculty of traditional transfer programs and those who teach professional, career and technical programs?

Professional, career and technical programs at community colleges primarily offer associate degrees and faculty in these programs are generally practitioners in their fields. Some four-year programs exist for those students move on to after graduation, but associate degree programs are designed for graduates to enter the workforce immediately following graduation. Faculty of traditional, transfer programs may teach general education courses required for associate degrees, but are generally not involved in the development of CTE programs. An Independent t -test was used to compare the perceptions of transfer faculty and faculty of career and technical programs toward the development of baccalaureate degrees at their institutions using summated scores. There were statistically significant differences between Transfer and CTE faculty Student Access at the $p \leq .05$ level as shown in Table 19 with means for CTE faculty higher than Transfer faculty. The effect sizes were small. The researcher recognized that in comparing several dependent or independent statistical tests on a single data set increases the

possibility of type I errors (Gliner, Morgan, & Leech, 2009). The Bonferroni correction could be used to adjust the p values to reduce this chance. However, since this was an exploratory study, it was determined that effect sizes would be more useful in the analysis.

Table 19

Summated Results: Perceptions of Transfer Faculty and Faculty of Career and Technical Programs Toward the Development of Baccalaureate Degrees at Their Institutions

Constructs	Subject Area	M	t	df	Sig	d
Student Access	Transfer	20.7	-2.22	84	0.03	0.03
	CTE	22.9				
Workforce Needs	Transfer	15.9	-1.06	84	0.29	0.001
	CTE	16.5				
Mission Expansion	Transfer	14.6	-0.42	84	0.67	0.002
	CTE	14.8				

2: What factors are regarded by students as major elements in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?

Sub-questions a-f below provide the statistical information to answer this question.

- a. Is there a difference between students under 22 (traditional students) versus those 22 and over (non-traditional students) in their preference as to where (community college or university) they receive a bachelor's degree?

Community colleges located in rural areas (like the sample population in this study) serve typical 18-22 year-olds, but older students, single parents, and students with families are increasingly looking to the community college for access to higher education (Bemmel, Floyd, & Bryan, 2009). Using an Independent t -test, means for traditional students (age group 16-21, $n =$

64) were compared to those of non-traditional students (22 and over, $n = 265$) for Question 21 Q21 related to staying at their community college if baccalaureate degrees were offered. The t -test was used to measure differences using one question as a dependent variable. While not standard practice, this is an exploratory study and results from that non-standard procedure added to the descriptive data to more completely answer the over-riding questions of the study. There was no statistical difference between the two groups. Both means were above 2.50 ($M = 4.20$ for traditional students, $n = 64$ and $M = 4.43$ for non-traditional students, $n = 265$) and the effect size was small and negative in direction indicating a preference to stay at the community college if baccalaureate degrees were available.

There was a significant difference between traditional and non-traditional students in their preference as to whether they would rather transfer to a university rather than stay at their community college (Q22) should baccalaureate degrees be available ($p = .002$). This was an expected result. While the difference was statistically significant with a typical effect size, both means were below 2.50. Complete results are shown in Table 20.

Table 20

Student Preferences: Community College or University for Degree Attainment

Age group-16-22		Mean	t	df	Sig.	d
			-1.71	327	.088	-.24
21 If my community college offered a bachelor's degree in my program/field of interest, I would stay and finish my degree.	Age group-16-22	4.20				
	Age group-22-51 or older	4.43				
			3.173	327	.002	.30
22 I would rather transfer to a university program, no matter the distance, than to attend my area community college.	Age group-16-22	2.36				
	Age group-22-51 or older	1.92				

b. What commuting distance is considered reasonable to students?

Of those students responding to the student survey 92% ($n = 333$), indicated that a reasonable commuting distance one way was up to 60 miles is shown in Figure 2.

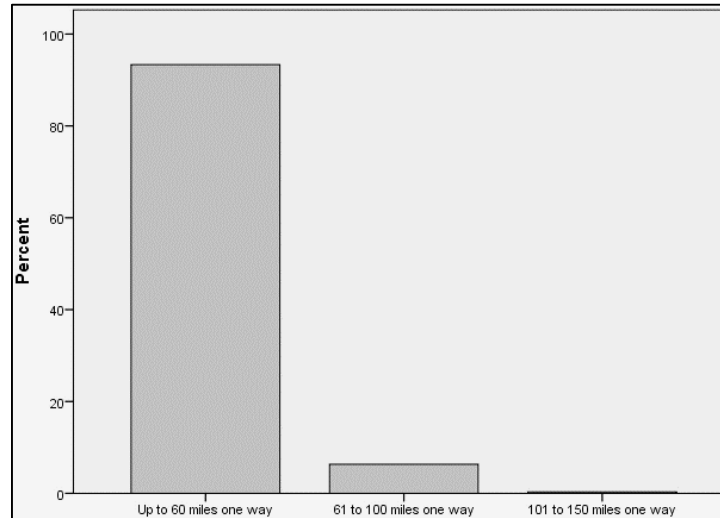


Figure 2: Commuting distance considered reasonable to students

c. To what extent does commuting distance determine the preference of a student to transfer to a 4-year program?

Pearson correlations were computed to examine the intercorrelations of Q13 (student views on reasonable commuting distance) with Q22 (transfer preference no matter the distance), and Q21 (if they would stay at the community college if a baccalaureate degree in their field was offered). Each of the variables was normally distributed with the assumption of linearity not markedly violated. The results shown in Table 21 indicate some students would rather transfer away from the community college for their baccalaureate degree no matter the distance. However, if a baccalaureate in their field of study were to be offered at their community college, they would consider staying if their commute would be over 60 miles one-way. This factor was

statistically significant at the $p = .01$ level. There was no significant correlation between commuting distance and preference for transfer ($r = -.026, p = .651$). In this case, the negative value of $r = -.345$ would indicate that the farther away a transfer program would be located the more likely the student would stay to complete their baccalaureate degree at the community college. According to Cohen's guidelines, this would be a medium or typical effect size. The coefficient of determination ($r^2 = .12$) explains 12% of the variance and could predict this outcome 12% of the time.

Table 21

Intercorrelations, Means and Standard Deviations for Student Commuting Distance (N = 312)

Variable	13	21	22	Mean	SD
13. How many miles is a reasonable distance to commute on a daily basis?	--	-.173**	-.026	1.07	.269
21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and complete that degree.	--	--	-.345**	4.40	.953
22. I would rather transfer to a university program, no matter the distance, than to attend my area community college to complete my bachelor's degree.	--	--	--	2.01	.995

** Correlation is significant at the 0.01 level (2-tailed).

- d. Is there a difference between professional, career, and technical students and students who plan to transfer to 4-year programs with regard to their self-rated preference in location of a bachelor's program (4-year University versus community college)?

Table 22 shows that there was a significant difference between the preferences of CTE and transfer students in the location of a bachelor's program for their degree. An independent t -test was used to measure differences using one question as a dependent variable. While not standard practice, this is an exploratory study and results from that non-standard procedure added to the descriptive data to more completely answer the over-riding questions of the study. The mean score for students in career and technical programs ($M = 1.85$, $n = 159$) was significantly lower than those of transfer students ($M = 2.15$, $n = 170$). The effect size of $d = .75$ is considered medium to large by Cohen's guidelines.

Table 22

Student Preferences in Location of Bachelor's Degree

Variable	Group	N	M	SD	t	df	p	d
				1.02	2.77	327	.006	.75
22. I would rather transfer to a university program, no matter the distance, than to attend my area community college.	Transfer	170	2.15					
	CTE	159	1.85	.98				

- e. Do parental education levels make a difference in the self-reported preferences of student's desired location of a baccalaureate degree?

A paired t-test indicated that students' mothers have statistically more education than their fathers ($t(320) = 2.30$, $p = .022$, $d = .13$). While the difference is statistically significant, the effect size ($d = .13$) is smaller than typical using Cohen's (1988) guidelines. A smaller effect size could indicate, while the difference is statistically significant, there may be no practical significance. To determine if their parents' level of education makes a difference as to where the student would prefer to obtain their baccalaureate degree correlations were computed to

determine intercorrelations of the variables by comparing Mother's and Father's educational levels to Q21 ("If my community college offered a bachelor's degree in my program/field of interest, I would stay and complete my degree"). Because the results to Q21 were not normally distributed (skewness = -1.64), Spearman's Rho was used to calculate the correlations between parental education and student choice. The results indicated that there was a weak but statistically significant correlation between mothers education and student choice to complete a bachelor's degree at a community college ($r_s(330) = -.01, p = .824$). The correlation between fathers education and student choice was also weak and not statistically significant ($r_s(321) = -.01, p = .799$).

- f. Is there a difference between individual family dynamics (marital status) and their self-ratings with regard to the decision to support a community college baccalaureate over transfer to a university?

Student marital status was used to measure its impact on the student respondents' decisions as to whether or not to transfer to a university or to complete their degree at the community college, if offered. Descriptive statistics for Question 21 indicated that most students would stay at the community college, no matter their personal family dynamics if their community college offered baccalaureate degrees in their field of interest ($M = 4.38$), and One-way ANOVA showed no significant differences were indicated between groups as shown in Table 23. One-way ANOVA was also run to determine if there were significant differences between age groups when it came to the desire to transfer (Q22) and their family dynamics. Since the Levene Statistic was significant for staying at the community college ($F(7,327)$,

$p = .007$), as well as for the decision to transfer ($F(7, 327)$, $p = .001$), a Games-Howell HSD post hoc test was calculated to determine which pairs were significantly different in their choice for location of degree attainment.

Table 23

One-Way ANOVA Indicating Differences in Perceptions Between Student Groups (Family Dynamics)

		df	F	Sig.
22. I would rather transfer to a university program, no matter the distance, than to attend my area community college	Between Groups	7	4.671	.001
	Within Groups	319		
	Total	326		
21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and finish my degree.	Between Groups	7	1.733	.101
	Within Groups	319		
	Total	326		

There was one significant difference indicated between those students self-identified as Single, No Children and those identified as Divorced, no children ($p \leq .001$) where Q 21 was concerned (see Table 24) . However, where unconditional transfer (Q22), was concerned,

Table 24

Games-Howell HSD Post-Hoc indicating individual Group Differences between Single, no Children and other Categories of Marital Status

Dependent Variable		Sig.
22. I would rather transfer to a university program, no matter the distance, than to attend my area community college	Single parent, never married	.273
	Married, no Children	.911
	Married with children at home ($M = 1.8$)	.001

		Married with children who no longer live at home ($M = 1.7$)	.007
		Divorced, no children ($M = 1$)	.000
		Divorced, with children living at home ($M = 1.9$)	.021
		Divorced, with children who no longer live at home	.065
<hr/>			
21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and finish my degree.	Single, no children ($M = 4.19$)	Single parent, never married	.998
		Married, no Children	.973
		Married with children at home	.366
		Married with children who no longer live at home	1.000
		Divorced, no children ($M = 5.0$)	.000
		Divorced, with children living at home	.074
		Divorced, with children who no longer live at home	1.000

difference in choice determined by marital status was significant between the following groups (Table 26): Single, no Children vs. Married with children at home ($p = .001$); Single, no Children vs. Divorced, with Children Living at Home ($p = .02$); and Single, no Children vs. Married with Children who no Longer Live at Home ($p = .007$). Those respondents identified as Single with No Children were more likely to transfer whether or not the community college offered baccalaureate degrees in their program of study.

3. What factors would influence students currently preparing for transfer to a 4-year institution to likely enroll in a selected professional or career and technical program at the community college that offers a community college baccalaureate?

Sub-questions a-f below provide the statistical information to answer this question.

- a. Is there a difference between traditional and nontraditional students as to their perspective of a community college baccalaureate?

Responses from traditional (age 18-21) and non-traditional (over 22) were compared to see if their perspectives on community college baccalaureate degrees differed. All questions as extracted from the Student Survey using the factor analysis were compared using an independent *t*-test to check for significant differences with regard to student perspectives on college mission, workforce needs, and student access. The independent *t*-test indicated that the two groups differed significantly at the $p < .05$ level on only one question (26) as shown in Table 25. Question 26 referred to the possibility of lower costs for a baccalaureate degree through a community college. Even though there were statistically significant differences, the mean scores of both groups were over 4.0 on a 5-point scale that indicated agreement with the premise of the question. Non-traditional students indicated a stronger belief that lower costs would make the opportunity to pursue a baccalaureate degree more attractive.

Table 25

Comparison of the Perceptions of Traditional and Non-Traditional Students toward Student Access with regard to baccalaureate degrees

	Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
26. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.	Traditional (Age 16-21)	4.06	.833	-3.743	327	.001
	Non-Traditional (Ages over 22)	4.47	.764			

- b. Is there a difference in faculty/administrative perspectives and student perspectives toward community college baccalaureate development?

The means from those questions identified in both surveys as belonging to the three constructs (Student Access, Workforce Needs and Mission Expansion) were compared to determine if there were differences in how the two groups perceived the development of baccalaureate programs at the community college level. For Student Access, the average mean for student respondents was $M = 4.35$ and $M = 3.29$ for faculty and administration respondents. While both means were well above an average of 2.5 for the survey, students were more convinced than faculty that baccalaureates should be developed at the community college level as shown in Table 26.

