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Labor Market Alignment and Social Outcomes

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LABOR MARKET ALIGNMENT AND SOCIAL OUTCOMES

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ABSTRACT

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The purpose of this interpretive case study was to investigate how several community colleges work with local industry partners to create market alignment and uncover the social outcomes within their communities. Most studies within labor market alignment focus on the economic outcomes, but this study sought to review the social outcomes. This study explored practitioners' commitment and their pursuit to further students' career opportunities through increased stakeholder engagement and credential alignment by investigating how industry initiatives impact diverse groups of students, creating new opportunities for career and social impacts. Some outcomes include status markers of economic freedom, while others seek to create personal growth and leadership for communal good within society. This study sought to review programs that have successfully created economic partnerships for responsive curriculum to evaluate the soft skills and social outcomes within their communities. This research looked at 5 community colleges that were active in the Trade Adjustment and Assistance Community College Training Grant; from 2012 to 2016, interviewing one faculty member and one industry partner from each institution, for 10 participants, to track changes within their institutions and across their communities while implementing curriculum aligned with labor market need. The guiding research question was, 'What are the perceptions/experiences of faculty and industry partners on social outcomes within their respective communities where labor market alignment guides academic programming?' The review of outcomes in labor market alignment may help to

guide initiatives in the field to continue improvement on other projects that seek to align skills while also creating active citizens in leadership for the good of their community.

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CHAPTER I

INTRODUCTION

Labor Market Alignment and Social Outcomes

Higher education can yield many benefits. Those benefits may be reaped by society as a whole or by individuals via improvement in their lives. In the past, higher education institutions (HEIs) have developed curriculum in a rather isolated environment (Christensen & Eyring, 2012). Higher education institutions remained committed to a general education curriculum focused on introductory level core courses (e.g., history, math, rhetoric, sciences, arts) intended to build broad skills with real-world application, rather than a more pragmatic approach of aligning curriculum with the needs of society and employers. The result has been increasing concern at a personal and societal level (Christensen & Eyring, 2012, p. 18). Unemployed graduates, disappointed, indebted students and parents question the value of a baccalaureate degree particularly when tuition has increased annually over the last 20 years (Boyington et al., 2021). Societally, employers and industry leader's express frustration at not being able to find qualified workers or having to spend additional dollars reeducating and remediating the skills of entry level workers (Christensen & Eyring, 2012, p. 4). Finally, in the context of declining state support for higher education institutions seem to lack the entrepreneurial will to change leading some economists (and parents) to question the value of a higher education and whether it is a public or a private good, or both. I have elected to define higher education as both a public and private good drawing on Bowen's (1997) work, wherein education serves to improve individual lives and society.

A new educational landscape is evolving geared to student post-baccalaureate success in the workplace and their communities and to meeting the needs of the labor market. Labor Market Alignment (LMA) is defined as "graduating the correct number of graduates with the necessary skills for the job market in a way that supports students' career goals and is consistent with institutional mission as well as current economic conditions" (Cleary & Van Noy, 2014, p. 3) While general education may still improve productivity and yield benefits to individuals, society, and the economy, an intentional alignment of student outcomes with industry needs is now required by accrediting agencies, and is fundamental to advance social progress (Christensen & Eyring, 2012). Understanding the impacts of these demands may help to drive the direction of successful innovation in higher education.

Increasing expenses associated with a college education compounds the debt graduates accrue, whether they graduate or not. At the same time, society is demanding commitment to student body diversity and inclusion on campus. Ever-increasing tuition has made it even more difficult for members of historically underrepresented and low-income populations to enjoy the benefits of higher education. Community colleges enroll large numbers of low-income and historically underrepresented students, the fastest growing sector in the United States (U.S.). As a result, "their educational achievements will dramatically affect the future of our nation" (U.S. Department of Education (DoEd), Low Income and Minority Students, 2020).

Addressing the college incompletion gap among Low-Income students (2017), from The National Center for Education Statistics state that community colleges are positioned to help low-income and marginalized students by "developing successful programs dedicated to equipping this population with the tools and support they need to complete their education" (p. 3). Further, Levesque (2018) found, "Structural and motivational barriers may derail students

even when they are equipped with information about labor outcomes" (p. 2). Community colleges, equipped to make swift changes, may prove to be the best facilitators of innovation in higher education, and thus the best resource to provide students with the most competitive skills.

Changing Landscape of Higher Education

Higher education institutions (HEIs) have enjoyed a market without competition for decades. Christensen and Eyring (2012) explains, "One reason for this past immunity is the power of prestige in the HEI marketplace, where the quality of the product is hard to measure" (p. 3). Christensen and Eyring explain that there is an absence of comparable measures on college outcomes due to the complex array of factors, including public and private outcomes, but reductions in state funding, accrediting bodies, state and federal governments, and students are now more focused on learning outcomes. Additionally, innovative technology and growing competition has made fundamental change for HEIs essential. Traditional institutions are built on the foundation of long-established customs including face-to-face classroom instruction, graduate school focus, and independent departmentalization and self-governance of faculty (Christensen & Eyring, 2012). Institutions of higher education previous modus operandi is outdated and under attack; to survive they must adopt a culture of change. As stated earlier, a key goal of HEIs has been to provide general and civic education. There is emerging support for an approach that blends broad-based education with more specific technical skills education (Cleary & Van Noy, 2014; Shulman, 2019). Derek Bok emphasizes the growing need for HEIs to meet the growing demands of a globalized world with new skills and the ability to work with diverse people (Bok, 2020). Higher education institutions have been faced with several disruptions, alignment with industry need has been another benchmark with growing interest (Christensen & Eyring, 2012). Bok (2020) believes that higher education has done a lot to meet growing

demands but recognizes that the quality of undergraduate degrees has slipped in the past 40 years. Both Christensen, Eyring, and Bok emphasize the importance of HEIs balancing their strengths and modifying their missions to meet increased demands and outcomes expected by their students and society.

Public and Private Good: Goals in Higher Education

The fact that HEIs benefit individuals that pursue learning and, in theory, society via widely distributed economic value and social benefits, enables higher education to be considered both a private and public good. As a public good, HEIs value and promote access, social mobility, equality, and the production of an educated workforce needed to drive the U.S. economy (Christensen & Eyring, 2012). By being responsive to the needs of students and employers HEIs demonstrate value and relevance to society. For example, most students and industry partners expect baccalaureate level graduates to exit the university with a core set of skills to successfully enter the many professional fields-accounting, nursing, or technology. As a private good, HEIs offer individuals the opportunity to invest in themselves with the expectation of a rate of return on their educational investments. This research proposal will focus on the public outcomes of community colleges with Labor Market Alignment.

Community Colleges and Labor Market Alignment

Community colleges play a particularly important role in balancing public and private goods, particularly in terms of Labor Market Alignment (LMA). Open access policies, lower costs of attendance, and a focus on meeting the needs of local employers makes them more sensitive to LMA than traditional four-year institutions. For this reason, community colleges are the unit of analysis for this study. There has been research within community colleges regarding economic outcomes of LMA including employment, wages, and economic opportunities by

Trade Adjustment and Assistance Community College Career Training (TAACCCT), Carl D. Perkins Career and Technical Education Act of 2006: An Overview, 2016, and the Department of Labor. There have been few research projects conducted about the social impacts of LMA initiatives. The social outcomes cultural awareness, acceptance, and social justice of community colleges with LMA are the focus of this study.

Economic Opportunity, Labor Market Alignment, and Community Colleges

A two-year degree is undeniably valuable in terms of earning potential (Belfield et al., 2017). Economic opportunities for students are embedded in LMA programs to "expose learners to emerging high-skill, high wage, and in-demand industry sectors or occupations" (Goodman, 2015, p. 8). Two-year institutions have shown considerable salary and wage gains for student outcomes creating what Paulsen (2018) describes as a "democratizing function in U.S. society by improving students' prospects of becoming socioeconomically independent. Community colleges are a worthwhile investment for all, but this investment perhaps is even more important for the type of students historically served by the two-year sector" (p. 229). Community colleges serve a higher percentage of marginalized populations than traditional four-year institutions, which make them of particular interest in this study. Economic outcomes associated with LMA include job placement rate, starting salary, and debt load of the graduates. These outcomes are not the only the focus of community colleges nor do they represent social progress, but economic outcomes are an important part of social progress. Improving economic outcomes for community college graduates is closely aligned with improved social outcomes like home ownership, increased salaries, and access to education. Market alignment studies have focused on the economic outcomes associated with their graduates, and this study will focus on the social outcomes at aligned community colleges (Cleary & Van Noy, 2014). Community colleges are

designed to be aligned with market needs and committed to social progress, making them a perfect fit for this research project.

Social Outcomes

Social Justice

When the faculty of community colleges understand that multiple forms of oppression exist and they learn how to "work against and/or transform them," it strengthens workforce diversity (Zine, 2001, p. 254). This is a "key driver of America's economic growth and is one of the most important predictors of business sales revenue, customer numbers, and growth in productivity" (National Skills Coalition, 2019). The principles of social justice and LMA help students enjoy the benefits of a fair and democratically enabling society. In practice, this is the focus on inclusion and success of traditionally underrepresented groups (Hudley & Mallinson, 2018). "Social justice has kinships and associations with notions of human and socio-economic rights, social inclusion, equity, and access to resources and capabilities for human wellbeing" (Singh, 2011, p. 2). Community colleges strive to create change and increase social justice.

Community colleges play a vital role in perpetuating or transforming wider patterns of justice or inequality (Rowan, 2019). The goals of community colleges include the altruistic motive of social justice. It is recognized that the definition of social justice is a moving target in that those who study the theory of social justice have different ideas about its conceptualization. Some argue that the meaning of social justice is "freedom from oppressive relations" (Leonard, 1990, p. 63). Others maintain that it should be defined in terms of equality of opportunity and the distribution of cultural and social capital (Gewirtz, 2006). The latter, however, does not take into consideration the "systemic and historical forms of exclusion that operate within society" (Ng et al., 2009, p. 19). That is, the concept of social justice that includes equity, or "providing the right amount of resources that a certain group needs to live a full life, given the historical, material,

and social marginalization they have experienced" (Zine, 2001, p. 240). For purposes of this study, the author has adopted the following definition of social justice, "a term which is invoked as much as a context-specific political and policy goal as it is a theoretical construct and a heuristic tool for representing a fair and democratically enabling society" (Singh, 2011, p. 2). This incorporates the definitions above in that the complex social justice concept cannot be defined separately, nor by simply combining the definitions of equality and equity. Social justice outcome goals of community colleges encompass equality, tolerance, and social cohesion (Bowen, 1997). Social outcomes include participation by diverse populations in community colleges and the resulting social influence in the communities where they live and work. However, education has often served to create social reproduction rather than any form of social transformation (Rowan, 2019). Social justice initiatives vary widely across institutions and with it questions of the student impacts on social justice studies.

Individual Social Skills

The higher education community is committed to graduate students who have achieved specific academic outcomes for their own benefits, while benefiting the economy and society at large (Bowen, 1997). Social outcomes are more likely to be expressed in the core values of an institution, as opposed to distinct outcomes for academic programs listed in a college catalog or course syllabus. Social outcomes include such things as social cohesion, social capital, and social competencies (Dijkstra, 2012). Social competencies include self-reflection, collaboration, cultural awareness, critical thinking, and problem solving (Otter, 1992). Social progress for the public good, including human equality through civic participation, is a primary goal of higher education (Bowen, 1997). Maintaining focus on social outcomes while integrating industry feedback requires comparison of industry goals.

In the National Association of Colleges and Employers (NACE) (2016), industry shares many of these desired outcomes for current and future employees, for both their workplace and their communities. Approximately "50% of workers want their company's mission to align with their values" (Burgess, 2016, p. 2). While this may not be the primary reason students select an HEI, a program with LMA will enable students to become aware of the importance of aligning the mission of a future employer with their own purpose and values. Labor market alignment is a complex endeavor involving numerous stakeholders. It is a collaborative effort between administrators, faculty, industry partners, and community partners, and will vary depending upon the community stakeholders.

Knowledge is seen as an equalizer in the U.S. and the gateway to empowerment for previously minoritized populations (Bowen, 1997). Knowledge serves as enlightenment for other, privileged populations to advocate for equality. Labor market alignment is currently considered an effort by community colleges to develop programs such as Learning Communities and Academies to improve the success of marginalized populations. It is designed to give students an 'edge' over graduates from four-year institutions; they have opportunities to experience a workplace environment wherein market needs have been made known to stakeholders. Consequently, the skills needed by industry have a good probability of aligning with the skills acquired through students' academic programs.

Social Cohesion

Social cohesion metrics consist of feeling like you belong, participation within society, trust, and legitimacy. Social cohesion values minimizing disparities and avoiding polarization and increasing tolerance of and respect for diversity (Dumas et al., 2013; Green, A. et al., 2006). Further, Moiseyenko (2005) states, "social cohesion is understood as the social networks and the

norms of reciprocity and trustworthiness that arise from connections among institutions" (p.89). Higher education institutions tout the increase in equality and social cohesion due to the experience and interactions while attending college. Social cohesion at HEIs is built via the culture of the institution, the curriculum, and the relationships between students and faculty. Understanding how attitudes and behaviors develop will help to understand the impact that education can have on socialization and tolerance (Green, A. et al., 2006). Industry also values these outcomes for prosperity, efficiency, and the culture within the workplace. With LMA, social cohesion can be evaluated for inclusion in the curriculum.

Cultural Intelligence

Green A. et al., (2006) defines tolerance and cultural awareness as the "acceptance of intra-group lifestyle differences or openness towards other cultures," including how individuals work with one another and respond to differences in people (p. 97). Green, A. et al., goes on to explain that tolerance has a more complicated relationship within social cohesion in relation to educational and skills equality. The authors emphasize that there are limitations to the impact that education can have on building tolerance, and it is the bridging and linking networks between groups that can impact this component of social cohesion. Education has been found to develop skills that lead to increased tolerance such as cognitive skills to understand causal relationships and identify racist statements with faulty reasoning (Green, A. et al., 2006). While educational outcomes can only take students so far, with the inclusion of industry influence and work experience, tolerance and cultural awareness can be explored further.

Guiding Research Questions

The following questions guide the study and are incorporated into the semi-structed interview questions.

Q1 What are the perceptions/experiences of faculty and industry partners on social outcomes within their respective communities where labor market alignment guides academic programming?

Q2 What are the perceptions/experiences of faculty and industry partners related to the benefits and challenges of labor market aligned programs in community college settings?

Q3 What are the perceptions/experiences of faculty and industry partners on the economic impact for student who have attended a labor market aligned program of study?

Purpose of the Study

The purpose of this interpretive case study is to investigate how several community colleges work with local industry partners to create market alignment and uncover the social outcomes within the community. Most studies within labor market alignment focus on the economic outcomes, but this study seeks to review the social outcomes. I explored the practitioners' commitment and their pursuit to further students' career opportunities through increased stakeholder engagement and credential alignment. I investigated how industry initiatives can impact diverse groups of students, creating new opportunities for career and social impacts. This is important because higher education is continually asked to do more for students and demonstrate the outcomes of success through their graduates. Some of those outcomes include status markers of economic freedom, while others seek to create personal growth and leadership for communal good within society. Most would argue that pursuing only economic alignment would not fulfill the outcomes of this communal good. This study seeks to review programs that have successfully created economic partnerships for responsive curriculum to

evaluate the soft skills and social outcomes within the community. The benefits of this research may include understanding communal outcomes of labor market alignment, while advocating and gaining new knowledge around responsive education initiatives. The review of outcomes in labor market alignment may help to guide initiatives in the field to continue improvement on other projects that seek to align skills while also creating active citizens in leadership for the good of their community. Reviewing this atmosphere of experiential learning for students may also reveal outcomes different from a standard classroom. The benefits to the field will be a new perspective on labor market alignment in higher education, reviewing the social outcomes within communities where the community colleges have strong alignment with industry partner needs.

Significance of the Study

As the demands on graduates continue to grow, so to do the demands of institutions of higher education, including community colleges. Community colleges are poised to meet economic needs within communities and will be looked to for guidance in increasing initiatives for Labor Market Alignment. Leaders in HEI need to be aware and innovative in responding to the demands of their students to keep their institution and its students competitive upon graduation. HEI's play a key role in career choice for their students and workforce development in their communities. HEI's work diligently to provide new opportunities for marginalized populations through social justice initiatives. Understanding how economic opportunities impact social progress can help drive the commitment to collaborating with local industry partners and creating new opportunities for marginalized populations.

Limitations of the Study

The limitations of this study include the sole focus on community colleges and labor market alignment initiatives. The data will not include outcomes or perspectives of 4-year institutions of higher education. The study will also solely focus on careers in high economic need such as IT, healthcare, and finance. No liberal arts programs are included in this study, and thus, their impact cannot be evaluated through the narrative shared here. These programs, included for their alignment of economic need, are designed solely to demonstrate initiatives within higher education to meet labor market need and evaluate the impact on student outcomes, including socioeconomic status. This research is not designed to evaluate or draw conclusions about any other outcomes associated with higher education.

It is also important to note that this study is limited to the perspectives and beliefs of the faculty and industry partners collaborating within these programs of study. It does not include the perspective of the marginalized students within these programs. This has been chosen for this study due to the ability of faculty and industry partners to compare outcomes from before initiatives to align the programs with labor market need to after these initiatives were implemented. Faculty and industry partners were chosen for this study due to their unique perspective to compare the outcomes, as well as their larger view of the program and its outcomes over time, rather than the opinion of current students who have only their personal experiences and a current perspective on the program of study and its outcomes. It was determined that faculty and industry partners would be the best participants for this study due to their unique perspectives within these programs of study, their communities, and their viewpoint on student outcomes and their changes over time and the impact of programmatic changes on those outcomes.

Glossary

The following terms are used throughout this document and are defined here to inform the reader of their contextual use.

Labor Market Alignment – The alignment of skills and number of graduates produced in the educational institution in relationship to the need in the labor market.

Experiential learning- the process of learning through experience; learning through reflecting on doing (Dewey, 2018, p.149).

Social justice – "a term which is invoked as much as a context-specific political and policy goal as it is a theoretical construct and a heuristic tool for representing a fair and democratically enabling society" (Singh, 2011, p. 2).

Social cohesion – Social cohesion values minimizing disparities and avoiding polarization and increasing tolerance of and respect for diversity (Dumas et al., 2013; Green, A. et al., 2006). Further, Moiseyenko (2005) states, "social cohesion is understood as the social networks and the norms of reciprocity and trustworthiness that arise from connections among institutions" (p.89).

Cultural intelligence – Green, A. et al., (2006) defines tolerance and cultural awareness as the "acceptance of intra-group lifestyle differences or openness towards other cultures," including how individuals work with one another and respond to differences in people (p. 97).

CHAPTER II

REVIEW OF THE RELEVANT LITERATURE

Human Capital in Higher Education

With a national student loan debt of over $1.3 trillion, and $4.2 million student loans defaulted in 2016, up 16% from the previous year, students, parents, and legislators are closely monitoring the impact of higher education (Burman, 2017; Heller, 2011). Human capital is the concept that an individual's earnings increase through the attainment of education, making the lost wages during that time something that can be recaptured and surpassed due to the educational experience. According to the *Higher Education Research Institute* (HERI), and Eagan et al. (2015) 86% of incoming college freshmen cite the ability to get a better job as a critical component to the decision to attend college compared to only 47% who indicate learning for the purpose of being more cultured and well-rounded as the most important reason for attendance. The shift in rationale for attending college is evident in the nearly 30-percentage point increase since 1971 on the focus of employability versus purely the value of learning for learning's sake (Eagan et al., 2015). The resulting community college student profile has changed over the years, to include women, more first-generation students, older students, and more racially and ethnically diverse populations. The change in student population has opened enrollment to students of multiple races, ethnicities, socioeconomic status, ages, and abilities. Due to increased access and reasonable cost of community colleges, they have seen dramatic diversity, including up to 40% of non-white students in 2009 (Mullin, 2012). Community

colleges' provision of affordable, career-based education to a wide range of students allows their students to be highly competitive in the job market upon graduation.

