

University of Missouri, St. Louis

IRL @ UMSL

Dissertations

UMSL Graduate Works

3-30-2021

Barriers to Post-Secondary Success

Douglas Swanson

University of Missouri-St. Louis, swansondj@missouri.edu

NaJeana Henderson

University of Missouri-St. Louis, najeana.henderson2011@gmail.com



Part of the American Politics Commons, Bilingual, Multilingual, and Multicultural Education Commons, Maritza Sloan University of Missouri-St. Louis, emsloan2@verizon.net Community-Based Learning Commons, Community-Based Research Commons, Community College Education Administration Commons, Community College Leadership Commons, Counselor Education Commons, Curriculum and Instruction Commons, Curriculum and Social Inquiry Commons, Economic Policy Commons, Educational Psychology Commons, Educational Technology Commons, Education Economics Commons, Education Policy Commons, Gender, Race, Sexuality, and Ethnicity in Communication Commons, Higher Education Administration Commons, Humane Education Commons, Income Distribution Commons, Interpersonal and Small Group Communication Commons, Labor Economics Commons, Latin American Studies Commons, Liberal Studies Commons, Organizational Communication Commons, Other Education Commons, Other Educational Administration and Supervision Commons, Other Political Science Commons, Physical and Environmental Geography Commons, Prison Education and Reentry Commons, Race and Ethnicity Commons, School Psychology Commons, Secondary Education Commons, Social Justice Commons, Social Statistics Commons, Social Work Commons, University Extension Commons, Vocational Education Commons, and the Work, Economy and Organizations Commons

Recommended Citation

Swanson, Douglas; Henderson, NaJeana; and Sloan, Maritza, "Barriers to Post-Secondary Success" (2021). *Dissertations*. 1049.

<https://irl.umsl.edu/dissertation/1049>

This Dissertation is brought to you for free and open access by the UMSL Graduate Works at IRL @ UMSL. It has been accepted for inclusion in Dissertations by an authorized administrator of IRL @ UMSL. For more information, please contact marvinh@umsl.edu.

Barriers to Post-Secondary Success

NaJeana Henderson

M.A. in Counseling, Missouri Baptist University, 2017

B.S. in Mass Communications, Southeast Missouri State University, 2014

Maritza Sloan

M.A in Education, Hamline University, Saint Paul, Minnesota, 1997

B.A. in Spanish Education, Oklahoma State University, Stillwater Oklahoma, 1992

Douglas J Swanson

M.S. in Labor Studies, University of Massachusetts Amherst, 2014

B.A. in Union Leadership and Administration, National Labor College, 2010

A.A.S. in Management, Sauk Valley Community College, 1988

A Co-Authored Dissertation submitted to
The Graduate School at the University of Missouri-St. Louis
in partial fulfillment of the requirements for the degree
Doctor of Education with an emphasis in Educational Practice

May 2021

Dissertation Committee

Thomasina F. Hassler, Ph.D., Chairperson

Phyllis Balcerzak, Ph.D.

Carl Hoagland, Ed.D.

Abstract

This study reviews factors that prior studies have identified or failed to consider as barriers to post-secondary success. The three main areas include: academic success for Latinx students after high school, organizational systems and its impact on African-American students' postsecondary readiness and what workers think of their high school education with regards to career preparedness.

Five factors are identified as major barriers for Latinx students to continue in a higher educational system. A survey of former students from the Saint Louis, Missouri, and Dallas, Texas, metroplex area identified 56 Latinx students that participated in an initial survey. This led to a follow-up survey with 16 former students from the first group. Four Latinx students were selected to be part of a face-to-face interview where the qualitative study of this project was derived.

College Preparation Programs play a major role with the success of post-secondary education opportunities. The lack of these successful programs is responsible for some of the barriers for post-secondary success that inner-city minority students may face while trying to transition from high school and on to Colleges and Universities. Further exploration of perspectives of high school graduates on college preparation programs have led to the creation of a survey of former St. Louis City Public Schools high school graduates. The survey collected 20 student perspectives.

The absence of research on post-secondary education success from the perspective of workers led to a nationwide online survey of workers in the construction industry that produced 175 responses. The survey was followed up with 12 more detailed interviews with construction workers in the St. Louis area. Together the survey and

interviews identified whether construction workers believe their high school education prepared them for success in their choice careers, and whether they are preparing current students better, or worse, and what secondary education systems need to do differently to improve students' success in this industry.

The authors hope that their studies will help to provide insights to enlightenment for curriculum changes needed to support post-secondary success for underserved and minority populations.

Acknowledgments

The authors would like to recognize and thank Dr. Mathew Davis (1960 -2020) for creating the Social Justice cohort program and Dr. Thomasina Hassler for continuing the program. Their scholarly pursuits and encouragement have forever shaped our individual and collective endeavors, we will be forever grateful to you.

Maritza Sloan dedicates her dissertation to Christina Sloan, her daughter, whose love and words of encouragement keep her looking forward into the future, and to John Sloan, her husband, for his continuous support, assistance, guidance, love, and for being her pillar throughout all of her academic years.

NaJeana Henderson- Spagner dedicates her dissertation work to her entire family and wealth of friends. She would like to express great gratitude to her husband Alpha, children Christopher and Ari, and mom and sisters Awrey, Djuana, and Tianna. Their words of encouragement and push for greatness have been her driving force throughout her doctoral program to achieve this honorable feat.

Douglas Swanson dedicates this dissertation to the ever supportive, encouraging, and loving Debra Wimmer, their collective children, and grandchildren who he has missed spending time with while on this journey and most of all to his parents Doris and Donald Swanson for the examples in living, loving, and learning each of them instilled in him.

With Love, Study, and Struggle – Mathew Davis, Ph.D. (1960-2020).

TABLE OF CONTENTS: COLLECTIVE DISSERTATION

Chapter I: Introduction

	Page
Abstract.....	ii
Acknowledgments.....	iv
The American Dream for Latinx in the United States By Maritza Sloan	1
College Preparation Programs and Intervention By NaJeana Henderson	4
The Workers' Perspective By Douglas Swanson	9
Collective Introduction.....	10

Chapter II: Review of Literature

The American Dream for Latinx in the United States	15
College Preparation Programs and Intervention	26
The Workers Perspective on Their Postsecondary Success Opportunities	31

Chapter III: Research Design

The American Dream for Latinx in the United States	49
College Preparation Programs and Intervention	58
The Workers Perspective on Their Postsecondary Success Opportunities	62

Chapter IV: Results & Discussion

	Page
The American Dream for Latinx in the United States	77
College Preparation Programs and Intervention	102
The Workers Perspective on Their Postsecondary Success Opportunities	113

Chapter V: Conclusions & Recommendations

The American Dream: For Latinx in the United States	171
College Preparation Programs and Intervention	181
The Workers Perspective on Their Postsecondary Success Opportunities	184
Epilogue	193
References	194

Appendices

.....	210
Appendix A: How do regional identities and social-economic backgrounds of Latinx immigrant students determine their future higher education advancement survey questions?	210
Appendix B: Questions posed to Latinx students in the follow-up survey	212
Appendix C: Questions posed to Latinx students in face to face interviews	215
Appendix D: A Cry for Help: A letter to Señora Sloan from a former student seeking advice about post-secondary pathways to a higher education	216
Appendix E: Phase I, the worker, on-line-survey responses current careers	217
Appendix F: Phase I, the worker, on-line-survey responses by state where they completed high school in	221
Appendix G: Phase I, the worker, on-line-survey additional comments to the question “How well do you feel your high school education prepared you to be successful in your career?”	223
Appendix H: Phase I, the worker, on-line-survey additional comments to the question “Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce?”	231

Appendix I: Phase I, the worker, on-line-survey additional comments to the question “What skills do you believe the current new members of the workforce re lacking in order to be successful?”	234
Appendix J: Phase I, the worker, on-line-survey additional comments to the question “What skills do you believe the current entry-level workforce lacks in order for them to be successful in today’s workforce?”	236
Appendix K: Phase II, the worker, interview comments on the positive attributes that new high school graduates possess coming into the current construction workforce ...	240
Appendix L: Phase II, the worker, “will the workers entering the construction industry in 10 years be better or worse prepared for success in this field?”	241
Appendix M: Phase II, the worker, comments from interviews that best summarize how they feel that a negative social stigma appears to linger over skill trades, and the workers in them	243
Appendix N: Phase II, the worker, interview comments made in support of the need for ‘Industrial Arts Programs (Shop Classes)’	245
Appendix O: Phase II, the worker, interview comments make that indicate ‘Students Need to Learn How to Work Their Way Out of Problems’	246
Appendix P: Phase II, the worker, comments made during the interviews that draw the conclusion that there is a ‘Need for Work Skills Training’	248
Appendix Q: Phase II, the worker, interview comments that indicate high schools need to ‘Teach the History of Work and Working’	251
Appendix R: Phase II, the worker, comments made in the interviews leading to the conclusion of ‘Workers need to be More Self-Reliant’	253
Appendix S: Phase I, the worker, on-line-survey questions	255
Appendix T: Phase II, the worker, in person, via Zoom, interview questions	260

CHAPTER I: INTRODUCTION

Life is a continuous teacher and we, humans, are long-life learners. Each of us brings perspectives, which have been influenced by our life experiences. For example, everything in the pot adds flavor to a stew or gumbo to give it that robust taste, and it is those experiences that adds depth and complexity to our study of Social Justice. Each of us are unique and different with life experiences that contribute to our individual views and interpretations. Our individual paths to the University of Missouri-St. Louis, College of Education, Doctor of Education in Educational Practice Social Justice Cohort were different. Together, we have chosen to use these varied life experiences and perspectives to examine the institutional and structural barriers to students' postsecondary success.

Introduction: The American Dream for Latinx in the United States by Maritza Sloan

Currently, I have been in the United States for 34 years and a Spanish teacher for over 25 of those years. Blessedly, I am the first person in my family who graduated from high school and obtained a college degree. Education was important for my parents, but poverty outweighed the possibility for me and my siblings to go to school and for some of us to obtain an education beyond high school. After graduating from high school, I immediately had to go to work in order to financially support my family. Even at a young age, I often felt the weight of adult responsibilities on my shoulders. In addition, I knew in my mind that a high school diploma was the first step towards a better future, however in my heart, I wanted something more than that. At that time, I knew that I wanted something more than a job that paid me some money. I wanted a

profession that would provide me with a greater sense of accomplishment and satisfaction. As a child, I learned through painful personal experiences that people are treated differently when they come from a financially disadvantaged upbringing versus families with more economic means. In elementary and secondary schools, I saw many of my teachers treat me, and other students like me, differently than those students whose parents had academic titles and were economically affluent. Their attitudes made me feel that I was less important than the children of wealthier families. My experience was not unique. Norman (2016) noted that: "Teachers' felt student behavior was connected to their upbringing, belief system, gender, race, and class" (p. vi). In other words, a teacher's treatment of a student can be based on their own biases rather than any bad or good behavior on the part of the student.

Jumping ahead a few years, I married and moved to the United States, not in search of the American Dream (Adams, 1931), but rather for love and to begin my own family. A few years later, in 1993, I became a teacher and swore the first day that I entered my classroom that I was going to be a teacher for all my students equally regardless of whether they were poor or rich. In practice that promise has been hard to keep. I often feel that I have not done enough. Also, I am saddened as I observe the decreasing enrollment numbers of my diverse classes. I have been teaching upper-level Spanish for the last 22 years and have had a very low percentage of African American and Latinx students in my classes in comparison to other groups. Pratt (2012) says that the reason there is no motivation in taking Spanish is due to inappropriate career counseling. Keeping this in mind, I strive to accept the many excuses received regarding why these students are not in my class.

Another reason I began this journey towards a better understanding of social justice is that many of the Latinx students I have had in my classes over the years have graduated from high school but did not have the opportunity to attend a college or university. They had to join the workforce and help financially support their parents and siblings. In addition to financial barriers, many students could not attend a community College or university, because they were undocumented which meant they could not apply for scholarships or financial aid. Furthermore, and adding insult to injury, they would have to pay the tuition rate for an international student in a country they felt was their own. Undocumented Latinx that are trying to pursue a degree beyond high school have a high chance of disengaging very early in the process due to the many barriers that they encounter including: lack of career options after graduation, family obligations and lack of connection with students that are not Latinx (Ellis & Chen, 2013). These situations bring back sad memories for me. Usually, these students did not realize they were undocumented – essentially second-class citizens – until they asked their parents about the possibility of attending college. My Social Justice journey for the last two and a half years has helped me understand, study and discover so much about the African American and the Latinx culture in this country that I did not know before. As my mother in Costa Rica says, “Nunca es tarde para aprender” which in Spanish means, it is never too late to learn. As an educator, I have learned that instead of hoping and telling a Latinx student that they can be successful, I have to really help provide the student with tools that help them succeed. This journey has made me more conscientious and aware that I have to do more than just hope. Now, I have to do more than just talk. I have to advocate for my students more and make sure that I am true to the promise I

made to myself on my first day in the classroom. Therefore, I am committed to the goal of providing more guidance and assistance to the African American and Latinx students in my classroom.

Introduction: College Preparation Programs and Intervention by NaJeana

Henderson

When I was in high school, I had the opportunity to participate in a college preparation program known as College Bound. College bound is a program for first generation low-income students that help to navigate the demanding path to college graduation and a successful career. The college bound program works in partnerships with St. Louis area students and their families to support them every step of the way to individual success (College Bound Website, 2020). This program provided me with the opportunity to explore post-secondary opportunities with an emphasis on college access. I remember being in my sophomore year, attending the same high school with my mom. The program was new, and I have to admit that I was not interested at all. My mom pulled me out of lunch one day and said that I needed to have my application and essay in the coordinator of the program's hands by the end of the school day, or I would be punished. Immediately, I zoomed around the school collecting recommendations and finished my lunch in my mother's classroom typing my essay. By the end of the day, I had my application completed and in the hands of Debbie Meyer- Greenberg and Lisa Orden-Zarin, the creator's and directors of College Bound. This day would go on to help mold and shape the future of my post-secondary journey. It was at that time that my mother understood the importance of college access and understood that an opportunity of a lifetime awaited. Although my mom was a schoolteacher and graduated

from college, her journey was not the easiest. In her late 20's, she joined a Teach to a Degree program offered by Harris Stowe State University Education department. Obtaining her degree was not easy, and in fact she concentrated so hard on finishing her program, she lacked the memory of the process so that she could successfully send her three girls through college. Hearing about the new College Bound program at University City High School made her jump with joy! After submitting my application, I was originally denied from the program, because they only had a few spaces available. The program was more geared towards those students who would-be first-generation college students. My mom was so disappointed but determined to get me into the program. She submitted a review letter explaining her journey and our situation. Although she was a college graduate, she did not retain any of the knowledge needed to ensure that I would be fully prepared for college after high school. After her letter was received, I was instantly let in the program. Today, sitting here as a school counselor and Ed.D. Candidate student, I can testify to the importance of college preparation programs. Without the College Bound College Preparation Program, I am not sure that I would be where I am and / or who I am today. This fact alone has driven me to the great work of analyzing and ensuring that all students have the access and opportunity to quality college prep programs no matter their socioeconomic status. After graduating with my master's degree, I became a high school guidance counselor. Due to my background and challenges, I made up in my mind that I would become who I did not have in high school and help introduce students to post-secondary opportunities including college preparation programs. The challenges I overcame helped me decide that the advancement of high school students with an emphasis on inner-city high school

students would become my life's work, because I understand the importance of those opportunities thanks to College Bound. My first assignment was a high school in St. Louis City Public School District. Seeing the lack of opportunities within the high school was devastating. The school housed programs such as Upward Bound; Upward Bound provides fundamental support to participants in their preparation for college entrance (Upward Bound Website, 2020) and TRIO; The Federal TRIO Programs are Federal outreach and student services programs designed to identify and provide services for individuals from disadvantaged backgrounds (TRIO Website, 2020), however, hardly any students were in the program. This was a big problem for me. Therefore, I started asking friends, who worked at other area high schools, about the availability of college preparation problems in their schools. Our discussion revealed what I had already suspected; that other schools were also experiencing these issues. This realization was the birth of the work that I will complete in this dissertation. This work will research the importance and the positive impact of college preparation programs on college going students. My hopes are that more inner-city schools will buy into the importance and offer more access to quality programs to their students.

Introduction: The Worker' Perspective on Their Postsecondary Success

Opportunities by Douglas Swanson

Due to luck or circumstance, my working career has provided me the opportunity to live and work in five states. During these years, I have had three distinctly different careers. Each career and each state have provided profound lessons on the inequities that exist in the workplace. Many of these lessons demonstrated the lack of access to jobs with dignity and living wages.

My first career, a 17-year-long journey with the Illinois Department of Transportation (IDOT), was in highway construction. In time, I rose to a position of managing bridge and highway projects for IDOT. It was during this early career that I started to become aware of the class war between the owners of wealth versus workers (Murolid, & Chitty, 2018). In those 17 years, I probably did not work with more than 17 women in the field. There were very few black male workers on construction sites, and bilingual or English as a second language workers were nonexistent. Early in my career, despite the very low presence of women and people of color in the industry, I was already seeing how racism and sexism was openly being utilized to pit demographics within the working class against one another.

For a young man who grew up in a traditional White community, where men did the male only jobs like carpentry and plumbing, and you did not see many male teachers until you enter high school, the very limited presence of women, people of color, and bilingual workers were notable. The exception to the rule was farming, and I grew up in a small town that supported the surrounding family farms. On the farm, the wives and daughters often worked shoulder-to-shoulder with the husbands and brothers. When they did not, it was by choice. It was not due to being denied. Looking back through the lenses of time, this early imprinting influenced my perspectives on work and workers. Specifically, it made me think about who can and cannot get the job done.

After over a decade with IDOT, my co-workers asked me to become the chief steward for a 12-county area in the union that represented us. After a few years as a chief steward, the Teamsters asked me to interview for a business agent job that in part would represent my former co-workers. Over time, the people I represented would span

manufacturing, warehousing, transportation, delivery drivers, and every size and type of government body from parks departments to every constitutional office in the state of Illinois. Other than the statewide collective bargaining agreements, most of the employers were centered around Springfield, Illinois. Despite the difference of the multitude of work encountered; the diversity of workers did not change as much as one would expect. As inexperienced and naive as I was at the time, my awakening was such that even I noticed that the business culture in Springfield, Illinois, was misogynistic. I noticed that the upper administration was not open to anything other than the occasional token woman. It was also while in Springfield that I started noticing middle wage jobs for people of color did not exist at anything close to that of their presence in the population. Although the union I went to work for was seen as a progressive Local at the time that I first went to work for them, it was an all-White male organization except for the office support staff of all White females.

Before leaving Illinois, I worked briefly for American Federation of State County and Municipal Employees (AFSCME) Council 31 on a union organizing campaign in southern Illinois. The campaign was attempting to organize workers at a for-profit mental health facility that had come into being when the State of Illinois closed its mental health centers. Over 95% of the funds to operate the for-profit center came from the government. I did not realize my social justice awakening had begun. For example, the union organizing project I had been hired for was focused on a workforce that was over 90% women and nearly all people of color. The wages and working conditions these workers had to endure was demeaning and deplorable. Yet, while the percentage

of female union staff in time would rise to nearly 50%; the staff was almost entirely White. Later in my career, I would work to change these kinds of hiring practices in the unions I would manage.

After leaving Illinois, I went to work for American Federation of Teachers Wisconsin (AFTW) working with their locals in the State Employees Council (SEC). The SEC constituted a very diverse mix of white-collar state employees. Nearly 8,000 workers in every board, agency, and jurisdiction of state government ranged from sign language interpreters and DNA analysis to physicians and trial lawyers. After a decade plus in Wisconsin, I went to Alaska to run the AFT affiliated local union, then to Maine to run the field operations for the Maine State Employees Association (MSEA), which is affiliated with the Service Employees International Union (SEIU). In 2017, I changed careers and began working for the University of Missouri Extension as a Field Specialist in Labor and Workforce Development and University of Missouri-St. Louis (UMSL) as the Labor Studies Coordinator.

During the decade plus working in Wisconsin, my work with assorted union collective bargaining teams would work to address barriers and advancements workers faced within their organizations. Universally, I found or observed that these barriers were always bigger, stronger, and most resistant to change when women, immigrants, and people of color were affected more than White males. Because we were being forced to use the collective bargaining process, we were not always successful. The fact that we had to use the collective bargaining process to address problems that entrenched employment practices that society should have corrected long ago, was troubling.

Except for a brief period while with the Teamsters, it was primarily the jobs in Wisconsin, Alaska, and Maine, where first as a senior staffer in Wisconsin and later as a manager in Alaska and Maine, I was able to put into practice some of the hiring principles that I found predominantly lacking for the workers in which these unions represented. When I was in positions of employment where I became increasingly involved in the employment of union staff, I was able to ensure that interview panels reflected the makeup of the union. Candidates of color and women were given greater consideration for employment. As a manager, I made sure that assignments were equitably made to male and female staff. Other changes would include readdressing how things like training were assigned. Because the seniority of staff was heavy at the top with White guys, I made sure that training funds and opportunity were assigned due to need and not seniority.

Influenced by my first career in construction and during my second career in labor, I came to see how organized labor could and should be a tool for social change. I witnessed how access to success was not accessible to all. To this day, it is that belief that continues to influence my work as a Labor Studies academic. It is these experiences that have driven me to pursue looking at barriers to post-secondary success from the perspective of the worker.

Collective Introduction

Collectively, we will use our different experiences and perspectives to examine structural and institutionalized barriers to post-secondary success in achieving a better life. We start by looking at what is success.

Success is not an abstract concept. The American Dream has been one of the best-told fairy tales in the United States, the kind of tale that has been more nightmare than a dream for more and more Americans (Amadeo, 2020). The term The American Dream was first used by James Truslow Adams in 1931 to describe a land or country where life is better, richer, and fuller for everyone. Each person could achieve success based on their ability alone. This idea has and continues to persist (Adams, 1931). The belief that upward mobility is possible for everyone is at the heart of the growing inequality in the United States due to the barrier's different groups of individuals face. The dream that regardless of the race, the class born into, where you were born, or the zip code that they live in impacts individuals' dreams turning those dreams into a nightmare (Amadeo).

The American Dream (Adams, 1931) is the goal that many immigrants have once they set foot in this country. This dream is the same for Latinx that is entering or already resides in the United States. Nevertheless, Latinx are shaping the future of the United States and in the next 25 years, Latinx will become the largest minority racial group in this country as the United States continues on the path of becoming a minority-majority country (Tobar, 2018).

The American Dream (Adams, 1931) may have different forms for newly arriving Latinx, or for those already living in this country. The dream may be as simple as one of protecting their families from political or civil wars in their own countries, or the dream of having a stable future for their children by providing food, clothes, and medicine, or perhaps the dream is for a better education. Such a dream is hard to accomplish for many. Lopez et al. (2018) indicate that 74% of Latinx said that obtaining the dream

today is much harder for them. My experience from living in several states is that many U.S.-born citizens are upset, and in some cases very angry, about the increasing Latinx population in the United States of America. It is getting to the point that their anger causes them to insult, and in some unfortunate cases, become very aggressive toward the Latinx community (Tobar, 2018). This aggressiveness has had horrible consequences, an example being the recent attack that killed or wounded many Latinx in a Walmart in El Paso, Texas in August 2019. Gilda Baeza Ortega, a Latinx interviewed right after the massacre said, “It’s the fact he was targeting us. I am a Mexican American and very proud of that. To me that is the biggest wound” (Turner, 2019). Tobar (2018) indicates that “This dramatic reordering of the nation’s demographics has spawned anger and conflict, which some opportunistic politicians and media commentators have helped fuel by portraying Whites as victims in an increasingly diverse United States” (para. 10).

