ADDRESSING THE MIDDLE-SKILLS GAP BY REDESIGNING
DELAWARE’S BUSINESS CAREER AND TECHNICAL
EDUCATION PROGRAMS

by

Lisa M. Wilson

An executive position paper submitted to the
Faculty of the University of Delaware in partial fulfillment of the requirements for the
degree of Doctor of Education in Educational Leadership

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ABSTRACT

Career and Technical Education (CTE) is good for business. Studies show that collaboration between employers and educators results in a return on investment for the employers. The employer-student engagement can contribute to higher wages for students who successfully graduate. These partnerships also result in a dramatic increase in technical knowledge, networking ability, and employability skills (Mann & Percy, 2013). However, Delaware, like many states, is having difficulty creating student-employer partnerships in its high schools. Unemployment rates for Delaware’s young adults continue to be high, and a middle-skills gap exists in the talent pipeline.

This executive position paper examines key stakeholder perspectives regarding the declining enrollment in Delaware secondary business, finance, and marketing programs; identifies anomalies; and recommends a redesigned program of study intended to increase enrollment. The researcher explored the premise that young adults represent an untapped resource that can help diminish the size of the middle-skills gap. An examination of labor market information reveals the types and locations of jobs projected to be available by 2026. Consideration was given to the evolution of vocational education in relation to the current CTE programs seen in classrooms today. This portion of the study, along with the survey of students and interviews of teachers and other key stakeholders, provides a platform on which to build recommendations.

The recommendations focus on four key areas: (a) a mind-set change for key stakeholders—the Delaware Department of Education, administrators and teachers, students and parents, and higher education partners; (b) a collaborative program
design which includes key stakeholders, a vetted program development framework, financial support for new program implementation, and cross program opportunities; (c) early college and work experience; and (d) marketing strategies to ensure that the students who will benefit the most have access to the information necessary to gain exposure to the programs. All these recommendations have the potential to attract students and increase the enrollment in secondary CTE business programs. This study clearly reveals a need exists for people with skills in business, finance, and marketing to fill middle- and high-skill jobs in Delaware. The challenge is to develop programming that will attract students and allow employers to participate in the process.
Chapter 1

INTRODUCTION

In his 2015 State of the State address, Governor Jack Markell, acknowledged that, by 2025, most Delaware jobs will require more than a high school diploma (Markell 2015). To illustrate the significance of these statistics, one must take a deeper look at the labor market in Delaware. The Delaware labor market can be divided into three categories of employment: low-, middle-, and high-skill jobs.

Low-skill jobs require a high school diploma or less, and their average wage is $33,411 per year. See Figure 1. In 2015, approximately 16% of Delaware’s jobs

![Wages by Level of Education, 2016](image)

Figure 1: Delaware 2016 occupations and industry projections, Delaware Department of Labor, 2017
were low-skilled. However, 21% of the workforce is trained at the low-skill level. This disparity represents a surplus of low-skilled workers. Middle-skill jobs require some type of education beyond high school—such as a specialized credential, certificate, license, apprenticeship, military experience, or a 2-year degree. Middle-skill jobs also provide wages at or above the state median income level of approximately $44,960. See Figure 1. These middle-skill jobs are plentiful; however, not enough trained Delaware workers are available to fill the demand for them. It is alarming to note that more middle-skill jobs exist than middle-skill workers. In 2015, approximately 51% of Delaware jobs were middle-skilled. Yet, only 43% of Delaware’s workforce was trained at the middle-skill level. A Bachelor’s degree or higher is required for high-skill jobs which provide an average annual wage of $88,510. See Figure 1. In 2015, the number of high-skill workers almost evenly matches the number of high-skilled jobs. In addition, 36% of the workers are trained at the high-skill level, and 33% of the jobs are high-skill (Delaware-Middle Skills.pdf, 2017). See Figure 2.

![Figure 2: Middle-skill gap](image)
Youth Unemployment Rates

It is not a novel idea to make a connection between the education system and the workforce to enrich the economy. Nevertheless, Delaware and states across the country still have difficulty finding the right level of collaboration. As a result, unemployment rates remain high for young adults between the ages of 20 to 24. Significant disparities also exist when race, ethnicity and gender are factored into the equation. The middle-skills gap can be decreased by empowering this untapped resource and by preparing young adults to enter the talent pool.

This mismatch has contributed to an unemployment rate for young adults (ages 20–24) that is unusually high in comparison to all other demographics in Delaware. In 2014, the unemployment rate for white young adults of 10.2% was

![Unemployment for young adults by race/ethnicity, Delaware](image)

*Figure 3. Unemployment for young adults by race/ethnicity, Delaware (Learning to Work: Delaware Pathways Strategic Plan, 2016)*
nearly twice that of the total unemployment rate at 5.8%. Alarmingly, when race is a factor, the youth unemployment rate skyrockets. Young adults who are Black were unemployed at a rate of 18%, which triples the rate of all demographics at 5.8%. The statistics for Hispanic/Latino are not available, so the national data were reported, which is 11.1%. See Figure 3. Equally as disturbing is the outlook when gender is considered. Young men ages 20 to 24 were unemployed at a rate of 15.8%, which more than triples the unemployment rate for all demographics. Young women were unemployed at a rate of 8.8% in comparison to all demographics ages 16–65 who, in 2014, were unemployed at a rate of 5.8% (Learning to Work: Delaware Pathways Strategic Plan, 2016). See Figure 4.

![Figure 4](image)

*Figure 4. Unemployment for young adults by gender, Delaware (Learning to Work: Delaware Pathways Strategic Plan, 2016)*

Creating educational programming that prepares students to enter the workforce with the necessary skills and credentials is a challenge, not only in
Delaware, but across the United States. Job market uncertainties, along with the unpredictability of student interests, career choices, and course-taking style make it difficult to prepare students for narrowly defined occupations.

The CareerClusters Framework® is an occupational coding structure that classifies CTE programs of study under a hierarchy of related career areas called Career Clusters and more specific occupational groupings called Career Pathways (Labor Market Information [LMI] Instructions & Guidance, 2017).

Career Clusters groups organize related occupations into 16 categories that represent the various sectors of the economy and the skills that are necessary for workers to be successful. In addition, the Career Clusters align secondary and post-secondary programs. This research will focus on the three Career Clusters in business which include Business Administration, Finance, and Marketing (BFM). States are required to develop CTE programs of study that allow students to obtain an industry-recognized certificate, license, credential, and/or a post-secondary degree in accordance with The Carl D. Perkins Career and the Technical Education Improvement Act of 2006 (Labor Market Information [LMI] Instructions & Guidance, 2017).

**Labor Market Information Review**

Since CTE programs of study are connected to both early career and
occupation opportunities, it is necessary to understand the economic data system and the demands for jobs so that students will be adequately prepared. Periodic fluctuations in the economy, which influence both regional and state workforce opportunities, require a systematic plan for continuous improvement so that CTE programs will be effective and produce opportunities for students to be gainfully employed. Data about the labor supply and demand, regional employment statistics, wage projections, short-term employment trends, and occupational growth are referred to as Labor Market Information (LMI). An LMI analysis is conducted during the development of both local and state model programs of study (POS) to examine the labor market supply and demand elements so that all CTE POS are aligned with the fluctuating needs of the workforce.

Finance is one of the fastest growing sectors in Delaware. Indeed, this growth prompted Governor Markell emphasize the need to establish quality CTE programming in this area. According to the Delaware LMI Review for the Finance Career Cluster, this cluster ranks in the top seven for both employment and employment change, when compared to other clusters. Finance has a growth rate of 10.6%. The average wage in 2014 was $72,418. It is ranked 3rd for average wage and 5th for employment growth. Students pursuing careers in this cluster would need to obtain at least a bachelor’s degree. Potential occupations include financial analysts and financial managers. Related occupations include financial specialists, personal finance advisors, financial services sales agents, claims adjusters, examiners, and credit analysts. Because this career cluster is rated high skill, high wage, and high
demand, it is a prestigious career for interested students to pursue. Students enrolled in post-secondary finance programs show a modest interest in this area. Secondary students enrolled in the Academy of Finance POS will be prepared to successfully participate in post-secondary programs. Students in the Academy of Finance POS can gain advanced college credit that will reduce the time required to enter the workforce.

![Delaware Business Cluster Enrollment](image)

*Figure 5. Delaware BFM cluster enrollment (Unit Count PLUS - Report Viewer, n.d.) (Academy of Finance POS LMI Review August, 2015).*

Considering the LMI analysis for the Finance Cluster, the enrollment in BFM Cluster programs has steadily declined over the past 15 years, as recorded by the Delaware Department of Education. See Figure 5. Interestingly, this problem is not
unique to Delaware. Statistics show a steady decline in the percentage of high school graduates who earned credits in Business. According to a report by the National Center for Education Statistics (NCES), there has been a steady decline in the percentage of high school graduates who earned credits in Business (Table H126. Percentage of public high school graduates who earned credits, by curriculum area: 1990, 2000, 2005, and 2009, n.d.). See Figure 6. Yet, BFM concepts, personal finance, proficiency in the use of software applications, use of the Internet’s Web 2.0 tools, social media etiquette, and having an entrepreneurial mindset are all necessary skills to be competitive in our society and economy. Students need these skills whether they decide to go directly to work or decide to enroll in an institution of higher learning. Business is still among the most popular majors in higher education, yet high school business programs are diminishing. Thus, it is reported by the NCES that “Of the 1,716,000 bachelor's degrees conferred in 2010–11, the greatest numbers of degrees were conferred in the fields of business (365,000)”
(Statistics, n.d.). One may also note that the number of bachelor degrees conferred with a major in Business is increasing steadily. See figure 7.

![Bachelor Degrees Conferred in Business](image)

*Figure 7. National Center for Educational Statistics (Statistics, n.d.)*

**Occupation and Wage Projections**

To paint the complete picture, occupation and wage data must be considered. First, consideration should be given to the fact that, according to the Delaware 2026 Occupation Projections Report, there are 535,378 total job openings. Job openings represent the number of jobs available due to people exiting the workforce. New jobs represent jobs that become available due to growth. Of the number of job openings, a third of those jobs are BFM jobs totaling 179,357. One third of total job openings represents a significant part of the economic landscape in Delaware. See Figure 8. Jobs with high average annual openings due to growth include: general
operations managers, computer and CTE and Advance CTE information systems managers, and management analysts in the BMA cluster; financial managers, accountants and auditors, financial analysts, securities, commodities, and financial services sales agents, and personal financial advisors in the Finance clusters; and marketing managers, market research analysts, and marketing specialists in the Marketing cluster. Additionally, 22.4% of all projected new jobs by 2026 are in the areas of the BFM clusters. Projections indicate that there will be 7,600 new jobs in the BFM clusters, with Finance leading the way with 3,404; Business with 2,436; and Marketing with 1,760 new jobs. See Figure 9. Finance and Insurance (net job growth of 4,660) and Management of Companies and enterprises (net job growth of
1,850) are two of seven fastest growing industry sectors that are projected to surpass the overall state average.

![Total Delaware New Jobs](image)

**Figure 9.** Total Delaware new jobs projections (Sharpley, Delaware 2026 Occupation & Industry Projections, July, 2018)

Indeed, 2026 occupation projections support the idea that there will be a significant number of jobs available for students who pursue a pathway in BFM. The Delaware Population Consortium projects that the population of people ages 16–19 will increase by 0.8% annually between 2016 and 2026. However, people ages 20–64 are only projected to increase at the rate of 0.13% per year. Considering these statistics, one could surmise that an increase in labor force participation from young people could help Delaware achieve the expected 0.6% annual job growth during this 10-year projection period (Sharpley, Delaware 2026 Occupation & Industry Projections, July, 2018).
It is important to understand the types of jobs and average wages to be expected in each county when considering opportunities that are high skill and high wage that business CTE students can aspire to obtain. In the finance cluster, New Castle County is recognized as the hub. In New Castle County the average wage for jobs of this type is $95,476. This represents a 1.4% gain over 2015. Kent County claims only a small portion of the state’s total jobs in this sector. However, pay for these positions average $87,012, which is a 3.8% increase since 2015. In Sussex County, jobs in this sector remained flat. The average pay is comparatively low, even after rising by 2.9% to $59,276. Business and marketing cluster jobs have more than doubled. New Castle County has the highest number of jobs in this sector. The average wage was $129,128 in 2016. In Kent County the average was $96,700 in 2016. Surprisingly, the average wage for jobs in this sector is highest in Sussex County. The average wage was $138,564 in 2016 (Sharpley, Delaware Annual Economic Report 2016, September 2017).

Another perspective to consider is statistics when gender is factored into the equation. The gender demographics for jobs in the finance cluster are interesting in that “Women hold 55% of the jobs, but men hold most of the higher-paying jobs, earning 40% more on average.” (Sharpley, Delaware Annual Economic Report 2016, September 2017) The jobs in this sector account for one-third of the Gross Domestic Product (GDP) in Delaware, which is approximately four times the national average. The national average is 8.4%. Gender demographics for business cluster jobs are as
follows: 56% are male, and men consistently make 30% more than women (Sharpley, Delaware Annual Economic Report 2016, September 2017).

**Delaware Pathways**

This paper studies the potential impact of increased enrollment and successful completion of secondary CTE business programs. Governor Markell asked Delawareans to commit to a new goal called the Delaware Promise so that, by 2025, everyone will earn a high school diploma and 65% of the workforce will earn a college degree or a professional certificate/credential. The Student Excellence Equals Degree (SEED) scholarship, accepted at Delaware Technical and Community College and the University of Delaware Associate in Arts program, along with the Inspire scholarship accepted at Delaware State University allow Delaware students to obtain a 2-year degree at practically no cost. Delaware has joined a consortium of states and has become a member of the Pathways to Prosperity Network. As a result, Delaware Pathways was formed. Delaware Pathways consists of a state-level team comprised of the Delaware Department of Education (DDOE), the Department of Labor (DOL), the Delaware Workforce Investment Board, the Roundtable Education Committee, and the Rodel Foundation.

Many statewide initiatives are in progress. Perkins funding in the amount of $500,000 has been allocated for Innovation Grants for career pathways developed by DDOE. These state-model POS address areas where there is significant job growth.
One of the areas mentioned in the Governor’s State of the State address is finance. As is shown in the above chart, finance enrollments represent a small portion of the overall business, finance and marketing enrollment. Compare this with the workforce projections, and it becomes apparent that there is untapped potential in this area. When a quality POS is available, students, employers, and ultimately the Delaware economy, will flourish. A multi-pronged strategy has been developed by Delaware Pathways which includes:

- Building a comprehensive system of career preparation that aligns with state and regional economies;
- Scaling and sustaining meaningful work-based learning experiences for students in grades 7-14;
- Coordinating financial support for Delaware Pathways;
- Integrating our education and workforce development efforts and data systems; and
- Engaging employers, educators, and service providers to support Delaware Pathways (Learning to Work Delaware Pathways Strategic Plan).

