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A Public Policy Analysis of an Allied Health Career Pathway Model at a Local Technical College

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A PUBLIC POLICY ANALYSIS OF AN ALLIED HEALTH CAREER
PATHWAY MODEL AT A LOCAL TECHNICAL COLLEGE

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ABSTRACT

A PUBLIC POLICY ANALYSIS OF AN ALLIED HEALTH CAREER
PATHWAY MODEL AT A LOCAL TECHNICAL COLLEGE

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Policymakers, philanthropists, and related stakeholders assert that education is "the civil rights issue of our generation" (The White House, n.d). In turn, a career-based business model where "career and technical education encourages employability" (Wilder, 2013) has been implemented, providing readily accessible post-secondary opportunities to address perpetual societal inequality. Many stakeholders perceive the two-year institution as helping bridge the perpetual equity gap by creating access streams needed to acquire good-paying jobs.

Because of the diverse socioeconomic student narrative within the Midwestern technical college, a study inquiry was conducted to ascertain the institution's ability to reproduce the desired results advertised by public policy and determine whether this incremental process "reflects the kinds of things that society ought to be doing to help the marginalized" (Fischer, 2006, p.1) and to address current research gaps. Following Fischer's (2006) *Interpretive Policy Analysis Framework,* all research activities were conducted via a sequential explanatory mixed methods design to not only verify empirical and descriptive program data, but also to obtain the participants' perspectives, sense of agency, and overall outcomes simultaneously with higher level societal goals and values via interpretive analysis.

Although each variable's impact on student success will depend on individual situations, participants specifically discerned systems within the pathway framework inhibiting outcomes. From both the nominal and interpretive research data, maintaining the pathway model as-is potentially impeded social progress and economic stability, especially for the most vulnerable populace.

This project provided the chance to appreciate pathway graduate/learner's persistence even when multiple personal and educational barriers existed while attending school. The complex nature of how this policy affected non-traditional students afforded the opportunity to "not only assess the progress of achieving the (pathway model's) goal, but the appropriateness of the goal itself" (Fischer, 2006, p. 6) to create or dissuade societal value within the adjacent urban community.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Chapter One:
Introduction

Background

The early 2000s marked a tumultuous time in which the domestic economy experienced much flux. For the first time since 1983, the unemployment rate reached 10.2 percent (Goodman, 2009). Due to competition, outsourcing, and a lack of bargaining power (Schramm, 2005), labor markets during this time left many local citizens either displaced or ill-prepared for an increasingly knowledge-based economy (Schmitt, 2015). Of those affected by the economic downturn, women of color faced the most pervasive economic circumstances. Not only did minority females face substantial levels of chronic dislocation, this demographic also did not experience post-recession recovery as did other social groups (Majority Staff of the Joint Committee, 2008, p.5).

To help those individuals negatively impacted by the "worst hiring slump in twenty years" (Schreft & Singh, 2013, p.45), public policy reform via middle-skills labor development (Holzer & Lerman, 2009; Kantor & Lowe, 2011) evolved through legislative acts and aggressive philanthropic advocacy. Deemed the business model approach to education reform, community colleges became the vehicle to expanding workforce training.

Labor market shifts and dynamic employer demands have catalyzed the career-based education phenomenon (Visher & Stern, 2015, p. 2-3). Proponents of two-year institutional reform have collectively articulated an aggressive change agenda in which learners obtain the needed skills and successfully gain credentials through a succinct semester-by-semester approach (Bailey, Smith Jaggers, & Jenkins, 2015, p. 41; Council

of Economic Advisors, 2009; Jenkins & Weiss, 2011)). In turn, many stakeholders

contend the career pathway approach will facilitate greater equity (US Department of

Education, 2012) as well as provide a more efficient means for individuals to acquire the

needed human capital to "…move closer to deciding who they are and what they want to

become" (United States Department of Education, n.d.; Bailey, Smith Jaggers, & Jenkins,

2015, p. 41; Supiano, 2013; Frazier & Swygert, 2012).

Although educators, administrators, and two-year learning institutions carry out

this given initiative, it is the government, and other entities, driving the aims, actions, and

intentions of this career pathway model. Lasswell & Kaplan (1970) notes that public

policy "as a projected program of goals, values, and practices" (p. 71) based on the

"authoritative allocation of values for the whole society (Easton, 1953)". Within this

agenda, four principles articulate the core tenets that the federal government deems

transformative within the two-year college environment (Department of Education, n.d.):

1. **Alignment** that includes clear expectations for high-quality programming and a more active role for states
2. **Collaboration** among secondary and post-secondary institutions, employers, and industry partners to improve the quality of technical education programs
3. **Accountability** for improving academic outcomes and building technical and employability skills in CTE (Career and Technical Education) programs, based upon common definitions and clear performance metrics
4. **Innovation** will be supported by systemic reform of state policies and practices to standards-based education

As a way to encourage enrollment, retention, and completion within a given

discipline, policymakers have charged two-year institutions to implement the above noted

parameters (alignment, collaboration, accountability, and innovation) via career pathway

models that incrementally build student credentials from basic education to eventual

technical diploma and/or associate degree (Figure 1.1); individuals could now gain

increased educational access (Joyce Foundation, 2012) to seamless incremental

credentials (Fox Valley Technical College, 2017).

Figure 1.1: Generic Pathway Model (Joyce Foundation, RISE Partnership, 2012)

Definitions

Technical College. Post-secondary institution that focuses on workforce preparation

rather than providing "a transfer pathway to a four-year degree" within a community-

based institution (Pannoni & Kerr, 2019; Department of Homeland Security, 2012).

"Community college" and/or "two-year institution" are often considered interchangeable

terms for "technical college" as most references do not differentiate these.

Career Pathway Model. A Career Pathway Model, also known as a "Plan-of-Study

(POS)" and/or "pathway", is a post-secondary multi-stepped incremental educational

process in which multiple entry and exit points are established for individuals to not only

obtain gainful employment but also an associate degree (Wisconsin Technical College System, n.d.).

The career pathway model can also be utilized as an intermediary to baccalaureate credential attainment. Given that there are multiple pathways, for the purpose of this study, an Allied Health career pathway will be utilized.

> Community and technical colleges are particularly important players in educating the allied health workforce…In a study of 18 allied health occupations, 62% of the individuals completing a post-secondary program did so at a community college, which may make health care careers more accessible due to a shorter time commitment and lower tuition and living costs compared with four-year programs.   (Frogner & Skillman, 2015, p. 54-55)

Allied Health. Allied health is a collective term for healthcare disciplines other than Nursing and/or Dental related occupations (Registered Nursing, Practical Nursing, Nursing Assistant, Dental Hygiene, Dental Assistant, and Dental Technician). Some allied health disciplines would include: Echocardiography Technician, Healthcare Management, Health Information Technology, Phlebotomy, Pharmacy Technician and Physical Therapy Assistant.

Credential. A credential is the attainment of a given level of post-secondary preparation.

Certificate. Short-term credential (less than six months), requiring the completion of three to ten credits.

Diploma. Credential (up to one year), requiring the completion of twelve to thirty-five credits.

Associate Degree. An Associate Degree (up to two years, full-time) requires the completion of sixty to sixty-nine credits. Learners can potentially transfer to a four-year institution upon the attainment of this credential.

Allied Health Career Pathway Model. Within this Allied Health offering, learners:

1. (Credential One-Certificate) Start with taking seven credits to complete a foundational health science certificate (coursework includes a medical terminology and Microsoft Office computer course).

2. (Credential Two-Diploma) Then proceed to complete a technical diploma, which would consist of an additional nine to twelve credits, depending on the choice of program. The Certificate credits may/may not be embedded in the Diploma credit requirements.

3. (Credential Three-Associate Degree) Upon completion of the diploma, learners would be eligible to obtain gainful employment concurrently with completing the outstanding credit requirements, a total of sixty to sixty-nine credits, to obtain an associate degree in the designated health science discipline. The Certificate and Diploma credits may/may not be embedded in the Associate Degree requirements.

Statement of the Problem

Although advocates assert the pathway model facilitates the attainment of middle -

class status (Cragun, 2016; Bottoms & Sundrell, 2016), the only extant literature

available for comparison stems from federally mandated or foundation funded research

within secondary or four-year post-secondary institutional environments. Grounded data

from two-year community colleges is currently sparse-at-best as no substantial research

regarding the impact of this type of career development strategy (National Careers

Pathways Network, 2012) being embedded within an urban technical college

predominantly serving diverse and marginalized student populations is available. Located

in a community with a significant history

> of redlining, exclusionary zoning, and discriminatory lending practices has contributed to…some of the largest racial disparities in income, health, and other socioeconomic measures in the country…multiple studies have indicated that (the community) is the 'worst city for Black Americans'" (Comen, 2019).

Policymakers, philanthropists, and related stakeholders assert that education is "the

civil rights issue of our generation" (The White House, n.d). In turn, a career-based

business model where "career and technical education encourages employability"

(Wilder, 2013) has been implemented, providing readily accessible post-secondary opportunities to address perpetual societal inequality. Regardless of individual school composition, or consideration of diverse socioeconomic or educational-disadvantaged populations, these parties claim that significant positive outcomes will be attained with implementing the career pathway model.

As current research does not recognize any substantial differences in demographics, outcomes, and related variables, subsequent research is necessary to determine whether the pathway model offered at the local institution produces more successful outcomes as prescribed, especially for socioeconomically disadvantaged learners attending the technical college. An inquiry is needed to ascertain the institution's ability to reproduce the desired results advertised by this public policy as well as simultaneously determine whether this incremental process "reflects the kinds of things that society ought to be doing to help the marginalized (Fischer, 2006, p.1)".

Many researchers and educators suggest the career pathway business model approach to increasing technical college completion rates does not address issues specifically with underprepared or marginalized individuals. The three-year (150%) graduation rate for two-year schools is below twenty percent, with some schools even reporting single digit rates (Bailey, Smith Jaggers, & Jenkins, 2015, p. 5).

The local technical college, where this study was conducted, maintained an 11% graduation rate (as of 2017). With current numbers residing at this margin, most students entering a community college environment will never graduate (Bailey, Smith Jaggers, & Jenkins, 2015, p. 1). Marks-Jarvis (2015) further affirmed that low-income students of

color tend to experience the worst consequences when trying to balance school with work.

Further study is required to facilitate a better understanding of the pathway model and its role within urban post-secondary environment. Because of the unique characteristics and narrative within the local institution of this study, I conducted a mixed-methods exploration via an Allied Health associate degree pathway to address the current research gaps.

Purpose of the Study

The main aim of this research study was to determine whether associate degree students actually attained the outcomes asserted by the career pathway public policy. As noted, the career pathway model is a post-secondary multi-stepped incremental process in which the end goal is to obtain an associate degree in a designated business, health science, or industrial field. Given the substantial number of pathway programs offered within the Wisconsin Technical College System (WTCS), for the extent of this study, a medium-sized Allied Health associate degree model will be examined.

Through this pathway, I investigated technical college graduates' journey through this process, as well as subsequent employment and education status post program completion. Given multiple Allied Health faculty regularly work with pathway students of similar type and size as the identified program, I also examined Allied Health educators' perspectives regarding retention, completion, and other outcomes for socioeconomically diverse health science plan-of-study learners and graduates.

Conceptual Framework

To guide my research, I utilized Fischer's (2006) *Interpretive Policy Analysis Framework*. This multi-level construct specifically focuses on verifying whether a public policy meets its intended program outcomes and objectives simultaneously with higher level societal goals and values.

Two levels of policy evaluation are conducted via Fischer's four phases of deliberation (Fischer, 2006, p. 20). For first-order analysis, two micro-scale aspects are considered: technical-analytical discourse (program verification) and contextual validation (program objectives). The second-order evaluation, two macro-scale facets are applied: societal vindication (goals) and social choice (values). Some second-order components were utilized at the end of the interpretive interview section, Chapter Four: Findings.

Fischer's assessment not only looks at how individuals and programs are affected by policy implementation, but also how society is collectively impacted (Fischer, 2006, p. 21). Based on my mixed-methods research approach, Fischer's first level discourse was applied to both the quantitative and qualitative sets of data.

Research Questions

The primary research questions were:

1. Is the designated career pathway working as prescribed by public policy directives?

2. Based on the public policy mandates, does the allied health program-of-study fulfill its stated measures and encourage student success outcomes (retention,

perseverance, program graduation, transfer to four-year institution, & professional employment)?

Summary

In this chapter, I introduced how precipitating economic events led to the full-scale career-based pathway model implementation within technical and community colleges. The main aim of this research study was to determine whether associate degree students actually attain the outcomes asserted by the career pathway public policy. To objectively evaluate the plan-of-study public policy, Fischer's multi-level (2006) *Interpretive Policy Analysis Framework* was applied as this construct specifically focuses on verifying whether a public policy meets its intended program outcomes and objectives simultaneously with higher level societal goals and values.

In Chapter Two, the Review of Literature, delves deeper into how the precipitating events led to the full-scale pathway model implementation by analyzing the economic climate of the early 2000s via simultaneous historical and economic-based presentations. Based on the shift in labor market demands and subsequent career-based education needs, government intervention applications via multiple public policy initiatives are established. While federal legislation created formal pathway model streams at the State level, how third-party philanthropists catalyzed the career-based agenda is also reviewed.

Further, given the fundamental role technical colleges play in facilitating the point-of-study approach, open-access status, completion rates, and two-year post-secondary demographics will be presented, and a sample Allied Health program will be defined. Finally, to demonstrate the unique nature of the technical college and the need to conduct

research within this type of post-secondary environment, a comparison between this school and similar select two-year based institutions is presented.

In Chapter Three, Methodology & Study Design, Fischer's conceptual framework analysis is presented. This section provides information regarding participant populations utilized, and data collection procedures.

Chapter Four discusses the research findings, while Chapter Five analyzes this data within literary context. This section also discusses the study's significance, limitations, future research opportunities, and action implications.

Chapter Two:
Review of the Literature

In this chapter, precipitating events that led to the full-scale pathway model implementation within two-year institutions will be reviewed. First, to understand the economic climate of the early 2000s, a historical and economic evaluation will be presented. Second, based on the shift in labor market demands and subsequent career-based education needs, government intervention applications via multiple public policy initiatives will be established. Third, while federal legislation created formal pathway model streams at the State level, how third-party philanthropists catalyzed the career-based agenda will be reviewed.

Fourth, given the fundamental role that community colleges play in facilitating the pathway model, open-access status, completion rates, and two-year post-secondary demographics will be presented. Fifth, to gain an understanding of the career pathway model, a sample Allied Health program will be defined. Sixth, to demonstrate the unique nature of the technical college and the need to conduct research within this type of post-secondary environment, a comparison between this school and similar select two-year based institutions will be critiqued.

To guide my analysis of the extant literature, Fischer's (2006) Interpretive Policy Analysis Framework was applied. This multi-level construct specifically focuses on verifying whether a public policy meets its intended program outcomes & objectives simultaneously with higher level societal goals & values.

History

The early 2000s marked a tumultuous time in which the domestic economy experienced much flux; not only did the United States simultaneously face the worst terrorist attack on its soil, multiple catastrophic natural disasters, as well as a severe Stock Market decline, the country further endured significant economic downturns that redefined labor needs (Majority Staff of the Joint Economic Committee, 2008, p. 4; Jacobson & Mather, 2010, p. 2). For the first time since 1983, the unemployment rate reached 10.2% (Goodman, 2009). Dislocation levels soared to seventeen percent if discouraged and part-time workers were included in overall unemployment numbers (Bureau of Labor Statistics, 2009).

Beginning with the recession of 2001-2002, metropolitan manufacturing quickly dissipated. This industry, which traditionally employed countless workers with often minimal secondary education, could no longer provide a means of stable employment for many marginalized populations. According to the U.S. Department of Labor, Bureau of Labor Statistics (2007), "Over the 2001 to 2003 period, manufacturing lost 2.9 million jobs…during 2004 to 2006 period, the number of factory workers edged down by 165,000." Atkinson (2013) further noted "America lost 5.7 million jobs, or 33% of its industrial jobs in the 2000s," while Bernstein (2003) identified the manufacturing section experienced a 10.4% decline (1.84 million jobs) from 2001-2002. Further exacerbating this situation, 40% of industrial workers had separated from their employer due to foreign company deployments during 2006 (Bureau of Labor Statistics, 2007).

Due to competition, outsourcing, and a lack of bargaining power (Schramm, 2005), labor markets during this time left many local citizens either displaced or ill-prepared for

an increasingly knowledge-based economy (Schmitt, 2015). Technology further encouraged the replacement of human labor (Autor, 2003), and the productivity-focused business climate shifted away from the industrial-based model of the 1970s & 1980s (Leonhardt & Altman, 2002). Lee (2010) suggested "when industries decline, jobs are eliminated, forcing workers to switch industries, sectors, locations, or skills to find employment" (p. 4).

Of those affected by the economic downturn, three populations faced the greatest adversity. Austin (2008) argued that "Recessions hurt". The Center of Economic and Policy Research (2008) further noted "African American workers have been particularly hit hard by the decline in U.S. manufacturing as this industry played an important part in building the Black middle class after World War II." And of the remaining manufacturing jobs, Blacks' share has declined to a mere 9.6 percent" (Uchitelle, 2003).

Across the different age and related demographics within the African American population, labor participation not only deteriorated at a higher rate during the onset of the national recession (Rodgers, 2004), chronic unemployment also persisted more frequently than in other groups (Austin, 2008). For the first time in twenty-five years, African Americans were more likely to endure long-term dislocation (Morial, 2004). Particularly for African Americans that lacked a high school diploma, the unemployment rate swelled to 22% (Jacobson & Mather, 2010, p. 3), as "nearly ½ of Black males (16-64) were chronically unemployed" (Morial, 2004).

Although parts of the African American population struggled with the fluctuating labor climate, Hispanics also experienced significant unemployment; some researchers estimated that the Latino Male unemployment rate during this period, was 12.4%

(Robinson, 2011, p. 439). Kochlar (2003) noted that before the 2001 recession, Hispanic employment "was growing at an annual rate of 5 percent per year. By the end of the recession, this rate had fallen to 0 percent" (p. 5).

For Hispanics, high dislocation levels are often attributed to a lack of education. Gonzalez (2002) asserted that most Hispanics have not attained the same higher education opportunities as other groups. "Since education is highly correlated with occupational status, less-educated workers may be among the first class of workers to bear the brunt of layoffs in factories and workplaces" (Gonzalez, 2002). The Pew Research Center (2005) also argued that since "Latinos account for more than 30% of workers in private households, 20% in manufacturing, and up to 40% of employment in farming, fishing, and forestry, the youth and education levels translates into a concentration in relatively low-skills jobs".

Gender status further played a significant role in confounding the situation; many women during this time experienced the most pervasive economic circumstances when compared to all other groups (Majority Staff of the Joint Economic Committee, 2008). According to The Office of the Assistant Secretary for Planning and Evaluation (ASPE) (2009), "Almost 60 percent of all low-wage workers are female compared to only 44 percent of higher-wage workers," and at least 44 percent in this group maintain single-parent households (Schochet & Rangarajan, 2004).

The Majority Staff of the Joint Economic Committee (2008) contended

> (the) 2001 recession was the first recession in decades during which women not only lost jobs, but also did not see their employment rates recover to their pre-recession peak…When women lose jobs, families lose a large share of their income and experience greater economic volatility. Wives typically bring home more than a third of their family's income and single mothers are sole breadwinners (p. 1).

For the first time in forty years, female workers collectively experienced sustained job loss (Pugh, 2008). "Compared to men, women lost a larger share of jobs in manufacturing & trade, transportation, and utilities" (The Majority Staff of the Joint Economic Committee, 2008, p. 5).   Unfortunately, "women are more likely than men to be ineligible for unemployment benefits, as they make up the majority of part-time workers who often don't quality in many states" (Joyner, 2003).

And since the unemployment rate excludes discouraged workers, the overall number of women being chronically unemployed may be significantly underestimated (Conroy, 2005). The unemployment rate for Black women was 8.9 percent, Hispanic women's 7.6 percent, compared to white women's 4.0 percent level of unemployment (Hartmann, Lovell, & Werschkul, 2008, p. 2). Another estimation suggested that black female dislocation rate jumped 21% (Pugh, 2008).

When single mother unemployment status is included in this discussion, an increase of 3.5%, from 6.5% (mid-2000), to approximately 10% (mid-2003) (Lerman, 2005) was observed. Hartmann, Lovell, & Werschkul (2008) also noted the unemployment rate for "female heads of household increased by almost half (44 percent) since their boom-time low of 5.7 percent" (p. 2). Hartmann (2001) argued that women who support families faced the highest unemployment rates as there were approximately 4.1 million more working mothers during the 2001 recession (p. 1). For black female adults, unemployment increased to 8.7 percent (Hartmann, 2001, p. 1).

Jobless Recovery

From a historical labor standpoint, "a macroeconomic relationship between output and employment has perpetually existed" (Lin, 2004), where prior post-recession cycles

have experienced simultaneous fiscal expansion with labor market participation rate growth (Schreft & Singh, 2013, p. 46); following the end of a downturn, firms tend to seek additional nonfarm labor (Aaronson, Rissman, & Sullivan, 2001). Delong (2009) further argued that Okun's Law (1962) supports this notion:

> If production and incomes (gross domestic product (GDP)) rise or fall two percent because of the business cycle, the unemployment rate will fall or rise by one percent with it: the magnitude of swings in the unemployment rate will be half or a little less than half the magnitude of swings in GDP (p. 98, 104).

Although this phenomenon may have previously been the norm for post-recession business cycles, the post-2001 recovery created a different employment climate (Waddle, 2015). The 2001 recession may have been considered brief and shallow (Kliesen, 2003; DeGroat, 2001; Bachmann, 2012), but overall job recoupment remained chronically stagnant (Aaronson, Rissman, & Sullivan (2004, p. 2). The Gross Domestic Product (GDP) rose 4.5 percent by the end of 2003 (Groshen & Potter, 2013), which suggested a guarded economic expansion (Schweitzer, 2003). However, when labor participation is added to the mix, many economists and other entities deemed his period to be the *worst hiring slump in twenty years* (Schreft & Singh, p. 45), as the unemployment rate increased to 6.4 percent by June 2003 (Groshen & Potter, 2003, p.6).

During the first year of post-recession alone, an additional 220,000 jobs were further shed beyond those lost during the 2001 downturn (Shreft & Singh, 2013, p.49). Aaronson, Rissman, & Sullivan (2001) suggested that "…twenty-six months into this recovery, nonfarm payrolls were actually 0.5 percent below those of the end date of the recession" (Aaronson, Rissman, & Sullivan, 2001), and unemployment reached its highest level in eight years (Groshen & Potter, 2013). Some researchers estimate that a total of over 2.5 million jobs disappeared during this period (New Politics, 2003).

Groshen & Potter (2003) noted post-recession payroll numbers continued to decline-0.4 percent in 2002 and another 0.3 percent through July 2003 (Schreft, Singh, & Hodgson, 2005, p. 83). Aggregate per capita employment would not return to its pre-recession trough level before the subsequent economic recovery, or approximately fifty-five months later (Jaimovich & Siu, 2012 p. 6, 7; Delong, 2009). A trough level is a point at which contraction, also known as a downturn, ends and expansion begins (Litterdale, 2003).

Economists deemed this extended period of slow growth (Kochlar, 2003, p.4) *a jobless recovery* (Bernstein, 2003; Schreft, Singh, & Hodgson, 2005, p. 83). According to Schreft, Singh, & Hodgson (2005), a jobless recovery is defined as (a) "macroeconomic event during an economic recovery in which net employment growth is zero or negative over its first twelve months" (p. 83).

Many reasons were postulated to explain this new market pattern (Schreft, Singh, & Hodgson, 2005, p.81). Aaronson, Rissman, & Sullivan (2004) suggested that "…(the) emergence of flexible just-in-time hiring practices (Schweitzer, 2003, p. 92), rising costs of health care benefits, a fall in labor supply, and the failure of aggregate demand to keep pace with more rapid productivity growth (p. 9)" collectively contributed to sagging labor participation rates.

Schreft & Singh (2013) further argued the economy implicitly encouraged temporary positions while undermining non-temporary jobs (Schreft & Singh, 2003, p. 54; Groshen & Potter, 2003, p. 5). This change in business cycle philosophy (Garin, Pries, & Sims, 2011) encouraged the use of temporary and part-time workers while

minimizing permanent full-time employment (Schweitzer, 2003, p. 94; Schreft, Singh, & Hodgson, 2005, p. 81; Schreft & Singh, 2013, p. 54).

Groshen & Potter (2003) postulated "instead of furloughing permanent workers, firms increasingly hired temporary help when they are the busiest and cut back when demand falls to encourage a smaller permanent workforce" (p. 5). Schreft, Singh, & Hodgson (2005) noted in 2003 alone, part-time employment dramatically increased by 1.4 percent (p. 89).

Significant shifts in the *sectoral labor reallocation* climate (Jamovich & Siu, 2012) implicitly encouraged companies to make their workforce more efficient (Waddle, 2015) by downsizing labor populations (Schreft & Singh, 2013, p. 45). Many organizations perceived that fewer jobs were required to keep up with the current employment climate (Hotchkiss, 2004; Schweitzer, 2003). The anemic American domestic labor market (Lin, 2004, p. 1) had not seen any sustained return to the prior participation rate (Schweitzer, 2003) until well into 2005. Mishel & Bernstein (2002) further argued the recovery was not strong enough to quell continued workforce contraction (New Politics, 2003) otherwise known as *labor hoarding* (Bachman, 2009). With ongoing rapid change and market fluctuations, multiple stakeholders were in the dark as to which industries and companies would see job growth (Groshen & Potter, 2005, p. 6).

During this long period of unprecedented structural change (Groshen & Potter, 2003, p. 1; Hsueh Chen & Cui, 2016, p. 11), workers were either redistributed to other industries, or, more likely, subject to permanent dislocation (Groshen & Potter, 2003, p. 1, 2; Kochar, 2003) regardless of enterprise (Groshen & Potter, p. 6). For those needing to shift to another sector, many could not easily transition (Groshen & Potter, 2003, p. 4).

As transitional time is needed when a career change occurs (Aaronson, Rissman, & Sullivan, 2004, p. 36), individuals who lacked the needed qualifications (Hsueh Chen & Cui, 2016, p. 2), experienced multiple entry barriers (Hsueh Chen & Cui, 2016, p. 11) in an increasingly complex labor market (Groshen & Potter, 2003, p. 6) where a reduction in routine jobs meant a high-low distribution of employment concentration (Jaimovich & Siu, 2012, p. 6).

Aaronson, Rissman, & Sullivan (2004) suggested that

> Workers displaced from contracting sectors of the economy need to spend time searching for new jobs. This can take substantial time and resources, especially if workers' old skills do not match those demanded by firms in expanding sectors.
> (p. 39)

In addition to manufacturing, routine occupations such as communication, electronics, securities and commodities brokers (Groshen & Potter, 2003, p. 4) sales, office and administrative support experienced significant job loss (Jaimovich & Siu, 2012, p. 8), while the finance, health, and education sectors experienced industrial growth (Hseuh Chen & Cui, 2016, p. 2), careers in which required post-secondary education and training. The inordinate aggregation of college-prepared employees in these sectors further polarized an already fragile jobs market (Hseuh Chen & Cui, 2016, p. 2). The post-recession occupational needs were not the same as the ones lost during the downturn-different types of jobs increasingly required distinct training and preparation than that of the past (Georgetown University, 2016; Carnevale, Smith, and Stroh, 2010, p. 11).

Lin (2004) referred to this mismatch of skills as *labor search friction* (p. 3), where high and low-wage occupations continued to increase, claiming as much as 95 percent of new jobs (Carnevale, Jayasundera, & Gulish, 2016), while middle-skill labor needs

significantly declined (Jaimovich & Siu, 2012, p. 2). Carnevale, Jayasundera, & Hanson (2012) argued that job polarization is nothing new, but a phenomenon "going back at least forty years and represents a structural change in the United States economy, demarcated by rising educational requirements across the labor market and a smaller share of the economic pie for high school-educated workers" (p. 2).

Like the unemployment statistics noted in the first section, people of color, youth, and female single parents (Mishel & Bernstein, 2002) faced the most barriers to full market participation. Kirkland (2002) noted that teens alone accounted for approximately half of the exiters during this time. Kahne (2004) further argued that female head of household families faced the greatest disparity than other groups as incomplete education, inadequate training opportunities, which lowered the living standard for already marginalized female-lead single parent families (Bernstein, 2003).

Government Intervention

The post-recession employment climate was becoming so dire for those most affected by the jobless recovery (Jacobson & Mather, 2010, p. 2), that many researchers, think-tanks, and other entities advocated governmental policy intervention (The Center of Economic and Policy Research, 2008) to generate more consistent job creation (Bernstein, 2003).

The structural contractionary shifts (Labonte & Levine, 2004) subsequently redefined American labor market outcomes (Garin, Pries, & Sims, 2016, p. 1). Although the country survived a significant economic downturn and *sector-specific shocks* (Mehrota & Sergeyev, 2012, p. 1), the once robust industrial workplace had all but vanished (Bernstein, 2002), and the sustainable lifestyle that could be attained with either

a high school diploma or even minimal secondary education became all-but-a-mere myth

(The Center of Economic and Policy Research, 2008). It grew more evident that college-

level preparation is the key to obtaining labor market access and the best careers available

(Carey, 2017).