Table 26

Means Comparison for Student Access Between Student Respondents and Faculty/Administrator Respondents

Student	N	Mean	Faculty/Administration	N	Mean
21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and complete my degree.	329	4.39	7. The need for community college baccalaureate programs at my institution is high	87	2.75
22. I would rather transfer to a university program, no matter the distance, than to attend my area community college to complete my bachelor's degree.	329	2.01	10. Community colleges should offer baccalaureate degrees in selected Career and Technical education pro...	87	4.02
24. There is a need for a bachelor's degree program in my program/field of study at my community college in certain career and technical programs.	331	4.06	13. There is a need for greater student access to baccalaureate programs in career and technical education	87	3.47

26. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.	329	4.39	14. Establishment of selected community college baccalaureates in career and technical education program at this community college would contribute significantly to meeting workforce needs in this service area.	85	1.16
28. Community colleges should consider offering baccalaureate degrees in certain professional, career and technical programs.	327	4.44	26. Establishment of selected community college baccalaureates in career and technical education programs at this community college would be supported by local industry	86	3.34
			37. Establishment of selected community college baccalaureates in career and technical education programs at this community college could be cost-effective for the state.	87	4.09
			42. My community college has the existing instructional resources, from my point of view, for selected bachelor's degree programs.	87	3.45
			45. Community colleges should consider offering baccalaureate degrees in certain career and technical programs.	87	4.11
Average Mean		4.35			3.29

Survey questions toward Workforce Needs differed between the two groups surveyed. However, those listed below were identified through factor analysis as being associated with that construct. While the questions differ, they indicate those areas as perceived by the two groups of respondents as relevant to the construct of Workforce Needs. Those means were compared as shown in Table 27, but simply indicate the specific interests of each group. The average mean for

Students was 1.45, with the average mean for Faculty/Administration at 4.45. The high mean for Faculty/Administration respondents could indicate an awareness of the connection between program building and the cooperation needed with the community to provide an educated workforce, and the requirements of various state agencies in the development of new programs. Low mean scores from student respondents may indicate that they are not as familiar as they should be with industry requirements for their chosen careers as well as the logistics to program building at the community college level.

Table 27

<i>Means Comparison for Workforce Needs</i>					
Students	N	Mean	Faculty/Administration	N	Mean
11. My program/field of interest offers/requires a bachelor's degree for advancement	328	1.36	30. There must be a clear provision for the compilation and reporting of performance data to accountability and evaluation before implementation of such programs	87	4.09
12. My program/field of interest offers/requires a bachelor's degree for certification/registration/licensure	329	1.54	33. Internal assurances regarding structure and facility must be in place before initiating new programs	87	4.15
			48. My community college is responsive to the needs of the community.	87	4.45
Average Mean		1.45			4.23

Table 28 indicates the mean scores for Mission Expansion. Student respondents indicated a high level of satisfaction (average $M = 4.33$) with their institution's responsiveness to their needs and the quality of the education available to them. The average mean for

Faculty/Administration respondents ($M = 3.73$), however, was somewhat lower indicating their recognition of the importance of available funding and other institutional considerations toward Mission Expansion for the institution.

Table 28

<i>Means Comparison for Mission Expansion</i>					
Student	N	Mean	Faculty/Administration	N	Mean
31. My community college is responsive to my needs as a student.	324	4.23	31. Establishment of selected community college baccalaureates in career and technical education programs at this community college must comply with common prerequisites and other applicable state articulation agreements.	87	4.17
20. I am _____ with the quality of education at my community college.	331	4.43	39. The incremental costs to establish these new programs (including capital outlay) to the state would be less than other available options	87	3.18
			40. The costs to students in selected community college baccalaureates in career and technical education programs would be less than other available alternatives	87	3.45
			43. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.	87	4.11
Average Mean		4.33			3.73

- c. Is there a difference between students of professional, career, and technical programs and students enrolled in transfer programs with regard to a positive perception of a community college baccalaureate degree?

Descriptive statistics indicate that 62% of all student respondents recognized that their program or field of interest requires a bachelor's degree for advancement (Q11). Forty-six percent of student respondents felt that their program or field of interest requires a baccalaureate degree for certification, registration, or licensure. Summated results of all questions for the three constructs were used to determine the differences between the two groups of students. An independent t – test indicated one statistically significant difference in the perceptions between transfer and CTE students with regard to Workforce Needs ($p \leq .001$) as show in Table 29 with a Table 29

Summated Results: Perceptions of Transfer Students and Students in Career and Technical Programs Toward the Development of Baccalaureate Degrees at Their Institutions

Constructs	Subject Area	M	t	df	Sig	d
Student Access			1.42	320	0.160	0.16
	Transfer	19.60				
	CTE	19.21				
Workforce Needs			-6.16	326	0.000	0.68
	Transfer	2.64				
	CTE	3.18				
Mission Expansion			0.245	322	0.810	0.02
	Transfer	8.67				
	CTE	8.64				

larger than typical effect size ($d = .68$). There was no statistically significant difference between the perceptions of transfer students and CTE student respondents toward Student Access or Mission Expansion and the effect sizes were smaller than typical. The researcher recognized that in comparing several dependent or independent statistical tests on a single data set increases the

possibility of type I errors (Gliner, et al, 2009). The Bonferroni correction could be used to adjust the p values to reduce this chance. However, since this was an exploratory study, it was determined that effect sizes would be more useful in the analysis.

- d. How do traditional (Age 18-21) and non-traditional students (Age 22 and over) differ in their desire to have a baccalaureate degree from a university or community college?

Scores for Student Access perceptions by traditional (Age 18-21) and non-traditional (Age 22 and over) were summated in Table 30 to reduce the possibility of a type I error. There was no statistically significant difference between traditional and non-traditional students with regard to Student Access. Traditional students seemed to prefer a baccalaureate degree from a university to that of a community college by a relatively small margin. However, neither the summated mean of the traditional students ($M = 17.35$) nor the summated mean of the non-traditional students ($M = 16.67$) indicated that neither group had strong preferences toward transfer over completing their bachelor's degree at their community college.

Table 30

Summated Results: Perceptions of Traditional Students and Non-traditional Students in Career and Technical Programs Toward the Development of Baccalaureate Degrees at Their Institutions

Construct	Age Range	M	t	df	Sig	d
Student Access			0.48	155	0.64	0.09
Traditional	Age 18-21	17.35				
Non-Traditional	Age 22 and Over	16.67				

- e. Are there a combination of demographic factors that can predict a student's preference for the development of a community college baccalaureate program in professional and career and technical education programs?

Simultaneous multiple regression was conducted to determine what combination of demographic factors could best predict student respondent preferences for community college baccalaureate development. Q28 (Community colleges should consider offering baccalaureate degrees in certain professional, career and technical programs.) was used as the main variable with gender, marital status, and parental education levels as the Predictor Variables. Means, standard deviations, and intercorrelations can be found in Table 31a. There were no significant correlations. The beta coefficients are presented in Table 31b.

Simple regression was conducted to explore how well age could predict student preference for the development of baccalaureate degrees at the community college level (Q28). The results were not statistically significant ($F(1, 234) = .67, p = .795$). The adjusted R^2 value was -.004 indicating that only .4% of the variance in preference for community college baccalaureate degree development could be explained by age of the student.

Table 31a

Means, Standard Deviations, and Intercorrelations for Student Preferences in Baccalaureate Development and Predictors Variables (N = 237)

Variable	<i>M</i>	<i>SD</i>	Gender	Mother's Educ.	Father's Educ
Q28.	4.42	.718	.05	-.05	.02
Predictor Variable					
1. Gender	1.77	.423		.04	.04
2. Mother's education	3.81	1.681			.54
3. Father's Education	3.53	1.826			

Table 31b

*Simultaneous Multiple Regression Analysis for Gender and Parental Education Levels
Predicting Student Preferences in Baccalaureate Development (N = 237)*

Variable	<i>B</i>	<i>SEB</i>	β
Gender	-.091	.11	-.05
Mother's education	-.037	.03	-.09
Father's Education	.024	.03	.06

Note. $R^2 = .008$; $F(3, 237) = .720$, $p = .59$

4. Is there a difference between perspectives of faculty/administration and students with regard to the following factors in community college baccalaureate development:
 - a. Acceptable commuting distance for students? (Student Access)
 - b. Qualifications of existing faculty? (Student Access)
 - c. The need for baccalaureate programs at the community college level? (Student Access)
 - d. Value of lower costs at the community college? (Student Access)

Results of the factorial analysis of both surveys (Tables 14 and 16), indicate that the primary focus of both student and faculty/administration respondents was on Student Access to baccalaureate degrees. Ninety-two percent ($n = 333$) of student respondents and 84% ($n = 90$) of faculty/administration respondents indicated that sixty miles was a reasonable commuting distance for students who transfer to a 4-year program of study (Charts 1 and 2) on a daily basis. With regard to available instructional resources, both faculty/administration respondents and student respondents) indicated that their community college had adequate instructional resources to develop baccalaureate programs. Both groups also agreed that there was a need for development of baccalaureate programs in selected career and technical areas (see Table 32). Both respondent

groups also agreed that possible lower costs would be attractive to students completing baccalaureate degrees at the community college level.

While those attending the focus group recognized the possibilities of developing baccalaureate programs, they posed questions about the willingness of community college administrators to commit resources to that development. With the current emphasis on student success and completion rates, new program development may not have enough support to implement the process.

Table 32

Means Comparisons: Common Survey Questions for Student Access

Student Survey	<i>M</i>	Faculty Survey	<i>M</i>
25. My community college has the existing instructional resources, from my point of view, for a bachelor's degree program in my field of study	4.24	42. My community college has the existing instructional resources, from my point of view, for selected bachelor's degree programs	3.30
26. The possibility of lower cost factors would make a community college baccalaureate program attractive to me	4.39	40. The costs to students in selected community college baccalaureates in career and technical education would be less than other available alternatives	4.11
28. Community colleges should consider offering baccalaureate degrees in certain professional, career and technical programs	4.42	45. Community colleges should consider offering baccalaureate degrees in certain career and technical programs	3.79

Qualitative Analysis of Survey Responses and Focus Group

The data analyzed qualitatively acted as a secondary database and was gathered through an open ended question at the end of each survey, as well as a focus group discussion of the survey results, providing support for the qualitative results. Each survey respondent was given the opportunity to make additional comments about their perspective on community college

baccalaureate programs, creating a mixed methods approach to the study. The focus group provided the opportunity for respondents and other interested parties to discuss the results of the study. Information provided by the participants was analyzed using open coding by naming and categorizing of responses to find relationships and commonalities (Sharan B. Merriam and Associates, 2002).

The open ended questions were analyzed qualitatively. They acted as a secondary database along with the results from the focus group discussion to providing a richer understanding of the survey data results. Each survey respondent was given the opportunity to make additional comments about their perspective on community college baccalaureate programs through a number of questions at the end of the survey. The focus group conducted after the data was analyzed and shared provided the opportunity for respondents and other interested parties to discuss the results of the study. Information provided by the participants in the open-ended questions and through the focus group discussion was analyzed using open coding by naming and categorizing of responses to find relationships and commonalities (Sharan B. Merriam and Associates, 2002).

Emerging Themes in the Survey Responses

Student Survey Responses

Of the 468 students responding to the survey, 70 provided additional comments about their perception of the development of baccalaureate programs at the community college level. Their comments were categorized first according to key words and generalizations. Nine categories were initially identified with 82 identified references toward individual concerns or considerations. Further analysis indicated that these nine categories could be reduced into three

main themes: cost/financial considerations, perception of the institution and the respondents' experiences, and perception of educational requirements for job placement.

Cost/Financial Considerations

Student respondents cited cost of tuition and costs for transportation would be the primary attraction to them in the development of baccalaureate programs at their institutions. The possibility of lower cost factors at the community college level was cited as an advantage for community college students. One student mentioned their physical disability which prevented them from working to pay for college. They also expressed their frustration that "I am required to transfer to a university program in order to finish my degree because the amount I must borrow will very nearly quadruple when that happens..." Whether it is because of disability issues, family dynamics, or current employment, being place-bound, extends to many non-traditional students, as well. The logistics involved and related cost factors in attaining a bachelor's degree included the possibility of a lengthy commute, temporary re-location, and re-employment. The idea of adjusting to a new campus environment was of concern to a number of student respondents including Student 41:

"I would more than likely get my bachelors if it was offered at my current college. Just the thought of transferring and getting to know a new campus and the way their program works is discouraging."

The ease of access and proximity of the local community college was cited as being important to several students. Single parents who need ready access to resources and their children found the idea of a 4-year plan at their institution attractive. Another student mentioned the "danger of being sidetracked when transferring, losing valuable credits in the process" (Student 53) toward attainment of a bachelor's degree at another institution. The ease of access,

not only for single parents, but for those wanting to simply continue their education appeared to be attractive and cost effective for several student respondents.

“I would have loved that (my institution) offered the baccalaureate degree program. It would have made it easier for people to want to keep improving themselves on their degree plan. It also would be very cost effective, and familiar campus environment would encourage the students to keep on going to school after getting their Associates Degree.” (Student 59)

With only one university within the desired 60-mile commuting distance, baccalaureate program availability is limited and several programs at the three community colleges participating in the study offer programs with no subsequent bachelor’s degree available at that university. Student respondents mentioned commuting distance to a 4-year program several times. Two students summed up these issues very well:

“....I don’t feel transferring to a 4-year university is an option for me at this time because I don’t have the financial resources to do so and do not want to incur any debt – even for a higher level of education. The closest 4-year university within my daily driving range does not offer a bachelor’s degree in my field of study. The community college allows me to live and work where I am already established and take classes around work so I can do both and is affordable enough to cash flow from semester to semester without having to take out any student loans.” (Student 22)

“I would jump at the chance to get my baccalaureate at (my community college) because the nearest University offering it in the Interior Design field is over 2 hours away and there’s no way I could drive that far to attend school and we cannot move because my husband and I own a business here.” (Student 7)

Perception of the Institution and the Respondents’ Experiences

Student respondents also referenced a desire or interest in remaining at their community college to complete a baccalaureate degree, as a result of having positive experiences at their institution. Comments included from “Great idea!” from Student 6, and “I would love to see this happen at (my institution)” from Student 30. Positive experiences from supportive and

encouraging faculty, a belief by faculty in the ability of the student, and the high quality of the programs currently offered as rationale for continuing their education at their current institution.