Consequences of Poor Labor Market Alignment for Marginalized Populations

Educational decisions determine labor market opportunities for all students, but marginalized, or underrepresented, populations can be particularly vulnerable to labor market influence. The consequences of bad labor market connections because of these educational decisions are magnified for marginalized populations (Jacob & Weiss, 2010). Human capital costs are high for marginalized populations while the opportunities are fewer due to discrimination and socio-economic starting points (Jacobs & Dougherty, 2006). Human capital is the concept that the time and economic investment of higher education produces equally increased economic opportunity. Misalignment of education with the needs in the marketplace for marginalized populations is compounded by institutional racism where there is a smaller margin for error on their educational investment. When education fails members of these populations, the effects are magnified for them and their community.

Human capital cost is higher for oppressed populations because they cannot afford missed income while not working to pursue education. Time invested in furthering one's education is expected to yield increased economic opportunity, greater family stability, and more options for career growth for otherwise, the impetus to learn is truncated by meeting one's immediate needs. When community colleges develop business strategies to meet labor market need, they drive business practices within the community to reduce discrimination (Jacob & Weiss, 2010). Community colleges that offer industry-recognized credentials, accompanied by a degree of occupational specificity, stabilize labor-market entry, as the match between applicants and jobs improves and employers experience the community college as a partner in economic

development (Jacob & Weiss, 2010). This is especially important for marginalized populations who are more impacted by economic changes (Jacobs & Dougherty, 2006).

The Economics of Discrimination

The more competitive the economy and industry, the less likely discrimination is to survive (Becker, 1957; Black, 1999). Labor Market Alignment for students upon graduation reduces the chances for employer discrimination and creates better candidate alignment in skills and in numbers. When the pool of skilled labor and the needs of the market align, businesses that discriminate are much less likely to be successful, and skilled individuals, of all backgrounds, are much less likely to be discriminated against (Pager & Karafin, 2009). Discrimination takes effort and reduces efficiency, driving away business and employees. Pager & Karafin's (2009) analysis on the impact that discrimination has on businesses emphasizes that non-discriminating firms can drive business, ultimately leading discriminating firms to fail. Research also suggests that the more difficult to fill, competitive positions are less likely to have discrimination as a factor due to the high search costs and the cost of unfilled positions (Baert et al., 2015). Encouraging LMA holds potential benefits for individuals and businesses as individuals have in-demand skills and dispositions as skilled graduates and, hopefully, will be recruited, employed, and retained by businesses evaluating them on their skill level and potential contributions rather than their identities.

Discrimination early in an individual's career has long-term, career-limiting impacts, such as limited opportunities for advancement, lower starting salaries, and stunted return on human capital investment (Beart, 2015). Discrimination cannot be eliminated entirely by LMA or competitive businesses, but LMA can help to combat long-standing, unfair hiring practices. Better alignment of skills and number of graduates creates competition. Students seek skills to

gain a competitive edge in the marketplace. The opportunities associated with higher learning credentials from community colleges are likely to help individuals transcend the economic challenges of a disadvantaged background.

Labor Market Alignment

Alignment in the labor market is defined as the extent that community colleges respond to meet the needs of economic growth and skill needs of the community and nation (Tarvid, 2016). Labor market alignment focuses on two primary goals: increasing the probability of student employment and increasing institutional responsiveness to job skill needs. Job vacancy alignment focuses on matching the number of graduates from programs with the demand for workers with those credentials (Cleary & Van Noy, 2014). The second goal, skills alignment, involves aligning the skills and credentials offered in community colleges with those most in demand in the labor market (Cleary & Van Noy, 2014). The significance of exploring how well community colleges align with labor market needs is to evaluate economic opportunity for college graduates through employment. Students need to understand how their skills make them competitive; institutions need to constantly evaluate programs offered to ensure they are competitive and aligned with industry needs (Livingston, 2010). Better alignment increases relevancy for community colleges and should be positively reflected in successful student employment outcomes (Van Noy et al., 2008). Community colleges have been the most connected to the labor market and serve the highest population of marginalized individuals (Bowen, 1997).

Labor Market Alignment and Community Colleges

Community colleges were established on the foundation of community economic and workforce development (Adams et al., 2013; Jacobs & Dougherty, 2006). In the 1950's, policymakers began to push for occupational training through community colleges to promote economic development and attract businesses (Dougherty & Townsend, 2006). One of the largest federal initiatives for responsive education was the Carl D. Perkins Vocational Education and Technology Act (1984) to improve the quality of vocational education based on economic need (Learnings From TAACCCT, n.d.). The grant required that community colleges work with their local industry partners to develop curriculum based on their local economic need. It had a significant influence on alignment with community college by expecting community colleges to quickly respond to economic need in the healthcare, finance, and information technology (IT) industries. The Perkins Act stipulated that programs of study must connect academic and technical curricula in postsecondary education, thereby explicitly connecting the role of colleges in preparing students for the labor market. Perkins's legislation has continued, most recently Perkins V was signed by President Donald J. Trump in 2018. The latest legislation guarantees $1.3 billion annually in Federal funds to support Career and Technical Education. The latest reauthorization specified support for career pathways, for connections from college to occupations and their progression of promotion. Community college missions have evolved to include even more responsive workforce program development through community engagement (Adams et al., 2013). For example, through DOL funding, community colleges around the US were able to develop over 200 new short-term training initiatives based on local economic need (Learnings From TAACCCT, n.d.).

Community colleges that have met the economic needs of their communities give us insight into the importance of skill alignment.

Transferability of Two-Year Degrees

Community colleges, touted as an inexpensive pathway designed to increase accessibility and opportunity for previously oppressed populations, have struggled to meet labor market needs (Adams et al., 2013). Not only is there concern about low graduation rates and the cost of attrition, but there are also concerns about the lack of transferability leading to a gap in opportunity and economic stability for these populations (Schudde & Goldrick-Rab, 2015). Terminal two-year degrees that lack pathways to a four-year degree limit opportunity and perpetuate inequalities within society. Taking the shortcomings of community colleges into consideration along with LMA, it is important to provide students with opportunities to expand their opportunities as they progress, not limit them. Community colleges and universities expand collaboration to align their programs with one another and their community economic need. Community colleges and universities are doing more to collaborate and ease the transition for students to streamline the pathway and minimize students lost in transition (Mangan, 2018). More colleges are touting their partnerships and the flexibility for students to seamlessly move from a two year to a four-year degree (Mangan, 2018).

Labor Market Alignment Outcomes

Benefits of Labor Market Alignment. The Trade Adjustment and Assistance Community College Career Training (TAACCCT) grant was sponsored by the Department of Labor (DOL) for over 2 billion dollars from 2011 to 2018 to develop short term programs at community colleges with industry guidance to meet local economic needs (Durham et al., 2017). Reviewing TAACCCT outcomes completed in 2015, an initiative geared to better connect community

college programs to industry partners and their required job skills, provides a guideline for current research on LMA outcomes. The TAACCCT initiative provided grant monies to community colleges from all fifty states and across all fields with economic need. This study examined job retention, salary increases, and placement upon graduation for individuals who graduated from their respective community colleges' programs involved in the TAACCCT grant. Sixty percent (60%) were retained in employment, compared to less than 50% for non-grant community college students (Chen, 2020; Durham et al, 2017). Of the graduates, 45% experienced a wage increase upon completion of the program. Fifty-one percent of round one completers were able to procure employment, and most of them did so before their program was completed, compared to other community college graduates that are employed at less than 50% (Chen, 2020; Durham et al., 2017).

Department of Labor's TAACCCT grant was created after the Great Recession to help adults get back to work in areas of high economic need (Blume et al., 2019). The programs were created for adult learners who often require accelerated timelines to completion due to life pressures to quickly reenter the workforce to care for their families (Blume et al., 2019). The average age of TAACCCT students was 31, 3 years older than the average community college student at 28 (Blume et al., 2019). Most adult students are individuals with significant familial, financial, and social commitments outside the classroom, past work experience and life experience that affect how they learn best, and working at least part time (Blume et al., 2019).

Each program was directly related to an industry credential at public community colleges with diverse student populations and low-income students (Blume et al., 2019). The outcomes assessed included program completion, credential completion, post-program employment, and post-program wage change (Blume et al., 2019).

Shortcomings of Labor Market Alignment. Return on investment (ROI) and financial stability are not the only outcomes associated with higher education, and they are not the only measures of social justice in society either. Faculty are quick to echo these concerns when LMA is broached as a topic for curriculum development in higher education. This perspective is well articulated by Baum et al., (2013) who wrote:

> Education means much more than job training. It means providing people with the opportunity to develop their sense of themselves and their relationship to other people and to their environment. It means supporting intellectual engagement and inquiry to improve our understanding of our history and our capacities for affecting our future. Education prepares people to create successful and meaningful lives, to be active and engaged citizens in a democratic society, and to make choices that will improve their lives and the lives of those around them. It is about the development of habits of mind, not just the transmission of knowledge. (p.9)

Higher education is far more than job training, and these institutions do not want to have less of an impact on the holistic outcomes of an individual's life just for their bottom line. While students are more concerned with career outcomes associated with higher education than ever, institutions must balance these demands with creating well-rounded, human beings that positively participate within their communities to affect change.

Labor Market Alignment (LMA) Policy in Higher Education: Gainful Employment

Current shifts to increase LMA in colleges have come with recent legislation initiatives surrounding gainful employment (GE). Gainful employment is the financial return on educational investment and employment outcomes for graduates. In 2011, federal GE legislation was enacted into policy to improve program outcome transparency for student decision making

and expectations, targeting for-profit institutions but widely impacting all higher education institutions (HEI), but especially community colleges, due to employment outcomes reporting (Robert, 2014). Gainful employment legislation required institutions to report data for their students, including graduates, employment, and wages, to have reasonable expectations for future students about program outcomes. Programs with weak outcomes were also stripped of the support of federal financial aid for their students due to the poor return on investment in those programs.

Under the Trump administration and Betsy DeVos, U.S. Secretary of Education, the policy has not enforced the consequences for institutions with poor outcomes, rescinding the Obama-era legislation (Green, E., 2019). Rather, the Trump administration extended data reporting to include all institutions, including program costs and anticipated wages (Hackman, 2019). “Education Department officials have argued that transparency, not regulation, is the best way to hold all schools - public nonprofits, community colleges, and for-profits accountable for their results” (Green, E., 2019, p. 1). The Department of Education (DoEd) is working to expand current databases, creating the College Scorecard, to provide debt and earning information for all HEIs (Green, E., 2019). The Department of Education continues to be committed to fair marketing practices and availability of accurate financial information for students to make program choices. This is important for marginalized populations to make informed decisions and have the greatest opportunity for success when they pursue higher education. Policies fluctuate and politicians focus on varying aspects of higher education, but one commonality is the focus on career alignment and a sustainable career upon graduation.

Collaborations Influencing Greater Alignment Between Educational Institutions the United States Departments of Education and Labor Markets

The growing alignment and partnership between the U.S. Department of Labor (DOL) and the DoEd demonstrates a shift from historic silos of influence to developing jointly a more competitive and high-skilled workforce. Within the context of post-secondary education this collaboration can be seen in the passage of *The American Recovery and Reinvestment Act by the Department of Labor* in 2009 as part of the economic recovery after the market crash (Blume et al., 2019). This Act created the TAACCCT program to make available $2 billion for community colleges to design and implement short-term training programs focused on workforce development and economic recovery after the market crash in 2008. It was designed to aid institutions in swiftly meeting the demands of industry partners, creating stackable credentials, and better outlining and creating career pathways for students to follow. The curriculum created from the TAACCCT grant funding reflects industry competencies to produce graduates who meet industry standards in occupations that pay adequate living wages, such as healthcare, IT, and finance. The DOL also reauthorized the Workforce Innovation and Opportunity Act (WIOA) in 2016 from the original in 1998 to encourage increased coordination between economic need and federal workforce development programs, including higher education (Blume et al., 2019). The growing requirement for a two-year degree is driving collaboration between industry and educational institutions, increasing job preparedness and job skills for graduates (White & DiSilvestro, Eds., 2013). Curriculum development under TAACCCT capitalizes on collaboration to bolster individual and public outcomes.

Experiential Learning for Social Outcomes

Closing the gap between education and the workplace creates opportunities for students to experience the workplace earlier in the learning process. As Kolb (2015) points out “Learning itself is generally conceived to be the result of experience” (p. 2). Contextualized learning allows the learner to be involved in practice, rather than just reading about the subject matter. The application of practice to one's personal and social knowledge builds personal connection and the longevity of knowledge about the subject. Through practice, problem-based learning, and the mind's connection to past experiences with kinesthetic action, experiential learning links education, work, and personal development (Kolb, 2015; McCarthy, 2016).

Experiential learning takes on many forms, including cultural learning that community colleges foster and “translate the abstract ideas of academia into the concrete practical realities of people's lives” (Kolb, 2015, p. 6). Experiential learning theory has been the foundation for adult education and management training (McCarthy, 2016; Miettinen, 2000). One form of experiential learning includes the four stages of experience, reflect, conceptualize, and experiment. It frequently is site based or workforce-based interactions to augment academic learning. As students interact with people in the workplace, they practice and apply what they have learned in the classroom and onsite in their chosen career and are exposed to engage with a wider array of individuals.

Warring and Hodkinson (2005) conducted four empirical studies, two in the workplace and two in the educational setting, i.e., college, to study social outcomes such as self-reflection, cultural intelligence, and the ability to work with others. They found that social outcomes are just as prevalent when they are acquired through work-based learning. Workplace learning “offers

contextualized integrative learning experiences that when intentionally designed can help students to connect and reflect on developing skills to enrich their capacities as reflective practitioners for their future work and lives" (Smith et al., 2010, p.414). Students develop more work readiness skills in the workplace than in the classroom (Wilton, 2012). According to the employer survey from employers committed to recruiting and developing graduates, work-based learning increases social outcomes more than traditional learning platforms for students including teamwork, communication, self-management, critical thinking and problem-solving (AAGE, 2011). They found through their work with graduates that experiential learning in the workplace improves not only application of technical skills, but also interpersonal skills. As programs increase their alignment and collaboration with industry, opportunities arise for improved learning techniques, like experiential learning, which will be reviewed for impacts on the social aspects of community colleges, including tolerance and social mobility.

Cultural Intelligence in the Workplace

Cultural intelligence is described as “one's ability to understand, relate, and successfully work among many cultures and the growing diversity in the workforce” (Ng et al., 2009). The presence of cultural intelligence enhances the likelihood that individuals will actively engage in the four stages of experiential learning (experience, reflect, conceptualize, experiment). These processes lead to global leadership, self-efficacy, and ethno-relative attitudes toward other cultures (Ng et al., 2009).

The connection between experiential learning and cultural awareness and acceptance is a unique form of experiential learning that can impact social outcomes such as interpersonal relationships, acceptance, and cultural intelligence. Industry alignment is often associated with the attainment of hard or technical skills, whereas experiential learning is often applied to

programmatic curriculum outcomes. Reviewing industry alignment and experiential learning for social outcomes, particularly those associated with access and reducing prejudice in the workplace, provides a new lens for LMA and experiential learning in literature and research. The emphasis is shifting from work effectiveness to learning effectiveness and cultural experiences, developing a more holistic individual for the workplace. Open minds and reflection grow cultural intelligence and responsive cultural leadership that is imperative in this era of growing globalization. These holistic outcomes are validated by industry feedback as important social outcomes (NACE, 2016; Sparks, 2012). Institutions and industry collaborating to find the best ways to expose students to and develop cultural intelligence is the premise of this research in LMA (NACE, 2016).

Impacts of Socio Economics on Social Progress

"One of the reasons so many individuals from poverty make the transition into the world of work through skilled labor is that it is a bridge between the concrete and the abstract" (Payne et al., 2001, p.133). Success at work is dependent on abstract thought and verbal communication, skills that marginalized populations are not acquainted with prior to workplace interactions. Skilled labor opportunities create a stable environment for these populations to begin to focus beyond survival, and to create plans, understand consequences, and make critical decisions for long term outcomes. The workplace provides a place for students to practice and establish their abilities to think before they act, defer gratification, develop problem solving skills, and plan for the future (Payne et al., 2001). Developing abstract skills in the workplace, along with the economic stability of a well-paying skill set, has long term effects for marginalized populations to rewrite the norms they are used to.

Social Outcomes and Labor Market Alignment

Labor market alignment and experiential learning emphasizes cultural acceptance, problem solving, and communication (NACE, 2016). Sixteen of the top eighteen sought after employee attributes for the 2016 job outlook contain soft skill emphasis, including communication, collaboration, problem solving, and critical thinking (NACE, 2016). As educators prepare the next generation of the workforce to serve a broad spectrum of the economy, graduates will need to possess these attributes to be prepared for challenging tasks (Teichler, 2000). The Secretary of Labor's Commission on Achieving Necessary Skills reported that all workers now need higher order thinking skills; they will also need the technical skills of the job (Skills and Tasks for Jobs: A SCANS Report for America 2000, 1999).

Students also report that job skills are most frequently gained through experiences on-the-job, or hands-on experiences, rather than the classroom (Miller, M. A. et al., 2005). *Measuring Up on College-Level Learning* also cites learning through critical thinking and problem solving for today's global and technologically advanced labor market (Miller, M. A. et al., 2005). Connecting education to workforce needs integrates these traditional academic skills into real-life job situations, helping ensure students achieve adaptability within the career field, the ultimate desired outcome for graduates facing constantly changing technology. Teaching both sets of skills, in an integrated manner, allows the growing variety of talents and motives of students, as well as the growing variety of job prospects for graduates through diversification.

Industry involvement and LMA in community colleges promotes student growth and changes within the workplace and society. Evers et al., (1998) focus on self-management, communication, leadership, and innovation as their bedrocks through work-based education,

repeatedly leading to stronger employer involvement. These attributes are “the issue that unites colleges and business organizations to maintain the essence of community colleges while changing the way knowledge is transmitted to students. Community colleges do not need to, and should not, relinquish any of its core values” (Evers et al., 1998, p. 136). Finding common values between organizations and community colleges creates opportunities for collaboration, balancing curriculum and skills outcomes and leading to a greater understanding of career outcomes. Engaging industry partners and work-based learning opportunities increases the benefits for students and the probability of their success. Industry involvement with community colleges creates professional networks for graduates, increases diversity in the workplace, and creates positive trends within new communities of people.

The Importance of Social Capital for Career Opportunities

Krauth (2003) explains that relationships serve as resources, particularly in the search for employment opportunities. Social capital is a term used to describe the value of relationships, as graduates can leverage these relationships to help acquire jobs and advancement opportunities. Tangible returns include knowledge of career opportunities, insight into sought-after skills, and connections within organizations for employment opportunities (Mouw, 2003). Krauth further explains that one of the largest detriments that marginalized populations, and sometimes students in general, must overcome is the lack of a professional network from which to build social capital. Students can also begin to build their professional networks and develop their professional demeanor through industry collaboration and programmatic alignment with business needs. Social capital increases human capital and can provide a counterweight to social and economic disadvantages (Ashtiani & Feliciano, 2018). Krauth also showed that recent graduates with a professional network available for job search assistance are far more likely to have initial

career success, as well as long-term opportunities within the field. These initial job opportunities for marginalized populations can have long-term effects with the development of professional networks (Krauth, 2003).