Given the emerging middle-skills labor need, most professions began to require

some type of post-secondary education, but not to the extent of a baccalaureate degree

(Holzer and Lerman, 2009; Carnevale, Smith, and Strohl, 2010). Further, Gonzalez

(2012)

> contended preparation for *middle-education jobs* is growing in importance because
> occupations requiring only a high-school education or less have basically
> disappeared, and those that do exist offer very low wages. At the same time, not
> everyone has the time or money to invest in a bachelor's-degree program.

Fogg & Harrington (2011) ascertained since unemployment has doubled especially for

those under twenty-five (Symonds, 2012, p. 36), many stakeholders perceived the

American education system as chronically failing to prepare individuals for work

(Symonds, 2012, p. 36). Symonds (2012) suggested traditional learning approaches

weren't providing youth the needed soft skills that available positions required (p. 35).

Many assumed the American government was marginally assisting unemployed citizens

in matching credential attainment levels to occupational interests (Carnevale, Smith, and

Stroh, 2010, p. 1). Further, students often lacked an understanding of the dynamic

demands within emerging fields (The National Center for College and Career Transitions,

2014, p. 3).

Based on a 2011 talent shortage survey distributed to employers, The Manpower

Group (2011) determined at least fifty-two percent of domestic employers expressed

frustration in candidates growing skills gap and the inability to obtain potential

employees with the right skills & preparation (p.5). Wilder (2013) suggested employers were working with inadequate candidate pools.

Craig (2016) defined skills inequity as being the difference between how learners are educationally prepared within a postsecondary environment, and employers' needs (p. 58). In Craig's research (2016), much dissonance had resonated between both job seekers and firms (p. 58). "Fewer than twenty percent of graduating (college) seniors have job offers before graduation. And employers are equally unhappy; only eleven percent think graduating students have the needed competencies businesses require" (Craig, 2016, p. 58).

Symonds (2012) contended higher education's traditionally narrow focus (p.36) significantly inhibited the attainment of middle-class status (Carnevale, Smith, & Stroh, 2010, p. 1) and dissuaded overall success. Even earning a degree didn't guarantee a productive outcome during the noted economic cycle. In some of the more populated areas in the Midwest, more than 4000 bachelor's degree holders are now attending a community technical college in order to gain employability credentials (Symonds, 2012, p. 37).

> There is overwhelming evidence of our failure to prepare students to succeed in college…only forty percent of Americans earn an associate or bachelor's degree by the age of twenty-seven, meaning that most fail to earn a college degree within a decade of leaving high school. (Symonds, 2012, p. 35)

Carnevale, Smith, & Strohl (2010) further suggested that based on current employment opportunities, "only about one-third of today's position availability will require a four-year degree or higher" (p. 13), as "most job openings in the next ten years will not require either sophisticated skills or a college degree" (Anyon, 2005, p. 20).

Although employability and educational preparation concerns have been central to federal policy for twenty years (Anyon, 2005, p. 21), facing a collective situation where there are more than eight million discouraged workers and five million unfilled jobs (Craig, 2016, p. 58) has catalyzed a sense of legislative urgency. High school graduates and dropouts specifically found themselves largely left behind…up to 60 million Americans were at risk of losing access to the middle class (Carnevale, Smith, and Stroh, 2010, p. 1-2), with approximately of 20 million of these working-age adults leaving college for diverse reasons (Carey, 2017). The Joyce Foundation (n.d.) estimated approximately 36 million American adults lack the most basic of skills to succeed in life sustaining jobs.

Carnevale, Smith, and Stroh (2010) argued

> by 2018, the economy will create 46.8 million openings-13.8 million brand new jobs and 33 million replacement jobs; nearly 2/3 of these 46.8 million jobs, some 63 percent, will require workers with at least some college education…healthcare professional and technical positions alone would account for a 22 percent rate of growth in postsecondary attainment needs (p. 13; 20).

In return, many stakeholders advocated shifting the American educational system away from emphasizing the traditional four-year route to a more practical pathway approach encouraging credential attainment (Symonds, 2012, p. 37). "Lawmakers, educators, and employers have collectively focused on education legislation to promote career readiness and partnerships between institutions and industry" (Wilder, 2013).

Following the European vocational career training approach that was perceived as exceeding American education attainment and employment (Symonds, 2012, p. 36), and given countries like New Zealand and Japan have already embraced this philosophy (Symonds, 2012, p. 37). Many legislators advocated career-based education as the best

approach to prepare young people for the working world (Symonds, 2012, p. 38); a number of policymakers asserted an agenda where simultaneous government and business intervention would create attainable positions for the masses (Anyon, 2014, p. 31).

As the demand for the career-trained professional emerged, the federal government supported the expansion of the Carl D. Perkins Career and Technical Education Act of 1998 (109th Congress, 2006). On August 12, 2006, President George W. Bush signed the Carl D. Perkins Career and Technical Education Improvement Act of 2006 into law (109th Congress, 2006; Meeder, 2008). This accountability-mandated legislation focused on workplace training; for the first time, the euphemism of *career ready* (Stone, 2012) referred to developing the academic and career and technical skills of secondary and postsecondary students who elected to enroll in career and technical education programs (109th Congress, 2006).

This policy shift raised the stakes by tying state aid to prescribed conditions and expectations (Shanker & Taylor, 2012). By following the mandates, institutions were malleable to shifting career needs, and provided the means to attain technical training access for individuals (Shanker & Taylor, 2012). For the first time in history, institutions were required to not only develop programs on their own, but to also create the metrics of how the curriculum would be implemented (Reese, 2008). Although these changes meant additional bureaucratic red tape within all aspects of tertiary education, all fifty states implemented the Carl D. Perkins Career and Technical Education legislation (Meeder, 2008).

> (Perkins legislation) required eligible recipients of its funds…to offer at least one Program of Study (POS), which includes coherent and rigorous content aligned with challenging academic standards and relevant career content…that aligns education with postsecondary level preparation…may include opportunities for secondary students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits.
>
> (Lewis, 2008, p. 165).

Although the 2006 Perkins Act encouraged new access streams for individuals to obtain learning experiences and employability skillsets, the Great Recession (December 2007 to June 2009) (Economic Policy Institute, n.d.), brought in a subsequent acute state of severe economic contraction (Economic Policy Institute, n.d.). Unemployment swelled from 5% during 2008, to 10% by late 2009 (Federal Reserve Bank of St. Louis, n.d.). The Economic Policy Institute (n.d.) estimated 6.1% of the workforce, or 8.4 million jobs, were permanently lost during this time.

In response, the Obama Administration enacted multiple legislative actions to ensure opportunity for all Americans as "education had become the civil rights issue of our generation" (The White House, n.d.). and the United States workforce/learner populations did not fare well when compared to multiple international countries (The National Center for College and Career Transitions, 2014, p. 2).

To encourage American citizens the access to a world class education "that would offer high quality job-training, reduce skills shortages, encourage new investment, spark innovation, and promote long-term business & economic growth (United States Department of Education, 2012), President Obama authorized the Healthcare and Education Reconciliation Act, which invested $2 billion dollars, over four years, into higher education (The White House, n.d.).

This financial investment intended to provide every single American access to at least one year of affordable postsecondary training (United States Department of Education, 2012), by creating a sustainable design (United States Department of Education, 2012) for individuals, especially female heads-of-house. This fiduciary support further solidified Obama's vision to mend America's edge within international waters. In turn, "the American Dream was within reach" (Kantor & Lowe, 2011; Schanker & Taylor, 2012; Symons, Schwartz, & Ferguson, 2007)…"the college degree…(would) solidify its role as the best ticket to the middle class" (Fain, 2017; Carnevale, Smith, & Stroh, 2010, p. 3).

In addition to the Healthcare and Education Reconciliation Act, the Obama Administration enacted a second undertaking, the American Graduation Initiative. This policy accelerated ambitious goals for colleges and universities: by 2020, the United States would have the highest proportion of college graduates in the world by encouraging institutions to facilitate five million postsecondary students completing post-secondary certificate or short-term diploma requirements (The White House, n.d.), and an additional ten million individuals would attain a college degree (Bailey, Smith Jaggers, & Jenkins, 2015, p. 7).

The two-year institution became the vehicle to catalyze this broad higher education agenda shift. Community colleges became the primary mechanism to improve the economic climate and achieve a brighter future for the United States (U.S. Department of Education, 2012).

Further, the Perkins Act also helped to leverage other components including a K-12 and postsecondary pathway system, workforce development, job training, and other related activities (U.S. Department of Education, 2012).

According to the Association for Career and Technical Education (n.d.),

> Perkins Basic State Grants provided formula funding to states, which is then distributed to local education agencies for high schools and to postsecondary institutions, primarily community colleges…a minimum of 85 percent of these grants must be distributed based on a formula to local secondary and postsecondary institutions that target disadvantaged students.

The federal contribution to Community and Technical Education (CTE) was estimated to be only five percent (Dortch, 2012). However, its impact, was far reaching given the federal mandates within both the original 2006 dictum and 2013 reauthorization. In 2013 alone, government support via Pell funding provided $34.5 billion in grant money to 9.4 million individuals (Supiano, 2013).

To receive this funding, post-secondary technical institutions complied to-any-and-all guidelines prescribed including student participation requirements, program policies and practices of the Carl D. Perkins Act as well as the 2008 Workforce Investment Act; within the latter, the goal was for increased employment and job retention of domestic workers (United States Department of Labor: Employment and Training Administration, 2004).

By facilitating federal funding to support such initiatives, policymakers instilled mechanisms within education to "ensure that all American youths graduate from high school with the skills and knowledge they need to be ready for college and careers" (Meeder, 2008).

The Department of Education (2012) enacted this strategy to increase educational entry avenues, equal opportunity, and subsequent endpoints. Kantor & Lowe (2011) deemed this approach "human capital formation on federal policy". This new process…"would create separate pathways to promote social mobility for younger students and job training for adult learners" (Supiano, 2013).

Further augmenting the capital development-based vision, the Obama Administration subsequently enacted the Workforce Innovation and Opportunity Act (WIOA). Signed into law on July 22, 2014, the WIOA legislation replaced the Workforce Investment Act of 1998. As this law "coordinated up to nineteen federal programs administered by four different federal departments" (Counts, 2017), career-based preparation significantly expanded with a two-fold goal: to assist job seekers with access to employment, work-based training, and various support services, while simultaneously providing employers with skilled labor (Employment & Training Administration, n.d.).

Also known as the *dual customer approach* (Holland, 2016), states were subject to multiple evidence-based, data-driven reforms that established the development of a single four-year workforce strategy that tied funding levels to compliance (Holland, 2016; Employment & Training Administration, n.d.; United States Department of Education, n.d.). Out of the corporate style reform (Ravitch, 2000, p. xxviii) agenda was the expansion of the Career Pathway model. This plan-of-study approach was established to ensure program quality, concurrently with accountability and capacity (United States Department of Education (n.d.) as "higher levels of formal education increases access to jobs" (Carnevale, Smith, and Stroh, 2010, p. 2)

Philanthropists

Although the government championed career-based training by initiating a

significant amount of the post-secondary reform (Wilder, 2013), non-profit organizations

further galvanized the vocational business model approach. The term foundation

"typically refers to a non-governmental organization that makes grants to various

nonprofit organizations, institutions, or individuals with the purpose of encouraging some

sort of public good" (Hall, 2011, p. 15). Hollis (1938) suggested that these associations

have always desired higher education reform to promote societal welfare (p. 116-117),

and a vision where the domestic college system encourages social mobility, equity, and

economic development (Bill & Melinda Gates Foundation, n.d.)

With the entrance of philanthropists, foundations not only gained full entry, but

were also able to assert substantial clout and disproportionate influence over

postsecondary policy and reform efforts (Saltman, K., 2010, p. 1). Able to facilitate

targeted investments by investing in specific initiatives (Ravitch, 2010, p. 199) by

significantly expanding access to socioeconomic and racially diverse individuals (Hall,

2017), philanthropists gained unfettered entrance to implicit policymaking and political

influence (Strickland, 2007, p. 104). This was facilitated by advocating the expansion of

large-scale career preparation (Hall, 2011, p. 3; Ravitch, 2010, p. 200) veiled in the

premise that such a method would encourage substantial social investment (Saltman,

2010, p. 2).

Diane Ravitch (2013) postulated that

> Gates didn't just jump on the bandwagon; he worked to build that bandwagon, in
> ways that were not always obvious. To keep its reform goals on the national agenda,
> Gates also supported news-media organizations that cover higher education.

In response, the federal government not only supported the foundations' vision of instilling a data-focus outcomes-based business model which focused on process, results, and evaluation (Conlin, Hempel, Polek, and Dayton, 2003), but has since readily implemented the philanthropists' narrowly defined vision of a career-based trained workforce (Reindl & Reyna, 2011, p. 5). Centering their agenda at the two-year junior college level, many foundations embraced community-based higher education as the key to providing opportunity for marginalized learners (Jenkins, 2015); others, the means to "increasing employment outcomes…and in promoting training partnerships with major industries" (The Joyce Foundation, n.d.).

When President Obama asserted the notion that every American citizen should have at least one year of postsecondary education by the year 2020 (United States Department of Education, 2012; Gasman, 2011), philanthropists raised the stakes by further "promoting postsecondary access and completion for all Americans (Carnevale, Jayasundera, & Hanson, 2012). Major foundations such as the Lumina Foundation for Education, the Bill & Melinda Gates Foundation, and the Joyce Foundation's "Shifting Gears" initiatives not only supported this agenda, but also simultaneously facilitated assertive goals to increase career-related education (Gasman, 2011) with "(an) unprecedented sense of urgency" (Cochran-Smith, Piazza, & Power, 2012).

> Unless we dramatically improve student success in higher education, our nation will suffer from a shortage of skilled workers needed to ensure global competitiveness and national security. We are currently on track to produce at least eleven million fewer career-relevant certificates and degrees that our economy will require by 2025. (Bill and Melinda Gates Foundation, n.d.).

Along these lines, the Lumina foundation aggressively shifted gears by counting postsecondary credentials to increase the number of college graduates from 39% to the

anticipated 2025 nationwide goal of 60%, by specifically targeting those learners that

came from historically marginalized populations (Bailey, Smith Jaggers, & Jenkins,

2015, p. 7; Smith, 2017; Lumina Foundation, n.d.). To further permeate higher education

access for disadvantaged learners (Bill and Melinda Gates Foundation, n.d.), the Gates

Foundation "launched a postsecondary success initiative to double the number of low-

income young adults who earn a degree or credential with value in the marketplace by

age twenty-six" (Bill and Melinda Gates Foundation, need date) by infusing $343 million

by 2013 (Parry, Field, & Supiano, 2013).

 Under the premise to "link education and job training with employer needs in

critical areas" (Wisconsin Technical College System, 2013), the Joyce Foundation's

(n.d.) "Shifting Gears" program

> encouraged time-tested strategies to boost workers' skills, focusing particularly on
> disadvantaged adults such as women on welfare, low-skilled workers, ex-offenders,
> and others who face significant barriers to joining the workforce…This six Midwest
> state initiative focused on increased access (via funding streams) to credentials for
> low-income adults by streamlining postsecondary, adult basic education, and skills-
> development systems.   (Wisconsin Technical College System, 2013)

 Further penetrating this transition was the involvement of third-party participants,

including nonprofit university research institutions. Although these entities did not have a

direct stake in community college practices, research parties compelled policymakers to

address the achievement gap of marginalized community college learners based solely on

their rationale. Funded by multiple philanthropic sources, the Harvard Graduate School

of Education's 2011 report, *Pathways to Prosperity: Meeting the Challenge of Preparing*

Young Americans for the 21st Century (Symonds, W.C., Schwartz, R.B., & Ferguson, R.

(2011), argued for single-track vocational education like that of Northern and Central

Europe, which advocated supporting a long-term commitment for learners to take on multiple pathways for the world of work.

This would be achieved by various stakeholders maintaining partnerships with local employers. and youth would enter a social compact at the beginning of high school or even earlier, at nine to ten years old (Schwartz, Keppel, Ferguson, & Symonds, 2011, p. 3). The Harvard report also suggested that rather than focusing on the importance of learners gaining the needed insight or the bigger picture of a given discipline through the appreciation of the craft, the research institutions' business model focus has parsed the role of technical education down to solely being a production line of workers instead of being the vehicle to encouraging lifelong learning and empowering the individual (Schwartz, Keppel, Ferguson, & Symonds, 2011). Further, initial assessments suggested the Gates Foundations' interventions were "promising, but largely untested ideas for how to move beyond incremental improvement" (Bailey, Smith Jaggers, & Jenkins, 2015, p. IX).

The Role of the Technical College

As previously noted, multiple stakeholders catalyzed the two-year technical college as the vehicle for facilitating the career-based approach. Miller (2009) asserted since vocational learning "incorporates soft skills-teamwork, critical thinking, and collaboration" (Hightower, 2014, p .3), and many "employers lamented the lack of knowledge and skills among new hires" (Hightower, 2014, p. 3), sub-baccalaureate education was quickly regarded as the key to economic growth (Miller, 2009) and an overall basic necessity (Bailey, Smith Jaggers, & Jenkins, 2015, p. 5).

The perception that top four-year universities implicitly discriminate against the poor by facilitating selected opportunity for those in higher socioeconomic classes (Thompson, 2017) has driven a shift in the fundamental understanding of "the purpose and practice of education" (Kliebard, 1999). The 'vocational ideal' (Kliebard, 1999) has precipitated career-based education playing a central role in rebuilding the economy to secure a more optimistic future (US Department of Education, 2012), by facilitating the ambitions of students, especially for those coming from disadvantaged environments (Bailey, Smith Jaggers, & Jenkins, 2015). Most projected job openings require tertiary preparation less than that of a bachelor's degree (Shulock, Offenstein, & California State University, 2012).

Linking job training with employer needs in critical industry sectors, (Wisconsin Technical College System, n.d.) will provide the means for more individuals the access to the American dream (Schanker & Taylor, 2012; Symons, Schwartz, & Ferguson, 2011), a robust preparation that can transfer across multiple occupations (Miller, 2009), as well as the means to family-sustaining wages (Shulick, Offenstein, & California State University, 2012; Bailey, Smith Jaggers, & Jenkins (2015, p. 6).

In response, "positive public perception of 'good jobs' (being) associated with community college degrees increased 83%" (Fein, 2017), with the definition of a *good job* solely being based on an age-based median gross annual income scale: "$35,000 for workers under 45 years old, $45,000 for workers over 45 years old, and a median income to meet various needs, $55,000" (Fein, 2017).

Hightower (2014) suggested that because career and technical education (CTE) traditionally focuses on specific career training (p. 3) two-year institutions can

significantly stimulate a competitive domestic workforce (Shulick, Offenstein, & California State University, 2012; National Center for Education Statistics (2013, p. 307), while encouraging a practical option for learners (Hightower, 2014, p. 3). Technical education prepares individuals for the workplace simultaneously with acquiring transferable skills for diverse positions (Miller, 2009; Mangan, 2013).

In turn, individuals can increase employability and career advancement options (Miller, 2009). "The national college completion agenda may be in full swing, but the role of 'community' colleges in that agenda is significantly under-appreciated" (Shulock, Offenstein, & California State University, 2012), and two-year institutions are "often unfairly tarred for inaccurate graduation rates and related statistics" (Carey, 2017).

Open Access Institutions. Two-year colleges have traditionally been open access post-secondary institutions (Batzer, 1997; Bailey, Smith Jaggers, & Jenkins, 2015, p. 1; Rosenbaum & Person, 2003), where individuals can learn a trade, gain college credit, or acquire the basic skills needed to navigate within society. As an affordable alternative to the traditional four-year track (Carey, 2017), students have access to a broad range of educational and training opportunities.

Within this type of environment, many stakeholders perceive the two-year institution as helping bridge the perpetual equity gap and create the access streams needed to acquire good-paying jobs. Bailey, Smith Jaggers, & Jenkins (2015) further suggest that technical colleges are the basis to viable domestic growth and ascending mobility (p. 1).

As open-admission institutions, community colleges have played a critical role in expanding access to postsecondary education for disadvantaged students. Among first-time college students with family incomes of $32,000 or lower, fifty-seven percent started at a two-year or less-than-two-year college rather than at a four-year institution. (Berkner, Chey, and Hunt-White, 2008)

(Oreopoulos & Petonihevic, 2013; Belfield & Levin, 2007) further suggested individuals earning career-based skills completion can further market benefits as attainment can provide even better individual and societal returns.

Higher Education Completion Rates. Based on the standards previously asserted by both federal mandates and non-profit foundations, there are wide reaching implications that directly trickle down to a given district technical college. Although deemed a place of opportunity for diverse socioeconomic populations, two-year organizational environments' matriculation rates have been collectively known as being an incubator for "unforgivable program-completion numbers" (Mangan, 2014). Scrivener, Weiss, Ratledge, Rudd, Sommo, et al (2015) indicated that

…Despite the great strides made in the last several decades in opening-up college education to women, students of color, and low-income students, graduation rates remain stubbornly low, particularly for the latter two groups. This problem is especially pronounced in community colleges, the primary postsecondary education providers for low-income students in the United States.

While the most recent six-year graduation rate for four-year institutions has been holding at about fifty-nine percent (Hall, 2017; United States Department of Education, 2012) the overall completion rate for students from low-income families is a quarter of that (United States Department of Education, 2012). Other experts estimate approximately four out of ten socioeconomically disadvantaged students complete a degree or certificate within the six-year window (Radford, Berkner, Wheeless, & Shepard, 2010; Miller, 2008). Foy & Schwann (n.d.) argued that for many of these

learners, navigating through the post-secondary path can be too big of a challenge (Foy &

Schwann, n.d.).

When two-year institutions are factored in, the three-year (150%) graduation rate

plummets to below twenty percent, with some schools even reporting single digit rates

(Bailey, Smith Jaggers, & Jenkins, 2015, p. 5). The local technical college used for this

study maintained an 11% graduation rate (as of 2017). With current numbers residing at

the margin, most students that enter a community college environment will never

graduate (Bailey, Smith Jaggers, & Jenkins, 2015, p. 1).

Marks-Jarvis (2015) further affirmed as low-income students of color tend to

experience the worst consequences when trying to balance school with work, utilizing

incremental, short-term career-based training can create avenues for gainful employment

opportunities (Supiano, 2013).

Technical college demographics. Bailey, Smith Jaggers, & Jenkins (2015, p. 1)

approximate over ten million students annually attend community-based higher learning

institutions in various capacities; some estimate this number to represent at least half of

the nation's undergrads (Bailey, Smith Jaggers, & Jenkins, 2015, p. 1). The National

Center for Educational Statistics (2019) anticipates the 2019-2020 sub-baccalaureate

participation rate to be close to six million, while four-year institutions to collectively

serve fourteen million individuals. "Although the technical college sector is often treated

as an adjunct to U.S. higher education, it…constitutes the first stop for roughly one-half

of today's college students" (Cox, 2009).

Many two-year institutions offer diverse career-driven activities like

apprenticeships, short-term certificates, diplomas, as well as associate degrees, some

researchers may include these learning experiences in overall student attendance levels. Just like the diversity of how technical college participation rates can be identified, two-year student demographics can also greatly vary.

Although societal norms suggest the traditional student population as "(individuals) beginning college right after high school, (attends school) full-time, lives on campus, and is ready to begin college level classes" (Deil-Amen, 2011, p. 1), recent research suggests an emerging nontraditional student demographic increasingly participating at two-year post-secondary institutions. Current postsecondary trends indicate a significant shift in the American technical college student demographic (Bettinger & Long, 2009) as "(the) so-called traditional student is no longer typical in American higher education" (Supiano, 2013; Williams, 2014).

Given the diverse range of demographics found within this group, the definition of what a nontraditional learner can be quite diverse and complicated (The National Center for Education Statistics, n.d.). Approximately sixteen percent of college students today fit the so-called traditional mold: 18- to 22-years-old, financially dependent on parents, in college full time, living on campus (Pelletier, 2010; Deil-Amen, 2011).

The National Center for Education Statistics (n.d.) suggested age (specifically over twenty four) has been the primary characteristic to identify the non-traditional learner population… "Students over the age of twenty five are now one of the fastest growing populations in community colleges…age acts as a surrogate variable that captures a large, heterogeneous population of adult students" (The National Center for College and Career Transitions (2014, p. 4).

While Pelletier (2010, p. 1) estimated approximately forty seven percent of individuals currently attending post-secondary institutions fall within the over twenty five years old category, Bettinger & Long (2009) and Fitzgerald (2004, p. 151), found the participation rate closer to sixty percent.

> In addition, a significant number of technical post-secondary non-traditional individuals include those that have children, maintain full-time employment, and sometimes even return to school after years away. They predominantly enroll part-time, and take longer to graduate from a certificate, diploma, or associate degree…many community college students also transfer to four-year colleges before finishing a degree.   (Carey, 2017)

While age and related variables tend to dominate when defining the non-traditional learner population, race, gender, and socioeconomic status cumulatively provide clearer direction regarding two-year college participation rates. Within the non-traditional model, most learners attended school part-time; utilized financial aid; and more than half were financially independent, often earning less than $20,000 annually while simultaneously supporting a family (Suprano, 2013; Williams, 2014)."Approximately twenty-five percent of low-income students that met the National Center for Education Statistics (NCES)' criteria…start their education in two-year colleges" (Fitzgerald, 2004, p. 19) as inequalities with access is perceptually less pervasive at a technical college when compared to four-year counterparts (Fitzgerald, 2004, p. 34).

The emerging demographic was also "less likely to be white…, more likely to be Hispanic and a first-generation post-secondary participant (Williams, 2014). Suprano (2013) further approximated twenty percent of this demographic was foreign born; a third maintained minority status; fifty-seven percent women; & thirty-seven percent, Black males (Williams, 2014). Fitzgerald (2004) suggested males were more likely to attend a two-year institution than their female counterparts (p. 128, 131). By the year 2050, "the

nonwhite population will likely increase from thirty one percent to fifty two percent"

(Gasman, 2011).

While a significant shift in participation types has been observed, the underprepared

and/or unprepared learner population (attending a two-year institution) had concurrently

become more prevalent (Bettiner & Long, 2009). According to the National Center for

Education Statistics (2013), of the approximately "one-third of incoming students

requiring 'catch up classes', 41% were Black, 37% Latino, and 31% Caucasian…some

(institutions) estimate the freshmen remediation rate may be as high as fifty to sixty

percent" (p.317).

Williams (2014) suggested the "anticipated boom in minority students carries some

troubling echoes of long-standing, systemic problems that the higher education industry

has not completely solved yet," as "…many students entering college are unprepared for

the demands of postsecondary study" (Hall, 2017). Ogbu (1992) further argued this

phenomenon implicitly existed within minority populations as (they)

> …are often less advanced in terms of years of school completed and performance on tests of academic achievement and cognitive skills. As such, they are faced with the challenge of attaining educational parity with the dominant groups in pluralistic, urban societies.

Tornatzky, Macias, Jenkins, & Solis (2016) also noted

> Many Latino students are the first in their family to attend college. As such, they often have poorly developed goals, do not understand/cannot navigate the road map between course work and career success, and are frequently overwhelmed with the plethora of choices with which they are confronted in the college setting. The freedom of college can be overwhelming.

Regardless of the academic and socioeconomic challenges that individuals may

have, there is a continued push to "…focus on educational equity for members of

minorities and help them get college degrees" (Gasman, 2011), and the gatekeepers being

the two-year institution via the career pathway model (Zeidenberg & Jenkins, 2012). To encourage technical college participation, creating short-term incremental credentials within new or existing degree and diploma programs will provide a clear path toward a future career and level chronic equity gaps.

Pathway Model

As previously noted, labor market shifts and dynamic employer demands have catalyzed the career-based education phenomenon (Visher & Stern, 2015, p. 2-3). Proponents of two-year institutional reform have collectively articulated an aggressive change agenda in which learners obtain the needed skills and successfully gain credentials through a succinct semester-by-semester approach (Bailey, Smith Jaggers, & Jenkins, 2015, p. 41; Council of Economic Advisors, 2009; Jenkins & Weiss, 2011)).

In turn, many stakeholders contend the plan-of-study approach will facilitate greater equity (US Department of Education, 2012) as well as provide a more efficient means for individuals to acquire the needed human capital to "…move closer to deciding who they are and what they want to become" (Department of Education, n.d.; Bailey, Smith Jaggers, & Jenkins, 2015, p. 41; Soprano, 2013; Frazier & Swygert, 2012).

Although educators, administrators, and learning institutions carry out this given initiative, it is the government, and other entities, driving the aims, actions, and intentions of the career pathway model. Lasswell & Kaplan (1970) identified public policy "as a projected program of goals, values, and practices" (p. 71) based on the "authoritative allocation of values for the whole society (Easton, 1953)." Within this agenda, four principles articulate the core tenets the federal government deems transformative within the two-year college environment (Department of Education, n.d.):

1. **Alignment** that includes clear expectations for high-quality programming and a more active role for states
2. **Collaboration** among secondary and post-secondary institutions, employers, and industry partners to improve the quality of technical education programs
3. **Accountability** for improving academic outcomes and building technical and employability skills in CTE (Career and Technical Education) programs, based upon common definitions and clear performance metrics

According to Wiseley (2010),

> Common participation and performance definitions would enable… key stakeholders to compare and analyze *national* outcome data…for the first time ever. Disaggregated longitudinal data…would provide critical information for monitoring and analyzing student outcomes and closing gaps in participation, educational attainment, and employment between diverse groups of students (as well as)…ensure programs are serving diverse student populations (p. 10-11).

4. **Innovation** will be supported by systemic reform of state policies and practices to standards-based education

To encourage enrollment, retention, and completion within a given discipline, policymakers have charged two-year institutions to implement the above noted parameters (alignment, collaboration, accountability, and innovation) via career pathway models that incrementally build student credentials from basic education to eventual technical diploma and/or associate degree (Figure 2.1).