While most student respondents replied positively, there were also some concerns expressed. Several references were made as to the whether there was a lack of staff, facilities, or student support services, as well as a question about the level of qualifications of the faculty. Another concern expressed referred to how a bachelor's degree attained through the community college would be viewed by prospective employers.

“Whether or not the baccalaureate is as ‘solid’ as the one that could be received through a University is a huge, huge, huge factor, at least for myself. It matters to me how the academic community views a baccalaureate through a community college vs. a university.....” (Student 48)

While a few students expressed these concerns, the majority of students had positive feedback as to their institution's ability to support these degree plans.

“I have had a very positive experience at (my institution). My teachers have been unbelievable (sic) supportive and encouraging to me. They have had more belief in me than I did!” (Student 3)

“.....I have met some of the professors at (another institution) and compared to our instructors I believe I got the better deal. Many of the professors (at the university) are unapproachable and very arrogant. The instructors here for the most part have a great attitude, eager to teach and teach accurately.” (Student 50)

“.....The instructors at (my institution) are great and very capable.” (Student 37)

Perception of Educational Requirements for Job Placement

Finally, student respondents from individual program areas (Mortuary Science, Interior Design, Nursing, Accounting, American Sign Language, Instrumentation and Control, Paramedic training for Life Star, and GIS 3D Mapping) made several references to their support of baccalaureate development at their institutions. One student respondent stated: “I would LOVE

to see a baccalaureate program for ASL Interpretation in my area. Either @ my community college or the local University.” (Student 54). There were also a few references to future education demands of their chosen fields of study being increased for an entry-level position from the associate’s degree to a bachelor’s degree within the next few years.

“(My institution) would be the ONLY school in Texas to offer a Bachelors in There is one in PA, and maybe one other on the east coast. Out of the 4 schools that offer AAS Degrees (in the student’s program) in Texas, this would BY FAR give (my institution) a leap above the competition.” (Student 16)

“Bachelor degrees are needed in the medical field because hospitals are starting to take out anything lower than a bachelors degree.” (Student 52)

“...Certainly would benefit those who may need a technical education of advancement in the workforce (local interests and workforce opportunities considered).” (Student 66)

Faculty/Administration Responses

Of the 112 faculty/administration respondents to the survey, 17 offered additional comments expressing their perception of the development of baccalaureate programs at the community college level. Eighteen categories were initially identified with 25 separate references of individual concerns or considerations. Further analysis indicated that these 18 categories could be reduced into three main themes: Logistics of Development, Workforce Solutions/Community Relations, and Mission. Three respondents indicated their need for additional information in order to fully express their perceptions.

Logistics of Development

Faculty/administration respondents tended to focus on the logistics of creating the programs and the issues surrounding that process. There were only a few references to the direct impact these programs would have on the student (overall cost, shorter commutes, and issues with financial aid). The impact on financial aid for students was mentioned due to the increase in

regulations and compliance issues surrounding the issuance of financial aid with regard to four-year programs. One faculty/administration respondent stated it this way:

“Offering community college baccalaureate programs in career and technical areas would require a significant infusion of more funding for facilities, equipment, and faculty. It would also require a significant SAC (Southern Association of College and Schools) substantive change.” (Faculty/administration 9)

“I would not want to take the community college focus off providing certificate and associate degrees for career and technical programs by adding baccalaureate programs.....I suppose I now question the real need for a community college baccalaureate career and technical degree. However, I am open to learning more about this possibility....(Faculty/administration 10)

The cost of development, declining financial support from the State of Texas, staffing and facility management, regulation and compliance issues, and the size of the institution were cited as potential roadblocks or concerns to the development of baccalaureate programs at the community college level.

“Considering the economic downturn and declining resources, offering baccalaureate degrees at community colleges is out of the question. Our colleges will be fighting for our own survival.” (Faculty/administration 5)

“.....The other concern I have for community colleges as a whole is that there is generally a lack of faculty to start B (Bachelor’s) degree programs.I don’t have the time to start a new program, unless more faculty are hired.” (Faculty/administration 18)

A different view of the funding issues by one responded proposed that offering baccalaureate degrees “definitely would be an alternative funding source for Community Colleges to receive more funding in today’s economy and state budget cuts” (Faculty/Administration 11).

Workforce Solutions/Community Relations

References to the issue of workforce solutions and community relations were another area of concern for faculty/administration respondents. While one offered that the development of community college baccalaureate degrees could supply a variety of community workforce

solutions, there were also references to issues toward the relationship of other institutions in the service area, and the need for business and industry support. Another faculty respondent offered this observation:

“If Texas is going to offer \$10,000 degrees as requested by the governor, it probably will happen first and foremost at community colleges; however, why must the focus be only on the career and technical side of the coin? If you can obtain a biology degree at the university and stock shelves at Walgreens, then you probably ought to be able to get that biology degree at a community college and save several thousand dollars along the way.” (Faculty/administration 4)

Mission

Finally, references were made addressing the mission of the community college. One respondent wrote: “I don’t see a need for baccalaureate degrees at my institution. The school should not try to do everything” (Faculty/administration 8). Other respondents indicated the need for much more information about these programs before making “a definitive judgment regarding their need and usefulness” Faculty/administration 11).

Focus Group Summary

Following the analysis of results, a focus group was held to present and discuss the results of the study. Thirty students, faculty, and administration from all three participating institutions were invited. Two department chairs of career and technical programs from one institution were able to attend. There were no student attendees. Following a brief presentation of the results from the study, a discussion ensued to clarify reported results and to discuss the results presented. As with the comments from the open-ended questions in the survey, the primary discussion theme within the focus group centered on college mission and logistics. Listed below are the questions which guided the focus group activity for the study:

1. Given the results of the survey, the focus group was shown prelim results and asked to help the researcher better understand faculty, administration, and student perspectives of the quantitative survey.
2. How does the information provided by the focus group combined with the quantitative data explain the feelings and perceptions of the need for a community college baccalaureate program?

The two themes emerging from the discussion were centered on the logistics of developing baccalaureate programs at the community college level and college mission.

“It begs the question, if we added baccalaureate degrees to our campus, what would that do for the Completion Agenda? Because now we know what percent of our college is funded on completers, is it 10% and they are looking at 25%? If we added baccalaureate programs, clearly we’d want to look at the programs with the highest enrollment.” (Focus Participant 2)

Currently, funding for two-year institutions in the State of Texas is based on a 10% (NCSL, 2014) of funds to be allocated based on points earned on a three-year average of student completion (to include completion of developmental education courses, completion of gateway courses, 15 and 30 hour completions, transfer rates, and number of degrees and certificates awarded). It is expected that this funding rate could increase to as much as 25%. The possible impact the addition of baccalaureate degree level programs could have on that completion rate and its effect on available funding was discussed by the participants.

Existing faculty education levels were also mentioned as a possible road block to the development of baccalaureate degree programs. As stated by Focus Participant 2, “You’ve got to employ the faculty that have the credentials to teach at the baccalaureate level.” Currently, certificate and AAS program instructors only need to hold qualifications for the level at which they are teaching. If all they are teaching is a certificate level course, then that faculty member is

required to have achieved is completion of that certificate. One attendant commented that within their CTE program area, several faculty members have master's degrees or higher.

“You would be surprised at the number of doctorates we have (in Allied Health programs). But you have to consider clinical practice is so very different from education, from academics. So, while it (an associate's degree) may work (for those educators involved) in clinicals, it's not always (appropriate for the classroom), which is why I did what I did (pursue a doctorate degree).” (Focus Participant 1)

That being said Focus Participant 2 emphasized the need for examination of current faculty qualifications prior to program development due to Texas Higher Education Coordinating Board (THECB) faculty education requirements and those of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOS).

Finally, there was a discussion on which programs should be reviewed for possible development into baccalaureate programs and how those programs should be selected. Both attendees recommended that those programs with the largest historical enrollment and completion rates should be considered first if the institution decided to consider development of baccalaureate CTE or professional programs. While those attending the focus group recognized the possibilities of developing baccalaureate programs, they posed questions about the willingness of community college administrators to commit resources to that development.

“.....and then you've got to have not only the infrastructure, and how much the college is willing to pour into that, to upgrade the infrastructure and expand it, with a plan of expansion for student population, and that all feeds into completers.” (Focus Participant 2)

They discussed that with the current emphasis on student success and completion rates, new program development may not have enough support. However, the respondents also discussed a national trend toward increasing educational requirements for entry-level positions in some Allied Health fields within the next 5-10 years baccalaureate or master's level.

“Obviously, Respiratory Therapy is not alone, OT (Occupational Therapy) and PT (Physical Therapy) have both been studying it and from the association level and licensing levels and certification (level) for about four or five years. It has been suggested (by a visiting accrediting team) that by 2020, it (educational requirement) will be a bachelor’s degree.” (Focus Participant 1)

With that trend, the respondents discussed the possibility of the community college being forced into considering development of baccalaureate programs to provide local employers with qualified entry-level employees. This trend was also mentioned by a respondent on the Faculty/Administrative survey.

“Sometime before 2020, a Baccalaureate will be required for Respiratory Care therapists for entry level. There are only 4 such programs in Texas and none within 225 of (my institution).” (Faculty/administration 13)

With only two participants in the focus group, information gathered cannot be considered as an essential element to the overall study. However, the comments and discussion did center on many of the same issues raised by respondents on the surveys, thus providing additional support.

CHAPTER 5: DISCUSSION

The conceptual framework utilized for this study was based upon the work of Townsend (1993), Townsend (2001), Bragg (2001), Green (2004), Floyd (2006), Floyd & Walker (2009), Petry (2009), and Petrosian (2010). Using a pragmatist approach, this study did not rely on any one system, but drew from both quantitative and qualitative assumptions in the collection of data. This study explored the perception of students, faculty, and administrators regarding the community college baccalaureate (CCB) at three rural community colleges in Texas that did not have established baccalaureate programs. The intent of the current study was to establish an initial framework for community colleges to follow in determining if the pursuit of community college baccalaureate degrees within their Career and Technical, and professional programs was warranted. Four over-riding questions drove the collection of data and this chapter will discuss the results and how they connected with the literature.

1. What issues surrounding mission expansion, community/workforce need, and student access do faculty, administration, and students see as major factors in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. What major factors do administration and faculty identify as imperative to the development of professional and career and technical community college baccalaureate degrees?
 - b. What commuting distance is considered reasonable by faculty for students who would transfer to 4-year programs?

- c. Is there a correlation between faculty and administration perceptions of their community college's instructional resources with regard to their perception of development of community college baccalaureate programs?
- d. Is there a difference in perceptions of a community college baccalaureate between faculty of traditional transfer programs and those who teach professional, career and technical programs?

Faculty/Administrator Respondents

Initially, means comparison identified significant issues as identified by faculty/administrator respondents. Faculty/administrators identified program quality, commitment of the institution to program development, and attention to the details surrounding workforce needs, working with other institutions, and a variety of built-in accountability measures as their top issues related to development of baccalaureate programs at the community college level. These results indicated that faculty were concerned with the logistics of developing baccalaureate programs at their institutions and that there would need to be a concerted effort across disciplines and throughout administrative levels in order to develop and provide for the sustainability of those programs. Several expressed concerns over existing and needed resources, as well as assurances of administrative support. These results were supported in the literature by several researchers in their identification and explorations of the key questions, issues and challenges in the development of baccalaureate programs at the community college level (Perez, 2003; Floyd, 2006; Floyd and Walker, 2009). Bragg (2001) pointed out the community college's difficulty in connecting dual credit and articulated courses with high schools, as well as integrating academic and technical instruction at the college level. Floyd (2006) discussed the myths and realities of the community college baccalaureate degree

many decision makers have about the development of these programs, especially the design of the degree. Floyd and Walker (2009) discussed the importance of ensuring that this development is consistent with the institution's mission, that the development of baccalaureate degrees at the community college level has political support (local and state), and evaluating existing and needed resources.

In designing each survey, the questions were expected to fall into three main constructs: Mission Expansion, Workforce Need, and Student Access (to baccalaureate programs). Following means comparisons, factor analysis determined that these three basic constructs were addressed in the survey, but while it was expected that Mission Expansion would be the dominate construct (especially for faculty/administration respondents), Student Access was determined to be the primary construct followed by Workforce Needs. Mission Expansion was shown to be the third construct, but had much weaker response indicators than the first two constructs. This indicated that faculty/administration respondents recognized that development of baccalaureate degrees at the community college level would be an expansion of, but not necessarily a significant change to their institution's mission. These results correspond to those identified by Floyd and Walker (2009), who stated that a serious examination by administration, local leaders, and policymakers who consider offering a community college baccalaureate (CCB), must include questions about the following: mission consistency, political support, political opposition, curriculum models, needed resources (fiscal, physical, and human), faculty and internal stakeholders' views, internal infrastructure, and accreditation.

Student Access. Faculty/administrator respondents in this study identified Student Access as the primary issue (construct) and concern surrounding the development of the community college baccalaureate. "Access" implies not only financial considerations, but

geographical and programmatic access, as well. By indicating the 60 miles one-way was a reasonable commute distance for students, respondents recognized the concerns of and for the students toward not only geographic proximity, but the associated travel costs, as well. Community colleges, historically, have enrolled nearly half of undergraduates in higher education and the geographic accessibility of most community colleges to a large segment of the nation's population gives the community college strategic value, especially to place-bound students (Floyd and Walker, 2009; Bragg, 2001). Dougherty & Townsend (2006) also stated that "community colleges differ greatly by geographic region" and that those forces shape institutional missions.

Faculty and administrators also recognized increasing cost factors of higher education as issues influencing the construct of student access. The survey results indicated that faculty were aware of the high number of students on financial aid as well as how rising costs could influence the student's desire to complete a degree. Community colleges often serve a high number of students on federal financial aid. Using the IPEDS Data Center (2013) the three colleges in this study had approximately 57% of its students attending classes through federal grant programs such as Pell Grants while the nearest university reported that 41% of its students used federal grants to pay for college.