Payne (2005) describes relationships, particularly professional relationships, as the key to building opportunities and pulling individuals, and their families, out of poverty. Payne (2005) elaborates that relationships within the workplace are often created via networks and introductions through known and trusted counterparts. LMA and industry involvement in higher education, creates opportunities for individuals to build their networks and receive crucial introductions to begin their careers. Integrating industry feedback and interactions into community college career tracks creates opportunities for students to build social capital for future opportunities.

Labor Market Alignment and Social Outcomes

Women in the Space Race

Historically, underrepresented populations have realized social progress through economic opportunities provided by market needs brought on by U.S. national emergencies. In the early 1960's, the face of the National Aeronautics and Space Administration (NASA) was almost exclusively populated by white men (Shaffer, 2019). African Americans broke barriers in the space race as NASA worked to send a man to the moon. A team of African American women provided NASA with important mathematical data needed to launch the program's first successful space missions (Shetterly, 2016). Men and women who could align their skills with the economic needs of the time were able to break social barriers in society and over time within NASA. Had these African American women had the benefit of labor market alignment, imagine the positive impact, over time, for these women, their families and society. An actionable goal of

higher education toward promoting social outcomes through economic opportunity, is in my opinion a noble goal. Shetterly (2016) notes, “War, technology, and social progress; it seemed that the second two always came with the first” (p. 60). Opportunities for social progress present themselves at some of the greatest times of change and when labor needs are at their highest. Such was the case with African American women during President John F. Kennedy’s race to put a man on the moon in the 1960’s at Langley, VA in the United States.

High Impact Hiring

The concept of businesses contributing to society and social progress through jobs is called high impact hiring. Today, industry stakeholders can often be job-skills driven business entities. However, some organizations are beginning to understand just how much of an impact a good job can have for an entire community; businesses can also be the driver for various social outcomes for the public good. Ernst and Young, LLP is one such organization. They focus on innovative technologies, learning strategies, and a collaborative environment. They employed individuals from diverse populations by focusing on progress for all stakeholders and viewed the process of learning and employment as a collective endeavor. They integrate the use of data to predict and target human capital efforts for marginalized populations (Weinberger, 2018).

High impact hiring is the result of a conscious effort by employers to employ individuals from disadvantaged and underrepresented backgrounds. Demographics within the organization begin to diversify (Miller, C. 2017). “Employment opportunities give those discriminated against a chance to demonstrate their skills, and thus to break the preconceptions upon which prejudicial barriers are based” (Leonard, 1990, p. 59). Initial opportunities begin to impact the cultural norms of an organization and increase the diversity sought in hiring practices for years to come (Leonard, 1990). Individuals who break through previous molds and increase diversity within an

organization can create opportunities for long-term demographic changes (Miller, C. 2017). Progress through economic success is not the only pathway to social progress and it certainly cannot undo long-term biases and historical discrimination, but empowering marginalized populations while discrimination is also addressed through legislation and critical review within society, can help to change the outcomes for these populations. For generations to come.

Inclusive Work

Deloitte has spearheaded a symposium with other professionals to collaboratively develop, "pathways to sustainable and dignified work through the collective social enterprise (Morris, 2020, p.3)." The initiative focuses on employment opportunities for marginalized populations and historically underemployed populations to improve outcomes for these populations and the organization, through a diverse workforce. This focus on the development of skill sets for marginalized populations to meet growing workforce needs due to automation could help these organizations meet the competency requirements of future work (Morris, 2020). Not only does hiring a diverse and traditionally marginalized workforce create better performance for the organization, it also has lasting impacts for the marginalized population. Deloitte cites, "Studies show that steady, gainful employment contributes to lowering vulnerability and increasing stability. This can, in turn, create greater economic outcomes for traditionally marginalized individuals and their families, and contribute in small ways toward broader economic equality goals" (Morris, 2020, p.2). The outcomes for marginalized populations extend beyond the financial stability associated with steady and sustainable employment. Exploring the outcomes associated with an inclusive work environment, the financial stability for marginalized populations, and additional outcomes is the focus of this research. Morris (2020), emphasizes, "the future of work provides opportunities to further self-confidence, self-sufficiency, and

economic empowerment, which are integral to building resilience and reducing the risk of future exploitation" (p.2). While progress cannot be made singlehandedly, exploring the role of education and employment on marginalized populations can help drive progress through collaboration and analysis.

Addressing the complex demands of a global market and long-standing traditions within both industries and community colleges takes multi-faceted collaboration. Labor Market Alignment may create new economic opportunities within competitive markets for disadvantaged and historically marginalized populations. Partnerships must remain focused on the social vision of higher education and drive social progress within their communities through new opportunities.

Since LMA is heavily focused on economic outcomes, there is little research on the social implications of initiatives to increase industry collaboration in community college. The proposed research intends to explore how economic opportunities created by community colleges engaged in LMA create a climate for social progress through collaboration with industry partners and the resulting exposure to cultural awareness and teamwork in the workplace. This unique look at LMA will provide much needed research on the social aspect of this innovation.

John Dewey's Theory of Experience and Learning

I have also chosen to use the tenets of John Dewey's Theory of Experience and Learning. Dewey's theory of Learning and Experience was developed based on a way of understanding how humans learn. Dewey defined education "as the continuous reconstruction of experience" (Berding, 1997, p. 25). Dewey did not think that learning could be separated or compartmentalized but was rather a connected and continuous process. This is important in this study in reviewing the connectedness and continuance of learning for students in school, the

workplace, and their social progress. Dewey believed that the situation was a constant stimulus and response in totality and coordination rather than discernable parts in the process. Dewey also attacked the intellectualistic concept of education, separating the body and mind, because he said that experience is not primarily cognitive. Berding (1997) explains that Dewey believed that "acting becomes isolated from meaning or purposes, and this separation minimizes the importance of connection and relations" (p. 26). Dewey's conjecture about the movement from experience and learning to reflection and deliberate thinking for the planning of future actions aligns well with work experience for students and their future decisions (Berding, 1997, p.27). Dewey also emphasized that learning is neither individualistic nor a purely social one, but that it is a coordination between the two that constitutes experience (Berding, 1997, p. 27). This is also important as students in programs with LMA have opportunities for experiential learning in the workplace and intertwine social and individual experiences and reflection. Reviewing programs with LMA for their social outcomes allows faculty and industry partners to evaluate these student experiences.

Dewey goes on to state that the educational process has a sociological and a psychological process. Students need to learn how to conduct themselves individually, as well as their role within the larger community as a member. Dewey explains that education needs to be a "vital social institution" to educate for change, as life experiences and expectations are constantly changing (Berding, 1997, p.28). Providing students with the opportunity to experience the social and political contexts of the school and that of a business creates more experiences and practice. Combining these experiences and reflection as Dewey suggests provides for the ultimate learning process. The more stimuli students can have, both individually and socially, prompts reflection, growth, and prepares them for success in future interactions. Dewey sees

education as a holistic process of communication, participation, dialogue, and sharing (Berding, 1997, p. 29).

CHAPTER III

METHODS AND PROCEDURES

Description of the Study

This research focused on socio-economic social justice outcomes through LMA at community colleges and the need to balance the goals of social justice and the needs of industry partners. This research provided an in-depth look at how socio-economic progress impacts social justice. Community colleges were a fitting unit of analysis to study the effectiveness of LMA in achieving social outcomes. Marginalized students may not previously have had access to economic opportunities and are likely unaware of social mores accepted as protocol in the workplace. Through interpretive case study, I collected data that supported the proposition that LMA raises the socioeconomic status of low-income/marginalized students, thereby achieving social progress and economic growth. I defined higher education as both a public and private good drawing on Bowen's (1997) work, wherein education serves to improve individual lives and society.

I explored community college faculty members and their industry partners' perspectives, experiences, and assumptions on the social outcomes at community colleges that integrate LMA within their programs. Based on primary outcomes associated with higher education, employment and social growth, the overarching research question for this research was, what are the perceptions/experiences of faculty and industry partners on social outcomes within their respective communities where labor market alignment guides academic programming?

Additional guiding research questions included, what are the perceptions/experiences of faculty and industry partners related to the benefits and challenges of labor market aligned programs in community college settings, and what are the perceptions/experiences of faculty and industry partners on the economic impact for students who have attended a labor market aligned program of study. Using the expertise of faculty and industry partners to comment on both LMA and social outcomes of the program provided insight prior to and throughout collaboration initiatives. The study reviewed the perspective of personnel involved in programs within community colleges with LMA and integration to chart social outcomes. Labor Market Alignment was defined as initiatives within programs of study to increase collaboration with industry partners for skill alignment between job needs and program degrees.

Guiding Research Questions

The following questions guide the study and are incorporated into the semi-structed interview questions.

Q1 What are the perceptions/experiences of faculty and industry partners on social outcomes within their respective communities where labor market alignment guides academic programming?

Q2 What are the perceptions/experiences of faculty and industry partners related to the benefits and challenges of labor market aligned programs in community college settings?

Q3 What are the perceptions/experiences of faculty and industry partners on the economic impact for student who have attended a labor market aligned program of study?

Epistemology

Constructivism emphasizes the unique experience of individuals, asserting that individuals are responsible for constructing their own narratives (Crotty, 1998). Because institutions of higher education are socially constructed, I focused on how social outcomes

manifested in my participants' stories about higher education. Constructivism also allowed me to highlight how participants themselves defined social progress, eliminating definitions that may be normative to the institution. I used semi-structured interviews for data collection to allow conversations to develop between the participants and myself, while seeking to understand how their programs have changed and how that has had social outcomes for their graduates. Constructivism allowed me to focus on perceptions of my participants and to tell their story completely.

Paradigm

Interpretivism is "committed to the philosophy of social construction but maintains that the social world is produced through meaningful interpretations" (Pascale, 2011, p. 22). Since there was limited data surrounding LMA, particularly social outcomes, the goal was to take participants to a deeper understanding of workforce alignment phenomena to uncover previously hidden aspects (Crotty, 1998). Participants, industry partners, and community college faculty, created meaning and outcomes (Jones et al., 2006; Pascale, 2011). Within the epistemology of constructivism, reality is believed to be socially constructed in the theoretical framework interpretivism (Merriam & Tisdell, 2016). Using interpretivism within constructivism, I sought to interpret participants' experiences to share their understanding. Participants made meaning from their social interactions and helped highlight social outcomes of their program of study (Merriam & Tisdell, 2016). Participant perspectives were key to developing findings surrounding programmatic outcomes for students and the community.

Experiences shape human perspectives, beliefs, and values. Interpretivism allowed for exploration into complex meanings and the role of the individual (Stake, 1995). Participants shared their interpretations of changes within the program, their students, and their community,

reflecting on their perspective of job skills and social changes and are ideal participants for a study on the social outcomes of LMA because they have a commitment to social progress through higher education and have the perspective of seeing multiple generations of students/employees in the communities that they work.

Methodology

Using interpretive case study methodology, I identified community colleges that received the TAACCCT grant and have successfully created responsive technical curriculum to better align student skill outcomes with industry need. My case was bounded by the system that offers a TAAACCCT grant funded LMA program based on industry need within these community colleges. Interpretivism is "committed to the philosophy of social construction" but believes that the social world is "produced through meaningful interpretations" (Pascale, 2011, pg. 22). Since there is limited data surrounding the outcomes, particularly long term, I sought to take my participants and myself to a deeper understanding of the workforce alignment phenomenon to uncover previously hidden aspects (Crotty, 1998). Participants made the meaning and outcomes of the study (Jones et al., 2006; Pascale, 2011). Like constructivism, reality is believed to be socially constructed in interpretivism as well (Merriam & Tisdell, 2016). I understand that there are multiple perspectives, and thus interpretations, of a single phenomenon. Interactions form meanings, and I understand that norms and meanings are subjective to my participants (Creswell, 2013). As a researcher I sought to interpret these experiences with my participants to share their understanding of this unique phenomenon. My participants made meaning from their social interactions and helped me highlight social outcomes of the program that they worked closely within for the past four years (Merriam & Tisdell, 2016).

I used narrative inquiry to explore the experiences and examine how they shape the construction of self-identity and identity development (Creswell, 2013). Narrative inquiry offered me the ability to explore an individual's story through their perspective, allowing for a deeper connection and layer to the research (Creswell, 2013; Jones et al., 2006). Narrative inquiry is a useful methodology to use when researching social outcomes of LMA, as it is a mechanism for countering other research in LMA, which is often quantitative and focused on financial trends as opposed to experiences and aids my ability as the researcher to explore individual stories and experiences of participants (Jones et al., 2006).

In my study of social outcomes of LMA, narrative inquiry provided an opportunity to capture and share the stories of success of faculty, administrators, and industry partners within their communities. Narrative inquiry is the connection of stories within a particular time and place (Jones et al., 2006). In this case, I focused on participants from several institutions committed to change through LMA. They were key stakeholders/informants who are equipped to discuss the social implications of this work. By capturing participants' experiences, I drew on their stories to identify themes, draw interpretations, and honor the experiences of a population that is frequently represented and studied in research but rarely given an individual voice.

Participants

The participants were recruited through professional connections and include grant directors, community college faculty, and industry stakeholders from the partnered companies. I used my professional connections through grant initiatives to secure interviews and gather data from faculty-based participants. The participants recruited included a project director from a successful technical program that has created a responsive curriculum based on local industry partners' skill needs. I also sought to interview the industry partners, as part of this partnership, to

get their take on Labor Market Alignment outcomes and the impact on their incoming recruits and soft skills they seek in prospective employees. Criteria for inclusion of community college faculty included only faculty from institutions who have received a TAACCCT grant. Faculty at institutions that have received federal money from the Department of Labor have built a responsive curriculum based on these local partners' needs to improve student outcomes and strengthen the community college curriculum. Due to the narrow scope this criterion provides, there were no other criteria used for this study.

Prior to the initiation of the study, I sought and received Institutional Review Board (IRB) approval from the University of Northern Colorado. Each participant confirmed their informed consent to participate. Once confirmation of informed consent was gained, I proceeded with the semi-structured interviews using open-ended questions and prompts. To control for researcher bias, I engaged participants in member checking the initial codes and transcripts of the interviews and artifacts. Semi-structured interviews allowed me to ask further questions for explanation and to keep the participants on topic.

Researcher Perspective

Prior to the data collection, I reflected on my personal experiences and areas of interest within the research topic. To fulfill reflexivity, the researcher must set aside their prior experiences or assumptions to ensure a fresh perspective before analyzing the data. I performed data analysis using techniques such as reflection, paraphrasing, or reframing to correct misinterpretations during the interview. After the interviews had been digitally recorded, I transcribed the data to become more engaged with the findings and aid in analysis. I transcribed the interviews, reviewed the transcripts for accuracy, comparing the interview content. Once transcription was complete, I conducted member checking by sharing the transcripts with the

interviewees for their review with an opportunity to make necessary changes to their remarks. I also reviewed curriculum and program artifacts to triangulate as much information as possible from the interviews.

Data Collection

Data for this study came from semi structured interviews and artifacts provided by the participants, including their problem-based projects, mentorship, orientation, apprenticeship programs, and writing curriculum. Data for this study was collected through semi-structured interviews lasting between 60 to 90 minutes with participants, over the phone or via Skype. Semi-structured interviews allowed me to develop knowledge through conversation and reflection with the participants. Using the flexibility of semi-structured interviews, participants were able to clarify answers, dialogue with the researcher, and navigate the interview questions fluidly (Jones et al., 2006). The researcher and participants completed an interpretive case study at five community college with LMA, collaboratively. Semi-structured interviews of industry partners and institutional faculty helped to develop themes and create opportunities for comparative analysis through interviews (Jones et al., 2006). These sites were chosen using purposeful sampling from TAACCCT grant recipients to select institutions with chronological perspective of the cultural and social aspects of the student demographics (Creswell, 2013). Semi-structured interviews allowed participants to reflect and expand on answers as they see fit. This flexible structure of semi-structured interviews also allowed participants to answer, or not answer, questions of their own terms, expand on answers for however long they would like, and take the interview in directions that makes them feel comfortable. A list of the semi-structured interview questions are presented in *Appendix A*. Globally, participants were asked about the landscape that led to this initiative and their perceptions of outcomes of labor market alignment,

both anticipated and unanticipated. My focus was not on the general outcomes associated with labor market alignment, such as employment and ease of transition but rather collaboration and communal outcomes for social good within the community. These semi-structured interviews were intentional, with the goal to gain in-depth description and rich data from the participants (Brinkmann, 2014). Additionally, the use of semi-structured interviews allowed for the co-creation of meaning between the participant and researcher- or another way to conceptualize this is informed interpretation, an important aspect of conducting constructivist research (Brinkmann, 2014). To ensure participant's comfort through the interview process I allowed for self-selection of time and place for interviews, to not interfere with the practitioner's academic, professional, or personal responsibilities.

I also included artifacts in my study to review how these programs advertise, recruit, and retain students and what their student outcomes are to triangulate the information received from the perspectives of industry partners and faculty. Prior to the interview, each participant was asked to identify an object, document, or process reflective of either a social or economic benefit of LMA and the community college curriculum. During the interview each participant was asked to articulate the meaning and relevance of the artifact they chose to share.

All interviews were conducted in a place of comfort that is private, whether the interview was conducted in person, over the phone, or via a video platform (e.g. Zoom or Skype), and interviews were digitally recorded, followed by the researcher transcribing, coding, and identifying themes for reporting.

Procedures

Interviews were conducted in the fall of 2022 and spring of 2023, running from October 2022 to March 2023, allowing for deep engagement with the data. To ensure participants'

comfort and privacy through the interview process, I allowed for self-selection of time and place for interviews, to not interfere with faculty's academic or personal responsibilities. Generally, most chose their own personal offices for the interviews. Prior to beginning the interviews, participants were provided the study's consent form, the demographic form, and a request to bring an artifact that represented their program to the interview. All participants completed research consent paperwork and were provided with pseudonyms to allow them to speak freely without identification.

All interviews were digitally recorded with the consent of participants and ranged from 45 to 90 minutes and averaged 60 minutes in length; four interviews were conducted via Skype®, and six interviews were completed by telephone. The interview provided the same questions for each participant so they could elaborate and describe their experiences and associated meanings of their artifacts. When participants felt it was appropriate or felt strongly about a topic, they were encouraged to narrate their understandings.

Coding

Interviews were transcribed by me and shared with the participants for review of accuracy before coding began. Once participants confirmed the accuracy of their transcripts, they were sent a second request to provide feedback on the utility and meaning of the major codes derived. Globally, no participants had feedback/corrections on the transcription. Coding for the interviews was completed three months after the interviews were complete, from April to June 2023. Coding took place through several iterations through the review of repetitive meanings, word choices, and commonality of participant experiences. Three rounds of coding were completed, reviewing the transcripts, and then analyzing codes across all ten interviews to find commonalities and negative cases, or outliers. Codes were identified individually in each of the

ten interviews. Two participants made additions to the codes, elaborating on examples, and the rest of the participants confirmed the findings that were shared.