Career Pathway Definition. A Career Plan-of-Study is a post-secondary multi-stepped incremental process in which multiple entry and exit points are established for individuals to not only obtain gainful employment but also an associate degree (Wisconsin Technical College System, n.d.).

> The Wisconsin Career Pathways/RISE (Regional Industry Skills Education) Initiative has emerged as a national leader in the development of adult career pathways, in which courses taken for one credential automatically build to the next. Career pathways include certificates, technical diplomas, and associate degrees, and the most promising also include career pathway bridges as an on-ramp for basic education students and English language learners.
> (Wisconsin Technical College System, n.d; RISE Pathways, 2012)

WISCONSIN CAREER PATHWAYS

Figure 2.1: Generic Pathway Model (Joyce Foundation, RISE Partnership, 2012)

The career pathway model can also be utilized as an intermediary to baccalaureate

credential attainment. Given that there are multiple pathways, for the extent of this study,

an allied health phase plan-of-study will be utilized.

> Community and technical colleges are particularly important players in educating the
> allied health workforce…In a study of 18 allied health occupations, 62% of the
> individuals completing a post-secondary program did so at a community college,
> which may make health care careers more accessible due to a shorter time
> commitment and lower tuition and living costs compared with four-year
> programs.   (Frogner & Skillman, 2015, p. 54-55)

Allied health is a collective term for healthcare disciplines other than Nursing and/or

Dental related occupations (Registered Nursing, Practical Nursing, Nursing Assistant,

Dental Hygiene, Dental Assistant, and Dental Technician). Some allied health disciplines

would include: Echocardiography Technician, Healthcare Management, Health

Information Technology, Phlebotomy, Pharmacy Technician and Physical Therapy

Assistant. Within this allied health offering, learners:

1. (Credential One-Certificate) Start with taking seven credits to complete a foundational health science certificate (coursework includes a medical terminology and Microsoft Office computer course).
2. (Credential Two-Diploma) Then proceed to complete a technical diploma, which would consist of an additional nine to twelve credits, depending on the choice of program. The Certificate credits may/may not be embedded in the Diploma credit requirements
3. (Credential Three-Associate Degree) Upon completion of the diploma, learners would be eligible to obtain gainful employment concurrently with completing the outstanding credit requirements, a total of sixty to sixty-nine credits, to obtain an associate degree in the designated health science discipline. The Certificate and Diploma credits may/may not be embedded in the Associate Degree requirements.

Institutional Comparison

While previous sections discussed the multiple dynamics related to the evolution of the pathway approach and the multiple stakeholders involved, a final point to consider when assessing the pathway approach is that regardless of location and individual school composition, many policymakers, think tanks, and related parties claim that significant positive outcomes will be attained if a career-based learning model is implemented.

Select schools are used by pathway advocates as established exemplars of success to promote the concept that any post-secondary institution can attain the same results if they utilize these perceived best practices. Because the designated organizations have implemented various strategies resulting in diverse success rates, many two-year colleges seeking change use these post-secondary facilities as comparative models.

Some examples include St. Petersburg, Alamo-San Antonio, Broward, Baltimore County, Jackson, and Lorrain Community Colleges (Milwaukee Area Technical College, 2018). Although on paper these models may seem to be applicable within other two-year institutions, the actual viability of the designated pathway process cannot be assessed without analyzing the immediate community the student body is predominantly coming

from, including racial composition, gender, age, as well as other related institutional &

socioeconomic constructs.

Table 2.1: Institutional Comparative Analysis

Institution/Location	Type of School, Degrees Offered & Enrollment	Demographics	Retention, Completion, & Graduation Rates
St. Petersburg College -Pinellas County (Part of Tampa, FL); city -2018 Population: 275,280	-Community College -Certificates, AAS & Bachelors -46,706-27.4% FT/72.6% PT	- Ave. Age=27.6 -61% White, 13% Black, 15% Hispanic, 4.1% Asian -Female Majority	Retention: N/A Graduation: 7286 (2017-18) Graduation Rate: 15.59%
Alamo College-San Antonio -Bexar County, Tx; large city -2018 Population: 1.5 million	-Community College -Certificates & AAS -60,393-28.5% FT/71.5% PT (Fall 2018)	-N/A -63.6% Hispanic, 22.3% White, 8.2% Black -58% Female	Retention: N/A Graduation Rate: 29.7% (Fall 2018)
Broward College -Ft. Lauderdale, FL; tourist city -2018 Population: 181,595	-Community College -Certificates, AAS, & Bachelors -63,000-21% FT/79% PT	-Average Age: 23.48 -35% Hispanic, 31% Black, 17% White, 4% Biracial -54% Female	Retention: 77.4% (Fall- Spring)/55.5% (Fall-Fall) Graduation Rate (3 yr): 47%
Community College of Baltimore County -Baltimore, MD; urban city -2018 Population: 602,495	-Community College -Certificates & AAS -60,756-46% FT/54% PT	-9.6% <20 y/o, 36.46% 20-29 y/o, 18.68% 30-39 y/o, 11.67% 40-49 y/o, 15.27% 60+ -54% Female	Retention: Fall 17-65%, Spring 17-53% Graduation Rate (within 150%): 11%
Jackson College -Jackson, MI; suburb -2019 Population: 33,534	-Community College -Certificates, AAS, & Bachelors -5227-41% FT/59% PT	-63% under 24 y/o -62% White, 8 % Black, 5% Hispanic -58% Female	Retention: 78% (Fall 2018 to Winter 2019), 55% (Fall 2017 to Fall 2018) Graduation Rate: 14%
Lorrain Community College -Elyria, OH; suburb -2018 Population: 53,881	-Community College -Certificates, AAS, Bachelors, & Masters -11,042-27% FT/73% PT	-45% <20 y/o, 25% 20-24 y/o, 11% 25-29 y/o, 20% 30+ -73% White, 10% Hispanic, 9 % Black -61% Female	Retention: 70.1% (Fall to Spring) Graduation Rate (2 yr): 10.2%
Local Institution (used for research study) -urban city -2018 Population: 592,025	-Community & Technical Education -Certificates, Apprenticeships, Diplomas, & AAS -34,085-90% PT/10% FT	-Average Age: 30 -38% White, 25.8% Black, 18.2% Hispanic, 6.2% Asian, 2.3% Multi-Racial -53.4% Female	Retention: (FT)-51%/(PT)-44% Graduation Rate (2016-17): 11%

Note: Population figures for all institutions from World Population Review (2019). Rest of data obtained from designated institution-Broward College (2019); Alamo College, San Antonio (2019), McBride (2019); St. Petersburg College (2019); Community College of Baltimore (2019); Jackson College (2019); American Association of Community Colleges (2019); Milwaukee Area Technical College (2017, 2018).

Institutional Comparative Analysis

In Table 2.1: Institutional Comparative Analysis, data from St. Petersburg, Alamo-San Antonio, Broward, Baltimore County, Jackson, and Lorrain Community Colleges were utilized to evaluate their standing against the parameters of a local metropolitan technical college. Multiple variables are identified including regional population and composition, institutional related demographics and graduation, retention, and success rates at individual schools.

Although the designated organizations are female majority; students mostly attending part-time; there is an older average learner population; and retention rates tend to be comparable across the identified institutions, several implicit differences may suggest not every institution may be experiencing consistent increased completion and graduation rates, even with the career pathway methodology being employed on the given campus. For example, when graduation rates are compared, the Local Institution (technical college) comes in 11%, Lorrain Community College (10.2%), Jackson College (14%), Baltimore (11%), St. Petersburg (15.59%), while Alamo and Broward were significantly higher at 29.7% and 47% respectively.

Another point of contention is the difference in region. Locations across the United States often maintain diverse socioeconomic compositions and geopolitical climates (crime, average annual income, housing, job availability, transportation access). Only Jackson and Lorrain Technical Colleges are within the Mid-West region; St. Petersburg, Southeast; Alamo-San Antonio, Southwest; and Baltimore, East Coast. If assessing proximity of relative population and related urban demographics, Baltimore is the closest comparable institution.

While Alamo-San Antonio is considered a large metropolitan community comprised of a Mexican majority population, the local institution maintains a more diverse populace; many researchers and related entities deemed the metro region (where the institution studied took place) as being the… "worst city for Black Americans (Comen, 2019)." Most of the schools compared with the Local Institution are located within suburban and tourist-based environments. These divergent areas may maintain a more stable socioeconomic climate, resulting in more post-secondary academic access streams than the local institution.

A final point to consider when comparing institutions are the types of tertiary education the given school offers. While the local institution focuses on technical and career education, offering community-based services via apprenticeships, certificates, diplomas, and Associate of Applied Sciences degrees, some community-based schools including St. Petersburg, Jackson, Lorrain also facilitate direct-entry Bachelors' degree completion programs. Lorrain College even offers Masters-level programs and coursework.

Statement of Need

As the table and brief analysis in the previous section indicated, substantial differences in demographics, outcomes, and related variables, subsequent research is necessary to determine whether the pathway model offered at the urban institution produced similar outcomes as the other compared schools.

Further, given a significant number of socioeconomically disadvantaged learners that attend this school, an inquiry to ascertain the institution's ability to reproduce the desired results advertised by public policy is needed so as to determine whether this

incremental process "reflects the kinds of things that society ought to be doing to help the marginalized (Fischer, 2005, p.1)" needs to be established.

Although advocates assert the pathway model facilitates the attainment of middle-class status (Cragun, 2016; Bottoms & Sundrell, 2016), there are very few current publications available at the community college level regarding the plan-of-study approach, especially within a technical school environment. Most of the information available is derived from either secondary or four-year institutions.

The only extant literature found in specific reference to post-secondary pathways is from either a federally mandated study, a foundation, or directly from tertiary school websites. There currently is no substantial research regarding the impact of this type of career development strategy (National Careers Pathways Network, 2012) specifically within an urban technical college.

Many researchers suggest this business model approach to increasing technical college completion rates does not address issues specific to underprepared or socioeconomically disadvantaged learners. Further research is required to facilitate a better understanding of the pathway model and its role within this type of post-secondary environment. Because of the unique characteristics and narrative within this Midwestern urban institution, I conducted a mixed-methods study via an Allied Health program of study to address the current research gaps.

In Chapter Three, the study's aims and designs, methodology, data collection processes including participant selection, and plan for analysis will be discussed.

Chapter Three:
Research Methodology

Labor market shifts and dynamic employer demands have catalyzed the career-based education phenomenon (Visher & Stern, 2015, p. 2-3). Proponents of two-year institutional reform have collectively articulated an aggressive change agenda in which learners obtain the needed skills and successfully gain credentials through a succinct semester-by-semester approach (Bailey, Smith Jaggers, & Jenkins, 2015, p. 41; Council of Economic Advisors, 2009; Jenkins & Weiss, 2011).

In turn, many stakeholders contend the plan-of-study approach will facilitate greater equity (US Department of Education, 2012) as well as provide a more efficient means for individuals to acquire the needed human capital to "…move closer to deciding who they are and what they want to become" (Department of Education, n.d.; Bailey, Smith Jaggers, & Jenkins, 2015, p. 41; Soprano, 2013; Frazier & Swygert, 2012).

To encourage enrollment, retention, and completion within post-secondary environments, policymakers have specifically charged two-year institutions to implement career pathway models that incrementally build student credentials from basic education to eventual technical diploma and/or associate degree. This educational process can also be utilized as an intermediary for baccalaureate credential attainment.

Because of the diverse socioeconomic student narrative within the Midwestern technical college, a study inquiry was conducted to ascertain the institution's ability to reproduce the desired results advertised by public policy and determine whether this incremental process "reflects the kinds of things that society ought to be doing to help the marginalized" (Fischer, 2006, p.1) and to address current research gaps.

In Chapter Three, the study's aims and designs, methodology, data collection processes including subject selection, and plan for analysis will be discussed.

Research Design

The main aim of this research study was to determine whether associate degree students actually attained the outcomes prescribed by the career pathway mandate. As previously noted, the career plan-of-study is a post-secondary multi-stepped incremental process in which the end goal is to obtain an associate degree in a designated business, health science, or industrial field. Given the substantial number of pathway programs offered within the Wisconsin Technical College System (WTCS), for the extent of this study, a medium-sized Allied Health associate degree model will be utilized.

Through this pathway, I investigated how Allied Health program student/graduates navigate through coursework and support resources, as well as subsequent employment and education status post program completion. Specific attention was paid to the perceived ease and/or difficulty levels they experienced.

Given multiple Allied Health faculty regularly work with pathway students of similar type and size as the identified program, I also examined Allied Health educators' perspectives regarding retention, completion, and other outcomes for socioeconomically diverse health science plan-of-study learners and graduates. Again, deference was made towards faculty members' observations regarding the level of ease and/or difficulty experienced by pathway students/graduates.

Following Fischer's (2006) *Interpretive Policy Analysis Framework,* all research activities were conducted via a sequential explanatory mixed methods design to not only verify empirical and descriptive program data, but also to obtain the participants'

perspectives, sense of agency, and overall outcomes via interpretive analysis. Figure 3.1 illustrates this process.

Quantitative ⟶ Follow up ⟶ Qualitative ⟶ Interpretation based on results

Figure 3.1: Sequential Explanatory Mixed Methods Design
(Creswell & Plano Clark, 2007)

As noted in Figure 3.1, the sequential explanatory approach facilitates an expanded investigative role (Creswell & Plano Clark, 2011) for data collection by utilizing quantitative information to describe interpretive data (Almaki, 2016) in two successive stages (Ivankova & Creswell, 2006), producing an integrative result (Terrell, 2012, p.276). Although data collection can be time consuming, the sequential explanatory phases clearly describe and delineate an equal priority asserted to both paradigms (Terrell, 2012, p. 276).

When discerning a paradigm type for this project, constraints and related considerations were applied. Although a positivist structure would provide the means to trends, significance, and potential relationships and/or associations, the limited number of Allied Health pathway programs and small subject pools would not result in a robust empirical analysis for Allied Health student/graduate outcomes.

Although the "if" could potentially be derived, the "how" or "why" would not (Terrell, 2012, p.258). The lack of extant literature and unique age, race, and socioeconomic diversity within the Allied Health program student/graduate population asserted the need to acquire a greater understanding (Creswell & Plano Clark, 2011) of

this group's pathway narrative as the "subjective knower is the only source of reality" (Johnson & Onwuedgouzie, 2004, p.14).

The sequential explanatory model further supports the multi-tiered assessment mechanism found within the Fisher framework when verifying public policy efficacy. The Fischer confirmatory structure can be observed in Figure 3.2.

Level: **FIRST-ORDER EVALUATION (MICRO)**
TECHNICAL-ANALYTICAL DISCOURSE: Program Verification (Outcomes)
Organizing Question: Does the program empirically fulfill its stated objective(s)?

CONTEXTUAL DISCOURSE: Situational Validation (Objectives)
Organizing Question: Is the program objective(s) relevant to the problem-situation?

Level: SECOND-ORDER EVALUATION (MACRO)
SYSTEMS DISCOURSE: Societal Vindication (Goals)
Organizing Question: Does the policy goal have instrumental or contributive value for the society as a whole?

IDEOLOGICAL DISCOURSE: Social Choice (Values)
Organizing Question: Do the fundamental ideals (or ideology) that organize the accepted social order provide a basis for a legitimate resolution of conflicting judgments?

Figure 3.2: The Logic of Policy Evaluation in Basic Outline: Levels, Discourse, and Questions (Fischer, 2006, p.18)

Fischer's multi-level construct facilitated the ability to "pinpoint relevancy of data" (Almalki, 2016) by verifying whether a public policy, in this case, the pathway model, has met its intended program outcomes and objectives simultaneously with higher level societal goals and values. In other words, Fischer's framework not only looks at how individuals and programs are affected by policy implementation, but how society is collectively impacted (Fischer, 2006, p.21).

Two levels of policy evaluation took place via Fischer's four phases of deliberation (Fischer, 2006, p 20). For first-order analysis, two micro-scale aspects were considered: technical-analytical discourse (program verification) and contextual validation (program objectives). Fischer's first level discourse was applied to the development of both quantitative and qualitative sets of data collection.

Themes were derived from the retrospective information retrieval and descriptive data analysis from the two cohort surveys. Interview questions were subsequently configured from the quantitative data to determine the efficacy of micro-level program and objectives-based outcomes.

For the quantitative part of my research, I not only prepared two separate first-level questionnaires via Survey Monkey-one for the student/graduate group, and the other specific to Allied Health faculty participants, but retrospective information from the technical college state database system was obtained.

Given that the database resource met the needs of this study, the National Center for Educational Statistics (NCES) was not utilized as originally anticipated. The survey responses provided the means of gaining insight regarding student/graduate and faculty member focused initial themes and direction.

Through the state-level database system, student demographics (participation rates based on various racial, age, and socioeconomic components) for years 2016- 2019, as well as retention, graduation, and post-program employment rates were documented for the main Allied Health Associate Degree pathway used for this study, as well as those programs represented by the Allied Health faculty participating in the data collection phase.

Level One: FIRST-ORDER EVALUATION (MICRO)
• Guiding Question**: Is the designated pathway working as designed?**
Technical-Analytical Discourse: Program Verification (Outcomes)
• Guiding Question: **Does the allied health program fulfill its stated measures?**
Specific Research Questions:
• (Within the designated pathway), was there an increase in completion and success rates for marginalized learners?
• Did the learner graduate "on-time"?
• (Within the designated pathway), did the graduate find employment in the given discipline within 6 months? 12 months?

***Figure 3.3*:** Quantitative Evaluation-Part One (Evaluation of Retrospective Data)

Level One: FIRST-ORDER EVALUATION (MICRO)
• Guiding Question**: Is the designated pathway working as designed?**
Technical-Analytical Discourse: Program Verification (Outcomes)
• Guiding Question: **Does the allied health program fulfill its stated measures?**
Specific Research Questions:
Approximately, what is the length of time that you have been in the designated pathway?
Has the program-of-study been a "seamless" process for you?
Did you complete your program-of-study "on-time"?
Did you find employment within 6 months?
If you did not find employment within 6 months, did you obtain employment within 12 months?
Upon completion of the associate degree program, did you continue with your education at a 4-year institution?
• If you did continue your education, did you graduate with a Bachelor's degree?
• If you did continue your education, what is the length of time that you have been in that program?
• (Free Response) If you did continue your education, what is your selected major?

Figure 3.4: Quantitative Evaluation-Part Two (Survey)

Once the empirical data was obtained and themes established, interview questions were derived. The Allied Health program's student-body is both socioeconomically diverse and minority majority.

The Fischer framework also utilizes a second-order evaluation, which focuses on two macro-scale facets: societal vindication (goals) and social choice (values). The second-order analysis was not used to collect the data but will be employed during Chapter Five (Discussion and Implications) of this dissertation.

Subject Recruitment

Given the small participant pools available, two subject groups, student/graduates from the designated pathway, as well as Allied Health faculty members from plan-of-study curriculum-based programs, were utilized to ensure that purposive sampling practices were employed (Lincoln & Guba, 1985). Figure 3.5 summarizes the main purposive sampling components:

Criteria	**Purpose**
Credibility	Establish confidence that the results (from the participants' perspective) are true, credible, and believable
Dependability	Ensure repeatable findings
Confirmability	Results would be confirmed or corroborated
Transferability	Can be transferred to other contacts or settings

Figure 3.5: Purposive Sampling
(Adapted from, Lincoln & Guba, 1986)

This approach was specifically employed to ultimately determine whether the pathway model was meeting stakeholder needs from multiple perspectives.

Approximately forty Allied Health pathway students/graduates were screened via the class rosters from a faculty member's current and/or previous teaching assignments as

well as advisee lists. The potential subject pool was small given the recent (2013) implementation of the Allied Health program being studied. As the designated population maintained a clear diversity within age, racial, and socioeconomic criteria, all willing participants were included to obtain multiple perspectives regarding the career pathway model. Exclusion criteria were not established.

Once the Allied Health program student/graduate screening information was organized, individuals' phone number(s), and email addresses (school-assigned and personal) were collected from the institution's database. An Excel student/graduate spreadsheet was subsequently prepared on a password protected personal laptop, and the researcher maintained primary possession of the electronic student/graduate list.

To minimize any potential conflicts of interest, initial email and/or phone recruitment was conducted by a Student Specialist assigned by the academic Dean; the student specialist was the only other individual that had access to the student/graduate list. Once recruitment activities were completed, the Student Specialist shredded the paper document and put the remains in a locked disposal bin. Approximately ten students/graduates completed the survey, with four subsequently interviewed. This group's survey and interview data will be discussed and analyzed in Chapter Four.

After the first group's recruitment commenced, interest was subsequently solicited via in-person inquiry and/or email correspondence with the designated Allied Health faculty. Although it was the original goal to obtain professionals at different stages of their academic career for a more robust perspective, all those willing to participate were included given the limited number of faculty within related Allied Health disciplines.

Approximately thirty-five professionals were contacted across multiple areas, with twelve completing the survey, and seven interviews.

Both groups received similar communication via email. Initial emails are available in Appendices A (Allied Health faculty members) as well as B and C (program students/graduates). The correspondence indicated the role of the researcher within this project, the type of research being conducted, activities involved, time commitment required by potential subjects, the voluntariness of participation, as well as a response request by an individual via email, in-person, and/or voicemail message.

If an individual agreed to participate or needed additional information, potential participants were given direction regarding questionnaire completion in a separate email. Survey Monkey was utilized for conducting the survey and subsequent data collection. Both Allied Health program student/graduate and faculty groups completed their designated electronic Survey Monkey questionnaires at independent sites of their choosing. Sample surveys, including the questions utilized, are available in Appendices D (students/graduates) and E (Allied Health faculty members).

The last question of the survey invited subjects, on a volunteer only basis, to provide their name, email address, and phone number if they would like to be interviewed during the second interpretive-based part. Of the ten students/graduates and twelve faculty members that completed the survey, four students/graduates and eight faculty members provided their contact information and were subsequently interviewed.

Data collection activities were approved by both Institutional Research Boards (IRB) at Marquette University's Office of Research (HR#-1802022272-Exempt Status) and the local urban post-secondary institution's review board.

Research Location (Interviews)

Student/graduate interviews took place at locations outside of the institution. The student/graduate selected a public meeting place. Locations included Starbucks, the dining area at an urban mall, Panera, and a local coffee house.

Allied Health faculty members' interview sites were also self-selected and in private areas. Environments included: faculty offices, conference room, diagnostic lab, local coffee house, as well as a classroom; the locations were utilized based on individual subject preference.

Subject Privacy Protections

Specific deference was made to ensuring all subject-based data collection activities maintained clear confidentiality and privacy standards. I was the only individual that had access to the Survey Monkey account; a paper copy of all survey responses was kept in a locked cabinet at my place-of-residence. Digital voice recordings were conducted on my password protected Apple mobile phone; these recordings were scrubbed once they were transferred to my password protected laptop.

A paper copy of the interview transcripts was also kept in a locked cabinet at my place-of-residence. All potentially identifiable information obtained within the surveys and/or interviews were either coded or scrubbed to protect the designated institution, program, as well as faculty and/or student graduate referents. General terms were used for programs, and individual participants were assigned a pseudonym of their choice.

Interviews

All interviews began by informing the participants that any information collected was held in confidence, with the researcher being the only individual accessing all materials.

Participants were asked to choose a first-name alias for use throughout the rest of the study. Sessions were conducted individually and lasted approximately 30 to 45 minutes in duration. I met with each subject at a location of each participant's choosing. One question set was used for the students/graduates and a similar one for the faculty members.

My Apple iPhone 10 was used to record all interview sessions digitally and saved as a MP4 file. The MP4 file was then transferred and saved on my personal laptop for transcription and coding. All MP4 files on my Apple iPhone 10 were subsequently deleted once the transfer was completed and viable files were verified. Both my Apple iPhone 10 and my personal laptop are password protected and have current security software.

At the beginning of each session, I identified my affiliation with Marquette University as a doctoral candidate in the Educational Policy and Leadership program, an academic lead in an Allied Health program, and some of the initial observations that I have made with my pathway students. I identified that the main aim of the research was to determine whether the career pathway public policy actually provided the outcomes promised.

I also shared my educational journey as a first-generation student from a single parent household, as well as the work-school-home balancing act I often had, being the main caregiver to three young children close in age. This was done to build individualized rapport and establish authenticity. I then asked each informant if I could record the interview and take some notes during each session.

Although I maintained a professional relationship with the Allied Health faculty members and educator role with the students/graduates, I explained that my focus within the interview session was researcher; both interview cohorts were reassured that they were in a safe forum to express observations, examples, and/or feedback.

Individuals were informed that they were under no obligation to participate, free to respond as they saw fit, and no implicit agenda was taking place. Prior to the start of each recorded session, I went over the Informed Consent process with the Allied Health faculty members and students/graduates. I reviewed a paper copy of my study's informed consent, including the protections and rights they maintained as human research subjects.

I also explained the risk level involved with participating in my study activities. After the conversation took place, each subject was asked whether they had any questions or needed any clarification. Participants subsequently signed the written consent, which I kept, and were provided with a sample form for their records, see Appendix F (Informed Consent).

To minimize any potential perceptual conflicts and/or bias, members checks were done post-interview to confirm validity. If there was a compelling discussion or unclear information obtained during an interview, a follow up session was conducted by phone. NVIVO software was utilized to transcribe, code, and analyze data for themes. All electronic transcript files were manually reviewed for accuracy and stored in my password protected laptop. A paper copy was kept in a locked cabinet at my residence.

Ethical Concerns

As noted in the previous section, any potential personal or professional risk for every informant was consistently minimized. All names, institutional, program/department, as

well as employment or educational status referents were either scrubbed, coded, or modified to ensure confidentiality and privacy. No outstanding concerns were identified by any of the participants in this research activity.

Throughout the duration of this study, I maintained professional employment at the designated institution and directed prior instructional and administrative-based experiences with potential and actual program student/graduate population & Allied Health faculty informants. All participants were aware of this when engaging with the researcher during data collection.

One potential ethical dilemma did present prior to scheduling the interview sessions-compensating subjects for their time. Although there was no expectation of payment, since the informed consent process indicated such, I felt compelled to express a small gesture of gratitude for their willingness to help me. At the end of each interview, subjects were personally thanked for their participation and were given a $25 gift card to a restaurant, Starbucks, or local grocery store.

Summary

Chapter Three identified the methodology for this study including the research problem, design, methods, subject recruitment, research site locations, mechanisms, data collection, subject privacy practices, informed consent, and ethical concerns. Data collection was conducted under the auspices of a mixed methods approach: the quantitative-based material was obtained from retrospective state level data base information as well as two Survey Monkey instruments for both the student/graduate (n=10) and Allied Health faculty members (n=12).

To derive a more individualized perspective on the career pathway model and whether its outcomes are meeting its objectives for learners, one-on-one interviews were conducted for Allied Health faculty members (n=7) and student/graduates (n=4).

In Chapter Four, the study's findings will be presented and analyzed.

Chapter Four:
Findings

The main aim of this research study was to determine whether associate degree students attained the outcomes asserted by the career pathway public policy. As noted previously, the plan-of-study approach is a post-secondary multi-stepped incremental process in which the end goal is to obtain an associate degree in a designated business, health science, or industrial field. Given the substantial number of pathway programs offered within the Wisconsin Technical College System (WTCS), a smaller-sized Allied Health associate degree model was utilized for the extent of this study.

This chapter presents the study's results. The first section of the chapter reviewed nominal state reporting data, while the second part presented the interpretive information including survey and informant interviews for both the faculty and former student/graduate groups. From these stages, the plan-of-study approach was verified to determine whether "the policy actually facilitated accepted desired goals or values" (Fischer, 2006, p.1).

To gain a better understanding of any potential trends and/or outliers, nominal data was obtained for a three-academic year interval (2018, 2019, and 2020) to help guide the subsequent qualitative phase. Interpretive survey and interview activities were conducted during the 2018-2019 (academic year) IRB Exempt approval collection period.

Research Questions

The primary research questions were:

5. Is the designated career pathway working as prescribed by public policy directives?

6. Based on the public policy mandates, does the allied health program-of-study fulfill its stated mission and encourage student success outcomes (retention, perseverance, program graduation, transfer to 4-year institution, & professional employment)?

Two levels of policy evaluation took place via Fischer's four phases of deliberation (Fischer, 2006, p 20). For first-order analysis, two micro-scale aspects were considered: technical-analytical discourse (program verification) and contextual validation (program objectives). Ficsher's first level discourse was applied to the development of both quantitative and qualitative sets of data collection; this can be visualized via Figures 4.1: Quantitative Evaluation-Part One (Evaluation of Retrospective Nominal Data) and 4.2: Qualitative Evaluation-Part Two (Survey) and Part Three (Interview):

Level One: FIRST-ORDER EVALUATION (MICRO)
• Guiding Question: **Is the designated pathway working as designed?**
Technical-Analytical Discourse: Program Verification (Outcomes)
• Guiding Question: **Does the allied health program fulfill its stated measures?**
Specific Research Questions:
• (Within the designated pathway), was there an increase in completion and success rates for marginalized learners?
• Did the learner graduate "on-time"?
• (Within the designated pathway), did the graduate find employment in the given discipline within 6 months? 12 months?