Workforce Needs. Responses indicated that faculty/administrators felt that the second construct, Workforce Needs, was being addressed at their institutions. While respondents indicated that their institutions responded to the workforce needs of their community, it was not within the parameters of this study to identify how each institution was meeting those needs. However, in consideration of workforce needs, this study's respondents indicated that in order to develop baccalaureate programs, additional assessments should be conducted to determine which

areas would be best to explore for Community College Baccalaureate (CCB) development. These results corresponded to those in Petry's (2009) study as well as that of Petrosian (2010) who observed that with our knowledge-based global economy, employees with bachelor's degrees are vital to the success of business in the United States. However, bachelor-level degree programs in Career and Technical Education (CTE) and professional areas are not always available at the university level, and students often encounter obstacles when attempting transfer (Petrosian, 2010). Access and attainment of bachelor's degrees has declined for non-traditional students (Floyd & Walker, 2009) for a number of reasons. One reason identified in the current study is that many non-traditional students are place-bound and cannot afford to move to another area where the appropriate degree may be available. Floyd (2006) identified being place-bound as a serious obstacle for many non-traditional students. Even with community-university partnerships, some obstacles are difficult, if not impossible, for students to overcome. Offering baccalaureate programs in selected CTE and professional programs would increase access for those students and improve the education level and quality of the workforce in that area (Floyd, 2006; Henry, 2003; Jacobs & Dougherty, 2006).

Traditionally, programmatic access has been fulfilled through assessments of local workforce needs, centered on entry-level employment. Development of training and educational programs for specific industries has had many layers including entry-level education, apprenticeships, and on-the-job training (Dougherty and Bakia, 2000). However, the increasing utilization of technology throughout the workforce would seem to indicate that educational needs of the workforce may be changing. This finding supports the existing literature indicating that student need access to baccalaureate programs and employers need to have access to employees

with bachelor's degrees (Floyd & Walker, 2009, Baum & Ma, 2007, Draeger, 2006, Grothe, 2009).

Mission Expansion. Mission Expansion did not seem to be of great concern to the faculty/administration respondents on the survey; however these respondents recognized that developing baccalaureate programs at the community college level would indicate a significant change for the institution. As noted by Floyd (2006) the community college baccalaureate garners controversy and arguments from both sides with many fearing that CCB degrees will shift the community college's focus away from their core mission and standard curricular offerings (developmental, transfer, community and technical education). Respondents' concerns relating to mission expansion included the possible lack of quality in a baccalaureate program at the community college level and the issue of program duplication at the area four-year institution. This indicated that prior to developing baccalaureate programs, the community college would need to establish a clear and detailed development process including accountability measures, and community feasibility studies. Bragg (2001), and Floyd and Walker (2009) agreed, and pointed out that these issues and concerns should be examined during the development of CCB programs.

Answers to open-ended questions at the end of the faculty/administration survey indicated a possible conflict between the mission of transfer and that of workforce development at their institutions. This result indicated that prior to any move toward development of baccalaureate programs, conversations regarding the actual structure of the community college baccalaureate and how it would support the existing mission of the college should take place. This outcome was also recognized by Dougherty & Townsend (2006) who identified that a

dualistic view toward mission existed on community college campuses surrounding meeting the needs of transfer students versus meeting the needs of business and industry.

Faculty/Administrators: Issues of Concern. Faculty/administration responding to the open-ended questions at the end of the survey were most concerned with logistics and process. Faculty of traditional, transfer programs teach general education courses required for AAS degrees, but are generally not involved in the program or curriculum development of those programs. In order to recognize that not all faculty/administrators have equal instructional responsibilities or educational backgrounds, the current study compared the responses between Transfer and CTE faculty. Average means for all three constructs were higher for CTE faculty than for Transfer faculty, as expected. While there were some statistical differences indicated, the effect sizes were small which indicated a lack of practical differences in perspectives between Transfer and CTE faculty/administrators. This could indicate a general openness of faculty/administrators from all disciplines to consider the possibilities of developing baccalaureate level programs at their institutions. CTE and professional program faculty/administrators were possibly more aware of changing educational requirements for the 21st Century workforce than transfer faculty/administrators, a result that would emphasize the need for extensive communication and education for all areas of the college and the community at large about the development of baccalaureate programs at the community college level. These parallel Petry's (2006) conclusions including the importance of community involvement, completing the necessary homework (feasibility studies, program completion/success rates, etc), assuring political support (local and state), capitalizing on existing resources, and communications with all the stakeholders (faculty, staff, employers, students, accreditation agencies neighboring institutional officials, etc.).

Student Respondents

Students also identified the three constructs of Student Access, Workforce Needs, and Mission expansion as major elements in baccalaureate program development. Student Access was the major factor for students with issues surrounding Workforce Needs receiving secondary attention. Mission Expansion was recognized as a factor, but with little significance or additional comments by student respondents. As with the quantitative results, mission expansion will not be addressed in this section because of lack of comment and inability to validate the results. As with Faculty/Administrator respondents, means comparison was used to identify significant issues as recognized by student respondents. Students identified through the survey and open-ended questions the need for increased access to higher education for more people, current satisfaction with their institution and the qualification of faculty, the possibility of lower cost factors, and their perceived need for development of baccalaureate programs at their institution as their top issues related to development of baccalaureate programs at the community college level. These results indicated that students were concerned with the availability of baccalaureate programs for their fields of study within a reasonable distance, and that the possibility of lower costs associated with ready access would affect their pursuit of education past an Associate's degree. This result has been supported in the literature by several researchers in their identification and explorations of the key questions, issues and challenges in the development of baccalaureate programs at the community college level (Bragg, 2001; Hoffman, 1998; Floyd, 2006; Floyd and Walker, 2009).

Student Access. Student Access through the possibility of lower cost factors was the primary issue in student respondent's perceptions of the development of baccalaureate programs at their community college. This was an expected result. A study by Baum and Ma (2007)

showed that over time, community college costs were less than similar university programs. Satisfied with their current educational experience and confident that the institution resources and faculty qualifications were adequate for the development of these programs, student respondents in this study indicated a belief through their survey responses that their institution should develop these programs in selected CTE and professional programs. This result indicated support for the CCB, but costs to students would need to remain lower than available traditional 4-year programs. The majority of student respondents were satisfied by the quality education provided by their institutions and felt that their faculty were qualified to teach upper level coursework. High means scores indicated a belief that by developing baccalaureate programs at the community college level would increase access to higher education for more people ($M = 4.49$).

Other studies have pointed to faculty involvement as another contributor to student success. By representing an authority figure, mentor, and role model, faculty can exert a great deal of influence (McArthur, 2005) on students. The results of this study supported McArthur's observations, especially in the comments provided by students through the open-ended questions at the end of the Student Survey. Several students respondents remarked that the support they received at their local institutions had given them more confidence in their abilities to succeed. This connection to their current faculty was also cited as a rationale for development of baccalaureate programs locally. Some student respondents indicated a hesitation to leave their current institution for the unfamiliar environment of a new institution. Tinto (2000) cited the importance of student-faculty connections in retention and student success. Schmitigal (2009) noted that community college faculty were "considered as more supportive of student needs as learners, while university faculty were perceived as less approachable and less directly

available.” As a result, it could be expected that if baccalaureate programs were available at their institution, students would considered staying to complete their degree.

Workforce Needs. This study targeted community colleges in a rural and relatively isolated area of Texas. Comments by student respondents indicated a recognition of the isolation and lack of access to selected baccalaureate programs. By indicating their willingness to stay at their local community college rather than transfer, student respondents to this study supported the views of Floyd and Walker (2006) that identified an access gap especially for place-bound students which was apparent in high employment-demand fields such as allied health, teaching, technology, and public service. Student respondents also indicated that their institutions were responsive to their individual needs, closely connected to workforce needs since employment after graduation would be a primary concern to the student. This would seem to indicate that these area institutions could have a rationale for investigating the process of building selected baccalaureate programs.

2. What factors are regarded by students as major elements in the development of community college baccalaureate programs at the community college level in professional, career, and technical programs?
 - a. Is there a difference between students under 25 (traditional students) versus those 25 and over (non-traditional students) in their preference as to where (community college or university) they receive a bachelor’s degree? What commuting distance is considered reasonable to students?
 - b. To what extent does commuting distance determine the preference of a student to transfer to a 4-year program?

- c. Is there a difference between professional, career, and technical students and students who plan to transfer to 4-year programs with regard to their self-rated preference in location of a bachelor's program (4-year university versus community college)?
- d. Do parental education levels make a difference in the self-reported preferences for a student's desired location of a baccalaureate degree (4-year university versus community college)?
- e. Is there a difference between individual family dynamics (single with children, etc.) and their self-ratings with regard to the decision to support a community college baccalaureate from a near-by community college over transfer to a university?

Student respondents identified two main issues with regard to the development of baccalaureate programs at their institutions: commuting distance and the availability of a baccalaureate degree at their institution versus transferring to a university. For students who are place-bound, traveling over two hours per day and the associated costs of that travel were big issues. If the student was married, with a family, the additional time and monetary investment placed an additional burden on the household, not just the inconvenience of the commute for the student. Floyd and Walker (2006, p.98) stated, "place-bound students are constrained by lack of geographic access to universities and by family and work obligations that prohibit them from completing classes on a traditional format and campus". Unsurprisingly, those students who self-reported as single, unmarried with no children at home were more likely to transfer or opt for a longer commute than any other group. However, results also indicated that many of these same students would consider staying at their community college if baccalaureate programs were offered in their area of study. Walker (2001) stated that through the development of baccalaureate degrees, community colleges could increase "geographical, financial, and

academic access to upper division education”. These results mean that the development of baccalaureate programs at the community college level would be of interest, not only to those students who are place-bound, but also to students who could transfer to other institutions for completion of their bachelor’s degree.

3. What factors would influence students currently preparing for transfer to a 4-year institution to likely enroll in a selected professional or career and technical program at the community college that offers a community college baccalaureate?
 - a. Is there a difference between traditional and nontraditional students as to their perspective of a community college baccalaureate?
 - b. Is there a difference in faculty/administrative perspectives and student perspectives toward community college baccalaureate development?
 - c. Is there a difference between students of professional, career, and technical programs and students enrolled in transfer programs with regard to a positive perception of a community college baccalaureate degree?
 - d. How do traditional and non-traditional students differ in their desire to have a baccalaureate degree from a university or community college?
 - e. Are there a combination of demographic factors that can predict a student’s preference for the development of a community college baccalaureate program in professional and career and technical education programs?

Student respondents recognized that a major factor in transfer (or lack thereof) could be attributed to commuting distance and its associated costs. Most students (traditional and non-traditional) considered a commute of 60 miles one-way as the maximum desirable commuting distance for transfer. Students could have academic success, but might still fail to complete a

terminal degree due to the lack of geographical access to a baccalaureate program. This result supported the study by Lotkowski, Robbins, and Noeth (2004) who identified both academic and non-academic as contributing factors for student retention and completion. This result could also suggest that a commute over that distance would prevent a student from completing a bachelor's degree, or that the student would possibly consider changing their preferred program of study to fit with a near-by university's offerings.

As expected, traditional students (age 18-21) were more likely to opt to transfer to a university program. This could indicate that they were more mobile and not place-bound due to lack of resources or family obligations, factors that could be barriers for many non-traditional (age 21 and older) students (Floyd, 2006; Floyd and Walker, 2009). In addition, many universities are placing more emphasis on graduate studies and research and raising undergraduate admission standards (Floyd, 2009). As a result, fewer opportunities for locally available degrees could exist. This could be a factor in students' decisions to stop their education at the Associate's degree level.

4. Is there a difference between perspectives of faculty/administration and students with regard to the following factors in community college baccalaureate development:

- a. Acceptable commuting distance for students?
- b. Qualifications of existing faculty?
- c. The need for baccalaureate programs at the community college level?
- d. Value of lower costs at the community college?

Faculty/administrator respondents and student respondents agreed on a 60 mile commuting distance. Both groups also indicated that existing faculty had the necessary qualifications. However, perspectives of the development of baccalaureate programs at the

community college level for each group were both positive and negative, a result also shown in the literature (Eaton J. S., 2005; Wattenbarger, 2000). Several comments made by faculty/administration respondents in the open-ended questions seemed to indicate that they saw little need for development of these programs, with baccalaureate degrees being well-served by the universities and their missions of education and research. This could indicate a misconception of not only the rationale for this expansion of offerings by community colleges but also what those degrees would look like, a view recognized by a number of researchers (Walker, 2001; Floyd, 2006; Bragg, 2001). Comments to the open-ended questions by the respondent faculty and administrators seemed to indicate their impression of the community college baccalaureate degree (CCB) would be designed like a traditional liberal arts, theory-based degree. Walker (2001), Bragg (2001) and Floyd (2006) also note this view by opponents of community college baccalaureate degrees. Another view expressed by a respondent in this study was that the CCB would be considered “less than” a standard baccalaureate conferred by a 4-year institution, in that employers nor academics would perceive the degree as being equivalent of one conferred by a 4-year institution. This view was shared by Wattenbarger (2000). These results indicated a need for institutions contemplating the development of baccalaureate programs to thoroughly research, investigate and communicate to stakeholders how those degrees would be configured.

Survey responses to the open-ended questions by faculty/administration respondents cited several concerns in the development of Community College Baccalaureate programs at the community college level including faculty qualifications, costs (internal and external) and funding, resource management, relationships with neighboring institutions, and workforce needs. In keeping with accrediting body requirements, faculty qualifications would have a significant

impact on the development of baccalaureate programs at any community college. The perception of faculty/administration respondents toward their own qualifications was that they had qualified faculty available to teach baccalaureate level coursework ($M = 3.82$). While not all respondents shared this confidence, it was agreed that qualifications of faculty would need to be considered and documented during the process of any baccalaureate program development. Floyd (2006) supported this need for realistic assessments, as well as taking the time to plan and set appropriate goals in this development process.