After the codes were confirmed by participants, I conducted an analysis of the codes to identify possible themes. Codes that showed up in at least 5 interviews were identified as a theme. Sub themes were identified as showing up two or more times in interviews within the context of the larger themes. The identified themes were also very connected due to the unique structure of these LMA programs, and those relationships will be explored later in Chapter V.

Ethical Considerations

In aiming to understand the lived experiences of the faculty and industry partner participants for this study, I maintained ethical awareness throughout the research process. I maintained consciousness about how my participants handled the review of their programs. I practiced ethics of care by taking care in how I asked questions to remove bias and allowing participants to remove personal information from their responses.

Member Checking to Control for Bias

In addition to practicing an ethics of care, I ensured my participants' voices were accurately represented throughout using member checking. Member checking is when researchers provide their participants transcriptions or portions of the research for review and approval (Creswell, 2013). It’s one way to help the trustworthiness of the research. For this research, I shared the final transcription for each interview with the participant for the process of member checking. Participants reviewed both the transcripts and the final coding/themes for accuracy from their interviews. Eight participants agreed with the coding and themes without adjustments, while two asked for minor changes.

To control for bias, I shared both the transcripts and the themes from each of the interviews with participants for their feedback. Through this member-checking, participants overwhelmingly endorsed my initial coding and themes. Participants verified quotes that they shared and elaborated on the themes where necessary through this process. Results presented later in this chapter include information from the interviews, artifacts, and member checking comments and feedback. Another way that I controlled bias was by limiting the number of references in my findings for individual participants. Each participant was cited at least five times, and no participant was cited more than 15 times which promoted a variety of voices and perspectives and limited over or underrepresentation of individual voices.

All ten participants worked to align their programs with industry needs and do this through their advisory boards and strong relationship with industry partners. These participants have a unique experience within the industry and their institutions to discuss changes with the implementation of the TAACCCT grant, LMA, and the populations that they see within their programs and communities since the grant started in 2014. With the emphasis of this study on the social outcomes and progress associated with LMA, the knowledge and experience of these participants was unmatched.

Crystallization

The researcher anticipated obtaining a wide range of experiences, especially as grant outcomes are explored with multiple practitioners. The concept of crystallization was used to analyze the interview data. To reveal complex dimensions of data, the use of crystallization allows the researcher to see how meaning can be made from a single experience. The researcher richly captured and reported the findings and understand the nuance in experiences of grant practitioners, faculty, and industry stakeholders at community colleges across the country.

Qualitative Rigor

Participants were purposefully drawn from both sides of labor market alignment partnerships. I used the perspectives of community college faculty and their industry partners to derive a thick and rich description and more complete and dependable representation of their perspectives on their programs' outcomes. The participants provided confirmation about the goals, struggles, and outcomes from their independent perspectives. Providing independent insight and examples of outcomes created credibility in reporting program outcomes and the communal social impacts. As for transferability, these are unique projects within a large community college system. While industry alignment initiatives are not unique to this project, outcomes of each project will likely be different and depend on how partnerships were created and what specific outcomes were pursued.

CHAPTER IV

RESULTS

In this chapter I present the results of the exploration into the social outcomes of Labor Market Alignment at Community Colleges through the Trade Adjustment and Assistance Community College Career Training (TAACCCT) grant. The results of this interpretivist constructivist case study, focused on five U.S. community colleges, are presented through a narrative analysis lens. Narrative analysis allows the participants to tell their story completely and elaborate where they feel necessary.

Description of Setting and Criteria for Inclusion

Five community colleges were chosen from TAACCCT grant recipients. Criteria for research participation required each institution to have a faculty member and industry partner participant available for the study. Interviewing a faculty member and industry partner from the same institution allowed for a nested and diverse perspective focused on individuals who had been in the community and within these industries and colleges for several years to gain perspective on changes within these communities and programs.

Participant Recruitment and Selection

Participants in this study were identified as faculty members at community colleges from programs that previously were awarded and completed a TAACCCT grant aimed at Labor Market Alignment (LMA). Participants were recruited based on TAACCCT grant recipients, as referenced in Chapter III, and once identified, institutions provided industry partner contacts for the study. Once institutions were identified, I then conducted outreach to participants via email

to introduce myself and the content of the study and to request their participation. During these interactions I asked potential participants for recommendations for other potential participants based on the study's criteria. I then utilized the snowball sampling method to conduct outreach to additional institutions based on recommendations. Once faculty members were identified and interested in participating in the study, they conducted outreach to their industry partners for the additional participant. Each institution had two participants, one faculty member and one industry partner. I recruited participants using purposeful sampling. Purposeful sampling is a method of targeting specific attributes in research participants. In this case I relied heavily on gatekeepers from each program to help me gain access to the appropriate faculty and industry partner participants. Gatekeepers are individuals who can provide researchers an entry point to finding participants. They are individuals with the positional authority, relationships, and institutional knowledge to create a bridge for researchers to gain access to participants who may be difficult to find. In this case, I had ties to institutions and individuals who had connections to faculty who participated and implemented LMA as part of a TAACCCT grant previously, and faculty were the gatekeepers to their industry partners.

Of the sixteen potential faculty participants, three faculty declined to participate, and eight did not respond to the initial invitation, leaving 5 potential participants. I interviewed these 5 faculty members and 5 corresponding industry partners. All 10 participants completed all aspects of the study; no participants abandoned the study. Each participant completed an interview, provided an artifact, and gave feedback on the transcripts and themes through member checking. The participants included experts from the fields of Biotechnology, Health Information Technology (HIT), and manufacturing.

Description of Participants

The 10 participants for this study covered an array of demographics and backgrounds. Half of the participants were female, half male, from their 30's to 50's. All participants had worked within their industries for over ten years and held a graduate degree. All faculty members have been with their institutions for over ten years in a variety of capacities; many began teaching to give back to the industry and mentor the next generation of subject matter experts. Faculty participants in the study had been with their institution for a minimum of five years and the range of institutional experience for faculty participants was 5-15 years. This industry and institutional knowledge are vital to provide long term perspective within this study and to evaluate how industry and institutions have changed within their communities over the years. In terms of positions, faculty participants held position titles ranging from faculty member to department chair and for industry partners, positions ranged from Manager to Head of Operations. All five institutions and eight of the ten participants worked with their program of study through the TAACCCT grant at their institution. Table 1 presents the demographic summary of participants.

Table 1

Demographic Summary of Participants

	Race/Gender	Age*	Field	Degree	Years in Field	Years Teaching	Position Title
IP #1	White/male	50's	Biotechnology	PhD	30	5	Manager
IP #2	White/male	40's	Manufacturing	MA	10	10	Manager
IP #3	White/female	40's	HIT	MA	15	5	Head of Operations
IP #4	White/female	40's	HIT	MA BSN	10	0	Manager
IP #5	White/female	40's	HIT	MA	15	0	Manager
FM #1	White/male	50's	Manufacturing	PhD	15	10	Faculty
FM #2	White/male	40's	HIT	MA	10	5	Dept. Chair
FM #3	White/female	30's	HIT	MA	10	5	Faculty
FM#4	White/male	30's	Manufacturing	MA	10	5	Dept. Chair
FM #5	White/male	40's	Manufacturing	MA	10	10	Dept. Chair

Note. *Participant age is reported by decade to maintain anonymity of participants
**Abbreviations: IP-Industry Partner; FM-Faculty Member; HIT-Health Information Technology

Industry Partner #1 works with the local community college to prepare students for industry needs. His student's complete problem-based learning (PBL) that Industry Partner #1 shared in their artifact, which leads to quick integration into the field and higher retention of his students.

Industry Partner #2 touts his community college program's interconnectedness with industry and his PBL model in his artifact. He emphasizes that traditional education programs turn people away and lead to a lack of understanding of the job. He also talked about how his

students gain experience in several soft skills in the workplace and bring their experiences back to the group for discussion.

Industry Partner #3 talks about integrating master level data analytics into the program to help make students competitive throughout the healthcare field. She expresses an emphasis of relationships and skills in industry, rather than formal educational degrees.

Industry Partner #4 helped mold the program to new desired skill sets, removing hoops, teaching students to speak to the skills, and mentoring all levels of students to be successful in the field.

Industry Partner #5 talks about the important analysis of data to make it useful and the high-level skill sets that these students graduate with and enter her department. She also emphasized mentorship and the engagement project with industry partners for soft skill outcomes that contributes to their employment success.

Faculty Member #1 shared their apprenticeship model for their artifact. He discusses how there is a fallacy in higher education that a liberal arts degree is the only pathway that promotes interpersonal connection. His program and his mentorship model disprove this narrow viewpoint. Faculty Member #1's educational institution is in the south and focused on integrating more African Americans, women, and unemployed adults in their manufacturing program.

Faculty Member #2 shared his mentorship program as his artifact and shared insight about traditional education model and the reliance on textbooks. Faculty Member #2's educational institution is a technical college on the west coast and served diverse populations equivalent to their local demographics. Their program reported over 60% of their students as over the age of 30 years old.

Faculty Member #3 shared a mentorship as her artifact and touts the tight knit community of HIT as important to student retention, career pathway progress, and in the development of the soft skills of her students throughout the program. Faculty Member #3's educational institution is in the west and has several healthcare programs as well as other two-year programs. Their TAACCCT grant focused on adult learners and eligible TAA recipients for re-entry into the workforce.

Faculty Member #4's educational institution is in the mid-west, and focused on unemployed populations, veterans, integrating women into manufacturing, and unemployed adults.

Faculty Member #5 has worked to make his program so relevant in his industry that his students are readily hired upon entering the program and their employers pay for the remainder of their education, oftentimes paying them overtime while they attend school. Faculty Member #5's educational institution is in the mid-west with a variety of programs, creating a pipeline into their program for veterans and women in their manufacturing TAACCCT grant.

Guiding Research Questions

The following questions guide the study and are incorporated into the semi-structed interview questions.

Q1 What are the perceptions/experiences of faculty and industry partners on social outcomes within their respective communities where labor market alignment guides academic programming?

Q2 What are the perceptions/experiences of faculty and industry partners related to the benefits and challenges of labor market aligned programs in community college settings?

Q3 What are the perceptions/experiences of faculty and industry partners on the economic impact for student who have attended a labor market aligned program of study?

Presentation of Themes

I have chosen to share the outcomes of my research through the consistent themes that were identified by participants, rather than by participant site, to minimize duplicate findings and to highlight how consistent participants were across states and types of programs. The themes will be discussed from most frequently identified by participants to those least frequently mentioned in the interviews. Participants from each of the programs of studies from across the United States had similar observations of outcomes within their students and communities as will be outlined below in detail.

Table 2

Themes

	Themes	**Sub-themes**			
1	Workforce Alignment Outcomes	Acceleration to Workplace Experience	Application and Retention	Earn and Learn, Apprenticeships, and Internships	Experience Required for Job Opportunities
2	Problem-Based Learning				
3	Soft Skills Attainment				
4	Community Engagement	Social Progress	Cultural Intelligence and Diverse Populations	Opportunities for Diverse, Non-Traditional Populations	
5	Mentorship and Networking				
6	Fallacy of a Four-Year Degree				

The six themes identified from participant responses include workforce alignment outcomes, problem-based learning opportunities, social skills outcomes, mentoring and networking, community engagement, and fallacy of the four-year degree. Sub themes, or themes more specific to each of the programs, were also identified within each of these themes, including retention and social outcomes, acceleration to workplace experience, social progress, cultural intelligence, acceleration to the workplace, and diverse populations in the programs of study. Participants shared examples of these themes in unique outcomes for their program and thus the frequency of these outcomes was less. However, the rich description and emphasis that participants placed on these sub themes speaks to their importance and their connection to the larger theme.

Theme 1: Workforce Alignment Outcomes

Workforce Alignment outcomes are the outcomes identified by the participants in their programs, due to the implementation of LMA in their programs. Participants identified sub themes through alignment that included increased engagement, retention, and workplace opportunities, including earn and learn opportunities, and experience required for job opportunities. The rest of the section presents the four different ways that participants described the outcomes of workforce alignment.

Acceleration to Workplace Experience

Acceleration to workplace experience for each program meant that their students were directly involved with the industry partners upon entering the program. Additionally, many students were hired within their first semester of entering the program. Participants emphasized that this seamless transition to the workplace was one of the greatest strengths of their programs

and led to the strongest program outcomes including retention, apprenticeships, earn and learn opportunities, and career advancement throughout the program of study.

Faculty Participant #1 described the accelerated workplace experience as, “the key to students moving into better opportunities.” He describes how this experience provides students opportunities because employers can see their productivity. He also highlights the fact that many employers say that they don't want to hire a graduate because, “They don't have any experience.” Students graduating from Faculty Member #1’s program don’t have that problem and often make career advancements while still in his program.

Industry Partner #3 emphasized that due to the focus on skills and workplace experience, she can integrate master’s level data informatics skills to expose and prepare her students for real application. This also creates flexible career opportunities for her students. Her students can use their data related knowledge to pursue any career in healthcare. Her students are challenged to articulate statistical significance by analyzing data and using Minitab data language to explain it. Students show continued growth through the program and beyond, integrating this unique language and articulating its significance in the healthcare setting.

Application and Retention

Application and retention was a sub-theme shared by all 5 faculty members and 5 industry partners that because the program was so well aligned with a career path, that students showed a genuine desire to be in the program, to learn, and to excel. Because students were able to see the outcomes at the end of the program, express their skill sets, and define the outcomes of their program, they took the program more seriously and had no trouble transitioning to the workforce once they completed the program. By being involved directly in the environments

where the learning is applied to hard and soft career skills, students in the LMA program demonstrated more investment and commitment to the program of study.

These students are introduced to what a day in the life of these careers looks like and are confident that they will secure a well-paying position as they begin the program or upon graduation with over 90% employment rates in all 5 programs. Two of the programs even touted assistance from their industry partners in paying for the tuition of coursework once students were hired. All participants emphasized that students could connect every aspect of their learning experience to the workplace. Faculty highlighted this important connection to explain the increased retention of their students. Faculty explained that student retention in their programs is extremely high because their students can apply their knowledge swiftly and their employers value their growing skill sets, with pay increases and promotions.

Students entering these programs are drawn by the immediate application, understanding of career path opportunities, and have been shown direct application of the skills to evaluate career fit. These preemptive steps create better student fit for these programs and better retention of students because they can see skill application and job opportunities within the next 6 months to a year. This quick return on investment appeals to students who cannot afford to be without income for the duration of a four-year degree and who are seeking dependable, financial independence in a career.

Faculty Participant #1 discussed how tiers within the trades of manufacturing skills provided students with incremental success and incremental skills that they could see correlated within workplace opportunities. He believed that students were more likely to stick with a program like this rather than quit after one certification because they could see the opportunities the skills provided, their employers had buy-in (including fiscally), and they experienced success

throughout their two years of education, rather than having their career on hold while completing a degree.

Industry Partner #4 emphasized that her students can speak directly to industry trends and skills to get a job. And this provides her students with the ability to go where they want and get a job. Employers are increasingly not necessarily interested in the degree that applicants have, but rather how they speak, how they can present their knowledge and their level of customer service. Thus, her program has increasingly become "preceptorships for students to work, rather than being educational bodies that research." This streamline to the workplace has led to student retention because students know what to expect in the workplace and can begin earning money faster. For Industry Partner #4, this opened doors for their students to pursue other opportunities in healthcare, such as getting her BSN and master's degree. She "knew where she was going and had all of this experience to rely on." This degree allows students to, "be able to get into the industry, work where they want, go different places, and continue their degree in what they're interested in." These opportunities and program flexibility has led to retention for her students.

Earn and Learn, Apprenticeships, and Internships

The two earn and learn programs have built a learning community where students can learn from each other and have opportunities to engage in various activities on campus through the cohort model. Students can collaborate with each other on class projects and share work experiences and thoughts on employers. The earn and learn model provides students with early experience and on-the-job training in high-demand and high-skill industries. Students can earn a livable wage while completing their education. The pairing of experience and education makes a student candidate more desirable to employers. Students gain early exposure to the

hiring processes, including resume building, job search skills, interviewing, and employability skills.

Faculty Participant #4's earn and learn model is so innovative that it is an unmatched model for funding at other institutions, and it has over 90% graduation and employment rates. The program is called state shared instruction and it means that institutions get additional funds, beyond student tuition once a student graduates and enters the workforce. Faculty Member #4's program is so successful that it pulls in more revenue this way than programs twice the size. This means an additional $30,000 per student to the program for every one of its students. This also led to Faculty #4's requiring all his students to work while they are in the program. It is not just a learning experience and immersion for his students, but what he described as

> Protection for the public. We don't want students signing up for some cool sounding college program that doesn't lead to a career. Nor do we want to spend state taxpayer dollars on equipment unless it's going to be used to get someone hired. We don't want someone in our program who isn't going to work in this industry. We want them to use their degree.

Faculty Participant #4 sees it as his responsibility to ensure that his student body is receiving a skill set that leads to long-term and sustainable employment.

So, 90% of their student body is working throughout the program, oftentimes hired within their first semester of the program. His students take courses two days a week, oftentimes in the evening, and can work three days in their trade. Companies have embraced this learning model and seen dramatic outcomes in retention of workers through this model. It has allowed students to evaluate job fit and company fit early so that neither they nor the business spend time and money on a short-term arrangement. This has saved industry partners vast amounts of

training and retention dollars and led to a better culture at the organization. It has allowed them to find fit early and retain their employees through training and culture, rather than poaching through wage increases. Students and businesses alike are making choices on position and culture fit. Once they have this fit, companies are paying for students to complete their programs while they work. Students are making good wages and graduating without debt. His students are graduating and buying a house or a car due to their financial freedom.

Faculty Participant #4 talked about credits within his program that require work experience. "Each class equates to 150 hours of paid working experience," he said. This helps students transition to the workplace and leads to over 90% of the graduates being hired. He said that "most colleges dread having a credited set of classes as part of their program, because it means that they must follow up with industry personnel. They must let the industry workforce also grade the students." Thirty percent of Faculty Participant #4's students' grades are based on their industry report card. It is an additional component that Faculty #4 says is invaluable to his program and to the success of his students. His students earn while they are in the program and get hired due to the close, working relationship with industry. Industry Partner #4 echoes the sentiment of changes in industry hiring emphasis.

Faculty Participant #5 shared their apprenticeship model in manufacturing for their artifact. Their artifact outlined their model to integrate students into the workplace with an apprentice, to earn and learn throughout the program. The apprenticeship model gets students into the workplace faster and allows them to interact and collaborate with their apprentice to learn quickly and accurately about the skills required in the workplace. Most often, this leads to the hiring of students into industry in their first semester and allows them to continue their skills building in the program while working.

Industry Partner #1 also talks about how both workforce development at the college and local manufacturing employers pays students to attend these courses due to their applicability and immediate return on investment for the employer and the community through income for these students. Many are getting paid overtime while they attend class. And if they weren't employed when they began, "they often end up employed within 6 months and their employers pay for them to finish." Industry Partner #1 explains that this, "industry buy-in and investment is an indirect indicator that they are doing something well." They stated, "If the program wasn't applicable to industry, we would have less than half the students."

All the programs in this research work with industry partners to understand the skills each employer needs and help students highlight those skills on their resume and during the interview process. Students can tailor their resume and their job search with specificity and their experience working in the field allows them to speak to the skills more easily and directly.

Experience Required for Job Opportunities

The paradox of employment is that to get work, employers often require experience within their industry. New graduates rarely have experience in the workplace from traditional education programs. In all these programs created based on labor market need, the students have immediate experience within their trades and oftentimes graduate with over a year experience and full-time employment before graduation.