Figure 4.1: Quantitative Evaluation-Part One (Evaluation of Retrospective Nominal Data)

Level One: FIRST-ORDER EVALUATION (MICRO)
• Guiding Question**: Is the designated pathway working as designed?**
Technical-Analytical Discourse: Program Verification (Outcomes)
• Guiding Question: **Does the allied health program fulfill its stated measures?**
Specific Research Questions:
Approximately, what is the length of time that you have been in the designated pathway?
Has the program-of-study been a "seamless" process for you?
Did you complete your program-of-study "on-time"?
Did you find employment within 6 months?
If you did not find employment within 6 months, did you obtain employment within 12 months?
Upon completion of the associate degree program, did you continue with your education at a 4-year institution?
• If you did continue your education, did you graduate with a bachelor's degree?
• If you did continue your education, what is the length of time that you have been in that program?
• (Free Response) If you did continue your education, what is your selected major?

Figure 4.2: Qualitative Evaluation-Part Two (Survey) and Part Three (Interview)

QUANTITATIVE DATA PHASE

Retrospective State Data

During this phase, nominal information was obtained from the state institutional

reporting system the public college regularly reports its program performance data to.

The main Allied Health associate degree program parameters were utilized to establish a

baseline for further analysis and project direction. Although the main program maintained

a well-defined pathway, which included both a diploma and associate degree credential,

for the extent of this discussion, the associate degree, which is the highest credential

available at the institution, was the primary mechanism to guide the rest of the study's

data collection. The Allied Health Pathway's diploma information will be provided in the next section with related associate degree and diploma programs.

As noted in Chapter One of this research study, a diploma is an embedded pathway credential that requires the completion of twelve to thirty-five credits and is often utilized for gainful employment while working to attain the associate degree. An associate degree can traditionally take up to two full-time years of attendance to complete sixty to sixty-nine credits. Learners can potentially transfer to a four-year institution upon the attainment of this credential.

Data for individual academic years (July 1st to June 30th) 2018, 2019, and 2020 were obtained to observe any trends and/or potential outliers. The 2018 to 2020 academic year timeline was selected to match the Institutional Review Board's Exempt approval period for survey and/or interview data collection.

A three-year average was subsequently calculated from the three individual academic years identified to compare its performance outcomes with related Allied Health associate degree and diploma credentials. For the initial analysis, parameters utilized from the state reporting dashboard included: Enrollment, Graduation, Second Year Retention, Race/Ethnicity, Gender, Age, as well as Academic and Economic Status. This information is in Table 4.1: Main Allied Health Program-Associate Degree (69 credits).

Table 4.1: Main Allied Health Program-Associate Degree (69 credits)

Academic Year	2018	2019	2020	3 yr average
Enrollment	117	144	154	138.33
Graduations	6	8	5	6.33
2nd year Retention	56.1%	54.2%	51.3%	53.87%
Demographics				
Race				
Asian	9.4%	9%	9.7%	9.37%
Black	44.4%	45.8%	43.5%	44.57%
Hispanic	12.8%	7.6%	13%	11.13%
White	26.5%	29.9%	27.3%	27.9%
Gender				
Female	93%	93%	87%	91%
Male	7%	7%	13%	9%
Age				
18-24	30.8%	26.4%	26%	27.73%
25-29	21.4%	22.2%	25.3%	22.97%
30-34	15.4%	15.3%	12.3%	14.33%
35- 44	20.5%	23.6%	24.7%	22.93%
Disadvantaged Status				
Academic	24%	19%	18%	20.33%
Economic	88%	85%	77%	83.33%

Note: All figures from Winebrenner, C. (2020, July 10). Legacy SSAS program performance dashboard: Program performance. *Wisconsin Technical College System*.

The main Allied Health associate degree program-maintained articulation agreements with multiple four-year institutions and a partnership with another regional technical college for their students to attend the main school (used for this study) and complete the core technical coursework as designated technical courses are not offered at their campus. Recently, the program also added a Dual Enrollment component where high school seniors could start taking college-level English and preparatory Health courses as a head-start into post-secondary education.

In this pathway, the embedded diploma was nineteen credits, while the associate degree, sixty-nine credits. Both parts of the plan-of-study could be taken either full-time (12 or more credits) or part-time (0-11 credits). Learners at the community college were

primarily part-time attendees. Recent data from the 2020-21 Wisconsin Technical

College System Fact Book indicated 90% of active learners at the institution studied were

attending part-time.

The three-year average for enrollment was approximately 138, with 6 graduates.

Enrollment was based on students having the designated associate degree program code

on their academic transcript but may not actually be in the technical program. While

enrollment increased from 117 (2018) to 154 (2020), graduations were stable with an

approximate three-year average of six graduates.

When comparing graduations to overall annual enrollment, the yearly graduation rate

was 5.13% (2018), 5.56% (2019), and 3.25% (2020). The three-year average was 4.65%

(138 enrolled). The 2020 Integrated Postsecondary Educational Data System ((IPEDS)

report indicated a 16% graduation rate for the studied institution. Approximately 54% of

students were retained in the second year, or a one-in-two chance a learner may or may

not continue attending school.

The data obtained also noted the three-year average female participation rate at 91%,

while male, 9%. During the 2020 academic year, a 6% increase in male enrollment was

observed. As approximately 76% of the overall healthcare workforce is female

(Cheeseman Day, 2019), the Allied Health program studied was consistent with this

ongoing trend.

It was further observed that the main Allied Health program student body was

minority- majority-for the three-year average, three racial groups (Black, Hispanic, and

Asian) collectively represented 65.07% of total learner participation; White

representation was 27.9%. Although not included in Table 4.1, American Indian

participation was approximately one percent and both multi-Racial and/or non-identified learners was approximately six percent over the three-year average. Other than some fluctuations with the Hispanic population in academic years 2019 and 2020 (5.2% decrease (2019) and 5.4% increase (2020)), overall racial/ethnic participation remained stable during the three-year interval.

For age-based participation, three main groups represent most of the Allied Health program's student body: 18-24 (27.73%); 25-29 (22.97%); 35-44 (22.93%); cumulatively 73.36%. When the 25-29 and 35-44 age categories were added together, the populations comprised approximately 43.90% of total program attendance. This parameter reflected trends from both state and institutional data: the 2020-21 Wisconsin Technical College System Fact Book (p. 6, 10) noted system-wide median age being twenty-seven years, while individual institutional data, thirty one years (211 Wisconsin, n.d.).

Two parameters unique to this institution were also available: rates of academic and economic marginalization for associate degree participants. Learners with an identified cognitive and/or physical impairment accounted for approximately 20.33% (three-year average), or one in five learners, during the 2018-2020 period. Over the same timeframe, 83.33%, or four out of the five associate degree program participants self-identified as being economically unstable, even though decreases of 3% (2019) and 8% (2020) were observed.

Related Programs

To determine whether the nominal data was unique to the program identified, four additional associate degrees, from the same division, were reviewed and compared to the main Allied Health program used for this research. Programs were selected based on

similar cumulative credits and courses as well as overall student population. Given the potential redundancy for annual reporting data, three consecutive academic years, and a subsequent three-year average was attained for each program's demographic data.

The same parameters, as the main plan-of-study, were obtained for the further other associate degree pathways. For the initial analysis, parameters utilized from the state reporting dashboard included: Enrollment, Graduation, Second Year Retention, Race/Ethnicity, Gender, Age, as well as Academic and Economic Status. This information can be found in Table 4.2: Related Allied Health Program-Associate Degree, on the next page.

Credit Requirements

The overall credit requirements were very similar, if not the same, to the main program. While the studied pathway was sixty-nine credits, the related programs ranged from sixty-two to sixty-five. The overall average was 63.5 (or approximately sixty-four) credits. There was a greater difference when enrollment was taken into account. While the main program's three-year average was 138.33 students, the four related pathways' enrollment ranged from 64 to 184 attendees; program size varied pathways three and four were smaller, while one & two, larger.

The three-year average enrollment for the four related programs was 119.5 (approximately 120). Although this average could be useful depending on the extent of generalizing information, the data point didn't provide a comparable focus to the main plan-of-study. Program one had the closest enrollment to the main associate degree studied.

Table 4.2: Related Allied Health Program-Associate Degree

3-year average	AAS-1	AAS-2	AAS-3	AAS-4
Credits	64	62	65	63
Enrollment	155	75	184	64
Graduations	17	3.67	10	1
2nd yr Retention	60.13%	54.87%	56.97%	46.87%
Demographics				
Race				
Asian	6.87%	2.3%	4.87%	8.27%
Black	17.9%	28.03%	34.37%	41.7%
Hispanic	17.63%	10.53%	22.13%	10.57%
White	49.87%	49.93%	30.97%	27.87%
Gender				
Female	87.3%	83.67%	86.67%	89.33%
Male	12.7%	16.33%	13.33%	10.67%
Age				
18-24	41.9%	30.63%	35.77%	21.37%
25-29	17.4%	19.63%	16.5%	18.77%
30-34	15.07%	13.6%	18.57%	18.73%
35- 44	17.1%%	19.2%	18.6%	23.7%
Disadvantaged Status				
Academic	24%	19%	18%	21.33%
Economic	88%	85%	77%	23.7%

Note: **AAS=Associates in Applied Sciences Degree Program**
All figures from Winebrenner, C. (2020, July 10). Legacy SSAS program performance dashboard: Program performance, et al. *Wisconsin Technical College System*.

Graduates

Program graduates were also reviewed; offerings that maintained higher enrollment sizes had increased graduations. Of the four programs, Program four had a three-year average of one graduate, while Program one had seventeen graduates. Program one closely resembled the main pathway studied. The main program studied had a three-year average of 6.33 or approximately six graduates.

Two-year retention rates ranged from 46.87% (Program four) to 60.13% (Program One). The average for the four related programs was 54.75%, which was 0.84% above the main pathway. When compared individually to each program, the studied plan-of-study was the second lowest out of the five Allied Health associate degree offerings.

Demographics

Because of the intrinsic nature within this dataset, it was more valuable to compare the main plan-of-study to each related program rather than solely focus on cumulative averages. The first demographic data point reviewed was race.

When comparing the main program to each individual related offering, Asian representation was the highest (9.37%) in the studied pathway. The second highest was Program four (8.27%), while Program two was the lowest (2.3%). Of the four related offerings, Black participation was highest in Program four (41.7%), while Program one (17.9%) was the lowest. Over the three-year period, the main pathway maintained a higher Black student enrollment average (44.57%) than the four related offerings. Of the four races utilized, the Black student group participation was consistently the highest in the main program.

Hispanic participation for Programs two and four were approximately the same (10.53% and 10.57%, respectively), Program three has the largest group of Hispanic students (22.13%). When compared to the main pathway studied, Programs two and four showed a similar level of representation.

While Black participation rates were consistently the highest in the main program, Programs one and two maintained higher White student enrollments, making up 49.87% and 49.93% (respectively) of overall program participation (three-year average). Program four (27.87%) was closest to the main pathway (27.9%) when comparing overall student racial composition (during the 2018 to 2020 Academic Years).

Although Programs one and two had a close to 50% White enrollment, all pathways, including the main program studied, collectively were minority majority; when all groups

of color are added together for each program (Asian + Black + Hispanic), participation rates were cumulatively 60% or higher. Both Program three (61.37%) and Program four (60.54%) maintained significant minority participation levels. Of all the programs reviewed, the main pathway studied consistently had the highest three-year participation rate, which was 65.07%.

While racial demographics expressed some heterogeneity, gender was a predominantly consistent demographic across all associate degree pathways, including the main program studied. Although female enrollment ranged from 83.67% (Program two) to 89.33% (Program four), with a cumulative average of 86.74% (female)/13.26% (male) for the four related Allied Health offerings, the main program's female participation rate was 91%, with 9% male. Given that a significant number of healthcare professions are historically female dominant, this dataset did not evoke any new information.

Chapter Two (of this research endeavor) noted the average age for associate degree students (2020-21) was twenty-seven and twenty-dix for technical diplomas (2020-21 WTCS Fact Book, p.6, 10). The related Allied Health associate degrees' dataset demonstrated a diverse spectrum of learners. For Program one, 41.9%, or close to the majority of those enrolled, were in the 18-24 age category. Also from Chapter Two, the extant literature defined the 18-24 age population as (the) "traditional student". Program 4 had the lowest representation, with 21.37% learners falling within this age group; the main plan-of-study was closest to Program four (27.73%).

Although Program one maintained a higher 18-24 participation level, the 25-29 age group had lower cumulative enrollments. Programs two (19.63%), four (18.77%), and

one (17.4%) were all lower than 20% total enrollment. In contrast to the related Allied

Health offerings, the main program had 22.97% participation within the 25-29 age

category.

This phenomenon was also apparent in the 30-34 group. Programs three (18.57%)

and four (18.73%) maintained averages closer to the 25-29 age category, while Programs

one (15.07%) and two (13.6%) had a lower level of enrollment. The main plan-of-study

(14.33%) closely resembled Programs one and two.

While the related Allied Health offerings and the main program studied had

participation rates lower than 20% for both the 18-24 and 25-29 age categories, the 35-44

group represented a slight increase in enrollments-Program four had the highest level

with 22.93% attendees overall, while Program one (17.1%) was the lowest. The main

associate degree studied (22.93%) closely resembled Program four.

Other age parameters considered were cumulative participation levels for those

learners aged twenty-five and older, as well as forty-five and older. When comparing the

18-24 category to the rest of the age groups, all related Allied Health programs

consistently maintained a twenty-five or older majority age population.

While Program one (58.9%) had the lowest level of representation, Programs three

(64.23%), two (69.37%), and four (78.63%) sustained greater participation. The main

program studied reflected this trend as well, with 72.27% of overall student learners

being twenty-five or older. Based on the data and trends observed, the institution,

regardless of program or offering, enrolled a significant number of non-traditional

learners during the 2018-2019-2020 academic years.

Although not noted in Tables 4.1 and 4.2, an additional group, those forty-five or older, also were enrolled during the three academic year cohorts. The participation levels for the Allied Health related groups included: Program four (17.63%), Program two (16.94%), Program three (10.56%), and Program one (8.53%). When compared to the main pathway studied (12.04%), Programs four and two had a higher forty-five or older population, while Programs three and one, lower. The main plan-of-study remained in the middle of the related Allied Health offerings.

A set of demographics that was unique to the technical college reporting system were academic and economic status participation levels. For academic-based disadvantage, the related programs maintained a range of 18-19% (Programs three & two, respectively), while Program one had 24% of its students self-reporting a disability. In contrast, the main plan-of-study noted a three-year average of 20.33% (or, approximately 20%) of its overall student population experiencing a cognitive or physical impairment.

While approximately one in five related associate degree and main program students were identified as having a mental or physical impediment, three out of four related associate degrees and the main program studied, reported approximately four out of five of their overall student population experienced economic marginalization. Over the three-year period, the cumulative averages for the related programs were Program one, 88%; Program two, 85%; Program three, 77%; and Program four, 23.7% (outlier), with an overall average for the four being 81.67%. This trend was also observed in the main pathway studied as the three-year average was 83.33%.

Diploma Programs

Another set of indicators to gauge the nominal data against the main program studied was the embedded diploma data. Given this credential could play a contributory role in an associate degree pathway, this information was utilized to determine whether certain trends also were observed at the beginning of the student's path, specifically barriers and/or related information. As previously noted, this credential is usually completed during the first year of an anticipated two-year full-time period; learners will start in a diploma program and subsequently transition into the associate degree.

The credits taken in this initial offering transferred into the pathway, which minimized redundancy. Diplomas could be utilized to obtain gainful employment while completing the associate degree requirements. One-year credentials used for this review ranged from nineteen to thirty-five credits.

Three programs were selected based on being either part of a pathway (Programs one & two), directly part of a related associate degree discussed in the previous section (Program two), and the final program is the initial credential embedded in the main associate degree studied (Program four). This was done to determine whether trends identified in the main and related associate degrees were also experienced in the diploma, and if those propensities started during the embedded credential. Table 4.3: Related Allied Health Program-Diploma Credential.

Like the associate degrees discussed in the previous section, student enrollment was diverse during the three-year interval. While Diploma one had the largest three-year average with 205.33 (205) learners, Diploma four maintained an average of 55.33 (55) students. Diplomas two & three had slightly higher enrollments than Program four.

Graduation rates trended in the same direction. When enrollment is divided by

graduations, the graduation rates included: Program two (8.65%); Program one (8.32%);

Program three (7.519%); and Program four (4.88%), with a cumulative average, 7.34%.

It is important to note that Diploma four, which was part of the main program studied,

had the lowest graduation rate. This phenomenon was also present in the main associate

degree.

Table 4.3: Related Allied Health Program-Diploma Credential

3-year average	Diploma-One	Diploma-Two	Diploma-Three	Diploma-Four
Credits	19	30	35	19
Enrollment	205.33	75	67.67	55.33
Graduations	24.67	8.67	9	11.33
2nd yr Retention	42.1%	41.75%	53.77%	58.45%
Demographics				
Race				
Asian	4.07%	8.8%	0%	8.9%
Black	47.63%	23.1%	0%	48.77%
Hispanic	19.33%	21.83%	89.3%	20.6%
White	21.27%	40.4%	10%	20.03%
Gender				
Female	94.3%	91.67%	80%	95.67%
Male	5.7%	8.33%	20%	4.33%
Age				
18-24	40.63%	20.03%	53.4%	30.57%
25-29	23.77%	26.83%	17.73%	20.73%
30-34	14.3%%	11.53%	7.88%	15%
35- 44	14%	24.47%	8.77%	20.57%
Disadvantaged Status				
Academic	29.67%	19%	17.67%	22%
Economic	93.67%	63%	53%	95.67%

Note: All figures from Winebrenner, C. (2020, July 10). Legacy SSAS program performance dashboard: Program performance, et al. *Wisconsin Technical College System*.

Although the data potentially suggested low enrollment and graduation rates, this

information didn't provide the whole picture. For Program four (diploma within the main

pathway studied), enrollment was limited to once-a-year, not twice, like the other

diplomas reviewed. Further, enrollment for all associate degrees and diplomas are based

on students having the program code on their academic transcript or institution account, regardless of activity status.

This demographic was not observed specific to when learners were actively attending core course attendance phase like that of a four-year institution. Individuals may have an inactive code or simultaneously maintained multiple programs at one time. Although the institution had recently limited the number of program codes a student may concurrently have, this policy was not grandfathered to affect previous academic years.

Other programs may have had higher enrollment levels, but Programs one (42.1%), two (41.75%), and three (53.77%) experienced lower second-year retention levels than Program four (58.45%); or approximately one out of two learners were retained during their second year of attendance. Given that all diplomas were considered a one-year (two semester) credential, retention rates may have not reflected an accurate accounting of the overall three-year trend as students may not be actively attending school.

Race

Over the three-year period reviewed, Asian representation ranged zero (Program three)-8.9% (Program four). Program two (8.8%) closely aligned to Program four. When all diplomas are considered, average Asian enrollment is 7.26% of overall student enrollment. While Asian participation was the lowest of the four racial/ethnic groups, Black enrollment averaged 18.08% across the four diplomas.

Participation levels ranged from zero percent (Program three) to 40.4% (Program four). Programs two (23.1%) and three (21.83%) experienced double-digit enrollment. Both Asian and Black enrollment was absent in Program 3. The diploma that was directly

part of the main pathway studied, consistently maintained significant levels of Black

student enrollment during the three consecutive academic years.

Of all the racial/ethnic groups reviewed, Hispanic participation levels had the largest

range, from Programs one (19.33%), four (20.6%), and two (21.83%) maintained similar

three-year averages, while Program three (89.3%) experienced a predominantly

homogenous Hispanic student population. White diploma enrollment was comparable to

the associate degrees reviewed in the previous section-Program three had the lowest

participation (10%), the other three diplomas maintained a range from 20.03% (Program

four) & 21.27% (Program one) to 40.4% (Program two).

Although Program two had higher White enrollment than the other diplomas, all

programs, collectively were minority majority; when the groups of color were added

together for each program (Asian + Black + Hispanic), cumulative participation rates

were approximately 60% or higher. Programs two (59.6%), one (78.73%), and Program

four (79.97%) maintained significant heterogeneous minority participation levels.

As noted earlier, Program three (89.3%) had the highest homogenous Hispanic

enrollment. The embedded diploma within the main pathway studied consistently had the

highest three-year minority participation rate, which was 79.97%. Like its associate

degree, Program four had the highest Black representation. All diplomas had

approximately the same-and-or higher minority participation rates than all associate

degrees reviewed. Both the main associate degree program studied and its embedded

diploma (Program four), had the highest three-year enrollment rates for students-of-color.

While racial demographics mostly expressed heterogeneity, significant female

participation levels were observed in all four diplomas. Female enrollment ranged from

80% (Program three) to three programs being over 90%-Program two (91.67%), Program one (94.3%), and Program four (95.67%). The cumulative average for the four diplomas was 90.41 female, 8.59 male, or approximately 10.5 (11) female students to one male.

Like the main associate degree studied, its embedded diploma maintained the highest female student rates (95.67%). Again, a significant number of healthcare professions are historically female dominant, this dataset did not evoke any new information. However, given that gender can play a role in retention and completion rates, further insight was needed.

It was previously noted that the average age for technical diplomas was twenty-six years old (2020-21 WTCS Fact Book). This age would fall outside of what the extant literature defined as a "traditional learner". The four diploma-level credentials were like the Allied Health associate degrees. Although some of the diplomas utilized in this study were not part of the associate degrees reviewed, overall trends were consistent across all Health-based disciplines. The only program that maintained an 18-24 age group majority was Diploma three (53.4%). Diplomas two (20.03%), four (30.57%), and three (40.63%) had diverse enrollment rates.

 In contrast, there was approximate homogeneity in the 25-29 age category. All diplomas reviewed ranged from 17.73% (Program three) to 26.88% (Program two). The 30-34 age group had a bit larger range, 7.88% (Program two) to 15% (Program four), than the 25-29 category.

The 35-44 group demonstrated a similar trend to the 30-34's; diploma participation ranged from 8.77% (Diploma three) to 24.47% (Diploma two). Although not included in the table, those forty-five and older also had notable participation rates, from 7.3%

(Program one) to 17.14% (Diploma two). The embedded diploma (Program four) within the main pathway studied had 12.22% of its overall student population outside of the four main categories reviewed.

When the 25-29, 30-34, 35-44 & 45 and older age groups are added together, three out-of-four diplomas maintained a non-traditional learner majority: Program two (79.97%); Program four (69.43%); & Program one (59.37%). Only Program three was slightly less than 50% (46.6%). It is important to note this inference as age can play a significant role in retention, completion, and graduation rates.

The final set of demographics reviewed were the diplomas' academic and economic status participation levels. As this data was unique to the technical college reporting system and its student population, the prevalence of socioeconomic challenge was rather pertinent to this analysis. For academic-based disadvantage, the diplomas collectively maintained a range of 17.67% (Program three) to 29.67% (Program one). The embedded credential within the main pathway studied (Program four), had 22% of its students self-reporting a disability. The associate degree (within this pathway) noted a 20.33%, or approximately 20%, of its overall student population identified a cognitive or physical impairment. Outside of Diploma one (29.67%), the rest of the diplomas were similar to the associate degree levels (approximately one in five, or, 20%).

While the diplomas were approximately consistent for the academic disadvantage data, the economic-based information expressed more of a range between the four diplomas: Program three (53%); Program two (63%); Program one (93.67%) & Program four (95.67%). The average of the four was 76.35%, or close to 80% when rounded. Although this information may be in-line with the three (out of four) associate degrees

and the main pathway, Program four had the highest rate of socioeconomic challenge (95.67%), when compared to its associate degree counterpart (83.33%).

Summary

This section reviewed the nominal data from the main plan-of-study, four related associate degrees, as well as four diplomas, to determine whether stated goals are being achieved in a career pathway model. Although some trends were identified, the generalized information does not provide a clear picture, but rather a guide to obtaining further data. In the second part of Chapter Four, qualitative survey results as well as Allied Health faculty & students/graduate interviews will be presented.

QUALITATIVE DATA PHASE

Surveys

For this part of the data collection, two sets of surveys were obtained: Allied Health faculty members from designated areas reviewed in the previous section, and students/graduates from the pathway being studied. Given the potential accuracy concerns identified in the state data previously presented, this instrument was utilized to determine the "relevance of the policy objectives employed in an evaluative judgment, asking whether the policy objectives are appropriate to the specific problem situation under investigation" (Fischer, 2006, p.69).

Questions were based on Fischer's levels one and two public policy analysis criteria to determine whether the intentions of the pathway model were attained via outcomes reported by both sets of informant survey responses. To gain a better understanding to participants' perspectives, the findings presentation focused on not "'plugging in'

answers to specific questions or to fulfill pre-specified methodological requirements, but to engage in an open and flexible exploration of the concerns raised in various discursive phases of the probe" (Fischer, 2006, p. 19).

The cumulative survey data will be presented separately according to group, with the Student/Program Graduate information discussed immediately in the next section.

Student/Program Grads-Demographics

Participants started off the survey by responding to demographic questions. Table 4.4, Student/Program Grads Survey-Demographics, identifies subjects based on: gender, race/ethnicity; age; program completion time; time to complete course prerequisites; core coursework completion time; hours worked (per week) while in the program. This information can be found on the next page.

Although forty-five Program Graduates/Students were invited to participate, only ten subjects completed the survey. The response rate was 22.22% (non-response rate, approximately 77.78%), and was anticipated given the limited program size at the time of the research activity; this reflected the overall situation rather than an implicit bias. Program Graduates/students may have also been reluctant to respond as they were not familiar with the student services specialist who contacted them.

Of the respondents, eight in ten (80%) were female, and two in ten (20%), male. Four in ten (40%) were Asian, three in ten (30%) Black, and one in ten (10%) Hispanic, or eight in ten (80%) participants represented historically underrepresented groups. The female dominant and racial/culturally diverse subject pool supported the overall learner population data discussed in the retrospective state data section as well as the pathway being studied.

The participants included nine program graduates, and one individual in their last semester of core coursework. Only one program graduate/student identified as a traditional learner (18-25), while eight were older than twenty-five; one subject did not identify their status. Both the 26-33 & 34-41 age categories had the highest participation rate with three subjects each, while two subjects represented the 42-48 group.

Table 4.4: Student/Program Grads Survey-Demographics

Gender Male 2 Female 8
Race/Ethnicity Asian 4 Black 3 Hispanic 1 Caucasian 2
Age 18-25 1 26-33 3 34-41 3 42-48 2 1 did not identify
Length of Program Completion 13-18 months 4 19-24 months 2 25-30 months 3 Did not graduate 1
Length of Course Prerequisite Completion 0-12 months 2 13-18 months 4 19-24 months 1 25-30 months 1 Over 35 months 2
Length of Core Course Completion 0-12 months 3 13-18 months 5 19-24 months 1 25-30 months 1
Worked Hours (per Week) 1-10 hours 1 11-20 hours 1 21-30 hours 1 31-40 hours 4 Over 40 hours 2

Four in ten (40%) of respondents completed the program within a 13–18-month time range, two in ten (20%) 19-24 months; three in ten (30%) 25-30 months. Five in ten (50%) of learners completed core technical courses within 13-18 months, while three in ten (30%) 0-12 months; one in ten (10%) 19-24 months & one in ten (10%), 25-30 months.

In contrast, two in ten (20%) of learners finished course prerequisites) within 0 to 12 months; four in ten (40%), 13-18 months; and four in ten (40%), 19 months or longer. The latter category (19 months or longer) includes three groups: 19-24 months (one in ten, 10%), 25-30 months (one in ten, 10%), and over 35 months (two in ten, 20%). Cumulatively, four in ten (40%) participants experienced a timeframe greater than 19 months to complete required prerequisite courses prior to starting the technical curriculum.

A final question asked subjects to identify the number of worked hours (per week) while concurrently attending classes. Four in ten (40%) worked 31-40 hours (per week); two in ten (20%) worked over 40 hours; one in ten (10%) worked 21-30 hours; and three in ten (30%) worked less than 20 hours per week.

Student/Program Graduates Survey Data (Academic and Support Areas)

After responding to the demographic section, Program Graduates/Students were asked questions regarding retention & completion; institutional support areas; academic advising; petitioning process; program faculty advising; instructional format; and registration. Table 4.5, Student/Program Graduates Survey Data, Part One, identified their level of agreement (Strongly Agree-Agree-Neither Agree/Disagree-Disagree-

Strongly Disagree) as to whether the given educational component enhanced their

program completion.

Specific academic and support areas were included to observe the level of impact

program graduate/student experienced regarding access and persistence. This approach

applied Fischer's first order assessment in "pursuit of understanding and consensus"

(Fischer, 2006, p. 19, 23) by verifying outcomes directly from those who participated in

the program being studied.

Table 4.5 Student/Program Graduates Survey Data, Part One

The following enhanced my program completion	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Academic Advising	3	1	2	2	2
Petitioning Process	2	1	3	2	2
Faculty Advising	6	3	0	1	0
Instructional Format	4	5	1	0	0
Blended Format	5	4	1	0	0
Registration Process	2	1	5	2	0
Student Life	1	1	7	1	0
Computer-support center	1	1	8	0	0
Financial Aid Dept	3	0	6	1	0
Tutoring Area	1	2	7	0	0
Bookstore	3	1	6	0	0
On-campus parking	2	4	2	1	0
Program Info Materials	3	6	1	0	0
Academic Support	4	0	1	5	0

The first area Program Graduates/Students responded to was academic advising. This department provides career, general program, and related guidance. Students would meet with professional counselors to facilitate various academic-related services. When asked whether this area enhanced program completion, four in ten (40%) participants Strongly Agreed and/or Agreed to the statement, while four in ten (40%) Disagreed and/or Strongly Disagreed; two in ten (20%) Neither Agreed nor Disagreed. Responses indicated a spectrum of views rather than an overwhelming lean towards Agree and/or Disagree.