Faculty and administrators with concerns about baccalaureate program development also identified costs, funding, and resource management as issues. These concerns were supported by a higher education policy brief, by Alene Russell in 2010. The need to add upper division coursework could require upgrading faculty, libraries, and laboratories. Russell also noted that concerns surrounding short- and long-term costs, the flow of state funding, budget impact on community colleges, and the possibility of rising tuition costs for students could be financial obstacles for these institutions. These concerns as expressed by faculty again show the importance of effective planning and communication between all the stakeholders in the process.

Faculty/administration respondents indicated the need for cooperation between their institutions and the community to determine what, if any, baccalaureate programs for Career and Technical Education or professional areas of study were needed. Both transfer and CTE faculty/administration respondents saw a need for supporting data to evaluate the need for program development, and assurances from internal sources that these programs would be supported through the allocation of resources. These results supported the need for internal support and accountability as noted by Burke & Minassians in 2004 and when competing with neighboring institutions, Petry (2006) noted that communication and cooperative programs were

the key to success of the development of community college baccalaureate programs in Florida. This result was also supported through a statement made by the Texas Commissioner of Higher Education, Raymund Paredes: “To secure our state’s economic future, representatives of public education, higher education and workforce development must collaborate and engage at every level,” (Commission, 2014). The responses in this study would seem to indicate a willingness to consider the development of CCB programs at their institutions, but that it would need to be a carefully considered and executed move.

Implications for Practice

This section addresses policy and practice implications from the research questions, responses to open-ended questions, and the focus group discussion. These implications may have value for students, faculty, administrator, and employers in rural areas of Texas with access to community college programs, but limited access to baccalaureate programs.

In the 1960s, Clark observed that vocational options in education enabled advisors to redirect students from traditional transfer programs into less-intense vocational programs. While that may have been true at that time, educational demands of the current workforce are very different from those observed by Clark (1960). Emphasis today is not just on job skills, but also on the technology permeating even entry-level positions (Floyd and Walker, 2009). Townsend, Bragg, and Ruud (2009, p. 693) offered a definition of the community college baccalaureate degree, which specified that an applied baccalaureate was “a bachelor’s degree designed to incorporate applied associate courses and degrees once considered as ‘terminal’ or non-baccalaureate level while providing students with the higher-order thinking skills and technical knowledge and skills so desired in today’s job market”.

Implementing baccalaureate programs at the community college level is not a new phenomenon (Floyd, 2006), nor an isolated one (Floyd and Walker, 2009). However, the implementation process is complicated. With valid arguments on both sides of the issue, institutions must approach the development with careful research, planning and consideration for all stakeholders. Grothe (2009) pointed out that community colleges have focused on removing barriers to attending college for traditional and non-traditional students alike. Where traditional students may have more mobility, non-traditional students are more established, with job and family obligations that could prevent them from seeking higher education opportunities. With the continuing drive to reduce barriers and increase completion rates, rural community colleges may want to explore the addition of baccalaureate programs in selected areas of their curricula. Extensive conversations with local, area, and regional industry should be held to help determine which programs should be considered for development into 4-year programs. Faculty should be evaluated for not only their educational qualifications, but for their industry connections as well. Institutions should consider innovative delivery methods to help meet the needs for programs quality and flexibility for the non-traditional student. How the community college would address non-technical skills (critical thinking, workplace etiquette, job-seeking skills, etc.) should also be considered. Conversations should also be held with nearby universities with graduate programs to ensure the ability of students who wish to go further would be accepted into those graduate programs (Grothe, 2009). Table 3 offers a suggested framework to follow while developing baccalaureate degrees at the community college level. Whether approval from accrediting bodies comes before or after program development could be a topic of discussion, but ideally, there should be a communication loop between the program, the institution, advisory committees, local industry, and accrediting bodies (educational and professional).

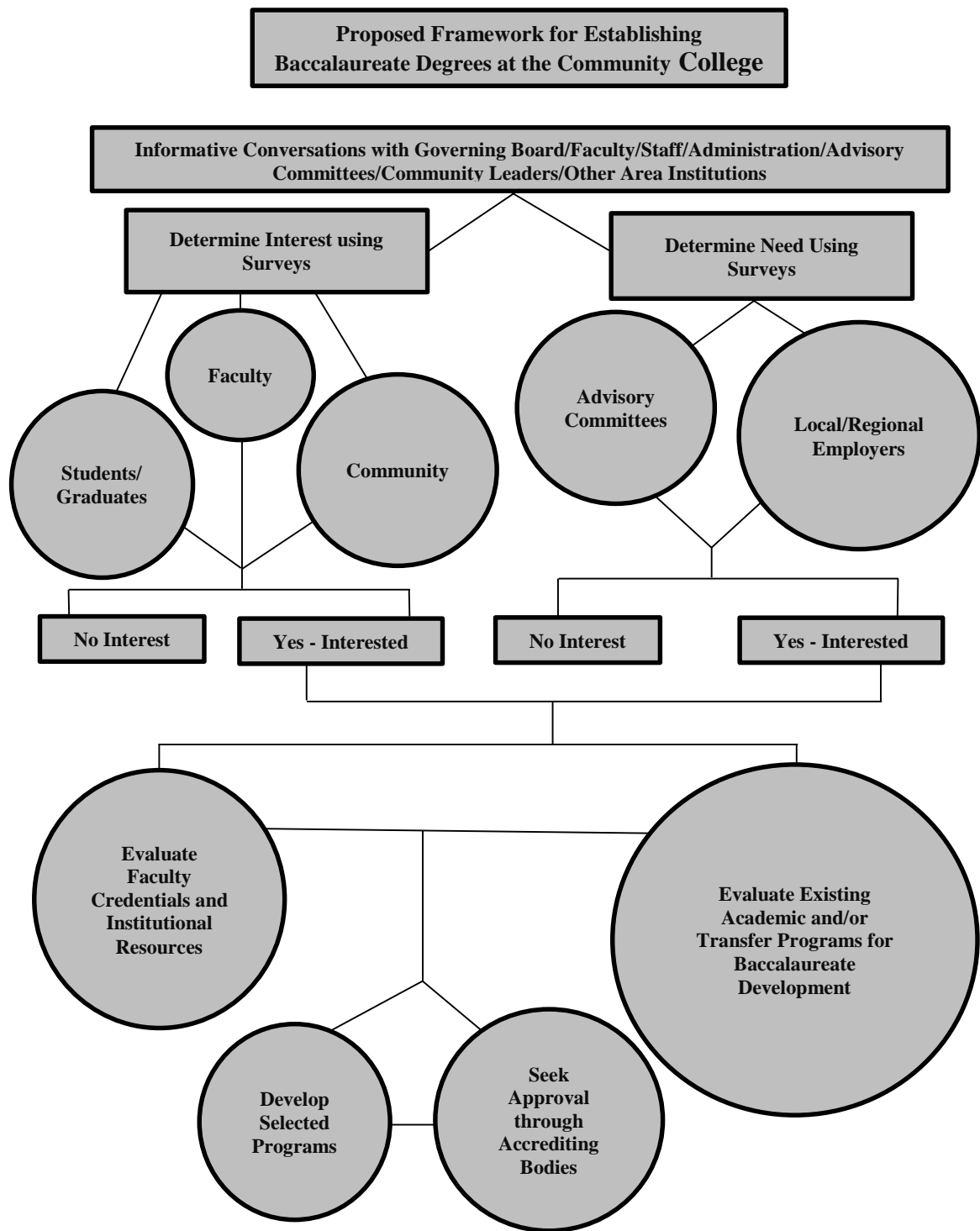


Figure 3: Proposed Framework for Developing Baccalaureate Degrees at the Community College Level

Funding issues are a constant battle that community colleges continue to fight. In Texas, 10% of community college funding depends on meeting performance standards (retention, completion, and graduation rates). The funding rate based on performance standards is expected to rise to as high as 25% sooner rather than later. Development of Community College Baccalaureates could increase student access, but the question as to whether or not it would increase completion rates should be a topic of debate during the planning process.

Recommendations for Further Research

Findings from this research study were significant in that they establish an interest by students and some faculty and administrators for baccalaureate development at the institutions participating in the study. The individual institutions should take this information and supplement it with research as to why students did not return to or transfer from their institutions. Would students return and complete if a baccalaureate degree in their area of study was offered at their institution? Which program areas of study have the highest enrollment and most interest? Which areas of CTE and professional programs are requiring higher educational levels for entry-level employment and advancement? Establishment of selected baccalaureate degrees in CTE and professional programs could provide a source for additional completers thereby increasing the funding base of the institution. Feasibility/workforce needs studies in cooperation with local industry should be completed to ascertain local existing needs as well as projecting future considerations. Existing partnerships between community colleges and 4-year universities should be examined to determine how they are being used to provide more access to bachelor's degrees for students, and which areas are the best fit for each institution. As an example, would the presence of university programs on the community college campus or on-line programs be a

more efficient way of providing baccalaureate access than developing selected baccalaureate programs at the community college level?

Additional research on the efficacy of community college baccalaureate degrees versus comparable university programs is not readily available in the literature. Bemmell (2008) found that “university and community college programs were equally effective as measure by student graduation and test scores.” However, the community college programs in Florida were more cost effective due to the lower per-student funding by the state of Florida as well as lower tuition rates charged by the community college. Other studies have shown initial cost-effectiveness by the universities, but over time, the differences diminished (Levin & McEwan, P.J., 2001; Levin H. , 1983). State-wide institutional funding inequities may also exist so that while community colleges are known for doing more with less, there should be equity in funding similar programs, no matter the source of the degree (Floyd & Walker, 2009). Funding levels for similar programs between universities and community colleges should be examined in order to ensure equity in faculty salaries as well as program support levels.

John F. Kennedy said, “Change is the law of life. And those who look only to the past or present are certain to miss the future.” Community colleges are a model for change, facing numerous challenges over time. Perhaps it is time to look more seriously at the opportunities offered through development of baccalaureate degrees at the community college level in selected CTE and professional programs.

REFERENCES

- (n.d.). (I. D. Center, Compiler) Retrieved March 28, 2014, from <https://nces.ed.gov/ipeds/datacenter/>
- Astin, A. W. (1999, September/October). Student involvement: a developmental theory for higher education. *Journal of College Student Development*, 40(5).
- Atkinson, L. A. (2007, June). Factors impacting student retention on the regional campuses and centers of Ohio University. Ohio, United States.
- Bailey, T., & Matsuzuka, Y. (2003). *CCRC Brief: Integration of vocational and academic curricula through the NSF advanced Technological Education program (ATE)*. New York: Community College Research Center.
- Baum, S., & Ma, J. (2007). Education pays: the benefits of higher education for individuals and society. *Washington DC The College Board*, 82(8).
- Bemmel, E. (2008). A cost-effectiveness analysis of two community college baccalaureate programs in Florida: An exploratory study. *Ph.D. dissertation*. Florida Atlantic University, Florida, United States.
- Bemmel, E. P., Floyd, D. L., & Bryan, V. C. (2009). Perceptions and reflections of administrators: community colleges transitioning to baccalaureate colleges. *Community College Journal of Research and Practice*, 33, 151-176.
- Bragg, D. D. (2001). Community college access, mission, and outcomes: considering intriguing intersections and challenges. *Peabody Journal of Education*, 76, 1, 93-116.
- Bragg, D. D. (2003). *Case study report: sinclair community college, college and career transition initiative*. Phoenix: League for Innovation in Community College.
- Bragg, D. D., & Ruud, C. M. (2007). *Career pathways, academic performance, and transition to college and careers: the impact of two select career and technical education (cte) transition programs on student outcomes*. Urbana-Champaign, Illinois: National Research Center for Career and Technical Education.
- Brint, S., & Karabel, J. (1989). Community colleges and the american social order. in *the diverted dream: community colleges and the promise of educational opportunity in America* (pp. 3-10). New York: Oxford University Press.
- Burke, J. C., & Minassians, H. P. (2004, Summer). Implications of state performance indicators for community college assessment. *New Directions for Community Colleges*(126).

- Cabrera, A. F., & La Nasa, S. M. (2000). Understanding the college-choice process. *New Directions for Institutional Research*, 107(Fall), 5-22.
- Calabrese, R. L. (2006). *The elements of an effective dissertation & thesis: a step-by-step guide to getting it right the first time*. Lanham, MD: Rowman and Littlefield Education.
- Carnevale, A. (2000). Community colleges and career qualifications. Washington, D.C., United States: American Association of Community Colleges.
- Castneda, S. (2000). Factors affecting baccalaureate attainment of Texas public community college students. *Ph.D. dissertation*. The University of Texas at Austin, United States. Retrieved March 25, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3263825)
- Clark, B. (1960). The "cooling out" function in higher education. *Journal of Sociology*, 65(6), 569-576.
- Clark, L. (2006). The academic performance of community college transfer students at a Tennessee board of regents university: A comparative study of baccalaureate-degree attainment. *Ed.D. Dissertation*, Retrieved March 27, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3263825). Peabody College for Teachers of Vanderbilt University, Tennessee, United States.
- Cohen, A., & Brawer, F. (2003). *The American community college*. San Francisco: Jossey-Bass.
- Commission, T. W. (2014, March 27). *Public education, higher education and workforce leaders visit Amarillo: Panhandle stop seeks regional input on state's education and workforce demands*. Retrieved February 15, 2015, from Texas Higher Education Coordinating Board: www.thecb.state.tx.us/EducationandWorkforceLeadersVisitAmarillo
- Cook, A. (2000). *Community college baccalaureate degrees: a delivery model for the future?* Denver, CO: Education Commission of the States Center for Community College Policy.
- Council for Education Policy Research & Improvement. (2002). *Community college baccalaureate degree proposal evaluation*. Retrieved November 7, 2010, from <http://www.cepri.state.fl.us/pdf/2004-05%20Criteria%20Matrix.pdf>
- Council for Interior Design Accreditation. (2011). Retrieved June 14, 2011, from <http://www.accredit-id.org/>
- Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: SAGE Publications, Inc.
- Davis, J. L. (2008). Community Colleges: The Preferred Provider of Career and Technology Education and Training. *Community College Journal of Research and Practice*, 32(8), 568-572.