The future of many Latinx is unclear; and at this present moment, there is a great sense of uncertainty. For many young undocumented Latinx, living in anguish, day-by-day is becoming their norm. The dream of a future that includes education beyond the walls of a high school is just a fantasy—a dream that for many will be almost impossible to reach. Without documents or legal identification, there is no certainty and no means of receiving help, such as student loans or scholarships, or other financial support that will allow them to pursue a college degree or any other post-high school degree (Lopez et al., 2020).

The dream is the belief that anyone, regardless of where they were born or what class they were born into, can attain their own version of success in a society where upward mobility is possible for everyone (Barone, 2021). Embedded in this American

Dream, some would say, is access to college. Over the many year's colleges has become one of the greatest forms of the American Dream. Some people see part of the American Dream as obtaining a bachelor's degree through college. America has associated the dream with a college degree and access to more money versus just having a high school diploma. The belief is that individuals with college degrees will have higher lifetime earnings than those with just high school diplomas (Lopez et al., 2018).

The United States Declaration of Independence states, in part "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Create with Certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness" (The Declaration of Independence, 1776, p. 1). Thus, ensconced in the founding of the nation is the myth of individuals' expectations of success. America has become the great melting pot, where the streets are lined with gold and everyone can become a millionaire if they work hard enough (Wildes, 2016).

Whether born in the United States into a family that settled here generations ago or a generation ago, these are the iconic images hailed as the American Dream (Catano, 2001). These are dreams where workers could achieve a better life for themselves and generations of loved ones to come through the fruits of their efforts, regardless of race, class, gender, or zip code of origin. Today, these dreams have become fantasies or figments of imagination for most Americans (Wise, 2015).

Fundamental to the American Dream for most people has been homeownership and the opportunity to create better lives for their children. Access to post-secondary education and the reward of higher wages for having obtained that education was a cornerstone of that pathway to success (Meier, 2002). Today, systematic defunding of

public education, both pre-K through 12 and post-secondary, has resulted in nearly 45 million Americans being burdened with over one and one-half trillion dollars in student loan debt (Federal Reserve System, 2017). The past several decades has seen rising costs of the means for success, like housing and childcare costs, which has created staggering income inequities in America. As the middle class collapsed, once again women, people of color, immigrants, and the working poor have suffered the most (Wise, 2015). Through the shifting of fiscal and economic policies in the United States, the middle class has collapsed joining the lower class becoming the growing class of the working poor (Zinn, 2003).

For high school students leaving high school is their embarking on their own path to the American Dream. College or University? Trade school or Community College? Getting a job, or even finishing high school, students encounter difficult decisions (Pope & Fermin, 2003). It seems that decisions that for many are not made by them but are made for them because of who they are and where they live. Limitations exposed, expectations imposed, and barriers revealed and enforced, for some, the dream is not a dream but more of a nightmare. Our research will look at a few of the post-secondary barriers to success students encounter and make recommendations for how to overcome these barriers.

CHAPTER II: REVIEW OF LITERATURE

Review of Literature: The American Dream for Latinx in the United States

Using the lenses of Critical Race Theory (CRT) and Latino Critical Theory (LatCrit) one can gain a comprehension of how the U.S. immigration status, family experience with education, English language obstacles and economics are a few of the many impediments that affect and set forth strong barriers for the Latinx future college prospective students (Shelton, 2018). Latinx are the fastest growing racial group in the United States and by 2050 Latinx will comprise 30% of the labor force (Carnevale & Strohl, 2013), and yet a lot of young students graduating from high school opt to enter the workforce rather than pursue higher education – something that would open the door to more professions and improve their socioeconomic advancement. The growing number of native and immigrant Latinx in this country, coupled with a lagged educational attainment, concludes in serious societal implications (Muñoz, 2008). The literature review presented here is organized according to a) influence that family has on educational advancement, b) language barriers that Latinx encounter, c) the assimilation of Latinx into the second culture, d) academic tracking and appropriate advising, and e) the role of finances and economics and effects that 2020 Covid 19 pandemic has had in the Latinx community. According to Carnevale and Strohl (2013), in the immediate future, there will be a shortage of Latinx who have the academic credentials necessary to obtain jobs that require a college degree. Muñoz says that the lack of representation of Latinx in all facets of education merits a profound analysis of college persistence for Latinx (Muñoz, 2008). These shortages of Latinx in the workforce lacking a college

degree, combined with the continuous growth of Latinx in the United States, makes it very important to find out what contributes to this phenomenon of low advancement of Latinx in the United States.

The Role of Family on Post-Secondary Decision Making

Let's start by talking about one of the main obstacles that hinder the advancement of Latinx – i.e., the influence of family on college decision-making. It is my experience, based on more than 20 years of teaching, that family plays a major role in any person's educational life. As a Latinx, I know that this holds true for Latinx children. The family helps students to graduate from high school and equally important, to make a decision about attending college and entering an institution of higher education (Alvarado & Turley, 2012). Based on my personal experiences, Latinx parents like any other parents want to provide a better life for their children and that dream includes education. Those are some of the reasons why many families risk their lives and that of their families to cross the United States border illegally so that they can provide a better future for their children. Latino immigrants hold high expectations about the quality of American schools and the opportunities it will proffer (Hill & Torres, 2010).

Guidance from parents who have attended college makes a big difference in providing motivation and emotional support for their children (Henderson & Mapp, 2002; Paulsen, 1990). When parents and/or members of the family have had this experience before, they can provide more direct and concise help about the process for applying to college and what to expect at the college or university. Not only can college-educated family members provide help about applying to and attending college,

but they can also provide the student with a vision of how a college education can lead to a more secure future. Olivérez (2006) stated that parents of Latinx students were supportive of their undocumented students pursuing higher education but did not have the tools nor the resources to help their children do so. Therefore, when a Latinx student lacks the experience of having a parent(s) or family member with a college degree, they start from a position of disadvantage. They may doubt their worthiness to enter college and probably not get the support they need to make it through the college admissions process. Another factor is that many of our Latinx students are in this country without a parent or guardian and therefore lack a family role model to help them maneuver through the emotional and logistical process of college admissions and college life (Olivérez, 2006). Gonzales et al. (2015) report that only 11% of low-income students who are the first in their families to attend college will have a college degree within six years of enrolling in school.

Language Acquisition and Language Barriers

Another major roadblock that many Latinx encounter in their search for an academic future is the language barrier impediment. Many children come to the United States with parents at a very young age and learn to speak English very quickly (Tenenbaum & Ruck, 2007). I know from personal experience that this phenomenon in many cases is due to the fact that they attend schools that provide English Language programs but, in many cases, Latinx come to the United States when they are teenagers or young adults and learning a second language for them is harder than at a very young age (Rosenbaum & Cortina, 2004). Students can learn how to communicate, but oftentimes, they lack the language structures needed to write and interpret at a higher

level. Those two elements can only be obtained by studying and practicing in an English class, or more importantly, in an English as a Second Language (ESL) class (Abedi, 2008). The language barrier makes the Latinx student fall behind in school and it makes it harder to catch up with their English-speaking peers. Many of these students don't have the language support that they need at home because the parents and siblings don't speak English. Therefore, (a) they can't practice the language at home and (b) they can't get the support they need in order to complete homework and work assigned at school (Rosenbaum & Cortina, 2004). According to statistics from the National Assessment of Educational Progress (NAEP), only 14% of Latino fourth graders are reading at proficient levels and 57% are below even basic levels. Often this means that students are unable to read in either English or Spanish which consequently is a very troubling issue.

My own experience and observations in the classroom for over 25 years have taught me that Latinx students very often feel shame and incompetent when they cannot communicate in English and this feeling continues even when their English starts to become more functional, and they move from novice to intermediate levels of communication. It is very important to develop a critical consciousness (Freire, 1993) about how they feel about second language acquisition ensures that all students have equal access to language studies, English as a second language, in this case.

Often, they are quiet in class and fail to participate because of the fear of speaking with an accent or simply making mistakes in front of their peers. In many cases they feel invisible and are not encouraged to participate in class. Tenenbaum & Ruck (2007) reported a variety of troubling interactions between teachers and Latinx students.

For instance, teachers praise Latinx students with less frequency than other students in the classroom, even when they have correct answers, and teachers behave less favorably toward Latinx, even penalizing them for lower levels of English proficiency. Conchas (2001) reported that even high-achieving Latinx students feel marginalized at school. Those Latinx students that can manage English at an intermediate high and advanced level often don't feel the linguistic support and encouragement from their teachers.

As I learned from my own experience, most colleges and universities require non-English speaking Latinx to demonstrate a level of proficiency by taking an additional exam beyond the traditional ACT and SAT tests. The most common exam that non-English speakers have to take is the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). These examinations will provide the university or community college with a reference of the student's need for supplemental language training. In general, this examination includes interpretive, presentational and interpersonal communication; also known as writing, reading, listening and speaking communication. Most students taking classes in high schools in the United States are immersed in English Learners classes that are provided with the state test, and therefore, the need for TOEFL and IELTS is not needed. Martinez states that school programs should be created in order to support English Language Learners as they are trying to become acclimated to their new environment and a new language (Martinez, 2014).

Second Culture Assimilation

After the linguistic barrier, the next priority becomes the Americanization of these young learners once they enter the public schools in the United States. As Latinos

become more fully incorporated into mainstream U.S. society, they become more Americanized (Yang & de la Garza, 2016). Latinx brought to the United States at a very young age become Americanized due to the constant intertwined immersion with both cultures – their native country and the culture of the new country, the United States. Latinos in this country are a very diverse group of individuals with regard to family culture in country of origin and generational status (Young, et al., 2012). Young Latinx have learned the language, they have completed an education in high school, and they have integrated into their American community, often to the point where it has become their primary culture. A vast majority of young Latinx that were brought into this country at a very young age consider themselves Americans even if they are not because of the lack of documents that can prove that they are. This undocumented status will prevent them from advancement such as obtaining a college degree and getting a more secure job. According to the Pew Hispanic Center, 7% of Latino children attending schools are undocumented immigrants (Fry & Passel, 2009) and according to (Olivérez et al., 2006) about 65,000 undocumented students graduate every year from high schools in the United States. The disheartening fact is that many of these students can't pursue a higher education because of their legal status. So, when we read that in the near future there will be a shortage of professional Latinx in the workforce, we can understand that part of that shortage is due to their legal status that impedes them from advancing. An undocumented immigrant is defined as any foreign-born person that does not have a legal permission to remain in the United States (Writers, 2019). This group of students is unique because of their situation in this country. The hardships they have to overcome

due to their situation is unfathomable to legal citizens and residents of this country. It's important to remember that most of these children came here by the decisions of their parents and not their own (Hill & Torres, 2010).

Academic Tracking and Advising and Its Impact

Hence, what is next for Latinx students? Academic tracking from early on is another roadblock that students encounter frequently. Because of the language barrier, and many times, academic stability, students do not find the support and guidance they need in order to choose their classes (Pérez, 2010). Tracking is believed to negatively impact the academic achievement of students placed in the low tracks (Oakes, 1995). A study done by Patricia Pérez (2010) recognizes that Latino students need to seek out information in order to create opportunities for themselves. I think this is one of the most important pieces of advice that Latinx needs to hear. Many of them do not seek advice from counselors and or teachers about which classes to take. This is a problem especially in high school where the students need guidance about which classes to take in order to be prepared for higher level classes in college. Oftentimes, a weak academic preparation through less rigorous academic classes in high school is connected with attending less selective institutions and with low attainment rates in college (Venezia et al., 2003). A study done in Arizona by the Helios Education Foundation (Gonzalez et al., 2015) said that students perceived the school environment as an integral source of support. Supportive relationships with teachers, counselors, and administration played a very important role in college –decision making. In this same study, Latinx reported that tracking really made a difference. For instance, students who were taking advanced classes and were in an enrichment program had priority with visiting and seeking help

from the counselors. Latinx students who were not in a college readiness track felt disadvantaged. Many teachers have lower expectations for Latinx students compared to White students which in the end contributes to low academic performance by the Latinx student population (Tenenbaum & Ruck, 2007). It is my observation throughout my teaching career that motivation and encouragement are not the only factors that need to be added into the equation of success for these students. Extracurricular activities play a large role in the academic achievement of the Latinx students. If the students can be involved in extracurricular activities, they develop a connection with the school and with other students. Students can surround themselves with peers who can help them. The most important connections students can have been those that they make with their peers. Latinx students oftentimes have little connection with their classmates and that hinders their ability to find out about school, classes, extracurricular activities, and other information that students typically acquire by talking and connecting with their peers (Baker, 2008). As high school students reach the last year of school, belonging to large college-oriented friendship groups will significantly raise the likelihood of applying to post-secondary institutions for both White and Latino students as compared to smaller friendship groups (Alvarado & López-Turley, 2012).

Lastly, the topic of finances is one of the major impediments that Latinx have to face. I have observed that many of Latinx students that I have had in my class have to work after school so that they can support themselves and help their family economically. Where will the money for college or university come from? For Latinx students, there are many factors to consider before making the decision to pursue a higher degree. One of the most consistent obstacles for Hispanic students has been a

lack of financial resources. Immerwahr (2003) investigated and found that many Latinx students have very little guidance from adults such as counselors, parents and peers regarding knowledge about college. Researchers determine that Latinx and other students consider the amount of financial aid offered, proximity to home, and being able to work while in college (Nuñez & Cuccaro-Alamin, 1998). Financial aid and scholarships, including loans and work-study programs, are key components and resources of any student financial aid package. Another factor is choosing between financing a two-year institution or a four year one. Muñoz and Rincon (2015) found that Latinos who anticipate having to pay for college costs with loans have higher odds of choosing a two-year college over a four-year college. So again, Latinx fall into the circle where a four-year college education becomes a less attainable dream. How can Latinx students aspire to such aid when they don't have the documentation to support them? Unfortunately, it is the case that federal financial aid is unavailable and very limited for undocumented students in this country (Helhoski, 2020). To apply for a grant involves revealing your legal status and that of your parents. Contreras (2011) found that undocumented prospective post-secondary students including Latinx students had access to different levels of information and misinformation from higher education officials as well as school advisors. As a teacher of some Latinx students, I know that this information is very hard to reveal knowing that it may lead to the deportation of you and your parents, thereby widen the socioeconomic gap between the Latinx population and the rest of American society (Contreras, 2011).

The 2020 Covid 19 Pandemic

Latinos are among one of the highest groups dying of coronavirus in the United States. According to the CDC data on June 2020, Latinx comprises 33% of COVID-19 cases in this country (Despres, 2020). This is not news for us. We know that both African Americans and Latinx are at a significant disadvantage in the present moment. A lot of them have jobs that require them to be present at work. Many Latinx and African Americans must use public transportation where they are going to be exposed to the virus every day (Moore et al. 2020). Based on my observations, some Latinx, live in social conditions that do not allow them to be protected from this pandemic. This is the perfect storm. In many cases, these two minority groups lack access to a good healthcare system (Despres, 2020). They do not have access to insurance or a health system that will protect them. Latinx, who are already at higher risk of many health issues, often live-in households with multiple families which makes it easier to transport Covid 19 to their household and infect members of the family (More et al., 2020). The Latino Impact Report (2020) stated that “most Latino families have to choose between staying home and being safe or going to work and getting sick” (p.18). Structure issues such as social conditions and environment expose them to this virus almost every day (More et al., 2020). In reading about Latinx and the effect that Covid 19 has had on our race, it is easier to get upset about these inequities that exist, not only across Saint Louis, but everywhere.

Now there is another important issue that plays an important role as a result of this pandemic, and I am referring to the issue of education (Moore et al., 2020). How are the results of this pandemic going to affect education in general, and most

importantly, education for minority children? According to Harris (2020), this crisis forces us to adapt. He uses the example of hurricane Katrina and how it changed the way school choices were provided to residents of New Orleans. He also said that it made the city Whiter.

Another issue is that the new curriculum cannot be completed because, since going remote, we need to consider all students and their accessibility to the learning material (Moore et al. 2020). I think of one particular student of mine that has been affected by this pandemic. Her parents must go to work and now she must take the role of a parent at home. She does not have an extra computer at home. She has a computer that is provided to her by our school since we are a one-to-one computer district. However, she must let her little brother use the computer in the mornings for him to complete his work, therefore she cannot attend remote classes in the morning with her teachers at our high school. Like this student, there are many students that are taking other responsibilities at home that stop them from advancing. Quirk (2020) states that “For many young people, school is the primary provider of mental health resources. School closures removed students’ main point of access to diagnosis and treatment while adding new stresses of remote learning and social isolation (para 2). We need to be considering the students’ mental health, the circumstances at home and the accessibility to the internet or devices that will allow these students to operate this new system of learning. I am waiting to see what is the plan of action that we will implement next year in order to bring some sort of normal to our students, family, faculty and community.

Review of Literature: College Preparation Programs and Intervention

The theory that will support this literature review will be the theory of change. The theory of change focuses on how a particular intervention will bring on change. The process for developing a theory of change usually starts with asking the question “What is our long-term goal or outcome” (Brown - Murraray, 2016). In the case of this research project, if researchers were to answer the question they would state: The long-term goal or outcome for the college preparation intervention would be to prepare and successfully transition more students; high poverty inner city for college. In this review, we will address racialized discourses, college readiness, effectiveness of college preparation programs, graduation, and drop-out percentages, and changing educational environments.

Racialized Discourses

Racialized discourses explore questions about the control and production of knowledge about people and communities of color (Ladson-Billings, 2000). Reaching college remains a challenge for many low-income and potentially first-generation students who a) are not academically prepared or b) lack knowledge about how to apply to and pay for college (Tierney, et al., 2009). Both individuals and society benefit when an individual earns a college degree (Perna & Swail, 2001). When looking at the control and production of knowledge regarding people and communities of color in the post-secondary system underrepresented students fall behind frequently (Conley, 2005; Robbins et al., 2004; Venezia et al., 2004). My interpretation is that many times these students are left trying to figure out funding for postsecondary opportunities due to the lack of knowledge or misunderstanding about financial aid options. The economically

well-off are more likely to have this knowledge than working-class families or families whose children are the first generation to attend college (Conley, 2005; Robbins et al., 2004; Venezia et al., 2004).

Changing an Educational Environment

One study found that changing a student educational environment can change the outcome of that student's educational experience (Ascher et al., 2010). Thirteen high-performing NYC high schools each admitted ninth graders with high poverty rates and far-below-average reading and math scores and produced academically sound students with four-year graduation rates and college acceptance above the district average, and well above other high schools serving similar students. These women took their research projects and created a framework to assist other schools in changing their environment of their school (Ascher et al., 2010).

Curricula in schools are a key component in determining college readiness. The most common approach is to define college readiness in terms of high school course taking patterns, including the titles, perceived challenge level, and the number of units required for graduation, combined with the grades students receive in those courses (Conley, 2007). What this widely held definition assumes is that the number of courses that high school students take, and the units and names assigned to them, are accurate comprehensive proxies for college-level success (Callan, et al., 2006). When students have taken courses that align with the content of college courses, it is proven that they are more prepared. In fact, college admission offices have a hand in approving course titles that will be accepted and approved by the university to support this transition (2006).

College Readiness

College readiness can be defined operationally as the level of preparation a student needs to enroll and succeed—without remediation—in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program (Conley, 2007).

Effectiveness of College Preparation Programs

Recent research has demonstrated that a large proportion of high school graduates have not developed the skills necessary to succeed academically in college (Callan, et al., 2006; Greene & Winters, 2005). Only 70% of students who graduate from high school enroll in higher education (Snyder & Dillow, 2010). Additionally, of high school graduates who enroll in two- or four-year colleges, only about 35% earn a bachelor's degree (Carnevale & Fry, 2000). College access programs have been implemented to curve these statistics found in research. The National College Access Network defines college access programs as programs that are non-profit organizations designed to increase the number of students who pursue education beyond high school (<https://www.ncan.org/>). The mission of these organizations is to open doors to postsecondary education by providing financial counseling, last dollar scholarships, college visits, career guidance, tutoring, and test preparation courses. College access programs can support all students but are especially designed to target and reach the underrepresented populations in schools (<https://www.ncan.org/>). Housed under the college access programs umbrella are college preparation programs.

College preparation programs are defined as programs that work to prepare high school students to successfully transition to and through college. The main focus of

these programs is to help students develop academic skills that will improve their likelihood of attending and succeeding in college (Villalpando & Solórzano, 2005). Most times these programs provide curriculum content, support, and financial guidance as they transition through high school to college. The main goal is to provide early awareness about college to students. Programs are sometimes designed differently but for the most part cover the same significant areas. All programs serve the same purpose with the theme of transitioning students to college and providing them with the appropriate tools and skills to be successful through college (Villalpando & Solórzano, 2005). These programs are proven to be beneficial when they are run correctly.

Graduation and Drop-Out Percentages

A student's academic preparation in high school is one of the strongest predictors of college degree attainment (Chingos, 2018). The National College Access Network and its members collect data over time of students who have participated in college access and preparation programs. Members served students in the class of 2010 who enrolled in the first year of college following high school had a 49.6% completion rate. NCAN member-served students outperform their peers from high-poverty, high-minority, and low-income high schools, but trail students from higher-income and low-poverty high schools. Comparing within high school locales, member-served students compete at rates approximately equal to national benchmarks (Debaun, Melnick & Morgan, 2017). Results prove that preparation and access programs aid and support students to and through college.

The National Clearing House reports that nearly one in three: 31% students' dropout of college entirely. Of that percentage, nearly half of community college

students: 47% drop out entirely as well. Also, 28% of students drop out before their sophomore year. In addition, the majority of the demographics that make up the percentage numbers are underrepresented minorities first generation students with a lack of any preparation or access programs for college. Additionally, 62% of African Americans do not complete their intended degree within six years of enrollment, and 54.8% of Hispanics enrolled in college do not finish within six years (<https://www.ncan.org/>).

While getting a college degree pays off for higher earnings in the future, the top challenges that cause students to drop out include having to take a remedial class, difficulty balancing school, work and family, and lack of parental assistance in paying tuition (Dumbauld, 2017). Less than 25% of students are required to take remedial college courses, complete their program and earn a degree. Mainly this is due to financial reasons. Students who take remedial classes are responsible for paying for those classes along with the classes they need in order to complete their degree (Dumbauld, 2017). When remedial classes are piled on top of their degree program courses, those students spend more time and money at universities.

The Transition from Secondary to Post-Secondary

The transition from secondary to post-secondary education is becoming more segregated. Instead of working in unison, the two educational systems perform in two different entities, creating barriers and making the transition process more challenging for students. The two should be looked at as a total system, and challenges for students should be total system problems. Reacting to accumulated academic problems at a single point of transition is incomplete and inefficient. Shifting the burden from one part

of the system to another creates division among segments of the educational system and fosters competition. More partnerships should be created and encouraged with universities and schools embracing each other. With strong partnerships, both entities can benefit from one another. Schools are better able to gain access and firsthand insight on how universities expect students to come prepared to college. Schools can learn the course tracks that universities prefer that will help to put the student on a jump start to success. Schools are ultimately able to better prepare students for university standards. Universities can benefit having better prepared students which will ultimately help the universities graduation and retention rates (SHERAC, 1997). Ultimately, strengthening partnerships can be an all-around win for both systems.

Review of Literature: The Worker' Perspective on Their Postsecondary Success Opportunities

Initial searches for research that focused directly on how workers evaluated or provided feedback on how well workers believed their secondary education helped to prepare them for success in a post-secondary education workforce produced almost no results. What the searches did produce fell broadly into one of three categories: a) what do education professionals/ institutions think workers and the workforce need, b) what do businesses think of workers and/or think of workers' needs, and c) workers, as subjects to be studied, not to be talked to or to ask questions of. While there is little literature on what workers think of their secondary education, there is a considerable amount of material that shows what has riled up students and workers resulting in taking

to the streets to protest repeatedly over the past decade (Buchanan, Bui, & Petel, 2020). Before analyzing what workers think about their success or education, we need to first examine work and working in the United States.