Related to this section, Program Graduates/Students were then asked about their perspectives on faculty advising. At the institution studied, faculty members provide program and course-specific information. Academic educators/advisors included: Lead Faculty/Program Chair (Subject Content Expert), as well as Full Time and PT faculty. When asked whether faculty advising enhanced their program completion, nine in ten (90%) of respondents Strongly Agreed and/or Agreed, while one in ten (10%) Disagreed. Based on this information, individuals felt faculty advising encouraged program completion.

Process-based questions were presented after participants' perceptions to advising. The first question dealt with the petitioning process. The petitioning process is a unique procedure at the designated institution. Upon completion of program-specific prerequisites, learners interested in pursuing the core coursework submit an application requesting full admittance. When asked about this process, three in ten (30%) Strongly Agreed and/or Agreed, while four in ten (40%) Disagreed and/or Strongly Disagreed; one in three (30%) Neither Agreed nor Disagreed. Responses indicated a spectrum of views rather than an overwhelming lean towards Agree and/or Disagree.

After the petitioning process, participants identified their perceptions regarding course registration. Three in ten (30%) Strongly Agreed and/or Agreed that the registration process enhanced their program completion, while two in ten (20%) Disagreed to the statement; five in ten (50%) Neither Agreed nor Disagreed. Responses did not indicate an overall trend towards positively or negatively affecting their academic outcome.

Subsequent questions dealt with academic-related constructs. Two items referred to course content delivery. In the designated Allied Health program being studied, both hybrid (combined in-class and online format) and asynchronous online methodologies have been facilitated. When asked about overall instructional format, nine in ten (90%) Strongly Agreed and/or Agreed, and one in ten (10%) Neither Agreed nor Disagreed the program's instructional content enhanced their program completion.

When respondents were asked about the hybrid instructional format, nine in ten (90%) Strongly Agreed and/or Agreed, and one in ten Neither Agreed not Disagreed the program's focus on a combined in-class/online instructional content delivery enhanced their academic outcome. When the two questions are compared, four in ten (40%) Strongly Agreed to the overall instructional format, while five in ten (50%) Strongly Agreed the hybrid institutional methodology enhanced their completion.

Program graduates/students subsequently identified perspectives on the program's informational materials. Nine in ten (90%) Strongly Agreed and/or Agreed, while one in ten (10%) Neither Agreed nor Disagreed that department-based communication enhanced their program completion. Based on the consistent level of agreement with instructional

format and communication, respondents inferred program-related aspects did not inhibit their outcome.

The next set of questions referenced various institutional support departments/areas that could have impacted their timeline including Student Life, Financial Aid, Bookstore, Computer-Support Center (Computer Lab), Academic Support, Tutoring, and On-Campus Parking.

When asked about Student Life, two in ten (20%) Strongly Agreed and/or Agreed, while one in ten (10%) Neither Agreed nor Disagreed; seven in ten (70%) Neither Agreed nor Disagreed to the noted statement. Like the perspectives on Student Life, the Financial Aid department question produced a similar result. When asked about this area, three in ten (30%) Strongly Agreed, while one in ten (10%) Disagreed; six in ten (60%) Neither Agreed nor Disagreed.

As previously noted, other support areas were also presented to the subjects. Four in ten (40%) Strongly Agreed and/or Agreed while six in ten (60%) Neither Agreed nor Disagreed the services provided by the campus Bookstore enhanced their program completion, while two in ten (20%) Agreed and eight in ten (80%) Neither Agreed nor Disagreed the Computer-Support Center (Computer Lab) enhanced student success. Following this trend, when asked about Academic Support departments, four in ten (40%) Agreed, five in ten (50%) Disagreed, and one in ten (10%) Neither Agreed nor Disagreed that this area enhanced their program completion.

When the Tutoring area was noted, three in ten (30%) Agreed and seven in ten (70%) Neither Agreed nor Disagreed this service facilitated their overall academic outcome. Finally, when asked about on-campus parking, six in ten (60%) Strongly Agreed and/or

Agreed, while one in ten (10%) Disagreed; two in ten (20%) Neither Agreed nor

Disagreed. With the exception to on-campus parking, which was surprising given limited

parking proximate to the campus, respondents consistently expressed no deference to or

felt the designated departments/areas did potentially inhibited completion given the

program's instructional format encouraging off-campus participation.

Student/Program Graduates Survey Data (Mitigating Factors)

The positivist methodology asserts its data based on generalizations. This approach

avoids "lived experiences and individual goals" (Fischer, 2006, p. 14). Although the

pathway framework posits a seamless approach, given the unique circumstances that

many technical college learners may face, mitigating factors inhibiting progress may have

not been considered during the state nominal data presentation in the previous section.

To gain a better understanding, Program Graduates/Students subsequently identified

whether childcare, personal and/or work-related issues inhibited their progress and

program completion. This information can be found in Table 4.6, Student/Program

Graduates Survey Data (Part Two).

Table 4.6 Student/Program Graduates Survey Data (Part Two)

The following did not inhibit overall experience	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Childcare Issues	3	1	5	1	0
Personal Issues	1	2	3	3	1
Work-Related Issues	2	2	3	3	0

When asked about childcare issues, four in ten (40%) Program Graduates/Students

Strongly Agreed and/or Agreed that childcare issues did not inhibit their overall

experience, while five in ten (50%) Neither Agreed nor Disagreed; one in ten (10%) Disagreed. Although nine out of ten (90%) indicated a level of agreement or a neutral perspective, one informant felt their progress was inhibited by childcare issues.

In contrast, three in ten (30%) Strongly Agreed and/or Agreed personal issues did not inhibit their progress, while three in ten (30%) Neither Agreed nor Disagreed with the statement. Four in ten (40%) Strongly Disagreed and/or Disagreed to the statement. Close to 50% of respondents self-identified this issue as potential barrier to their progress.

A final factor reviewed was work-related issues. Four in ten (40%) Strongly Agreed and/or Agreed, while three in ten (30%) Neither Agreed nor Disagreed of having work-related concerns while completing coursework. Albeit the majority (seven in ten (70%)) expressed either no issues or a neutral perspective, three in ten (30%) felt their progress was inhibited.

Based on the responses, personal and work-related issues produced similar results. Although four in ten (40%) disagreed with the personal issues statement, three in ten (30%), or one less person, experienced work-related concerns which inhibited their progress. The response levels suggested the two factors potentially played a role in the respondent's progress. Again, childcare issues did not seem to inhibit progress for nine in ten (90%) participants.

Student/Program Graduates Survey Data (Statements)

Once the Program Graduates/Students identified any potential work-related, personal, and/or childcare issues that may have inhibited their progress, participants were asked to indicate their level of agreement (Strongly Agree, Agree, Neither

Agree/Disagree, Disagree, and/or Strongly Disagree) to a mix of Fischer's level one and two-based statements.

For this section, the goal was to determine whether the pathway model "fulfills or fails to fulfill its objective" (Fischer, 2006, p. 69). Table 4.7, Student/Program Graduates Survey Data (Part three) broke down the responses to the given statements. Statements were derived from Chapters One (Introduction) and Two (Review of the Literature).

Table 4.7 Student/Program Graduates Survey Data (Part Three)

Identify your level of agreement for the following statements	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
"Completing a designated pathway program is seamless"	1	3	2	3	1
"Pathways are the ticket to the middle class"	1	5	0	4	0
"Limited choice & secure outcomes will facilitate student success"	3	3	0	3	1
"Pathways are an effective means of facilitating success for underprepared learners"	1	5	0	3	1
"The pathways approach is a solvent to addressing societal ills"	1	3	2	3	1
"The focus should be to address trauma in the community rather than pathways"	2	5	3	0	0
"Pathways can be completed in a short time"	1	2	4	3	0
"The technical college provides clear communication with pathways"	6	2	0	1	1
"The focus should be on career prep"	1	6	1	2	0
"Liberal Arts coursework should be part of higher education"	2	6	1	1	0
"Career-based education facilitates engaged democratic societal participation"	0	2	7	1	0

The first claim, "completing a designated pathway program is seamless," produced a range of responses. Four in ten (40%) Strongly Agreed and/or Agreed, while four in ten

(40%) Disagreed and/or Strongly Disagreed; two in ten (20%) neither Agreed nor Disagreed. Given this has been a predominant theme throughout previous chapters, further discernment will be presented in the interview data presentation.

Although the previous question failed to provide clear direction, the next number of questions identified a slight majority opinion amongst informants. When asked about whether "pathways are a ticket to the middle class," six in ten (60%) Strongly Agreed and/or Agreed, while four in ten (40%) Disagreed; four in ten (40%) Neither Agreed nor Disagreed.

In a similar vein, six in ten (60%) Strongly Agreed and/or Agreed, and four in ten (40%) Disagreed and/or Strongly Disagreed to the statement, "limited choice and secure outcomes will facilitate student success"; four in ten (40%) Neither Agreed nor Disagreed.

Further, when asked whether "pathways facilitate underprepared learner success," six in ten (60%) Strongly Agreed and/or Agreed. When further disseminated, five in ten (50%) Agreed, while one in ten (10%) Strongly Agreed. In contrast, four in ten (40%) Disagreed and/or Strongly Disagreed to this statement; one in ten (10%) Neither Agreed nor Disagreed. Majorities were determined by one to two informants. However, responses to these questions were consistent. This indicated the need for further discernment and direction.

The next statement identified perspectives on length of time to program completion. When asked whether "pathways can be completed in a short time," three in ten (30%) Strongly Agreed and/or Agreed, while three in ten (30%) Disagreed; four in ten (40%) Neither Agreed nor Disagreed. Given that perceptions will potentially vary based on what

is considered a 'short" timeframe, what was perceived as reasonable depended on individuals' circumstances.

Upon review of the program completion time towards the beginning of the Program Graduate/Students' survey, four in ten (40%) needed 13-18 months to complete the requirements, while two in ten (20%), 19-24 months, and three in ten (30%), 25-30 months. One participant did not graduate. Six in ten (60%) took 24 months (two years) or less to graduate from the program being studied.

For the question, "the technical college provides clear communication with pathways," Eight in ten (80%) of respondents Strongly Agreed and/or Agreed, while one in ten (10%) Disagreed; one in ten (10%) Neither Agreed nor Disagreed. In contrast to previous questions presented, participants indicated that institutional communication they received enhanced program completion.

Although the initial focus on data collection was to engage in Fischer's level one assessment from a micro perspective, some level two macro-based statements were included to obtain guidance for the subsequent interview section given many survey subjects did not continue onto the final data collection process. As previously noted, Fischer's level two analysis focused on societal vindication and those goals that provided contributive value for the public (Fischer, 2006, p.18).

For the statement, "The focus should be on career prep," seven in ten (70%) Strongly Agreed and/or Agreed, while two in ten (20%) Disagreed. One in ten (10%) Neither Agreed nor Disagreed, suggesting that the majority participating agreed to this construct. Concurrently, informants also felt that "Liberal Arts coursework should be part of higher education; " Eight in ten (80%) Strongly Agreed and/or Agreed, one in ten (10%)

Disagreed, and one in ten Neither Agreed nor Disagreed. These responses suggested

career prep should include Liberal Arts in its curriculum. This could potentially be

deemed contradictory given the divergent focus of each discipline. In contrast, when

asked whether "Career-based education facilitates engaged democratic societal

participation," seven in ten (70%) Neither Agree nor Disagree; Two in ten (20%) Agreed.

One in ten (10%) Disagreed.

While the previous questions sought direction on education-type and societal

engagement, the next two statements focused on public choice or values (Fischer, 2006,

p.18). Four in ten (40%) Strongly Agreed and/or Agreed, four in ten (40%) Disagreed

and/or Strongly Disagreed. Two in ten (20%) Neither Agreed nor Disagreed when

identifying whether "Pathways are the sole solvent to societal ills."

Further, a majority of participants (seven in ten (70%)) Strongly Agreed and/or

Agreed, (five in ten (50%) Disagreed), while three in ten (30%) Neither Agreed nor

Disagreed to the statement, "Policy initiatives should be to address societal trauma rather

than academic pathways." The responses suggested something deeper could be going on

as the Program Graduates/Students may have had concerns with the pathway model.

To gain a better understanding of respondent perspectives, follow-up interviews were

conducted with those participants indicating interest at the end of the survey. In the

Program Graduate/Student Interview section Fisher's level two evaluation, which focuses

on whether the pathway provides contributive value for society, will be further explored.

Employment and Continuing Education

The final section of the survey invited participants to identify, via free response, the

length of time needed to obtain employment (upon completion of the program) as well as

whether their education continued at a four-year institution. Like much of the feedback previously identified in this section, diverse experiences were observed. Some individuals were able to obtain employment while completing program requirements or shortly after graduating.

Respondents' comments included: currently employed; employed, transferred for a promotion; employed while in the program; promoted to manager upon completion; one month; three months; and six months. In contrast, one respondent tried to obtain employment for one year, while another, three years; and one individual was still completing the program at the time of data collection.

In addition to providing the timeframe to obtaining professional employment, respondents were also asked to provide the type of position they obtained. Positions included: manager (three); coordinator (four); administrative assistant (two); and employment outside-of-industry (one).

While the plan-of-study approach encouraged employment, continued education was another path for learners within the designated Allied Health program. Five in ten (50%) continued onto a four-year institution; one in ten (10%) was still completing the program; and four in ten (40%) provided no response and/or not applicable.

Allied Health Faculty Members-Demographics

Participants started by responding to demographic questions. Table 4.8, Allied Health Faculty-Demographics, identified subjects based on: gender, race/ethnicity; years of post-secondary experience; student program completion time; time to complete course prerequisites; core coursework completion time; and part of designated pathway.

Table 4.8 Allied Health Faculty-Demographics

Gender Male 4 Female 8
Race/Ethnicity Asian 0 Black 2 Hispanic 1 Caucasian 9
Years of Post-Secondary Experience 0-5 years   0 Over 5 years to 10 years   1 Over 10 years to 15 years   2 Over 15 years to 20 years   4 Over 20 years to 25 years   3 Over 25 years   2
Based on observations & interactions, Length of Program Completion 0-12 months   2 13-18 months 2 19-24 months 2 25-30 months 3 31-35 months 2
Length of Time needed to complete prerequisite courses 0-12 months   7 13-18 months 4 19-24 months 1 25-30 months 0 Over 35 months 0
Length of Core Course Completion 0-12 months 2 13-18 months 7 19-24 months 2 25-30 months 1
Part of designated pathway Certificate Only 1 Diploma Only   3 Associate Deg Only 2 Diploma and Assoc Deg 3 Certificate and Diploma 1 All part of the pathway (Certificate, Diploma, AAS)) 2

Although twenty-eight program faculty members were invited to participate, twelve subjects completed the survey. The response rate was 42.86% (non-response rate, approximately 52.14%). Given the limited number of available Allied Health academic professionals, this response rate reflected the situation rather than a potential bias.

Of the twelve respondents, eight out of twelve (66.67%) were female, and four out of twelve (33.33%) male. Two out of twelve (16.67%) were Black, one out of twelve (8.33%) Hispanic, and nine out of twelve (75%) White. The female dominant subject pool supported the overall learner population data discussed in the quantitative section. Three out of twelve (25%) participants were faculty of color. Although this did not reflect the student population being studied, participation was based on who volunteered to complete the survey.

Participants' years of experience ranged from five to ten years to over twenty-five years. Four in twelve (33.33%) were employed for fifteen to twenty years, while three in twelve (25%) had twenty to twenty-five years' experience. Two groups, ten to fifteen years and over twenty-five years, had two subjects (16.67%) each. 75% of Allied Health faculty participants had fifteen years post-secondary experience working with marginalized learners. Those with five to ten years' work experience represented the smallest part of the cohort, one in twelve (8.33%).

When asked to identify the length of time learners took to complete their designated program, two in twelve (16.67%) noted a timeframe of 0-12 months; two in twelve (16.67%), 13-18 months; and two in twelve (16.67%), 19-24 months. Although 50.01% of responses identified a timeframe of two years or less, three in twelve (25%) of respondents felt it took 25-30 months for their students to graduate. Two in twelve (16.67%) identified a timeframe of 31-35 months. Cumulatively, five in twelve (41.67%) faculty members noted their student population needed 25-35 months to complete the program.

Delving deeper, seven in twelve (58.33%) observed learners needing 0-12 months to complete course prerequisites, while four in twelve (25%), 13-18 months; one in twelve (6.67%) noted a 19-24 month timeframe. None of the participants identified their students exceeding 25 months or greater to complete required requisites. Prerequisite courses are done prior to starting the technical coursework.

A final question in this area asked participants their observations on students' core coursework timeframe. Seven in twelve (58.33%) identified it took learners 13-18 months, while two in twelve (16.67%), noted 0-12 months and 19-24 months to complete the program's technical courses. One in twelve (8.33%) felt their students needed 25-30 months to complete the core coursework. Three in twelve (25%) observed learners needed 19-30 months (greater than 18 months) to get the final stage of the program done. Individual program pathways may include multiple entry-and-exit points. The time needed to graduate may vary.

One in twelve (8.33%) taught within a Certificate credential; three in twelve (25%) Diploma only; two in twelve (16.67%) Associate Degree only; three in twelve (25%) taught both Diploma and Associate Degree courses; one in twelve (8.33%) Certificate and Diploma; and two in twelve (16.67%) Certificate, Diploma and Associate coursework. Six in twelve (50%) taught within two or more parts of a pathway.

Allied Health Faculty Survey Data (Academic and Support Areas)

After responding to the demographic section, Allied Health faculty members were asked questions regarding retention & completion; institutional support areas; academic advising; petitioning process; program faculty advising; instructional format; and registration. Table 4.9, Allied Health Faculty Survey Data, Part One, identified their level

of agreement (Strongly Agree-Agree-Neither Agree/Disagree-Disagree-Strongly

Disagree) as to whether the given educational component enhanced students' program

completion.

Specific academic and support areas were included to assess the level of impact

Allied Health faculty members' observations had regarding learner access and

persistence. This approach applied Fischer's first order assessment in "pursuit of

understanding and consensus" (Fischer, 2006, p. 19, 23) by verifying outcomes directly

from those who participated in the program being studied.

Table 4.9 Allied Health Faculty Survey Data, Part One

The following enhanced student program completion	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Academic Advising	0	1	3	4	4
Petitioning Process	0	1	2	7	2
Faculty Advising	6	6	0	0	0
Instructional Format	0	4	8	0	0
Blended Format	3	7	2	0	0
Registration Process	0	0	4	5	3
Student Life	0	1	10	1	0
Computer-support center	0	1	10	1	0
Financial Aid Dept	0	2	9	1	0
Tutoring Area	1	4	4	3	0
Bookstore	0	1	7	4	0
On-campus parking	0	3	2	6	1
Program Info Materials	2	9	1	0	0
Academic Support	1	6	1	3	1

The first area that Allied Health faculty responded to was academic advising. As

previously noted, this department provides career, general program, and related guidance.

When asked whether this area enhanced students' program completion, eight in twelve (67%) respondents Disagreed and/or Strongly Disagreed to the statement, while one in twelve (8.33%) Agreed; three in twelve (25%) Neither Agreed nor Disagreed. Unlike the Program Graduates/Students' range of responses, the Allied Health Faculty consistently felt academic advising did not encourage program completion for their learners.

Related to this section, Allied Health educators were then asked about their perspectives on faculty advising. At the institution studied, faculty members provide program and course-specific information. Academic educators providing this type of advising included: Lead Faculty/Program Chair (Subject Content Expert), full time and part time faculty.

When asked whether faculty advising enhanced student program completion, twelve out of twelve (100%) of respondents Strongly Agreed and/or Agreed; six Strongly Agreed (50%), while six Agreed (50%). Although there could be a potential bias based on the audience participating, the level of agreement concurred with the Program Graduates/Students perspectives. Overall, both parties collectively felt faculty advising encouraged program completion.

After the Allied Health faculty identified their perceptions to advising, processes-based questions were presented. The first question dealt with the petitioning process. As previously noted, the petitioning process is a unique procedure at the designated institution. Upon completion of program-specific prerequisites, learners interested in pursuing the core coursework submit an application requesting full admittance.

When asked about this process, nine in twelve (75%) Disagreed and/or Strongly Disagreed, while one in twelve (8.33%) Agreed; two in twelve (16.67%) Neither Agreed

nor Disagreed. Unlike the Program Graduate/Student responses, which indicated a spectrum of views rather than an overwhelming lean towards a given perspective, most of the Allied Health faculty participants disagreed that petitioning enhanced student outcomes.

The next survey question identified perceptions regarding course registration. Eight in twelve (66.67%) Disagreed and/or Strongly Disagreed that the registration process enhanced their students' program completion, while four in twelve (33.33%) Neither Agreed nor Disagreed. Like the petitioning process, student responses' regarding registration did not indicate an overall trend towards positively or negatively affecting their academic outcome, while the majority of Allied Health faculty collectively observed a different scenario where student outcomes were not enhanced.

Subsequent questions dealt with academic-related constructs. Two items referred to course content delivery. In the designated Allied Health program being studied, both hybrid (combined in-class and online format) and asynchronous online methodologies are facilitated.

When asked about overall instructional format, four in twelve (33.33%) Strongly Agreed and/or Agreed, and eight in twelve (66.67%) Neither Agreed nor Disagreed that the program's instructional content enhanced their program completion. Although the Program Graduate/Student participants overwhelmingly agreed that instructional format enhanced their program completion, two-thirds of Allied Health faculty members were ambivalent.

Further, when respondents were asked specifically about the blended instructional format, ten in twelve (83.33%) Strongly Agreed and/or Agreed, and two in twelve

(16.67%) Neither Agreed nor Disagreed the combined in-class/online instructional delivery enhanced students' program completion. Both groups, Program Graduates/Students (90%) and Allied Health faculty (83.33%), closely agreed with this statement:

Allied Health faculty participants subsequently identified perspectives on the program's informational materials. Eleven in twelve (91.67%) Strongly Agreed and/or Agreed, while one in twelve (8.33%) Neither Agreed nor Disagreed department-based communication enhanced their program students' completion. As observed within the Program Graduate/Student responses, the consistent level of agreement with instructional format and communication suggested that program-related aspects did not inhibit their outcome.

The next set of questions referenced various institutional support departments/areas that may impact students' timelines including Student Life, Financial Aid, Bookstore, Computer-Support Center (Computer Lab), Academic Support, Tutoring, and On-Campus Parking.

When asked about Student Life, ten in twelve (83.33%) Neither Agreed nor Disagreed to the noted statement. Like the perspectives on Student Life, the Financial Aid department question produced a similar result; two in twelve (16.67%) Agreed, while one in twelve (8.33%) Disagreed; nine in twelve (75%) Neither Agreed nor Disagreed. Both groups did not have a specific perspective regarding this department.

Other support areas were also presented to the Allied Health faculty subjects. One in twelve (8.33%) Strongly Agreed and/or Agreed while seven in twelve (58.33%) Neither Agreed nor Disagreed the services provided by the campus Bookstore enhanced their

learners' program completion, while one in twelve (8.33%) Agreed and ten in twelve (83.33%) Neither Agreed nor Disagreed the Computer-Support Center (Computer Lab) enhanced students' program completion. Following this trend, when asked about Academic Support departments, seven in twelve (58.33%) Agreed, four in twelve (25%) Disagreed and/or Strongly Disagreed, and one in twelve (8.33%) Neither Agreed nor Disagreed that this area enhanced students' program completion.

When the Tutoring area was specifically identified, five in twelve (41.67%) Strongly Agreed and/or Agreed, three in twelve (25%) Disagreed, and 4-in-12 (33.33%) Neither Agreed nor Disagreed that this department facilitated their learners' academic outcomes. Finally, when asked about on-campus parking, seven in twelve (58.33%) Disagreed and/or Strongly Disagreed, while three in twelve (25%) Disagreed; two in twelve (16.67%) Neither Agreed nor Disagreed.

Allied Health Faculty Survey Data (Mitigating Factors)

As previously noted, the positivist methodology asserts its data based on generalizations. This approach avoids "lived experiences and individual goals" (Fischer, 2006, p.14). Although the pathway framework posited a seamless approach, given the unique circumstances that many technical college learners may face, mitigating factors inhibiting progress may have not been considered during the state nominal data presentation in the previous section.

To gain a better understanding, Allied Health faculty members subsequently identified whether childcare, personal and/or work-related issues inhibited their learners' progress and program completion. This information can be found in Table 4.10, Allied Health Faculty Survey Data (Part Two).

Table 4.10 Allied Health Faculty Survey Data (Part Two)

The following did not inhibit overall experience	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Childcare Issues	1	1	3	0	7
Personal Issues	0	1	1	5	5
Work-Related Issues	0	1	1	4	6

When asked about childcare issues, seven in twelve (58.33%) Allied Health faculty participants Disagreed childcare issues did not inhibit their students' completion, while two in twelve (16.67%) Strongly Agreed nor Agreed; three in twelve (25%) Neither Agreed nor Disagreed. Although nine out of ten (90%) Program Graduates/Student subjects indicated a level of agreement or a neutral perspective, one informant felt their progress was inhibited by childcare issues. While Program Graduate/Student participants overwhelmingly agreed that childcare issues did not inhibit their progress, Allied Health faculty indicated the opposite. Based on observations and direct interactions, this group felt childcare issues impeded their students' program completion.

In contrast, ten in twelve (83.33%) Disagreed and/or Strongly Disagreed personal issues did not inhibit learners' progress, while one in twelve (8.33%) Agreed with the statement. One in twelve (8.33%) Neither Agreed and/or Disagreed. While 50% (five in twelve) of Program Graduate/Student participants self-identified personal issues as potential barrier, a larger percentage of Allied Health faculty (by 33.33%) felt students' personal issues inhibited overall progress.

A final factor reviewed was work-related issues. Ten in twelve (83.33%) Disagreed and/or Strongly Disagreed, while one in twelve (8.33%) Agreed; one in twelve (8.33%) also Neither Agreed nor Disagreed work-related concerns enhanced student outcomes.

While the majority (seven in ten (70%)) of Program Graduates/Students expressed either no issues or a neutral perspective, ten in twelve (83.3%) Allied Health faculty members indicated an opposite reaction.

The Program Graduate/Students and Allied Health faculty participants expressed divergent perspectives when mitigating factors were considered. Although the Program Graduate/Student group (five in ten (50%)) more consistently identified personal issues as a potential completion barrier, childcare (one in ten (10%)) and work-related (three in ten (30%)) concerns were less frequently reported in the survey. In contrast, Allied Health faculty consistently identified all three factors playing a role in minimizing program completion: ten in twelve (83.33%) participants noted personal and work-related issues, while seven in twelve (58.33%) participants noted childcare.

Although obtaining consistency was the original goal for the two survey sets, disparate results ensued. The Program Graduate/Student group provided insight based on their individual experiences. Those participating may have been in a more stable environment than their marginalized peers; the latter group may not have completed the survey. Allied Health Faculty responded based on years of observations and interactions with multiple types of students including those dealing with socioeconomic challenge. Given the ongoing ambiguity, a follow-up interview process will be discussed after the Allied Health faculty Part Three survey results were presented.

Allied Health Faculty Survey Data (Part Three)

Once the Allied Health faculty members identified any potential work-related, personal, and/or childcare issues that may have inhibited their students' progress, participants were asked to indicate their level of agreements (Strongly Agree, Agree,

Neither Agree nor Disagree, Disagree, and/or Strongly Disagree) to a mix of level one

and two-based statements. For this section, the goal was to determine whether the

pathway model "fulfilled or failed to fulfill its objective" (Fischer, 2006, p. 69). Table

4.11, Allied Health faculty Survey Data (Part Three) identifies respondents' perspectives

to the given statements. Items were derived from Chapters One (Introduction) and Two

(Review of the Literature).

Table 4.11 Allied Health Faculty Survey Data (Part Three)

Identify your level of agreement for the following statements	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
"Completing a designated pathway program is seamless"	0	2	2	7	1
"Pathways are the ticket to the middle class"	1	4	3	4	0
"Limited choice & secure outcomes will facilitate student success"	4	3	2	3	0
"Pathways are an effective means of facilitating success for underprepared learners"	2	6	0	4	0
"The pathways approach is a solvent to addressing societal ills"	0	3	4	5	0
"The focus should be to address trauma in the community rather than pathways"	1	5	3	3	0
"Pathways can be completed in a short time"	1	1	3	7	0
"The technical college provides clear communication with pathways"	0	3	3	5	1
"The focus should be on career prep"	0	3	1	8	0
"Liberal Arts coursework should be part of higher education"	1	8	2	1	0
"Career-based education facilitates engaged democratic societal participation"	0	5	5	2	0

The first claim, "completing a designated pathway program is seamless," produced a

more consistent response than the Program Graduates/Student Informants. Eight in

twelve (66.7%) Disagreed and/or Strongly Disagreed, while two in twelve (16.7%)

Strongly Agree and/or Agreed; of responses, two in twelve (16.7%) neither Agreed nor Disagreed. A significant number of Allied Health faculty felt the pathway program was not a seamless process.

For the question, whether "pathways are a ticket to the middle class," five in twelve (41.67%) Strongly Agreed and/or Agreed, while four in twelve (33%) Disagreed; three in twelve (25%) Neither Agreed nor Disagreed. In a similar vein, seven in twelve (58.33%) Strongly Agreed and/or Agreed, and three in twelve (25%) Disagreed and/or Strongly Disagreed to the statement, "limited choice and secure outcomes will facilitate student success"; two in twelve (16.7%) Neither Agreed nor Disagreed.