**Vocational Education in CTE: A Brief History**

CTE is defined as training for students of all ages in academic and technical skills to provide success in future careers and to acquire the ability to become lifelong learners (Career Technical Education | Advance CTE, n.d.). CTE has evolved from
vocational education practices used as early as 1776 in the United States. As discussed in the American Vocational Journal, “Apprenticeship is an old form of education, used generously by the Greeks and Romans, the Middle Ages, and the Renaissance” (The Awakening 1776-1826, 1976, p. 25). During the Colonial period, apprenticeships were very common. During the first 50 years, between 1776 and 1826, when apprenticeships were common, vocational education was just getting started and was vastly different from vocational education, as it was known in the mid-1970s. During the next 50, between 1826 and 1876, the manual labor movement was very prominent. It spawned some noteworthy educational ventures such as “the education of women, agricultural education, and business education” (Journal, 1976, p. 33).

The first business courses included handwriting, arithmetic, and sometimes bookkeeping. During this period, most of the leadership in business education was left to private schools that became prevalent after 1850. In 1863, stenography was introduced, and ten years later, in 1873, the typewriter appeared on the scene. These technological breakthroughs provided remarkable improvements in communication. Interestingly enough, the first high schools were created with the purpose of “fitting young men for commercial life” (Journal, 1976, p. 35). In 1868, the Hampton Institute was established by General Samuel Chapman Armstrong to teach free Negroes a variety of trades. Hence, this was the beginning of the Trade School Movement. Trades were taught using a set of steps from start to finish in three years. Additionally, business was taught in connection with each trade (Journal, 1976, p. 39). Immediately following World War I, the United States realized that the populace was deficient in
skills. Therefore, it was necessary for workers to develop and master skills provided by vocational education programs. Passage of the Smith-Hughes Act of 1917 provided an annual appropriation for vocational education starting at $1,655,586 during the first year that reached its maximum of $7,161,726 in 1926. This represented the first investment into career and technical education by the federal government (Coming of Age 1926-1976, 1976, p. 63).

During the past 100 years, several notable pieces of federal legislation have contributed to the landscape of career and technical education. In 1936, $14 million annually was appropriated to broaden teacher education for marketing jobs. However, the most prominent federal legislation occurred in 1984 with the renaming of vocational legislation after Carl D. Perkins with the Carl D. Perkins Vocational Education Act of 1984. Carl Perkins was a congressional representative from Kentucky and an education advocate. In 1990, the Carl D. Perkins Vocational and Applied Technology Education Act Amendments placed the focus on accountability; alignment of secondary and post-secondary programs; integration with academics; and business partnerships. The term “vocational education” was officially retired with the passing of the Carl D. Perkins Vocational and Technical Education Act of 2006. Perkins V, as this legislation was also known, signified the introduction of the program of study concept as discussed in the Framework section of this paper (Imperatore, 2017).

In the early 1970s, U.S. Commissioner of Education, Sidney P. Marland, Jr., coined the phrase “career education” to indicate the change that needed to occur in
high school education. Marland Jr. believed that career education should be a central part of students’ complete educational experience, and he backed this belief up with finances from his discretionary fund (Coming of Age 1926-1976, 1976, p. 86).

Today’s CTE programs have evolved from the original vocational programs of the early 20th Century. High school students can expect academic content that relates to the real world, job-related skills including workplace ethics, and career pathways that connect to higher education. In addition, students can develop advanced leadership skills by participating in the co-curricular activities provided by career and technical student organizations like Business Professionals of America (BPA) and DECA, Inc., an association of marketing students (Career and Technical Student Organizations Make CTE Work, n.d.).

CTE programs are designed to educate young people and adults for many careers and higher education prospects. In addition, students of these programs can obtain industry certifications, postsecondary certificates, or college degrees. The main objective of CTE is to prepare students for both college and careers by providing core academic skills, employability skills, and job-specific technical skills. Content for CTE programs is derived from 16 “Career Clusters.” Career and technical student organizations (CTSOs) work in conjunction with CTE programs to further prepare students to become productive members of society. CTSOs emphasize career skill excellence, leadership development, and motivation through local, state, and national conferences (Career and Technical Student Organizations Make CTE Work, n.d.).
CTE programs have been proven to increase student achievement and meet individual and community economic needs. For example, the Association for Career and Technical Education (ACTE) cites the following interesting facts:

- Over 80% of high school dropouts said they would have stayed in school if they had learning opportunities that were relevant and real-world.

- Students with a concentration in CTE courses graduated at an average rate of approximately 93%, while the national freshman graduation rate averaged only approximately 80%.

Over 91% of students concentrating in CTE courses continued to postsecondary education after high school (About CTE, n.d.).

The Harvard Graduate School of Education published the Pathways to Prosperity report in February 2011. It contended that the U.S. education system limited students by focusing narrowly on student preparation for a 4-year college or university (Symonds, Schwartz, & Fergerson, 2015). As a result, a consortium of states and regions formed the Pathways to Prosperity Network to develop public policy, communicate best practices, and provide support for students as they pursued careers or education. Delaware joined the consortium in 2014 with the support of a strong state-level team that included representation from the Governor’s office, the Department of Education, the Department of Labor, the Delaware Workforce Investment Board, the Delaware Economic Development Office, Delaware Technical and Community College, the Delaware Business Roundtable Education Committee, and the Rodel Foundation (Learning to Work: Delaware Pathways Strategic Plan,
2016). The Department of Education has allocated Perkins funds in the amount of $500,000 for three years to support the growth of pathways in high-priority industries in Delaware and includes the areas of finance and business administration. This initiative could significantly increase the enrollment of secondary business programs in Delaware.

**Framework**

The CTE workgroup at the Delaware Department of Education has developed a model for career preparation in occupations that are demand driven. There are three principles that guide this work: (a) Students should be prepared for success in a career or post-secondary education, (b) the POS should align with the needs of the workforce and be created in collaboration with relevant stakeholders, and (c) student achievement should be improved by merging academic and career measures of success (Delaware Career and Technical Education (CTE) Policies and Procedures, 2017). The desired result of creating these state model POS is two-fold: build rigorous programs that can be replicated and provide a template for local education agencies (LEAs) to use in creating POS.

There are four components in the state-model POS that provide a structured approach to the delivery of CTE and academics. This structure allows for the continuous sequence of courses from secondary to post-secondary instruction. The first component is rigorous CTE coursework that leads to a secondary diploma or its
equivalent. In many cases, this coursework has been vetted by industry professionals and higher education partners. Often, the coursework includes early college options such as articulated credit or dual enrollment. Articulated credit is advance credit that is awarded to the student when he or she enrolls in the postsecondary institution. However, dual enrollment allows the student to be enrolled in a postsecondary institution while enrolled in high school. Upon completion of the course, the student receives high school credit and transcripted credit from the postsecondary institution that can be transferred to other postsecondary institutions. Secondly, students can earn an industry recognized credential, certificate, or license. This credential may hold value at the post-secondary level in an associate or baccalaureate degree or at the professional level. The third component is early work experience. Students will be afforded the opportunity to have an internship that is not only relevant to the POS but that is an extension of the program. In other words, the student will be expected to have a certain level of knowledge to be considered for the internship and will be assessed on the knowledge gained during the experience. In many cases, the internship will be paid. Lastly, the fourth component is the program advisory committee (PAC). The PAC is comprised of business partners who are willing to support and advocate for the program. This committee is instrumental in engaging in work-based learning activities that help develop relationships with the students. The engagement of business professionals with students help to show the relevancy of everyday classroom activities. PAC members serve as mentors, guest speakers, and project leaders. In addition, PAC members may also provide opportunities for site
visits and internships. Some PACs also engage in fundraising activities to provide scholarships for students.

The state-model POS is a systematic approach to building a vehicle that can transport a student to a successful career, whether he or she decides to go to college, to move straight into work, or to join the military. This framework for program development provides an opportunity for students to be engaged in their education while providing an opportunity for employers to aid in the development of a pipeline that will keep the Delaware economy strong by tapping into an under-utilized resource - teenagers and young adults.

Problem

An examination of the number of Delaware jobs compared to the number of people ready to enter the workforce shows that there are more low-skilled workers than low-skilled jobs available; there is also a significant gap in opportunities for middle-skill employment in the opposite direction. Middle-skill jobs require some type of education beyond a high school diploma, like a credential, certificate, license, an apprenticeship, the military, or a 2-year degree, but they do not typically require a bachelor’s degree. The Occupations Projections also indicate that there are opportunities for high-skill jobs in the Business and Finance sectors. These jobs require a bachelor’s degree or higher. The mismatch between labor market demands and the talent pipeline can be impacted by secondary business students who are
adequately prepared to enter the talent pipeline or to continue to post-secondary business programs. According to Luke Rhine, Director of the CTE/STEM workgroup at the Delaware Department of Education: “This ‘skills gap’ can be addressed if we create a fluid relationship between our public education system, institutions of higher education, and our employer community.”

**Key Questions Examined**

This Executive Position Paper (EPP) examines how to redesign CTE programs in business, finance, and marketing so that enrollment in these programs will increase, and students graduating from these programs will be positioned to help decrease the middle skills gap in the Delaware economy. Key questions it addresses include:

- What is the perception of students, teachers, and business partners regarding secondary business programs?
- How should secondary business programs be redesigned to incorporate data provided by students, teachers, and business partners?
- How can secondary business students be prepared to continue to post-secondary business programs or enter the talent pipeline of middle skill and high-skill jobs that are impacted by the rapid changes taking place in the Delaware economy?
Chapter 2

METHODS AND FINDINGS

Design

This Executive Position Paper (EPP) is intended to study the enrollment trends of secondary business programs in Delaware and the potential impact successful completion of these business programs can have on the local economy. Qualitative and quantitative methods were used to answer the key questions of this improvement project. Use of these methods are the appropriate approach to examine the declining enrollment in secondary business programs because (a) the researcher is studying the trend of declining enrollments and the implications for students and the economy, (b) the researcher manages the development of secondary business programs in the state and is empowered to adjust future action based on this research, and (c) the possibility exists of increasing the enrollment in secondary business programs which may consequently lead to more students being prepared to complete business pathway programs that will prepare them to be college and career ready.

There are basically four stages in this improvement project. The first stage is to clarify the vision and targets. During this phase the researcher addresses the question “what do I want to accomplish?” Goals, attributes of successful completion of the goals, and criteria that is reliable and valid are clearly established during this first stage. The second stage is to answer the question: “What approach has the greatest chance to help the researcher obtain her goal?” During this stage, the researcher discloses the rationale for the chosen research methods used. The third stage is to collect data. During this stage the researcher addresses the question: “What data will be collected.” The fourth stage reflects on the data and recommends action
based on the results of the data. During this stage, the researcher considers the question: “What recommendations could potentially contribute to the increase in student enrollment in secondary BFM programs?”

**Stage 1: Clarifying Vision**

The organizational improvement goal of this EPP is to recommend a curriculum design process to help develop a program of study to increase interest and enrollment in secondary business programs. Increased interest and enrollment in BFM programs will, in time, lead to an increase in young adults entering the workforce or continuing to college in this field. Ultimately, an increase in the number of young adults with skills and credentials in business has the potential to decrease the middle-skills gap and increase the employment rate for young adults in Delaware by utilizing the untapped potential in this demographic. It will be necessary to understand the perceptions of students, teachers, and business partners. The student perspective is important since they will directly benefit from awareness of the opportunities that are available in the state upon completion of these programs. The teachers’ perspective is important for two reasons. First, they will deliver the content and must be passionate and knowledgeable. Secondly, they must be empowered to provide rigorous and practical opportunities for student interaction with business partners. The business perspective is also important because individuals from this sector can provide immediacy to the content. When students interact with business partners, it brings life to the content being studied. Finally, business partners benefit from having the opportunity to participate in the learning process for young adults who will eventually be employed in their company or a company that is similar.
Stage 2: Articulating Theories

Three research methods were used to examine this topic of declining enrollment. To determine the student perception of current business, finance, and marketing (BFM) programs, a survey was conducted. The results of the survey revealed some reasons students did not enroll and the satisfaction of students who did enroll. This data will inform the design of future secondary business programs. Next, interviews with business teachers were conducted to determine teacher perceptions regarding the decline in enrollment and to provide a foundation for recommendations pertaining to pedagogy and program improvement. Lastly, interviews were conducted with business partners who served on program advisory committees (PACs) to determine business partner perceptions regarding the strengths or weaknesses of secondary business programs, to get recommendations for improved program design, and to obtain suggestions for increased enrollment. Review of the perceptions of key stakeholders will reveal if there are patterns of thinking that are not conducive to the increase of student enrollment in BFM programs.
Stage 3: Collecting Data

Phase I: Student Survey

Phase I consisted of a student survey to determine the perceptions of students regarding business programs. Teachers from comprehensive, vocational, and charter schools in New Castle, Kent, and Sussex Counties were invited to facilitate the survey for their students. The survey consisted of 21 questions and was conducted online using Qualtrics. See the student survey questions in Appendix A. Thirty-six (55%) BFM and 29 (45%) non-BFM students in grades 9 through 12 participated in the survey. These students represented New Castle and Kent County. Students from all counties were invited to participate. The gender of participants was equally split with 32 (49%) males and 33 (51%) females. Eighteen (12%) African Americans, four (6%) Asians, 31 (48%) Caucasians, five (8%) Hispanics, and seven (11%) Other participants completed the survey. See Figure 11.

Figure 10. Participants by grade

Phase I consisted of a student survey to determine the perceptions of students regarding business programs. Teachers from comprehensive, vocational, and charter schools in New Castle, Kent, and Sussex Counties were invited to facilitate the survey for their students. The survey consisted of 21 questions and was conducted online using Qualtrics. See the student survey questions in Appendix A. Thirty-six (55%) BFM and 29 (45%) non-BFM students in grades 9 through 12 participated in the survey. These students represented New Castle and Kent County. Students from all counties were invited to participate. The gender of participants was equally split with 32 (49%) males and 33 (51%) females. Eighteen (12%) African Americans, four (6%) Asians, 31 (48%) Caucasians, five (8%) Hispanics, and seven (11%) Other participants completed the survey. See Figure 11.
BFM Student Perception

Business, Finance, and Marketing (BFM) pathway student participants were asked survey questions to determine the perceptions and the level of satisfaction of experienced in current BFM pathway classes and see the course enrollment numbers. The responses to these questions informed how BFM pathway programs can be developed to attract graduate secondary students who are prepared to contribute to society. In addition, this data impacted recommendations for early college and work experience opportunities that can be embedded in redesigned BFM programs. The student voice is important and must be considered since they represent an untapped resource that can impact the Delaware economy and can help reduce the middle-skills gap.