When looking at sexism, racism, and classism creating barriers to workplace success, one of the most visible places to see their impact is in the workplace. The intersectionality of what makes us different has been exploited for years by employers in pitting worker against worker (Cross, 2017). It is through the interest convergence of workers of all races, religions, sexes, and any other form of barrier, keeping workers separated, coming together, and working collaboratively, that will raise the living standards for all workers (Hogan, 2019). Intersectionality is a component of critical race theory that identifies how the interlocking of systems of power impact marginalized portions of society and should be taken into consideration when working to advance political and social equality (Gillborn, 2015). Critical race theory is a social science theoretical framework using critical theory for examining society and culture with regards to categorization of law, race and power (Dixson, 2017). Intersectionality is one of the two frameworks that I will be using in my study of workers due to the complexity of the makeup of the workforce. “The goal of collaborative outcomes is possible when interest convergence occurs has been cited as the antidote for the lasting change needed to the top-down programs and policies coming out of Washington D.C.” (Giridharadas, 2019, p. 213). It was Albert Einstein who said, “Problems cannot be solved at the same level of awareness that created them” (Shell, 2018).

During the 1500’s in England, houses of corrections opened to “train the children of the poor to be grouped up in labor and work” (Isenberg, 2016, p. 21). Some early

English visionaries saw the new world as one big workhouse existing to build the wealth of the English nobles (Isenberg, 2016). Many of the first European settlers had been skilled craftsmen or men of leisure back in England. These first settlers were not prepared to do the manual labor needed just to grow the food needed in order to survive let alone produce the means to create goods to ship back to Europe and create wealth (Zinn, 2015). What this new world needed was low wage or no wage workers. These were workers who society really did not care much about (2015). Europe was still comfortable with its nobility class structure. Here to the New World, influenced by that European class structure, a social class structure was created. At the bottom were men and women of the criminal and poor classes. Roguish highwaymen, Irish rebels, known whores, mean vagrants, and assorted others who had intrigued upon or committed crimes against property in England, all shipped off to not only rid England of the dregs of its society but to provide inexpensive workers to the colonies. They did not fare much better than were the indentured servants, ranging from lowly street urchins to former artisans burdened with overwhelming debt. Often these servant contracts were for four to seven years where the contracts could be sold to another master where whippings and other harsh brutal punishment were commonplace (Isenberg, 2016).

The charter of The Virginia Company set forth that those who paid their own way over and settled in the colony would receive 100 acres. After 1616, new arrivals paying their own way would only receive 50 acres, however, in 1618 the charter was amended to give those who brought over an indentured servant an additional 50 acres of land. This created an incentive to bring more indentured servants while at the same time growing the owner classes' wealth derived from the abuse of others (Isenberg, 2016).

The early colonies having imported servants from the slums and debtors' prisons of Europe would work for a while, but in time those bond servants would work off their debts and become free. For this reason, an economy running on the backs of bond servants was not seen as a long-term equitable solution for the owner class. The importation of black slaves would solve that problem while building out the class structure even further in the United States. While you may be poor-White-trash or even a White indentured servant, but you were better off than the Black worker (Zinn, 2015). Early wage workers still face many challenges. Domestic servants, the largest occupation for women during the 17th, 18th, and even the 19th century, generally lived with their employer. This arrangement made it easier to have these women work nearly constantly with little time of their own. Most of their compensation was little more than room and board. If women chose to work in a nondomestic job, she could only expect to make half of what a man would be paid. When women fought for the right to vote, businesses and groups openly lobbied against giving them the right to vote, because then they would want to be paid the same as men. Business owners also believed giving women the right to vote would empower them to support legislation restricting or banning the use of child labor (Murol & Chitty, 2018). Not much has changed over 400 years. Workers still struggle with being pitted against one another (Stiglitz, 2013).

In the 1600's, Europeans commonly used the term race to distinguish nationality of origin. Still, it was not until the 1800's that the term was more widely used. In time, race would come to be used to differentiate purity of blood. For example, the pre-WWII Nazis party for example would have tolerated up to two Jewish grandparents under the Nuremberg Laws. Yet in most parts of the United States the standards were much

stricter. For hundreds of years in the United States the one drop of blood rule, which meant that you were legally Black if you had one drop of Black blood in you, was widely accepted. Interesting enough, the roles were not reversed whereby you could not claim to be White if you had one drop of White blood (Leopold, 2016).

Post WWII manufacturing in the United States grew like nothing previously experienced. A combination of surplus of workers due to the returning soldiers joining the women and former rural workers, many of whom were people of color or immigrants, who had moved into the urban centers to staff the military factories, were in high demand both in the United States and around the world creating the middle class (Wartzman, 2017). The rise in manufacturing jobs provided highly paid middle skill jobs, most of which did not require much if any post-secondary education (2017). In addition, the growth of the middle class, who were heavily supported by the demand for manufactured goods, provided economic security for the women and rural African American farm workers who had entered the urban workforce during the war years, never leaving. Along with those growths, the family unit grew; and high school and college completion rates increased for men and women of all races.

By the end of the 20th century, globalization caused the United States to lose millions of manufacturing jobs to China and other emerging countries, taking with them the financial security of millions of United States workers. Hardest hit were women, minorities, and immigrants (Stiglitz, 2013).

The United States Civil War, Reconstruction, and the Great Migration all impacted and influenced our society, employment, and families (Anderson, 2017). Yet during the 1930's when the National Labor Relations Act passed some of the first

contestants of the meaning of term, worker, African Americans who had to seek court interpretations as to whether their colored laborers were covered by the law (Vinel, 2013).

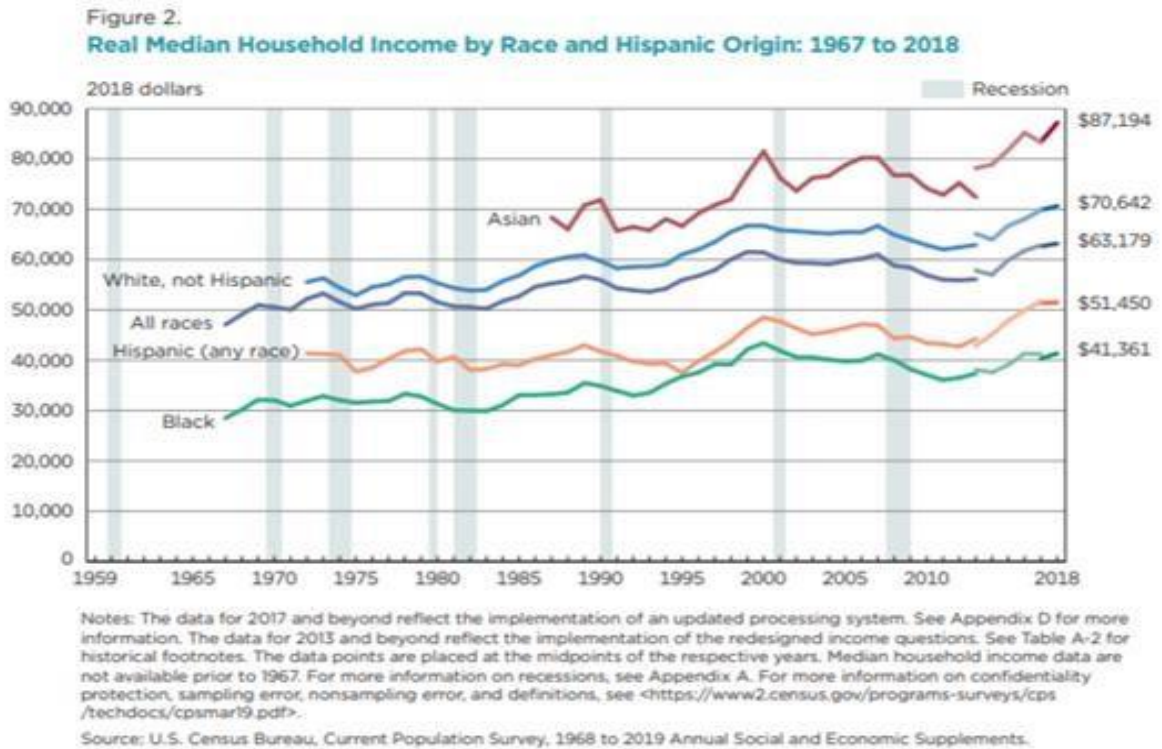
Brown vs. the Board of Education coupled with the nonviolent protests continued to build slow but significant support for workers of color, both in their personal lives as well as in the workplace. The Civil Rights Act of 1964 and the Voting Rights Act of 1965 would begin to finally demonstrate meaningful change was possible (Anderson, 2017). Finally, opportunities for success and advancement for people of color were moving into a higher gear. White opposition to that advancement was also shifting gears.

In 1976 during Ronald Reagan's first campaign for the White House, he weaponized the term race, by frequently making accusation of lavish spending on public housing and welfare queens, all heavily inflected with race baiting language and utilized as many as 127 different names and 50 different addresses to bilk the welfare system out of millions of dollars. The fact that none of this was true or even remotely close to the truth was immaterial (Wise, 2015). Reagan took the old tactic of "divide to conquer" to a new level in political theater. This false narrative that utilizing race and gender to creating or reinforcing stereotypes of lazy people of color and deceitful women played on the old framework of classism splitting the working-class voter base. Reagan would win that election. According to his first budget director, David Stockman, Reagan then intentionally increased military spending during that first term while massively cutting taxes on the wealthy in order to create a deficit and force Congress to cut the vilified welfare programs that he had railed against during his campaign. This reinforced the

racist, sexist, and classist divide in the U.S that he had fostered (Wise, 2015). This was not the beginning of the pitting of workers against one another. It was just a newer version of the old game. This time it was for political benefit.

Reagan also issued a new view of labor relations which would come to preeminently change how businesses looked at labor unions. Prior to the Reagan administration, many employers actively worked to keep employees happy to prevent from trying to organize into labor unions. The policy changes that began during the Reagan administration would result in businesses treating all workers as disposable, cutting wages, benefits, and employee loyalty programs. On the surface, Reagan made the attack on labor an attack on labor unions but as University of Washington Sociology Professor Jake Rosenfeld chronicles in his book *What Unions No Longer Do*, the impact of declining union density directly correlates to a decline in nonunion wages and benefits as well. In the four decades following the Reagan administration, nearly all the economic and workplace security gains made by women, immigrants, and workers of color have been eroded (2014).

By 2018, the wealth gap between White, Black, and Hispanic Americans was enormous. Not only has social SafetyNet programs of The New Deal, the Civil Rights Movement, and the Women's Rights Movement not narrowed the gap, it appears to be growing.

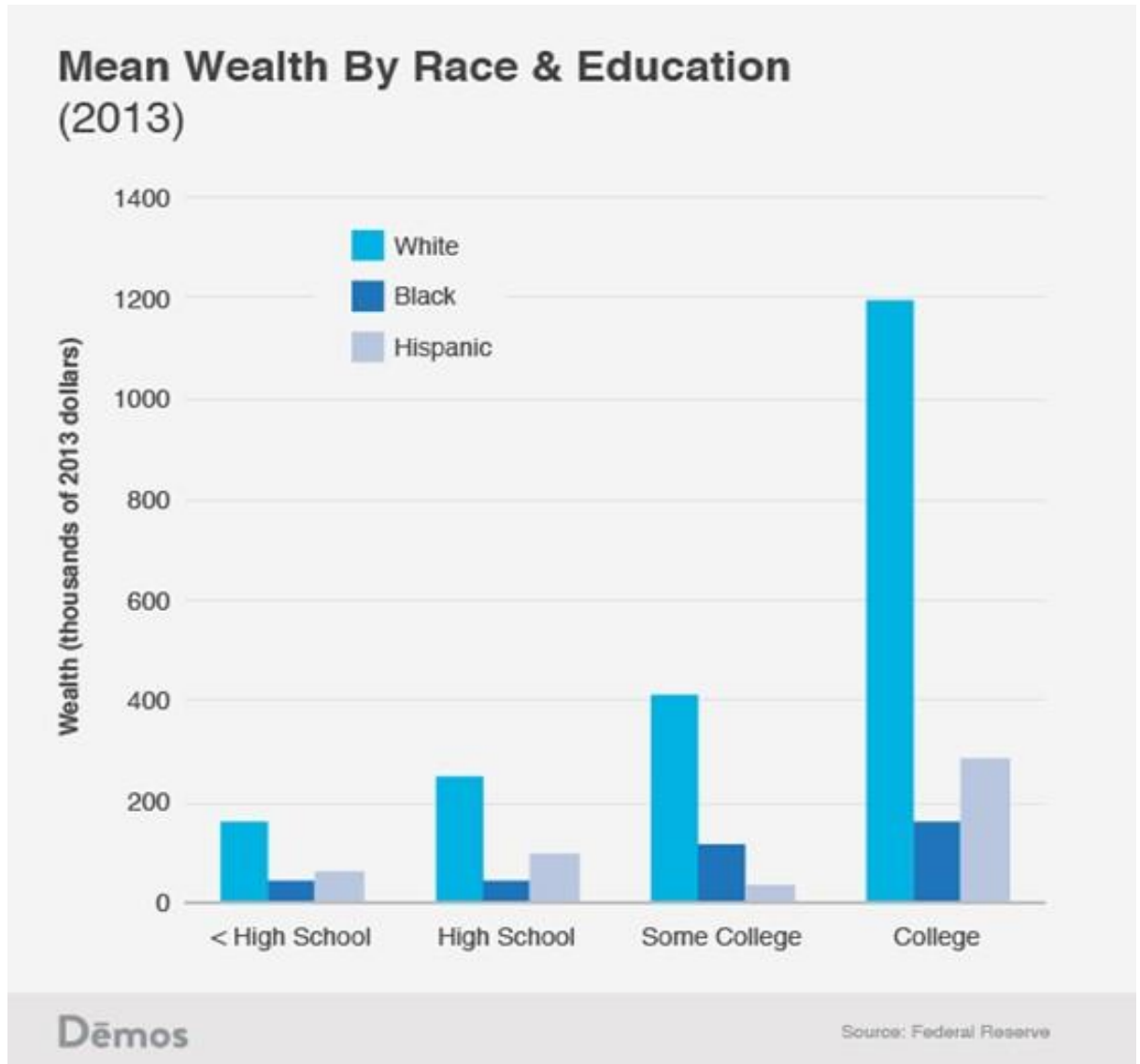


The path to success via a better education is not working for people of color. Education alone is not equating to economic success across the board. A study done by Demos' Policy Shop in 2013 found that in fact White high school dropouts made as much or more than Black and Hispanic college graduates (Bruenig, 2014).

In 1992, public education in the United States started changing in two significant ways. First, charter schools, which now operate in 43 states and the District of Columbia, are publicly funded but privately-operated enterprises. Every dollar that goes to funding these privately run, most often for profit, charter schools is taken from public schools (Lafer, 2018). Secondly, in the first quarter of 2019, the United States student loan debt reached \$1.4 trillion dollars. That is more than double what it was (\$0.65 trillion dollars) in 2009. Student loan debt is now second only to mortgages debt for United States residents. The age of students taking out loans is

going up, providing a shorter loan repayment window. This results in higher payments and less retirement saving or opportunity for other spending (Sabi-El-Rayess et al., 2019). The rise in student loan debt, coupled with stagnant wages, have left much of the workforce feeling increasingly unable to meet their basic family needs (Fogli & Guerrieri, 2019).

Still, since the United States' Great Depression of the 1930's income for all quintiles of the economy grew together, until the late 1970's (Wise, 2015). From that point on incomes for all but the very top levels of the business community have stagnated. Meanwhile, the median salary for CEO's grew by 50% during the 1980's then more than doubled during the 1990's. By 2005, the median doubled again (Wartzman, 2017). In the 1970's and 1980's, the financial sector of the United States accounted for 10 to 15% of all United States corporate profits, representing only 5% of United States jobs. Now, the financial sector garners 25% of all corporate profits, while constituting only a mere 6% of the workforce (Leopold, 2015). If 6% of the workforce now earns 25% of the profits, the other 94% of the workforce has seen their share of the profits fall by between 10 to 15%. Today, only two other nations surpass the United States in the percent of citizens living on half or less of its national median income (Wise, 2015).

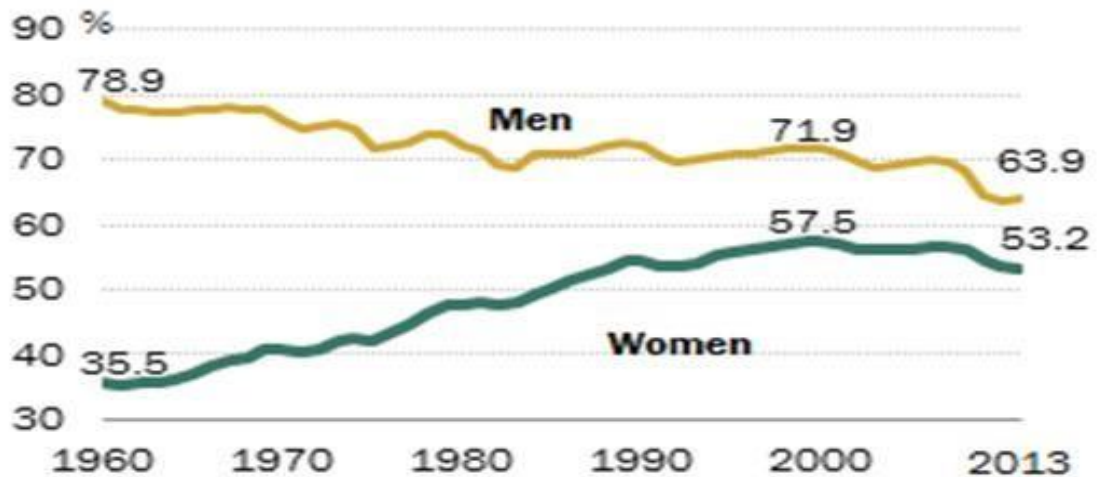


The growing inequities between the super wealthy and the working class leaves many families needing to rely on both parents' incomes in order to meet the family's basic needs. Basic childcare alone, at market prices (assuming there are no paid leave provisions for the new parent since few employers provide such provisions) averages \$9,589 annually. This is only slightly more than the average in-state tuition for a college student (Brown, 2019). Until there is a shift in public policy

with regards to tax credits for giving birth through the start of school, the main government support of children, women in the United States will likely continue to choose to have less children (Brown, 2019).

The Changing Role of Men and Women in the Workforce, 1960-2013

% of civilian non-institutional population ages 16 and older who are employed



Source: Bureau of Labor Statistics, "Women in the Labor Force: A Databook," 2014

PEW RESEARCH CENTER

The *Women in the Labor Force: A Databook* a PEW Research Center 2014 publication captured the decline in both men and women's workforce participation rate. The significance of the decline is that in 1962, women in the workforce made 62% of what men earned. By 2013, they were making 82%. The decline in the number of women in the workforce is anticipating a decline in the narrowing of the wage gap that had been achieved between 1962 and 2013 (U.S. BLS, 2014).

Gender Representation in the Corporate Pipeline (2017)

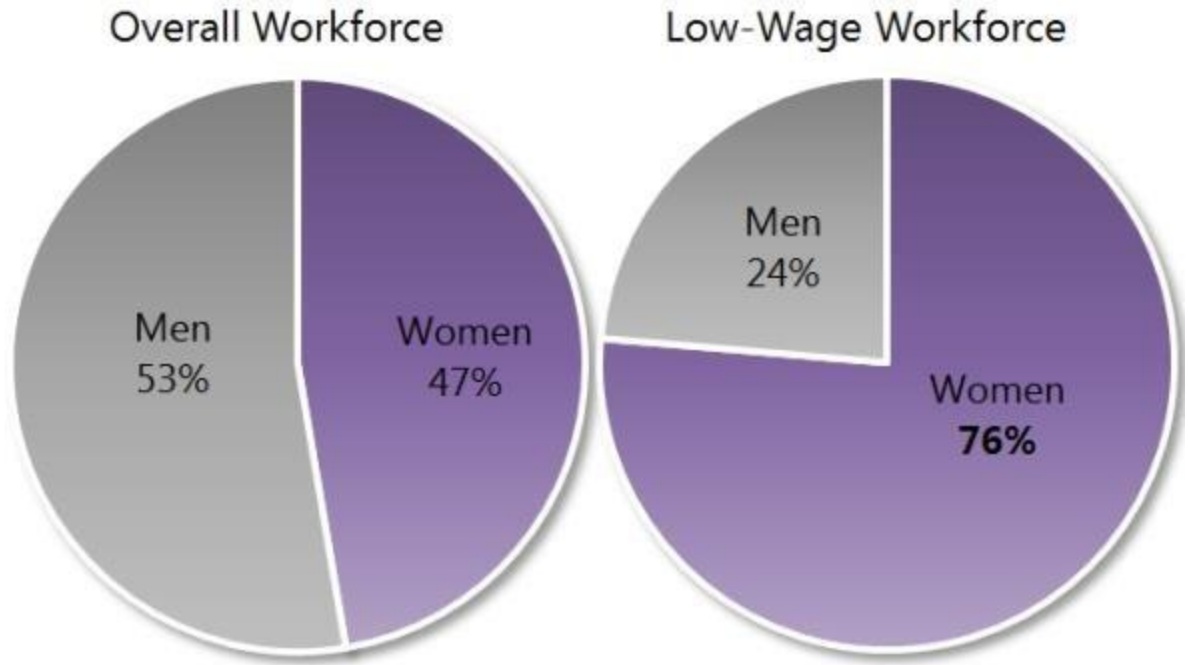
% Of Women and Men by Level



Source: McKinsey & Learning, Org Women in the Workforce 2017 report

With the glass ceiling for women still firmly in place, a disproportionate number of women remain barred from career opportunities that would equate to success resulting in their earning lower wage. Further complicating the social economic decision of how many, if any, children to have (Brown, 2019).

Women are 3/4 of workers in the 10 largest low-wage jobs



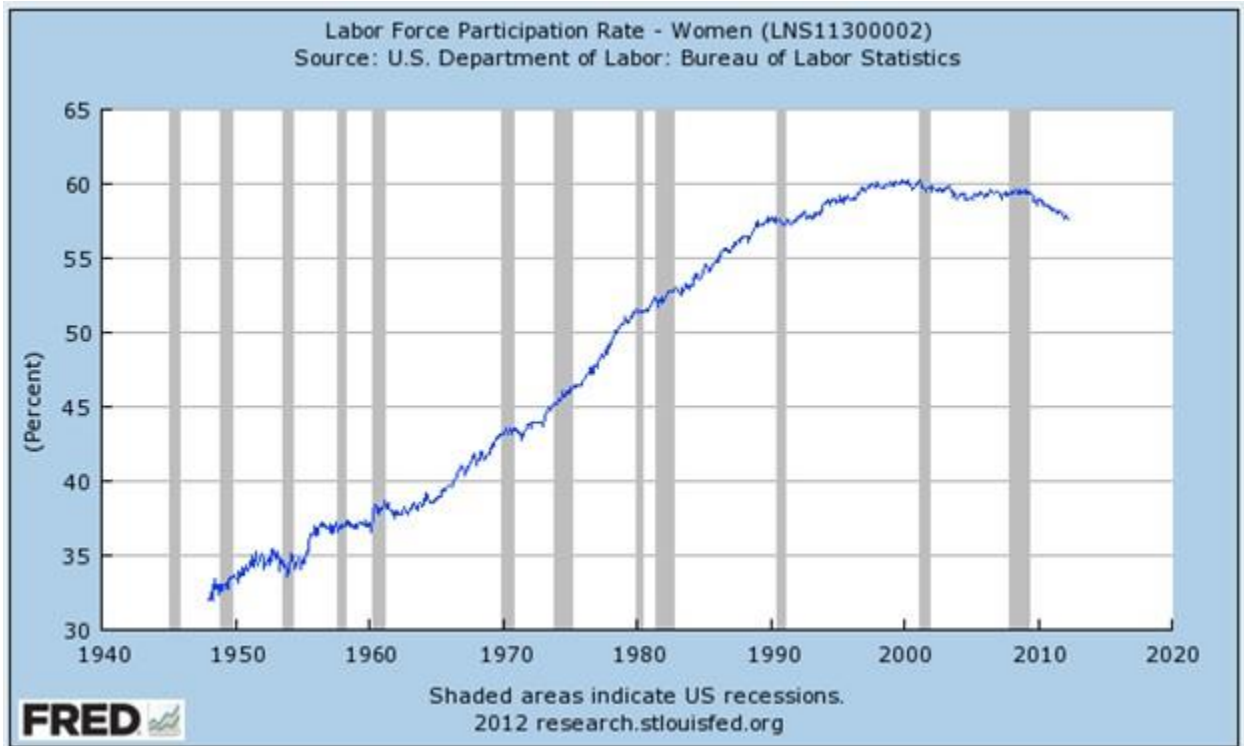
Source: NWLC calculations based on IPUMS-CPS (2013).

www.nwlc.org



If this alone was not enough, the gun industry has further widened the gender gap with its portrayal of gun prowess equating to manliness. For example, in 2010 Bushmaster Firearms kicked off a national campaign that would last for several years, centered around getting your “consider your man card reissued” sweepstakes (Metzl, 2019, p. 61). Many critics of the campaign even failed to miss that the campaign was not just about glorifying masculinity, it also spoke of privilege. On the back side of the card that was issued, it states “Rights and Privileges...Today he is a man. Fully entitled to all the rights and privileges duly afforded” (p, 62). Yes, women are also gun owners, but the misogynistic nature of the campaign allows for the further elevating of male over females in our society (2019).