- Deitrick, M. (2008). Effecting transfer and retention of community college students through formalized program-to-program articulation agreements with four-year institutions. *Ph.D. Dissertation, Robert Morris University*. Pennsylvania, United States: Retrieved March 27, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3333051).
- Derby, D. C., & Smith, T. (2004). An orientation course and community college retention. *Community College Journal of Research and Practice*, 28 (9), 763-773.
- DeVellis, R. F. (2003). *Scale development: theory and applications*. Thousand Oaks, CA: SAGE Publications, Ltd.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: the tailored design method*. Hoboken, NJ: John Wiley & Sons, Inc.
- Dougherty, K. J., & Bakia, M. F. (2000, February). Community colleges and contract training: content, origins, and impact. *Teachers College Record*, 102(1), 197-243. Columbia University.
- Dougherty, K. J., & Townsend, B. K. (Winter 2006). Community college missions: a theoretical and historical perspective. *New Directions for Community Colleges*, 136, 5-13.
- Draeger, M. (2006). How students benefit from high-tech, high-wage career pathways. *New Directions for Community Colleges*, 2006 (135), 81-89.
- Eaton, J. (1994). *Strengthening collegiate Education in Community Colleges*. San Francisco, CA: Jossey-Bass.
- Eaton, J. S. (2005). *Why community colleges shouldn't offer baccalaureates*. Retrieved October 24, 2009, from Chronicle of Higher Education: <http://chronicle.com/weekly/v52/i10/10b02501.htm>
- Federal Reports*. (2014, April 5). Retrieved from Clarendon College: Unleash your potential: <http://www.clarendoncollege.edu/InstitutionalResearch-Reports>
- Floyd, D. (2005). The community college baccalaureate in the U.S. In D. Floyd, M. Skolnik, & K. Walker, *The community college baccalaureate* (pp. 25-47). Sterling, VA: Stylus Press.
- Floyd, D. L. (2006). Achieving the baccalaureate through the community college. *New Directions for Community Colleges*, 2006 (135), 59-72.
- Floyd, D. L., & Walker, K. P. (2009). The community college baccalaureate: putting the pieces together. *Community College Journal of Research and Practice*, 33, 90-124.
- Forman, P. (1948). The theory of case studies. *Social Forces*, 26(4), 413.

- Gagnon, M. E. (1990). *Noncognitive factors related to persistence and withdrawal of adult learners in baccalaureate degree programs*. Retrieved October 11, 2009, from PhD. Dissertation.
- Gaunt, D., & Palmer, L. B. (2005, November/December). Positive student attitudes toward CTS: It can be done! *Techniques*, 80(8), 44-47.
- Gerdes, H., & Mallinckrodt, B. (1994, January-February). Emotional, social, and academic adjustment of college students: a longitudinal study of retention. *Journal of Counseling & Development*, 72(3), 281-288.
- Glennon, K. (2005). *Community College Baccalaureate Degrees: A review of issues, ppolicies and other states' programs*. Prepared for University of Phoenix.
- Gliner, J. A., Morgan, G. A., & Leech, N. L. (2009). *Research methods in applied settings: an integrated approach to design and analysis*. New York: Routledge.
- Gonzales, D. A. (2004). Identifying peer institutions: creating a utilized-focused analysis of community colleges conferring select baccalaureate degrees. *Dissertation*. Reno, Nevada, United States: University of Nevada.
- Green, G. (2004). Career outcomes and the impact of alternative baccalaureate degrees: a mixed-methods study of graduates' perceptions. Ohio, United States.
- Grothe, M. (2009, September). The community college applied baccalaureate degree: employers' and graduates' perspectives. *Dissertation*. Oregon State University, United States.
- Henry, B. L. (2003). *The transfer dream: factors that predict successful baccalaureate degree attainment for two-year college transfer students*. Retrieved August 30, 2009, from Dissertations & Theses: Full Text.
- History . (2015, April 6). Retrieved from Amarillo College: <https://www.actx.edu/cr/pagesmith/18>
- Hoffman, H. F. (1998). Technical nontraditional student college attrition: the student's perspective. *Dissertation*. New York. Retrieved August 30, 2009
- Hoque, N. (2010). *Estimates of the total population of counties and places in Texas*. San Antonio, TX: University of Texas at San Antonio.
- Institute of Education Sciences (2012). *College Navigator*. Retrieved November 23, 2014, from <http://nces.ed.gov/collegenavigator/?q=amarillo+college&s=all&zc=79109&zd=0&of=3&l=92&ct=1&ic=2&id=222576#findaid>

- Institute of Education Sciences (2012). *College Navigator*. Retrieved November 23, 2014, from <http://nces.ed.gov/collegenavigator/?q=amarillo+college&s=all&z=79109&zd=0&of=3&l=92&ct=1&ic=2&id=222576#findaid>
- Institute of Education Sciences (2015, April 5). *IPEDS Data Center*. Retrieved from National Center for Education Statistics: Jacobs, J., & Dougherty, K. J. (2006, Winter). The Uncertain Future of the Community College Workforce Development Mission. *New Directions for Community Colleges*(136). doi:10.1002/cc.259
- Kouzes, J., & Posner, B. Z. (2005). Leading in cynical times. *Journal of Management Inquiry*, 14(4), 357-364.
- Laanan, F. S., Compton, I. J., & Friedel, J. N. (2006). The Role of career and technical education in Iowa community colleges. *Community College Journal of Research and Practice*, 30, 293-310.
- Levin, H. (1983). Cost-effectiveness: a primer.
- Levin, H. M., & McEwan, P.J. (2001). Cost-effectiveness analysis: Methods and applications.
- Levin, J. (Fall, 2004). The community college as a baccalaureate-granting institution. *The Review of Higher Education*, 28(1), 1-22.
- Lotkowski, V. A., Robbins, S. B., & Noeth, R. J. (2004). *The role of academic and non-academic factors in improving college retention*. ACT Policy Research.
- Lynch, R. (2000). High school career and technical education for the first decade of the twenty-first century. *Journal of Vocational Education*, 25, 155-198.
- Maguire, K. J. (2009). Post-college earnings of Iowa community college career and technical education students: Analysis of selected career clusters. *Doctoral Dissertation*. Iowa State University, Ames, Iowa, United States.
- Mattis, M., & Sislin, J. (Eds.). (2005). *Enhancing the community college pathway to engineering careers*. Washington, D.C.: National Academies Press.
- McArthur, R. C. (2005). Faculty-based advising: an important factor in community college retention. *Community College Review*, 1-18.
- McKinney, L., & Morris, P. A. (2010). Examining an evolution: a case study of organizational change accompanying the community college baccalaureate. *Community College Review*, 37, 187-208.
- Merriam, S. B., & Associates. (2002). *Qualitative research in practice: examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.

- Miles, M. B., & Huberman, M. A. (1994). *Qualitative data analysis: an expanded sourcebook*. Thousand Oaks, CA: SAGE Publications Ltd.
- Morgan, G. A., Leech, N. L., Gloeckner, G. W., & Barrett, K. C. (2007). *SPSS for introductory statistics: use and interpretation*. Mahwah, NJ: Lawrence Erlbaum Associates.
- National Center for Education Statistics. (2014). *IPEDS Data Feedback Report - Clarendon College*.
- NCSL. (2014, March 5). *Performance-based funding for higher education*. Retrieved from National Conference of State Legislatures:
<http://www.ncsl.org/research/education/performance-funding.aspx>
- Palmer, L. B., & Gaunt, D. (2007, Fall). Current profile of CTE and non-CTE Students: who are we serving? *Journal of Career and Technical Education*, 23(1), 35-43.
- Pauken, T. (2008, June 4). Retrieved June 15, 2011, from
www.twc.state.tx.us/svcs/commrs/060409press.pdf
- Pauken, T. (2008, September 8). Retrieved June 15, 2011, from
www.twc.state.tx.us/svcs/commrs/090908chr.pdf
- Payne, S. J. (1996). Workforce training in Texas community colleges, Doctoral Dissertation. *Dissertation Abstracts International* 58, 711. Texas A&M University-Commerce, Texas.
- Pedersen, R. (2000). *The origins and development of the early public junior college: 1900-1940*. Columbia University: Unpublished doctoral dissertation.
- Perez, V. (n.d.). Is the applied baccalaureate degree right for California? *Thesis*. Sacramento, California, United States: California State University.
- Petrosian, A. (2010). Examining administrators and faculty perspectives regarding community college baccalaureate degrees in Texas. *Dissertation*. Arizona, United States.
- Petry, D. K. (2006). The transformation of five Florida community colleges: Converting to baccalaureate degree-producing programs. *Ed.D. dissertation, The University of West Florida*. Florida, United States: Retrieved March 27, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3203247).
- Rice, J. P. (2007, July). Mission metamorphosis: how community college bachelor degree programs influence the traditional community college mission. *Dissertation*. Capella University.
- Russell, A. (2010). *Update on the community college baccalaureate: evolving trends and issues*. American Association of State Colleges and Universities.

- Schmitigal, L. (2009, December). Students' perceptions of baccalaureate completion programs at community colleges: a qualitative study. Mount Pleasant, Michigan, United States: Dissertation.
<http://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitId=adadafb3b4ac>
- Sharan B. Merriam and Associates. (2002). *Qualitative research in practice: examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Statistics, N. C. (2014). *IPEDS Data Feedback Report*. Retrieved from
http://www.clarendoncollege.edu/Sites/ClarendonCollege/Resources/Robert%20Taylor/IPEDSDFR2014_223922.pdf
- Texas Board of Architectural Examiners. (2010). *Statutes and Rules*. Retrieved June 14, 2011, from <http://www.tbae.state.tx.us/LawsEnforcement/StatutesRules.shtml>
- The Texas Tribune. (2011, February 2011). Retrieved May 30, 2011, from [texas-tribune.org: http://www.texastribune.org/texas-education/higher-education/texas-has-a-10000-degree-but-for-how-long/](http://www.texastribune.org/texas-education/higher-education/texas-has-a-10000-degree-but-for-how-long/)
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition (2nd Edition)*. Chicago: University of Chicago Press.
- Tinto, V. (2000). Taking student retention seriously: rethinking the first year of college. *NACADA Journal*, 1-8.
- Townsend, B. K. (1993). University practices that hinder the academic success of community college transfer students. *Paper presented at the annual meeting of the Association for the Study of Higher Education (ASHE)*. Pittsburgh, PA.
- Townsend, B., Bragg, D. D., & Ruud, C. M. (2009). Development of the applied baccalaureate. *Community College Journal of Research and Practice*, 686-705.
- Townsend, K. (2001). Redefining the community college transfer mission. *Community College Review*, 20(1), 29-42.
- Tsui, A. S., & O'Reilly III, C. A. (1989). Beyond simple demographic effects: the importance of relationship demography in superior-subordinate dyads. *Academy of Management Journal*, 32(2), 402-423.
- Walker, K. (2005). History, rationale, and the community college baccalaureate association. In D. Floyd, M. L. Skolnik, & K. P. Walker, *The Community College Baccalaureate: Emerging Trends and Policy Issues* (pp. 9-23). Sterling, VA: Stylus.
- Walker, K. P. (2008). Opening the door to the baccalaureate degree. *Community College Review*, 29(18). doi:10.1177/009155210102900202

Wattenbarger, J. (n.d.). Colleges should stick to what they do best. *Community College Week*, 13(18).

Wellman, J. V. (August 2002). *State policy and community college-baccalaureate transfer*. Washington, DC: National Center for Public Policy on Education; Institute for Higher Education Policy.

Witt, A. A., Wattenbarger, J. L., Gollattscheck, J. F., & Suppigner, J. E. (1994). *America's Community colleges: the first century*. Washington, DC: Community College Press.

Yang, P. (2006). Reverse transfer and multiple missions of community colleges. *Community College Review*, 33, 55-70.

APPENDIX A: PERMISSION TO USE SURVEY

Dear Ann Fry,

You have my permission to use my dissertation survey as a basis for your study. I would be happy to help in any other way I can, as well. Wishing you the very best as you pursue your doctorate.

Best Regards,

Debra K. Petry, EdD

debpetry@cox.net

----- Original Message -----

From: [Ann Fry](#)

To: debpetry@cox.net

Sent: Saturday, November 20, 2010 4:27 PM

Subject: Dissertation

Hello, Dr. Petry,

It was very nice visiting with you today, and I appreciate your help. I would like to use your dissertation survey as a basis for my study. I am looking at the perspectives of administration, faculty, and students at three community colleges in a relatively rural area of Texas toward the community college baccalaureate. While your study looked at existing programs, I want to examine many of these same perspectives where no community college baccalaureate exists. Three community colleges in Texas have been allowed to develop baccalaureate programs, but I've not seen any information as to what prompted the develop of them. There are guidelines for development once it is determined that there is interest by the college and the community, but no framework instruments to help administration determine if the faculty and students would be supportive of such programs. I am especially interested in Career and Technical Education Programs and the lack of higher education opportunities in many of those areas. These are programs that community colleges have been developing for decades, but so few universities recognize them through baccalaureate program development. Being able to adapt your survey will help me to take a few steps toward discovering the feasibility of the CCB for professional and CTE community college programs.

Thank you so much for your consideration.