In Question 13, BFM participants were asked to respond to the statement “Business pathway classes are exciting and keep me engaged.” Thirty-two participants responded. The data are presented here. Responses for each question were analyzed in Qualtrics. More than half of the participants felt strongly or agreed that their business pathway classes were exciting and engaging. However, more than a quarter of participants were neutral on this topic of excitement and engagement, and 6.5% disagreed that their business pathway classes were exciting and engaging. See Table 1.

In Question 14, BFM participants were asked to respond to the statement, “Business pathway classes are preparing me for work and/or college.” An overwhelming majority of participants stated that they felt the business pathway classes were preparing him or her for work and/or college. Ninety-seven percent of participants gave a favorable response. One participant was neutral on this question. See Table 1.
In question 15, participants were asked to respond to the statement, “Business pathway classes are hands-on and problem-based.” Almost two-thirds of participants expressed that they felt the business pathway classes were hands-on and problem based. One-third of participants were neutral on this question, and 6% disagreed that the business pathway courses were hands-on, and problem based. See Table 1.

Overall, the responses to these survey questions indicate that BFM students have a positive perception of business courses. However, the fact that more than a quarter of participants remained neutral regarding the statement that business pathway classes are exciting and engaging suggests that there is room for improvement. Additionally, since more than a third of participants remained neutral regarding the statement that business pathway classes are hands-on and problem-based indicates that there is also an opportunity for improvement in this area. The data showing that the majority of BFM students believe that the business pathway classes are preparing them for work and college suggests that there is an appreciation for the opportunities provided by these business courses.

Table 1.

Student Perception of Business Pathway Classes (N=33)

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<th>Disagree</th>
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<td>Business Pathway classes are exciting and keep me engaged</td>
<td>5</td>
<td>16%</td>
<td>16</td>
<td>50%</td>
<td>9</td>
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<td>Business Pathway classes are preparing me for work and/or college</td>
<td>13</td>
<td>39%</td>
<td>19</td>
<td>58%</td>
<td>1</td>
</tr>
<tr>
<td>Business Pathway classes are hands-on and problem-based</td>
<td>3</td>
<td>9%</td>
<td>17</td>
<td>52%</td>
<td>11</td>
</tr>
</tbody>
</table>
Non-BFM Student Perception

Non-BFM student participants were asked a survey question to determine the perceptions of BFM courses. The responses to this question informed how BFM pathway programs can be promoted to ensure that key stakeholders understand fully the opportunities that exist for college readiness and ultimately a high-skill, high-wage career. Also, responses to this question informed the design of future business programs. Analysis of this data indicated if mindsets exist that negatively impact BFM enrollment.

In Question 7, twenty-seven non-business participants were asked to:
“Describe your perception of Business Pathway courses and your reasons for choosing not to enroll.” Four major themes emerged. Sixteen participants indicated they were not interested in business or were interested in another area. A sample of student comments included “I was not interested,” and “I wanted to try something different,” and “It’s not what I want to do.” Four participants indicated that the business courses seemed boring and not fun. A sample of student comments included: “just boring and there’s no fun in it,” and “I don’t think it would be fun,” and “too boring.” Four participants indicated that they did not have room in their schedule to take the business pathway courses. A sample of student comments included: “I simply don’t have room in my schedule,” and “It (my schedule) changed.” One participant indicated that the
business pathway courses were too hard. The comment was “looks too hard.” See Figure 11.

![Reasons for Not Choosing Business](image)

*Figure 11. Reason for not choosing business*

Generally, non-BFM students (59%) were interested in areas other than business, finance, or marketing. However, for the students who did not have room in the schedule (15%), one can surmise a need to examine the scheduling process would be beneficial. Additionally, the role of school counselors and their impact on enrollment is an important factor to consider when examining stakeholder perceptions regarding BFM programs. Finally, regarding those students who felt BFM courses were too hard or too boring (18%), this data represents an opportunity to impact the non-BFM students’ perception with a redesigned program and strong marketing campaign.
BFM and Non-BFM Student Perception

BFM and non-BFM students were asked three questions to determine what, in their opinion, makes a class great, what they like most about CTE courses, and what would they change about their CTE courses. The responses to these questions helped determine how BFM courses should be redesigned to attract secondary students. In addition, the data revealed areas to emphasize when marketing opportunities available within the BFM programs of study.

In Question 4, all participants were asked: “What is the best class you have taken in high school and what made it so great?” Responses to this question provided data regarding participants’ perceptions of what makes a great class. Sixty-five participants responded. Five major themes emerged.

Twenty-one participants (32%), representing the majority, indicated that the ability to learn and grow made their classes great. Representative student comments included “helped propel me forward into a great education,” and “I learn something new every day.” Eighteen participants (28%) indicated that the quality of the teacher is what made their classes great. A sample of students’ comments were “The teacher is cool and fun,” and “My teacher has encouraged people to be themselves,” and “The teacher made it interactive.” Eleven participants (17%) indicated that love or passion for the subject is what made their classes great. A sample of students’ comments included, “It helped me grow as a person,” and “I get to program which is what I love to do,” and “I love business,” and “Art has always been my passion.” Eight participants (12%) indicated that being active and doing hand-on activities made their
classes great. A sample of students’ comments included, “. . . I like physical activity” and “We do a lot of hands on activities,” and “It’s way more interactive and more interesting.” Seven participants (11%) indicated that the ability to have fun while learning made their classes great. A sample of students’ comments included: “very interactive and fun,” and “I get to . . . have fun,” and “I always have fun doing my projects.” See Figure 12.

![What Makes a Class Great](image)

Figure 12. What makes a class great learning made their classes great. A sample of students’ comments included: “very interactive and fun,” and “I get to . . . have fun,” and “I always have fun doing my projects.” See Figure 12.

In Question 5, all participants enrolled in CTE programs were asked: “What do you like most about your CTE pathway course(s) and explain why?” Responses to this question provided data regarding student satisfaction regarding CTE pathway courses. Sixty-three participants responded. Five major themes emerged. Twenty-three participants (37%) indicated that they liked that their CTE courses had real-world applications. A sample of students’ comments included “It helps me understand
how things in the world work like managing my own finances,” and “help me better prepare for the business world after college,” and “learning skills we actually use in life.” Fifteen participants (24%) indicated that they liked the fact that they were able to learn new things. A sample of students’ comments included: “I liked learning new things,” and “It gives different opportunities,” and “It’s challenging and makes me work hard.” Eleven participants (17%) indicated that they liked the fact that the CTE course content included subjects they were interested in or passionate about. A sample of students’ comments included: “I can be creative in visual arts,” and “Business always interested me,” and “I like how I can draw and paint whatever I want instead of what a teacher assigns.” Nine participants (14%) indicated that they did not like or did not have any CTE pathway courses. A sample of students’ comments included: “I’m not a big fan,” and “I mean it’s not the best,” and “I don’t have a pathway.” Five participants (8%) indicated that they liked their CTE pathway courses because of the quality of the teacher. A sample of students’ comments included: “I have an amazing teacher,” and “The teacher knows how to explain,” and “The teacher made it interactive.” See Figure 13.
In Question 6, all participants were asked: “What would you change about your CTE pathway course(s)?” Responses to this question provided data pertaining to the level of satisfaction students have regarding their pathway courses. In addition, responses to this question will inform the design of future CTE pathway courses. Sixty participants responded. Five major themes emerged. Nearly half of participants (45%) indicated that they would add more interactive and hands-on activities. A sample of student comments included: “having more projects to do,” and “more practical application,” and “more hands-on projects.” Sixteen participants (27%) indicated that they would not make any changes. A sample of student comments included: “nothing really” and “I wouldn’t change anything,” and “I don’t think I would change anything.” Nine participants (15%) indicated that they would like more

![What I Like Most About CTE Class](image)

*Figure 13. What I like most about CTE class*
diverse opportunities. A sample of student comments included: “To be more diverse,” and “I don’t like that I can only choose one pathway,” and “I’d like more business classes to be incorporated.” Four participants (7%) indicated that the pace should be changed. A sample of student comments included: “take things a little slower,” and “I would make it longer,” and “more time to focus on lessons.” Four participants (7%) indicated that they would switch programs. A sample of student comments were: “I would change my pathway,” and “I would make my pathway Cosmetology,” and “My pathway isn’t established.” See Figure 14.

![Figure 14. What I would change in CTE courses](image)

The data from Question 4 and 5 provided an interesting comparison of a great class to CTE classes. This data suggests that students feel many of the characteristics of a great class mirror the favorable aspects of the CTE courses. This is evident in the
fact that according to this sample the ability to grow and the ability to learn new things emerged as major themes in both these questions. Other similarities include passion, the effectiveness of the teacher, and practical application. Then again, it was also noted that several students did not have a CTE pathway, which may account for the number of students who did not respond to Question 5 and 6. Sixty-five participants responded to Question 4, 63 participants responded to Question 5, and 60 participants responded to Question 6.

The data from Question 6 provided key insights to consider when planning the redesign and marketing of BFM programs. Students value hands-on activities and the ability to be flexible with CTE programming. However, slightly more than a quarter of the participants felt no changes were needed in CTE programs. Nevertheless, some students had a desire to change CTE programs. This could be the result of scheduling issues or a misconception about the program.

**Enrollment**

In Question 8, all participants were asked: “Are you enrolled in a Business Pathway(s)? If yes, which one(s)?” Responses to this question revealed the current enrollment of participants in business pathways. There were 71 responses which would indicate that some participants were enrolled in more than one business pathway. Nevertheless, twenty-nine (41%) of participants were not enrolled in a business pathway. Conversely, Administrative Services, Banking Services, Business Information Technology, Digital Business Communications, and Marketing
Communications all had less than 10% of participants enrolled in a business pathway. Thirteen (18%) of participants were enrolled in the Accounting pathway. The majority of BFM students, nineteen (27%) of participants, were enrolled in the Marketing Management pathway. See Figure 15.

This data reveals that nearly half of the sample were non-BFM students. In comparison to the enrollment data for the state shown in Figure 5, the business cluster courses had most of the enrollment, however, in this sample, the majority of the BFM pathway enrollment is in the marketing cluster. Another interesting observation was uncovered in the fact the accounting cluster had the second highest enrollment. This may indicate a trend toward recruiting more students into the finance programs.
Program Completers

As defined in the Delaware CTE Fiscal and Accountability Policy and Procedures manual, a completer is, “A student who has successfully completed a state-approved CTE program of study.” (Delaware Career and Technical Education (CTE) Policies and Procedures, 2017, p. 20) Each program of study consists of three sequential courses. The completer status is one of the measures used in Section 113 of the Perkins law to determine the success of DDOE and other eligible recipients of Perkins funding in making progress toward continuous improvement in CTE (Delaware Career and Technical Education (CTE) Policies and Procedures, 2017, p. 19). Since some students can complete or take credits in more than one program of study, all participants were asked two questions to determine the number of BFM
pathway credits earned and the number of BFM credits participants plan to earn by graduation.

![Business Pathway Credits Earned](image)

*Figure 16. Business pathway credits earned*

In Question 9, participants were asked: “How many Business Pathway credits have you completed?” Sixty-one responses were collected. Responses to this question determined the distribution of credit completion among the available BFM pathway courses. In addition, responses show the number of program completers for each BFM program in Figure 16. Twenty-three (38%) of participants did not complete any business pathway credits. However, four (7%) participants in marketing management, three (5%) participants in business information, one (2%) participant in
management, and one (2%) participant in accounting were program completers. Technology and Communications are not BFM pathway programs. See Figure 16.

In Question 10, participants were asked, “How many Business Pathway credits do you plan to complete before graduation?” Sixty-one responses were collected. Responses to this question indicate the number of participants that plan to take CTE courses or be program completers in each program by taking three or more credits. Although data was collected for each number of credits participants plan to complete by graduation, only BFM program completer data was reported. Twenty-two (36%) of participants were not planning to complete any BFM pathway credits before graduation. This is consistent with the data collected in Question 9. Nine (15%) participants in Accounting, two (3%) participants in Management, three (5%) participants in Business Information, and ten (16%) participants in Marketing Management were planning to be BFM pathway program completers by graduation. Technology and Communications are not BFM pathways. See Figure 17.

The number of participants not completing BFM pathways is consistent with data collected, since nearly half of the participants are non-BFM students. However, the low number of BFM completers and participants planning to become BFM completers by graduation presents an opportunity to not only to increase enrollment but also to increase the number of completers.
All participants were asked three survey questions to determine the number and type of early college credits obtained and the number of participants who plan to major in BFM programs in college. This data was used to determine to what degree participants were interested in transitioning from high school into post-secondary BFM programs.

In Question 11, all participants were asked to respond to the prompt, “I will/have receive(d) advanced college credit (i.e. dual enrollment or advanced placement) for courses in the following pathway(s). Indicate the number of credits.”
Sixty-one participants responded. Responses to this question indicate the number of participants that received advanced college credit in their pathway program. The advanced credit discussed in this question resulted from a Memorandum of Understanding (MOU) between the Local Education Agency (LEA) and the institution of higher learning. Six (10%) participants in Marketing Management will/have receive(d) between one and four advanced college credits. Five (8%) participants in Marketing Management.
Technology will/have receive(d) between one and four advanced college credits. Two (3%) participants in Business Information will/have receive(d) three advanced college credits. Three (5%) participants in Management will/have receive(d) one or three advanced college credits. Eleven (18%) participants in Accounting will/have receive(d) one, three or four advanced college credits. One (2%) participant in Administrative Services will/have receive(d) one advanced college credit. One (2%) participant in Business & Corporate Management will/have receive(d) three advanced college credits. Thirty-three (52%) participants in Other Pathway areas will/have receive(d) between one, two, or four advanced college credits. See Figure 18.

In Question 12, all participants were asked to respond to the prompt: “I will/have receive(d) Tech Prep credit for courses in the following pathway(s). Indicate the number of credits.” Sixty-one participants responded. Responses to this question will indicate the number of participants that received advanced college credit through Tech Prep in their pathway program. The advanced credit discussed in this question resulted from an MOU between Tech Prep of Delaware and the institution of higher learning. Eight (13%) participants in Marketing Communications and Marketing Management will/have receive(d) between one and four advanced college credits through Tech Prep. Four (7%) participants in Technology will/have receive(d) between one, three, or four advanced college credits through Tech Prep. Four (7%) participants in Business Information will/have receive(d) three advanced college credits through Tech Prep. Three (5%) participants in Management will/have receive(d) one or three advanced college credits through Tech Prep. Nine (15%)
participants in Accounting will/have receive(d) one, three or four advanced college credits through Tech Prep. Two (3%) participants in Administrative Services will/have receive(d) one advanced college credit. Thirty-one (51%) participants in Other Pathway areas will/have receive(d) between one and four advanced college credits through Tech Prep. See Figure 19.
In Question 13, all participants were asked to respond to the prompt: “I plan to attend an institution of higher learning when I graduate and major in the following area.” Sixty-one participants responded. Participants could select more than one choice. There was a total of 71 responses collected. Responses to this question indicate the number of participants who are committed to pursuing a post-secondary degree in a BFM program. Nine (13%) participants were planning to major in Accounting or Banking Services after graduation. One (1%) participant was planning to major in Administrative Services after graduation. Five (7%) participants were planning to major in Business and Corporate Management after graduation. Six (8%) participants were planning to major in Business Information Technology after graduation. One (1%) participant was planning to major in Digital Business Communications after graduation. Twelve (17%) participants plan to major in Marketing Communications or Marketing Management after graduation. Thirty-eight (54%) participants were planning to major in areas other than business after graduation. See Figure 20.