Work, especially for men, still provides individuals with a sense of identity and worth. As more workers drop out of the workforce, fewer marriages form, and birth rates continue to go down (Cass, 2018).



The United States workforce is more stratified and fractured now than ever. The extreme disproportionate increases in college costs for example has resulted in United States homeowners owning less of their homes today than they did in the 1980's (Johnston, 2005). In the early 1980's, for every dollar of home value, there were 70% of equity. Thirty-five years later, home equity has fallen dramatically. Mortgage debt just keeps growing. In most cases, for every dollar of equity couples have in their homes, they have nearly two dollars in debt. This is not a sustainable model for a society. In fact, it adds stress to workers, families, and the workforce (2005).

Workers' frustration with their lack of access to the means of achieving their American Dream is summarized in the July of 2019 testimony of Thea M. Lee before the Economic Policy Subcommittee of the United States Senate. “The United States is facing its first generation whose standard of living, on average, is not likely to exceed that of their parents” (Lee, 2019, p. 2). In his analysis of the 2013, *Global Wealth Databook* Tim Wise notes that, “the likelihood of a person moving up in the wealth distribution is actually lower in the United States than in any other industrialized nation” (Wise, 2015, p. 55).

The United States has already begun to experience the impact of decisions to have smaller families. For the past five decades, the birth rate in the United States has been declining (Brown, 2019). A total fertility rate, defined as estimated lifetime fertility of all women 15 to 44, dropped to its lowest point, 1.73, in 2018. The United States has not met its fertility replacement rate of 2.1, the birth rate needed to replace its current workforce naturally, since 1971 (Livingston, 2019). The combination of decades of declining birth rates coupled with nearly 80 million workers aging out of the workforce creates a stark outlook for the future of the United States workforce.

United States labor participation rate peaked at 67.3% in 1997 (Krueger, 2017). After having adjusted for changing population controls, the rate of participation declined by 4.2% between 1997 and 2016. Projected demographics for the next decade are that the current workforce participation rates will continue to decline by 2.3% (Krueger) well into the decades ahead as well.

Then on January 1, 2010, the first baby boomers started retiring. By December 31, 2029, when the last boomer becomes eligible for retirement, 79,000,000 workers, or

one in four of all workers at the time, will have left the workforce or be eligible to do so (Heimlich, 2010). While the nation faces this worker shortage, there are millions of workers eligible for the workforce that are excluded from the workforce due to addiction (Krueger, 2017).

During the last quarter of the 20th century and the beginning of the 21st century, immigration was the American Solution to the businesses community's growing problem of worker shortages, a shortage of low wage workers. Immigration provided instant adults for the workforce. Often workers were a bit older than teenagers right out of high school with some workforce experience. Immigrants became a political bogeyman used to scare voters but with the consequence of closing the borders and turning off the spigot of available new workers; often low wage workers (Brown, 2019).

Life expectancies have risen five and one-half years for men since 1940, which some would say is justification for workers staying in the workforce longer. Yet, by age 62, nearly half of all men are leaving the workforce (Burtless & Quinn, 2002). That age is 60 for women. This can be explained by looking at what has changed. During the post WWII economy, workers were able to find jobs, which kept workers interested in working. The recessions of 1974-75, 1981-82, and 2007-08 and weak business cycles, jobs and employment were targeted for reductions via elimination or salary reduction to bolster company's profitability (Wartzman, 2017). The mass elimination of jobs as well as the slashing of wages and benefits was spurred on by companies sponsored early retirement incentive programs. When parents lose their jobs, for any reason, their children's schoolwork suffers, graduation rates decline, and they enter adulthood with lower expectations for success (Cass, 2018).

A solution to rising life expectancies does not equate to working longer for many due to declining health issues. Nearly half (43%) of the out of the workforce men report that their health is only fair to the poor, compared to 12% of employed men. The out of the workforce women are also more likely to report their health as fair or poor (Krueger, 2017). Forty-four percent of the prime workforce age males currently not engaged in the workforce report having taken some form of pain medication in the previous 24-hours. Nearly two-thirds of them are taking prescription pain medications (Krueger).

A 2012 study notes that rates of involvement with the criminal justice system after conviction, from incarceration to probation, have increased significantly since the 1970's. The 2012 study finds one-third of all United States adults have been arrested at least once by the time they reach age 23, up from one in 100 in 2008 (Barnes et al., 2012). The significance from a workforce perspective is that many employers have been choosing not to hire justice-involved individuals (JII) workers, most often citing concerns about workplace safety as their justification. When in fact, 86% of all arrests are for nonviolent crimes (Barnes et al.). Therefore, it would stand to reason that as the United States put more and more of its population in jail for nonviolent crimes, we are shrinking the pool of available workers by removing those persons from the workforce.

The cure for income inequality is interest convergence of workers. Phoebe Maltz Bovy, (2017) points out in *The Perils of Privilege* that “being White in American is vastly easier than being black, in much the same way as being rich is easier than being poor” (p. 12). Interest convergence is also a tenet of critical race theory. Interest convergence explains how racial equality will only become pursued by the majority when the interests and needs of the majority aligns with that of the races

(Dixson et al., 2017). Critical race theory is a social science theoretical framework using critical theory for examining society and culture with regards to categorization of law, race and power (Dixson et al.). As a nation we have struggled with this challenge forever (Isenberg, 2016). The stratifications and segregations of our society are complex. Most are deeply rooted in our nation's founding and its history. Drawing upon my quarter of a century of experience as a worker advocate in the community of labor, this author believes that trying to address them individually and one at a time guarantees the same lack of or token change. In the early 1900's, the International Worker of the World (IWW or Wobblies) had a saying that an *injury to one is an injury to all*. The struggle in the United States with the runaway inequality brings new meaning to that old saying. Poverty, wealth, education, housing, and increased incarceration rates is impacting all workers (Leopold, 2016). By far, it is impacting people of color and immigrants more. Women face more barriers than men. The intersectionality that wage workers share, that struggle to make ends meet, is universal. As long as the demographics that workers have been divided into are fighting one another like in a Mad Max movie over the crumbs, the owners of wealth are prevailing when the parts unite and converge barriers can disappear (2016).

The unspoken bedrock of the American Dream is that education provides you access to success. Access to post-secondary education and costs have created increasingly difficult challenges to the children of the current working class (Meier, 2002). For these reasons, I had chosen to research how well secondary education prepared students to be successful in the workplace, from the worker's perspective.

CHAPTER III: RESEARCH METHODOLOGY

Research Methodology: The American Dream for Latinx in the United States

The main vehicle for this research was the use of a theoretical framework that provided a platform for young Latinx students to voice their experiences with secondary and post-secondary education. The context for the locations from which the Latinx student populations were sampled is provided, and the methodology that was used, including participant selection, data collection methods, data analysis, and validity of the study is discussed. A potential bias with this research is that I am an immigrant Latina educator who has lived in the United States for over 30 years.

According to Miles and Huberman (1994), “A conceptual framework explains, either graphically or in narrative form, the main things to be studied” (p. 18). This study used Latina/o Communities and Critical Race Theory which was described by Perez (2010) as “A theoretical branch extending from CRT” (p. 77). The framework for my study addressed experiences affecting Latinx communities, including immigration status, language barriers, social economic status, and cultural assimilation (Solórzano & Delgado, 2001). A qualitative research method was used and consisted of collecting and analyzing qualitative data in a one-phase design. The purpose was to gather qualitative data and then analyze the results to develop an understanding of the research problem (Figure 1).

The rationale for using qualitative data was that the background information and perspectives collected from surveys and interviews would help capture a complete understanding of the research question proposed in this study, which is, “Does regional identities and socioeconomic backgrounds of Latinx immigrant students impact their

higher educational advancement?” A qualitative method was effective at identifying common themes and factors affecting Latinx students’ pursuit of higher education upon graduating from high school. This approach was used with Latinx students in the high school where I currently teach and another high school where I previously taught for 15 years. My proximity to students from these two high schools permitted me to collect in-depth information.

Following the identification of themes and categories based on published literature and my past experiences, I developed a list of online survey questions that were sent to current and former students at two high schools, one in Missouri and another in Texas (Appendix A). Originally, my goal was to use only students from the Missouri high school where I currently teach, but the small sample size at that school led me to include Latinx students at the high school in Texas where I previously taught. A major component of the methodology included in-depth Zoom interviews with a small subset of students from both locations whose individual experiences were representative of a larger body of students.

The first step in the study was an online survey, followed by a second online survey, to gather additional background information on a group of students from both locations. The two surveys are included in Appendix A and B, respectively. The strategy used to recruit volunteers included being very upfront with the possible candidates about the purpose of the study and investigation. Results of the online surveys were used to identify students who were willing to be interviewed face-to-face (via Zoom) in order to provide in-depth and personal accounts of their experiences. For the face-to-face Zoom interviews, I selected four students who represented a range of

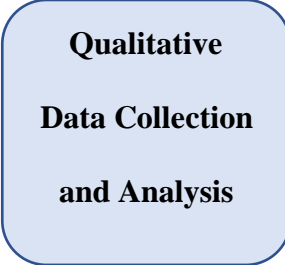

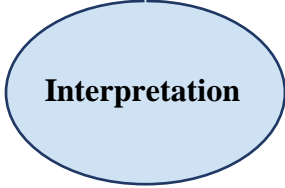
post-secondary education pathways and asked in-depth questions about their socioeconomic status, family history, and other factors that might have affected their choices or opportunities to pursue a college education after graduating from high school. I used three broad questions to start each interview (Appendix C), but then allowed the conversation to flow freely and in whatever direction the students wanted to go.

The greatest threat to the validity of the qualitative data was that it would fail to accurately capture the common themes and factors in the interviewees' responses. To avoid that possibility, I validated the qualitative data by using the member-checking approach. To ensure that I had accurately captured the common themes in the students' responses, I would share with them my assessment of their responses and allow them to clarify any misrepresentations of their information. Every Zoom interview was recorded and transcribed and a copy of the transcript was provided to each respective student interviewee. During the face-to-face interviews, I sought additional clarification on written responses to the online survey that seemed contradictory (e.g., when a student said they applied to college in high school but also stated they did not attend college). Finally, the experiences of the sample population were compared to those described in scientific literature, journalistic media, and organizational reports for the larger Latinx population in the United States.

The Specific objectives of this research were to investigate four potential barriers to Latinx students' pursuit of higher education after high school graduation: (a) parental post-secondary education and the impact it has on the student's motivation and goals, (b) language barriers of Latinx immigrant students, (c) school class tracking and the impact it has on advancement, and (d) household income and its impact on student finances.

These objectives guided the development of an online survey and a follow-up was designed to gather information that could be used to assess the impact of the four barriers.

Figure 1. Map of Methods Procedures (Design)

Phase	Procedure	Product
 <p style="text-align: center;">Qualitative Data Collection and Analysis</p>	<ul style="list-style-type: none"> i. Creation of survey questions. ii. Administer survey to Latinx students. iii. Face-to-face interviews 	<p style="text-align: center;">Summary of common themes in students' responses.</p>
 <p style="text-align: center;">Results</p>	<ul style="list-style-type: none"> i. Identify themes and factors that are common in the qualitative results. ii. Identify any unique factors common to the component. 	<p style="text-align: center;">A summary of common themes and factors.</p>
 <p style="text-align: center;">Interpretation</p>	<ul style="list-style-type: none"> i. Explanation of the qualitative results. ii. Interpretation and significance of the results. 	<p style="text-align: center;">Discussion of results including possible remedial recommendations.</p> <p style="text-align: center;">Suggestions for future studies.</p>

Sampling

The criteria for selecting the students participating in this study were: (a) students had to be from a Latin American origin; (b) students had to be in their senior year in high school and 18 years of age, or already graduated from High School; (c) students had to be enrolled in high school at the time of the research or graduated from high school. The original intended target population for this research was Latinx students from a school district in the Saint Louis, Missouri, area. However, during the time data collection for this study needed to occur, the population of Latinx students at this high school were only able to provide six students who met the criteria and willing to participate in this research. Consequently, I added another high school from a school district in the Dallas, Texas, area where I had taught Spanish for 15 years. This deviation from the original plan was necessary in order to increase the size of the sampled population. In the end, the majority of the students that I used in my surveys and interviews were former students that I had in Texas.

For the research, I intended to use a stratified random procedure for selecting participants. I wanted to stratify by gender and by country/region of origin in order to have a broader sample. Also, I wanted to know how regional and socioeconomic backgrounds of Latinx students determined their future higher educational advancement, so I stratified by country or region of origin and by household income. The sampled population consisted of six Latinx students from Saint Louis, Missouri, and 51 from Dallas, Texas, which provided a total population of 57 students I was able to stratify students by region and gender. Therefore, the population, although small, was representative of all Latinx. The population for the qualitative portion of my research

(i.e., face-to-face Zoom interviews) was small (four students). There was no need to create subgroups since both genders and multiple countries of origin were represented.

Variables

The research question in the quantitative portion of this study was, “What are the socioeconomic factors of Latinx families that might determine whether or not Latinx high school graduates apply for, attend, and graduate from institutions of higher education. The independent variables I considered in my study were place of birth, first language, language of preference, education level of parents, and household income. The dependent variables related to the post-high school academic achievements of Latinx students. Specifically, the dependent variables included: 1) did the Latinx student attend an institution of higher education, and 2) what level did they achieve (no degree, associate degree, Bachelor’s degree, Master’s degree, or Doctoral degree). The follow-up face-to-face interviews allowed participants to expand on the pre-identified variables from the online surveys, but they were also able to identify additional variables that affected their educational outcome in either positive or negative ways.

Methods of Data Collection

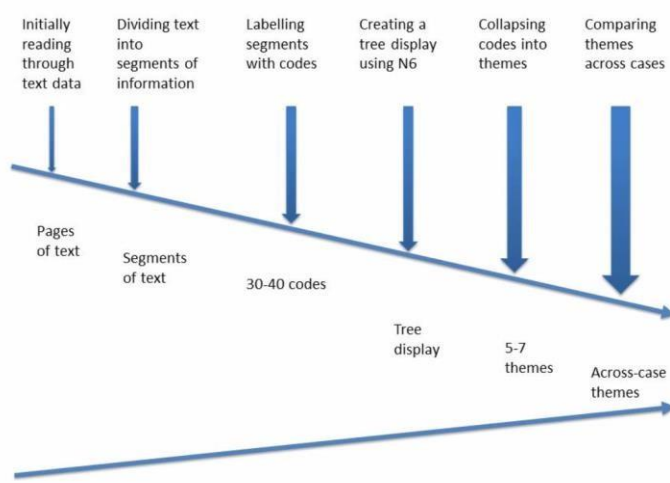
For the quantitative component of the study, I used two sequential surveys to identify distinct reasons for why Latinx students did not pursue higher education to the same degree as the general US population. Each survey question provided a pre-determined list of potential responses and the participants had to select one of the possible responses. This limited the amount of information revealed by the survey, so a second survey was created to allow students to provide additional information. However, only 21 of the of the 57 students who answered the first online survey

completed the second survey. Among those students that completed both online surveys, a small group (n=4) was chosen for the qualitative portion of the research, which consisted of an in-depth, face-to-face interview conducted via Zoom. The extended interviews allowed me to explore how other factors in addition to socioeconomics, especially attitudes of students and families about higher education, affected their pursuit (or non-pursuit) of a post-high school degree.

Data Analysis Procedures

The qualitative data collected from the local high school and former students' surveys and interviews was examined using descriptive statistics to determine if there were common themes mentioned by the Latinx students as to why they may or may not have pursued higher education after graduating from high school. Merging the quantitative and qualitative results provided a complete and in-depth analysis of the factors that discouraged or prevented Latinx students from completing a college degree, or vice versa, what factors helped them to obtain a post-high school degree (Figure 2).

Figure 2. Visual Model of Qualitative Data Analysis



Ethics and Human Relations

The researcher is a student in the UMSL Social Justice Cohort program. The researcher is completing the cohort program and has experienced herself some of the challenges that she is investigating. The researcher is a Latinx who obtained her post-secondary education in the United States. She came to the United States with a high school degree but very limited English language skills. She did not face immigration challenges, because she arrived at the United States with the appropriate documentation that proved she was a legal resident. Such documentation allowed her to work and study in this country. The researcher is a teacher, and she did her research at her current place of employment as well as a previous teaching location in Plano, Texas, where she taught some of the students who participated in this investigation. During the data collection phase of this study, the researcher had direct contact with the student participants at the

high school where she currently teaches. However, the majority of the test subjects who participated in the study were former students that had been in her classes during the previous 15 years.

Throughout the entire research process, the researcher adhered to the guidance of her two UMSL academic advisors. Ethical issues were addressed in each of the steps designed in this plan. Permission to conduct the research was requested and obtained from the Institutional Review Board (IRB) before initiating data collection. All required procedures, forms, and documents were filed with UMSL and provided all the necessary information (researcher's name, title of project, type of project, type of review requested, number and types of subjects).

The application for research contained a detailed description of the intended project and its significance, methods and procedures, participants, and research status. The researcher never met physically with any of the student participants and communication was conducted through e-mail or Zoom meetings. Students who were interviewed via Zoom did so from their homes, and they were free to terminate the interview at any time if they became uncomfortable. An informed consent form was created with appropriate wording to acknowledge and guarantee that certain rights of the participants were protected. Anonymity of the subjects participating in the research was protected and secured by using numerical coding with no real names. All printed material was kept in a secure safe box in the house of the researcher. Electronic data were stored on the researcher's password-protected computer. Participants were informed that any information, data collected from this study, was confidential and their names would never be displayed so that the possibility to be traced did not exist.

Research Methodology: College Preparation Programs and Intervention

In this study, a qualitative method was used to conduct research. Also, in this section, information about how the participants were found for the study as well as demographic information on the participants will be reviewed. In addition, the instrument used to support my method for this study will be addressed. Lastly, I will look at the diversity of the sample used in the research.

Qualitative research is by definition exploratory, this reason alone is why this method was decided upon. The purpose of my research is to explore the benefits and contributions that college preparation programs have on minority students. My hope is that a variety of college preparation programs are created and offered to more minority students no matter their economic situation or school of attendance. This research will try to explore more about college preparation programs and the effects on high school graduates. A qualitative research method was used, because I wanted to thoroughly understand the feelings, values, and perceptions that underlie and influence high school graduates when considering college preparation programs. Lastly, I will use this method of research in hopes to generate ideas for improvements and/or extensions in high schools to better prepare students for higher education programs.

Sampling

The phenomenon this research studied is the impact of college preparation programs on college freshmen. Researchers believe that oftentimes college freshmen are unprepared for college due to the lack of support needed for appropriate preparation. This research exposed the benefits of these types of programs on a few first-year college students. In a case study done by Carol Ascher and Cindy Maguire of Annenberg

Institution for school reform at Brown University, Ascher and Maguire found that when students are exposed to proper college preparation throughout high school, they are likely to perform well as they transition to college for their first year (Ascher et al., 2010).

This research used a purposeful sampling procedure. This procedure was used, because researchers needed certain characteristics of a population that fits the objective of the research. Students were selected based on characteristics of a population and the objective of the study. In the case of this research, students who are freshmen in college who did or did not participate in college preparation programs were chosen. All students were previous students of an inner- city high school in the City of St. Louis, and these students graduated and continued on to college. Researchers used social media platforms and previously collected emails to reach out to former students who have graduated from Soldan International Studies High School. Purposeful sampling was used, because researchers already had pre-selected criteria IE: being a college freshman based on the research question.

For the qualitative method of this research, the sampling unit that was used was a group of former students from Soldan International High School. Researchers used two different social media platforms and previously collected emails to gather the group of participants for the study.

For this research the sample size was 20 students. This was sufficient, because the number was big enough so that I had ample amount of data to use for research, and I had error room just in case some students did not complete the surveys to still have

enough for a solid sample size. This size was also perfect, because researchers were able to analyze and cypher through the data without becoming overwhelmed by a large number of surveys.

The sample was formed into subgroups for the qualitative method. Those subgroups consisted of Group A- students who participated in college preparation programs and Group B- students who did not participate in college preparation programs. Both groups consisted of freshmen only students. Gender or any other identifying factors of students were not needed during this research. Out of the 20 students, survey results found that 13 students participated in the program and seven had not.

Variables

In this study, researchers looked at independent and dependent variables. A control variable was not applicable to this study. The independent variables were students/participants who did and did not participate in any college preparation programs. The dependent variable was the score on the survey given to participants.

The qualitative data collection and analysis focuses on the benefits of college preparation programs. Researchers were able to prove through a small sample of data collection and analysis that college prep programs jump start college freshmen before they even arrive at college. This study also gave insight that students were in favor of preparation programs, even the students who never participated in them.

Methods of Data Collection

Researchers explored and wanted to explore more in the future about college preparation programs and the effects on high school graduates. A qualitative research method was used to help researchers dive deeper into understanding the feelings, values,

and perceptions that underlie and influence high school graduates when considering college preparation programs. Lastly, researchers want to use this method of research in hopes to generate ideas for improvements and/or extensions in high schools to better prepare students for higher education programs. Researchers developed a survey for this study.

The survey assessed the independent variables and the dependent variables. For this research the independent variable was students who did/did not participate in a college preparation program and the dependent variable was the scores received on the survey. The survey assessed how complicated or how smooth their preparation and transition was into their freshman year of college. It also assessed how prepared they felt when they were entering into college. For this project internal consistency was the type of reliability used by researchers. Researchers checked that participants/students' responses were consistent across the items on multiple item measures.

Data Analysis Procedure

First the data was analyzed from the qualitative questions. From descriptive statistics researchers were able to give information that describes the data collected. For instance, 20 surveys were completed and 13 of the 20 surveys that were completed were done by students who participated in college preparation programs, one description of the data on the surveys was that 65% of surveys were done by students who participated in college prep programs.

Researchers used a reflective method of analysis. Researchers prepared the analysis so that it is genuinely reflective. The research was also comprehensive in its nature and evidence based. Researchers anticipated that students would be in support of

college preparation programs even before research was conducted. After research was completed, researchers found that every single student who completed the survey were indeed in support of college prep programs. It was also anticipated that students would attest to being more prepared for college from the participation in college preparation programs, from collected surveys of students who participated in college prep programs this was also a common theme. Researchers ultimately anticipated that students would be in favor college preparation programs, and from the data collected those results were reflected.