Theme 2: Problem-Based Learning (PBL)

The process of hands-on learning and problem solving are real life scenarios, based on industry processes, that students work through and develop their own resolutions and proposal for implementation. All five programs touted their emphasis on application and real time skill

sets afforded to their students and the high level of workforce certificate attainment to PBL. Participants also articulated the development of student soft skills to this unique learning style.

Two faculty participants' artifacts that they shared were PBL project that students completed within the program. Students applied their acquired skills, collaborated for ideas and best practices, and implemented their ideas for process improvement. They were then required to share their ideas and their takeaways in a leadership role to the class.

Problem solving opportunities afforded by hands-on experience and PBL was another theme that all participants shared. Faculty Member #4 described how "my classes have moved away from the traditional learning where there's PowerPoint, to a defined experiment that is all set up." Faculty Member #4 shared his PBL projects in his artifact. The students worked both independently and in groups to problem solve for effective outcomes and best practices within their industries. At this biotech community college, students work within labs that are shared with industry partners to solve workplace challenges and build efficiency in their skills. They work alongside other students and individuals within industry to collaborate and build critical thinking through industry specific problems. It is these skills that Faculty Member #4 believed was the greatest asset in helping students get jobs quickly, their ability to troubleshoot. And his students do just that, with 90% of them employed within three months of starting the program.

Faculty Member #4 said that his students are hands-on in their first week of classes. All his coursework is hands-on learning in their laboratories. He keeps class sizes at 12 with an instructor and laboratory aid so that students get "personal experience, asking questions and getting trained up, working closely with instructors." Faculty Member #4's program has hands-on learning through their mechanical drafting classes, electronics, automation, and circuit board manufacturing. This gives his students an advantage entering the workforce and allows them to

make higher wages out of the gates, contributing to the business faster and more efficiently. Faculty Member #4 even said that his students can, “hit the ground running right away, even as a part time worker. And we've been told by companies that part-time student workers out of our program are just as valuable as multiple full-time people who have just not been trained before in particular ways.”

Industry Partner #2, from the microsystems program, described his PBL model as an ambiguous learning environment where students were asked to take risks to figure it out, to be a leader in solutions.

Manufacturing Faculty Member #1 talked about how PBL artifact led to collaboration with his students and efficiently solving problems by working together and dividing tasks as they arose. He also highlighted how this increased engagement for his students, including through problem-based competitions. Faculty Member #1 added that the PBL model pushed students to engage with the technology earlier and at a higher level as well. This engagement with the tools of the trade also led to workplace correlation and ultimately readiness for his students. The problems they were solving were relevant to the work that they would be doing throughout their careers.

Faculty Member #5’s program provides workforce certificates in industrial engineering technology, allowing students to build up to an associate degree, with advisory committee input throughout. Students take an apprenticeship elective for additional real-world experience and hands-on application. These courses have immediate application, and this makes students interested in being there. “They are learning something that they are applying immediately. Half of my students are sent by their employer.” “They show up because it is directly applicable and will improve their finances and get them an interesting job.” And his program doesn’t stop there;

Faculty Member #5 has four-year articulation agreements for his students to pursue a bachelor's in engineering technology to continue opening career opportunities.

Theme 3: Soft Skills Attainment

I have chosen to define soft skill attainment as the skills that are often associated with higher education and include skills for interacting and collaborating in diverse communities. These include communication, problem solving, creative thinking, teamwork, and process improvement. Social competencies include self-reflection, emotional intelligence, collaboration, cultural awareness, critical thinking, and problem solving.

Through these LMA programs, students learn the technical skills, along with the soft skills. The soft skills are built into the courses, so students learn how to work with others, meet deadlines, solve problems that occur within their projects in class, and learn how to show up on time and work with diverse populations. All five faculty participants also highlighted additional soft skills, beyond problem solving, that they focused on due to industry need, including process improvement, professionalism, project justification, and teamwork.

Faculty Member #4 discussed a soft skills course that he developed for their biotech students that includes presentation skills, resumes, and marketing the skills they acquire within the program. He also touted how his students were skilled at justifying their projects and the solutions that they came up with due to his PBL model. He has a full-time position dedicated to helping students make the transition to the workplace and providing guidance to students who struggle with the transition to a professional work environment. Faculty Member #4 shared that they witnessed transformation in several students who lacked professionalism and self-reflection upon beginning the program, but once they had work experience and were faced with the consequences, they immediately changed. He said that their skill development and early

exposure to the workplace helped students become “locked into the expectations and the work because they saw the value.” He has seen this with students who he said, and they said, would otherwise never get a degree or formal training. The workplace experience led to a maturity that they would otherwise never have. His students show accountability and the ability to collaborate with other professionals. He says that their attitude is reflected in their work and his students show growth and maturity throughout the program through their work experience.

Industry Partner #2 from a microsystems program, highlighted the difficulty in teaching soft skills and talked about how students gained those skills by being in the workplace and then discussing them when they came back to the classroom for everyone to interpret and learn from. This partner thought the best place for students to acquire skills such as punctuality, professionalism, sincerity, and integrity within their work was in the workplace, working with colleagues, and interacting with customers. Industry Partner #2 thought that on-the-job soft skill attainment was the best way to create lifelong learners.

Industry Partner #5 emphasized her student’s ability to think critically, find meaning in data, and analyze the impact for their organizations. This became more important as the industry was shifting, with an emphasis on acute care in healthcare. Healthcare informatics students were able to help their hospitals meet the needs more swiftly and align their skills to stay relevant in the changing industry. Her students began branching out due to their strong soft skills into finance, technology, and security specialists. Their skills made them employable in nontraditional roles. Not only are Industry Partner #5's students thinking critically but they are also lifelong learners who constantly seek to grow and expand. Healthcare is a fast-moving industry, and professionals entering this field cannot expect to survive on one credential or skill set. They must have a desire to move forward. This drive has also led Industry Partner #5's

students to be more empowered and confident in their work. Her students can speak to the functionality of this profession and contribute to it before graduating. Industry Partner #5 says that this immediate return on investment helps her students excel, but it also leads to more collaboration with her industry partners and that is another soft skill that her students learn and benefit from in their time in her program.

Industry Partner #3 echoed the sentiment of the confidence and leadership that she saw in students working within her program. She thought that their early independence and integration into the workplace, particularly through collaboration, was instrumental in creating a seamless transition and empowering students. She said that students took initiative and displayed a variety of soft skills including written communication, professionalism, thinking critically, and cultural intelligence, which is discussed later in this chapter. This partner added that not only had they done well preparing students to enter the workforce early within her program, but that exposure to similar professionals and an early understanding of expectations led to better performance in these areas and early buy-in for students.

Manufacturing, Faculty Member #1, discussed how hands-on learning within the trades promotes interpersonal connection and communication. To get anything done, he talks about how you must communicate with people. To complete tasks and be successful, you must be able to work with people in the organization. He finds this interpersonal communication so important that his program provides coursework in both business communication and interpersonal communication. Faculty Member #1 talked about how this interpersonal communication leads to efficiency through the dividing of tasks and solving problems together in the workplace.

Faculty Member #3 taught her students how to work on process improvement, project management, and efficiency. She brought business soft skills to her students so that they could

analyze and evaluate their processes to make them better. She taught them to create lean processes in business and in their lives. Through this, students also learned time management and accountability. Students were responsible for their outcomes and had to manage their time effectively to ensure product standards.

Faculty Member #2 highlighted the emphasis on professional writing within his program. He listened to his advisory board who talked about retraining their new hires to write in the professional field. This participant got his students to practice doing it in the academic world in preparation for the professional world. He expects his students to “write for him how they're going to write for their employers.” This gives his students an advantage and makes their learning relevant. And with that, Faculty Member #2 also implemented skills for emotional intelligence to prepare his students for the workplace beyond the hard skills of healthcare data and management. He helped students to understand what intrinsically motivates them and how they like to be rewarded to develop an internal understanding of their own drive. He emphasized personal and social awareness with his students so that they could see the differences and be prepared to apply them in the real world. Faculty Member #2 took it one step further than that with discussion groups and assignments to apply their understanding before entering the workforce. He's teaching his students to understand their own needs and the needs of their colleagues.

Faculty Member #3 described the emotional intelligence of her students, particularly because when they graduate, they have already been in the workplace for a couple years. Her students have worked to establish their identity and gain respect from their peers. This shows both emotional and cultural intelligence that her students established while in the program and in the workplace. Her students understand how to talk to people, how to ask for assistance, and how

to develop relationships. They were able to do this through active listening skills that they obtained, including paraphrasing, and recognizing feelings. This participant concluded she is not just getting them ready for work, she's getting them ready for life.

Industry Partner #1 emphasized the diverse cultural experience that these students are exposed to in the workplace, “Healthcare is highly diverse. Being in a work environment, you get exposed to more than you ever would in a school environment.” This participant continued to talk about leadership and management skills that her students demonstrated in the workplace. And the program had the “Students incorporate what they've learned into their own lives and share it in presentations at the end of the quarter.” Communication, psychology, and critical thinking were applied and integrated through experiences, rather than taught separately which had a deeper impact on students.

Industry Partner #4 reported the myriad of soft skills that she thinks her students embody upon graduation due to their workplace experience and application. She added, “The person who went through the non-traditional program is more mature in how they approach their issues, the troubleshooting, the problem, they just dig in. And if they have gone through a non-traditional program, half the time they've had that preceptorship, they can understand a lot of that lingo.” Most importantly, she commented on how her students cater to their audience when presenting data, articulating what it means to the audience and how they can use it. Her students are goal oriented and have strong project management skills that they honed over the course of the program. Her students understand the important cultural expectations in the workplace and come with the energy and customer service to work well in diverse professional settings. These are the skills Industry Partner #4 is most proud of providing her students with and the ones that she knows will open doors throughout their career.

Faculty Member #5 noted several soft skills that his program provides their students with, including oral communication, professionalism, project justification, project improvement, and process improvement. These are not simply soft skills that make his students well rounded; these are skills that show confidence within the industry and have immediate effects on an industry's bottom line. His students think critically about why things are needed, how to improve processes, and how to articulate their justification. His students have the skills to do the job and they also have the understanding and analysis to offer ideas to continually improve it.

Theme 4: Community Engagement

Community Engagement is defined as the interaction between program participants and the impact of the program on the overall health and progress of the community. This theme was identified by participants who described their close relationship with their communities and the generations of students who pursued their program. Within this theme, participants identified the following sub themes from their communities: social progress, opportunities for diverse populations, and cultural intelligence as sub themes.

Social Progress

Social progress is defined here as the betterment of marginalized populations, increased opportunities for new populations, and community engagement and focus. Social outcomes include participation by diverse populations in community colleges and the resulting social influence in the communities where they live and work. Social progress for the public good, including human equality through civic participation, is a primary goal of higher education (Bowen, 1997).

The primary focus for this research and ultimate destination of interviews with participants was for them to reflect on any social outcomes in their communities due to the

implementation of these LMA programs at their institutions. I did not provide examples or prompt participants to reduce bias and influence, but this also seemed to result in less conversation around the topic and understanding by the participants. With that in mind, there were still examples that several participants provided about how they believed the implementation of their LMA program impacted their communities as a whole and sparked social progress in several ways.

Faculty Member #4 indicated how his program provides opportunities for populations that have not previously had them and how it has provided new populations with financial freedom, new opportunities, and socially impacted their communities. He stated, “We might want the world to be an egalitarian utopia; it is not. We must be realistic about what it is and what it isn't. We need to do what we can to better students’ knowledge and accept that as progress. We can broaden their experiences and make them better participants of the community.”

He went on to share, “Sometimes in society we seem to think that we need to be perfect, and sometimes better is good enough.” This program provides exposure for students and an economic reality that a liberal arts degree doesn’t offer to students who can’t afford 4 years out of the workforce, higher tuition, and no guarantee of a career. The faculty participant talked about incremental improvement for these populations. A four-year degree may not be a realistic path for someone who is 30 years old and a first-generation college student, but entering a two-year degree, experiencing the success, and teaching the value of education may lead to later generations pursuing four-year degrees.

Industry Partner #4 connected her programs' economic success to increased community engagement by their students. She discussed the maturity of their students, increased

engagement, better employees, and the opportunity that this work and the income allowed individuals to be involved in their communities at a higher level. She shared how an immediate return on investment and financial stability is life changing for her student body. Her program has non-traditional students, coming to the program after a few years of life experience, working harder, starting at $15 per hour, leaving making $30 per hour. And as Industry Partner #4 explained, “this changes peoples’ lives.” She witnessed the social progress within her individual students and the marginalized populations that her program serves.

Industry Partner #5 discussed how her students increased their experience through volunteering within the community. Her students integrated themselves in the community and had immediate positive effects, improving their futures and that of their communities. Their impact within the community showed industry partners their value and commitment to giving back. Her students were able to gain this experience while they were still in school, and it provided networking opportunities for them as well. These networking opportunities exposed non-traditional students to professionals in the workplace, providing a positive example and exposure to a lifestyle and career path that the students were unaware of prior. Industry Partner #5 shares a story as an example of the social progress her program provided for one of her nontraditional students.

> One of my student stories is about a student who lived in foster care for several years and she saw education to get out of the system. She stayed super engaged throughout school and took an HIM (health information management) job right at graduation. She struggled a lot with confidence and trusting her instincts, but by the end of the program she was much more positive about problem solving and critical thinking. It was exciting to see her be so independent and find a job.

Industry Partner #5's program offered a specialized training that provided her students with the skills and the confidence to successfully enter the field.

Microsystems Industry Partner #2 and Faculty Member #1 shared an artifact of their service-learning model that directly impacted the community through their student projects. Students were required to interact and collaborate with their communities to identify a need based on their skill set and take a leadership role in implementing new processes to improve functions and positively impact the community. Students reported on their outcomes and were able to develop relationships within the community to continue their impact and open opportunities for the students long-term. The service-learning model promoted integration of students into the community and directly impacted the wellbeing of community members through student projects.

Faculty Member #4 described how biotech companies within his community were focused on underserved populations, particularly African Americans, to provide jobs and new career opportunities. He also talked about how the public schools in his community are some of the best in the state due to the thriving biotech industry that provides tax funds to the institutions. These industries are driving progress within their communities and making progress for the diverse populations within them. Several industry partners were actively engaged and supporting Faculty Member #4's program, which demonstrated not only his integration into the community, but led to vast support and approval for his four-year bachelor's degree program in the community after the completion of the grant. He went on to share that companies in his community, and across the country, have contributed to his program, building and using his laboratories for their internal training. They have created a mutually beneficial relationship where this participant's program is fully funded through these partnerships, and companies

across the country can train their personnel on top-of-the-line equipment for less than they can do it internally. This was particularly important for a community college that cannot rely on sports or room and board for additional income. Industry skills are not only funding the program, but getting every student hired in a financially independent career. This relationship has also led to incumbent workers using prior learning assessment to get credits for the skills that they have and go back to school to complete their degree, opening additional career opportunities with their new skills. Incumbent workers who swore they would never get their degree twenty or thirty years ago are now finding themselves finishing their degree, swiftly and inexpensively, and opening new opportunities within their careers.

Faculty Member #5 shared that his students are more involved in their communities because they are financially independent, can care for their families, and meet their most basic needs, affording them the opportunity to look externally to improve their community, rather than just internally. He said that his students are more engaged with their communities as well-rounded individuals and can dedicate more time to be involved in organizations and impact their community positively. He explains, “they can do it because they don't have to be worried about their bills, feeding their families, etc.” Financial independence allows people the opportunity to engage at a higher level within their communities and focus beyond their own needs. Faculty Member #5 also went on to talk about some of the long-term opportunities that short term degrees can create for the next generation of students from these families. He shares,

> We want to say everybody can succeed, everybody can go as far as possible in education, but if you look at the statistics, it's not true. Most of the students are first generation. Many are going at age 30 because they didn't have the right support structures or families that told them what they needed to do when they were 18, 16, or 14. And their children

> will now see them succeeding, going to college, and maybe their children will get a bachelor's degree.

Faculty Member #5 sees these changes as incremental and small, rather than a one size fits all in a four-year degree. He explained,

> Sometimes we're trying for perfection when what we really need to do is try to incrementally improve the situation for everybody. It's so powerful. I think that over time is much better than forcing a four-year degree down the throat, which may or may not be completed or may not be used to its maximum benefit. It also comes with a lot of debt. A lot of our students don't have any of that. And thus, they're able to have an impact on their community, which is ultimately what we would want. That's empowerment, to have an impact within your community. We may want the world to be a sort of egalitarian utopia, but it's not. We must be realistic about what it is. And we do try in our general education outcomes to expose students who are here for technical training to broaden them and make them better members of the community.

Our students and citizens must be financially stable to become involved with and impact the community externally.

Cultural Intelligence and Diverse Populations

Cultural intelligence is the understanding of diverse populations and the respect required to collaborate with individuals from backgrounds different from your own. Green, A. et al., (2006) defines tolerance and cultural awareness as the “acceptance of intra-group lifestyle differences or openness towards other cultures,” including how individuals work with one another and respond to differences in people (p. 97). Cultural intelligence is not only imperative for a respectful work environment, but it is also a primary outcome associated with higher

education. Cultural intelligence was an outcome for these programs particularly because of the access that these programs provided for diverse populations. These non-traditional populations in the programs and in the workplace where the students frequent, provide for unique opportunities, collaboration, and growth for these populations and cultural intelligence.

Seven of the participants highlighted the cultural intelligence displayed by their students through their work opportunities and their increased interaction with diverse populations. Because students were fully integrated into their industry's workplace, they regularly interacted with diverse populations and demonstrated strong communication skills with new populations. Due to the high level of labor market alignment and integration of work experience, these students were exposed to workplace diversity and interactions with individuals from backgrounds different from their own. This provided students with an opportunity to interact and learn about other cultures, backgrounds, and interactions within the workplace. Faculty said that they discussed these cultural interactions and workplace norms with their students to highlight learning opportunities and discuss workplace culture.

Industry Partner #3 articulated that students who were integrated into the healthcare industry while earning their degree showed a strong grasp of the workplace culture, professional expectations, and a long-term commitment to growth within the career. She also conveyed that the written and oral communication of these students was unmatched. She attributed the initiative and cultural integration to the students' early experience and buy-in to the field.

Faculty Member #5 discussed how students were beginning to drive a change of culture within the employers that they were working at because the employers had begun to compete for workers and were striving to create a work environment to attract the best. This faculty participant discussed how students essentially interviewed and completed internships at

organizations to find the best fit, even if it meant taking less money. Companies focus on the climate of their workplace, collaboration and culture between employees, and opportunities within the organization to make a difference within the community and to move within the company.

Opportunities for Diverse, Non-Traditional Populations

Due to the strong alignment with industry skills and the integration of work experience and paid internships, these programs also reported a greater access to these programs than traditional programs for diverse student bodies. Five of the participants attributed this to the flexibility of the programs and integration of paid work and job opportunities at the end of the program. These populations valued the guarantee of employment and living wages that these programs offered and marketed upon entry.

Adult learners also bring a vast array of experiences to the program, particularly life experience including complex schedules, living situations, children, food stamps, etc. These individuals were particularly focused on work opportunities and the light at the end of the tunnel of a two-year program, with over 90% employment rates. All participants also emphasized the high level of interactivity in these programs as an important draw for students and an increased investment by students to the program due to the hands-on nature and collaboration with industry.