Both BFM and non-BFM students are exercising opportunities to gain advanced college credit. Fifty-five percent of participants were BFM students. However, only 48% of BFM students received or will receive advanced college credit; only 49% of BFM students received Tech Prep credit; and only 46% of BFM students plan to major in post-secondary BFM programs after high school. This data suggests there are BFM students who are not taking advantage of early college opportunities and 9% of BFM who do not plan to continue to post-secondary BFM programs.
Career Readiness

All participants were asked three survey questions to the future work plans after graduation; types of early paid and non-paid work experience; and the number of industry-recognized certification earned. This data was used to determine to what degree participants were interested in transitioning from high school into early work experiences. Responses to this question indicate the number of participants committed to working in a job related to a BFM Pathway after graduation.

In Question 14, all participants were asked to respond to the prompt: “I plan to work after I graduate in a job related to the following pathway(s).” Sixty-one participants responded. Participants could select more than one choice and a total of 73 responses were collected. Seven (10%) participants were planning to work in a job related to a BFM Pathway after graduation.

Figure 20. College major after graduation
related to Finance after graduation. Fourteen (19%) participants were planning to 
work in a job related to Administrative Services, Business & Corporate Management, 
Business Information Technology, or Digital Business Communications after 
graduation. Eleven (15%) participants were planning to work in a job related to 
Marketing Communications or Marketing Management after graduation. Forty-one 
(56%) participants were planning to work in a job related to areas other than Business 
after graduation. See Figure 21.

![Work Plans after Graduation](image)

**Figure 21.** Work plans after graduation

In Question 15, all participants were asked to respond to the prompt: “I have 
participated in a non-paid internship experience in the following pathway(s).” Forty-
seven participants responded. Participants could select more than one choice. A total 
of 50 responses was collected. Responses to this question indicate the number of
participants who were exposed to an early non-paid work experience in each of the business pathways. Four (8%) participants had non-paid internships in Accounting and Banking Services. Five (10%) participants had a non-paid internship in Administrative Services, Business and Corporate Management, and Business Information Technology. No participants had a non-paid internship in Digital Business Communications. Thirty-nine (78%) participants had non-paid internships in a pathway other than BFM. See Figure 22.

In Question 16, all participants were asked to respond to the prompt: “I have participated in a school-based enterprise (i.e. school store, coffee shop, etc.) in the following pathway(s).” Sixty participants responded. Participants could select more than one choice. Precisely 63 responses were collected. Responses to this question indicate the number of participants who were exposed to an early work experience in a
school-based enterprise in each of the business pathways. Six (10%) participants had early work experiences in a school-based enterprise in Accounting. No participants had an early work experience in a school-based enterprise in Administrative Services or Banking Services. Seven (11%) participants had early work experiences in a school-based enterprise in Business and Corporate Management or Business Information Technology. No participants had an early work experience in a school-based enterprise in Digital Business Communications or Marketing Communications.

Eight (13%) participants had early work experiences in a school-based enterprise in Marketing Management. Forty-two (67%) participants had early work experiences in school-based enterprises in pathways other than business. See Figure 23.

*Figure 23. School-based enterprise*
In Question 17, all participants were asked to respond to the prompt: “I have/will receive a certification or license in the following pathway(s).” Fifty-nine participants responded. Participants could select more than one choice, and 63 responses were collected. Responses to this question indicate the number of participants who have or will receive an industry-recognized certification in each of the business pathways. Seven (11%) participants have or will receive industry-recognized certifications in Accounting or Banking Services. Five (8%) participants have or will receive an industry-recognized certification in Business and Corporate Management or Business Information Technology. Ten (16%) participants have or will receive an industry-recognized certification in Marketing Communications or Marketing Management. No participants have received an industry-recognized certification in Administrative Services or Digital Business Communications. Forty-

![Industry-recognized Certification](image)

**Figure 24.** Industry-recognized certification
one (65%) participants have or will receive industry-recognized certifications in pathways other than business. See Figure 24.

Both BFM and non-BFM students are participating in early work experiences. Fifty-five percent of participants were BFM students. Thirty-two of the 36 BFM participants responded. 44% of BFM students plan to work in BFM jobs after graduation. However, only 22% of BFM students participated in non-paid internships; only 33% of BFM students participated in school-based enterprises, and only 35% of BFM students have or will receive an industry-recognized certification. This data suggests there are opportunities to increase the number of BFM students who are exposed to early work experiences.

Phase II – Teacher Interviews

Phase II consisted of a teacher survey to determine the perceptions of teachers regarding secondary business programs they are teaching. Six teachers representing both comprehensive and technical high schools were interviewed. The interview consisted of eleven questions and was conducted via phone conference. See the Teacher Interview Questions in Appendix C.

Table 2

<table>
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<th>Teacher #</th>
<th># Years teaching</th>
<th># Business classes</th>
<th># Finance classes</th>
<th># Marketing classes</th>
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51
More than 70 years of teaching experience was represented in this sample. Four teachers taught 11 business classes, five teachers taught 15 finance classes, and no teachers taught marketing classes. There were 345 students enrolled in the business classes, 245 students enrolled in the finance classes, and no students enrolled in the marketing classes. See Table 2.

The interviews were recorded and transcribed for accuracy and content analysis. The researcher also took notes during the sessions. All personal identifiers were removed, and the individuals are referred to as Teacher 1, Teacher 2, etc. Data analysis was coded into major themes using NVivo software for a narrative description of teacher responses. The major themes that surfaced were enrollment, or a discussion of whether the teacher perceived a decrease, increase, or no change in enrollment in his or her classes; teaching methods, or a discussion of what type(s) of methods the teacher used and which he or she perceived to be the most effective and why; primary learning objective, or a discussion on the teacher’s perception regarding the purpose of business education; recommended changes, or a discussion of teacher recommendations; keeping up with emerging trends, or a discussion of teacher perception regarding his or her ability to stay current with the trends in business;
future of business education, or a discussion of the teacher perception of the future of
business education in Delaware; and any additional information, or a discussion of
other items that may not have been included in the researcher’s questions. See the
Thematic Analysis of Teacher Interviews in Appendix G.

Contrary to the data revealed by the Delaware Department of Education
/DDOE/ Unit Count Reports most teachers felt their program enrollment was
experiencing an increase. In some cases, the BFM program enrollment did show an
increase. However, in other instances, student enrollment in the first level of the
program showed an increase but the second and third levels showed a significant
decrease. These teachers also suggested that there were students who were interested
in completing the program but could not fit the BFM course(s) into the schedule. This
data seems to indicate a need for an adjustment in the pedagogy or the implementation
of creative scheduling.

Many of the teachers used a combination of methods to teach the content of
BFM courses. However, all teachers used some form of project-based learning mixed
with traditional lectures. One teacher organized the classes as a business with several
different departments. The students worked to become members of the senior
management team. Members of the senior management team were responsible for
training the underclassmen. These students ran profitable school-based enterprises
with earnings in the hundreds of thousands of dollars over the course of several years.
It is interesting to note that most students surveyed in this study believed that their
BFM courses were hands-on and problem-based. Students also felt that hands-on
activities made a class great. Since teachers and students believed that project-based learning is so important, it seems feasible to use this method in the redesign of BFM programs in the future.

When teachers were asked to consider the purpose of the BFM courses in their programs, several key thoughts arose. Most teachers felt the main goal of the courses was to prepare students for the ‘real world.’ This is significant because many students surveyed indicated the real-world applications were one of the things students liked most about CTE courses. Other key thoughts emerged such as the importance of preparing students to have general business knowledge, soft skills, and proper business writing etiquette. Lastly, personal finance emerged as a skill BFM programs should provide for students. These responses impacted the recommendation for collaborative program design.

Teachers had thought-provoking responses when asked for recommendations to improve BFM programs. A few teachers interviewed suggested that a change in key stakeholder mindset could possibly prevent BFM programs from being the ‘dumping ground.’ A portion of teachers also suggested that flexibility in the courses within the program would attract more students. Finally, some teachers wanted reverse inclusion. This would allow CTE teachers to have a Team Approach to Mastery (TAM) teacher to assist with special needs students. These teacher comments were used in the development of recommendation for key stakeholder mindset change.

Technology, BFM content, and how we do business are changing rapidly. Teachers were asked to discuss how well they felt they were able to keep up with
emerging trends. This question had a variety of responses. Some teachers referred to technology while others referred to the evolution of BFM programs. Therefore, it is important to note that most teachers felt they were able to stay current. Responses to this question informed the recommendation for collaborative program design.

Teachers were almost equally split on their perception of the future of business education. Nearly half of the teachers felt optimistic about the future of business education at the secondary level but acknowledged the overall decline. Yet, almost as many teachers were very skeptical about the future for business education. This skepticism was the result of budget cuts, declining enrollment, and fear of losing jobs. These comments revealed the morale of business teachers and provided areas of focus to redesign BFM programs.

Several key thoughts surfaced as teachers shared additional comments. The perception of school counselors was raised as a concern and it was suggested that school counselors need additional training to be able to adequately advise students regarding BFM programs. Additionally, teachers suggested the connection between the middle school and high school needs to be strengthened. A vertical collaboration between middle school and high school could result in increased enrollment. Next, some teachers expressed the sentiment that all students should take a BFM course since everything is related to business. Finally, concern was raised that CTE teachers are not afforded the opportunity to have a TAM teacher or paraprofessional to assist with special needs students. These responses were considered when developing
recommendations for collaborative program design, early college and work experience, and key stakeholder mindset change.

Phase III – Program Advisory Committee Interviews

Phase III consisted of a program advisory committee (PAC) member survey to determine the perceptions of business and higher education partners who have served on PACs. Two PAC members representing industry and one PAC member representing higher education were interviewed. The interview consisted of eleven questions and was conducted via phone conference. See the Business Partner Interview Questions in Appendix E.

The interviews were recorded and transcribed for accuracy and content analysis. The researcher also took notes during the sessions. All personal identifiers were removed, and the individuals are referred to as PAC Member 1, PAC Member 2, etc. Data analysis was coded into major themes using NVivo software for a narrative description of PAC member responses. The major themes examined were qualified applicants, or a discussion of the ease or difficulty finding qualified applicants; purpose, or a discussion of the perception of PAC members regarding the purpose of the program advisory committee; involvement, or a discussion on how individuals became members of the program advisory committee; BFM program, or the perception of the strengths and weaknesses of the BFM program; student interaction, or a discussion of the amount of interaction with students in the BFM program;
internships, or a discussion of current internships and things that interfere with the hiring of interns; benefits, or a discussion of the perceived benefits PAC members receive while serving on the program advisory committee; and other comments, or a discussion of other items that may not have been included in the researcher’s questions. See the Thematic Analysis of Business Partner Interviews in Appendix H.

Although two of the three PAC members indicated they were able to hire the middle-skilled workers needed, they all acknowledged that they could see how it will be more difficult to hire in the future. One employer shared that it was difficult to find workers skilled in coding and web design. Furthermore, they had to outsource the web design work and reteach workers how to write for the Internet. This data clearly shows the importance of having business stakeholders at the table when curriculum is being developed. A collaborative approach to program design will provide an opportunity for educators to learn the skills and knowledge students need to be competitive in the workforce.

This idea of collaboration was further confirmed by PAC member perceptions regarding the purpose of program advisory committees and their involvement in program advisory committees. Most PAC members considered themselves liaisons or bridges between the business community and educators. In addition, PAC members also recognized their role in providing internships and recruiting other business partners to provide internship prospects for students. All PAC members had some type of relationship with the school which made it easy for them to become involved. For example, a PAC member addressed the community service opportunities in the
workplace which allowed her to reach out to a school and be recruited by another school. Business partners are encouraged to participate in the schools in the community. Another PAC member lives in the district and has strong ties to the school and reached out to participate. This data helped inform the recommendations for collaborative program design, early work experience, and mindset changes for key stakeholders.

PAC members were asked to share their perceptions regarding the strengths and weaknesses of the BFM programs on which they served. Schools were commended for the diversity among PAC members, the relationship between the business community and the school, and the appreciation shown to PAC members. In addition, one proud PAC member shared the fact that their PAC published a workforce readiness manual and hosted a workforce readiness boot camp for 11th graders within the district. These types of interactions are far removed from the traditional Perkins advisory committees that met once or twice a year and that was pretty much the extent of the relationship except in rare instances. These responses demonstrate what is possible when key stakeholders collaborate. However, areas of opportunity included the amount and timing of feedback given to PAC members, the pacing difference between schools and the business community was sometimes a hinderance to progress – things move a lot slower in the schools compared to the business community. These responses provided insight into the recommendation for collaborative program design. The synergy in the relationship between schools and
the business community is more powerful when each entity understands the assets and limitations they bring.

Since much of the PAC members’ work revolves around resources for students, it was important to determine the kinds and amount of interaction occurred between PAC members and students. The responses ranged from student representatives attending the PAC meetings to share information about the programs and student organizations to PAC members actually mentoring and training students to be workforce ready. PAC members spent time in classrooms teaching students about resumes, networking, interview skills, and what to expect in the workplace. Also, some PAC members participate in presentations and mock sales pitches. Surveyed students expressed an interest in real world applications. So, students having the opportunity to network and learn from professionals is one of the benefits of collaborative program design since business partners will help design some of these activities during program development.

Another reason a collaborative program design model can be so powerful is the opportunity to reshape the business community mindset that it is not possible or feasible to have secondary student interns. All PAC members responded that they do not currently have secondary interns. Also, some acknowledged that liability, transportation, and scheduling are barriers that would need to be overcome. However, all were open to having paid secondary student interns in the future. Furthermore, PAC members acknowledges the benefits of serving on PAC included the opportunity
to grow local talent and give back to the community. These comments support the recommendation to use collaborative program design to build new programs.