Research Methodology: The Workers' Perspective on Their Postsecondary Success Opportunities

The focus of this research was on how well construction workers in the United States, who have been out of high school for approximately 20 years, felt they were prepared for being successful in the workforce; how the skills for success in the workforce have changed; and what skills workers just entering the workforce will need for them to be successful. The first phase of the study was qualitative research that focused on workers who have been in the workforce for 20 (+/-) years, long enough to have tested the skills they brought into the workforce, to have witness and/or experience the changing demands on the workforce as well as having generated insights on what skills future workers will need to be successful.

The principal area of focus for the research was the Greater St. Louis area. Data was also collected nationally for comparison to the results of the St. Louis research. The first phase of the research was collecting data utilizing an online survey. Respondents to the survey answered whether they believed that workers are being prepared to be

successful in the workforce and whether these workers' view of success changed based on the lengths of time the participants have been out of high school. The second phase, which is also qualitative, was conducted as a follow up to phase I to further explore those results. The exploratory follow-up went into more depth with some of the data collected from the online survey using in-person interviews utilizing Zoom for meetings' technology.

The primary focus of the study was workers who have been out of high school for about 20 years, a single generation. However, data was also collected from workers in other generations who happened to respond to the online surveys. Effort was made to track how workers' education, skills and preparations for the workforce have changed, if at all, over time through the generations. Additional data was collected from participants, including social benchmarks such as gender and race. Lastly, this research asked workers participating in both Phase I and Phase II about the work skills future workers will need for them to be successful in the workforce of the future.

Research Questions

This study attempts to answer the following questions: Are high school students being provided the education and skills needed to be successful in the workforce? How are those skills changing, and what skills are new workers going to need to be successful? The first phase of this study addressed the question:

Have workers received the education and skills needed to be successful in today's workforce? The specific research sub-questions for Phase I were:

1. Are high schools providing the education and skills that workers feel are needed to be successful?

2. Have changes to the workforce affected minorities and women equally?

To answer these questions, an online survey was utilized, Phase I. Workers who are currently in the workforce who have experienced many of its changes or are in the position to have witnessed the challenges facing the work and workers of the future were interviewed, Phase II. The surveys and interviews contained both open and closed questions.

The researcher formulated interview questions for Phase II based in part on the results of the Phase I results of the study. In addition to the open and closed online survey questions found in Phase I, interviews occurred in Phase II to follow up on data generated by the Phase I online survey results in order to further tease out specifics that an online survey cannot produce. The online surveys (Phase I) were open and accessible nationally. The one-on-one or in-person interviews (Phase II) were conducted locally in St. Louis to explore specific impacts to that area.

Research Design

This research used intersectionality and interest convergence as a framework to explore workers' views on how their secondary education prepared them for success, or not. Additionally, this research used an exploratory qualitative multiphase research design method which is a process for collecting and analyzing quantitative data from multiple phases of a study at a point during the research process into a single outcome (Creswell & Creswell, 2018). The reason this study used multi-phased research methods is that a single exploratory method alone would not sufficiently have captured the details

or trends in evaluating how well workers feel their secondary education prepared them for success in the workplace. The two phases used in combination allowed for a more complete analysis (Creswell & Creswell, 2018).

This study, a sequential explanatory design, consisted of two distinct phases (Creswell & Creswell, 2018). The first phase was a web-based survey to collect data. The goal of that phase was to identify trends in how workers view their preparation for success in the workforce. Outcomes of this phase was used in selecting information explored more in-depth in the second phase.

The second phase occurred in the collecting of data through individual semi-structured interviews. Rationale for this approach was that the qualitative data and results from Phase I would provide a general picture of the research problem (i.e., what education/skills learned while in secondary schools prepared workers for success in the workforce, and what education/skills acquired in secondary schools least prepared workers for success in the workplace?). The Phase II portion of the study was then utilized to refine and explain the statistics found in the Phase I results by exploring participants' views and beliefs more in-depth via semi-structured interviews.

Sampling

The qualitative target population of this study were workers already in the workforce. More specifically, the principal target of the research were workers who have been in the workforce or could have been in the workforce for 20 years (+/-). Also, the primary focus of the research was on collecting data from the Greater St. Louis Missouri (STL) area workforce. Additionally, information was also collected data from outside of the area to compare to the STL findings. The reasons for focusing on workers

with this level of experience in the workforce, 20 years (+/-), was that they have both the experience in the workforce to reflect upon in answering the questions posed to them as well as having been in the workforce for a sufficient time to have seen changes to the skills workers need in order to be successful. Their experience with workforce expectations and their opportunity to witness the changing skills demanded of the workplace allowed these subjects to answer the questions regarding the changing nature of work and worker skills needed to be successful in the workforce.

While the principle focus of the survey was not on workers who entered the workforce before 1980 or more recently (less than 20 years ago), survey responses from these workers were accepted. Insights from these generations of workers would become valuable in contrasting their experiences with those of the targeted generation of workers providing additional valuable avenues of insight to this study. Thus, the survey tool did not limit participation or exclude workers who have less or more time in the workforce than the targeted generation. The survey data was sorted based on the following common generational brackets currently found in the workforce:

- Gen Z, iGen, or Centennials = Born 1996 – TBD
- Millennials or Gen Y = Born 1977 – 1995
- Generation X = Born 1965 – 1976
- Baby Boomers = Born 1946 – 1964
- Traditionalists or Silent Generation = Born 1945 and before

Depending on how diverse and robust the survey results would become, collecting data from multiple generations of workers would allow the study to possibly compare data and outcomes across the generations to see where they agreed. It could

also present an opportunity to see where the generations differed on issues of work skills preparedness and skills expectations changing over time. While Gen Z and the Traditionalists generations appear in small numbers in the present workforce, having five generations in the workforce at one time is a rare and significant factor in some aspects of workforce development, creating a unique opportunity in measuring success, and satisfaction. In the end, there were responses in Phase I from all but the Traditionalists Generations. In the end, the survey results exceeded expectations. Respondents were not required to answer every question. The lack of responses to some questions would impact some of the survey outcomes. The sample size of some demographics of workers to some questions showed that some questions would not provide enough data for every cross tabulation to produce relevant outcomes.

For the purpose of the first phase of this study, workers who chose to respond to the online survey may or may not have been forwarding the survey from business, labor, and community leaders who would have an interest in a study of this nature. Maximizing the survey responses was accomplished from as broad of a spectrum of construction workers as possible and was accomplished by utilizing a network of labor and business organizations, educational institutions, and healthcare contacts. This networking was encouraged, to maximize the sample size, by distributing the survey link broadly to workers in their contact circles. This 'snowballing' effect asked the contacts to complete the survey and prevented the perception that the researcher influenced the outcomes by determining who received access to the survey link. Because of the snowballing distribution method used, the sample size beforehand was undeterminable, and the focus was on maximizing the number of survey responses.

After reviewing the Phase I data, one-on-one interviews (Phase II) were conducted to dive deeper into themes that emerge from the Phase I data. Some of the candidates for these interviews may have also been respondents from the Phase I survey. Participation in Phase I was not controlled for in Phase II since Phase II participation was not reliant upon whether the interviewee had participated in Phase I. The University of Missouri Extension Department of Workforce Development Program Director agreed to be utilized, if needed, and to identify additional interviewees if they were needed. The director agreed to act as an unbiased resource knowledgeable of the STL area labor and workforce for this study. This was not necessary because of the number of interviews that were conducted.

The second or interview phase of the study focused on purposeful targeting of a sample of St. Louis's workers in the construction field. This phase intentionally asked individuals open ended research questions that allowed them to share their insight, born from their experiences. These discussions better enabled the researcher to pursue questions in search of answers that were better addressed in a conversational setting than what an online survey would have produced. Participation in this phase of the study was random and not restricted to individuals who have participated in the online survey phase before the interview. Interviewees may have taken the Phase I survey before their interview.

In both Phase I and Phase II of the study, after providing responses to how they were prepared for entry into the workforce, participants were asked questions that allowed them to speculate on skills that the next generation of workers will need in order

to be successful. While this line of questioning was speculative in nature, the foundation for that speculation is in the changes that respondents or interviewees have experienced and witnessed during their careers.

Variables

The research questions in Phase I were in the form of an online survey that collected data on the effectiveness of educational skills training in preparing workers for success in the construction workforce. Currently, Gen Z and the Silent Generation workers appear in the workplace in small numbers. Still, having five generations in the workforce does present a rare opportunity to survey and compare differences between this many generations. For this reason, it was decided that the study would not restrict access to the study due to age and to use the following already established terms and definition for generations encountered:

Gen Z, iGen or Centennials	= born 1996 – TBD
Millennials or Gen Y	= born 1977 – 1995
Generation X	= born 1965 – 1976
Baby Boomers	= born 1946 – 1964
Traditionalists or Silent Generation	= born 1945 and before.

This study's dependent variables were how the workers responded to the questions in both Phase 1, the online survey, and Phase 2, the interviews. While many of the respondents were of similar age, gender, race, or come from the same nation of origins, these independent variables did not change. The independent and dependent variables were coded for analysis. After studying the findings of the dependent and independent variables separately to determine what patterns or finding could be

determined, the data was overlaid to see if generation, gender, race, and nation of origin determined new or different findings. It is the combination of the analysis of both the independent and dependent variables from both phases of the study; independent of one another, as well as together that were used to draw the conclusions for this study.

Data Collection

The primary focus of the research was on how well construction workers in the St. Louis area have been prepared for success in the workforce. However, collecting data from workers outside of the St. Louis area was beneficial in three ways. First, respondents were tracked by whether the responding workers were from Missouri, having received their secondary education in Missouri, or from outside of Missouri. This allowed the researcher to determine whether there was any correlation as to how well respondents perceived their secondary education has prepared them for the workforce, from within the target area of St. Louis Missouri vs. outside the target area. Second, the survey also attempted to track workers who were educated in Missouri and working in other regions of the United States to determine how they feel their education in Missouri prepared them for success in working with people raised and educated elsewhere. Similarly, the data was collected to try to determine if workers in the target area received their post-secondary education elsewhere and how their views on the success may differ from workers educated in Missouri. The third benefit of collecting data from outside of Missouri was to provide a standard comparison of the results to the Missouri education community and workers training (apprenticeship) programs, on the views and perspectives of workers regarding how well the education and training

programs are preparing workers for success in the construction industry. Some of these measures were more difficult to achieve than others due to some responses producing smaller sample sets.

For this study, the education outcomes that were focused on were primarily from the respondents' high school experiences. Of course, factors like geography (location), race, and family economic status influence and contribute to the effect of how a student is prepared for success in high school. For example, which high school the student attended in a city with such extremes in economic and social class structures like St. Louis will also influence high school success. It was understood that several factors' go into providing high school students with the tools needed to be successful in high school before they enter high school. Therefore, this study did not attempt to measure those factors influence on students in their pre high school education that would influence their success in high school. Furthermore, this study did not attempt to differentiate between individual schools, or between public, private or charter schools.

The study focused on workers in the construction industry. This is an industry with a history of providing education and skills building apprenticeship programs. For that reason, a section of the online survey was included to determine if the respondents had experience with an apprenticeship and if they felt that apprenticeship contributed to their workplace success.

The last section of the survey focused on the skills needed to remain successful in the workforce in the future regarding skills needed for future workers to be successful when entering this workforce. It is in this section that the opinion of the workers who were the primary focus of the study, those who have been in the workforce for two

decades, is critical since they can expect to remain in the workforce for another decade or two (perhaps more). In addition to being in the workforce for many more years, these demographics of workers are most likely to be in the position of being key players in determining who is hired, what skills employers are looking for, what training is critical, of being mentors to new workers, and what job duties new hires will be assigned. Both Phase I and II demonstrated that they are often the people who are providing the training to new workers. This demographic of workers has both 'been there' long enough to know what needs to be done, and they will also 'be there' long enough to want to ensure that the new hires have what it takes to be successful.

With elements of the Phase I survey being to engage workers nationally it was determined that the questionnaire or survey needed to be a web-based online survey. The survey link was sent to individuals within labor and business organizations, professional and industry specific organizations, and/or educational institutes. In each case, the request was to take the survey, if they met the survey parameters, and most importantly to forward the survey to their contacts in their industry who meet the subject criterion of the study. In some cases, calls were made after the survey link has been sent to 'snowballers' to follow up, asking them whether the recipient had taken the survey and/or requesting that they send the survey to others in the construction industry. The overarching goal was to reach as broad of a workforce representation as possible by using an online survey.

After analyzing the online survey data, areas where additional detail or clarification was needed were addressed by utilizing one-on-one interviews via Zoom for meetings technology. The University of Missouri Extension Workforce Development

Program Director was available to be utilized as an unbiased advisor to identify individuals in the STL Labor Community to interview based on their area of interest and expertise on the subjects identified had that been necessary. It was not.

The principal investigator was able to use his role with the University of Missouri Extension, Labor and Workforce Development Program, as well as his past involvement in the labor community, to distribute links to the data collection tool and to develop interview opportunities. In compliance with the regulations of the Institutional Review Board (IRB), the permission for conducting the research was obtained (Institutional Review Board, 2001). The Request for Review Form was filed, providing information about the principal investigator, the project title and type, source of funding, type of review requested, number, and type of subjects. Approval was granted by UMSL IRB on July 10, 2020.

A statement relating to informed consent was affixed to the web survey and reflect compliance by participation. The anonymity of participants was protected by numerically coding each returned questionnaire and keeping the responses confidential. While conducting the individual interviews with the selected respondents, they were assigned fictitious names, numbers, or other identifiers, for use in their description and reporting the results only. All study data, including the survey electronic files, interview tapes, and transcripts are being kept in locked cabinets. After a reasonable period, all the records will be destroyed. Summary data will be disseminated to the professional community in a way that it will not be possible to trace responses to individuals.

Ethics and Human Relations

In addition to being a student candidate in UMSL's College of Education Ed.D. Social Justice program, the researcher is a Labor and Workforce Development Specialist with the University of Missouri Extension, as well as being the Labor Studies Certificate Coordinating faculty member for the UMSL College of Arts and Sciences, which is a course-share certificate program with UMKC. Prior to joining the University of Missouri in February of 2017, the principal investigator worked as a staff member, elected officer, manager, and director for five different labor unions that represented tens of thousands of employees of both public and private employers in four states over a span of over 25 years. During the principal investigator's pre-academia career, he represented workers in over 5,000 different job classifications for workers working for over 100 different employers and every constitutional office in Illinois, in every state agency, bureau, board, and council in the states of Wisconsin, Alaska, and Maine. During his worker advocate duties, the principal investigator was involved in researching scores of 're-organizing,' 'reclassification' of duties, 'classification consolidations,' the introduction of new duties (and classifications), as well as job skill retraining programs. At the same time, it is noted that the principal investigator's relationships with his contacts from his earlier employment are sufficiently distant, with enough time having passed, that there is no expectation that the relationships of the past influenced responses to the survey if contacted.

The principal investigator's employers, the University of Missouri Extension, and the University of Missouri Saint Louis, is supportive of this study. Some of the principal investigator's coworkers were involved in the pilot testing of survey questions.

Specifically, Field Specialist's in Labor and Workforce Development with the University of Missouri Extension Dr. Amy Patillo and Matthew Pezold M.S. Lastly, prior to putting the survey in the field targeted reviews of the online survey questions were conducted from specific perspectives. These reviews were conducted by the following: Dr. Kandace L. Fisher, Field Specialist in Housing Education with the University of Missouri Extension, reviewed the questions for the principal investigator from the perspective of the non-Workforce Development, or lay perspective. Dr. Amy Patillo, Field Specialist in Labor and Workforce Development, with the University of Missouri Extension reviewed the questions from a Workforce Development perspective. Dr. John Gaal, Retired Director of Training and Workforce Development for the St. Louis – Kansas City Carpenters Regional Council, from the perspective of a construction trades worker. These collaborations and reviews contributed greatly to enhancing the overall quality of the online survey.

The University of Missouri Extension has also approached to distribute the survey through its Workforce Development contacts and network, both in and outside of the State of Missouri if needed. Various union and business contacts, primarily outside of the State of Missouri that the principal investigator knows from his pre-academia career, were contacted to assist in distributing the survey link to their non-Missouri networks of contacts. Additionally, the principal investigator utilized the network of contacts from his University of Missouri Extension job to distribute the survey within the State of Missouri, as well as to develop contacts for interviews.

The proposal for the field research was approved by UMSL IRB on July 10, 2020. The online survey was not put in the field in December of 2020. Snowballing of the

online survey took place during a 30-day period in late 2020 and early 2021. It is anticipated that the results of the study will be made public prior to the conclusion of the Spring 2021 semester. Furthermore, it is anticipated that the study will eventually result in a published journal article in a scholarly, peer-reviewed publication, to share with the educational community.

CHAPTER IV: RESULTS & DISCUSSION

Results & Discussion: The American Dream for Latinx in the United States

The purpose of this chapter is to discuss and describe findings related to the five most common barriers that Latinx encounter (Table 4.1) as they try to acquire a better life once they leave high school in the United States. The discussions about the findings include similar characteristics that I observed as I started this research two and a half years ago. What I am presenting here are the most prominent findings that were highlighted from the data I collected. These data were derived from a questionnaire containing 11 questions that was completed by former Latinx students that I had taught in the past, as well as recent Latinx high school graduates from Saint Louis, Missouri, and Plano, Texas (Appendix S1). In addition to these responses, there are some responses from former Latinx students who are now living in other states such as Florida and California.

Table 4.1

Description of the most common barriers identified in the previously published literature. These barriers guided the focus of the questions in the student surveys.

Barriers	Description
Role of family on post-secondary decision making	Level of education obtained by the student's parents or close relatives
Finances and economics	Household economic status of the family
Language acquisition and language barriers	The student's English proficiency level and ability to manipulate and interpret English
Second culture assimilation	The student's ability to navigate a second culture in a school setting while maintaining their first culture at home

Academic tracking and advising

Sufficient academic guidance from teachers, counselors, parents and friends

This chapter also contains the results from interviews of four selected Latinx students who completed the survey. The intention was to do an in-depth interview with those students who represented a particular pattern that was identified as a potential barrier to academic success for that student. The intention of the interview was to follow up with the Latinx students to see whether or not they were able to break through one or more of the Five Barriers, but I also wanted to check-in with my former students to find out how they were doing in general. The pattern and theme derived herein appeared in both the survey and the interview. An analysis of both the survey and follow-up interview will be presented in this chapter. The following are the questions that served as a framework for the data collection for this qualitative study presented in this study in the first phase of the survey.

- a. What is your gender?
- b. With what region of the Spanish speaking world do you identify?
- c. Do you speak Spanish?
- d. What is your degree of comfort when using Spanish?
- e. What is your immigration status in the United States?
- f. What is your family's socioeconomic status?
- g. What academic preparation have you received in your high school?
- h. Did you seek additional academic support from your teacher(s) or counselor when struggling with a subject?

- i. Has (did) an academic counselor guided you in choosing what classes to take in order to be on track with meeting all graduation requirements?
- j. What level of education did your parents complete?
- k. Did you receive encouragement and motivation from parents or guardians to continue with studies beyond high school?

First, I will describe the process of how the candidates for the interviews were chosen. Secondly, I will describe the practices, processes, perspectives and impediments that some Latinx students, particularly the immigrant Latinx, and go through once they graduate from high school. Finally, I will share the findings of my interviews. And I will offer discussion throughout the chapter to interpret the significance of my findings within already existing literature on this topic.

Ethical Procedures and Confidentiality of the Interviewees

As the investigator and researcher of this project, I assured my interviewees and participants that no harm would come to them from these interviews. In addition, I assured the participants that at any moment when they felt at risk or endangered by providing me with information, they could stop and terminate the interview. Interview video and audio files typically contained the names of the interview participants, so I assured the participants that their names would not be used in this dissertation. Also, I made the participants aware that I would use the Zoom feature that transcribes their answers recorded during the interview, but to ensure the privacy and confidentiality of the participants, all interviews, videos, and audio files containing identifiable information would be stored in a locked file cabinet located in my office, or on the hard drive on my

laptop computer that is protected by a secure passcode. The audio and video recordings will be destroyed following the completion of the study.

Participants in This Study

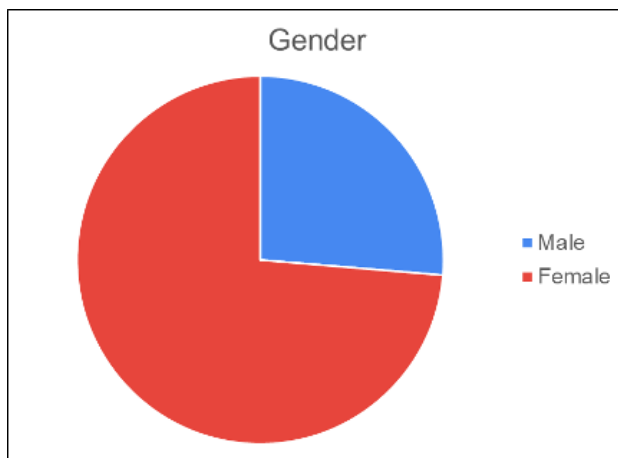
The sample population for this study consisted of 56 former students from the St. Louis Metroplex or the Dallas Metroplex. Some of the participants are now located in other states, such as California and Florida. The students all graduated from U.S. high schools where I taught from 2001 to the present. The participants identify themselves as immigrants and Latinx as is shown in the results of this survey. The age of the participants ranged from 18 to 30 years of age. Other students are just now finishing up some sort of higher education or trade school. Five students have college degrees, and two are completing an associate degree in local community colleges with the intention to continue on to a four-year university in order to obtain their bachelor's degree.

The set of qualitative research questions shown below served as a framework for the data analysis and were used to organize the findings of the study presented in this chapter.

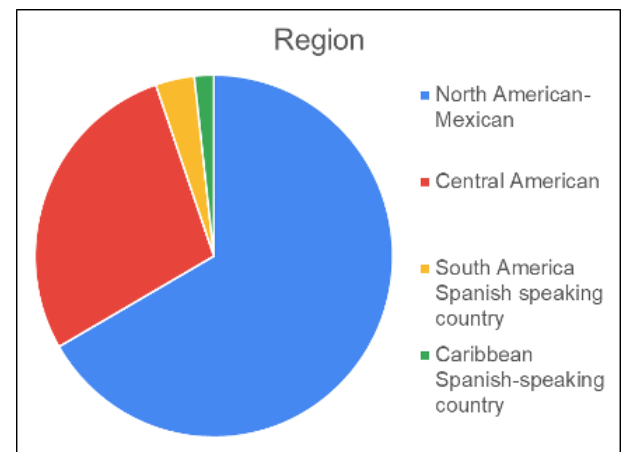
- a. How do the barriers to education described by the Latinx students in this study compare to those identified in previously published literature?
- b. Did the Latinx students participating in this research study identify any new factors that contributed to a barrier for their pursuit of post-secondary educational opportunities?
- c. Are the factors identified by the students as barriers to post-secondary education being addressed by high schools and colleges? If so, what types of practices are they implementing to break down these barriers?

Gender and Countries of Origin

First, I will address the responses obtained with each of the questions from the first survey. The majority of the participants identified themselves as female, with 43 participants being females and 15 males (Graph 4.1). Eight of these participants live in the St. Louis metroplex area and six of them are female and the other two are male. The data showed that students in this study were demographically diverse to some extent (Graph 4.2), but the majority of the students (67%) are from Mexico followed by students from Central América (28%) and only a few from South America and the Caribbean (5%).



Graph 4.1. Gender distribution of the 56 participants who completed the first survey.