Three of the Labor Market Aligned programs also conveyed a shift in age of students from traditional students to adult learners focused on the impact of a strong career on their lives and a value emphasis on programs that led to well-paying jobs. This was especially important in programs that integrated apprenticeships and paid internships in their programs. Many of their students were juggling families and employment while completing the programs, and the quick

implementation of skills and job opportunities is important to these populations, making it a great fit.

Faculty Member #4 described how these types of programs with fast integration see more diverse populations because “they don't have the luxury of strictly attending school for four years.” He said that “four-year programs perpetuate the inequalities that we have because it is not accessible to all students.” His students have a distinct advantage without debt and the opportunities with financial freedom through their career.

These programs also offer individual and specific instruction for their unique alignment and student population. One participant shared,

> This work has allowed us to work with each student individually and understand their needs with an internship and overall career path. Each student is different, so understanding any challenges, how far they’re able to drive to work, hours available to work, salary requirements, culture of company needs, etc. I take the time to get to know each student and each employer and help connect students to employers that align with their needs.

With the small size of these programs and the close connection to each student, it allows these programs to be flexible and meet the needs of their diverse, adult population with more life stressors.

Industry Partner #5 described how her students have shifted from incumbent workers gaining skills to meet industry needs to new, diverse students who are younger and career oriented. Diversity and economic diversity are growing within her program as younger students see the value and economic opportunity that the skill set provides within healthcare. These students can impact patient outcomes in a big way without having contact with patients.

Industry Partner #3 shared how much her academic partners promoted equity and inclusion and how they did it with flexible, online courses. Their program had students from other countries due to the flexibility and universal value of the program. Industry Partner #3's healthcare data program also opened the door for more populations by lowering barriers for entry, meeting students where they are at, and still graduating their student body with high level skills and employment. Industry Partner #3 shared how a veteran was able to seamlessly integrate into their program while

> looking for a translatable role from what she was doing in the military. She had suffered some long-term effects but really hung in there and fought her way through. She graduated and found a job that was more tech focused in healthcare, which aligned very well with her experience from the military.

The program also afforded opportunities for more diverse populations by allowing, even encouraging, students to work while they are in the program and finding time for them to work throughout the week.

Industry Partner #4 commented on why these nontraditional programs are perfect for diverse populations and why these populations are growing within her program. She described her nontraditional, marginalized populations as, “Hard workers, who are focused on the program, and show perseverance. Non-traditional students are networking and focused on career opportunities.” These students know how to articulate the vision and make connections within the industry and during interviews to market themselves. They also understand the importance of culture within the workplace, and they bring a respectful and open mindset to their employers. “We're humans at the end of it, and we have to pay attention to that.”

Industry Partner #4 believed that these attributes create lifelong learners and individuals committed to continually getting better, “rather than being handed a four-year degree and automatically getting something.” She articulated how the four-year degree can create an assembly line of matched skill sets that aren’t competitive and perpetuate inequalities through opportunities. She explains, “It's almost like once you have the four-year degree, the badge of honor, now I'm going to go to dad, who is going to help me get a job via someone rather than earning it yourself.” She expressed the growing concern, “There's not a lot of younger people that go through that get a four-year degree that actually works in that degree area.” And even if students are well prepared and interested in a four-year degree, “they have such a long time to get through, they can lose their vision easily.”

While the TAACCCT grant was intended to target marginalized populations, Faculty Member #4's program embodies that shift in meeting the needs of underserved populations. He has a large percentage of females represented in biotechnology which is unheard of and has students from several other countries. And some of his earliest and most prolific students in industry have been African Americans. He highlighted the veteran population within his program and their successes working at places such as Lockheed Martin. He admits that there is still work to do but attributes some of his success to the skill-based focus of his industry and the immense career opportunities and financial security within his industry.

Theme 5: Mentorship and Networking

Mentorship and Networking is the process of interactions, required or not, between program participants and individuals working within industry. Several programs offer initial orientation to the program and mentorships to help students explore their career path in their field to visualize their opportunities, and the fit of the program they are pursuing with their

lifestyle, their learning style, their interests, and their financial needs. These interactions are beneficial to both parties and are integral to the success of their students in the program, and identification of their career path.

Four of the participants touted the unique opportunity for their students and their industry partners to mutually benefit from a mentorship relationship with the students in their programs. The participants talked about how connected they were within industry and how this provided opportunities for their students to network and benefit from the comradery created within these small programs. Because these programs work so closely with their industry partners and have those relationships within the small sector, students can build relationships and networks for future opportunities, and those within the industry share and give back to the next generation of workers within their trade. Without these collaborative partnerships and hands-on learning opportunities directly with industry partners, students would not have the exposure and benefit of these relationships in the workplace.

Two of the programs included a mentor project, which were shared as artifacts from these institutions, and included mentor/mentee check-ins throughout the semester and program. These check-ins included the mentor setting expectations, being a role model, providing feedback, being a sounding board, and creating a community for the student to interact with other members of the field. These relationships promote open communication, questions, and a relaxed environment to develop personal relationships. These relationships go beyond career advice and lead to investment in the person as an individual, collaborating and solving problems together as they arise.

Faculty Member #2, from healthcare informatics, has his students conduct information interviews in the program, and he describes his students as “Plugged in at the beginning to say,

here, here's the value, here's the path, and here's the process." He believed that this has benefits not only in retention, but also in helping students to build a network in preparation for entering the industry. And students are pulling from this small professional network for their field sponsor later in their program. This gives students further insight into relationship building, networking, and the value in relationships for fit and promotion within industry. Faculty Member #2 has students use this knowledge to envision the result with a vision statement articulating where they want to go, and he thinks it proves huge dividends in the motivation and success of his students. This participant set expectations and the purpose for mentorship with his students, and each student participates in and gains value from mentorship, from start to finish. His artifact described his program's Mentoring and Networking guide that helps students develop their network and facilitate mentoring in the workplace. This has capitalized on the tight knit community, led to better retention, and created career path knowledge for their students.

Industry Partner #3 also emphasized mentoring and networking through LMA programs. She talked about networking through industry, outreach, LinkedIn, and the small community working in this field. Industry Partner #3 describes how important networking throughout the program is to set up finishing the program: "To do capstone, you have to meet people." Industry Partner #3 also shared their mentor project as their artifact. She added that these students need to strategize with their mentors about where they want to work and what they want their career path to look like. These students receive guidance and input from individuals currently working in the field, sharing their paths and what they've learned over their long careers. These students are connected to industry partners and the pathways open to them in their careers.

Industry Partner #4 highlighted the outcomes associated with mentoring and networking with industry partners while students are still in the program. Mentors can help identify and mold

talents and skills in the students and find and assist in pursuing opportunities as illustrated in their program's Mentoring and Career Guide (their artifact), which described the crucial role that it plays for their students in the program and beyond. The relationships their students build throughout the program facilitate opportunities and professional relationships for years to come. Mentors can also help students follow trends and identify new skills that are responsive to industry needs. These short-term programs, focused on skills, provide more immediate opportunities and less hoops than traditional programs.

Industry Partner #5 talked about the close-knit network within healthcare and how opportunities within her community led to strong mentorship for her students and several contacts for networking within industry as well. This provided her students with job opportunities and a better understanding of the industry they were entering and a desire to continue giving back after reaping the benefits of the generosity of those before them. These professionals continue to interact with one another on advisory boards, in conferences and webinars, and outside of work as professional friends. This participant went on to describe the camaraderie that her students have with industry partners to develop deeper relationships and work collaboratively with them throughout the program to succeed. Her students develop relationships within the community of healthcare informatics, independent of faculty, putting students in touch with industry needs and opportunities directly. She commented that students get immediate and constant feedback due to these relationships within the community and they are better for it.

Industry Partner #5's comments echoed the tight knit group that health information management created within their community. She talked about how small the community is, and how important it is to maintain relationships and networking opportunities throughout one's

career. She said that her industry collaboration with this program allowed her to know the students in the pipeline and the students to know their career opportunities as well. Industry Partner #3 said that health information management has always been a small and close-knit community. She has seen many of her career opportunities due to her relationships and can point to many mentees that she has stayed in contact with and provided guidance as they have excelled also.

Industry Partner #5 and Industry Partner #3 also emphasized the returned benefit of their mentorships for their connection to the industry and new ideas from those who are the future of healthcare. They expressed how mentoring keeps them invigorated in the industry and provides them with connections throughout different companies and keeps them up to date on new technologies and ideologies. As the mentors, they received as much or more in professional and personal capital as their students did.

In Faculty Member #4's biotech program, mentorship showed up in work experience for his students, interacting early with industry partners while in the program and working in industry. Students were able to ask questions and engage at their worksite to find the right fit for their needs. It also shows up in a 50% referral rate for his students. Fifty percent of Faculty Member #4's students are referred by prior graduates. This relationship helps students find the right fit and to navigate the career path with someone who has successfully navigated through. Faculty Member #4 has seen this lineage continue through multiple generations, and it has led to a larger female population in his program. Insider knowledge and mentorship is leading to a better fit for students and industry and increasing the diversity in his tech program.

Faculty Member #5 brought up mentorship and the relationship that his students form with industry partners throughout his program in his artifact, which was the mentorship project.

His student body has expressed the value of this project and their mentorships, citing easier transitions and more support in the workplace. Faculty Member #5 said that mentorship in his program has led to increased networking for his students. Student experience and relationships in the workplace have helped his students develop a strong network for job opportunities, resume building, and communicating to the needs of the business with their industry knowledge.

A couple of the programs went so far as to interview students and pursue feedback from employers to pass onto students and improve their next opportunity. This allows employers to be honest and gives the program an opportunity to further work with students for future opportunities and any identified weaknesses in the student or program. This model empowers both students and industry to improve one another through constructive feedback and promotes continued growth within the program and industry.

Theme 6: Fallacy of a Four-Year Education; Flaws of Traditional Education

Fallacy of a four-year degree is the misnomer that a four-year degree guarantees opportunities for success and that it is the only pathway to financial independence and employment opportunities. Participants shared their perceptions of the four-year degree and why their two-year degree provides just as many opportunities, if not more, for nontraditional programs. Participants also shared how prepared their students are to enter the workplace and articulate their skill sets to prospective employers.

Four faculty participants discussed how the four-year programs often lead to program disenfranchisement with lack of student engagement early. They stated how they are less outcome oriented, with increased obstacles, and have slow responsiveness to industry needs. Faculty Member #1 considered much of the coursework in a liberal arts degree to be obstacles rather than offering skills that contributed to the career pathway. He discussed the disconnect

between what students receive in a four-year degree and what students need for the workplace, stating that students get a lot of what they don't need and don't get much of what they do. Faculty Member #1 highlighted the unknown value of higher education if students are unable to complete the entire four-year degree. "What opportunities are there for students who received many credits in higher education but never completed a degree?" He discussed how graduates of four-year degrees enter oversaturated markets with generic skills that cannot meet the specific skill requirements of market needs. The traditional four-year degree produces innumerable graduates with a very similar and indiscernible set of skills, which creates a market where students can be evaluated for things other than the skills they bring to the job. This skill mismatch also leaves a large percentage of four-year degree attainers unemployed.

Seven faculty participants and industry partners described some of the fallacies that they saw in four-year programs from the perspective of their shorter, skill-based programs. They expressed concerns about graduating without knowledge of the skills they possessed and where to market them. They reflected on the lifelong learning motto of higher education and how their skill and certification attainment in LMA programs promoted more student continuing education than the attainment and completion mentality that a four-year degree promotes. Faculty participants touted that their programs created continued opportunities for certifications and advocated for continued growth leading to career opportunities. Faculty Participants expressed concern that four-year degrees tie all success to graduation, with little opportunities along the way and fewer opportunities for career growth upon graduation outside of another formal or advanced degree.

Faculty Member #2 highlighted how the focus of textbooks in four-year degrees is not realistic to assisting students in getting employed. He focuses, rather, on application of skills and

what skills employers will hold his students accountable for in the workplace. He says that textbooks are often lacking and outdated. He says, “They can't provide students with skills or show them how it is in the workplace.” Faculty Member #2 goes on to say, "Colleges are very unhooked from what's going on in the real world.” He explained that he " has struggled to bring business into the educational world, because of the pushback by administration in higher education. He must fight to provide his students with the vocabulary and know-how of the business world, rather than just that of education. This participant described how there is an inflated educational requirement within the market because prior to the creation of this program, informatics skills were only taught at the master’s level. With these skills, his students can take their Bachelor level acquired skills and earn master’s wages. His students are breaking the previous mold and stigma required for those positions because they possess the skills and can do the job just as well. Their hiring and wages are skill based, not degree based. This creates more opportunities for marginalized populations and removes the inflated degree requirement, which gives advantages to privileged populations.

Industry Partner #5 highlighted how education cannot always keep up with industry needs and is unable to pivot like business, especially at the pace that healthcare requires. Smaller programs and industry specific courses can more quickly meet the needs of industry partners, and therefore meet the demands of students looking for marketable skill sets. Industry credentials and continuing education credits keep students learning and fills some of the gaps that large educational programs cannot always meet. Students are getting the concepts through application and can apply their skills as the industry continues changing.

Industry Partner #3 also articulated that previously, educational programs have been unable to meet the needs of Health information management to maintain pace with the changes

and technological advances. But she added that recent graduates have a better foundational knowledge to apply and a commitment to continued growth within the career field to build their skills and match the pace of healthcare technology. Industry Partner #3 discussed how she has been able to hire more individuals with two-year degrees who possess the same skill sets and the drive to maintain the required pace, rather than four year or graduate professionals who think they have peaked or are less committed to continuing education. She has seen a shift in hiring practices to focus on skills and contributions, rather than someone's degree alone, as a measure of their value and contribution to the industry.

Faculty Member #4 was excited to share his program and the unique opportunities and professional pathway that it provided his students without the rigidity and expense of a four-year degree. There are flexible options that lead to quick income for students who don't have the resources to pursue a four-year degree. He believed that four year higher educational programs bury the useful skills into the second half of the program after years of general educational credits. Instead, Faculty Member #4 puts, “all of the skills classes into the front, into the first year, so that the student can get the skills that they need to potentially get hired in.” This innovative model allows students to understand the career they have chosen, gain skills, and apply them swiftly while continuing to gain other workplace understanding and continuing to develop their skills. This participant shared that a colleague that had a master's degree in electrical engineering but struggled to find work because he didn't have work experience. Instead, students in his program get work experience immediately and find work equivalent to their skills, not just their degree. He discussed how his program was able to quickly meet the needs of his industry partners and continues to be responsive and dynamic to this day and how his reverse model of early skill integration leads to more engagement and less attrition as is seen

within traditional four-year programs. He said that it was one of the biggest areas of conflict when he left industry and entered education. He said that people just wanted to stay in their "university shell" and do what they had always done. Instead, Faculty Member #4 welcomes criticism and feedback from his industry partners, grading students, to keep his program dynamic and his students' career ready.

Industry Partner #3 articulated, "New grads from community colleges knew what they needed to do. Bachelors' graduates struggled with some of the skills because they didn't get much exposure." Her students were directly aligned with businesses for specific outcomes, not general degrees. Her students have sure-fire outcomes, and they know there are jobs, the skills required and what the wage is. She noted, "That's why back to work programs don't support four-year degrees in Bachelor of Arts." Job opportunities are not guaranteed, and the market is oversaturated with general skills. She shared concerns about completion, particularly for nontraditional students who are working and/or caring for kids. "Four-year degrees are not attainable for these populations; they need outcomes in two years." Then they can pursue the next steps, the master's degree, or whatever career path they choose. Industry Partner #4 expressed concern, "There's so many young people that start out with those four-year degrees and then don't finish them and then they don't have anything. They don't have a degree. They can lose it all. They lose all those credits."

Industry Partner #4 talks about a shift in industry away from the traditional four-year degree to tangible outcomes for employers. Industry Partner #4 says,

> Organizations used to be more geared towards that traditional degree. But now they just want certifications. Come to the table and talk to me about your knowledge. Your experience. And then they make it work. If the person doesn't have a degree and maybe

> they have a certification, they're going to make that job description work for that person. It is a quicker turnaround time to get a job, they can get that degree for their certification with real world experience and start their career quicker. And the reverse is also true, if a person comes out with a beautiful shining four-year degree, but they can't speak to it, they're not going to get the job.

She goes on to reflect, “You know, it used to be that it wasn't that long ago that the four-year degrees would get more money. But now I'm seeing the non-traditional students who have graduated, who can speak to the experience and speak the lingo, and speak about connecting the dots, getting paid just as well.” Skill sets are what companies are focused on; “Certifications are starting to be more meaningful, because certifications are hard to get.” “If people don't match the skill sets, it doesn't matter their background or degree.” Industry Partner #4 states that this extends and is most important when it comes to soft skills as well. She wants people “who rise to the top” in customer service and workplace culture, and students from LMA programs have the attitude and experience to meet those requirements.

Faculty Member #5 explained the, “'ambiguity in a four-year career path. They may be enjoying school, but they probably don't know what they're going to do.” If the diverse nature of a liberal arts degree does not deter individuals from pursuing it, it still doesn’t prepare them to enter the workplace. This is a commodity that most people cannot afford when pursuing an expensive degree and taking time away from working and their families. He goes on to say, “you can learn literature and history by reading.” “The idea that college is the only way to expose people is a little bit of a fallacy. And if we expose one person to that sort of broadening but 10 or 15 drop out, did we really succeed? Or if they succeed but have $150,000 in debt, we probably didn't really succeed because they are shackled with that for the next 10, 15 years.”

All ten participants discussed the culture in the United States that pushes all students to pursue a four-year degree and does not adequately inform students of other options nor encourage other opportunities for financial stability and career opportunities. It is this stigma created around LMA programs that limits student opportunities, negatively impacts the growth of these industries in the U.S. and doesn't focus on the student fitness for the career.

Shortcomings of Labor Market Alignment (LMA)- Negative Case Analysis

An important limitation to note for each of these programs that all the research participants shared was the niche nature of these programs and the small number of students served in each program. The programs were built specifically for the needs of the communities that they served and most only took around 50 new students each year within their programs. These are not necessarily programs that can be recreated across the country, but rather program that are crucial to the communities from which they grew. Meeting the needs of their communities is the strength of community colleges, and each program needs to consider the needs of their community when beginning or updating programs of study. Faculty and administrators also need to keep in mind how many individuals are needed with these skill sets so as not to over saturate the market and leave their graduates without work.

Another concern that faculty shared at several of these institutions was about the transferability of their programs. Since these programs are so small and focused on the needs of their communities or local businesses, some of them did not have options for their students to transfer to a four-year institution for an advanced degree. This limitation for students is problematic in creating longevity within these careers and opportunities for advancement. However, programs that had initiated contact with four-year programs had great success in creating a specific pathway to a four-year degree based on their associate degree or found

substantial overlap with a four-year program that they were able to create articulation agreements for transferability. Faculty Member #4 touted that 80% of his students went on to get a four-year degree in biotechnology after completing their associates.

These students are getting strong industry skill sets, learning about how to market them, and communicate with new populations, but they are not getting the cultural and social experience of a four-year campus and program. These faculty are not confused about the value of a four-year degree and the experiences one has throughout a bachelor's degree; however, they do see other pathways to these degrees and social progress within their communities that work for a more diverse population looking to increase their skills.

However, many of these programs are growing faster than they can manage. Faculty Member #3 has doubled their student body yearly and continues to grow with online students, taking his program nationally. His students are becoming employed and excelling so quickly that he struggles to keep up with their whereabouts and successes. These programs are helping to meet the needs of students and industry partners alike.