The next statement referred to program completion length perspectives. When asked whether "pathways can be completed in a short time," seven in twelve (58.33%) Disagreed, while two in twelve (16.7%) Agreed; three in twelve (25%) Neither Agreed nor Disagreed. Given perceptions will potentially vary based on what is considered a 'short' timeframe, reasonable will depend on individual program length and faculty members' student population.

Whether "pathways facilitate underprepared learner success," eight in twelve (66.7%) Strongly Agreed and/or Agreed. When further disseminated, six in twelve (50%) Agreed, while two in twelve (16.7%) Strongly Agreed. In contrast, four in twelve (33.33%) Disagreed and/or Strongly Disagreed to this statement; one in ten (10%) Neither Agreed nor Disagreed. The Allied Health faculty member responses were comparable to the Program Graduate/Student cohort in the above section.

For the statement whether "the technical college provides clear communication with pathways," six in twelve (50%) of respondents Disagreed and/or Strongly Disagreed,

while three in twelve (25%) Disagreed; three in twelve (25%) Neither Agreed nor Disagreed. While the Program Graduate/Student participants felt there was clear direction regarding the pathway communication they received, 50% of Allied Health faculty identified an opposite situation.

Although the initial focus on data collection was to engage in level one assessment from a micro perspective, some level two macro-based statements were included to obtain guidance for the subsequent interview section and capture as much information as possible given that many survey subjects did not continue onto the final data collection process. As previously noted, Fischer's level two analysis focuses on societal vindication and those goals that provided contributive value for the public (Fischer, 2006, p.18).

For the statement, "The focus should be on career prep," eight in twelve (66.7%) Disagreed, while three in twelve (25%) Agreed. One in twelve (8.33%) Neither Agreed nor Disagreed. Although the Program Graduate/Student participants agreed that post-secondary education should focus on career prep, most Allied Health faculty members disagreed. In contrast, both cohorts indicated that "Liberal Arts coursework should be part of higher education." Nine in twelve (75%) Strongly Agreed and/or Agreed, one in twelve (8.33%) Disagreed, and two in twelve (16.67%) Neither Agreed nor Disagreed. Finally, when asked whether "Career-based education facilitates engaged democratic societal participation," five in twelve (41.67%) Agreed, while five in twelve (41.67%) Agreed; five in twelve (41.67%) Neither Agreed nor Disagreed.

While the previous questions sought direction on education-type and societal engagement, the next two statements focused on public choice or values (Fischer, 2006, p.18). Five in twelve (41.67%) Disagreed, three in twelve (25%). Four in twelve

(33.33%) Neither Agreed nor Disagreed when asked whether "Pathways are the sole solvent to societal ills." When asked their level of agreement to the following statement: "(the) focus should be to address trauma rather than pathways," six in twelve (50%) Strongly Agreed and/or Agreed, three in twelve (25%) Disagreed, while three in twelve (25%) Neither Agreed nor Disagreed.

As 50% of Allied Health faculty informants indicated a societal focal point, education could potentially be deemed (by the participants) as not being the sole solution to socioeconomic challenges (as deemed by multiple stakeholders). Further insight will be obtained in the next section (interviews).

Employment and Continuing Education (Allied Health Faculty Perspectives)

The final section of the survey invited Allied Health faculty members to identify, via free response, the length of time their graduates/students needed to obtain employment (upon completion of the program) as well as whether learners continued their education at a four-year institution.

Like many of the responses previously identified in this section, diverse experiences were observed. Six in twelve (50%) respondents identified graduates/students obtained employment within six months after graduating; this timeframe included: right after graduation, three months, and six months. Four in twelve (33.33%) observed that it took six-to-twelve months, while two in twelve (16.67%) felt the time to employment varied.

In addition to providing their perspectives on graduate/student employment timelines, respondents were also asked to identify the type of positions graduates/students obtained. Given the diversity of Allied Health faculty participants, responses varied, and

included: health professional; within the field of study (did not note specific area); at hospital/hospital-based clinic; greater than 80% in the "field"; and full-time.

While the plan-of-study approach encouraged employment, continued education was another story for learners within the designated Allied Health program. Three in twelve (25%) participants noted their graduates/students transferred to a four-year institution after completing their designated program. This number may be artificially low given that many Allied Health offerings (diploma and/or associate degree) are terminal-in-nature.

Qualitative Data: Interviews

At the end of each survey, the last question invited each individual if they would be interested in participating in a follow-up interview (2nd part of the interpretive section); only individuals that provided their email and name information were contacted. Sampling was based on interest, rather than a specific number or other related parameters.

Four program graduates and seven Allied Health faculty members volunteered. Substantial value was attained via the graduates' lived experiences and the faculty members' direct observations, as the goal of this qualitative data collection was to verify whether the intentions of the pathway model were attained. To protect individuals' identities, pseudonyms were utilized for the interview participants.

Graduate interviews. Although a script was in place for the interviews, the discussion started with the graduates being asked open-ended questions about their backgrounds to gain a better sense of their academic journey.

As socioeconomic dynamics could have played a contributory role in encouraging and/or dissuading the graduates' persistence, relevance through this method was asserted when addressing the main questions being answered in this study.

The Fischer (2006) framework further encouraged this approach as

> (individuals) have unique experiences and ideas that lead them to focus on social situations in different ways. Draw out perspectives, to understand how people interpret their experiences and observations, define the situations they are in, identify the problems they face and formulate plans for action (p.80).

The graduates interviewed for this section participated directly in the allied health pathway utilized for this research. All four participants were female, while three-out-four, students of color-Beatriz (Mexican American), Porsha (African American), and Dahlia (Hmong American).

Table 4.12 summarized the individuals' academic status, social location, age, and related information. After this outline, the participants' contextual narrative is presented as a "means to discovering issues that might otherwise be missed by the evaluators own frame of reference" (Fischer, 2006, p.80).

Table 4.12 Program Graduates' Demographics (Interviews)
N=4

Participant's Name	Academic Status	Social Location	Age	Related Information
Beatriz	Graduate	Mexican American, 1st generation	25	Completed Bachelor's Professional Employment-Manager
Allison	Graduate	Caucasian, 1st generation	44	Transferred to 4 year Professional Employment-Coordinator/Manager
Porsha	Graduate	African American, 1st generation	32	Did not transfer to 4 year Professional Employment-Administrative Assistant
Dahlia	Graduate	Hmong American, 1st generation	28	Completed Bachelor's Professional Employment-Coordinator

*Note: Pseudonyms used to protect individuals' identities

Beatriz. At the time of this data collection, Beatriz was a twenty-five-year-old first generation Mexican American student. She not only completed all parts of the pathway (Certificate, Diploma, Associate Degree) at the technical college, but subsequently attained her bachelor's degree at a local private four-year institution.

Beatriz lived with her parents and worked part-time at Target while attending school. During college, she would also regularly watch her younger siblings and helped take care of her maternal grandparents.

When talking about education and upbringing, Beatriz recalled how much her parents struggled to make-ends-meet while growing up. She also observed this with most of her extended family. There were times where Beatriz and her three siblings had to stay by their grandmother while her parents worked.

Both of Beatriz's parents came from non-schooled environments and their English was limited. Spanish was the primary language in the house. Beatriz's father completed Eighth grade and was a Machinist at a local factory, while her mother, obtained her GED at age thirty-two and was employed as a secretary at a Spanish Immersion school.

As they wanted a better life for her, Beatriz's family encouraged education. Beatriz was interested in attending the technical college as it was not only close to home and on a bus line, two of her cousins had good experiences there. The school's tuition was also substantially more affordable than a four-year college/university.

Allison. At the time of this study, Allison was a forty-four-year-old first-generation Caucasian Graduate. She came from a single parent family as her biological father left while Allison's mother was pregnant with her. Her parents were briefly married. Allison lived with her maternal grandparents so that her mom could work full-time and was an

only child. They lived in a more of a rural community, which was thirty-five miles north of the metropolitan area, where this study was conducted.

Allison's mother was a high school graduate and worked as a Care Aide at a local long-term care facility. The job was physically demanding with long hours as the facility was regularly short-staffed; Allison's mom would often work a lot of overtime. Her grandparents had limited education and worked hard for everything.

Allison's grandfather was a factory worker until he became disabled with a back injury, while her grandmother worked part-time as a school lunch aide at a neighborhood middle school. Their motto was: "If you can't pay cash for something, don't buy it" as they didn't believe in credit cards.

Allison ended up in a relationship right after high school and subsequently got pregnant. Although her goal was to attend college, Allison becoming a single parent hindered that. To help pay the bills, Allison worked as a stocker at a neighborhood store. After several years, she eventually changed jobs; her cousin worked at a healthcare organization in the city and encouraged Allison to apply for an open Administrative Assistant position.

Although there was a twenty-mile per destination commute, Allison wanted to better herself and be a role model for her son. After seven years as an Administrative Assistant, Allison transferred to the Quality Management department, as an Administrative Coordinator. Allison's supervisor encouraged her to go back to school. She didn't feel comfortable going to a traditional four-year school as Allison wasn't in school for about 20 years.

Allison started taking classes at a local technical college, which was near her employer; there were no schools located around her home area.

Porsha. At the time of this data collection, Porsha was a thirty-two-year-old first generation African American graduate. Unlike the other informants, Porsha did not continue on to a four-year institution upon completion of the Allied Health Associate Degree. Like some of the other informants previously noted, Porsha came from a non-schooled environment. Porsha's mother got pregnant with her when she was sixteen.

Her mom subsequently dropped out of school as she had to work multiple part-time jobs (cleaning motel rooms, store cashier, McDonald's. It was not uncommon for Porsha's mom to work long hours as she was also a single parent needing to support a growing family. After Porsha, two additional siblings arrived in quick succession. They stayed with her mother's sister, who was twelve years older than Porsha's mother.

It was not uncommon to utilize public assistance and low-income housing. Their electricity was shut off several times. This living arrangement ended up being short lived. Eventually, Porsha's aunt and mother got into a major disagreement, which caused their family to immediately leave. The situation got to the point where it was a regular occurrence not to know where their next meal was coming from, and they had few clothes choices.

At age nine, Porsha became a "latch key" kid as her mother increasingly left the apartment for long periods of time with multiple male companions. By eleven, Porsha was in foster care. She quickly fell behind in middle school as she had substantial difficulty reading and concentrating. Frustrated with her chronic difficulties, Porsha

dropped out of the eleventh grade to work full-time at Walmart as she was also supporting her siblings.

Porsha received her GED at twenty-one years old and felt encouraged to take college-level courses and have access to eventually obtaining a better job. She started taking college-level courses at age twenty-five. While attending school, Porsha became pregnant, twice, in short succession.

Dahlia. During this study, Dahlia was a twenty-eight-year-old first-generation Hmong American graduate. Her parents came from Laos because of the economic uncertainty of their country. They wanted to have a better life and arrived in the United States with only the clothes on their back. Dahlia's dad was a line cook at a local restaurant, while her mother worked at home as a seamstress; they stayed with their dad's uncle and his family. There were five children in the family, of which, Dahlia was the oldest.

Hmong was the only language spoken at home. This posed a hard transition for Dahlia when starting kindergarten, as she couldn't speak English and fellow classmates made fun of her regularly. Dahlia always felt like she had to work twice as hard as her peers. Dahlia's parents enrolled her in special ESL classes offered at the local church where they attended. She went every Saturday morning for about a year.

Dahlia's dad eventually enrolled in vocational school to obtain a Machinist's certificate. From this, he was able to get a better paying job, but Dahlia's family continued to struggle. They regularly bought second-hand clothes and went to food pantries for subsistence. When she was sixteen, Dahlia started employment as a cashier at a local grocer. Dahlia worked at least three five-to-six hours shifts on school nights, and a

lot during the summer and weekends. Any money she earned went directly to help the family.

Dahlia would often stay up late doing homework and was limited in doing extracurricular activities during high school. She felt that "school was always important to me" as it would be a way out of the chronic poverty Dahlia and her family experienced. When she graduated, Dahlia was expected to work full-time unless she went to college. She excelled academically throughout her secondary education.

Dahlia had an English teacher that encouraged her to attend college, and she participated at multiple open houses and even stayed at an overnight experience at a local public university. Being a first-generation student, Dahlia felt overwhelmed with the size and number of people at the four-year institution. Dahlia decided to attend the local technical college as it was accessible by a bus-line. The school was also smaller, and she could go to a school where "(she) would be able to go take classes with people that either looked like her or understood her situation".

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Program Verification

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For this phase of the graduate interviews, scripted questions were utilized. These questions were based on Fisher's levels one and two public policy analysis criteria to determine whether the intentions of the pathway model were attained via results reported by the program graduates.

Unlike traditional interpretive methods where themes emerge as the data is collected, public policy analysis seeks to determine whether identified pathway notions fulfilled their stated objectives in traditionally marginalized populations. The following prescribed

pathway outcomes were reviewed with the program graduates. Given the specific scope, many of the discussions with the participating graduates were, at times, brief.

A seamless process. The first assertion reviewed was the claim that attending a pathway program is a seamless process.

All four graduates were first-generation learners while attending the technical college. Two-of-the four participants (Allison and Porsha) transferred from the Nursing program prior to completing the requirements of the associate degree, while the Allied Health pathway was the first choice for the other two graduates (Beatriz and Dahlia). As identified in the previous section, three-out-of-four graduates were over twenty-five years old-Dahlia (twenty-eight), Porsha (thirty-two), and Allison (forty-four). Beatriz was twenty-five years old.

When starting college, the informants noted varied levels of difficulty navigating within a post-secondary environment. Beatriz perceived her initial college experience as daunting. Not only was she not sure where to go or who to talk to but she felt isolated. Because of her accent, Beatriz was hesitant to communicate in class or with her assigned faculty members. She had a long-held belief (from her formative education years) that her speaking skills would be negatively judged and made fun of.

Dahlia held a similar perception to Beatriz's. When asked whether there were any barriers present, Dahlia shared, her skin color as well as English being a second language made her feel like she "had to work twice as hard as peers" to be successful in her assigned courses. Beatriz further identified that (she) perceived peers didn't understand her, and it was hard to do group projects and related tasks. Beatriz often heard snickering when she would talk in class, and once overheard a classmate say "I don't want to work

with her. You know how lazy her kind are. She probably makes a better taco than being able to complete this assignment".

Although she maintained a different social station than the other participating graduates, Allison also regularly felt out-of-place. While attending school, Allison was diagnosed with a digestive condition that regularly made her sick; "it would not be uncommon for me to make multiple bathroom trips during class time". She couldn't get it under control right away even though Allison regularly saw a specialist. Some faculty members and students didn't understand her situation, often giggled, and made snide comments. Feeling embarrassed by this, Allison started missing some class sessions, which negatively impacted her academic progress.

Allison worked full-time and attended school part-time. She could only take two-to-three courses per semester; this process was slow compared to others. Allison often felt like her wheels were stuck 'spinning-in-the-mud'. She shared:

> There is no rulebook for work-life balance. While taking classes, I experienced a lot of barriers-there were times where I had to take care of my son rather than doing schoolwork. Being a single parent, choices are often limited, and it's frustrating. Priorities must be taken care of first. Many times, I felt trapped- the juggling was hard.

Like Allison, Porsha could only attend part-time, and it took longer than anticipated to complete her degree requirements. She would regularly stay up late at night doing homework and up early to take her children to school and go to work. Porsha regularly didn't sleep a lot, and many times her academic performance suffered. The challenges mounted to the point of her being academically suspended, which prevented Porsha from attending for a semester.

Porsha felt like she was in a continual downward spiral during this time. She felt so embarrassed being in an academic suspension. As she explained,

> I often thought, how am I supposed to explain my situation to a counselor, let alone my family. I honestly don't know how I got to this point-no one really seems to understand or even care. I ended up talking to my advisor, and was told to work harder and focus on my classes. How do you do that when you are trying to just survive and put food on the table? They just don't get it. It made getting done feel even worse.

Beatriz shared a view like Porsha's. Although she experienced positive interactions with her counselor, Beatriz increasingly noticed her advisor often gave out incorrect information; because of this, she took two classes that weren't needed to complete the program requirements. This caused Beatriz to attend an additional semester with a financial aid appeal.

The academic support areas were also frustrating for Allison. By the time she got off work, just about all the offices like advising and financial aid were closed. It was common knowledge services at this institution were consistently limited, specifically for evening students.

> If I needed any help, I had to call while I was on a break at work or had to ask my boss if I could make the call while on duty. It was frustrating. I couldn't focus on my job. One time I had a 1pm phone appointment. When I called the main number, I was put on hold. After fifteen minutes, the receptionist told me that the counselor wasn't available to take my call. I had to figure out my scheduling issue on my own.

Allison also shared how scared she often felt being in the urban downtown area at night. Outside of the buildings, it wasn't always well lit and not many people were walking around.

> I can't begin to explain how stressed I was when leaving a night class-I never felt so panicked. And it ended up happening just about every week. I started to question why I even came back to school in the first place-I constantly had to trade my safety in just to be able to attend some college courses? It just didn't seem fair.

One-Fits-All Model. The second construct the pathway model asserted was that a one-fits-all model is the most efficient means of educating technical college learners. Regardless of socioeconomic, parental, work, and related status, students at the institution will be more successful taking courses within a consistent narrowly defined curriculum.

When she was going through a period of academic challenge, Porsha met with her counselor. During this meeting, she was encouraged to change from traditional nursing to a more flexible formatted offering as "anyone" can complete a narrowly defined program. Although she was excited to work on completing a degree, the transition to a combined in-class and online format was challenging. It took her at least a year to get comfortable and start getting better grades. She had to retake at least two courses during this time.

While resources and services were limited for some of the informants in the previous section, the lack of available courses within the prescribed curriculum often impeded their progress. As Dahlia worked full-time, she wanted the opportunity to take some online courses in the Summer rather than coming to campus. When attempting to register, only one course was available to take. Dahlia utilized financial aid and needed two courses, or six credits. Because of the narrowly defined curriculum, technical college students at this institution couldn't take any classes outside of the prescribed coursework.

Although she tried to appeal this with her counselor, Dahlia was told to either pay for the three-credit course out-of-pocket or wait until the fall semester to take available classes. Dahlia couldn't afford paying cash for the course-this delayed her progress by two semesters as the summer class was only offered periodically.

I couldn't believe this happened to me. I tried really hard to get my program completed in the designated timeframe. But missing the opportunity to take this class put me behind and prevented me from workplace advancement as there were at least three open positions I would have been qualified for but couldn't apply because I needed this credential. It's hard enough working full-time and attending school full-time without the added hassle of classes not being available when you need to take them. It's a hard pill to swallow when your co-workers hired after you are moving forward in the organization and you're not. All because of one class not being available.

Beatriz encountered a similar situation. If she wanted to graduate on time, she had to register for both an 8am and 5:30pm course on the same day as there were no additional sections available. Wanting to get done sooner than later, she enrolled in the two classes. She would stay on campus as she took the bus. She shared how long a day it was and got frustrated with not being able to leave.

I can't begin to tell you how irritating it was needing to stay on campus to wait for the evening course section. I often ran out of schoolwork and the food choices in the cafeteria were very limited. The amenities were pretty much non-existent around the school. Not only were the days really long, but I honestly don't know how I got through it. I just don't get how certain courses are scheduled and made it inconvenient for students to complete their requirements.

Like Beatriz's scheduling conflict, Dahlia noticed how the student demographics changed as she was progressing in the program.

I couldn't believe how the classmates that I started the program with dwindled down as I progressed. From what I heard, many of them either failed or stopped attending every semester. By the time I got to the last semester, fewer peers were in the course and many of them were not familiar faces. At the beginning, there were at least fifteen students in each class. By the time I got to the end, maybe seven-to-eight.

On a final note, Allison shared an encounter she had with her counselor when first starting at the technical college. During the meeting, Allison talked about working at a local healthcare organization. Based on this, the counselor encouraged her to pursue nursing as "everyone takes this program". The counselor did not have a healthcare background, but Allison trusted his guidance.

> When I first began my college career in 2012, I was going for nursing. It took me four years to complete the pre-requisites because I was taking only Anatomy and Physiology I & II for each semester due to the traditional learning challenges with the material and the time it required of me to study. By then, I was already burnt out and felt unaccomplished, even though I passed the A&P courses.

She further added,

> The one-fits-all approach didn't work for me. I ended up changing to an allied health pathway that had flexible learning formats and non-clinical role in a healthcare organization. This offering provided me the opportunity for advancement and open doors that my mom and grandparents didn't have.

Program Outcomes

The final claim reviewed with the informants was the notion that multiple positive outcomes stemmed from the marginalized learner population undertaking a narrowly defined curriculum. Program milestones included: successful course completion, graduation, subsequent transfer to four-year institution (bachelor's degree completion), as well as sustainable employment (ticket to the middle class).

Beatriz. Upon completion of the Allied Health Associate Degree, Beatriz was able to obtain a full-time Administrative Assistant position at a larger local healthcare organization. As she was able to utilize her employer's tuition reimbursement program and received a partial scholarship, Beatriz transferred to a four-year private institution. She was motivated to pursue this degree as there were some retirements in her department and could not pass up the opportunity to professionally advance. Beatriz was grateful to attend college as she "just couldn't see working at Target (her) whole life".

She also didn't want to perpetuate the ethnic stereotype of babysitter or homemaker. Beatriz was subsequently promoted to Manager at the same employer and noted how she learned a lot and had good faculty members to work with. She felt they "really guided me as they were empathetic and advocated the value of pursuing higher education".

Beatriz eventually moved out of her parents' home and obtained her own apartment near work. She subsequently leased a new Nissan and was saving money for a down payment on a house.

Dahlia. She became interested in healthcare as a large medical facility was located near her residence. Dahlia quickly completed her diploma requirements so she could obtain gainful employment while finishing the associate degree courses.

Dahlia was subsequently hired as a Coordinator in the Emergency Department and obtained a sustainable income with benefits. Her siblings eventually became old enough to work part-time and Dahlia didn't need to financially support her family anymore. She was able to buy her first (used) car. A couple of years after starting the associate degree, Dahlia got married and moved out of her parents' home.

Her husband was very supportive and encouraged Dahlia to complete her bachelor's degree at a local religious private college. Upon completion of this credential, Dahlia was promoted to the Clinical Research Coordinator role. Although this was a non-clinical role, the position encouraged a stable work environment and flexible on-campus/at-home days during the week. Overall, Dahlia felt the program was a good fit for her professional aspirations, and having knowledgeable instructional faculty made all the difference.

When transferring to the four-year school, Dahlia was excited that all the credits from the pathway associate degree directly transferred, and it took her only eighteen months to complete the bachelor's degree. At the time of the interview, Dahlia was considering pursuing a master's degree in business management, emphasis-Healthcare Administration, at a local private university.

Porsha. Although juggling school, home (children), and work was commonplace, Porsha didn't want to stop her education as it was her "hope" for a better future. Upon completion of the program, Porsha was able to obtain an administrative assistant position at a Cardiologists' office, with increased pay and better insurance. After securing this position, Porsha was able to buy a newer car and rent a two-bedroom apartment. She would eventually like to go back to school to get her bachelor's degree, but as of the interview, Porsha needed to focus on getting her children through school.

Allison. As noted in the previous section, Allison languished over four years taking nursing prerequisite courses. Sick with not getting anywhere, and ready to drop out, she changed to the Allied Health plan-of-study.

> I found a better fit with the new career pathway, and was surprised at how engaged I was with my peers and instructors. I especially appreciated the relationship between me and the program's lead faculty member, who helped to answer questions during the coursework...I think about it often that if it weren't for the first few core courses, I probably would have dropped out from college just to work. I'm not making much now, but I'm using it forward and it's working great.

After gaining her confidence and completing the Allied Health Associate Degree, Allison transferred to a large public university to complete her bachelor's degree. At the time of this interview, Allison was in her last undergraduate semester.

Upon completion, Allison was internally promoted to Manager in a larger department. Although she experienced a great amount of flux, Allison was able to purchase a small house and maintained continuous employment at the facility for over fifteen years.

Graduate interview summary

As previously noted, the graduates participating in this research activity completed the requirements of the pathway being studied. At times, the conversations were limited and subsequently directed specific to Fischer's level one situational validation.

Participants may not have realized or observed given behaviors that were being identified and reviewed. Although the goal was to have an in-person off-campus meeting, the graduates preferred being interviewed via phone conversation; two of the informants were at work.

Graduates expressed more interest in providing narrative information than answering scripted questions. Value was still discerned via their shared insights given their active engagement and completion of the designated plan-of-study education model. In the next section, the second set of interview data will be presented.

Allied Health Faculty Members' Interviews

In contrast to the previous section's narrative-focused data collection, a script was in place for the Allied Health Faculty member interviews. The academic professionals utilized for this research were actively employed at the urban institution in this study.

Seven individuals from multiple divisional Allied Health programs participated. Four-out-of-seven were female, and three were male. Four-out-of-seven identified as Program Chairs, or those academic leaders who oversaw daily program operations. All seven maintained full-time status. Two-out-of-seven identified as Clinical Coordinators, or those academic leaders who facilitated clinical externship placements and affiliations with local healthcare organizations.

Participants taught in diverse academic areas other than the pathway studied; professionals came from different entry and exit points. Six-out-of-seven participants worked in an area that included diverse credential levels including a certificate; while five-out-of-seven, diploma; and six-out-of-seven, associate degrees. All participants volunteered. Recruitment was conducted either via email or during in-person interaction. At the time of data collection, the researcher maintained a working relationship with all seven participants.

Five-out-of-seven were white; one out-of-seven, African American; one out-of-seven, Puerto Rican. Six out of seven were first generation students. Years of higher education experience ranged from nine to twenty-seven years, with an over eighteen (18.3) year average.

Pseudonyms were used to protect individuals' identities. The informants' perspective lens stemmed from direct observation and/or interaction with diverse learners at the designated institution. Data collection was done in-person and the duration lasted from fifteen to thirty minutes, depending on the individual's preference. Some participants provided a more robust discussion than others.

Table 4.13 summarized the faculty members' years in higher education, social location, program type, and job title/role. After this outline, the participants' perspectives are presented.

Table 4.13 Allied Health Faculty Members' Demographics (Interviews)
N=7

Participant's Name*	Years in Higher Ed	Social Location	Program Type	Job Title
Hannah	15 years	African American, 1st generation	Certificate, Diploma, Associate Degree	Program Chair/Lead Faculty
Vivian	9 years	Caucasian, 1st generation	Certificate, Diploma, Associate Degree	FT Faculty
Adam	23 years	Caucasian	Certificate, Associate Degree	Clinical Coordinator/FT Faculty
Oscar	27 years	Caucasian, 1st generation	Certificate, Associate Degree	Lead Faculty/Program Chair
Chloe	17 years	Caucasian, 1st generation	Certificate, Diploma, Associate Degree	Lead Faculty/Program Chair
Sidney	24 years	Caucasian, LGBTQ+, 1st generation	Certificate, Diploma, Associate Degree	Clinical Coordinator/FT Faculty
Armand	13 years	Puerto Rican, 1st generation	Diploma	Program Chair/Lead Faculty

*Note: Pseudonyms used to protect individuals' identities

A seamless process. The first assertion reviewed was the claim that attending a

pathway program is a seamless process. When asked whether the plan-of-study model

created barriers for students, the participants identified multiple perspectives; sub-

constructs were derived. The participants consistently noted mitigating factors,

specifically life events.

Vivian shared how a small percentage (of marginalized students) can get through as

prescribed, but not for most students at the technical college.

> Usually, they are working or have other responsibilities at home, or other people
> living with them. Children to take care of. A lot of single parent households. So that
> affects one's ability. They aren't high school kids, but adult students who already
> have the collateral responsibility of family and career.

Adam also noted a similar concern.

> The students he would run across that regularly experienced challenge are the ones that must deal with transportation and childcare issues, especially sick children. They're just trying to survive and work a lot, and tend to be the ones who think they can work third shift jobs or full time and then attend school. Most of them can't. They often end up saying, "just forget it. I'm out of here".

Oscar shared,

> We're only discussing the ones that got to us. How many never get this far? And how do they overcome their issues? They can't. It's just normal life stuff-whether it's being a parent or family issues. It's a Catch 22. And they are trying to do this to get out of their lifestyle. But they can't get out of the actual life situation to do it.

Hannah further noted how she stood to lose more students to life issues than academics.

> So many things limiting their progress is the "baggage"-whether its being a single parent, transportation issues, or becoming pregnant. There are very intelligent people out in society. In this demographic, they just don't have accessible resources or someone to have their back. It is any wonder they come to class some days. They're more worried about everything else.

After identifying ongoing personal issues many of her student population experience,

Sidney described a recent observation.

> There was one "kid" in my second semester technical course, and he was just brilliant. He wouldn't study, just take notes. Every exam, his performance was just amazing. One day he came up to me after class. "I'm dropping the program. Why you ask? I can make a lot more money selling drugs".

Adam further noted that since the post-secondary institution maintained a large at-

risk student population, challenges exist to keep them on-track as many often come in

defeated; it is not uncommon for individuals to be out after not attending for two weeks.

> You often see this more with female students than male. The exploitation of women has always been the norm; it's easier to be a man in society, and you see women taking the brunt of childcare and related responsibilities.

Regarding the challenges female students undertake, Hannah added,

> Women take on more in any relationship or family. There are some very brilliant females that have never been given the opportunity to advance or provided the access needed to programs and resources to help them. Unfortunately, society regularly embraces this phenomenon.

Finally, Sidney argued since there are a significant number of learners at the technical college designated as socioeconomically disadvantaged and of minority status, a lot of people, in society, and even at the school, don't necessarily understand their stories. Until that happens, the puzzle pieces won't all fit together. When considering whether the pathway process is seamless, Sidney said, "I haven't seen it yet. Too many students must juggle home, work, school, and related responsibilities that prevent them from navigating efficiently."