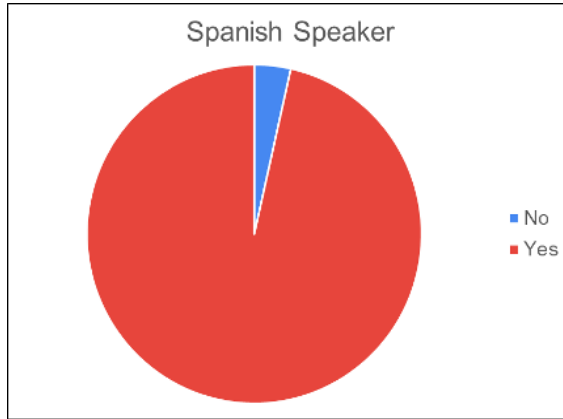


Graph 4.2. Country or region of origin of the families of the survey participants.

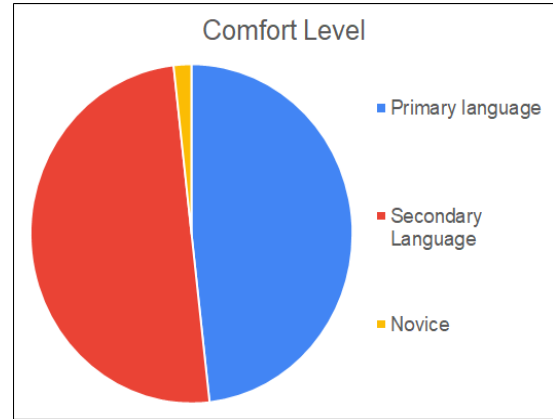
Spanish Language Skills

Fifty-five of the 56 students that participated in the survey identified as someone who speaks Spanish (Graph 4.3). Two of the students do not speak Spanish, however, they hear the language at home and can pick up some words when listening to Spanish. Language barriers set students at a disadvantage in the American Education

System for multiple reasons. First, the student's level of comprehension in classes that are conducted in English will be less than that of a native speaker, so it will be difficult for the student to learn the academic curricula demanded by the school. This can lead to a situation where the student's grade-based measurement of academic achievement is lower than that of a native English speaker. This is occurring while the student is not only negotiating the process of second language acquisition, i.e., learning English as a Second Language, but also learning to culturally assimilate into the local United States culture. These barriers are often difficult to break and become strong obstacles against success. Although bilingualism is an asset that puts a person in an advantageous situation, being able to have a strong command of the language, in this case English, is a need that a student has in order to navigate the educational system in this country. Nearly half of the students in this survey identified Spanish as their primary language (Graph 4.4), suggesting that their skill with the English language is less than that of a native English speaker. The lack of English command becomes one of the barriers that some of these students have had since they were in the secondary education system in the United States.



Graph 4.3. *Number of survey participants who speak Spanish.*



Graph 4.4. *Degree to which survey participants feel comfortable speaking Spanish.*

Immigration and Socioeconomic Status

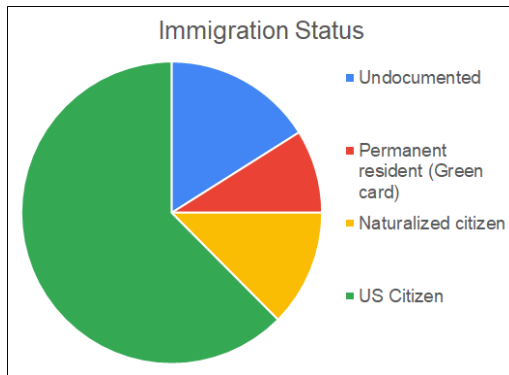
Out of the 56 students who completed the survey, 35 were born in the United States, 7 had completed the process of naturalization, 5 were legal permanent residents (Green Card), and 9 were undocumented (Graph 5). Undocumented students have almost no realistic opportunity to attend an institution of higher education in the United States, although the size of the barrier can change depending on which political party controls the government. For example, the (Deferred Action for Childhood Arrivals DACA) program-initiated President Obama that protected young undocumented students from deportation also made it possible for them to pay in-state tuition at many universities and colleges. That action did not completely dismantle the economic barrier to a higher education, but at least it made the barrier surmountable. Even with DACA, the absence of documentation prevents the student from qualifying for scholarships. According to Contreras (2011), “The undocumented students who are savvy enough to navigate high school and complete the requirements for college are still left with the considerable challenge of financing their higher education” (p. 97). This financial burden will make

the dream much harder to reach, because the cost of a post-secondary education is very high and continues to increase every year.

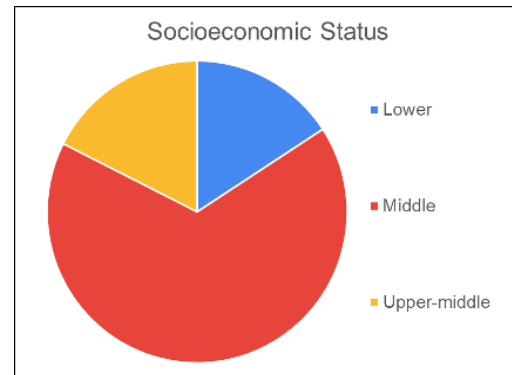
An additional factor to consider when examining this data is the socioeconomic level of the Latinx student and his/her family. Eleven of the participants considered themselves and their families to be in a low socioeconomic status, followed by 37 that considered themselves as being part of the middle class, and eight families identified with the upper middle class (Graph 4.6). It is important to note that these socioeconomic statuses were self-determined by the survey participant and did not adhere to any strict definition of socioeconomic levels.

The Latinx's actual socioeconomic situation, regardless of its actual classification, has an impact on their cultural affinity -- in this case, affinity being the student's perception that they belong in a place or an institution. Through my years teaching in the public school system, I noticed that students would build their résumés not only with their academics, but also enhance it by participating in extracurricular activities including different committees in and out of their communities such as volunteering for local organizations. Latinx students whose families live at a modest socioeconomic level cannot afford to participate in a lot of extracurricular activities due to their need to work many hours in afterschool and weekend jobs. Some of the most frequent reasons that Latinx students express that they may not participate include other responsibilities after school, lack of money for transportation, safety issues, and other external constraints (Borden et al., 2005). For many Latinx students, the need to work is tied to their families' well-being. In many cases, money received from working at restaurants, landscaping, cleaning services and those kinds of jobs help support their

families. Two of my former students who were struggling academically in my class told me that they had difficulty completing homework, because they had to work to help support their families and they were usually very tired after working late.



Graph 4.5. *Immigration status of the survey participants.*

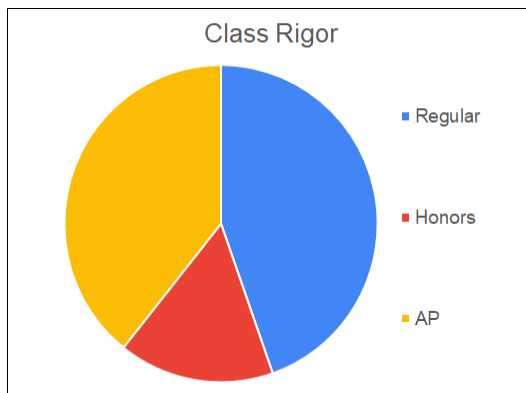


Graph 4.6. *Self-identified socioeconomic status of the 56 survey participants.*

Academic Rigor

Whether or not a student is prepared for college depends on the rigor of the classes they choose to take during their high school education. In the high schools where I have taught, class rigor can generally be divided into three categories, listed from least to most rigorous: Regular, Honors, and Advanced Placement (AP). Among the participants that completed this survey, 25 had completed only regular classes, nine students had taken honors classes, and 22 students had completed AP classes (Graph 4.7). Two participants indicated that they had to take remedial classes such as English as

a Second Language which helped them with other classes such as mathematics and sciences. In one case, a second language learner reported that she did very well in most of her academic classes, obtaining Bs, B+s and As. However, in Literature, English Composition and English Language classes that involved a lot of interpretive reading, she received D's which led her to feel very unsuccessful. She reports that in her high school classes she was always quiet. One of the reasons for being quiet was the lack of confidence with her spoken English. She did however feel that her language arts teachers understood that she needed more time with assignments, especially reading assignments.



Graph 4.7. *Highest degree of class rigor completed by the 56 survey participants during high school.*

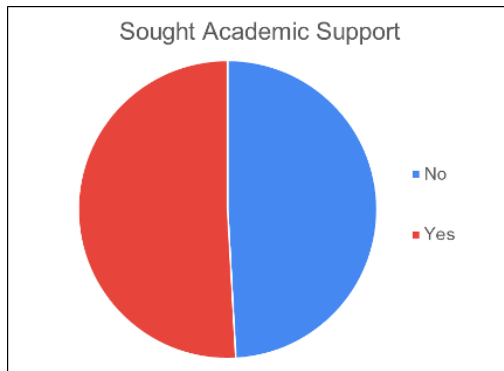
Support from Academic Advisors

Some students who completed the survey felt that their high school expected them to know all the rules and policies that were in place, which was difficult for them since they were not familiar with this type of school system, especially if they had only been in the United States for a short while. Some of these Latinx students move frequently, therefore, learning and getting used to the new system made it hard for some of them to navigate because they are constantly learning and becoming used to their new schools, new rules, new teachers and new classmates. The level of confidence, especially low academic confidence that can be caused by a lack of previous experiences of high academic success would serve as a barrier to apply for college or to seek admission (Manzano-Sanchez, Matarrita-Cascante, & Outley, 2019).

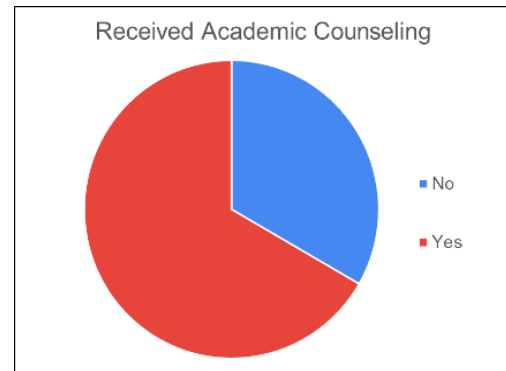
Support and advice from counselors are an important part of a successful high school experience and can have a major impact on whether or not a student pursues higher education after high school. Among the Latinx students who completed the survey, slightly more than half of the students indicated that they had actively sought and/or received academic counselling when struggling in classes (Graph 8). While it is encouraging that 50% of these Latinx students sought additional help with their academics, the flip side is that the other half did not proactively seek help. Fortunately, 70% of the Latinx students in this survey indicated that an academic counselor had guided them with what classes to take in order to be on track with meeting all graduation requirements, but once again, it is disconcerting that 30% claim they did not receive academic counseling (Graph 9). However, it is important to recognize that many of the

Latinx students who completed this survey were doing so after they had graduated from high school, so memory of their interaction with academic counselors is probably not as strong as their memories of their regular class teachers.

Although advising definitely supports success in graduating from high school and helps with preparation for further studies, the frequency and how the Latinx experienced the amount of advising can have a negative or positive impact on the help the student received. Latinx students do not perceive scholarships and student loans as an option for financial assistance for college. Another impact that the lack of support from counselors, teachers and academic college advisors have in the success of Latinx is that many of them do not know where to look and how to apply for scholarships. Schools should provide support, motivation, programs with structure, and clubs that engage Latinx students within their schools and communities, academic support, information about financial aid, college entrance, and career searches, and that schools should eliminate discrimination and racism and increase Latinx cultural resources (McWhirter, Luginbahl, & Brown, 2014). In many cases, the motivation of the Latinx student to pursue a post-secondary education is strongly affected by their perception of their own abilities. Latinx students often feel they do not meet the necessary requirements, or they do not have the appropriate classes or extracurricular activities to build a strong résumé.



Graph 4.8. *Number of Latinx students who indicated they actively sought academic support through counselors or teachers during high school.*



Graph 4.9. *Number of Latinx students who indicated they received some academic counseling, either solicited or unsolicited, during high school.*

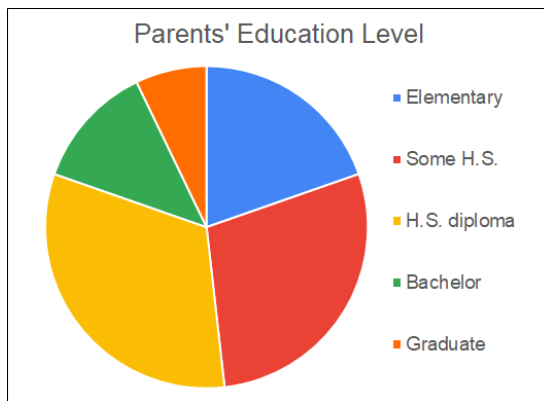
Parents Education Level and Familiar Motivation (Graph 4.11)

Among the Latinx students who completed this survey, there was a wide range in the highest level of education obtained by their parents, ranging from elementary school to graduate school (Graph 4.10). However, nearly half the parents had never received a high school diploma with 20% having completed elementary school and 29% having some high school education, but not a diploma. On the other hand, slightly more than half the parents had received a high school degree (32%), a bachelor's degree (13%), or a graduate degree (7%). The level of education of the parents or guardians of the student has an important influence on the support and motivation they give their child to succeed academically and to seek higher education after high school. This influence typically starts at a young age with more educated parents being able to help their children academically from the very start and later on with the decision to continue studies beyond secondary education. It is worth noting that this phenomenon is true for all students, not just Latinx students, but the parents of Latinx students living in the United States, who

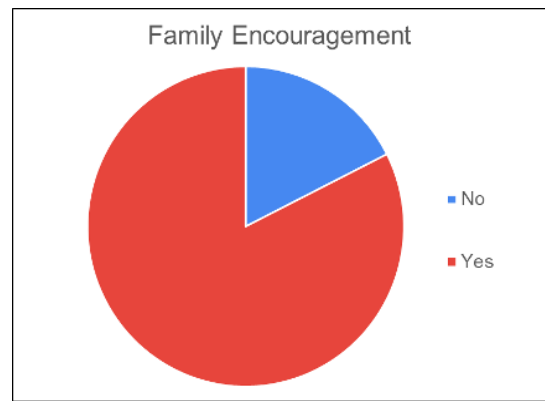
typically come to the United States for economic reasons, tend not to have achieved the same level of academic training as those parents born and raised in the United States. According to Manzano-Sanchez et al. (2019), “The difficulties that parents face in their unskilled jobs were also factors that motivate the students to go to college” (p.35).

Forty-seven students (84%) felt that they had received encouragement from their parents to continue with their education beyond high school, but conversely, nine out of the 56 (14%) felt that no support or encouragement was received from their parents to proceed to a post-secondary education after high school (Graph 4.11). Many of these parents are unaware of opportunities, such as the Deferred Action for Childhood Arrivals (DACA) programs. This program exists in order to provide undocumented immigrant students who were brought to the United States illegally as children, but through no fault of their own, with protection from deportation, and in many cases, permission to work and attend college. In regard to family encouragement to pursue post-secondary education (Graph 4.11), there was a clear relationship with the parents’ education levels (Graph 4.10). Of the 11 students who reported, no family encouragement to pursue higher education, six of the parents only had an elementary school education, one parent had some high school training, and two parents had graduated from high school. In other words, no parent with a high school degree or above failed to encourage their child to pursue higher education after graduating from high school. Although not specifically addressed in the survey, this result reveals another barrier to higher education for Latinx students who come from poorly educated but hard-working families. Latinx students in this category can feel an enormous responsibility to help support their families. This

sense of responsibility that Latinx students feel typically begins when they enter high school. In addition to providing income to the family, these students assume important roles in their household such as caregivers for younger siblings or for elderly household members. After high school, the parents of these students often encourage them to seek full-time employment to help support the family. These family's value hard work and responsibility, but it is often difficult for them to make the connection between post-secondary education and long-term earning potential. The immediate needs take precedence over potential earnings.



Graph 4.10. Education levels of the parents of the Latinx students who completed the survey.



Graph 4.11. Did the Latinx student receive Encouragement and motivation to pursue Post-secondary education?

Follow-Up Survey

The information extracted from the participants' responses to the first survey identified common barriers encountered by Latinx students when they were enrolled in high school and considering their post-high school options. There were some common patterns that could be concluded from some of the responses, such as the previously mentioned connection between the parents' education level and the amount of

encouragement they gave their child to pursue higher education. However, based on informal conversations with some of my former Latinx students, it was clear that the decision to pursue a post-secondary education was sometimes made at some point after leaving high school and likely led to additional barriers to education. Therefore, another survey was developed with questions that addressed the academic barriers faced by Latinx students after they graduated from high school. The follow-up survey considered other post high school options such as part-time college, postponement of college, full-time work, or unemployment. These types of questions were not specifically asked in the first survey. The exact questions along with the available responses are shown in Appendix S2.

Nineteen of the 56 former students who responded to the first questionnaire also responded to the second questionnaire and 11 people who answered the second questionnaire had not answered the first questionnaire. Whereas the first questionnaire was focused on barriers the students faced while attending primary and secondary school, the intention of the follow-up questionnaire was to see how many of those students attended college after graduating from high school, and to determine if there were additional barriers that these Latinx students encountered as they transitioned into adulthood. The second survey was also designed to identify barriers specific to those Latinx who could not or chose not to attend an institution of higher education in the United States.

Results of Follow-Up Survey

Nineteen students completed both the initial survey and the follow-up survey. Among the students who answered the second survey, 89% said they had the intention to

continue their education after graduation while 11% did not. Sixty-eight percent of those students applied to schools such as trade schools, community college or university after graduating from high school. Two male students made the decision in high school to not apply for college. At the same time, two female students who filled out a college application in high school, did not actually attend college. However, in a question that asked if they had the intention to study in a community college or a four-year college, 96% of the Latinx answered yes, they wanted to obtain a degree from a two-year or four-year institution. At the same time, 54% of the participants had a full-time job at the same time that they were attending school. The task of managing a full-time job and taking classes is very difficult to accomplish for a lot of people, therefore, it is a major barrier to higher education. Latinx students are in school with traditional students who are able to focus primarily on a career without the distraction of working full or part-time. Thirteen out of 28 Latinx that answered the follow up questionnaire said that lack of economic support was the main barrier from attending college. Interestingly enough, two of the 13 said that they did not feel prepared for college. Eleven out of 28 are attending a university and five have obtained a college degree.

Video Interviews, Third Step

After examining the results of the first survey (N=56) and the follow-up survey (N=30) that these Latinx students answered, I selected four of the participants to interview face-to-face using the Zoom platform for the interviews. These students were selected, because all of them demonstrated that they had to overcome barriers to continue with their education beyond high school, but not all of them had been able to do so to the same degree. Another factor leading to the selection of the four interviewees was that

two of them were recent graduates -- one graduated in 2019 and the other in 2020. The other two Latinx who were interviewed graduated in 2012 and 2013. The two recent graduates are from the St. Louis metropex area, and the other two graduates are from the public high school in Texas where I taught for 15 years. The four interviewees are identified as Latinx One, Two, Three and Four. In the following sections, I will describe my interview with each Latinx interviewee.

Latinx One: Female Student Who Graduated from High School in 2013

Initially, I met this student in 2011 when she was in my Spanish AP Language class. She was also a member of a group called Keeping Education Your Stepping Stone (KEYSS). This was an initiative implemented by the former district where I worked. The intention of the program was to provide students of color and minorities with the opportunity to imagine and plan for a life beyond high school. Latinx One was a member of this group. One of the activities organized for the KEYSS students was a campus visit to local colleges and universities. During the visit, KEYSS students had the opportunity to interact with college representatives who talked to them about application procedures, scholarships, and often, helped the students identify career options that best fit the students' academic and career interests.

This student graduated from high school in 2013 with the intention of attending college. Her high school grades were not very strong, and she had to take an examination provided by the State of Texas called the Texas Success Initiative Assessment (TSI). This test is part of a program designed to determine if the students are ready for college courses. This examination is generally given to all those students that have a low GPA. The intention is to determine if the student is ready for college level classes. Latinx One

took this examination and passed the writing and reading parts but did not pass the mathematics part. She sought help from an advisor at the community college after she did not pass the Mathematics exam, and he told her that she had to retake the exam. The advisor did not offer remedial classes that she could take to help her prepare for the exam. After completing her examination, the student spoke with her grandfather and mother about the next steps moving forward. After informing her family that she had failed the mathematics examination, her grandfather responded, “Oh well, what was the point of coming to take these exams.” Her mother shared her concerns that the community college was too far from home and that she did not have time to take her daughter to school to retake the exam, or to give her transportation to and from school in the future.

Moving forward, the student began working at the local mall for about a year until one day she received a phone call from a local Montessori school where her cousin was working. She was offered an interview and then a job. She has been working there since 2015. She was able to do some certification training in order to work at the school as a teacher’s assistant. The job did not pay very well, and the periodic pay increases were not very large. However, the experience that she obtained from that job made her realize that she wanted to be a teacher, and she started to attend a community college. Now, she is in her final semester at the community college and is transferring to a four-year university. Latinx One has been receiving very good grades, and she has a strong personal motivation to continue working on her bachelor’s degree in education with a minor in bilingual education.

The major barrier that this student faced after graduating from high school was the lack of encouragement and support that she received from her mother and family. They seemed to lack faith in her ability to retake and pass the mathematics entrance exam, or at the very least, they had no interest in helping her do so. Furthermore, economics also played a big factor in her decision to find a job after graduation and delay her college studies. Latinx One was raised by a single mother and lived in a house with many relatives, and she was constantly reminded that she had to work to help support her family. When she failed to pass the TSI assessment, this situation was an affirmation for mother that she needed to go to work rather than pursue post-secondary education.

Latinx Two: Male College Student Who Graduated from High School in 2012

Latinx Two graduated from high school in 2012 with the intention to further his education. This student was raised by a single mother and came to the United States at a very young age, so they struggled economically while he was in high school. Therefore, Latinx Two had to get a job immediately after graduating from high school. Because he wanted to continue with his education, he applied to a community college in order to attend the summer after high school. Doing both things -- working and going to school -- was the first barrier he encountered. He had an older brother who also worked while going to college, but they never talked to each other about college or struggles between managing a full-time job and taking classes, because their busy schedules never allowed them time to connect. Latinx Two regrets this lack of communication and guidance from his older brother.

Latinx Two's work schedule and workload varied from day-to-day, and this inconsistency did not allow him to really plan for completing his homework and

studying for exams, consequently, he obtained bad grades in his college classes and failed some of them. Therefore, for Latinx Two, his barrier to higher education was related both to transportation and finances. He was taking four classes per semester, which is a full-time load, while working full time. He needed a car to get to his classes, and he needed a full-time minimum wage job to pay for the car. Working full-time made it hard to schedule time to complete his homework and still get enough sleep. After a year of trying to manage both school and work at the same time, work prevailed. The mother married and had another child, and things got a little bit harder for the student. His Mother could not take him to work, and Latinx Two bought a new vehicle with financing, which meant he had to make monthly payments. Therefore, he dropped out of school and worked full-time making \$7.25 per hour. Shortly after that, he became a manager of the food fast restaurant where he worked. The increase of salary was not much, but the amount of work increased and working 12-hour shifts became the common routine. In his own words, Latinx Two said, "Education is always going to be there, so when I feel like I am more balanced, I'll go back to it." College was always in the back of his mind, but as time went on, the opportunity to return to college was growing more and more distant.

It took six years until Latinx Two went back to college. It was a friend from church who recommended him for a job at an investment firm based on his management skills that he learned at his work at the fast-food place. The company immediately enrolled him in a set of training and certification classes for the new position that he was applying for. He had to take several classes in order to receive a special certification needed for the job. He has been successfully working at this new job for a year. Latinx

Two immediately realized that he is not going to get very far in this new company if he does not obtain a bachelor's degree from a four-year institution. He is now enrolled in the community college where he is completing his two-year degree in order to apply and transfer to a four-year college where he will major in business and administration. He intends to work in the same line of work that he is doing at the moment. He feels very successful at this new company that has allowed him to grow professionally in the line of work that he is performing and making him very proficient in what he is at the moment doing. He feels that in high school he never received guidance in selecting classes that would prepare him for college, nor help he needed to apply for college. However, he does not want to blame the school. He says that he feels responsible for not seeking help from counselors. He feels that his friends were in the same situation. Most of them knew that they had to get full-time work after high school, therefore, they did not see a benefit in talking to a counselor.