When PAC members were asked to share other comments that may not have been addressed in the questions, two key points were underscored. First, declining enrollment in secondary business programs is a big concern since the expectation is that students graduating from high school will have a core background in business. Lastly, the importance of more middle school involvement and awareness of CTE programs would provide a chance for middle school students to continue into BFM programs in high school. Likewise, emphasis should be placed on getting the word out to parents about the availability of quality business programs and the early college opportunities that exist. These responses speak directly to the need for early college experiences and strong marketing strategies.
Chapter 3

RECOMMENDATIONS

Stage 4: Reflecting and Planning Informed Action

According to the Delaware Department of Labor projections, by 2024, 30% of the workforce in Delaware, approximately 143,593 jobs, will be replaced. This includes 8% of which are new jobs, or approximately 39,326 newly created jobs; and 22% of which are replacement jobs, approximately 104,267. Of all projected growth openings through 2024, 69% of those jobs will be middle-and high-skill. Employment in middle-skills jobs can be accessed through education programs that are obtainable for youth entering the workforce consistently across the state. (Delaware: Labor Market Data for Career Pathway Planning, 2018) These statistics make it apparent that there are opportunities for students who successfully complete business Programs of Study (POS) to help decrease the middle-skills gap in Delaware. The Business, Finance, and Market (BFM) cluster jobs represent 19.3% (8,455 jobs) of the total replacement jobs. Results from student surveys, and teacher and other stakeholder interviews, indicate that a paradigm shift is required to increase the interest in secondary BFM programs. Because of the findings in this study, recommendations are presented as follows.

Key Stakeholders Paradigm Shift

That enrollment in secondary BFM POS has declined over the years while other POS areas have seen enrollment growth suggests that BFM stakeholders need to think in new ways about BFM curriculum, instruction, programs of study, and learning goals – in other words, we need a new paradigm going forward. A paradigm,
as defined by Dictionary.com, is “a framework containing the basic assumptions, ways of thinking, and methodology that are commonly accepted” (Paradigm | Define Paradigm at Dictionary.com, 2018). The following recommendations are based on the paradigm that successful completion of secondary business POS can be beneficial to the economy and offer good opportunities for students as they begin careers. This is in response to the perceptions shared by surveyed teachers that, “there’s still the perception out there that the tech classes are for the ‘dumb’ kids,” or, “guidance counselors have advised students who have expressed interest in business, ‘do not take business courses, rather take AP courses’,” or, “the top kids who are very strong business kids get obviously into academic courses, and [we] never see them again.”

According to Luke Rhine, Director of CTE/STEM Initiatives at the Delaware Department of Education (DDOE), from an educational viewpoint, there are basically three ways to effectively shift paradigms. The combination of improvement in program design, fiscal support, and accountability measures have the potential to challenge and change deep-seated sentiments that are not conducive to the preparation of a strong talent pipeline for middle-skilled workers in Delaware.

First of all, program design refers to the, Career Pathway System [which] begins in the public education system through the development and implementation of CTE programs of study and continues through adult education and occupational training programs which are administered by partnering state agencies, institutions of higher education, and other service providers. (Delaware Career and
Secondly, the Delaware Department of Education (DDOE) provides fiscal support for state-of-the-art new programs of study through the Innovation Grant. This competitive funding provides incentive for schools to adopt or create new programs of study that are based on the Delaware state program of study model.

Lastly, the Every Student Succeeds Act (ESSA) was signed into law on December 10, 2015 and is the reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. Prior to this, the last reauthorization was in 2002 through the No Child Left Behind Act (NCLB). The Delaware ESSA plan, which was approved in August 2017, includes the Delaware School Success Framework (DSSF). The DSSF “is a multiple measures accountability system that provides a more comprehensive picture of school quality and performance.” (PowerPoint Presentation, 2017) This accountability framework includes several measures, including college and career readiness, to provide a better representation of the school quality and performance.

These three components provide the foundation upon which to generate a model for program design that will attract students and prepare them for college or the workforce. The recommended program design will include opportunities for collaboration among key stakeholders, built-in occasions for early college and early
work experiences, and intentional marketing strategies within existing platforms.

Collaborative Program Design

As discussed earlier in this Executive Position Paper (EPP), the state-model POS has the potential to engage students in rigorous education in preparation to contribute to the talent pipeline in Delaware. In this study, most business students perceived that business pathway classes were exciting and engaging. Most students also said they felt that the business pathway classes were preparing him or her for work and/or college and that the classes were hands-on and problem-based. In addition, most students surveyed said they felt great classes were those that helped him or her to grow. Even though surveyed students liked that career and technical education (CTE) classes had real world applications, when asked what they would change, most said they would like more hands-on activities. Non-business students perceived that business pathway courses were not interesting, were boring, or were too hard.

This study also discovered that most teachers experienced a decline in the business program in their schools. However, there were a couple of anomalies where there was an increase in the enrollment in the school business programs. When teachers considered the future of business programs in Delaware, most were optimistic that with some change and redirection, business programs will increase enrollment. However, there were some teachers who were pessimistic and worried about their jobs in the future. When teachers discussed their teaching methods, it was interesting to note that most teachers said they felt they used a good blend of the various teaching methods, while one relied heavily on a simulated business format, and one relied heavily on lecturing.
The business partners interviewed were members of at least one program advisory committee (PAC). Their responses indicated that there is an inconsistent perception of the purpose of the PAC. For example, in one instance, the business partner was asked to provide mentorship for the math support and, in another instance, they were asked to simply support internship opportunities for students. Business partners shared some important opportunities for growth when asked to describe the weaknesses of their PAC such as (a) not having an opportunity to see the results of the planning and work done throughout the year, (b) the length of time it takes to make things happen in education is much longer than in the business world, and (c) not raising enough funds for needs of the program. Two of the business partners interviewed said they felt they did not have enough interaction with the students.

When asked to share other comments about business CTE programs, three themes emerged: (a) making sure students and parents understand what is being offered in the programs such as dual enrollment opportunities, (b) some schools are dropping Career and Technical Student Organizations (CTSOs) due to business CTE programs being discontinued, and (b) more middle school involvement and early college opportunities like dual enrollments are needed.

Based on the student surveys, teacher interviews, and business partner interviews this researcher recommends a collaborative program design that gives all major stakeholders a seat at the table when planning the programs of study. Initially, the Delaware CTE state-model POS were developed by the education associate overseeing the specific cluster area. The education associate would conduct the research to determine the labor market needs, decide what curriculum to use, develop a suggested budget, negotiate Memorandum of Understanding (MOU) with higher
education partners, and draft the POS application. The purpose of this approach was two-fold. First, the DOE CTE workgroup was able to develop several POS in key cluster areas that could be adopted by local education agencies (LEAs). Secondly, the model could be tested and would provide a framework for LEAs to create POS specific to their district or school. Now that a baseline has been established for the development of strong POS, this process can be replicated while involving collaboration with key stakeholders such as business partners and higher education partners.

The collaborative approach to POS design has the potential to be extremely effective since representatives from all stakeholder groups are represented. Recommended key stakeholders include teachers, students, business partners, and higher education partners. Each stakeholder approaches the process from a different lens thereby creating a synergy that generates a product that will yield a well-rounded student. Additionally, when all stakeholders have a seat at the table, it reduces the “time-to-market” when preparing secondary students to be prepared to help reduce the middle-skills gap in Delaware. This becomes evident when teachers, students, business partners, and higher education partners can all discuss the various dimensions of rigorous coursework that is engaging for students while exposing students to what it means to “work” with professionals. In addition, higher education and business partners have a better understanding of how the curriculum can be enhanced with early college experience and work-based learning activities. Ultimately, giving key stakeholders an opportunity to participate in the POS design process has the potential to reduce the amount of misinformation regarding secondary business programs.
Responses to the student survey indicated that some students would like to have the ability to choose more than one pathway or have more classes to choose from in the POS. This request is reasonable since business operations can be found in every business and in every industry. One way to begin shifting the paradigm that all CTE cluster areas must work in silos to having integrated programs where schedules allow. That would require teachers to review where natural overlap occurs.

**Early College and Work Experience**

As indicated by the labor market analysis, there are some jobs in the BFM cluster that require higher education, and students will go to college following high school. On the other hand, some may decide to enter the job market right after high school graduation and continue their education while working. In either scenario, it is important for students to have quality early college and work experience.

Currently there are two ways for students to gain early college credit in CTE POS. In both instances, a Memorandum of Understanding (MOU) is negotiated with the institution of higher education. The MOU includes the responsibilities of the student, the LEA, and the college or university; it also notes whether students will receive articulated credit or dual enrollment. Articulated credit is advanced college a student earns by meeting a certain minimum requirement in a designated number of courses within the program. For example, students in the Academy of Finance (AOF) will receive three articulated credits at Delaware Technical & Community College (DTCC) if the student successfully completes all required AOF courses with a grade of at least 80%, maintains an overall GPA of 2.5, receives a high school diploma, and meets the admission requirements at DTCC. In addition, students would need to apply to DTCC within five years of graduation and provide a copy of their official transcript.
Another way a student can gain advanced college credit is through dual enrollments. For example, AOF students can receive dual enrollment advanced college credit at Wilmington University (WU). Dual enrollments allow students to be enrolled at the high school but also to be enrolled as a student of the institution of higher learning. In most cases, the courses are available to the student at the high school—taught by a high school teacher with the appropriate credentials serving as an adjunct instructor or online by college faculty. Students may be required to pay a $25 registration fee. Unlike articulated credit, dual enrollment students receive all the rights and privileges designated to WU students, including tutoring, library services, and Blackboard student portal while enrolled in dual enrollment courses. Another significant benefit of a dual enrollment course is that students earn a transcript with credits that can be transferred to other colleges. (WilmingtonU Academy of Finance NAF June2019.pdf, 2018)

It is the recommendation of this researcher that an MOU be negotiated with institutions of higher learning to provide a readiness course in English Language Arts and the appropriate level math for each program of study for students who require remediation in those areas. A surveyed student indicated that the BFM POS “looks too hard.” Many Delaware students graduate from high school unprepared for the rigor of college coursework. According to the College Success Report, 41% of the Class of 2015 who enrolled in Delaware institutions of higher education required remediation in math only, in English only, or in both math and English. This report acknowledged that students who face the challenges associated with starting college a few steps behind their counterparts increases the likelihood that these students may not
graduate. Four key recommendations surfaced from this report. In agreement with Recommendation #3, “Provide targeted interventions prior to 11th grade for students not meeting college-ready benchmarks,” ensuring that students have additional support will help to eliminate the intimidation and fear of taking “hard” dual-enrollment courses. (Delaware Higher Education Office, 2018) Even if a student decides to go directly to work, having met the college-ready benchmarks will make the student more competitive in the job market.

When BFM students were asked, “What makes classes great?” the majority of students responded that classes that “helped me grow” made for a great class. It is refreshing to hear that students are engaged when they feel they are learning information that is relevant to their real-life situations. It is interesting to note that these same students, when asked, “What would you change in CTE courses?” focused largely on the inclusion of more hands-on activities. Therefore, it is the recommendation of this researcher to include students and business partners in the collaborative program design process. Work-based learning (WBL) is a set of instructional strategies that engages employers and schools by providing learning experiences for students. The WBL continuum of activities can be incorporated throughout the program via three categories of activities. The first level, which usually occurs within the first course, is career awareness activities which could include guest speakers, workplace tours, and college/career fairs. Once students have been exposed to some career awareness activities, then they are ready to move to career exploration activities, which may include informal interviews and job shadows. Finally, WBL activities culminate with career immersion activities, which might include internships, coop experiences, or apprenticeships. (Delaware Pathways, 2016)
The impact of WBL activities embedded in a POS can be maximized when business partners and students can collaborate to determine which activities are relevant to businesses and meaningful to students. By providing opportunities for relationships between students and business partners to form, the stage will be set for productive career immersion activities.

Marketing Strategies

When new POS are developed and ready for adoption by LEAs, it is important to ensure that representatives from the LEAs are adequately informed on the benefits of the POS. It is also paramount that parents and students are aware. This researcher recommends that the marketing of BFM POS be given high priority. When key stakeholders understand the benefits and deliverables involved in the BFM POS, all involved can make well-informed decisions as to whether to adopt the POS, participate on the PAC and WBL activities, or enroll in the POS. There are three avenues currently in existence that can be used to market the BFM: (a) Delaware Pathways website, (b) CTSO and CTE conferences, and (c) DOE social media platforms.

The Delaware Pathways website is being updated and revised to become the central resource that parents, students, LEAs, higher education partners, and business partners can use it for all things related to CTE POS. This researcher recommends that a section of the site be reserved for a showcase of each Career Cluster group of POS. For example, a page to highlight the AOF, would include an overview of the POS, pictures, and video of special events from a variety of schools, and a showcase of student success stories. In addition, LEAs that adopt these POS should agree to publicize the Delaware Pathways website on the LEA website. For this marketing
strategy to gain traction and be effective, there must be a plan developed for it at the POS design and it must be addressed during professional development during the implementation of the program.

In the last four years, there has been a Delaware Pathways conference that explores how Delaware’s workforce system, business, educators, community organizations, and State agencies, can work together to prepare youth and young adults with the skills needed to compete in a global economy. This venue provides a perfect opportunity to market the BFM and other CTE POS. The 2019 Delaware Pathways conference will feature a showcase of all CTE programs. Teachers and students from the POS will have the opportunity to demonstrate some of the skills mastered within the POS. This researcher recommends that eighth grade students attend the student demonstrations to learn more about the opportunities that will be available at the high school.

Social media has proven to be an effective way to reach the masses. The DDOE has plugged into social media networks such as Facebook and Twitter. This researcher recommends that social media campaigns be launched when new BFM POS are released, when students complete the POS, and whenever BFM POS students are involved in special events. This responsibility should be shared between the LEA and DDOE. In addition, PAC members should launch social media campaigns that highlight the successful collaboration between the LEA and the business on their social media outlets.

**Limitations**

While this researcher used good judgement and careful consideration in the planning and execution of this research, she acknowledges that there are some
limitations in this study. The sample size and student/teacher disconnect represent the most notable. There are two things this researcher would do differently if this study were repeated.

The sample size was too small for all participant groups. It would have been better to arrange for the student survey to coincide with a statewide event such as the Business Professionals of America State Leadership Conference. The Consent forms could have been attached to the conference permission form and the survey could have been completed at the conference onsite. That would increase the participation dramatically. Also, there should have been a larger sample of teachers and business partners as well. However, time did not allow for additional interviews. In addition, the teachers interviewed were not the teachers of the students surveyed. It would have been interesting to determine if there were any parallel themes for teachers and students at the same school. Lastly, there were no business partners from Sussex County represented. Again, the recruitment strategy was not effective.

If this study were repeated, it would include a survey of school and career counselors. Teacher perspectives revealed a belief that counselors are not adequately trained to provide guidance regarding career and technical education programs, more specifically, BFM programs. Therefore, it would be beneficial to study the school and career counselor perspective. Likewise, parents have a significant impact on student choice about programming. So, it would be advantageous to study the parent/guardian perspective as well.

**Topics for Additional Study**

The focus of this EPP was to determine the perspectives of key stakeholders regarding the decline in enrollment in secondary BFM POS in Delaware within the premise that
young adults represent an untapped resource that can help reduce the size of the middle-skills gap. It was determined that the use of a collaborative program design that included early college experience, early work experience, and a strong marketing campaign had the potential to shift key stakeholder paradigms leading to an increase in enrollment in BFM POS. Although there was key stakeholder representation from all three counties, New Castle, Kent, and Sussex, the sample size was small. A repeat study of a larger cohort could include parents and school administrators.