While personal circumstance was most frequently mentioned by the participants, another construct that potentially impacted learner progress was academic performance.

Armand suggested the school had a larger mature student population, which included career changers and dislocated workers; many don't seem to come well-prepared for all the work that's going to be required (for a technical-based program).

Vivian added,

> The urban population where we are, many are coming from households where other people may have not finished high school; most aren't not ready to handle college-level rigor.

Hannah further observed a lot more students with academic standing issues. Either they are in academic and/or financial aid suspension or probation. And it's often not the first time. "It seems these students just can't manage".

Faculty members also identified prolonged prerequisite course completion as an indicator of academic challenge.

Vivian shared,

> I have one student taking one class at a time along with people who are full time to get through a technical diploma. And then some of them have to repeat a class. It is a vicious cycle.

Chloe also observed the technical course prerequisites seem to lengthen the program completion time.

> Even though the credit load has decreased due to the Higher Learning Commission's associate degree credit requirements of sixty-five credits or lower, it doesn't alleviate the overall issue.

Many faculty participants felt if students broke up courses into multiple semesters, learners are looking at anywhere from two-and-a-half to three years, sometimes longer, to get the designated program completed. Students can't be accepted until multiple prerequisites are fulfilled and this regularly caused a delay in timely completion.

Like other faculty members, Adam also experienced this in his program. He observed multiple students applying to start the technical courses with a history of taking one prerequisite class-at-a-time. "Then they come in, get a full course load, while working at the same time; they can't deal with it". They end up slowing down their progress by limiting the number of courses at one time.

Vivian identified that many learners could take two years or more to complete a one-year diploma. Sidney noted that although there is access to attaining a two-year associate degree, it can take three or more years, even longer. "There is something wrong with this process and just not right". Adam noted, "it's really a disservice giving someone a two-year degree when it actually takes five years (or more) to complete".

The faculty members collectively suggested students become disenchanted because it took them longer to go through the rigamarole of prerequisites, advising, and everything else than being in the technical part of the pathway.

Students seem to get increasingly discouraged as time transpired to get into the core courses. On the flip side, some of the participants had students that would go through the first semester of technical courses and wanted to immediately switch (to another program) or just drop out altogether. Sidney added,

> Many will get disinterested, apply to another diploma program, and are not happy with that. So, if they are in the prerequisite courses this Fall, they petition in January (for Fall), and don't get in. Then they petition again in August and then they get in after about eighteen months of waiting. Just to obtain a short-term credential.

This is especially true when they transfer to another program, as a second choice, when they can't make it into one of the high demand offerings like nursing or fail out of another. At least five of the seven faculty members noted changing programs is a common occurrence. When asked about program switching, Chloe noted,

> If they aren't admitted or fail out of a program, they will move onto another one. They do this without any regard to type of profession, program requirements, or the academic rigor. When these learners don't do well, they will often get more frustrated, disaffected, and/or drop out. It just seems like they are always looking for the path of least resistance.

Oscar observed students will either finish or drop out; very few will come back if they haven't been successful in a previous semester and/or course. Vivian summed up this factor by noting, "When they washout from another program, they will frequently scramble around trying to find another offering. Bottom line, they are trying to find out 'where can I fit'?".

One-Fits-All Model. The second construct the pathway model asserted was that a one-fits-all model is the most efficient means of educating technical college learners.

Regardless of socioeconomic, parental, work, and related status, students at the institution will be more successful taking courses within a consistent narrowly defined curriculum.

For this section, participants identified different perspectives on that issue. Although multiple faculty members felt that certain populations within the technical college would directly benefit from the pathway model, the consensus was that it was highly unlikely the plan-of-study approach would be an all-encompassing solution.

At least four-out-of-seven faculty members felt that pathway students were not as prepared for college and/or aren't the same caliber as some of the more traditional learners. Others noted utilizing a one-fits-all model set up unrealistic expectations and a means of tracking marginalized learners.

Vivian noted,

> It can't be a one-fits-all camp. It can't be-if you're this type of student, we're going to put you on this path. It just doesn't work for the real world. This type of approach stems from high school.

Adam felt the pathway approach was an indirect tool to discriminate against certain groups or individuals.

> This type of model implicitly puts limits on what individuals are capable of. Given the unique nature of the student population, it can't be cookie cutter. No one can fit perfectly into this model-it needs to be flexible.

Chloe added,

> An academic model that is based on career education, is too limiting and pigeonholes people. It seems like that's what they're trying to do. Advertise to certain groups because they are underserved and who need greater social mobility out of cyclic poverty.

Armand suggested the pathway model was not created to provide a high level of support. It gives students some direction and goals, as the students are socioeconomically diverse, there is a significant need to add more services and related support. Participants

also felt learners must take responsibility for their learning and post-secondary experience.

Sidney commented,

> If the goal of a pathway-based approach is to ultimately work for everyone, the methodology needs to be customized to individual learner needs. We need to be realistic in the fact a narrow curriculum is not going to be an automatic fit for everybody-if students are to be truly successful; it can't be straight across the board.

Some people may see the pathway as a waste of time. Chloe shared,

> How do you really know if the pathway is the most efficient way of educating individuals? On paper, pathways potentially work well, but the bigger concern is whether this model will be a fit for the students at this institution. It boils down to the person and it's very individualized. Our student population can't be generalized.

Vivian summarized this question,

> Education should be a lifeline, not another obstacle. It's easy to focus on the cookie cutter idea of creating the worker. It's a pipe dream because students are ultimately stuck in this structure. There's no flexibility. And with the financial aid piece of it, many end up being trapped. They can't go to school without the financial support, but they ultimately can't manage because of the complex structure required.

Program Outcomes. The final claim reviewed with the faculty participants was the notion that multiple positive outcomes stemmed from the marginalized learner population undertaking a narrowly defined curriculum. Program milestones included: successful course completion, graduation, subsequent transfer to four-year institution (bachelor's degree completion), as well as sustainable employment (ticket to the middle class). Once admitted into the technical portion of the program, student retention and completion rates increased greatly. At least five out of seven participants identified a ninety percent or greater overall course completion for their designated program(s) and core classes.

Many respondents felt once students started the technical classes, it was an opportunity to work in-depth with their learners by mentoring them and encouraging their

progress. Participants also collectively identified themselves as a resource for their students to turn to.

Although potential personal and social constraints navigating in the pathway model were identified, many informants maintained this type of academic approach still provided opportunities, specifically professional employment attainment. Oscar shared, "considering some of the setbacks with the pathway model, many program graduates are starting at sixty-thousand dollars, sometimes higher, with hiring bonuses."

Hannah observed that for her associate degree, a lot of program students are being hired before they graduate; "I can't put out enough people to meet the local healthcare organizations' labor demands". Adam further explained, "from my last graduating class, eight-out-of-ten got jobs pretty quickly", while Sidney identified that her last cohort had at least fourteen-out-of-seventeen graduates obtain employment within six months of graduating.

 In Oscar's last group, seven out of nine students obtained employment prior to graduating, with a starting salary of over sixty-two thousand dollars. Two graduates also received a twenty-five hundred dollar starting bonus.

Vivian shared,

> Regardless of whether the pathway model lacked a sense of efficiency, if the students were able to obtain employment, graduates tended to perceive the plan-of-study approach as an easier, quicker, and cleaner way to get a job. The bottom line is for them to get a job.

Although post-program completion outcomes were easily attained for the participating program graduates, it was difficult for many of the faculty members to identify specific employment trends. Five-out-of-seven participating instructors noted that unless the graduates directly corresponded with them, there was no clear direction

regarding employment rates, types, and employer. Chloe mentioned, "We don't get much feedback unless they contact us directly. We just don't know their status once they graduate". Oscar added, "I've noticed that too-unless you found out through the grapevine, you don't know their success or status. They've got places to choose from-it's crazy". As previously noted, many allied health technical students were able to obtain employment prior to program graduation. Once these individuals were employed, the graduates tended to maintain their job at the same employer after six months.

The last outcome reviewed with faculty participants was the rate of graduates transferring to a four-year institution. As noted previously, three-out-of-four Allied Health graduate informants went on to a four-year institution.

Although the pathway they completed encouraged the eventual transfer and completion of a bachelor's degree, most other programs within the division were often considered terminal and specific to providing occupational training. The need to attain a bachelor's degree was more limited for many other Allied Health programs. This phenomenon was due to a lack of demand as many local organizations did not monetarily incentivize higher post-secondary degrees. Adam shared,

> Many organizations are not hopped up in having a bachelor's degree professional when an associate level is adequate, hence, a big push for this type of preparation. Multiple health professions learn more on-the-job than they would in a classroom.

Oscar noted that very few of his graduates pursue a higher degree. Although he does encourage them to pursue further education, most won't get there for one reason or another. Sidney shared Oscar's higher education advocacy. Her learner group sought to obtain a short-term diploma credential but felt most won't even get to taking associate degree courses let alone complete the pathway for this allied health area. Like other

faculty members, Chloe encouraged her learners to pursue a bachelor's degree to open more professional doors, however, most of Chloe's graduates want to focus on maintaining a job rather than going into further school debt.

Although most of the conversations focused on the script, two supplemental topics, education as the sole solution to societal ills, and the utilization of educational elitists as pathway consultants were added exclusive to the faculty participants' interviews.

The intent was to determine whether Fischer's level two policy goal, societal vindication, was attained within the pathway approach. The goal was to gauge whether this policy goal had contributive value for the collective society (Fischer, 2006, p.18) at the time of this study.

***Education as the Sole Societal Solution*.** Many educational leaders, institutions, and related stakeholders have asserted that education is a game changer for socioeconomically disadvantaged individuals. Not only will they gain social mobility, but they will also solve all societal ills like housing, violence, and related issues. Given that the study was conducted within an urban city where violence and poverty are commonplace, faculty members were asked about their perspectives on how much of an overall impact education played in addressing the area's challenges.

Many participants felt by pursuing a narrowly defined curriculum, workers were being solely created rather than addressing chronic root causes within many neighborhoods. They collectively emphasized that "education is not an-end-all-be-all". Oscar noted, "education as a savior? Not unless you win the lottery".

Given the unique nature of the institution's student population, Chloe argued, "There are so many issues to address even before you would think about school". Sidney added,

When someone comes from a traumatized environment, chronic issues like hunger, survival, alcohol and/or substance abuse, financial, teen pregnancy, gun violence, trauma, housing, lack of health insurance and poverty will always hinder someone's full capacity to learn.

Adam further shared,

In many circumstances, education is the last thing on their mind. It is so common to see a capable student have their success diminished due to multiple constraints playing against them. Education itself won't ensure a safe home life or prevent someone being shot in the neighborhood. There is so much more to the situation. It's too easy to say that getting a degree will solve everything.

Along these lines, Chloe noted, "Academia has its place, absolutely. But there's more issues there than you can even imagine-impeded health, food, surviving trauma. Nobody rises to low expectations".

Vivian recalled a student situation she was involved in.

We have had students with some major challenges, including being homeless and living in their car. I had another learner whose husband became threatened that she was improving herself and go to the point where he smashed her laptop and tried to prevent her from coming to class. It got to the point that she had to leave the state to get away from him.

Adam suggested there was a disconnect to the thought that everyone must go to a traditional four-year college.

When deemed a sole solution, Adam argued,

It's silly. It's a means to the greater goals of society that everybody's well-educated, Then we have more choices to do things. It's not an end all because sometimes people fall into things like trades or businesses that their families run and they are pigeon-holed in the same area.

While multiple concerns arose while discussing whether education was the sole solution to societal ills, five of the seven faculty informants, including Sidney, identified a "disconnect to the thought that everyone has to go to college".

Oscar suggested that a lot of people don't attend a post-secondary institution; instead, many seek on-the-job training, like an apprenticeship, as an alternative way of learning. "It doesn't always have to be traditional college in order to climb out of poverty".

Adam shared an example of a cousin who learned how to be a garage door installer after graduating high school. Fast forward ten years, and he has his own business.

> A lot of kids don't want the formality of attending school when they want to go straight to earning money right out-of-the gate. There's more to learning than just sitting in a classroom and books.

Finally, Armand noted within his family, some of his nephews went the alternate route of going through an apprenticeship as a means of growing into their jobs and doing better in their lives. "All of the careers out there need welders, plumbers, and electricians. Those are income sustaining jobs, and a means of stable long-term employment".

Elitists. As previously identified, a subsequent second level construct arose while interviewing the participants. While discussing the policy's claim that education is the sole solution to societal ills, faculty participants contended homogeneous elitists known as 'pathway consultants' or 'experts', elicit an education-based policy with little regard to the student population it impacts.

Armand suggested,

> Yeah, they've got the answers and education is *the* answer. But it's only one of the answers. These reformists come from institutions like Stanford, Columbia, UW-Madison, and Temple and are solely promoting an agenda.

Five-out-of-seven faculty participants suggested an implicit curriculum being embedded via the pathway policy. Most 'experts' came from a historically superior homogeneous race and privileged locations that never experienced societal disadvantage

such as being an individual of color, historically underrepresented, and/or systemically

marginalized.

When asked for a perspective, Chloe responded, "You can fudge any number you

want. Bottom line, they think they know everything about disadvantaged student

populations and how they learn without any regard to reality". Oscar noted,

> It is interesting that these 'experts' know what it is like to come from a non-schooled, often trauma-filled environment. They never lived it-all they know comes from a book or a statistic.

Vivian further argued,

> They're predominantly white. Comparing a technical college to a four-year institution seems like such a disconnect and they push an agenda upon these people at the margins. Feels like this is the answer for them and education is their vessel.

Like Vivian, Adam provided a common position,

> Nothing but pushing an agenda. Bunch of white people coming from a system of privilege. There is a real disconnect when individuals like this think they know what it is like to come from a challenged environment or what people of color experience. They assume the answers they have are the know-all be-all for technical college students.

Summary. Throughout this chapter, both quantitative and interpretive data was

presented to determine whether the public policy being studied- a career-based pathway

model, achieved what proponents claimed. In Chapter Five, the findings and conclusion

will be discussed.

Chapter Five:
Discussion and Implications

The main aim of this research study was to determine whether associate degree students attained the outcomes asserted by the career pathway public policy. As previously noted, the career pathway model is a post-secondary multi-stepped incremental process in which the main terminal outcome is to obtain an associate degree in a designated business, health science, or industrial field. Given the substantial number of pathway programs offered within the Wisconsin Technical College System (WTCS), for the extent of this study, a medium-sized Allied Health associate degree model was examined.

Through this pathway, I investigated graduates' journey through this process, as well as subsequent employment and education status post program completion. Given that multiple Allied Health faculty regularly work with pathway students of similar type and size as the identified program, I also examined Allied Health educators' perspectives regarding retention, completion, and other outcomes for socioeconomically diverse health science plan-of-study learners and graduates.

Because of the diverse socioeconomic student narrative, a study inquiry was conducted to ascertain the institution's ability to reproduce the desired results advertised by the public policy and determine whether this incremental process "reflects the kinds of things that society ought to be doing to help the marginalized" (Fischer, 2006, p.1) and to address current research gaps.

Following Fischer's (2006) *Interpretive Policy Analysis Framework,* all research activities were conducted via a sequential explanatory mixed methods design to not only

verify empirical and descriptive program data, but to also obtain the participants' perspectives, sense of agency, and overall outcomes via interpretive analysis.

Fischer's multi-level construct facilitated the ability to "pinpoint relevancy of data" (Almalki, 2016) by verifying whether a public policy, in this case, the pathway model, has met its intended program outcomes and objectives simultaneously with higher level societal goals and values. In other words, Fisher's framework not only looked at how individuals and programs are affected by policy implementation, but how society is collectively impacted (Fischer, 2006, p.21).

> Policy evaluation must not only determine the relative success of a specific program in helping people get into the workforce, it must also consider whether the program itself reflects the kinds of things that society ought to be doing to help the unemployed. (Fischer, 2006, p.1)

Two levels of policy evaluation took place via Fisher's four phases of deliberation (Fischer, 2006, p 20). The following is a brief discussion of the implications attained from the nominal and interpretive data.

Level One: Program Verification

For first-order analysis, two micro-scale aspects were considered: technical-analytical discourse (program verification) and contextual validation (program objectives) to answer whether a public policy fulfills or fails to attain an objective (Fischer, 2006, p.69). Chapter Four parsed the multiple claims asserted by the pathway policy. Based on the data obtained, most respondents identified multiple institutional barriers and setbacks within the model. Constructs such as limited choice (one-size-fits-all methodology) implicitly discouraged progress by creating more obstacles for marginalized and non-traditional learners; the pathway curriculum may work for a few, but overall, limited benefit was observed.

The plan-of-study approach couldn't effectively or consistently replicate outcomes such as course completion, retention, graduation, employment, and subsequent baccalaureate completion at a four-year institution. Too many institutional and personal factors came into play extending overall program length; time to complete prerequisites and technical courses; as well as related outcomes. Navigating through the pathway process often lacked a clear scope and the one-size-fits-all approach was cumbersome.

This study's nominal and interpretive data affirmed the pathway policy objectives were inconsistently fulfilled. Several observed outcomes identified significant problematics with this methodology. During data collection, the studied and related programs' graduation rate were each less than ten percent, while institution-wide graduation increased slightly from eleven to sixteen percent (Fall 2019 cohort, with an anticipated graduation in 2022) (U.S. News and World Report, 2023). Comparable two-year college graduation rates were at 31% (Koran, 2021), as six-year graduation rate for four-year institutions hovered at about fifty-nine percent (Hall, 2017; United States Department of Education, 2012). When race and gender were considered, the technical college's graduation rates decreased: Hispanic (16.79%); Asian (13.95%); and Black (11.66%) (UNIVSTATS, 2023). Female graduation was lower (14.19%) than their male counterparts (20.37%) (UNIVSTATS, 2023).

In contrast to conferred degree rates, learner retention levels hovered around fifty percent. When one learner persisted into the next semester and/or academic year, another would not. In some programs, retention was even lower. Both cohorts identified this phenomenon-as students progressed through the technical curriculum, participant numbers continually decreased.

More recent data suggested a further decline even with the established institutional pathway framework in place. Full-time retention ranged from forty-six (UNIVSTATS, 2023) to forty-eight percent (U.S. News and World Report, 2023), while perseverance varied between thirty-seven (UNIVSTATS, 2023) and thirty-nine percent (U.S. New and World Report, 2023) for part-time attendees. As noted throughout this study, most learners (over eighty percent) maintained part-time status at the urban technical college.

Although success was attained by the four student/program graduate interviewees, Allied Health faculty informants shared divergent perspectives. The outcomes from the pathway approach can be replicated (Fischer, 2006, p.28), but not to the extent of significantly benefiting the community-at-large.

Navigating through the pathway process often lacked a clear scope and the one-size-fits-all approach was cumbersome. Systems within the pathway framework including a lack of available courses, services, and resources created clear cut barriers, while circumstantial factors (childcare and work-related challenges) played a contributory role in impeding learner progress. Each variable's extent on student success depended on individual circumstance.

Follow-up participant interviews also verified cogs in the overall process. The one-size-fits-all pathway approach did not encourage a seamless student experience and processes within the plan-of-study model implicitly impeded overall student outcomes, including employment. Although promised a sustainable job upon credential attainment, most learners can't even make it through this bureaucratic maze. In turn, employer needs remain unmet, and individuals stagnate at their societal station. This phenomenon

perpetuates the vicious cycle of technical colleges deriving career-based solutions aimed at the most vulnerable.

Level Two: Second-Order Evaluation (Macro-Level)

The final analysis utilized Fischer's second-order evaluation to determine whether the macro-scale policy goal-societal vindication (goals) was attained and if the pathway model had contributive value for the collective society (Fischer, 2006, p.18).

Based on the Fischer framework, the pathway public policy outcomes are reflective to the greater society, in this case, the metropolitan area surrounding the institution studied. Because of the clout ascertained by policy makers, philanthropists, and elitists, and related stakeholders, notions such as the pathway model being (a) "ticket to the middle class" or "seamless", were accepted and promoted at face value.

Many individuals, often from marginalized situations, believed the assumptions at face-value and aimlessly followed, potentially placing them in a precarious situation to overcome. From both the nominal and interpretive data, maintaining the pathway model as-is potentially impeded social progress and economic stability, especially for the most vulnerable populace.

Technical colleges have traditionally been open access post-secondary institutions (Batzer, 1997; Bailey, Smith Jaggers, & Jenkins, 2015, p. 1; Rosenbaum & Person, 2003), where individuals can learn a trade, gain college credit, or acquire the basic skills needed to navigate within society.

Within this type of environment, many stakeholders perceive the two-year institution as helping bridge the perpetual equity gap by creating access streams needed to acquire good-paying jobs. Researchers (Oreopoulos & Petonihevic, 2013; Belfield &

Levin, 2007) suggested individuals earning career-based skills completion could further

their market benefits as attainment could provide even better individual and societal

returns. "Across the country, community colleges are looked at as a ladder to

opportunities…educating students, launching careers, and fueling local economies."

(Koran, 2021).

The main goal for the post-secondary institution is to provide opportunity, especially

for those from vulnerable populations. Policies like the pathway model should fully

support these aims and facilitate more consistent outcomes. The metropolitan area

surrounding the technical college studied directly benefits from each success.

However, based on the outcomes presented here and the chronic disparities

experienced throughout the city, the pathway model does not have collective instrumental

or contributive societal value, and does not resolve legitimate conflicting judgments.

Fischer's Second Order criteria were not met.

Since the data was collected, the city's disparities continued to worsen. Violence,

crime, trauma, and related socioeconomic uncertainty chronically impeded progress for

its citizens. The metropolitan area for the study "ranks at or near the bottom of the major

cities when it comes to many key measures of Black community well-being, including

rates of homeownership and employment" (Koran, 2021).

If the pathway model was a successful endeavor, the local area should reflect this.

However, the current socioeconomic climate asserted another actuality. Based on the

collective presentation provided, the career pathway educational model promised more

than what it actually delivered. Although this approach has promise, as-is, individual and

societal progress has been significantly impeded by the clouded vision and direction of

the few. Elitists have exploited institutional and metropolitan values to satisfy the whims of employer needs.

Albeit promised the capital to attain middle-class status, reality continues to elicit pervasive social inequality in this community. Education, in this case, career-based pathway preparation, is not the "game changer" to societal ills.

Limitations

During this research activity, some limitations were identified. First, nominal data was often subjective and skewed, often failing to reflect several variables such as course completion, graduation, and enrollment rates. Even if individuals were not actively taking technical coursework or were at any point of the program; or were part of the pathway but didn't follow through, or having the designated code on their transcript, meant they were included in the program's overall headcount.

When assessing enrollment to graduation rates, program completion percentages were substantially lower than originally anticipated. Also, course completion percentages included all those registered at the beginning of the semester. If ten students started and two individuals withdraw from the course, the completion rate automatically drops to 80%.

Reporting periods also had a significant lag time; most current information was often not readily available. The retrospective data was often relative and, at times, may have provided a convoluted picture of what was really going on. Success seemed based on the societal norms as a collective whole of the often-homogeneous traditional learner. Participants at the institution studied didn't regularly fit within these established constructs or assumptions.

A second challenge evolved during the interpretive data collection and subsequent assessment. The original intention was to extensively utilize program graduates/students from an Allied Health associate degree pathway. As the department was relatively new, not enough informants could be identified and/or were willing to participate.

The recruitment process was rigid as the institution required an independent student specialist to contact graduates/students rather than the program's lead faculty member, whom the individuals were familiar with. Although viable information was attained by the ten-program graduate/student survey participants and four interviewees, the survey data was somewhat divergent and did not provide specific direction.

These views could have been based on the individuals' situations, status, and/or experience. Those participating may have been in a more stable environment than their marginalized peers. Given the years of observation and interactions with socioeconomically diverse learners, the Allied Faculty cohort was utilized to gain a more holistic perspective.

A final limitation experienced was the lack of available extant literature to help guide the research process. As most research is traditionally focused towards four-year institutions, technical college environments are often overlooked. This lengthened the initial literature review process.

Study Significance

Fischer (2006) argued, (the goal of this study was) "not to plug in answers to specific questions or to fulfill prespecified methodological requirement, but to engage in an open and flexible exploration of the kinds of concerns raised in various discursive phases of the probe" (p. 19). How marginalized and underrepresented technical college

students navigated through an academic pathway via their "lived experiences and individual goals" (Fischer, 2006, p.14) were obtained from both program graduates/students and Allied Health faculty members.

Given the overt deference to four-year post-secondary environments, two-year institutions are often overlooked, resulting in sparsely available extant literature. Materials on the academic pathway model are minimal-at-best. In turn, policy makers, philanthropists, elitists, and related stakeholders will voice their prescribed narrative of what is best for community college learners. Public policy may have good intentions, but reality presented inconsistent and divergent outcomes for this academic framework.

This project provided the chance to appreciate pathway graduate/learner's persistence even when multiple personal and educational barriers existed while attending school. The complex nature of how this policy affected non-traditional students afforded the opportunity to "not only assess the progress of achieving the (pathway model's) goal, but the appropriateness of the goal itself" (Fischer, 2006, p. 6) to create or dissuade societal value within the adjacent urban community.

Future Research

This pilot study laid the groundwork for subsequent research; program graduate/student divergence and related data obtained raised more questions than clear-cut answers. Given minimal two-year institutional pathway-based literature is available, diverse opportunities for research exist.

Expanding to include other Allied Health, Nursing, and/or Dental programs, an entire division, support areas or school-wide programs utilizing a similar academic curriculum could augment the pilot study's framework. The public policy itself or specific

credentials such as a certificate, diploma, associate degree, or transfer to a four-year institution are additional aspects to consider. Further, specific groups such as those experiencing socioeconomic challenge, academic disabilities, single parents, working full-time while attending school, or other socioeconomic factors could also be aspects to pursue.

Although education could be an important part of the overall big picture, it may not be the sole solvent to socioeconomic disparities. Utilizing Fischer's level two societal value construct, how the pathway model impacts the adjacent community (from a macro-level perspective) would be a final area to consider.

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Appendix A: Email Correspondence, Allied Health Faculty

**Email Correspondence to Survey
Participants Qualitative Data
Collection, Pt.1 (Allied Health Faculty)**

Hello Allied Health Faculty Member:

My name is Rebecca Garcia Sanchez and am currently a doctoral candidate within the Educational Policy and Leadership Program at Marquette University, College of Education. I am also the Program & Clinical Coordinator/Lead Faculty for the Healthcare Services Management Associate Degree Pathway at the Milwaukee Area Technical College.

For my dissertation research, I am conducting a public policy analysis to determine whether technical college students attain the outcomes prescribed by a career pathway model. The career-based program of study is a post-secondary multi-step incremental process in which the end goal is to obtain a 2-year Associate Degree in a designated business, health science, or industrial field. Through an allied health pathway, I am investing graduates' journey through this process, as well as subsequent employment and education status post program completion. I would appreciate your assistance with my data collection as it will help me better understand whether any barriers exist for learners while navigating through this type of career-based preparation, as well as access to subsequent baccalaureate education and professional employment.

I would like to invite you to participate in this research study. There are two parts to the study's qualitative data collection: a survey and follow-up interview. The online survey will take approximately 20 minutes to complete.

At the end of the questionnaire, there will be a question asking if you would like to complete a follow-up one-on-one interview either by phone or at a local coffee shop, library, or mall. The one-time interview would take approximately 45-60 minutes to complete and you will assign an alias name to your information. Any references to your interview, including quotes and/or transcripts will be referred to by your designated alias. All responses will be kept confidential/anonymous. You are free to participate in just the survey without being interviewed if you prefer. The risks associated with participation in this study are no greater than you would experience in everyday life. There are no direct benefits to you for participating in this study.

Completing and returning the questionnaire constitutes your consent to participate in the survey process. If you decide to withdraw early from the study, your data may still be used. You may skip any questions you do not wish to answer on the survey. If you participate in this study, keep this email for your records. Your decision to be a participant or not will not impact your relationship with the investigator, Marquette

University, or the Milwaukee Area Technical College. This would include grades and relationships with instructors, or, employment relationship with the investigator.
If you have any questions about this research project, you can contact Rebecca Garcia Sanchez at-email: rebecca.garciasanchez@marquette.edu, phone: 414-297-7163. If you have questions or concerns about your rights as a research participant, you can contact either:

- My research supervisor, Dr. Ellen Eckman, Department Chair and Associate Professor, Marquette University (College of Education) at- ellen.eckman@marquette.edu, phone: (414)-288-1561
- Marquette University's Office of Research Compliance at (414) 288-7570
- Milwaukee Area Technical College's Institutional Research Board, 700 W. State Street, Milwaukee, WI 53233, (414) 297-8509

    Thank you for your participation in my research study.

Appendix B: Email Correspondence, Student Recruitment

Hello.
I received your information from ------- ---, Student Services Specialist, that you were interested in participating in my research study (completing survey questions and possibly a follow-up interview). I will be sending more information to you, including the survey link, very shortly.

Please note that I will be emailing you via my Marquette email address: rebecca.garciasanchez@marquette.edu.

If you are no longer interested, please let me know. Thank you for your time and consideration; it is appreciated.

Appendix C: Email Correspondence, Program Graduates/Students

**Email Correspondence to Survey
Participants Qualitative Data
Collection, Pt. 1- (Program Graduates)**

Hello Healthcare Services Management Program Graduate:

My name is Rebecca Garcia Sanchez and am currently a doctoral candidate within the Educational Policy and Leadership Program at Marquette University, College of Education. I am also the Program & Clinical Coordinator/Lead Faculty for the Healthcare Services Management Associate Degree Pathway at the Milwaukee Area Technical College.