All 10 of the participants have at least a master's or PhD, so they all understand and emphasize the importance of continued education and formal degrees. Many articulated that the leadership and skill set of employees with bachelor's degrees is superior to that of two year or certificate students. They encourage all their students to continue their educational pursuit and work hard to develop four-year pathways for their students. They do not see the educational endeavor of a two- or four-year degree as mutually exclusive, but rather different, more flexible ways to pursue the same career pathways, allowing more people to successfully navigate higher education. They recognize that the individuals pursuing their programs would not be successful

in a traditional four-year institution and that their programs offer an immediate return on social and human capital for these students that is life changing.

Surprises Emanating from Interviews

The one component that stood out to me while conducting the interviews was the array of responses to the question about social outcomes from each of the participants. To avoid bias and impacting the research, I did not define social outcomes for my participants as we discussed each of the research questions. It was unique to see my participants discuss many different attributes that they saw within their students that they associated with social outcomes. It is also noteworthy that industry partners had a much less diverse, but no less noteworthy, response to this question. They were quicker to answer and defined their students' social outcomes based on the soft skills that they used and desired in the workplace. While this makes sense, I did not expect this stark line. Industry partners highlighted the students' ability to problem solve, collaborate, lead, communicate, be professional, and improve processes at their organization. Faculty focused their definition of social outcomes on traditional higher education experiences including writing, emotional intelligence, and soft skills through application.

Summary

The themes identified throughout these five programs of study highlight the important outcomes of LMA programs and the unique opportunities that they give students. Their strong outcomes that their students exhibit in retention, employment, interaction, collaboration, and marketable skills are particularly important at a time when higher education is being questioned in these same outcomes. The collaboration exhibited by these faculty and industry partners shares a model for higher education to strive for without losing the social outcomes that are so important in higher education. While the social outcomes and community engagement themes

yielded some of the most diverse responses, they also provided some of the richest and most profound examples that participants were eager to share. The in-depth look at these programs provided a look at the unique outcomes of their students and impact on their communities. The results of this study are largely supported by the available literature that will be discussed in Chapter V.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

In reviewing past literature on LMA, and the focus on employability and financial outcomes, I thought it was important to discuss other social outcomes associated with higher education in these two-year programs. Social outcomes are the primary goal of higher education, and four-year institutions track and share their role in social progress as indicators of their success and their marketability for future students and funding. Very little research has been conducted to track social outcomes and progress at two-year institutions with LMA. Community colleges are known for their responsiveness to industry need and a quick pathway to living wages for diverse student populations of all ages. The diverse populations that community colleges serve offer a unique opportunity to impact social progress and to track social outcomes associated with all institutions of education. There are several factors in social progress, and financial stability and attainable educational certifications are both important components. Short term programs with LMA provide these important foundational outcomes for over 90% of their students in under two years. In this research, I also reviewed these programs for soft skills associated with higher education, including communication, collaboration, problem solving, critical thinking, and cultural intelligence. The outcomes of these soft skills found through this research demonstrate how they can be obtained through avenues outside the traditional classroom while still pursuing career credentials. I chose to review social progress and soft skills because these are the most altruistic outcomes of education and should be reviewed at two year, LMA programs.

Interrelationship of Themes and Uniqueness

Several of the findings throughout the research are interconnected, and the relationship between them is the highlight of the research. The PBL, collaboration, mentorship, and community engagement within these programs is due to the workforce alignment that these program chairs work so hard to achieve. Without this alignment, students would not have the same social outcomes outlined throughout chapter IV. Both the students and the community are afforded this social progress due to the unique structure and integration of these programs into their local industries and communities.

The alignment of the programs with industry also created the environment for PBL. Using industry skills and their desired processes, faculty created real life scenarios for students to collaborate and problem solve through creative methods to generate effective outcomes and share their thoughts with industry partners. This method was mutually beneficial for the students to work directly within industry norms and for industry to gain new ideas for problem solving and a trained workforce faster. It also leads to social outcomes associated with higher education for the students involved in this innovative learning process that is perfect for LMA.

Networking and mentoring are also connected with workforce alignment outcomes because without this close-knit relationship and integration, students would not have the opportunity to network and find mentors within their career field. These relationships are imperative for students entering the workplace and allows them the opportunity to anticipate workplace norms, their career path, and cuts down on surprises and attrition in the program and industry. These relationships and opportunities extend beyond mentorship and into the

community for increased community engagement and social progress. These outcomes and the research do not come without limitations, which will be discussed next.

Composite

All the findings in my research exemplify the collaborative nature in these communities and institutions. Each theme is the outcome of the selflessness of faculty searching for input to make their programs better and the selflessness of industry partners excited to provide input and financial assistance that will yield them better employees, while also making their current employees better and the culture of their workplace better.

The relationship spurred by the TAACCCT grant to meet industry skill needs faster has been mutually beneficial to industry and education alike. The relationships that have been forged have created a sustainability model unmatched in education. Industry partners are investing in the labs and renting space from these institutions as well as hiring students in their initial semester of study and paying them to attend school and work in their industry. Meeting the financial needs of students and exposing them to the career pathway early has led to retention and job satisfaction. It has also been liberating for students to graduate with a sustainable wage and no college debt, particularly for populations that never considered college before.

Community colleges are impacting their communities on a grander scale by reaching more students and collaborating with their community leaders and industry partners. The sentiment of faculty and industry partners is that they wanted to give back to their communities and have done so by involving more members and looking for small, incremental change to fulfill the needs of their students and their community.

Findings Explicated in the Literature

A common theme found in the literature regarding LMA was the limited scope of research beyond financial outcomes for students in these programs. Prior literature has shown the strength of LMA programs in retention, graduation, and gainful employment, which was verified by participants in this study, but there is little to no research on other outcomes associated with these programs. I chose to look at the social outcomes associated with traditional higher education programs in these skill-based, industry led trainings at community colleges. Since businesses both require soft skills in the workplace and have complained about the lacking soft skills in four-year graduates, I wanted to include their input for the graduate outcomes and their impact within the communities. Faculty in these programs also emphasized the importance of these soft skills and were able to provide perspective from their institution on their student outcomes.

Workforce Alignment Outcomes

Workforce alignment outcomes are the outcomes identified by the participants in their programs due to the implementation of LMA in their programs. Participants identified through alignment include increased engagement, retention, and workplace opportunities, including earn and learn opportunities.

The Times Higher Education recently published an article on the best universities for graduate jobs, and the top two institutions were California Institute of Technology and Massachusetts Institute of Technology, both closely aligned with industry and innovative skills and technology. It is an interesting look at the perceived value and growing interest in higher education institutions that align with industry need, have cutting edge technology, and apply

innovative learning strategies within their program. It shows the potential for new opportunities within higher education and the innovation that is seen across all levels of institutions.

The focus of literature on the cost and return on investment of higher education recently has led to an environment that is more open to alternative opportunities, collaboration, or structure in higher education. Higher education has maintained a structure that is only accessible to the most privileged populations, requiring not only high tuition, but also a four-year hiatus on life and work to be successful. Many of my participants have ridden the wave of Department of Labor TAACCCT Grant funds that flooded their programs to meet the growing skills gap here in the states. Jacob and Weiss (2010) emphasized that the human capital costs are high for marginalized populations with fewer opportunities due to discrimination and socio-economic starting points. They pointed out that this means that consequences of bad labor market alignment are magnified for marginalized populations trying to enter the workforce. This brings to light the importance of LMA and some of the important outcomes that workplace experience and financial freedom offer to these students.

Literature on workforce alignment outlines important outcomes for all of education, including prioritizing learning, increased retention, increased program credit acquisition flexibility, affordability improvement, streamlined employment, and continuous data acquisition for program improvement (Beer et al., 2016). With an emphasis on the relationships between not only education and employers, but the larger community and leadership, LMA programs have shown fast tracks to learning and employment, with increased retention and sustainable living wages faster than traditional programs. These programs also offer on and off ramps for incumbent workers and diverse student populations who need a quick return on investment. Due to the structure of these programs and the stakeholders involved, there is also continuous

feedback and program improvement. These programs constantly work to integrate workforce feedback, and funding, and the influence of employers has led to more problem-based learning and the positive outcomes associated with this innovative teaching style.

Problem-Based Learning

Problem-Based Learning (PBL) is defined as a student-centered approach in which students learn about a subject by working in groups to solve an open-ended problem (Cornell University, 2024). Outcomes associated with PBL include teamwork, oral and written communication, critical thinking and analysis, content application, and problem solving across disciplines. PBL has been shown to increase engagement and self-direction for independent problem solving as well. This application of skills leads to strong outcomes for both higher education and their workforce partners. Students in my research exhibited these skills at a high level as observed by both faculty and industry partners.

Because traditional baccalaureate education is focused on the cultivation of students' research skills, rather than professional or transferrable skills, there is a gap between what students learn in higher education and what they need in the workplace (Holmes, L. M. 2012). Some literature suggests that the best way to cut down on the gap between higher education and implementation into the workplace is PBL. The process of PBL involves real life scenarios, based on industry processes, that students work through and develop their own resolutions and propose for implementation. In addition to course content, PBL can promote the development of critical thinking skills, problem-solving abilities, and communication skills. It can also provide opportunities for working in groups, finding, and evaluating research materials, and life-long learning (Duch et al., 2001). All five programs touted their emphasis on application and real time

skill sets afforded to their students. Participants equated their program fit and workforce certificate attainment to this unique learning style.

Participants' perspectives augmented the process of PBL and the outcomes associated with skill application. This student led process promotes independent thought, collaboration, and sharing individual analysis through communication within the group. These processes promoted not only stronger technical skills, but also increased soft skill development. Participants touted this higher-level learning strategy for independent student inquiry, crafting lifelong learners and independent thinkers. In my literature review, I had anticipated that my research would focus on experiential learning within the workplace just as these program's PBL structure provides hands on experience.

Kolb (2015) articulated, "learning is the result of experience" (p.2). LMA offers students early experiential learning opportunities in the workplace and this research confirmed what Warring and Hodkinson (2005) showed. Just as with that study, this study suggests that social outcomes are just as prevalent when they are acquired through work-based learning. Faculty and Industry partners highlighted the social outcomes that their students mastered throughout the program due to their workplace experience, including self-reflection, cultural intelligence, and the ability to work with others. This effective learning strategy and alignment with industry partner needs continues to gain attention and has been more prevalent in higher education in recent years.

Problem-Based Learning creates opportunities for student-led learning, creating leaders within these industries to develop best practices and creating collaborative cultures in the workplace. Both industry partners and faculty participants alike, shared their excitement over the

development of their students through PBL. Most importantly, my participants articulated the strong interpersonal and soft skills that their students acquired through PBL.

Soft Skill Attainment

Soft skill attainment encompasses the skills that are often associated with higher education and includes skills for interacting and collaborating in diverse communities. These include communication, problem solving, creative thinking, teamwork, and process improvement. Social competencies include self-reflection, emotional intelligence, collaboration, cultural awareness, critical thinking, and problem solving.

The literature shows how important workplace experience can be in the development and implementation of soft skills. This is an important outcome to remember when higher education is concerned about developing well-rounded, lifelong learners who can communicate, problem solve, think critically, and be respectful of cultural backgrounds in the workplace and in their communities. Universities do not have the monopoly on creating forward thinking, accepting, and culturally accepting citizens. Evers et al., (1998) focus on self-management, communication, leadership, and innovation as their bedrocks through work-based education, repeatedly leading to stronger employer involvement. These attributes are "the issue that unites colleges and business organizations to maintain the essence of community colleges while changing the way knowledge is transmitted to students. Community colleges do not need to, and should not, relinquish any of its core values" (Evers et al., 1998, p. 136). The core values of higher education are the same at two and four-year institutions and can be achieved through different learning methods as seen in this research.

Harvard Business Review stresses that the best place to build effective communication, teamwork, influencing without authority, problem solving, and leadership are in the workplace

(Lyons, 2023). My participants echoed this sentiment and provided examples of their students exemplifying these traits and building them through collaboration with their industry partners. LMA provided students with direct workplace experience to develop teamwork, problem solving, and leadership skills. My participants articulated how quickly their students integrated into the workplace, collaborating, and developing the culture of a professional work environment.

This research also highlighted the cultural intelligence that students developed through their workplace experience working with diverse populations. Ng et al., (2009) described how these workplace experiences lead to "global leadership, self-efficacy, and ethno-relative attitudes toward other cultures" (p.20). My findings describe how diverse groups work together in the workplace and how these programs created more opportunities for marginalized populations to enter more empowering workplace opportunities. Participants shared how their students worked with and developed skills to work with diverse populations through their workplace experiences. The findings from this study suggest students can develop cultural intelligence through other avenues, away from traditional education pathways. The development of cultural intelligence also leads to impacts within these communities on a larger scale.

Community Engagement

Community Engagement is defined as the interaction between program participants and the impact of the program on the overall health and progress of the community. This theme was identified by participants who described their close relationship with their communities and the generations of students who pursued their program. Within this theme, participants identified less common sub themes from their communities. Community engagement includes social progress, opportunities for diverse populations, and cultural intelligence as sub themes.

Cultural intelligence and interaction with diverse populations was another outcome from this research that was discussed in the literature. Green, A. et al. (2006), goes on to explain that tolerance has a more complicated relationship within social cohesion in relation to educational and skills equality. The authors emphasize that there are limitations to the impact that education can have on building tolerance, and it is the bridging and linking networks between groups that can impact this component of social cohesion. (Green, A. et al., 2006) Programs that align with industry and provide their students with experience can bridge these gaps through social interactions with diverse populations.

Institutions of higher education tout their commitment to creating creative thinkers, problem solvers, and culturally intelligent, lifelong learners. Concerns have been voiced that these hallmarks of higher education may be overlooked or lost in a program with strong LMA. This study was designed to track these social outcomes of higher education within LMA programs of study. Warring and Hodkinson (2005) conducted four empirical studies, two in the workplace and two at in the educational setting, i.e., college, to study social outcomes such as self-reflection, cultural intelligence, and the ability to work with others. They found that social outcomes are just as prevalent when they are acquired through work-based learning. Workplace learning “offers contextualized integrative learning experiences that when intentionally designed can help students to connect and reflect on developing skills to enrich their capacities as reflective practitioners for their future work and lives" (Smith et al., 2010, p.414). My participants verified these crucial outcomes associated with social interaction in the workplace and highlighted how LMA programs meet the social outcomes associated with traditional educational programs.

Due to the strong alignment with industry skills and the integration of work experience and paid internships, these programs also reported a greater access to these programs than

traditional programs for diverse student bodies. Five of the participants attributed this to the flexibility of the programs and integration of paid work and job opportunities at the end of the program. These populations valued the guarantee of employment and living wages that these programs offered and marketed upon entry. The participation of marginalized populations in these programs is noteworthy. The impact on these participants and their communities goes beyond these individuals and this moment in time. There are continuing impacts as other family members attend these programs, communities invest in these programs, communities improve through increased tax income, and more families can attend these programs and achieve financial freedom and possibly intergenerational wealth.

The literature articulated the importance of financial independence on social progress. The impact of financial stability, particularly for marginalized populations, cannot be overemphasized. Historically, some groups who are not directly involved in revolutions for change, but rather find success in new places, drive progress and empowerment in other ways, by entering new opportunities not previously afforded to those populations. Payne et al. (2001) also discussed how these new opportunities for marginalized populations allow them to move beyond strictly survival and being to create plans, make critical decisions, and focus on long-term outcomes. My participants emphasized this shift for their students and articulated how important financial stability is for these students to go beyond themselves, to have a positive impact in their community. These programs empowered their students through financial independence and the opportunities provided by the LMA program. Marginalized populations need pathways to capitalize on the changing environment. They also need their basic needs met, including financial stability, to be active and influential within their communities. The opportunities that financial independence provides for these populations cannot be overstated. Financial independence leads to increased experiences, travel, cultural interaction, philanthropy, better

healthcare, schools, decision making, etc. It also leads to lower childbirth rate, bankruptcy, welfare, violence, and dependence in relationships.

This research provides examples of the social opportunities and influence marginalized populations can begin to have with financial independence. Financial independence is shown to increase social progress by providing equal opportunities for economically and socially excluded individuals to participate in and contribute to nation-building. It allows people to access financial services, save for the future, and invest in education and retirement, leading to improved economic and social status. Financial inclusion also plays a crucial role in achieving sustainable development of socio-ecological-economic systems, as it promotes social equality and ensures the availability of financial services for all (Ishchuk & Polishchuk, 2022). By including the vulnerable and disadvantaged in the formal financial system, financial inclusion promotes financial and social inclusion, leading to greater overall well-being and prosperity. Additionally, financial inclusion is essential for inclusive growth, as it empowers the weaker sections of society to become financially independent and contribute to the economic and social development of the nation (SCISPACE, 2023). Financial independence and opportunity are an integral component to social progress for all populations and these programs provide that avenue where it was not present before.

Mentorship and Networking

Mentorship and Networking is the process of interactions, required or not, between program participants and individuals working within industry. Several programs offer initial orientation to the program and mentorships to help students explore their career path in their field to visualize their opportunities, and the fit of the program they are pursuing with their lifestyle, their learning style, their interests, and their financial needs. These interactions are

beneficial to both parties and are integral to the success of their students in the program, and identification of their career path.

In my literature review, I explored the importance of social capital for career opportunities. My participants echoed the influence of mentorships and networking within these tight knit industries. The literature review outlined how relationships serve as resources for people entering the workplace and how this capital is often missing for marginalized populations (Krauth, 2003). Ashtiani and Feliciano (2018) discussed how this human capital in the workplace can provide a counterweight to social and economic disadvantages. My participants emphasized the importance of these relationship for their students to understand career opportunities, required skills, and the culture of the workplace for their fit. This understanding and these relationships also led to increased retention for these students and more career opportunities, earlier within their career. These opportunities are that much more important for marginalized populations and can facilitate movement of individuals out of poverty and advance students to overcome and reverse institutional biases within society. The participants of this study shared their experiences of the value of relationships between the students and their mentors, from start to finish in these unique programs. One hundred percent employment, high retention, and quick promotion were notable outcomes shared by participants for their diverse students. The impact for these students continues throughout their career, impacting their families and the community for years to come.

Participants who have been mentors in their programs for several years talked about the benefits received through these relationships including cultural awareness, connectedness to the field, and gaining innovative ideas. The relationship is mutually beneficial and leads to an improved workplace for everyone. Holmes, H. (2023) discusses how mentors stay better connected with the field and develop stronger communication and leadership skills through

mentoring. These outcomes persist through their mentees, as they foster strong professional relationships and a commitment to continued growth. Relationships foster more than comradery in the workplace, for both the mentor and the mentee.

Krauth (2003) explains that relationships serve as resources, particularly in the search for employment opportunities. Social capital is a term used to describe the value of relationships, as graduates can leverage these relationships to help acquire jobs and advancement opportunities. Tangible returns include knowledge of career opportunities, insight into sought-after skills, and connections within organizations for employment opportunities (Mouw, 2003). Social capital increases human capital and can provide a counterweight to social and economic disadvantages (Ashtiani & Feliciano, 2018). The LMA programs provided an example of a pathway for students who would not be able to pursue traditional programs, to pursue economic opportunities that counter the social and economic disadvantages that their families have encountered for generations.

Fallacy of a Four-Year Degree

Fallacy of a four-year degree is the misnomer that a four-year degree guarantees opportunities for success and that it is the only pathway to financial independence and employment opportunities. Participants shared their perceptions of the four-year degree and why their two-year degree provides just as many opportunities, if not more, for nontraditional programs. Participants also shared how prepared their students are to enter the workplace and articulate their skill sets to prospective employers.