Latinx Three: Male Student that Graduated from High School in 2019

Latinx Three came to the United States from Central America running away from Maras. Maras, also known as Marabunta, is a gang that originated in the United States but has now spread to some countries in Central América with lots of movement in El Salvador, Honduras, and Guatemala (Boraz & Bruneau, 2006). The parents of Latinx Three saw many young people get killed in the neighborhood where they lived in Honduras. They decided to leave everything behind, risk everything, and move the immediate family to the United States six years ago. The first two barriers for Latinx Three were language and cultural assimilation. Latinx Three has an uncle in the St.

Louis area that is married to a lawyer. They helped the family to get legal counsel and went through the process of obtaining legal residency in the United States for the entire family of five -- two parents and three children.

Latinx Three was immediately placed in English as a Second Language (ESL) classes in the education system where he attended school. He was enrolled in supportive English classes until the end of high school. He is thankful for the preparation, dedication, consideration, and care that he received from the ESL classes at the school district where he graduated from. The student worked six hours almost every day during the time he was in high school, because he needed to help support his family financially. The money obtained from his job was to help his family economically. The father works in the landscaping business, so during winter months work was scarce. The entire family works to save money so that they have enough during the winter to pay for housing, bills and food.

At school, Latinx Three felt that he was very prepared academically to further his education, and that the process of learning English was very helpful. He never felt uncomfortable or singled out in class. However, he feels that he never received any advice from counselors in regard to his plans for the future. He wishes that someone besides his ESL teacher, plus a few other teachers he had during that time, had taken an interest in him and guided him through his academic future. At the same time, he says that he never sought out advice from the College and Career office. He said that other Latinx students in the same school felt that language limitation, lack of encouragement from home, and the pressure that they felt at home to have a job, really limited them and their desire to ask for an appointment. He mentioned that his circle of friends in high

school were in the same situation that he was, and they were not able to provide any support in the way he had observed non-Latinx students giving and receiving in his classes. He also mentioned that the language barrier did not allow him to have more friends, because he felt embarrassed to talk to other people because he had an accent.

Upon graduating from high school in 2019, Latinx Three went to work full-time with his father in the landscaping business. Work has been very robust in the last 24 months, and they have expanded their service to include retaining walls. After high school, Latinx Three took several online classes to help his father learn about this new addition to the business. These classes were less traditional than high school but completing the classes has given him the confidence to continue training and learning about other possibilities for their family business. The student feels that he wants to go back to school in the near future to obtain a bachelor's degree, but at the moment, he has a younger sibling at home that they have to support. He feels responsible for her and the family as a whole.

Latinx Four: Female Student that Graduated from High School in 2020

Latinx Four came to the United States at a very young age, when she was almost three years old. The parents did not speak English at the time, and she grew up speaking Spanish at home. She had to start first grade taking English as a Second Language class and attend a special program in the school district for several years. Latinx Four identifies herself as a strong, mature student with goals. Those goals include a college degree and a future professional career. She has never received encouragement nor support from her parents to pursue higher education after high school. Quite the contrary, she feels that she has been reminded over and over, especially in the last two

years of high school, that she needs to work in order to help support herself. She has a sibling that was born in the United States, and this makes her situation more intolerable, because she is constantly reminded that she is undocumented and admission to college is much harder for her situation. She does not have the economic support from her parents, mainly because they do not have a lot of money. Furthermore, it is nearly impossible for her to apply for scholarships, because she does not have a social security number. Her mother told her that there is no point for her to invest in school in the United States because even if she attends school and graduates, she will not be able to work without papers.

Latinx Four did very well in high school and received very good grades. Her rapport with teachers and students was always very strong. Academically, she was well-prepared and well-suited for higher education. This made it difficult for her, because she could see her friends applying for college and knew that for her, college was just a dream. She received support from teachers at her school but felt that college and career counselors completely ignored her. She felt invisible. One of her teachers gave her information about a scholarship that she could apply for since it did not ask for a social security number. Last spring, she received the scholarship where she was awarded \$2,500.00. Unfortunately, that was not enough money to pay for a semester of school. Since she is an undocumented student, she is charged out-of-state tuition rates which makes the cost of college much more expensive. The scholarship money is in the bank where she hopes to use it soon to pay for college classes. At the moment, she is working with a local agency that helps undocumented students to apply for college. She will hear back soon regarding the outcomes of her legal status.

Results & Discussions: College Preparation Programs and Intervention

By examining statistics, it is very well possible to conclude that graduating high school students are consistently joining the trend of attending colleges and universities. In the fall of 2015, some 20.2 million students attended American colleges and universities, constituting an increase of about 4.9 million since fall 2000. This data was collected through the National Center for Educational Statics. Results from a multi-year College and Career Readiness survey of 165,000 high school students conducted by Youth Truth, a San Francisco-based nonprofit, found that 45% of students feel positive about their college and career readiness (Leal, 2015). What about the other proportion? This same study concluded that of that percent as a whole, many students still feel as though their schools are not helping them develop the skills they will need to succeed after graduation nor are they providing a structured guidance curriculum that focuses solely on college and career preparation programs. This is where the problem for this research was born. This pilot study hopes to bring awareness to more high schools that do not understand the importance of multiple preparation programs and opportunities for students so that they are better prepared for college. Through this research, we hope to highlight the importance of college preparation programs for high school students.

Although this can be a very exciting or challenging time for seniors, the burning question that needs to be addressed are the students receiving the best guidance for this transition process? Some schools have already adopted the trend of offering students college preparation programs, but are the programs useful? Do all students and schools have access to these programs? Do students benefit more and have an easier transition to college when they have participated in these types of programs? This pilot study has

determined the effectiveness of college preparation programs for high school graduates and researchers were able to grasp their personal outlooks on how these programs are useful on their journey to obtaining higher education.

All students were previous students at an inner-city high school in St. Louis City, these students graduated and continued on to college. Researchers used social media platforms and previously collected emails to reach out to former students who have graduated from Soldan International Studies High School.

Before students proceeded to the survey, they were given a consent form to sign and explain the reason and purpose of the survey. Students were also provided reading materials and information on what college preparation programs were and how they serviced high school students. This information was given out just in case some students had no known knowledge of what college preparation programs were. Students were given a nine-question survey. Some of the questions on the survey were scored and other questions were open-ended questions to give students the opportunity to express and explore in-depth their given answer without the influence of a guiding question.

Out of the 20 students, survey results found that 13 students participated in some type of College Preparation Program and seven had not. The students who had participated in college prep programs before attending college all scored significantly higher on the scored questions of the survey. Researchers found that students who had participated in college preparation programs gave more favorable and positive answers when providing feedback to questions.

Question 2 asked: On a scale of 1-5 (1 being the lowest) do you feel that participating or not participating in a college prep program has had a positive impact on your GPA, explain? All students who had participated in a preparation program responded with 4's and 5's.

Student 1 explained, "through my college prep program I was able to take classes before I actually attended for my freshman year and those classes helped to boost my GPA."

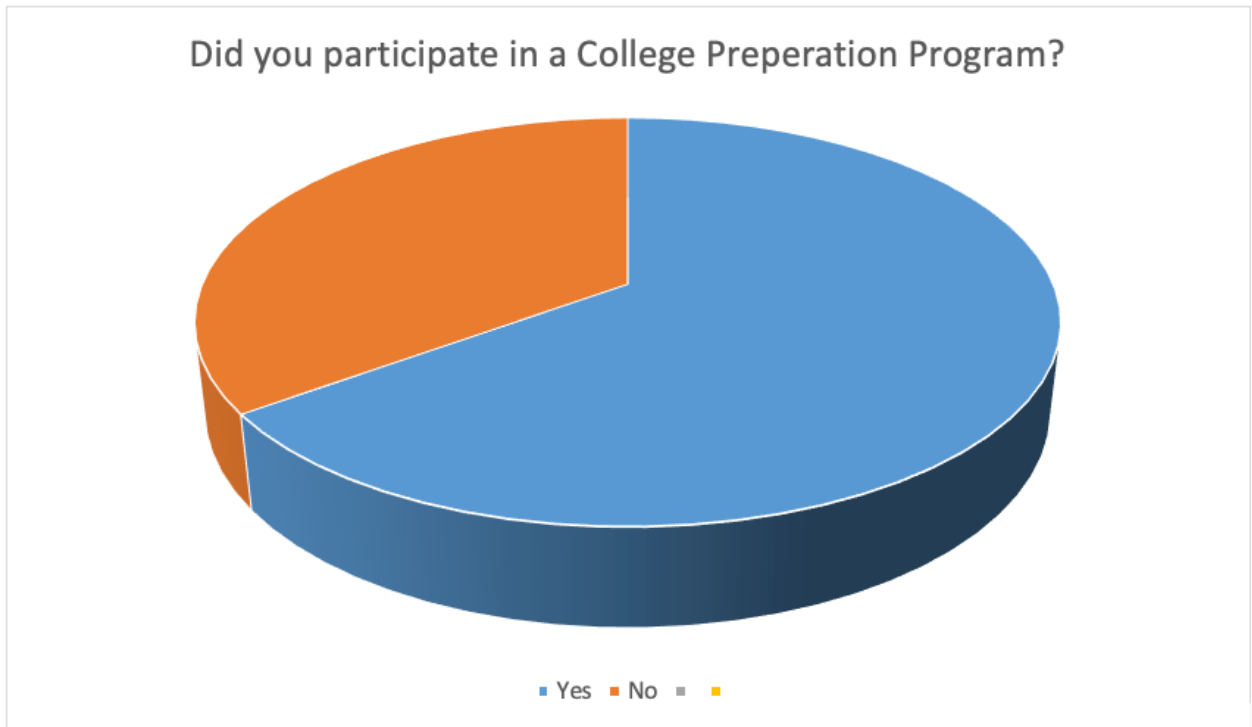
Student 2 stated that "through my program, we were taught appropriate study habits and test-taking tips that have really helped me so far while I've been in college."

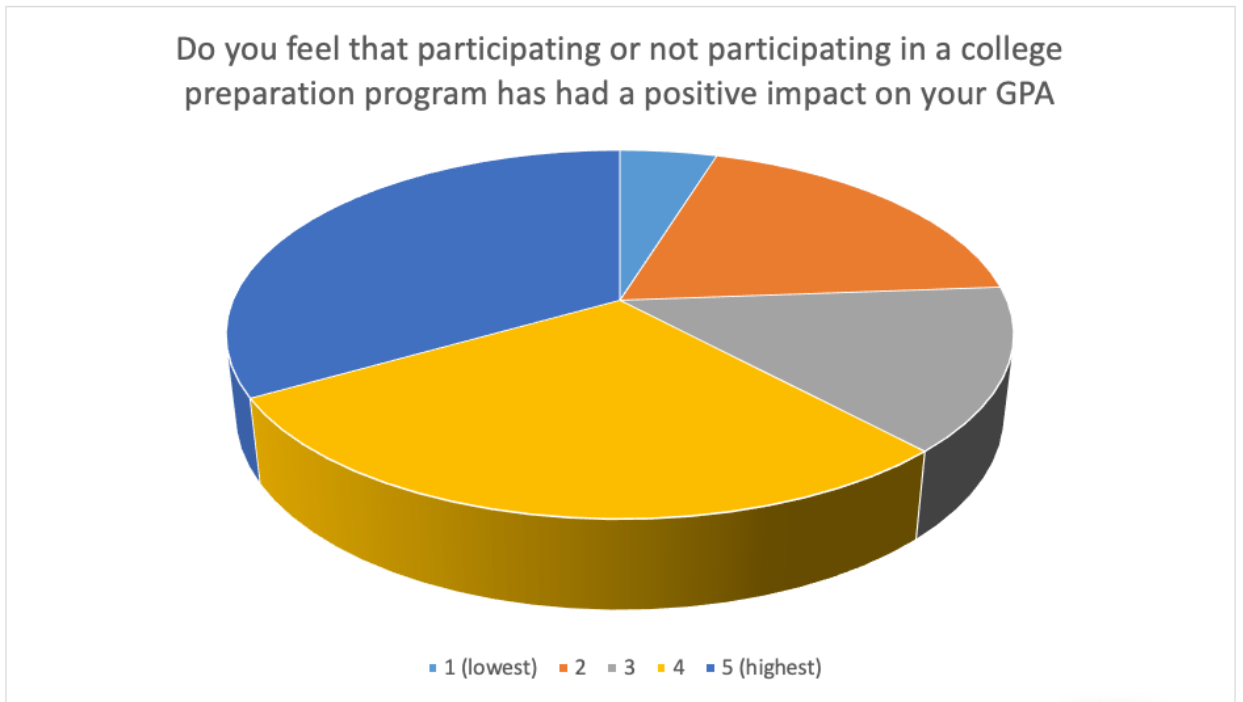
One more favorable answer was "the prep program that I participate in follows us and helps through college as well and they do check in's and also ask to see grades, this helps because it holds me accountable because I know they will be asking to see grades and they will be disappointed if my grades aren't good. If that was the case though they would also provide me with extra help or tutors so that my grades can improve."

Students who had not participated in college preparation programs scored low on this question and had more hopeful responses.

Student 3 explained "after reading material about college preparation programs, I'm sure if I was offered the same opportunities such as taking early college courses my grade point average could be way higher. My GPA is not low, but I do feel if I was prepared better, it could be higher. I work hard and oftentimes have to go the extra mile for the grades I receive because I don't feel that I was fully prepared for what I walked into after leaving high school."

Student 4 explained “I feel that if I was prepared like students who participated in these programs, I wouldn’t have had as hard of a time adjusting to college classes. If I would have had exposure to college that could have helped me a lot. The first semester was very challenging for me and at times I wanted to quit and go home but I found a TRIO department at my school and they’ve been helping me.”

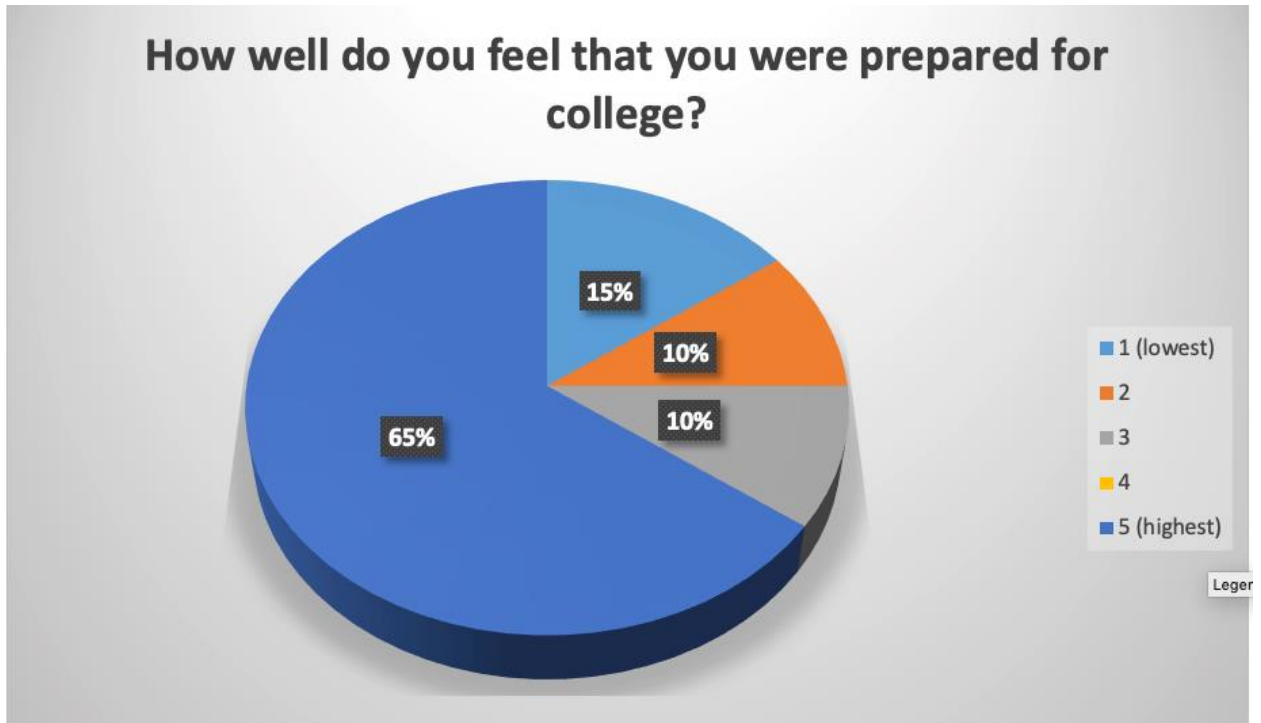




Each student was asked their current grade point average. Data showed that students who participated in college preparation programs reported to have 3.0 and higher-grade point averages. For students who reported to have not participated in programs, four students documented 3.0 and higher-grade point averages and three reported having lower than a 3.0-grade point average.

Question 4: On a scale of 1-5 (1 being the lowest), how well do you feel that you were successfully prepared for college? Of the majority that answered with a rating of 5 which was the highest score for how well they felt prepared for college, all students who participated in college preparation programs responded that they all felt well prepared for college. Majority of the students who did not participate in college preparation programs answered with the lowest rating reporting that they did not feel that they were well

prepared for college. This graph shows that of the students who did and did not participate in college preparation programs, 65% of the total number of students completing the survey felt as though they were prepared for college.



Question 5: What could have made your first year as a college student better?

This question was an open-ended question and provided students with the opportunity to express their perceptions of what could have made their first year as a college student better. The responses to this question were very diverse. A theme was documented by researchers that followed many of the students who did not participate in college preparation programs. Their answers were surrounded by missing out on the opportunity to participate in college preparation programs. Some stated that such programs were offered at their schools but were not highly advertised or made accessible. Those same students expressed that such programs could have made their transition a little easier by knowing what to expect.

Students who did participate in college preparation programs stated reasons unrelated to prep programs. They mentioned reasons such as being more financially prepared and a host of other things unrelated to participating in college prep programs.

Question 6: If you have participated in a preparation program, rate your experience on a scale of 1-5 (one being the lowest)? Ninety-two percent of the students that answered this question gave a rating of 5 which was the highest rating. Eight percent gave a rating of a 4 which was the next highest rating. Twelve students responded with a 5 and 1 student responded with a 4. Thus, the question did not apply to students who had not participated in college preparation programs, and they responded to this question with an “NA.” Data from this graph shows that students who participated in college preparation programs had relatively good experiences with their programs.

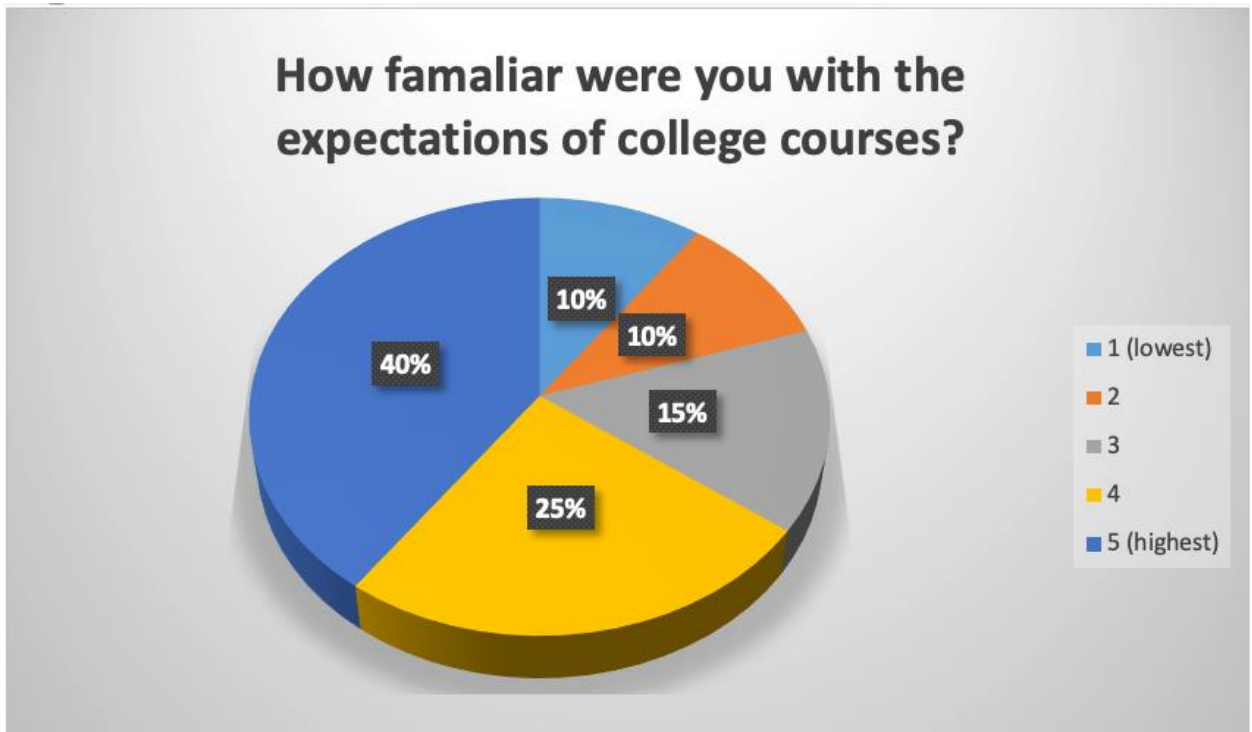


Question 7: If you have not participated in a preparation program, would you have liked to participate if given the opportunity in high school? This question was

asked for students who had not participated in college preparation programs. Students who did participate in programs responded with a “NA.” The overall collective answer collected from the survey showed that of the seven students who did not participate in prep programs, all of the seven students answered that if given the opportunity to go back they would definitely participate in college preparation programs. Student 4 responded that after reading through materials about these programs he could list out different areas of his experience as a first-year college student that could have been better if he had the opportunity to participate in one of these programs. Responses from Question 7 showed that students who did not participate in college preparation programs favored the programs, and if they had been given the knowledge surrounding the purpose and mission of the programs that would have participated.