Once the recommendations in this study have been implemented, additional study is recommended in the following areas:

- A longitudinal Study of Secondary Business Student Enrollment Trends
  - Did enrollment in secondary business POS increase?
  - Was there a correlation between the student enrollment in secondary BFM POS and the middle-skills gap in Delaware?
- An examination of Higher Education Enrollment Trends of Delaware Secondary BFM POS Graduates
  - Are BFM POS graduates enrolling and completing business degrees in college?
  - Are BFM POS college graduates working in Delaware? What is the impact on the economy?

A task force composed of teachers, higher education partners, curriculum providers, and business partners has been convened to develop the Marketing POS that
will be available for adoption by LEAs in the Fall of 2019. Recommendations from this study will be implemented.
REFERENCES


Economic Development and Employer Planning System:
https://edeps.org/CppDECluster.aspx


Appendix A

STUDENT SURVEY QUESTIONS

Student Survey Questions

_These questions will be loaded in Qualtrics and presented as an online survey._

1. What grade are you in?
   ___ 9th ___ 10th ___ 11th ___ 12th

2. What is your gender?
   ___ Male ___ Female

3. What is your ethnicity?
   □ African American □ Caucasian □ Hispanic □ Asian □ Other

4. What is the best class you have taken in high school and what made it so great?

5. What do you like most about your CTE pathway course(s)?

6. What would you change about your CTE pathway course? Why?

7. Describe your perception of Business pathway courses and your reasons for choosing not to enroll. (This question will only be presented to those students not enrolled in business courses)

8. Are you enrolled in a Business pathway(s)? If yes, which one?
   □ No □ Administrative Services □ Business & Corporate Management □ Business Information Technology □ Business & Corporate Management □ Business Information Technology
   □ Accounting □ Banking Services □ Marketing Management □ Marketing Communications

9. How many Business pathway credits have you completed?
   □ None □ Administrative Services ___ □ Business & Corporate Management ___ □ Business Information Technology ___
   □ Accounting □ Banking □ Marketing □ Marketing Communications
10. How many Business pathway credits do you plan to complete before graduation?

- None
- Administrative Services
- Business & Corporate Management
- Business Information Technology
- Accounting
- Banking Services
- Marketing
- Management
- Communications

11. I plan to attend an institution of higher learning when I graduate and major in the following area:

- Other
- Administrative Services
- Business & Corporate Management
- Business Information Technology
- Marketing
- Marketing Communications
- Accounting
- Banking Services
- Marketing Management
- Marketing Communications
- Other

12. I plan to work after I graduate in a job related to the following pathway:

- Administrative Services
- Business & Corporate Management
- Business Information Technology
- Marketing
- Marketing Communications
- Accounting
- Banking Services
- Marketing Management
- Marketing Communications
- Other

*Questions 13 – 16 will only be presented to those who are enrolled in Business pathway courses.*

13. Business pathway classes are exciting and keep me engaged.

- Strongly Agree
- Somewhat Agree
- No opinion
- Somewhat Disagree
- Strongly Disagree
14. Business pathway classes are preparing me for work or college.

- Strongly Agree
- Somewhat Agree
- No opinion
- Somewhat Disagree
- Strongly Disagree

15. Business pathway classes are hands on and problem based.

- Strongly Agree
- Somewhat Agree
- No opinion
- Somewhat Disagree
- Strongly Disagree

16. I know how I will use what I am learning in Business pathway classes when I graduate.

- Strongly Agree
- Somewhat Agree
- No opinion
- Somewhat Disagree
- Strongly Disagree

17. I will/have receive(d) advanced college credit (i.e., dual enrollment or advanced placement) for courses in the following pathways. Indicate the number of credits on the space provided:

<table>
<thead>
<tr>
<th>Administrative Services</th>
<th>Business &amp; Corporate Management</th>
<th>Business Information Technology</th>
<th>Digital Business Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>Marketing</td>
<td>Marketing Communications</td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td>Services</td>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

18. I will/have receive(d) Tech Prep credit for courses in the following pathways:

<table>
<thead>
<tr>
<th>Other</th>
<th>Administrative Services</th>
<th>Business &amp; Corporate Management</th>
<th>Business Information Technology</th>
<th>Digital Business Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Banking Services</td>
<td>Management</td>
<td>Marketing Management</td>
<td>Marketing Communications</td>
</tr>
</tbody>
</table>

19. I have participated in a paid Coop experience in the following pathway:

<table>
<thead>
<tr>
<th>Other</th>
<th>Administrative Services</th>
<th>Business &amp; Corporate Management</th>
<th>Business Information Technology</th>
<th>Digital Business Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Banking</td>
<td>Management</td>
<td>Marketing</td>
<td></td>
</tr>
</tbody>
</table>
20. I have participated in a non-paid Internship experience in the following pathway:

<table>
<thead>
<tr>
<th>Services</th>
<th>Management</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>Business &amp;</td>
<td>Digital</td>
</tr>
<tr>
<td>Administrative</td>
<td>Corporate</td>
<td>Business</td>
</tr>
<tr>
<td>Services</td>
<td>Management</td>
<td>Communications</td>
</tr>
<tr>
<td>Accounting</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

21. I have participated in a school-based enterprise (i.e., school store, coffee shop etc.) in the following pathway:

<table>
<thead>
<tr>
<th>Services</th>
<th>Management</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>Business &amp;</td>
<td>Digital</td>
</tr>
<tr>
<td>Administrative</td>
<td>Corporate</td>
<td>Business</td>
</tr>
<tr>
<td>Services</td>
<td>Management</td>
<td>Communications</td>
</tr>
<tr>
<td>Accounting</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

22. I have/will receive a certification or license in the following pathway:

<table>
<thead>
<tr>
<th>Services</th>
<th>Management</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>Business &amp;</td>
<td>Digital</td>
</tr>
<tr>
<td>Administrative</td>
<td>Corporate</td>
<td>Business</td>
</tr>
<tr>
<td>Services</td>
<td>Management</td>
<td>Communications</td>
</tr>
<tr>
<td>Accounting</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

23. I have/will participate in a Career Technical Student Organization (CTSO) conference this school year in the following pathway:

<table>
<thead>
<tr>
<th>Services</th>
<th>Management</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>Business &amp;</td>
<td>Digital</td>
</tr>
<tr>
<td>Administrative</td>
<td>Corporate</td>
<td>Business</td>
</tr>
<tr>
<td>Services</td>
<td>Management</td>
<td>Communications</td>
</tr>
<tr>
<td>Accounting</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>
Title of Project: Examining the Declining Enrollment in Delaware Secondary Business Programs

Principal Investigator: Lisa Wilson

You are being invited to participate in a research study. This consent form tells you about the study including its purpose, what you will be asked to do if you decide to take part, and the risks and benefits of being in the study. Please read the information below and ask any questions you may have before you decide whether or not you agree to participate.

WHAT IS THE PURPOSE OF THIS STUDY?
The purpose of this study is to explore why enrollment in Delaware secondary Business Career and Technical Education programs is declining, identify anomalies and recommend a redesigned pathway program intended to increase enrollment. This study will end in an Executive Position Paper. You will be one of approximately 135 participants in this study. You are being asked to participate because the data you provide will determine what areas to focus on when recommending a redesigned Business pathway program.

WHAT WILL YOU BE ASKED TO DO?
As part of this study you will be asked to respond to 20 survey questions. The survey will be conducted online via Qualtrics and will take approximately thirty (30) minutes.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?
The researcher does not expect your participation in this study will expose you to any risks different from those you would encounter in daily life.

WHAT ARE THE POTENTIAL BENEFITS?
You will not benefit directly from taking part in this research. However, the knowledge gained from this study may contribute to our understanding of the declining enrollment in Delaware Business CTE programs and provide guidance in the development of a redesigned Business pathway program.
HOW WILL CONFIDENTIALITY BE MAINTAINED? WHO MAY KNOW THAT YOU PARTICIPATED IN THIS RESEARCH?
Be assured that all responses will be kept confidential. This means that your survey responses will only be shared with the Executive Position Paper committee members and we will ensure that any responses included in our report will not identify you as a participant. All participants will be given a code and referred to in the report as Participant 1, Participant 2, etc.

The confidentiality of your records will be protected to the extent permitted by law. Your research records may be viewed by the University of Delaware Institutional Review Board, which is a committee formally designated to approve, monitor, and review biomedical and behavioral research involving humans. Records relating to this research will be kept for at least three years after the research study has been completed.

WILL THERE BE ANY COSTS TO YOU FOR PARTICIPATING IN THIS RESEARCH?
There will be no costs associated with participating in the study.

WILL YOU RECEIVE ANY COMPENSATION FOR PARTICIPATION?
All participants in this survey will receive a $10 Amazon gift card for their time and effort upon completion of the study.

DO YOU HAVE TO TAKE PART IN THIS STUDY?
Taking part in this research study is entirely voluntary. You do not have to participate in this research. If you choose to take part, you have the right to stop at any time. If you decide not to participate or if you decide to stop taking part in the research at a later date, there will be no penalty or loss of benefits to which you are otherwise entitled. Your decision to stop participation, or not to participate, will not influence current or future relationships with the University of Delaware.

As a student, if you decide not to take part in this research, your choice will have no effect on your academic status or your grade in the class.

WHO SHOULD YOU CALL IF YOU HAVE QUESTIONS OR CONCERNS?
If you have any questions about this study, please contact the Principal Investigator, Lisa Wilson, at (302) 222-1254 or liwilson@udel.edu. You may also contact the chairperson on my EPP committee, Dr. Fred Hofstetter, at (302) 831-8164 or fth@udel.edu.
If you have any questions or concerns about your rights as a research participant, you may contact the University of Delaware Institutional Review Board at hsrb-research@udel.edu or (302) 831-2137.

You are making a decision whether or not to have your child participate in this study. Your signature indicates that you have read the information provided above and decided to allow your child to participate.

______________________  ______________________
(Printed Name of Parent/Guardian)  (Signature of Parent/Guardian)  (Date)

______________________  ______________________
(Person Obtaining Consent)  (Person Obtaining Consent)  (Date)

(Printed Student)  (Signature of Student)  (Date)
Appendix C

TEACHER INTERVIEW QUESTIONS

Teacher Interview Questions

1. How long have you been teaching?
   a. 1-3 years   b. 4-6 years   c. 7 – 9 years   d. 10 or more years

2. How many classes do you teach in the three areas of Business?
   _____ Business Administration   _____ Finance   _____ Marketing

3. What is the current enrollment in each of the three areas of business?
   _____ Business Administration   _____ Finance   _____ Marketing

4. Has there been a decline in your Business program within the last five (5) years?

5. If you answered yes to Question #4, in your experience, what are the contributing factors to this decline?

6. Explain the methodology you use to teach Business courses. (e.g., lecture based, guided practice, flipped class, project-based, collaborative groups, guest speakers, field trips etc.) What percentage of time do you spend with each? (e.g., 75% PBL, 10% lecture, etc.) Which of these, in your opinion, is most effective? Why?

7. What do you see as the primary learning objective(s) for your pathway courses? (e.g., preparation for specific careers, generalizable knowledge and skills or something else)

8. If you could wave a magic wand and change anything you want about the pathway(s) you teach, what would you change? Why?

9. Do you feel you are able to adequately keep up with the emerging trends in Business? If yes, how do you accomplish this task? If no, what would you suggest to help you stay abreast of these rapidly changing trends?
10. What do you think is the future of Business education?

11. What other comments would you like to make about the enrollment in the Business CTE pathways at your school?
Appendix D

INTERVIEW INFORMED CONSENT FORM

INFORMED CONSENT TO PARTICIPATE IN RESEARCH

Title of Project: Examining the Declining Enrollment in Delaware Secondary Business Programs

Principal Investigator: Lisa Wilson

You are being invited to participate in a research study. This consent form tells you about the study including its purpose, what you will be asked to do if you decide to take part, and the risks and benefits of being in the study. Please read the information below and ask any questions you may have before you decide whether or not you agree to participate.

WHAT IS THE PURPOSE OF THIS STUDY?

The purpose of this study is to explore why enrollment in Delaware secondary Business Career and Technical Education programs is declining, identify anomalies and recommend a redesigned pathway program intended to increase enrollment. This study will end in an Executive Position Paper. You will be one of approximately 135 participants in this study. You are being asked to participate because the data you provide will determine what areas to focus on when recommending a redesigned Business pathway program.

WHAT WILL YOU BE ASKED TO DO?

As part of this study you will be asked to respond to several interview questions. The interview will be conducted via phone and will last approximately thirty (30) minutes. With your permission, I would like to record the interview so that I do not miss any of your important comments. Therefore, I ask you to please remember to speak up so that all comments are chronicled. In addition, I will be taking brief notes during our conversation.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

The researcher does not expect your participation in this study will expose you to any risks different from those you would encounter in daily life.

WHAT ARE THE POTENTIAL BENEFITS?
You will not benefit directly from taking part in this research. However, the knowledge gained from this study may contribute to our understanding of the declining enrollment in Delaware Business CTE programs and provide guidance in the development of a redesigned Business pathway program.

**HOW WILL CONFIDENTIALITY BE MAINTAINED? WHO MAY KNOW THAT YOU PARTICIPATED IN THIS RESEARCH?**

Be assured that all responses will be kept confidential. This means that your interview responses will only be shared with the Executive Position Paper committee members and we will ensure that any responses included in our report will not identify you as a participant. All participants will be given a code and referred to in the report as Participant 1, Participant 2, etc. Recordings will be erased after they have been transcribed.

The confidentiality of your records will be protected to the extent permitted by law. Your research records may be viewed by the University of Delaware Institutional Review Board, which is a committee formally designated to approve, monitor, and review biomedical and behavioral research involving humans. Records relating to this research will be kept for at least three years after the research study has been completed.

**WILL THERE BE ANY COSTS TO YOU FOR PARTICIPATING IN THIS RESEARCH?**

There will be no costs associated with participating in the study.

**WILL YOU RECEIVE ANY COMPENSATION FOR PARTICIPATION?**

All participants will receive a $20 Amazon gift card for their time and effort via State Mail upon completion of the study.

**DO YOU HAVE TO TAKE PART IN THIS STUDY?**

Taking part in this research study is entirely voluntary. You do not have to participate in this research. If you choose to take part, you have the right to stop at any time. If you decide not to participate or if you decide to stop taking part in the research at a later date, there will be no penalty or loss of benefits to which you are otherwise entitled. Your decision to stop participation, or not to participate, will not influence current or future relationships with the University of Delaware.
As a student, if you decide not to take part in this research, your choice will have no effect on your academic status or your grade in the class.