Even now, predicting a student's success is more closely aligned with where they came from than where they may be trying to go. *Virginia Politics* discusses the fallacy of higher education and the fact that,

> with a person's socioeconomic background and zip code, you can predict their future health and salary with a high degree of precision. This fact was the impetus for the term "opportunity gap" that modern professionals in education use to describe the persisting differences in educational performances and thus career outcomes based on the arbitrary circumstances in which people are born (Holland, 2023, p.2).

Four-year degree programs are not a realistic pathway for all populations to pursue opportunities and overcome opportunity gaps that have persisted for generations.

Higher education has perpetuated inequalities through the makeup of their programs as well. *The Atlantic* (p.2) describes that, "because community colleges overwhelmingly serve low-income people and minorities, the higher education system remains two-tiered -- an arrangement those invited to the think tank to discuss the report called "separate but equal." It is impossible for individuals to join the middle class without a secondary education credential. Access to higher education is not as equal as it is portrayed and thus, separate in these institutions is not equal, and education is perpetuating attainment gaps in society.

Rather than creating opportunities for marginalized populations that were not previously included, the model of higher education and the restrictive nature of attendance has perpetuated inequalities within society. The *Journal of Negro Education* states,

> The American education system perpetuates the social inequalities of a class hierarchy by allocating differential 'educational capital' along class lines. As the culminates state of an ongoing sorting process operation within the formal schooling structure, higher education enables members of privileged status groups to accrue greater educational advantages while those of less privileged backgrounds go educationally disadvantaged. Unequal critical thinking development at institutions of varying selectivity, coupled with the positive association between socioeconomic status and institutional selectivity,

> constitutes one way by which postsecondary institutions engage in social reproduction (p. 3.)

Students who do not have opportunities to critically think are drastically behind their development and opportunities after their higher education experience. This study highlights how social outcomes vary at institutions that are selective in their enrollment and shows how this perpetuates inequalities in higher education.

Another author in higher education emphasizes the disparities in access for populations to reach high level interactions in higher education. Stich (2012) questions the "democratization of elitest liberal arts education (Pg. 135)," and says that hierarchy is instead, maintained in higher education. She goes further to state that, "access has only increased at lower level two and four-year institutions." Finding new ways to create opportunities that improve the lives of all levels of students and reduce inequalities throughout society is the goal of higher education and requires innovative problem solving as the traditional liberal arts pathway does not result in equality for all students, in access or outcomes.

The model of higher education is facing continued scrutiny and calls for improvement, particularly in the realm of social inequality. Kromydas (2017) talks about,

> the debate on the purpose of higher education is placed under the context of the most recent developments of increasing social inequalities in the western world and its relation to the mass model of higher education and the relevant policy decisions for a continuous increase in participation. A shift toward a hybrid model, where the intrinsic purpose of higher education is equally acknowledged along with its instrumental purpose should be seen by policy makers as the way forward to create educational systems that are more inclusive and societies that are more knowledgeable and just (p. 4).

LMA programs and opportunities to streamline students into the workplace are pathways that can be explored further and reviewed for important social outcomes to include opportunity, financial stability, and long-term generational and community impact.

Anthony P. Carnevale, quoted in *The Chronicle of Higher Education* observes, "higher education "takes the inequality given to it and magnifies it," says, director of the Center on Education and the Workforce at Georgetown University (Fischer, 2016). "It's an inequality machine" (Fischer, 2016). Higher education touts access as the great equalizer, but the system is not that simple and benefits those that have the time, resources, and knowledge of the culture in higher education to successfully navigate it. *Times Higher Education* also shows that higher education perpetuates,

> entrenched elitism – personified by the cash-for-places scandals in many high-profile institutions – means that universities are often seen to enforce, rather than curb, inequality. Cost matters, too: politicians are giving serious thought to cancelling the US' near-$2 trillion student debt mountain, amid fears that a college education has become too much of a financial burden. Despite some noble efforts, elite universities are under pressure to show that they are more than finishing schools for the affluent (Reisz, 2022 p. 2).

As Pell Grant awards and efforts to enroll marginalized populations have been in place for decades, higher education's cost and time away from the demands of life, makes access limited. LMA programs allow students who need immediate income and industry credentials to meet those needs simultaneously while also meeting the increased demands, unknown to traditional student populations, to include their families and their communities.

Limitations

There were several limitations noted in this research due to the size of the research and specificity of this project. The TAACCCT grant provided a unique opportunity from 2011 through 2016 for community colleges to expand on their collaboration with industry partners to meet highly needed skill sets in the workplace. The research covered several different fields at five different institutions across the country, including five faculty and five industry partners. This sampling does not speak for the entire TAACCCT grant nor every community college. It is simply meant to be an example of the opportunities that collaboration between industry and education can provide for student populations. These success rates are noteworthy and worth striving for at community colleges, especially due to the sustainability of them, but the economic health and need of the community must be considered for programs to have this level of success. These programs are simply one example of the perfect conditions between economic needs, educational institutions, and industry partners. It is a mix to strive for, but it is important to understand the niche that it serves, the small size of these programs, and the role that industry must play to create sustainable, well aligned programs.

Not all programs are a good fit for LMA initiatives. Each program needs to evaluate the role of industry in creating and analyzing their curriculum for improvements. Educational programs need to understand the lens that industry uses to contribute to their programs and ensure that students ultimately get the outcomes intended by higher education, not just industry alone. The responsibility is ultimately to give students what they need to be successful and that focus on the greater good by faculty and industry partners combined, is what has made these programs so successful.

All the participants interviewed in this study were Caucasian so their review of outcomes for marginalized populations is biased through their lens of experiences and understanding of

these unique populations. Imparting their values and understanding of their student body is likely going to be biased and incomplete to some extent. This demographic of highly educated participants in education and industry alike, highlights the inequality of educational attainment in the United States currently.

Because of these limitations, the outcomes are not generalizable to the larger population and must be considered independently in each program for the holistic fit. Programs that have industry credentials or opportunities to integrate into the workplace early with tangible skills make a good program fit and provide opportunities for LMA programs. Small classes also create opportunities for programmatic success and the ability to align with niche industries in different communities. All these components need to be considered to promote successful programs and collaboration.

Implications for Practice

The implications from this research are particularly important at a time when the cost and return on investment of higher education have come into question. Now more than ever, benefits of higher education need to be weighed against the growing cost, particularly when it comes to less privileged populations and the importance of two-year institutions.

This research can also improve how four-year institutions create career pathways and involve industry partners as well. Healthcare provides a great example of industry working with higher education at all levels including bachelor's and master's degrees, as does aerospace, engineering, and technology. The more programs can integrate career experience and technical experience for graduates, the more students can examine their program for fit and have a smoother transition to the workforce upon completion of, or while still in, the program of study.

It is also important to consider the economy in the United States when reviewing this research and planning for improvements in higher education as well. Our economy and thus our system of higher education has been built on the service industry, rather than creating goods, for a long time. The creation of chip plants, manufacturing, and other product development in the US provides new opportunities for program creation and modification to fill these positions and increase the Gross Domestic Product in the US. One innovative program development will not be enough to change the outcomes for all students, but rather an overall look at all the possibilities to create opportunities for more diverse populations and the more diverse economy of the US.

This study outlines the importance of a subset of two-year programs in the US and the impact that they can have on students' lives for generations to come. These concepts also call for radical change in all higher education programs. These programs show how students can pursue outcomes without debt, unlike some of the institutions that have debt without outcomes. Return on investment is an important discussion in higher education and these programs challenge all higher education to meet the financial needs of their students upon graduation. Higher education needs to do more to break down classes in society, rather than perpetuate them. Institutions that graduate mass numbers of students with the same skill set create an environment to perpetuate discrimination because those populations do not have equal opportunity, despite their equal degree. The structure of a four-year education creates barriers to new ideas, perpetuates biased beliefs, has inherent biases, and restricts change to protect the institution. It is this same opposition to change that pushes four-year institutions to dismiss two-year programs, not work on transfer agreements, and dismiss the outcomes of these programs.

This research didn't just provide successful community members to talk about the fallacy of a four-year degree, but to show it through the success of their two-year programs. Four-year institutions create and perpetuate curriculum in a guarded environment, while these two-year programs work within their communities to improve their curriculum and their student outcomes. And while community colleges struggle to transfer students to complete a four-year degree, a complex problem for further review, students are successfully completing these short-term programs at over 90%, along with employment at those rates. And these communities are building their own four-year degrees and developing relationships for other institutions to provide opportunities for their students to continue their education at a four-year institution, and beyond.

The success of the TAACCCT grant and the sustainability of these programs due to their partnerships with industry has created opportunities for additional populations, brought manufacturing back to the US, and has led to new insights on the structure of higher education. These ideas and program designs inform and resonate within the field and higher education professionals for potential in innovative design focused on student outcomes.

Recommendations for Further Research

This research leaves ample opportunities for further research in community colleges, labor market alignment, and financial independence for social justice outcomes. The impact that these programs have on the individuals and communities that they serve goes far beyond that of just financial infusion. The longevity and sustainability of these programs speaks to the financial viability and the skill sets that their programs provide. But the real impact is on the individuals in the programs and the impact that they have on their communities and the legacy of education that they pass on in their families. Those are the social outcomes that I tried to capture in this

research and would encourage in future research as these programs continue to grow, refine, and positively impact large and small communities across the United States.

I would like this research to lead to a deeper look at the social outcomes of community colleges partnering with industry and social services. This research is not a comparison of the outcomes associated with a four-year degree, but rather a review of the outcomes associated with a four-year degree, at two-year institutions. TAACCCT grant participants and graduates from programs with LMA should be tracked for more than their employment and financial independence. Graduates should also be tracked on their career pathway, their leadership within industry and their communities, their voice, their collaboration, and ultimately the impact on their communities and those that come after them. Faculty continually expressed that their greatest outcome was the referral by their students to family and friends into the program and improvement on their career path. These programs should be praised for their work within their communities, not just within the economy.

It is important to note the difficulties encountered throughout this research project, not in the research itself, but rather fighting for the opportunity to look at social outcomes at a two-year institution, while studying in a traditional four-year university environment that could not fathom the contributions that LMA programs could have on their students and their communities. The obstacles encountered in pursuing this research exemplified the four-year fallacy that participants so eloquently described throughout this project. Four-year institutions, and their faculty, repeatedly display their naivety and their perceived monopoly on social progress and individual social outcomes for students. This rigid thinking encountered throughout the higher education program exemplifies the rigid system of higher education that will only continue to limit itself in reaching students, creating innovative programs, and impacting progress within the United States

that it so boldly articulates its commitment and interconnected relationship. It is this archaic thinking and structure that leaves individuals pondering the return on investment of higher education. It is also the structure that will limit the impact and progress that higher education can promote if institutions are unwilling to find innovative ways to provide skills and exposure within the communities' institutions serve. Afterall, how innovative can the graduates of an institution be, if the institution itself lacks innovative ideas?

Conclusion

Higher Education is at a unique point, facing new challenges, the question of return on investment, and is being tasked with seeking unique and innovative ways to better meet their students' needs. LMA programs have demonstrated successful outcomes of social and financial outcomes that students seek higher education in hopes of attaining. Both faculty and industry participants enthusiastically shared impressive program outcomes including over 90% employment, high student retention, financial independence, and career promotion throughout their programs. Participants also highlighted soft skills associated with higher education outcomes, including cultural intelligence, communication, leadership, problem solving, critical thinking, and collaboration. These programs also have outcomes associated with their community engagement, including opportunities for marginalized populations, generations of students attending these programs within families, cultural improvement in these businesses, and improvement in these communities through service learning and increased tax revenue. This research was designed to look at social outcomes in programs heavily associated with industry need. These programs exhibit strong social outcomes associated with traditional higher education, while more closely aligning with industry need and meeting employment and financial independence outcomes. Additional research and focus in higher education on meeting

social and fiscal outcomes that students seek is important to continued growth and improved outcomes in higher education.

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APPENDIX A

SEMI-STRUCTURED INTERVIEW QUESTIONS

Demographic/Background Questions:

How long have you been with the organization?

What is your job title and job description?

What education or work experience prepared you for this job?

Tell me about your program/organization. What are its goals/mission?

Based on your experience, what is working well, where is there need for improvement?

Possible follow up questions:

How did you feel about LMA prior to implementing it at your institution?

What changes have you seen with implementation of LMA? Why do you think that is?

Semi-Structured Interview Questions:

What has been your involvement with LMA programs of study at your community college?

In what ways do you believe LMA aligned programs of study differ from other non-market aligned programs offered through your community college?

What do you see as the personal benefits for students in LMA designed programs? Do you have an example of these benefits for students? How were these benefits assessed?

What do you see as the professional benefits for students in LMA designed programs? Are there any professional risk for students in LMA designed programs?

Describe what you believe to be the social outcomes are for students who graduate from LMA designed programs? Specifically, how did you or your institution track them?

Describe what you believe to be the economic outcomes for students who graduate from LMA designed programs. Specifically, how did you or your institution track them?

What artifact did you want to share? Tell me about it.

From your perspective, how does it reflect your program or setting?

What led you to choose this artifact to share?

What grant outcomes did you anticipate when you started this project? Were they realized? Did the outcomes cause you to modify your approach?

How has the student population changed at your institution with LMA initiatives?

How have graduates from this program changed due to LMA collaboration? Can you give me a specific example or student story?

Have you seen changes within your community due to LMA initiatives?

How have you seen a shift in the behavior exhibited by your students since integration of LMA initiatives?

What changes have you seen regarding opportunities for your students since implementing the LMA initiative?

Can you tell me more about the (government, sociocultural, economic) changes that were happening at that time that supported the development/termination of this program? How did these changes positively and or negatively impact the program?

APPENDIX B

DEMOGRAPHIC FORM AND INTRODUCTORY EMAIL

DEMOGRAPHIC FORM FOR RESEARCH PARTICIPANTS

Please fill in the blanks or circle/check the most appropriate answer for the following questions. You may leave responses blank if you do not prefer to answer a question.

What is your name?

_____

(Your name will not be used in this research study. All research documents will include pseudonyms. I ask for your name for follow up purposes.)

What is your email address? _____

Where is your place of birth (City/State/Country)?_____

Please indicate your race (circle all that apply):

a. Black or African American b. Native American or American Indian
c. Asian or Asian American d. Pacific Islander
e. White f. Hispanic or Latino
g. Multiracial-

Please list all ethnic background with which you identify (e.g., Cambodian American, Vietnamese American, Native Hawaiian, Samoan):

_____

Please indicate your sex (e.g., male, female)? _____

Please indicate your gender (e.g., man, woman, transgender)? _____

What is your marital status (e.g., single, married, divorced)? _____

What terminal degree do you currently hold? _____

Please indicate how long you have been a faculty member? _____

Please indicate your rank at your current institution _____

What subject do you teach and/or research?_____

How long have you been employed at this institution? _____

How long have you been a faculty member total? _____

APPENDIX C
CONSENT FOR HUMAN PARTICIPANTS IN RESEARCH

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Social outcomes of responsive education: Meeting industry need
Researchers: Holly Schmitt
Research Advisor: Linda black

Purpose and Description: The purpose of this constructivist research using a case study model is to monitor the social outcomes of educational outcomes that align with industry need. We seek to explore practitioners' commitment and pursuit to further opportunities for students and better align with regional industry needs.

You are invited to participate in a research study to learn more about how institutions improve their communities through education responsive to the economic needs. You were selected as a possible participant in this study because you have been identified as a director of strong stakeholder engagement, responsive education, with important social outcomes for your community.
If you decide to participate, you will be asked to participate in an individual interview lasting approximately one (1) hour to one and a half (1.5) hours in length.

In this interview, you will be asked to reflect on your experiences as a practitioner for educational initiatives to align with industry need. We are committed to telling your construction of the struggles and vision of your work. All interviews will be audio recorded and transcribed. Hard copies of the interviews and transcriptions will be stored in a locked file. Digital versions of interviews and transcriptions will be stored in a secure Dropbox folder. Participants will be able to review transcriptions to verify their accuracy.

Risks and Discomforts
The risks involved in this research are not more than what would be normally experienced in an education course or workshop on activism impacting marginalized communities. However, it is possible that participants may share personal accounts of experiences that were unfavorable experiences and/or had a negative impact on the participants if they feel it is related to the research topic.

Potential Benefits
The benefits of participation may include the ability to share your experience while advocating and gaining new knowledge around responsive education initiatives. However, we cannot

guarantee that you personally will receive any benefits from this research. Participants will receive a copy of the final research findings, if requested.

Protection of Confidentiality

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Participant identities will be kept confidential by utilizing pseudonyms that will be chosen by each participant. Digital audio recordings of the interviews will be stored on a password-protected Dropbox folder using pseudonymous file names. The information sheet identifying each participant by their pseudonym, any demographic data collected about the participant, and personally identifiable information (i.e. contact information) will be stored separately in a password-protected file with the researcher. Hard copies of any material, including consent forms and any additional materials supplied by the participants, will be stored in a lockbox in the researcher's office. The only people who will have access to the data collected in this study are the research advisor, as specified above and the researcher.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910

Audio Recording

You are being asked for your permission to allow the researchers to audio record as part of the research study. The recording(s) will be used for analysis by the researchers; any identifying information spoken during the interview will be struck from the record during transcription. It will be retained until data analysis has been completed. After this, all recordings will be destroyed. Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

Participant Signature **Date**

Initial email outreach:
I am a student in the PhD program at The University of Northern Colorado and I was wondering if your Health Informatics program was the one that had the TAACCCT grant a few years ago?
I am doing research on program outcomes associated with educational programs that partner with industry to develop curriculum and I was wondering if there would be a good faculty member in the program that I could talk to if you all do partner with industry?

Follow up email with project outline:
I have included the project outline below. I am looking for one faculty member and one industry partner member who can speak to student outcomes associated with your program. I would love to speak with an industry partner who has worked with a few of your students during their field experience to speak to their observations about your students in the workplace.

Guiding Research Questions
GRQ1: What are the perceptions/experiences of faculty and industry partners on social outcomes within their respective communities where labor market alignment guides academic programming?

Purpose of Research

The purpose of this interpretive case study is to investigate how several community colleges work with local industry partners to create market alignment and uncover the social outcomes within the community. Most studies within labor market alignment focus on the economic outcomes but this study seeks to review the social outcomes. I will explore practitioners' commitment and their pursuit to further students' career opportunities through increased stakeholder engagement and credential alignment by investigating how industry initiatives can impact diverse groups of students, creating new opportunities for career and social impacts. This is important because higher education is continually expected to provide a range of services and experiences for students and to demonstrate the outcomes of success through their graduates. Some outcomes include status markers of economic freedom, while others seek to create personal growth and leadership for communal good within society. Most would argue that pursuing only economic alignment would not fulfill the outcomes of this communal good. This study seeks to review programs that have successfully created economic partnerships for responsive curriculum to evaluate the soft skills and social outcomes within the community. The benefits of this research may include the understanding of communal outcomes of labor market alignment, while advocating and gaining new knowledge around responsive education initiatives. The review of outcomes in labor market alignment may help to guide initiatives in the field to continue improvement on other projects that seek to align skills while also creating active citizens in leadership for the good of their community. Reviewing this atmosphere of experiential learning for students may also reveal outcomes different from a standard classroom. The benefits to the field will be a new perspective on labor market alignment in higher education, reviewing the social outcomes within communities where the community colleges have strong alignment with industry partner needs.