Ann Fry, CKD, RID

Program Coordinator, Interior Design Technology

Amarillo College; Amarillo, TX

annfry@suddenlink.net

APPENDIX B: LETTER OF INTRODUCTION AND CONSENT

Hello,

My name is Ann Fry and I am a doctoral candidate at Colorado State University where I am working toward completion of my dissertation. My study involves the perceptions of administration, faculty, and students toward the development of selected bachelor degrees at the community college level here in the Texas panhandle area. The Texas Legislature has allowed three community colleges in Texas to develop baccalaureate programs and I would like to know what you think about the possibilities at your institution for your area of study. Your institution may or may not be contemplating developing these programs, but the results of this survey could provide information to help the administration make informed decisions.

By completing the survey using the supplied link at the bottom of this letter, you would be of tremendous help in allowing me to gather the appropriate information to complete my study. Your participation is voluntary with no penalty if you choose not to participate and no direct benefit if you do, but the more information that is gathered, the more accurate my results will be. The primary benefit of the research will be to determine if interest in developing baccalaureate degrees at your institution exists, as well as your perceptions of a community college baccalaureate degree.

Your replies will be treated with confidentiality and will be coded to protect any personal information. The results will be published as group data only with no reference to individual responses. Entering and completing the survey implies informed consent. At the end of the study, a small focus group of participants will be held to discuss the results. The focus group will be videotaped in order to help with the transcription of the information and comments. If you would like to participate in the focus group, the final question on the survey gives you the opportunity to list your contact information. This information cannot be connected back to your other responses. It is separated out by the survey program and will be collected in a group with others who wish to participate in the focus group. Once these contacts are identified, approximately 20 participants will be chosen randomly from those who included contact information for participation in the focus group.

Though the college where you work or attend is participating in the study, that is not an indication of their endorsement of this study or its results. I currently teach at Amarillo College and if you have any questions or concerns about the questionnaire or this study, you may contact me at 806-354-6051 or at amfry@amarillocollege.com. Any additional information about my study may be obtained through contact with my doctoral dissertation chair, Dr. Linda Kuk at Linda.Kuk@colostate.edu. If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Human Research Administrator at 970-491-1655.

Thank you in advance for your participation.

Ann Fry, Doctoral Candidate
Assistant Professor; Program Coordinator: Interior Design
Amarillo College

Administration/Faculty Survey Link:

https://csuedu.qualtrics.com/SE/?SID=SV_38UCuwCMpHPXxVW&Preview=Survey&BrandID=csuedu

Student Survey Link:

https://csuedu.qualtrics.com/SE/?SID=SV_38UCuwCMpHPXxVW&Preview=Survey&BrandID=csuedu

APPENDIX C: SURVEYS

Student Survey

1. Gender

Male

Female

2. Age group

18-22

22-35

36-50

51 or older

3. Race

White

African
American

Hispanic

Asian

Native
American

Other

4. Family dynamics

Single, no children

Single parent, never married

Married, no Children

Married with children at home

Married with children who no longer live at home

Divorced, no children

Divorced, with children living at home

Divorced, with children who no longer live at home

5. Mother's education

Did not
graduate high
school

GED

High School
Graduate

Some
college

Associate's
Degree

Bachelor's
Degree

Graduate
hours or
degree

6. Father's Education

Did not
graduate high
school

GED

High School
Graduate

Some
College

Associate's
Degree

Bachelor's
Degree

Graduate
hours or
degree

7. My Education

Did not
graduate high
school

GED

High
School
Graduate

Some
College

Associate's
Degree

Bachelor's
Degree

Graduate
hours or
degree

8. I am currently enrolled in community college classes to..... (check all that apply)

Expand my personal knowledge and curiosity

Expand my job opportunities

Obtain an Associate's Degree

Prepare for transfer to a 4-year university or college in order to obtain a bachelor's degree

Gain skills and education in a professional or technical field

9. I am currently enrolled in.....(check all that apply)

Developmental Education Courses (Math, Reading, etc.)

General Education Transfer Courses

Academic Transfer courses

Continuing Education or Leisure activity courses

- 10. To my knowledge, my program/field of interest does not offer a bachelor's degree at any college.**
True False
- 11. My program/field of interest offers/requires a bachelor's degree for advancement**
True False
- 12. My program/field of interest offers/requires a bachelor's degree for certification/registration/licensure.**
True False
- 13. How many miles is a reasonable distance to commute on a daily basis?**
Up to 60 miles one way 61 to 100 miles one way 101 to 150 miles one way
- 14. A bachelors-degree program in my field of study/interest is within a reasonable distance to commute on a daily basis**
True False
- 15. A bachelors-degree program in my field of study/interest is over a reasonable distance one way away from my location.**
True False
- 16. My program/field of interest is;**
- 17. My program/field of interest's bachelor's program is a reasonable distance from my location and I plan to transfer to it's 4-year program of study.**
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
- 18. My program/field of interest is not within a reasonable distance to commute. I will change majors to a related program/field of interest after I receive my associate's degree and go a closer college.**
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
- 19. Since my program/field of interest's bachelor's program is over a reasonable distance from my location. I will not complete my education past the associate's degree at this time.**
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
- 20. I am _____ with the quality of education at my community college.**
Very Dissatisfied Dissatisfied Neutral Satisfied Very Satisfied
- 21. If my community college offered a bachelor's degree in my program/field of interest, I would stay and complete that degree.**
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

- 22. I would rather transfer to a university program, no matter the distance, than to attend my area community college for a bachelor's degree in my program/field of study.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 23. Offering a bachelor's degree at my community college would increase access to higher education for more people.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 24. There is a need for a bachelor's degree program in my program/field of study at my community college.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 25. My community college has the existing instructional resources, from my point of view, for a bachelor's degree in my program/field of study.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 26. The possibility of lower cost factors would make a community college baccalaureate program attractive to me.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 27. The faculty at my community college are qualified to teach upper level courses.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 28. Community colleges should consider offering baccalaureate degrees in certain professional, career and technical programs.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 29. Community Colleges should not offer a bachelor's degree in any program.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 30. Articulation agreements with 4-year programs in my program/field of study exist at my community college.**
- | | | | | |
|----------------|--------------|------------|--------------|----------------|
| Definitely yes | Probably yes | Don't know | Probably not | Definitely not |
|----------------|--------------|------------|--------------|----------------|
- 31. My community college is responsive to my needs as a student.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|
- 32. My community college is responsive to the needs of the community.**
- | | | | | |
|-------------------|----------|----------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------------------|----------|----------------------------|-------|----------------|

33. Please include any additional comments about the community college baccalaureate in the space below.

34. Following the analysis of this survey, a focus group will be gathered to discuss the results. If you would be interested in participating in the focus group, please indicate below by adding your name and email address so that I may contact you.

Thank you for your participation in this survey!

Faculty/Administration Survey

1. College position (primary title):

Department/Division Chair
Dean, Ass't. Dean
VP, Provost
President
Faculty (full time)
Faculty (adjunct)
Staff
Board Member, Trustee

2. Primary Teaching Subject Area:

3. Highest Education Level:

Associate Degree	Bachelor's Degree	Master's degree	EdD	PhD
---------------------	----------------------	--------------------	-----	-----

4. Number of years involved at the community college level

6-10	11-15	16-20	21-25	Over 25
------	-------	-------	-------	---------

5. Number of years involved at this college

0-5	6-10	11-15	16-20	21-25	Over 25
-----	------	-------	-------	-------	---------

6. I currently work at

Amarillo College	Clarendon College	Frank Phillips College
------------------	-------------------	------------------------

7. The need for community college baccalaureate programs at my institution is high

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

8. Local workforce needs assessments are essential before initiating new programs

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

9. The need for these programs is primarily related to the nature of the delivery system

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

10. Community colleges should offer baccalaureate degrees in selected Career and Technical education programs

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

11. There is a significant shortage of trained individuals in selected career and technical programs in this area.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

12. Articulation agreements with 4-year institutions have been created with selected career and technical programs at my college.

Yes	No
-----	----

13. There is a need for greater student access to baccalaureate programs in career and technical education in this area.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

14. Establishment of selected community college baccalaureates in career and technical education programs at this community college would contribute significantly to meeting workforce needs in this service area.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

15. Establishment of selected community college baccalaureates in career and technical education programs at this community college would require a significant change in the college's mission statement.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

16. Establishment of selected community college baccalaureates in career and technical education programs at this community college would expand the college mission too far.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

17. Establishment of selected community college baccalaureates in career and technical education programs at this community college could reduce student access to traditional community college programs.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

18. Community colleges are moving from a comprehensive (multiple) mission approach to one that focuses on particular niches.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

19. Community colleges should give priority to communities, institutions and/or employers needs over a comprehensive mission

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

20. Community college baccalaureate programs represent a transformational change for community colleges.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

21. **Establishment of selected community college baccalaureates in career and technical education programs at this community college would force termination of associate programs at this college.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
22. **The demands of serving upper division students could burden current student service personnel and faculty members in different ways beyond former requirements.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
23. **Adverse relationships between upper and lower-division faculty members could surface if a community college baccalaureate program was developed at this college.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
24. **Establishment of selected community college baccalaureates in career and technical education programs at this community college should not duplicate existing programs offered by other institutions within commuting distance.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
25. **Community colleges should consider collaboration with other institutions before taking an independent road to baccalaureate degrees.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
26. **Establishment of selected community college baccalaureates in career and technical education programs at this community college would be supported by local industry.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
27. **Structure of selected community college baccalaureates in career and technical education programs should be the same or very similar to the traditional baccalaureate degree.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
28. **Program quality issues should receive high priority in the development of any community college baccalaureate program.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
29. **Accreditation standards should allow for programs that respond to specific and unique institutional circumstances (e.g. rural isolation, programs for specific local organizations and businesses, etc.)**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|
30. **There must be a clear provision for the compilation and reporting of performance data to accountability and evaluation before implementation of such programs.**
- | | | | | |
|-------------------|----------|-------------------------------|-------|----------------|
| Strongly Disagree | Disagree | Neither Agree
nor Disagree | Agree | Strongly Agree |
|-------------------|----------|-------------------------------|-------|----------------|

31. Establishment of selected community college baccalaureates in career and technical education programs at this community college must comply with common prerequisites and other applicable state articulation agreements.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

32. Current accreditation standards and processes are flexible enough to allow for establishing new programs in this college.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

33. Internal assurances regarding structure and facility must be in place before initiating new programs

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

34. Admission requirements for community college baccalaureates in career and technical education programs should be different than those in effect for other non-baccalaureate programs.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

35. Community colleges must provide for performance standards, which include outcomes assessment measures, before implementation of new programs.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

36. Community colleges must do more to reach beyond state funding resources to other sources of funding.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

37. Establishment of selected community college baccalaureates in career and technical education programs at this community college could be cost-effective for the state.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

38. Costs will rise at this community college for traditional programs if baccalaureate programs are established.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

39. The incremental costs to establish these new programs (including capital outlay) to the state would be less than other available options.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

40. The costs to students in selected community college baccalaureates in career and technical education programs would be less than other available alternatives.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	-------------------------------	-------	----------------

41. How many miles is a reasonable distance for a student to commute on a daily basis?

Up to 60 miles one way

61 to 100 miles one way

101 to 150 miles one way

42. My community college has the existing instructional resources, from my point of view, for selected bachelor's degree programs.

Strongly Disagree

Disagree

Neither Agree
nor Disagree

Agree

Strongly Agree

43. The possibility of lower cost factors would make a community college baccalaureate program attractive to students at this institution.

Strongly Disagree

Disagree

Neither Agree
nor Disagree

Agree

Strongly Agree

44. The faculty at my community college are qualified to teach upper level courses.

Strongly Disagree

Disagree

Neither Agree
nor Disagree

Agree

Strongly Agree

45. Community colleges should consider offering baccalaureate degrees in certain career and technical programs.

Strongly Disagree

Disagree

Neither Agree
nor Disagree

Agree

Strongly Agree

46. Community Colleges should not offer a bachelor's degree in any program.

Strongly Disagree

Disagree

Neither Agree
nor Disagree

Agree

Strongly Agree

47. Articulation agreements with 4-year programs in my program/field of study exist at my community college.

Definitely not

Probably not

Don't know

Probably yes

Definitely yes

48. My community college is responsive to the needs of the community.

Strongly Disagree

Disagree

Neither Agree
nor Disagree

Agree

Strongly Agree

49. Please include any additional comments about the community college baccalaureate in the space below.

50. Following the analysis of this survey, a focus group will be gathered to discuss the results. If you would be interested in participating in the focus group, please indicate below by adding your name and email address so that I may contact you.

Thank you for your participation in this survey!

APPENDIX D – RESPONSES TO OPEN-ENDED QUESTIONS
(No alterations were made to spelling, spacing, etc.)

Students

1. (My Institution) has a better nursing program than (another institution).
2. I would be very, very interested in continuing my education past the Associates degree I know have, here at (my institution)!
3. I have had a very positive experience at (my institution). My teachers have been unbelievable supportive and encouraging to me. They have had more belief in me than I did!
4. I want to obtain a four-year degree and would love to do so here at (my institution). The instructors and staff are very nice, intellegent, and helpful. I am looking into ENMU to obtain my BAAS. I am having trouble figuring out what classes I can continue to take here and transfer there because the course names, numbers, and descriptions are so different.
5. Because of new federal student aid regulations, community colleges have suspended funding to students with more than 30 hours. This includes anyone changing their field of study from a field they studies decades ago and is now seeking to either complete a degree or complete training in a new or updated field of study. The only way those students can receive financial aid now, is to transfer to a 4 year program. Having a 4 year program at the community college level would have direct monetary benefits to the states, the communities without universities, and the students.
6. Great idea!!
7. I would jump at the chance to get my Baccalaureate at (my institution) becuase the nearest University offering it in the Interior Design field is over 2 hours away and there's no way I could drive that far to attend school and we can not move because my husband and I own a business here.
8. I think it would enable more students to finish their degrees because of the cost difference. It's getting increasingly more difficult to live with the increase in what things cost. I am transfering to WT in the fall and we have no idea how we are going to make this work financially without taking out loans which when your done makes things that

much more stressful. A loan payment can be like having another car payment. However you do what you have to do!!