**WHO SHOULD YOU CALL IF YOU HAVE QUESTIONS OR CONCERNS?**

If you have any questions about this study, please contact the Principal Investigator, Lisa Wilson, at (302) 222-1254 or liwilson@udel.edu. You may also contact the chairperson on my EPP committee, Dr. Fred Hofstetter, at (302) 831-8164 or fth@udel.edu.

If you have any questions or concerns about your rights as a research participant, you may contact the University of Delaware Institutional Review Board at hsrb-research@udel.edu or (302) 831-2137.

________________________________________
Your signature on this form means that: 1) you are at least 18 years old; 2) you have read and understand the information given in this form; 3) you have asked any questions you have about the research and the questions have been answered to your satisfaction; and 4) you accept the terms in the form and volunteer to participate in the study. You will be given a copy of this form to keep.

______________________________  ____________________________  __________
Printed Name of Participant     Signature of Participant     Date

______________________________  ____________________________  __________
Person Obtaining Consent        Person Obtaining Consent     Date

(Printed Name)                  (Signature)
Appendix E

BUSINESS PARTNER INTERVIEW QUESTIONS

Business Partner Interview Questions

1. Approximately how many employees does your company/organization employ?
   _____ 1 – 100   _____ 101 – 500   _____ 501 – 1,000   _____ 1,001 or more

2. Low-skill jobs require a high school diploma or less and provide a wage of $26,350 per year; middle-skill jobs require some post-secondary education such as apprenticeship, certification, or an Associate’s degree and provide an average wage of $44,960 per year; and high-skill jobs require a Bachelor’s degree or higher and provide an average wage of $88,510 per year. How would you characterize the skills required for positions in your company/organization? In the blanks below, fill in percentage of positions your company has in each skill category.
   _____ High-Skill   _____ Middle-Skill   _____ Low-Skill

3. Are there enough qualified applicants to meet all the needs of your company/organization? Please explain.

4. Explain the purpose of the program advisory committee in your own words.

5. How did you become involved in the program advisory committee?

6. Describe the business program you are associated with in three (3) sentences or less. What do you see as its strengths? Weaknesses?

7. How do you interact with students in the business program? If you do not have such interactions, in your opinion, would interaction with students make the program advisory committee more effective? Explain why or why not.

8. Do you currently employ high school students? If yes, in what positions?

9. If you do not employ high school students, what is the biggest barrier to hiring them?

10. What benefit do you anticipate gaining while working with secondary students
as they complete Career and Technical Education (CTE) business programs?

11. What other comments would you like to make about the enrollment in the Business CTE programs at the school(s) with which you work?
Appendix F

INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

Lisa Wilson
<liwilson@udel.edu>

11/5/2018

University of Delaware Mail - IRBNet Board Action

- IRBNet Board Action

1 message

Nicole Farnese-McFarlane <no-reply@irbnet.org> Fri, Jun 8, 2018 at 11:06 AM

Reply-To: Nicole Farnese-McFarlane <nicolefm@udel.edu>

To: Dan Freeman <freemand@udel.edu>, Doug Archbald <archbald@udel.edu>, Chrystalla Mouza <cmouza@udel.edu>, Fred Hofstetter <fth@udel.edu>, Lisa Wilson <liwilson@udel.edu>

Please note that University of Delaware IRB (HUMANS) has taken the following action on IRBNet:

Project Title: [1251936-1] Examining the Declining Enrollment in Delaware Secondary Business Programs Principal Investigator: Lisa Wilson

Submission Type: Revision

Date Submitted: May 30, 2018

Action: APPROVED

Effective Date: June 8, 2018

Review Type: Expedited Review

Should you have any questions you may contact Nicole Farnese-McFarlane at nicolefm@udel.edu.

Thank you,
The IRBNet Support Team
www.irbnet.org
### Appendix G

**THEMATIC ANALYSIS OF TEACHER INTERVIEWS**

**Thematic Analysis of Teacher Interviews**

| Participant 1 |
|---------------|---------------|----------------|----------------|
| **Theme**     | **Subtheme**  | **Description** | **Participant Quotes** |
| Course load   | Course        | Course titles and brief description of course | • “Business, finance, and marketing tech area. It’s set up as one class but three different classes.”  
• “Tenth, eleventh, and twelfth graders.”  
• “Business, finance, marketing, and accounting is the current pathway setup.”  
• “BFM Enterprises is set up like a business.” |
| Enrollment    | Numbers       | Number of students in courses | • “22 tenth graders, I have 23 juniors, and we have 27 seniors” |
| enrollment    | Increase      | Enrollment trend | • “They asked me five years [ago] to take over and build it back up, so it went from eight, nine kids, I now have 45 kid signing up.” |
|               | Contributing factors | Perception of the factors that contributed to the program growth | • “I teach kids business, finance and marketing by actually running a business.”  
• “The success of BPA [Business Professionals of America].” |
<p>| Pedagogy      | Method        | Methods used to teach the content of courses | • “Set up our classes as an organization. Seniors are managers over various departments.” |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project-based learning</td>
<td></td>
<td>• “Project-based learning with real scenarios, not simulations.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “Higher level students . . . teach fundamental concepts to our 10th</td>
<td>graders.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“hands-on, project-based . . .”</td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>Most effective method</td>
<td>Perception of the most effective method</td>
<td>“setting up a realistic, feasible, growth-oriented business.”</td>
</tr>
<tr>
<td>Real World</td>
<td>Change</td>
<td>Perception regarding student choice within the business programs</td>
<td>• “It can’t be just accounting. It’s got to be more geared towards entrepreneurship, business ownership, and management as opposed to just accounting or just a marketing aspect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Do away with that mindset and go with a more general entrepreneurial management type focus.”</td>
</tr>
<tr>
<td>Stay current with emerging</td>
<td>Change</td>
<td>Sentiments, feelings, reactions, excitement, or sensations about staying current</td>
<td>• “Yes, we can keep up because . . . we know the state mandate.”</td>
</tr>
<tr>
<td>trends</td>
<td></td>
<td></td>
<td>• “Talking to our business advisory.”</td>
</tr>
<tr>
<td>Future of business education</td>
<td></td>
<td>Sentiments, feelings, reactions, excitement, or sensations about the future of business education</td>
<td>• “We’re mixed about it because we see other districts toning it down.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “It just seems that the business push just is not as strong as it used to be.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “We’re seeing a downward trend in that.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “It’s scary.”</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Perception</td>
<td>Sentiments, feelings, reactions, excitement, or sensations in general</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “A customer relations course to help support those kids in other tech areas.”</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• “Keep us up to date on what being communicated.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “Do we have input in the pathways being created?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “Sometimes we are out of the loop and then we find it the last minute.”</td>
<td></td>
</tr>
<tr>
<td>Theme</td>
<td>Subtheme</td>
<td>Description</td>
<td>Participant Quotes</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Course load  | Course   | Course titles and brief description of course                               | • “Four sections of Business, Finance, and Marketing, a section of Accounting 2, a section of Accounting 3, and a section of Accounting 4.”  
• “I’m on a seven-period rotating schedule.” |
| Perception   |          | Sentiments, feelings, reactions, excitement, or sensations about their course load | • “I’m very busy.”                                                                   |
| Enrollment   | Numbers  | Number of students in courses                                               | • “For Accounting 2, I have 14 students. For Accounting 3, I have 5. For Accounting 4, I have 3, and for BFM, I have 75.” |
|              | Decline  | Enrollment trend                                                            | • “With BFM, things have been roughly consistent.”  
• “With Accounting [class] . . . numbers seem to be half.” |
|              | Contributing factors | Perception of the factors that contributed to the program decline | • “The way I am teaching the course as opposed to my predecessor.”  
• “The program is very rigorous.”  
• “It’s a difficult class.”  
• “Students say they are putting as much work in for my class as they do for their AP classes . . . and it’s not reflected in my GPA.” |
| Pedagogy     | Method   | Methods used to teach the content of courses                                | • “There are some traditional set-and-gets.”  
• “This is a project-based learning structure.”  
• “Research online.” |
<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Average amount of time each method is used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• “Set-and-gets are maybe 20 – 25%.”</td>
</tr>
<tr>
<td></td>
<td>• “Project-based learning is probably about 30 %.”</td>
</tr>
<tr>
<td></td>
<td>• “Peer-to-peer is about 15-20%.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most Effective Method</th>
<th>Perception of the most effective method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• “If I had to rely on a single tool, none of them would be effective, but the combination of all of that is effective.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Writing</th>
<th>Perception of the importance of business writing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• “Our advisory committee . . . wants us to focus on the business writing piece.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Soft Skills</th>
<th>Perception of the importance of soft skills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• “We’re not teaching the soft skills.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “A lot of what we are doing is instruction that is done to the student, not with the student.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “It’s not designed to necessarily develop that self-motivation, self-direction, accountability, and initiative that employers are desperately screaming for.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change</th>
<th>Stakeholder Perception</th>
<th>Desire to change stakeholder perception about business programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• “There’s still that perception out there that the tech classes for the ‘dumb’ kids.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “…to have everybody understand that what we are doing is trying to prepare the students for the next 50 years of their life.”</td>
</tr>
<tr>
<td>Future of Business Education</td>
<td>Perception</td>
<td>Sentiments, feelings, reactions, excitements, or sensations about the future of Business Education</td>
</tr>
<tr>
<td>----------------------------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Other Comments             | Perceptions| Sentiments, feelings, reactions, excitements, or sensations in general                           | “I enjoy coming to work most days.”  
                              |                                                        |                                                                                  | “There’s a lot of red tape you and I both have to deal with.”  
<pre><code>                          |                                                        |                                                                                  | “Talking to them about what really goes on and what their career is really going to look like is the best thing we can tell the students.” |
</code></pre>
<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Description</th>
<th>Participant Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course load</td>
<td>Course</td>
<td>Course titles and brief description of course</td>
<td>• “I teach the BFM (business, finance and marketing) Core and I teach two accounting classes.”</td>
</tr>
</tbody>
</table>
|                    | Numbers     | Number of students in courses                                              | • “In my BFM class, I have two sections and it’s about 60.”  
• “My accounting classes, I have three sections, but two of them are combined. I would say probably 26 combined.” |
| Enrollment         | Decline     | Enrollment trend                                                           | • “Five years ago we had three or four business teachers. Now, we’re down to two.”  
• “I’ve gone from having maybe three preps to five on a regular basis. Last year, I had six.” |
|                    | Contributing Factors | Perception of the factors that contributed to the program decline | • “The first recognizable decline came when the state removed the computer literacy requirement at the high school level.”  
• “The next drop came when . . . the PLC (professional learning communities) came.”  
• “The third major drop came with the advent of STEM and Engineering” |
| Pedagogy           | Method      | Methods used to teach the content of courses                               | • “I do mostly project-based learning.”  
• “I bring in guest speakers.”  
• This year, I’m partnering with Junior Achievement.
They have a new program called JA Company.”