For my dissertation research, I am conducting a public policy analysis to determine whether technical college students attain the outcomes prescribed by a career pathway model. The career-based program of study is a post-secondary multi-step incremental process in which the end goal is to obtain a 2-year Associate Degree in a designated business, health science, or industrial field. Through an allied health pathway, I am investing graduates' journey through this process, as well as subsequent employment and education status post program completion. I would appreciate your assistance with my data collection as it will help me better understand whether any barriers exist for learners while navigating through this type of career-based preparation, as well as access to subsequent baccalaureate education and professional employment.

I would like to invite you to participate in this research study. There are two parts to the study's qualitative data collection: a survey and follow-up interview. The online survey will take approximately 20 minutes to complete.
At the end of the questionnaire, there will be a question asking if you would like to complete a follow-up one-on-one interview either by phone or at a local coffee shop, library, or mall. The one-time interview would take approximately 30-45 minutes to complete and you will assign an alias name to your information. Any references to your interview, including quotes and/or transcripts will be referred to by your designated alias. All responses will be kept confidential/anonymous. You are free to participate in just the survey without being interviewed if you prefer. There are no direct benefits to you for participating in this study.

Completing and returning the questionnaire constitutes your consent to participate in the survey process. If you decide to withdraw early from the study, your data may still be used. You may skip any questions you do not wish to answer on the survey. If you participate in this study, keep this email for your records. The risks associated with participation in this study are no greater than you would experience in everyday life. Your decision to be a participant or not will not impact your relationship with the investigator, Marquette University, or the Milwaukee Area Technical College. This

would include grades and relationships with instructors, or, employment relationship with the investigator.

If you have any questions about this research project, you can contact Rebecca Garcia Sanchez at-email: rebecca.garciasanchez@marquette.edu, phone: 414-297-7163. If you have questions or concerns about your rights as a research participant, you can contact either:

- My research supervisor, Dr. Ellen Eckman, Department Chair and Associate Professor, Marquette University (College of Education) at- ellen.eckman@marquette.edu, phone: (414)-288-1561
- Marquette University's Office of Research Compliance at (414) 288-7570
- Milwaukee Area Technical College's Institutional Research Board, 700 W. State Street, Milwaukee, WI 53233, (414) 297-8509.

<div align="center">Thank you for your participation in my research study.</div>

Appendix D: Student/Graduate Survey Questions

Public Policy Analysis-Allied Health Program Graduates
Marquette University

Dissertation Title: Public Policy Analysis of an Allied Health Career Pathway Model at a Local Technical College

-You have received this survey as an invitation to participate in the noted research study. Before you agree to participate, it is important that you read and understand the following information. **Participation is completely *voluntary***. Please ask questions about anything you do not understand before deciding to participate or not.

Purpose: The purpose of this research study is to determine whether technical college students attain the outcomes prescribed by a career pathway model. Ms. Sanchez will investigate post capstone completion students'/graduates' journey through this process, as well as subsequent employment and education status post course capstone completion/graduation. Both pathway students (post capstone course completion/graduate) and Health Science faculty members' perspectives will be included in the data collection.

Procedures: By completing the following survey (estimated time needed: 20 minutes), you are agreeing to participate in this study, completion of the survey indicates your consent to participate. Survey data will be kept in a password-protected program/USB drive, accessible only to the principal investigator. You may be contacted by Ms. Sanchez to complete an interview regarding your responses (based on an individual voluntarily providing follow-up name/contact information). As your name and identifying information will only be available to Ms. Sanchez, this data will be protected, and your survey or interview responses will not be identifiable to a specific individual. A separate consent form will be provided for the interview portion if you are contacted and agree to participate.

Risks: "The risks associated with participation in this study are no greater than you would experience in everyday life". Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as hacking, or information being unintentionally seen by others.

Benefits: There are no direct benefits to you for participating in this study. This research may benefit society by determining whether the post-secondary career pathway model enhances student outcomes, provides the means to viable professional employment, as well as encourages local economic growth.

Confidentiality: Data collected in this study will be kept confidential. All electronic data (interviews and surveys) will be kept on the primary investigator's data-encrypted USB/password protected computer. The data from this research results, including direct

quotes, are published, you will not be identified by your real name, rather, by a pseudonym.

-Your research records may be inspected by Marquette University Institutional Research Department, the local technical college, and (as allowable by law) state and federal agencies.

-Your decision to participate or not will not impact your academic/professional relationship with Marquette, the local institution, and/or Ms. Sanchez.

Questions
1. What is your gender?
   a. Female
   b. Male
   c. Trans Male
   d. Trans Female
   e. Other

2. What race/ethnicity best describes you? (Please choose only one).
   a. American Indian or Alaskan Native
   b. Asian/Pacific Islander
   c. Black or African American
   d. Hispanic
   e. White/Caucasian
   f. Multiple ethnicities/Other (Please specify)_____

3. What is your age?
   a. 18-24
   b. 25-29
   c. 30-34
   d. 35-44
   e. 45 or older

4. How long did it take you to graduate from your *Health Science* program (completed all required courses)?
   a. 0-12 months
   b. 13-18 months
   c. 19-24 months
   d. 25-30 months
   e. 31-35 months
   f. Over 35 months
   g. Did not graduate from the program

5. How long did it take you to complete the prerequisite coursework?
a. 0-12 months
b. 13-18 months
c. 19-24 months
d. 25-30 months
e. 31-35 months
f. Over 35 months

6. How did it take you to complete the core program courses?
a. 0-12 months
b. 13-18 months
c. 19-24 months
d. 25-30 months
e. 31-35 months
f. Over 35 months

7. How many hours did you work (approximately per week) while you were in the program?
a. 0 hours
b. 1-10 hours
c. 11-20 hours
d. 21-30 hours
e. 31-40 hours
f. Over 40 hours

8. Based on the following scale, indicate your level of agreement to this statement: **Academic advising (counselor, student specialist)** *enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

9. Based on the following scale, indicate your level of agreement to this statement: *The* **petitioning process** *enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

10. Based on the following scale, indicate your level of agreement to this statement: *Faculty advising (**program instructional faculty**) enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

11. Based on the following scale, indicate your level of agreement to this statement: *The **online instructional format** enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

12. Based on the following scale, indicate your level of agreement to this statement: *The **blended format (combined in-class & online)** enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

13. Based on the following scale, indicate your level of agreement to this statement: *The **registration process** enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

14. Based on the following scale, indicate your level of agreement to this statement:
   *The **Student Life Office** enhanced my overall experience while in the designated Health Science program*
   a. Strongly Agree
   b. Agree
   c. Neither Agree nor Disagree
   d. Disagree
   e. Strongly Disagree

15. Based on the following scale, indicate your level of agreement to this statement:
   *The **Computer-based Production Center** enhanced my overall experience while in the designated Health Science program*
   a. Strongly Agree
   b. Agree
   c. Neither Agree nor Disagree
   d. Disagree
   e. Strongly Disagree

16. Based on the following scale, indicate your level of agreement to this statement:
   *The **Financial Aid Department** enhanced my overall experience while in the designated Health Science program*
   a. Strongly Agree
   b. Agree
   c. Neither Agree nor Disagree
   d. Disagree
   e. Strongly Disagree

17. Based on the following scale, indicate your level of agreement to this statement:
   *The **Tutoring Department** enhanced my overall experience while in the designated Health Science program*
   a. Strongly Agree
   b. Agree
   c. Neither Agree nor Disagree
   d. Disagree
   e. Strongly Disagree

18. Based on the following scale, indicate your level of agreement to this statement:
    *The **Campus Bookstore** enhanced my overall experience while in the designated*
    Health Science program
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

19. Based on the following scale, indicate your level of agreement to this statement:
    *The **on-campus parking** enhanced my overall experience while in the designated*
    Health Science program
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

20. Based on the following scale, indicate your level of agreement to this statement:
    *The **program's informational material** enhanced my overall experience while in*
    the designated Health Science program
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

21. (Fill-in-the-blank) How long did it take you to obtain occupation-related
    employment upon completion of the program?

22. (Fill-in-the-blank) Please indicate what type of employment you obtained upon
    completion of the designated *Health Science* program?

23. (Yes or No) Upon completion of your designated *Health Science* program, did
    you continue your post-secondary education at a four-year institution?

24. (Fill-in-the-blank) If you responded "YES" to question 23, please answer the
    following question. If you answered "NO" to question 23, please go directly to
    question 25. Please name the institution that you attended/are attending and the
    major/degree.

25. Based on the following scale, indicate your level of agreement to this statement:
Childcare issues <u>did not inhibit</u> my overall experience while in the designated Health Science program
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

26. Based on the following scale, indicate your level of agreement to this statement:
Personal issues <u>did not inhibit</u> my overall experience while in the designated Health Science program
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

27. Based on the following scale, indicate your level of agreement to this statement:
Work-related issues <u>did not inhibit</u> my overall experience while in the designated Health Science program
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

28. Based on the following scale, indicate your level of agreement to this statement:
"Completing a designated pathway program is seamless"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

29. Based on the following scale, indicate your level of agreement to this statement:
"Program pathways are the ticket to the middle class"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

30. Based on the following scale, indicate your level of agreement to this statement: *"Pathways encourage students to make informed choices regarding their post-secondary education"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

31. Based on the following scale, indicate your level of agreement to this statement: *"Clearly designed program models (limited choice & secure outcomes) will facilitate student success"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

32. Based on the following scale, indicate your level of agreement to this statement: *"The Pathways approach is an effective means of facilitating success for a wide range of students, including under-represented learners"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

33. Based on the following scale, indicate your level of agreement to this statement: *"The Pathways approach is the solvent to addressing societal ills (examples: unemployment, violence, poverty, and health disparities)"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

34. Based on the following scale, indicate your level of agreement to this statement: *"In order to best address the current social crises in the community, the focus should be on addressing the effects of 'trauma' (violence, poverty, economic decline) in the community rather than on educational pathways"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

35. Based on the following scale, indicate your level of agreement to this statement: *"Pathway students are able to complete the program requirements in a short period of time"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

36. Based on the following scale, indicate your level of agreement to this statement: *"The technical college that pathway students attend provide readily accessible student services-based academic support"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

37. Based on the following scale, indicate your level of agreement to this statement: *"Post-secondary technical institutions provide clear communication regarding pathways to its stakeholders (learners, faculty/staff, and the community-at-large)"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

38. Based on the following scale, indicate your level of agreement to this statement:
    "Post-secondary education should focus exclusively on career preparation"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

39. Based on the following scale, indicate your level of agreement to this statement:
    "The humanities, social sciences, literature, philosophy, history, as well as the arts are needed within technical program curriculum to encourage learners to become productive members of society"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

40. Based on the following scale, indicate your level of agreement to this statement:
    "Career-based education facilitates engaged democratic societal participation"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

41. Please include your name and contact information if you would be interested in participating in a follow-up interview session. If you do not, just type in N/A for your responses.

Appendix E: Allied Health Faculty Survey Questions

Public Policy Analysis
Marquette University

Dissertation Title: Public Policy Analysis of an Allied Health Career Pathway Model at a Local Technical College

-You have received this survey as an invitation to participate in the noted research study. Before you agree to participate, it is important that you read and understand the following information. **Participation is completely *voluntary***. Please ask questions about anything you do not understand before deciding to participate or not.

Purpose: The purpose of this research study is to determine whether technical college students attain the outcomes prescribed by a career pathway model. Ms. Sanchez will investigate post capstone completion students'/graduates' journey through this process, as well as subsequent employment and education status post course capstone completion/graduation. Both pathway students (post capstone course completion/graduate) and Health Science faculty members' perspectives will be included in the data collection.

Procedures: By completing the following survey (estimated time needed: 20 minutes), you are agreeing to participate in this study, completion of the survey indicates your consent to participate. Survey data will be kept in a password-protected program/USB drive, accessible only to the principal investigator. You may be contacted by Ms. Sanchez to complete an interview regarding your responses (based on an individual voluntarily providing follow-up name/contact information). As your name and identifying information will only be available to Ms. Sanchez, this data will be protected, and your survey or interview responses will not be identifiable to a specific individual. A separate consent form will be provided for the interview portion if you are contacted and agree to participate.

Risks: "The risks associated with participation in this study are no greater than you would experience in everyday life". Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as hacking, or information being unintentionally seen by others.

Benefits: There are no direct benefits to you for participating in this study. This research may benefit society by determining whether the post-secondary career pathway model enhances student outcomes, provides the means to viable professional employment, as well as encourages local economic growth.

Confidentiality: Data collected in this study will be kept confidential. All electronic data (interviews and surveys) will be kept on the primary investigator's data-encrypted USB/password protected computer. The data from this research results, including direct

quotes, are published, you will not be identified by your real name, rather, by a pseudonym.

-Your research records may be inspected by Marquette University Institutional Research Department, the local technical college, and (as allowable by law) state and federal agencies.

-Your decision to participate or not will not impact your academic/professional relationship with Marquette, the local institution, and/or Ms. Sanchez.

Questions
1. What is your gender?
a. Female
b. Male
c. Trans Male
d. Trans Female
e. Other

2. What race/ethnicity best describes you? (Please choose only one).
a. American Indian or Alaskan Native
b. Asian/Pacific Islander
c. Black or African American
d. Hispanic
e. White/Caucasian
f. Multiple ethnicities/Other (Please specify)_____

3. Years of direct academic work experience?
a. 0-3 years
b. Over 3 years to 5 years
c. Over 5 years to 10 years
d. Over 10 years to 15 years
e. Over 15 years to 20 years
f. Over 20 years to 25 years
g. Over 25 years

4. Based on your overall interactions and observations, how long did it typically take for your pathway students to graduate from the program (completed all required courses)?
a. 0-12 months
b. 13-18 months
c. 19-24 months
d. 25-30 months
e. 31-35 months
f. Over 35 months
g. Never graduated

5. Based on your overall interactions and observations, how long did it take for your pathway students to complete the prerequisite coursework?
a. 0-12 months
b. 13-18 months
c. 19-24 months
d. 25-30 months
e. 31-35 months
f. Over 35 months

6. Based on your overall interactions and observations, how long did it take for your pathway students to complete the prerequisite core program courses?
a. 0-12 months
b. 13-18 months
c. 19-24 months
d. 25-30 months
e. 31-35 months
f. Over 35 months

7. What part(s) of a designated Health Science program pathway do you teach within?
a. Certificate Only
b. Diploma Only
c. Associate Degree Only
d. Diploma & Associate Degree
e. Certificate & Diploma
f. Certificate, Diploma & Associate Degree

8. Based on the following scale, indicate your level of agreement to this statement: ***Academic advising (counselor, student specialist)*** *enhanced my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

9. Based on the following scale, indicate your level of agreement to this statement: *The **petitioning process** enhanced my pathway students' overall experience while in the designated Health Science program*
   a. Strongly Agree
   b. Agree
   c. Neither Agree nor Disagree
   d. Disagree
   e. Strongly Disagree

10. Based on the following scale, indicate your level of agreement to this statement: ***Faculty advising (program instructional faculty)*** *enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

11. Based on the following scale, indicate your level of agreement to this statement: *The **online instructional format** enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

12. Based on the following scale, indicate your level of agreement to this statement: *The **blended format (combined in-class & online)** enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

13. Based on the following scale, indicate your level of agreement to this statement: *The **registration process** enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

14. Based on the following scale, indicate your level of agreement to this statement: *A **traditional format (in-class only format)** enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

15. Based on the following scale, indicate your level of agreement to this statement: *The **Student Life Office** enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

16. Based on the following scale, indicate your level of agreement to this statement: *The **Computer-based Production Center** enhanced my pathway students' overall experience while in the designated Health Science program*
    a. Strongly Agree
    b. Agree
    c. Neither Agree nor Disagree
    d. Disagree
    e. Strongly Disagree

17. Based on the following scale, indicate your level of agreement to this statement: *The **Financial Aid Department** enhanced my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

18. Based on the following scale, indicate your level of agreement to this statement: *The **tutoring area** enhanced my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

19. Based on the following scale, indicate your level of agreement to this statement: *The **Campus Bookstore** enhanced my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

20. Based on the following scale, indicate your level of agreement to this statement: *The **on-campus parking** enhanced my overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

21. Based on the following scale, indicate your level of agreement to this statement:
*The **program's informational material** enhanced my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

22. (Fill-in-the-blank) How long did it take your pathway graduates to obtain occupation-related employment upon completion of the program?

23. (Fill-in-the-blank) Please indicate what type of employment did they obtain.

24. (Yes or No) Upon completion of your designated Health Science program, did your pathway graduates continue post-secondary education at a four-year institution?

25. (Fill-in-the-blank) If you responded "YES" to question 24, please answer the following question. If you answered "NO" to question 24, please go directly to question 26. Please name the institution that you attended/are attending and the major/degree.

26. Based on the following scale, indicate your level of agreement to this statement:
***Childcare issues** did not inhibit my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

27. Based on the following scale, indicate your level of agreement to this statement:
***Personal issues** did not inhibit my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

28. Based on the following scale, indicate your level of agreement to this statement: **Work-related issues** <u>did not inhibit</u> *my pathway students' overall experience while in the designated Health Science program*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

29. Based on the following scale, indicate your level of agreement to this statement: *"Completing a designated pathway program is seamless"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

30. Based on the following scale, indicate your level of agreement to this statement: *"Program pathways are the ticket to the middle class"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

31. Based on the following scale, indicate your level of agreement to this statement: *"Pathways encourage students to make informed choices regarding their post-secondary education"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

32. Based on the following scale, indicate your level of agreement to this statement: *"Clearly designed program models (limited choice & secure outcomes) will facilitate student success"*
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

33. Based on the following scale, indicate your level of agreement to this statement:
    "The Pathways approach is an effective means of facilitating success for a wide range of students, including under-represented learners"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

34. Based on the following scale, indicate your level of agreement to this statement:
    "The Pathways approach is the solvent to addressing societal ills (examples: unemployment, violence, poverty, and health disparities)"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

35. Based on the following scale, indicate your level of agreement to this statement:
    "In order to best address the current social crises in the community, the focus should be on addressing the effects of 'trauma' (violence, poverty, economic decline) in the community rather than on educational pathways"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

36. Based on the following scale, indicate your level of agreement to this statement:
    "Pathway students are able to complete the program requirements in a short period of time"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

37. Based on the following scale, indicate your level of agreement to this statement:
    "The technical college that pathway students attend provide readily accessible student services-based academic support"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

38. Based on the following scale, indicate your level of agreement to this statement:
    "Post-secondary technical institutions provide clear communication regarding pathways to its stakeholders (learners, faculty/staff, and the community-at-large)"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

39. Based on the following scale, indicate your level of agreement to this statement:
    "Post-secondary education should focus exclusively on career preparation"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

40. Based on the following scale, indicate your level of agreement to this statement:
    "The humanities, social sciences, literature, philosophy, history, as well as the arts are needed within technical program curriculum to encourage learners to become productive members of society"
a. Strongly Agree
b. Agree
c. Neither Agree nor Disagree
d. Disagree
e. Strongly Disagree

41. Based on the following scale, indicate your level of agreement to this statement:
    "Career-based education facilitates engaged democratic societal participation"
f. Strongly Agree
g. Agree
h. Neither Agree nor Disagree
i. Disagree
j. Strongly Disagree

42. Please include your name and contact information if you would be interested in participating in a follow-up interview session. If you do not, just type in N/A for your responses.

Appendix F: Study Informed Consent (For both students/graduates & faculty members)

MARQUETTE UNIVERSITY
AGREEMENT OF CONSENT FOR RESEARCH PARTICIPANTS
Public Policy Analysis of an Allied Health Career Pathway Model at a Local Technical
College
Rebecca Garcia Sanchez, Doctoral Candidate
College of Education

You have been invited to participate in this research study. Before you agree to participate, it is important that you read and understand the following information. Participation is completely voluntary. Please ask questions about anything you do not understand before deciding to participate or not.

PURPOSE:
- The purpose of this research study is to determine whether technical college students attain the outcomes prescribed by a career pathway model. The career program of study is a post-secondary multi-stepped incremental process in which the end goal is to obtain an Associate Degree in a designated business, health science, or industrial field. Through an allied health pathway, I will investigate graduates' journey through this process, as well as subsequent employment and education status post program completion. Both pathway graduates and program faculty members' perspectives will be included in the data collection.
- You will be one of approximately 30 participants in this research study which includes both students/graduates and faculty from a local technical college.

PROCEDURES:
- For the qualitative data collection part of the study, both a confidential online survey as well as face-to-face interviewing will be utilized.

Online surveys and interviews will include the following topics:
  a. Demographics (Students/Graduates only): Age Range, Gender, Race.
  b. Demographics (Faculty only): Gender, Race, Length of Academic-related employment.
  c. Length of time needed to (Students/Graduates/Faculty): Graduate from the program, complete prerequisites, and core coursework.
  d. Perceptions regarding (Students/Graduates/Faculty): academic advising, petitioning process, faculty advising, instructional formats, registration process, access to academic support (student life, computer-based production center, financial aid, tutoring, bookstore, and on-campus parking), childcare issues, personal issues, ease of completing designated program, the attainment of a higher economic status, completing program in a short period of time, career-based education and its role within society, as well as liberal arts coursework.

- The initial survey will be conducted solely online, with a follow-up interview session either via phone conversation or at a place that is convenient for the participant-a neutral space like a coffee shop, public library, or shopping center.
- You will be [audio] recorded during the interview portion of the study to ensure accuracy. The tapes will later be transcribed and destroyed after 1 year beyond the completion of the study. For confidentiality purposes, your name will not be recorded, and your real identity will not be included in the study. You will be asked to provide a pseudonym (alias) that will be referred to in the study.

DURATION:
- Your participation will consist of completing an online survey which will take no longer than approximately 20 minutes, as well as one 45-60 minute individual follow-up interview session with the primary investigator for clarification and follow up. You may be asked to participate in a second phone interview as necessary to clarify any data or information obtained.

RISKS:
- "The risks associated with participation in this study are no greater than you would experience in everyday life."
- Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as hacking or information being unintentionally seen by others.

BENEFITS:
- "There are no direct benefits to you for participating in this study. This research may benefit society by determining whether the post-secondary career pathway model enhances student outcomes, provides the means to viable professional employment, as well as encourages local economic growth"

CONFIDENTIALITY:
- Data collected in this study will be kept confidential
- Participants will select a pseudonym to be known as throughout the study. Any data discussed in the study will be referred to by the fictitious name
- The pseudonym name list/key will be kept on the researcher's data-encrypted USB drive/password-protected computer at the researcher's private residence. These items will not be transported outside of the investigator's home
- All electronic data (interviews and surveys) will be kept on the primary investigator's data-encrypted USB/password protected computer.
- The data from this research study may be used for conference presentations and publications.
- Interview audio recordings will be collected and kept on the researcher's password-protected iPhone via Quick Time Pro or Dragon Speak Software and transferred to the investigator's password-protected computer/data-encrypted USB drive
- When the results of the study are published, you will not be identified by your real name.

- Depending on the data shared with the researcher, a participant's direct quotes maybe included in the study analysis. Any direct quotes from an interview session will not divulge a real identity, rather the participant's chosen pseudonym may be included only as a means of acknowledging a real person within the study provided the information.
- The data will be destroyed by shredding paper documents and deleting electronic files one year after the completion of the study.
- Although your responses will be deleted from the survey provider website after the data collection and analysis, your information may exist on backups or server logs beyond the timeframe of this research project.
- Your research records may be inspected by the Marquette University Institutional Review Board or its designees, Milwaukee Area Technical College and (as allowable by law) state and federal agencies.

COMPENSATION: Although you will not be receiving any monetary reimbursement for participating, your input can benefit technical college students and the community-at-large by providing a better understanding of a career-based pathway model as well as determining actual program and employment outcomes.

EXTRA COSTS TO PARTICIPATE:
- The research participant may need to pay for transportation to and from the designated interview site.

INJURY OR ILLNESS:
- If you think you have experienced a research-related injury, illness, or adverse event, you should contact the researcher (see Contact Information below).
- Marquette University does not have money set aside to pay for treatment, lost wages, lost time, or pain. However, you do not waive any rights by signing this consent form.

VOLUNTARY NATURE OF PARTICIPATION:
- Participating in this study is completely voluntary and you may withdraw from the study and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.
- If you decide to withdraw early from the study, your data may still be used.
- You may skip any questions you do not wish to answer.
- Your decision to be a participant or not will not impact your relationship with the investigator, Marquette University, or the Milwaukee Area Technical College. This would include grades and relationships with instructors, or, employment relationship with the investigator.

ALTERNATIVES TO PARTICIPATION:
- There are no known alternatives other than to not participate in this study.
- If you do not wish to participate in this study you can choose to decline the invitation.

CONTACT INFORMATION:

- If you have any questions about this research project, you can contact Rebecca Garcia Sanchez at-email: rebecca.garciasanchez@marquette.edu, phone: 414-297-7163.
- If you have questions or concerns about your rights as a research participant, you can contact Marquette University's Office of Research Compliance at (414) 288-7570.

I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT AND AM PREPARED TO PARTICIPATE IN THIS PROJECT.

_____
(Printed Name of Participant)

_____   _____
(Signature of Participant)   Date

_____
(Printed Name of Individual Obtaining Consent)

_____   _____
(Signature of Individual Obtaining Consent)   Date

Appendix G: Interview Questions, Program Graduates

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MARQUETTE UNIVERSITY RESEARCH INFORMATION
INTERVIEW QUESTIONS (Program Graduates)
*Public Policy Analysis of an Allied Health Career Pathway Model at a Local Technical
College*
Rebecca Garcia Sanchez
College of Education

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Interview Protocol (45-60 minutes):
1. Introduce Myself
2. **INFORMED CONSENT** disclosure/agreement
   a. If a phone interview, consent will be obtained via email
   b. If in-person, a paper consent will be utilized/informant will receive a copy
3. Questions (see below)

Fisher's Public Policy Analysis Model: Organizing Discourse-Situational Validation (Objectives)-Program Graduates
Guiding Question: **Does the allied health career model's objectives contribute to the individual graduate's success?**

- What is it like to be a student within a career pathway model?
- What is the process within the program-of-study?
- How long did you anticipate being in the program?
- Was this process "seamless" for you?
- Where there any barriers that hindered (lengthened) your progress and/or program completion?
- Did you feel you achieved what the pathway model promotes (seamless, quick, high support)?
- Were you able to obtain employment upon completion of the program? Within 6 months? Within a year?
- If you obtained employment (upon graduation), what type of position did you obtain and in which industry?
- Did you continue your education at a 4-year institution?
- If yes (to question above), what major did you declare?
- If you continued your education at a 4-year institution, did you complete your bachelor's degree requirements? If so, how long did it take for you to complete the requirements?
- If you continued your education at a 4-year institution, overall, how long have you been a student at that school?
- If you continued your education at a 4-year institution, did you face any obstacles transitioning from a 2-year to 4-year educational environment?

- Overall, is a career pathway model the most efficient way of completing post-secondary education?
- Overall, are at-risk students able to overcome barriers such as stereotype threat in a pathway model?
- Did the designated pathway indicate a clear process for you to attain educational, professional, and/or personal goals?
- Does the pathway model provide "high opportunity" for students/graduates as advertised by the local technical college?

*If a follow-up interview is required, questions will be individualized based on data gathered from first interview and will vary per informant

Appendix H: Interview Questions, Allied Health Faculty Members

MARQUETTE UNIVERSITY RESEARCH INFORMATION
INTERVIEW QUESTIONS (Allied Health Faculty)
Public Policy Analysis of an Allied Health Career Pathway Model at a Local Technical College
Rebecca Garcia Sanchez
College of Education

Interview Protocol (30-45 minutes):
1. Introduce Myself
2. **INFORMED CONSENT** disclosure/agreement
   a. If a phone interview, consent will be obtained via email
   b. If in-person, a paper consent will be utilized/informant will receive a copy
3. Questions (see below)

Fischer's Public Policy Analysis Model: Organizing Discourse-Situational Validation (Objectives)-Program Graduates
Guiding Question: **Does the allied health career model's objectives contribute to the individual graduate's success?**
- Describe your observations as to what it like to be a student within a career pathway model. Do you have any examples?
- What is the process within the program-of-study?
- How long did you anticipate your learners being in the program?
- Was this process "seamless" for them?
- Where there any barriers that hindered (lengthened) their progress and/or program completion?
- Did you feel they achieved what the pathway model promotes (seamless, quick, high support)?
- Were they able to obtain employment upon completion of the program? Within 6 months? Within a year?
- If they obtained employment (upon graduation), what type of position did they obtain and in which industry?
- Did any of your learners continue their education at a 4-year institution?
- If yes (to question above), what major did they declare?
- Of the number of learners that have graduated from your program, approximately how many went on to a 4-year institution?
- If they continued their education at a 4-year institution, how many completed their bachelor's degree requirements? If so, how long did it take them to complete the requirements?
- If they continued their education at a 4-year institution, overall, how long have they been a student at that school?

- If they continued their education at a 4-year institution, did they face any obstacles transitioning from a 2-year to 4-year educational environment?
- Overall, do you feel that a pathway model is the most efficient way for learners to complete post-secondary education?
- Overall, are at-risk students able to overcome barriers such as stereotype threat in a pathway model?
- Did the designated pathway indicate a clear process to attaining educational, professional, and/or personal goals?
- Does the pathway model provide "high opportunity" for students/graduates as advertised by the local technical college?

*If a follow-up interview is required, questions will be individualized based on data gathered from first interview and will vary per informant