9. I think it would be a great thing to offer a higher degree at my community college. For my career choice/personal educational goals I want to get my Doctorate. It would benefit me personally as well as many of the students in my student body by reducing the cost. I have talked to many students and faculty members and most think more students would continue on the road to higher education if it was more accessible.
10. Very satisfied at this time.
11. Cost is the very highest factor. Cost is more important than anything else that affects the decision making process when planning met education. I will go wherever I can get my degree, the cheapest. I am working towards a degree in Spanish Secondary Education. I don't understand why AC can't train teachers in fields such as mine. I can see how math or science teachers may need better resources but AC should have all it needs to expand my program.
12. With such a degree of receiving an associates as a paramedic, I don't understand why it doesn't go further for the students looking to be on the life star.. would that not fall in the category of having at least a bachelor in the major? Community colleges should definitely look into extending programs for a bachelor because a degree plan is in more of a higher need.
13. I would really enjoy the fact that my community college considered a baccalaureate program because it would be easier on students that cannot afford gas to get back and forth to school at university. I also think that school is important to a lot of students but a university would be wonderful closer to home.
14. I personally would rather pay into my community rather than where a university is located even if the cost were equal. With children and a family to think about it would be also easier to complete my degree in town.
15. The vast majority of (my institution) students receive need-based financial aid and so they are better able to acquire an associate's degree. However, many have to stop there because even West Texas A&M is cost-prohibitive. A bachelors degree in just about ANYTHING would be a smashing success at Amarillo College.
16. (My institution) would be the ONLY school in Texas to offer a Bachelors in Mortuary Science. There is one in PA, and maybe one other on the east coast. Out of the 4 schools that offer Mortuary Science AAS Degrees in Texas, this would BY FAR give (my institution) a leap above the competition.

17. This is a new concept to me, but I would endorse it wholeheartedly. The expense of a 4 year education is out of reach of many people,
18. I live in a small town about 98 miles from my community college. If they offered a 4-year Education program, I would definitely attend the community college.
19. I feel more people would take advantage of this opportunity
20. It's a good idea
21. this would be awesome to have a bachelor degree in nursing at (my institution).
22. I would definitely continue my education further if a baccalaureate degree were offered at my local community college. I don't feel transferring to a 4 year University is an option for me at this time because I don't have the financial resources to do so and do not want to incur any debt - even for a higher level of education. The closest 4 year university within my daily driving range does not offer a bachelor's degree in my field of study. The community college allows me to live and work where I am already established and take classes around work so I can do both and is affordable enough to cash flow from semester to semester without having to take out any student loans. Because of these factors I am planning to finish with my associate's degree and I am probably get a job in my field of study with that level of education but I know I would probably have more options and opportunities with a bachelor's degree over an associate's degree.
23. I feel that (my institution) should offer a Bachelor of Science in Nursing due to the fact that the trend is to have all nurses to have their Bachelors degree with in about 5-7 years. Students who just stop at an Associate Degree might get stuck down the road.
24. I think this would be an excellent idea. I would be very interested in a baccalaureate through my local community college.
25. As a mother of 2 small children it would be easier to continue my studies at my community college.
26. I would much rather be able to achieve a BSN degree at my current community college rather than have to transfer to a university and increase my commute time and spending.
27. Your questions did not allow me to express my situation...i already have a bachelor's degree from a four-year university. I am now getting a professional certification from the community college. If this community college had offered bachelor's degrees in the past, I would have sought a second bachelor's degree in another field, such as nursing, when I

was younger. I did not want to drive to the nearest four-year university for a second bachelor's degree and pay ridiculous fees in support of football.

28. It would make getting a bachelors degree for single parents and those who have to work and go to school easier if (my institution) offered a 4 year paln for the bachlors degree.
29. I would really want to have a baccalaureate course in my community college so i dont have to go to far from home and because it will be much harder to go home.
30. I would love to see this happen at (my institution).
31. None.
32. I wish (my institution) had a four year degree plan.
33. n/a
34. I feel it would be beneficial. I am an older student with children still at home. It would be nice if I did not have to travel to school so I would be available to my children in case of emergency.
35. Would love to complete a at ac instead of transferring to (another institution)
36. It would be so cool.
37. Due to physical disability, I am unable to maintain an income while in college and must borrow money to attend. I am frustrated that I am required to transfer to a university program in order to finish my degree because the amount I must borrow will very nearly quadruple when that happens. I would be extremely happy if I could stay at (my institution) to finish my degree. The professors at (my institution) are great and very capable. A transfer to University will greatly increase my loan amount and the time it will take to pay back.
38. It might be cool if community colleges had a baccalaureate program. However, I believe that the current system works just fine.
39. N/A
40. I believe my community college would be a great fit for a Baccalaureate program
41. I would more than likely get my bachelors if it was offered at my current college. Just the thought of transferring and getting to know a new campus and the way their program works is discouraging. It's a matter of how badly the person wants it to continue and I know people from both sides.

42. The opportunity to obtain a bachelors degree at a community college not only would offer a possibly more affordable higher education, but would benefit the surrounding city's economy due to larger population/ more travelers.
43. It would be amazing if ac did a nursing baccalaureate program because the current adn program is more respected by the local hospitals that (another institution)
44. needs to be done
45. I would love (my institution) to offer a Bachelor's in Accounting
46. I think it is a wonderful idea for most community colleges. I have, however been extremely dissapointed in the quality of student support at (my institution) and therefore do not feel that (my institution) has the appropriate staff to maintain any further programs.
47. I think our college would benefit greatly with a baccalauteate program. Living in such a small town and our commute to a closer town would put a dent on anyone financially.
48. Whether or not the baccalaureate is as "solid" as the one that could be recieved through a University is a huge, huge, huge, factor, at least for myself. It matters to me how the academic community views a baccalaureate through a community college vs. a university. I am on financial aid, through the federal government and the VA, as well as loans and I would be very willing to sacrifice financially- even to the point of discomfort, if I thought the university was seen and accepted as having a superior bacalaureate program. I would attend a focus group.
49. I agree that it would be highly sought after on the basis of affordable education, and would interest someone like me.
50. The only Bach. program offered in this area is at (another institution) which was shut down for a period of time. I am unsure if they have been able to reopen at this time. They were shut down because when the nurses went to test for certification their fail rate was too hih. They were put on a warning and then probation and still failed to bring the numbers up. whether or not they have been able to reopen doesnt matter to many people I go to school with. The only information they retained is that the education received is ow quality. Due to the cost of their program vs the community college I would not be able to attend for that reason alone. I have met some of the professors at (another institution) and compared to our instructors I believe I got the better deal. Many of the professors are unapproachable and very arrogant. The instructors here for the most part have a great attitude, eager to teach and teach accuratley
51. I have no further comments.

52. Bachelor degrees are needed in the medical field because hospitals are starting to take out anything lower than a bachelors degree.
53. I think it would be easier for people like myself to start and obtain a bach degree in one place so we are not sidetracked and do not further our education by having to go out of our way to enroll and worry about transfer credits elsewhere.
54. I would LOVE to see a baccalaureate program for ASL Interpretation in my area. Either @ my communtiy college or the local University.
55. It would be nice if (my institution) offered a variety of baccalaureate programs.
56. Amarillo college was my first and only choice to get my associate for nursing. I hope they do make it where I can obtain my bachelors here.
57. None
58. That's a wonderful thought
59. I would have loved that (my institution) offered the baccalaureate degree program. It would have made it easier for people who wants to keep improving themselves on their degree plan. It also would be very cost effective, and familiar campus environment would encourage the students to keep on going to school after getting their Associates Degree...
60. Not quite there yet, will let you know.
61. haven't totally made up my mind of degree plan, this community college has given me a few ideas but still have alot of thought to put into it. i wished i could receive more helpful input.
62. Would be nice if (my institution) would offer more advancement in the Instumentation and Control Field
63. I would be more concerned with questions like, "Is there room at (my institution) to have these additional classes", "What would be the cost versus income", "Do we have the instructors and professors needed to teach these courses".
64. ?
65. Good idea but good luck getting the state gov. to kick in the needed \$\$\$\$.
66. It would be an interesting attempt. Certainly would benefit those who may need a technical education or advancement in the workforce (local interests and workforce opportunities considered)

67. Hi

68. Would be very handy especially at \$3.60 a gallon

69. I would love to see (my institution) offer a bachelor's degree program for GIS 3D Mapping. the Depart of Labor shows that GIS 3D mapping jobs are increasing but people with those skills to fill the positions is not keeping pace. I have tried to find a college with such a program that is affordable and have had much difficulty finding one. Johns Hopkins offers five courses for a GIS certificate at a cost of \$20,000. Universities in the area where I live do not currently offer GIS coursework. Most job posting in the GIS field require experience or education. How is a person to get either the experience or education if they cannot gain access to the either. Their are well paying jobs out there, but the means to getting those jobs is out of reach for some people.

70. I think it would be a good idea for certain degree programs to be offered as a bachelor's degree program at the community college level.

Faculty

1. For the questions where I answered "Neither Agree nor Disagree", it was mostly because I feel I do not have enough information to form an opinion.
2. Thanks for the opportunity to participate!
3. The financial aid office at a community college would be greatly impacted by offering baccalaureate degrees. More regulations and compicance issues will come into play as well as having adequate staff to handle the extra burdens associated with a bacclaureate degree.
4. If Texas is going to offer \$10,000 degrees as requested by the governor, it probably will happen first and foremost at community colleges; however, why must the focus be only on the career and technical side of the coin? If you can obtain a biology degreeat the university and stock shelves at Walgreens, then you probably ought to be able to get that biology degree at a community college and save several thousand dollars along the way.
5. Considering the economic downturn and declining resources, offering baccalaureate degrees at community colleges is out of the question. Our colleges will be fighting for our own survival.
6. Increasing opportunities for bachelor level education in areas specific to the career is needed in our community. In several of the technology areas our college is better prepared with high quality instructors and quality equipment and work place material than a generic program like "business" at a four year university. If the community and work force

identified the need the community college should work to find the solution. Finding solutions for our community in terms of education, training and enrichment is our mission.

7. I did not answer the question about commuting distance one way because there was no option for less than 60 miles one-way. I do not think that students served by community colleges can commute 120 miles per day when most are low income or work full or part-time. Greater than 50% of our students care for dependent children or parents. Many provide the income for the extended family including mom, dad and grandparents.
8. I don't see a need for baccalaureate degrees at my institution. The school should not try to do everything.
9. Offering community college baccalaureate programs in career and technical areas would require a significant infusion of more funding for facilities, equipment, and faculty. It would also require a significant SAC substantive change.
10. I would not want to take the community college focus off of providing certificate and associate degrees for career and technical programs by adding baccalaureate programs. We must stay true to our mission. Baccalaureate education might dilute our primary strength in training the workforce for jobs which require a certificate or associate degree. I suppose I now question the real need for a community college baccalaureate career and technical degree. However, I am open to learning more about this possibility.
11. Many of us would need much more information about community college baccalaureate programs before making a definitive judgment regarding their need and usefulness. We would also need business and industry support for such programs as well as an industry needs assessment.
12. Definitely would be an alternative funding source for Community Colleges to receive more funding in today's economy and state budget cuts. I would strongly suggest only offer a few baccalaureate degrees in career and technical to compete with other institutions.
13. State laws in Texas render many of these questions moot. For example, in 1980, the State of Texas supplied 2/3 of the funding to Texas Community Colleges. Presently, that number has fallen to 28% and is headed toward zero. Within a decade, and probably more quickly than that, I expect the State of Texas to provide no funding to Community Colleges in Texas at all. After all, Republican Troglodytes control the Texas Legislature and with only governors George W. Bush and Rick Perry since 1995, Texas will have had a mentally handicapped Governor for twenty years by the time Perry's next term is over in 2015. In short, all of the questions about how baccalaureate programs might influence state expenditures will be rendered moot since the State of Texas will not be funding Community Colleges at all in the near future. For anyone that needs validation of the hypothesis that Texas is the stupidest state in the nation, there's your sign.
14. Because we have a 4-year university within 20 miles from us, a major consideration would be that of perception of our trying to "steal" their students. The community would not look

favorably on this. It would be important that the programs offered would not directly compete with that institution.

15. Several questions I didn't feel like I had enough information to agree or disagree. I think this a great concept, I would to know more details. Thank you.
16. Sometime before 2020, a Baccalaureate will be required for Respiratory Care therapists for entry level. There are only 4 such programs in Texas and none within 225 miles of Amarillo.
17. A couple of things concern me about the possibility of B degree programs at community colleges. It seems that the emphasis of your motivation is on technical programs, or career-specific programs. If this is the case, why call the degrees B degrees rather than technical certifications? One question addressed whether these degrees would need the same core classes and such as typical B degrees... If you want to call it a B degree, then yes. But if the sole purpose is to expedite training of students for particular jobs, technical or otherwise, then they will not need the same core requirements for that job; that said, then they are not getting a B degree, they are getting a certification or technical degree for that particular job. For the record, I think technical programs and apprenticeship programs are great for students and great for our society. Not everyone needs a B degree to be successful, and for people who don't want that broad base of knowledge with specific emphasis in one area, the B degree is a waste of their time. But to start calling technical programs B degrees will simply effect to further water down the significance of the B degree itself (which has already happened quite a bit with grade inflation and other factors.)
18. The other concern I have for community colleges as a whole is that there is generally a lack of faculty to start B degree programs. Of course, AC is very large compared to CC (where I work), but here at CC there are simply not enough people to train the programs, nor enough students to enroll in them. I have a PhD, as do two other of the CC faculty, but I already teach 7 or 8 face-to-face courses a semester. I don't have time to start a new program, unless more faculty are hired. To pay those faculty, there has to be sufficiently many people interested in the program to have it pay for itself. But these interested students must be locals, or the whole point collapses... If students are coming from other cities to part