<table>
<thead>
<tr>
<th>Most Effective Method</th>
<th>Perception of the most effective method</th>
<th>• “Projects and guest speakers”</th>
</tr>
</thead>
</table>
| Purpose               | Real World                             | • “The purpose is to give my students as much exposure to every area of business as possible.”  
|                       | Perception of the importance of preparation for the real world | • “To give my students practical skills as well as a conceptual view of a career.” |
| Change                | Structure                              | • “I would change it [so] that you still take the core, but the other two classes can be in any other business pathway.” |
| Stay Current With Emerging Trends | Barriers                              | • “Its [social media] not allowed in the classroom.” |
| Future of Business Education | Perceptions                           | • “This is one area where I feel quite challenged. I’m typically a very optimistic person. I am stumped. Everything I see tells me that business is being phased out of the classroom.”  
|                       | Sentiments, feeling, reactions, excitements, or sensations about the future of business education | • “Our funding has been cut every year.”  
|                       |                                        | • “I don’t see a bright future for business.”  
<p>|                       |                                        | • “I don’t like being a naysayer, but I’m not very confident that my job will be here in five years.” |</p>
<table>
<thead>
<tr>
<th>Other Comments</th>
<th>Perceptions</th>
<th>Sentiments, feelings, reactions, excitement, or sensations in general</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• “Really take a serious look at training for [the] guidance department.”</td>
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<tr>
<td></td>
<td></td>
<td>• “Guidance counselors have advised students who have expressed interest in business, ‘do not take business courses, rather take AP courses’”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “I don’t have time to market my product.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 4</th>
<th>Theme</th>
<th>Subtheme</th>
<th>Description</th>
<th>Participant Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Course load</td>
<td>Course</td>
<td>Course titles and brief description of course</td>
<td>• “I teach the entire Accounting pathway. Accounting 1 – about 20 kids. Accounting 2 and 3 – 20 in each. There’s about 15 in the dual enrollment.”</td>
</tr>
<tr>
<td></td>
<td>Perception</td>
<td>Sentiments, feelings, reactions, excitement, or sensations about their course load</td>
<td></td>
<td>• “We’re very excited.”</td>
</tr>
<tr>
<td></td>
<td>Enrollment</td>
<td>Increase</td>
<td>Enrollment trend</td>
<td>• “We have seen a really large increase in our intro class.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• “The only trouble that we’ve come across is scheduling.”</td>
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<td></td>
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<td></td>
<td></td>
<td>• “There is definitely a hunger for our program.”</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• “My greater fear is Accounting . . . I do see a smaller group than normal.”</td>
</tr>
<tr>
<td></td>
<td>Contributing Factors</td>
<td>Scheduling</td>
<td></td>
<td>• “The core classes have precedence.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• “The top kids who are very strong business kids get obviously into”</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Methods</td>
<td>Methods used to teach the content of courses</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>“I think I do a good blend of all of those [lecture, guided practice, flipped classes, project-based learning, collaborative groups, guest speakers and field trips].”</td>
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<td></td>
<td></td>
<td>“I do wish we had more field trips.”</td>
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<tr>
<td></td>
<td></td>
<td>“I call myself a facilitator of real life application.”</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Generalizable Knowledge</th>
<th>Perception of the importance of general knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>“You don’t have to be a rock star in accounting. You need to have a generalizable knowledge.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“My job for them is marketability.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change</th>
<th>Reverse Inclusion</th>
<th>Perception of the need for reverse inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>“We’re often the dumping ground.”</td>
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<tr>
<td></td>
<td></td>
<td>“Why can’t we be accredited like a core class . . . to say . . . we’re going to give [this teacher] reverse inclusion? Let’s give her a TAM teacher.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“It’s not fair . . . I kind of feel like we get dumped on.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stay Current with Emerging Trends</th>
<th>Perception</th>
<th>Sentiments, feelings, reactions, excitements, or sensations about the ability to stay current</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>“I think my department chair . . . does a really nice job bringing back feedback.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Future of Business Education</th>
<th>Perception</th>
<th>Sentiments, feelings, reactions, excitements, or sensations about the future of business education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>“I think it’s always going to be a constant transformation to be in alignment with”</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Perception</td>
<td>future of business education</td>
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<td>----------------</td>
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</tr>
</tbody>
</table>
|                |            | Sentiments, feelings, reactions, excitement, or sensations in general | • “I think there needs to be a better marriage between the middle school and the high school.”  
• “The BPA at middle school and the BPA here have never talked, never collaborated.”  
• “We need better promotion.” |
<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Description</th>
<th>Participant Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course load</td>
<td>Course</td>
<td>Course titles and brief description of course</td>
<td>• “I have three BFM 1 classes . . . I have two BFM 2 classes . . . I have one BFM 3 class.”</td>
</tr>
<tr>
<td>Enrollment</td>
<td>Numbers</td>
<td>Number of students in courses</td>
<td>• “BFM 1 – about 82, BFM 2 about 45 and BFM 3 we have about 15.”</td>
</tr>
<tr>
<td></td>
<td>Increase</td>
<td>Enrollment trend</td>
<td>• “Actually, we’ve had an increase.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “For a couple of years I didn’t have enough students, and they gave me a couple of Microsoft classes to teach.”</td>
</tr>
<tr>
<td>Contributing Factors</td>
<td></td>
<td></td>
<td>• “We’ve got a big push on personal financial literacy.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “It’s been a challenge . . . some students have issues . . . they know that I’m a pretty strong disciplinarian.”</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Method</td>
<td>Methods used to teach the content of courses</td>
<td>• “I like to talk, so I do a lot of lecturing.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Also, I do a lot of projects . . . in pairs . . . or in groups of four.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “I do have speakers come in and talk.”</td>
</tr>
<tr>
<td></td>
<td>Percentage of Time</td>
<td>Average amount of time each method is used</td>
<td>• “Lecture are probably about 40%. Another 60% is project-based.”</td>
</tr>
<tr>
<td>Purpose</td>
<td>Real World</td>
<td>Perception of the importance of preparation for the real world</td>
<td>• “I want them to be prepared for the real world.”</td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td></td>
<td>• This participant did provide an answer to question.</td>
</tr>
</tbody>
</table>
| Stay Current with Emerging Trends | Stay Current | Ways used to stay current | “I stay on the computer a lot.”  
“I’m a member of the NBEA [National Business Education Association].”  
“I also watch Shark Tank.” |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Future of Business Education</td>
<td>Perception</td>
<td>Sentiments, feelings, reactions, excitements, or sensations about the future of business education</td>
<td>“I think the future is bright for business education.”</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Perceptions</td>
<td>Sentiments, feelings, reactions, excitements, or sensations in general</td>
<td>“I just think everyone . . . no matter where they’re at should take a business course . . . and understand the basics of business.”</td>
</tr>
<tr>
<td>Theme</td>
<td>Subtheme</td>
<td>Description</td>
<td>Participant Quotes</td>
</tr>
<tr>
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<td>----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Course load</td>
<td>Course</td>
<td>Course titles and brief description of course</td>
<td>• “Intro to Business . . . our core class”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Banking 2, 3 and 4. I sometimes teach 2 and 3 together.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Banking 4 is the bank. I have the bank at both schools, I run back and forth.”</td>
</tr>
<tr>
<td>Perception</td>
<td></td>
<td>Sentiments, feelings, reactions, excitements, or sensations about their course load</td>
<td>• “Very challenging.”</td>
</tr>
<tr>
<td>Partnership</td>
<td></td>
<td>Partnerships within the course between the high school and the elementary school</td>
<td>• “Bank program that runs for our elementary students . . . through the University of DE.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “That is an after-school activity.”</td>
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<td></td>
<td></td>
<td></td>
<td>• “At lunchtime students go to [the elementary school] on Fridays.”</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• “They do just savings accounts, just deposits.”</td>
</tr>
<tr>
<td>Enrollment</td>
<td>Numbers</td>
<td>Number of students in courses</td>
<td>• “The BFM classes . . . we each have 30 students.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Banking 2 and 3 . . . I have 26.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Banking 4, the bank . . . I have 5 at one school and 3 at the other.”</td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td>Gender demographics</td>
<td>• “[Banking 2 &amp; 3], that class has only two females in it.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “For the past couple of years, I have mostly boys in the 2nd level.”</td>
</tr>
<tr>
<td>Perceived</td>
<td>Sentiments, feelings, reactions, excitements, or sensations</td>
<td></td>
<td></td>
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<td>------------</td>
<td>------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception</td>
<td>“I think that is where we need to focus” [too few girls at 2nd level].</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Students are realizing that understanding their personal finance is important.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“A lot of students . . . do not know how to manage their finances.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase</td>
<td>Enrollment trend</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“I’ve actually seen the numbers go up, over a couple of years.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Methods used to teach the content of courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>“An entrepreneurship type program.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Field trips”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collaborative [groups]”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Many guest speakers come in.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Different projects”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Some book [work]”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Time</td>
<td>Percentage of time each method is used</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Lecture – 25%”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Flipped lessons – 50 %”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Review – 25%”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Effective Method</td>
<td>Perception of the most effective method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>“When they work in groups.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real World</td>
<td>“Where I teach a little bit, or they read material, and then we do some kind of review activity.”</td>
<td></td>
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</tr>
<tr>
<td>Personal Finance</td>
<td>Perception of the importance of personal finance</td>
<td></td>
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<tr>
<td></td>
<td>“Prepare them for the real world and the business world.”</td>
<td></td>
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<tr>
<td>Change</td>
<td>Desire to have access to interactive activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive Activities</td>
<td>“I sometimes wish there were more interactive activities.”</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Stay Current with Emerging Trends | Certifications | Desire to have certification options for students | • “Maybe even certifications”  
• “There was nothing out there for a long time. I think that is going to change.” |
| Stay Current with Emerging Trends | Barriers | Things that interfere with ability to stay current with emerging trends | • “Students in our classes on all different levels, from high to low.”  
• “There’s so much information out there.”  
• “Very challenging. It’s a difficult thing. It’s very difficult to keep up with.” |
| Stay Current with Emerging Trends | Stay Current | Ways used to stay current | • “News, reading investment magazines, and trying to keep up with everything.” |
| Future of business education | Perception | Sentiments, feelings, reactions, excitements, or sensations about the future of finance in Delaware | • “The future of banking, the future of business, it’s growing.”  
• We are coming out of a recession and we will see more of these types of fields.”  
• “I do see a trend that business is definitely growing.”  
• No comments were given regarding the future of business education programs in Delaware. |
| Other Comments | Perceptions | Sentiments, feelings, reactions, excitements, or sensations in general | • Students try to take the easy way out. Students have to do some work [but] we try to make it fun for them too.”  
• We’re trying to grow the program. |
- “There’s lots of choice for them. It makes it difficult for a student to decide what to take.”
Appendix H

THEMATICAL ANALYSIS OF BUSINESS PARTNER INTERVIEWS

Thematic Analysis of Business Partner Interviews

<table>
<thead>
<tr>
<th>PAC Member 1</th>
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</thead>
<tbody>
<tr>
<td><strong>Theme</strong></td>
<td><strong>Subtheme</strong></td>
<td><strong>Description</strong></td>
<td><strong>Participant Quotes</strong></td>
</tr>
</tbody>
</table>
| Qualified Applicants | High Skill | Ease or difficulty finding qualified applicants | • “We’re ok – high skill.”  
• “We have more people interested in those positions than we have available – middle skill.” |
| Purpose | Middle Skill | | |
| Marketing Trends | Internships | Finding internship opportunities | • “[School #1] is more focused on internships, which is important.” |
| Involvement | Community Involvement | How you became a member of the PAC | • “The university highly recommends and encourages all faculty . . . to be involved in the community.”  
• “I definitely sought [School #1] to get involved in the NAF pathway [Academy of Finance].”  
• “[School #2 solicited me quite some time ago.” |
| BFM Program | Strengths | Perception of the strengths of the BFM program | • “. . . a diversified advisory board.”  
• “They take it seriously.”  
• “They value your feedback.” |
<p>| | Weaknesses | Perceptions of the weaknesses of the BFM program | • “You want to see the fruition of what you’re recommending. Did you change the program? Are we ready now? Were you able to use the” |</p>
<table>
<thead>
<tr>
<th></th>
<th>Student Interaction at Meetings</th>
<th>Amount of interaction with students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“I really don’t have any at [School #1] at this point.”</td>
<td></td>
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<tr>
<td></td>
<td>“[School #2], the only interaction I have is [with] the student representatives that come in to speak.”</td>
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<tr>
<td></td>
<td>I find that valuable when they are talking about DECA or BPA.”</td>
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<td></td>
<td>“I think it would be beneficial because I think you have such very good students.”</td>
<td></td>
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<tr>
<td></td>
<td>“I’d like to know their needs from a business perspective.”</td>
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<tr>
<td></td>
<td>“I guarantee that it’s probably going to be internships and coops included.”</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Internships</th>
<th>Student Interns employed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“No, we don’t. But we would certainly entertain that idea.”</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Barriers</th>
<th>Things that interfere with the hiring of interns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Maybe their knowledge and skill level.”</td>
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</tr>
<tr>
<td></td>
<td>“Availability of the students.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“It’d have to be more of a shadowing.”</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Benefits</th>
<th>Benefits PAC members receive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“You’re giving back to the community. That’s actually a part of our evaluation.”</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Student Perspective</th>
<th>New ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“A different perspective from students . . . what are their challenges?”</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Perceptions</td>
<td>Sentiments, feelings, reactions, excitement, or sensations in general</td>
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<td>-------------------------------------------------------------------</td>
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<tr>
<td></td>
<td></td>
<td>“Getting the word out to parents and students about the availability of the [Academy of Finance].”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“I want to push the dual enrollment. They can get almost a year’s worth of college credit.”</td>
</tr>
</tbody>
</table>

• “Fresh ideas.”
## PAC Member 2

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Description</th>
<th>Participant Quotes</th>
</tr>
</thead>
</table>
| Qualified Applicants      | Middle-skill| Ease or difficulty finding qualified applicants                             | • “We have a tough time finding folks that are able to code.”  
• “Active disconnect between developers who are able to do websites in Angular. So, we had to take that position overseas.”  
• “We have to break down what they’ve learned and then reteach them how to write for the Internet.”                                                                                       |
| Purpose                   | Liaison    | Bridge between business and educators                                        | • “Give kind of the business side of what we see and communicate that to teachers who can then bring it into the classroom.”  
• “We know that we need to fill our pipeline for employers.”                                                                                                                                                      |
| Involvement               | Community Service | How you became a member of the PAC                                         | • “I’ve always been involved in the schools . . .”  
• “We became part of NAF [Academy of Finance] specifically because it was the first pathway.”  
• “It’s been a pretty solid fit.”                                                                                                                                                                                     |
<p>| BFM Program               | Strengths  | Perception of the strengths of the BFM program                              | • “The pathway program has helped build a pretty decent relationship between schools and the business community.”                                                                                                  |
|                           | Weaknesses | Perception of the weaknesses of the BFM program                             | • “The education community moves a lot slower than the business community.”                                                                                                                                            |</p>
<table>
<thead>
<tr>
<th>Executive Function</th>
<th>Subcategory</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Interaction</td>
<td>Workforce Readiness</td>
<td>Training students to be ready to enter the workforce</td>
<td>“We’ve gone into three NAF classrooms and gone over resume tips, networking, how to interview, and what happens when you get into the workforce.”</td>
</tr>
<tr>
<td>Internships</td>
<td>Student Interns</td>
<td>Student interns employed</td>
<td>“High school students not necessarily.” “We’ve done interns for the Best Buddies program, but most of our interns are college students.”</td>
</tr>
<tr>
<td>Internships</td>
<td>Barriers</td>
<td>Things that interfere with the hiring of interns</td>
<td>“Probably lack of knowledge.” “We’re a small business so that means I’m pulling somebody off of something else to work one-on-one with a student.”</td>
</tr>
<tr>
<td>Benefits</td>
<td>Local Talent</td>
<td>Opportunities to grow local talent</td>
<td>“People don’t necessarily commute to Middletown, they leave Middletown.” “We’re hoping to give students exposure to the fact that there is business in Middletown.”</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Declining Enrollment</td>
<td>Sentiments, feelings, reactions, excitement, or sensations regarding declining enrollments</td>
<td>“It concerns me as an employer, because that’s something that we are looking for a lot of students to have, a good core background.”</td>
</tr>
<tr>
<td>Theme</td>
<td>Subtheme</td>
<td>Description</td>
<td>Participant Quotes</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Qualified Applicants</td>
<td>Middle-skill</td>
<td>Ease or difficulty finding qualified applicants</td>
<td>• “Yes, at the moment. I can see where going forward it may be harder to get people.”</td>
</tr>
<tr>
<td>Purpose</td>
<td>Liaison</td>
<td>Bridge between business and educators</td>
<td>• “We reach out to businesses within the community that would offer internships.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “We also try to steer some of their curriculum into what businesses are going to need.”</td>
</tr>
<tr>
<td>Involvement</td>
<td>Community</td>
<td>How you became a member of the PAC</td>
<td>• “I live in the district . . . my children graduated from here, so my heart is in this district.”</td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td></td>
<td>• “I went to an advisory board meeting . . . and then I ended up being Vice President of the advisory board.”</td>
</tr>
<tr>
<td>BFM Program</td>
<td>Strengths</td>
<td>Perception of the strengths of the BFM program</td>
<td>• “. . . created a workforce readiness book.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “It also provided an opportunity to advertise our business in the book.”</td>
</tr>
<tr>
<td></td>
<td>Weaknesses</td>
<td>Perception of the weaknesses of the BFM program</td>
<td>• “They’re actually having a workforce readiness bootcamp for 11th graders.”</td>
</tr>
<tr>
<td>Student Interaction</td>
<td>Classroom Visits</td>
<td>Mentoring students</td>
<td>• “I did not do well with [the fundraiser] at all.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “We do interact with them. I work with teachers, with their curriculum.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “I participated where I pretended I was a buyer . . .”</td>
</tr>
<tr>
<td>Internships</td>
<td>Student Interns</td>
<td>Student interns employed</td>
<td>• “No, I don’t. My plan is to for the future.”</td>
</tr>
<tr>
<td>Barriers</td>
<td>Things that interfere with the hiring of interns</td>
<td>• “The liability with having high school students.” • “And . . . what time they can work . . . and transportation.”</td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td>Prepared Talent</td>
<td>Impact skills students are taught</td>
<td>• “. . . having that training or education in the classroom and then being able to apply it.”</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Perceptions</td>
<td>Sentiments, feelings, reactions, excitements, or sensations in general</td>
<td>• “I think it would be more beneficial to have more middle school involvement and awareness into the CTE programs.” • “Wilmington University has been a huge benefactor in this because they’re offering . . . up to 12 credits.”</td>
</tr>
</tbody>
</table>