Question 8: On a scale of 1-5 (1 being the lowest) how familiar were you with the expectations of college courses, explain? This question was a dual response question and students had the chance to answer with a rating and also an explanation. Responses from this question showed that the majority of the students who responded that they previously participated in a college preparation program answered with the highest ratings of 4 and 5, stating that they were familiar with the expectation of college courses. Responses also showed that students who had not participated in prep programs responded with answers ranging from ratings 3-1. Regarding explanations, Student 5 who had not participated in any prep programs stated “in high school, our teachers would assign us papers to write in certain formats and would grade pretty tough, but even still those papers weren’t nowhere near the caliber of paper that I have to write for my freshman English class.” Student 6 explained, “I was pretty prepared and ready for my

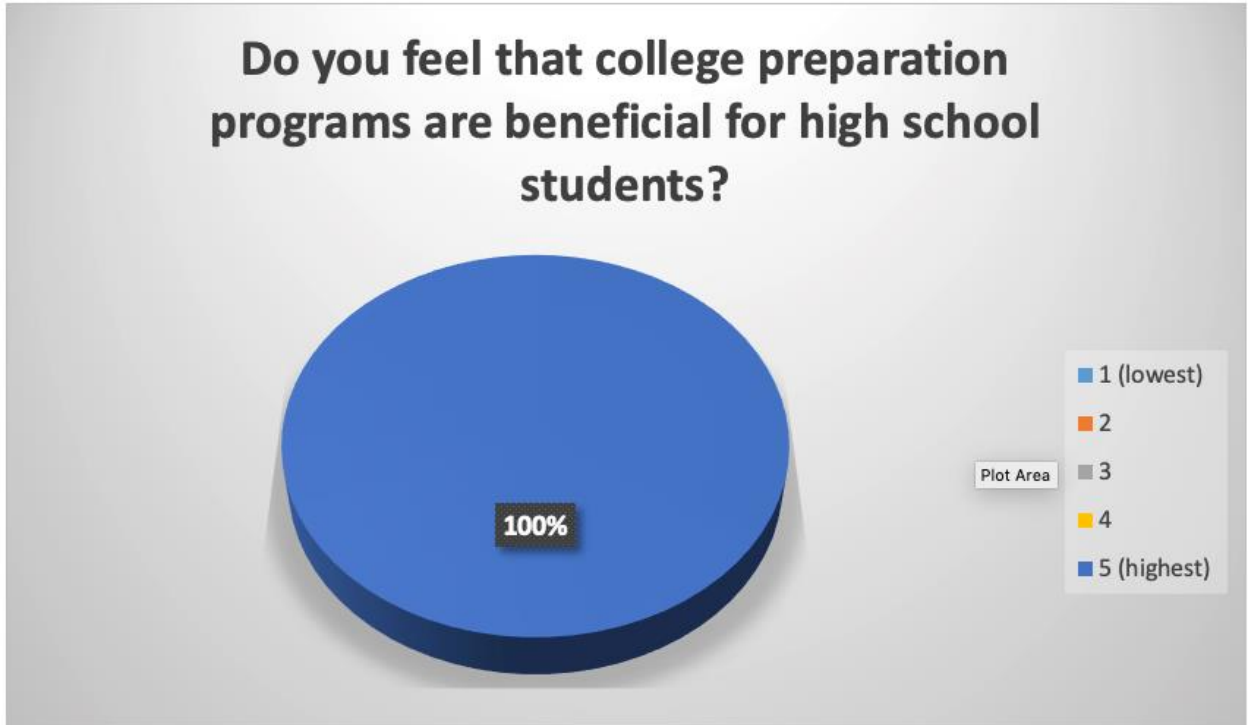
college courses because I took courses my junior and senior year of high school. I think the courses that I took junior year were mock courses though, I can't remember. Those courses did prepare me for what to expect freshman year.”



Question 9: On a scale of 1-5 (1 being the lowest), do you feel that college preparation programs are beneficial for high school students, explain? Question 9 was the last question on the survey and was also a dual answer question. Students had the opportunity to give a rating and also an explanation. Responses from this question showed that out of all 20 students that completed this survey, every single student gave favorable answers. All responses showed a rating of 5 showing that students do feel as though college preparation programs are beneficial for high school students. Explanations on the surveys from students who participated in college preparation programs all followed a common tune. They all expressed appreciation and gratitude for

the programs that they participated in. Students who had not participated in college preparation programs also all shared a common tone as well. Those students expressed their interest in these programs while also dwelling on the missed opportunity. Nonetheless, all students expressed some type of understanding of the importance of these programs and transitioning high school students.

Although this research was more of a pilot study and more extensive research will be set after at a later date, the goal of this study was to bring awareness to the benefits and importance of college preparation programs for high students. The results were pretty aligned with the author's hypothesis about the impacts of college preparation programs, as she too was a product of a preparation program. Through this pilot study, current college freshmen were able to provide their perceptions about their experience transitioning to college with or without college preparation programs. Students who had the opportunity to participate in programs were very familiar with the benefits, while students who never participated quickly learned of the benefits after being provided with reading materials and other resources explaining preparation programs and their purpose. Data collected in the pilot study gives personal views and outlooks of actual students articulating the importance of college preparation programs. This study was conducted in hopes of data being used to conduct more research and provide exposure to these programs so that in the future schools and other educational establishments will buy into college preparation programs and require the programs for all high school students.



Responses from students who participated in programs were all positive, resulting in a favorable experience with college preparation programs. Of the 13 students who participated in preparation programs, all students provided explanations of the positive impacts the programs had. These students were able to shine a light on the benefits of participating in the preparation programs firsthand. They are helping to bring exposure to programs that have the potential to change the culture of inner-city high school students being under-prepared to transition to college.

Responses from students who did not participate in college preparation programs showed results of wishful thinking. Many of those students expressed the desire to have had a preparation program before transitioning to college. Through survey results, the author was able to grasp a common theme for this unique group of students. These students were important to the research, because they represent a population that can explain their journey transitioning to college without feeling prepared. This group of

students shares hardship and challenging experiences through their survey responses. They were also enlightened on the purpose and mission of the programs and through the survey had the opportunity to discuss if they felt these types of programs could have benefitted them and made the transition smoother. All of their responses indicated that they would have participated in these programs if given the opportunity and awareness of the positive impact and opportunities that these programs possessed.

In conclusion, the author hopes that the results captured bring awareness to college preparation programs and the potential positive impact they could have on the future of our high school graduates. The author hopes this pilot study helps to break down barriers of post-secondary success for minority students. This pilot study hopes to bridge a gap between the disparities of post-secondary graduation and completion rates for minority students. The goal is that we are able to provide inner-city schools with the foundation to better prepare high school minority students to not only get to college but through college and on to successful careers as well. The hope is that through college preparation programs.

Results & Discussions: The Workers' Perspective on Their Postsecondary Success Opportunities

If you are tasked to study the quality of the ride and handling of a vehicle with the intention of improving that ride and handling, you would want to test drive the vehicle. If we want to know whether high schools are preparing students for success, we need to start by asking workers about their high school experiences and how that education contributed, or not, to their success. The literature review was not able to

locate any studies that evaluated high schools' in preparing workers for success through gathering input from former students, by industry. It was with this frame of mind that this research was conducted.

Research Design

This research used intersectionality and interest convergence as a framework to explore workers' views on how their secondary education prepared them for success, or not. Additionally, this research used an exploratory qualitative multiphase research design method which is a process for collecting and analyzing quantitative data from multiple phases of a study at a point during the research process into a single outcome (Creswell & Creswell, 2018). The reason this study is using multi-phased research methods is that a single exploratory method alone will not be sufficient to capture the details or trends in evaluating how well workers feel their secondary education prepared them for success in the workplace. The two phrases used in combination allow for a more complete analysis (2018).

This study, a sequential explanatory design, consisted of two distinct phases (Creswell & Creswell, 2018). The first phase was a web-based survey that collected data on a larger scale. The goal of this phase was to identify trends in how workers view their preparation for success in the workforce.

The second phase of the research was conducted by collecting data through individual and small group semi-structured interviews. Due to Covid-19 protocols, the semi-structured interviews were conducted via Zoom and by telephone. The rationale for this approach is that this qualitative data and results from Phase I will provide a general picture of the research problem (i.e., what education/skills learned while in secondary

schools prepared workers for success in the workforce, and what education/skills acquired in secondary schools least prepared workers for success in the workplace). The Phase II portion of the study then refined and explained the statistics found in Phase I results by exploring participants' views and beliefs in more depth.

Sampling

The qualitative target population of this study was workers already in the workforce. More specifically, the principal target of the research was workers who have been in the workforce or could have been in the workforce for 20 years (+/-). Also, the primary focus of the research will be on collecting data from the STL area workforce. However, data from outside this area was also collected to compare to the STL findings. The reason for focusing on workers with this level of experience in the workforce, 20 years (+/-) is that they have both experienced in the workforce to reflect upon in answering the questions posed to them as well as having been in the workforce for a sufficient enough time to have seen changes to the skills workers need in order to be successful. Their experience with workforce expectations, and their opportunity to witness the changing skills demanded of the workplace allowed the subjects to answer the questions regarding the changing nature of work and worker skills needed in order to be successful in the workforce.

The primary focus of the survey was not on workers who entered the workforce before 1980 or more recently (less than 20 years ago), however, survey responses from workers outside of these parameters were accepted. Data from these generations of workers were valuable in contrasting their experience with that of the targeted generation of workers adding additional valuable insight to this study. Thus, the survey tool did not

seek to limit participation or exclude workers who have less or more time in the workforce than the targeted generation, but the data was sorted by generation for consideration. The survey data were sorted based on the following common generational brackets:

- Gen Z, iGen, or Centennials = Born 1996 – TBD
- Millennials or Gen Y = Born 1977 – 1995
- Generation X = Born 1965 – 1976
- Baby Boomers = Born 1946 – 1964
- Traditionalists or Silent Generation = Born 1945 and Before

Collecting data from workers from multiple generations allowed the study to also compare data and outcomes across generations in order to see where they agree, as well as where they differ on issues of work skills preparedness and changes in skill expectations over time. While Gen Z and the Traditionalists generations appear in small numbers in the present workforce, having five generations in the workforce at one time is a significant factor in some aspects of workforce development and creates a unique opportunity in measuring success, and satisfaction.

For the first phase of this study, workers who choose to respond to the online survey may or may not have been forwarded the survey from business, labor, and community leaders who would have an interest in a study of this nature. In order to maximize the survey responses from a broad spectrum of construction workers as possible was accomplished by networking with labor and business organizations and educational institutions. The networking included encouraging the contacts to help by broadly distributing the survey link to workers in their contact circles. This

‘snowballing’ effect asks the contacts to broadcast the survey information using their networks of contacts asking them to complete the survey. The sample size was undetermined but focused on maximizing the number of surveys returned and eliminated the researcher’s ability to influence the outcome by controlling who had access to the online survey.

Small group interviews (Phase II) were conducted to dive deeper into themes that emerge from the Phase I data. Candidates for these interviews were randomly selected from individuals encountered by the researcher who fit the parameters of the study during the normal course of his work as a State Specialist in Labor and Workforce Development with the University of Missouri Extension Department of Workforce Development and/or his work as the Labor Studies Certificate Coordinator with the University of Missouri Saint Louis.

The second or interview phase of the study focused on purposeful targeting of a sampling of individual workers in the construction field. In this phase, intentionally selected individuals met with the researcher individually or in small groups via Zoom or by phone. These discussions better enabled the researcher to pursue questions and answers that were better addressed in a conversational setting than in an online survey. Participation in this phase of the study was not restricted to individuals who have participated in the online survey phase.

In both Phase I and Phase II of the study, after providing responses to how they were prepared for entry into the workforce, participants were also asked questions that allowed them to speculate on skills that the next generation of workers will need in order

to be successful. While this line of questioning was speculative in nature, the foundation for that speculation is in the changes that respondents have experienced or witnessed during their time in the workforce.

Phase I: Online Survey, Outcomes

The focus of Phase I of this research project was an online survey that sought to engage workers who had been out of high school for about 20 years, and either were in or had been in the construction industry. A list of the survey respondents' current careers is in Appendix E. An online survey was utilized due to it being easier to distribute both locally and nationally, as well as the convenience of taking the survey.

The focus of the research was to determine how well construction workers have been prepared for success in the workforce. The principal focus area was the STL area. However, with the ability for collecting data from workers outside of Missouri as part of an online survey, it was determined to do so since a broader sample would benefit the study in several ways. First, it tracked responding workers by whether they received their secondary education in Missouri, or from outside of Missouri. This information could allow the researcher to determine whether there is any correlation as to how respondents perceived their secondary education prepared them for the workforce from within the target area Missouri vs. outside the target area. Second, the data could be tracked to determine if workers in Missouri received their post-secondary education elsewhere and how their views on the success may differ from workers educated in Missouri. This second measure was the more difficult to achieve and resulted in being the smallest number of responses. The third benefit of collecting data from outside of Missouri is to provide a standard comparison of the results to the St. Louis education

community and workers' training programs on the views and perspectives of workers on how well the education and worker training communities are doing preparing workers for success in the construction industry.

Collecting data from workers from multiple generations also allowed the study to compare data and outcomes across generations in order to see where they agree, as well as where they differ on issues of work skills preparedness and changes in skill expectations over time. The principal investigator was able to use his role with the University of Missouri Extension, Labor and Workforce Development office, as well as the Labor Studies Certificate Coordinator for the University of Missouri-St. Louis and contacts from his past involvement, of over two decades, in the labor community to distribute links to the data collection online survey tool. In order to maximize the survey responses from as broad a spectrum of construction workers as possible, the researcher utilized this network of labor and business organizations and educational institutions contacts. The networking outreach encouraged these contacts to help distribute the online survey link to workers in their contact circles. This 'snowballing' effect asked the contacts to broadcast the survey information using their networks of contacts, asking them to complete the survey. The sample size was undetermined, but the focus was on maximizing the number of surveys returned while eliminating the researcher's ability to influence the outcome by controlling who had access to the online survey.

The survey did not require each respondent to answer all the questions. Some questions received more responses than others. For that purpose, the actual number of responses as well as the percent of the responses are often reported.

Phase I: Online Survey Response Demographics

There were 175 responses to the online survey that was in the field for only one month, December 8, 2020, to January 8, 2021. This level of response exceeded the expectation of the researcher. Of the survey responders over 57 different current career titles were given. A complete list of those career titles can be found in appendix E.

There were responses from 25 different states and two foreign countries (Mexico and Jamaica), which also exceeded the expectation of the researcher. A complete list of states represented in survey responses can be found in Appendix F. The states with the highest number of responses were Illinois, 70, Missouri, 51, and Wisconsin, 10. These were the only three states that had responses in the double digits. For that reason, these will be the only individual states whose data will be compared.

The survey results needed a context to determine if the sample responses were representative of the industry studied. The U.S. Bureau of Labor Statistics (BLS) collects and analyzes data and statistics from the U.S. Census as well as data reported to the government and other sources to make determinants on working conditions, labor market activity, and price changes regarding the U.S. economy. For people working in the Workforce Development space, BLS is the gold standard for unbiased labor market analysis and reporting.

Table 4.2*BLS Household Data Annual Averages**Employed Persons by Detailed Industry, Sex, Race, and Hispanic or Latino Ethnicity.*

Industry	2019					
	Total employed [Numbers in thousands]	Percent of total employed				
		Women	White	Black or African American	Asian	Hispanic or Latino
Total, 16 years and over	157,538	47.0	77.7	12.3	6.5	17.6
Construction	11,373	10.3	88.1	6.4	1.9	30.4

(U.S. Bureau of Labor Statistics, 2020)

For the BLS 2019, Household Data Annual Average report the BLS only reported on White, Black, or African American, Asian, and Hispanic, or Latino race demographics. The BLS notes:

“Estimates for the above race groups (White, Black or African American, and Asian) do not sum to totals because data are not shown for all races. Persons whose ethnicity is identified as Hispanic or Latino may be of any race.” (U.S. Bureau of Labor Statistics, 2020)

The online survey tool used took a much broader look at races in the workforce than the BLS reported. Due to the limitation of not having all the same race’s data reported, a true comparison to the BLS survey data would not be accurate. Even without side-by-side comparison for all the races surveyed, we can see that with the three races both in the survey and also reported by the BLS that the White workers responded to the survey at a much higher rate than the percent that they constitute of the workforce as reported by the BLS. One hundred sixty-five respondents answered this question.

Table 4.3*Phase I Responses, by Race.*

Race	Number of Responses	% of Responses	BLS
Asian	1	0.61	1.9
American Indian or Alaska Native	2	1.21	
Black or African American	4	2.42	6.4
Native Hawaiian or another Pacific Islander	1	0.61	
White or Caucasian	152	92.12	88.1
Other	3	1.82	
Two or More Races	2	1.21	

Of the 137 responses to the survey, 5.11% of the survey responses identify as Latinx/Hispanic. This is well below the Bureau of Labor Statistic Employed Person by Industry Index 2019 BLS determined upwards of 30% of the construction industry being Hispanic or Latino. For BLS determinate the BLS notes:

“Persons whose ethnicity is identified as Hispanic, or Latino may be of any race. Updated population controls are introduced annually with the release of January data. Dash indicates no data or data that do not meet publication criteria (values not shown where the base is less than 50,000).” (U.S. Bureau of Labor Statistics, 2020)

Table 4.4*Phase I Responses, by Ethnicity.*

Ethnicity	Number of Responses	% of Responses	BLS
Latinx/Hispanic	7	5.11	30.4%
Not Latinx/Hispanic	130	94.89	69.6

The U.S. Bureau of Labor Statistics determined females in the construction industry are 10.3%. The online survey was responded to by eight women in the construction field, a mere 4.82% of the overall responses, which totaled 166 of this question. This was less than the BLS determination of women's presence in the construction industry (U.S. Bureau of Labor Statistics, 2020).

Table 4.5*Phase I Responses, by Gender.*

Gender	Number of Respondents	%	BLS
Male	135	95.18	89.7
Female	8	4.82	10.3

With 166 responses to this question, the high school completion rate of 95.78% of the online survey respondents was consistent or slightly higher than the national completion rates for the general population. According to the Brookings Institute (Harris, 2020) that for decades has seen the U.S high school completion rates, graduation or GED had been stagnant around 85%. In 2001, those results started to shortly climb. Between 2001 and 2016 the completion rate rose to 93% (Harris).

As noted earlier, not all the respondents to the survey answered every question. In the case of the 175 workers who took the survey, 166 answered the question about completing high school. Four of which did not provide their age.

Table 4.6

Phase I Responses, by High School Completion by Generation.

Generation	High School Completion	% of HSC	GED	% responses with GED	Did not complete	% W/O
Gen Z, iGen or Centennials 1996 – present	24	14.46%	2	1.20%	-	-
Millennials or Gen Y 1977 – 1995	62	37.35%	12	7.23%	6	3.61%
Generation X 1965 – 1976	30	18.07%	3	1.81%	-	-
Baby Boomers 1946 – 1964	17	10.24%	5	3.01%	1	0.60%
Traditionalist or Silent 1945 and before	0	0%	-	-	-	-
No age given	1	0.60%	3	1.81%	-	-
Total	134	80.72%	25	15.06%	7	4.21%

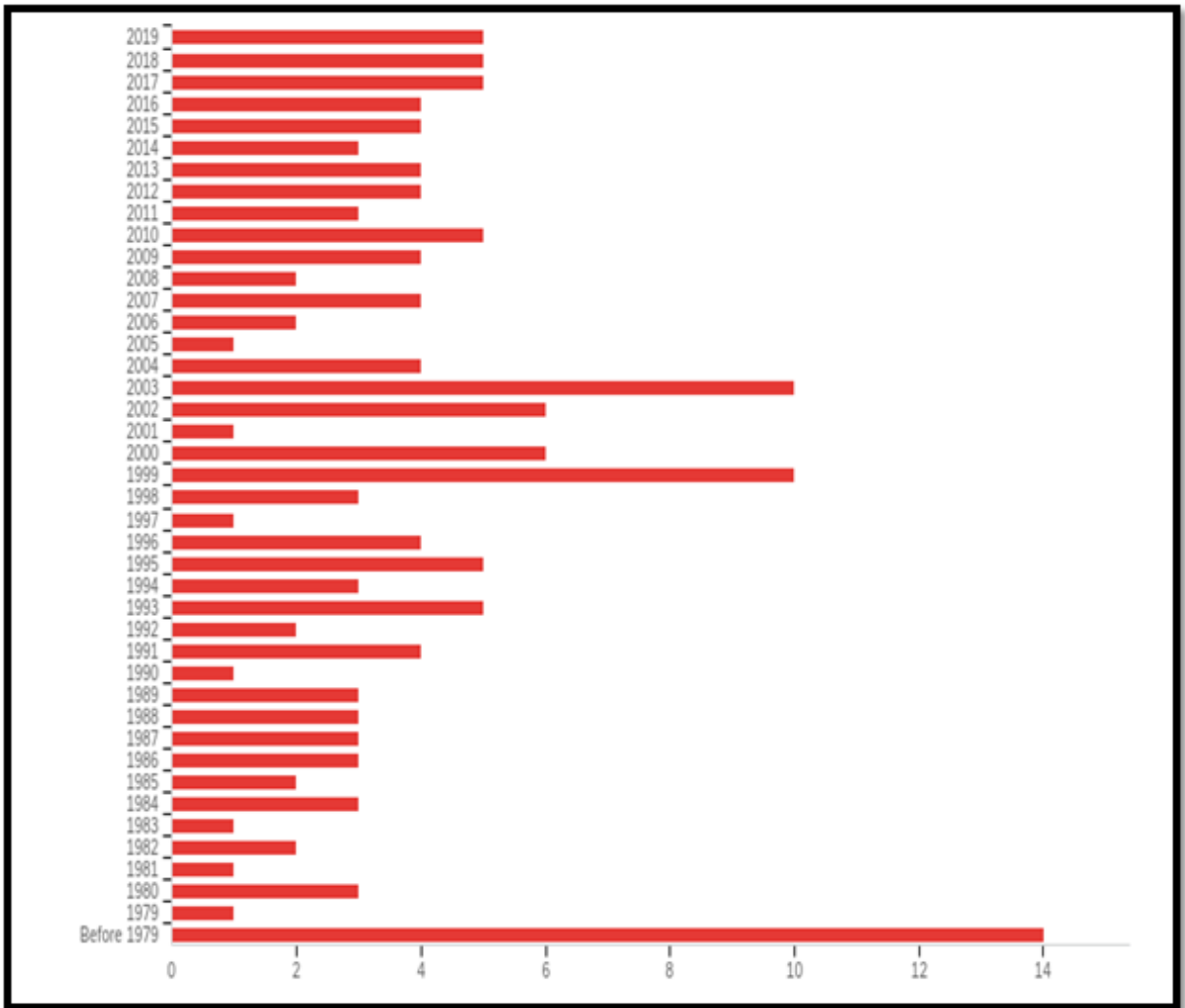
The overwhelming majority, 80.72%, graduated high school with another 15.06% earning their GED's. To some of the workers interviewed in Phase II of this research, this will come as welcome news since they believe that there is a stigma associated with construction jobs that include an assumption that those workers are not very bright and are high school dropouts.

Apart from no responses from the Traditionalist or Silent Generation, the sample response was very satisfactory. The range of responses by Generation runs from the lowest response, 10.24% from the Baby Boomer Generation 37.35% from the Millennials or Gen Y Generation, was relatively tight and provides ample data for comparing and contrasting date responses across the generations.

One hundred sixty-four of the respondents to the survey provided their age. The model sample for the survey was someone who had been out of high school for 20 years. The average age of the survey responses, 38.77 years, fits ideally with the goals of the research.

Table 4.7

Phase I Responses, by Age of Survey Respondents.



The largest survey responses, with 46 responses or 27.71% had zero to two years of experience in their career followed very closely by 45 responses or 27.11% with more than 20 years in the industry. This was followed by 33 responses or 19.88% for three to five years of experience. It was interesting to see the nearly identical response rates between the least experienced and the most experienced demographic.

This broad spectrum of responses provides a very insightful sampling of the workforce. Having a sampling that is anchored a bit heavier in the zero to two as well as

the more than 20-year categories provide insight from both ends of the experience spectrum to the questions related to how well the current workforce leaving high school recently is prepared for success.

Table 4.8

Phase I Survey Responses, by the Length of Time in Their Current Career.

Length of Time in Current Career	Number of Respondents	%
0 – 2 Years	46	27.71
3 – 5 Years	33	19.88
6 – 8 Years	8	4.82
9 – 10 Years	7	4.22
10 – 15 Years	13	7.83
16 – 20 Years	14	8.43
More than 20 Years	45	27.11

The online survey was distributed by using a method known as ‘Snowballing.’ This sampling methodology was used to distribute the online survey via contacting individuals with a history and presence in the construction field and asking them to forward or distribute the link to their networks. This provided a distribution that was blind to the researcher and eliminated any ability for the researcher to influence the outcomes by selecting who would have access to the online survey tool. However, it also prevented the researcher from being able to actively pursue getting specific groups, such as minorities or women, for example, to take the survey.

Overall, the response rate provided to the online survey in the time period the survey was in the field supports that the snowballing methodology was successful in

generating interest in the survey. Especially considering the 30-day period the survey was in the field included the Christmas and New Year's holidays. However, the anonymity that the snowballing methodology provides in selecting individuals for the survey did not allow the researcher to actively engage in making the survey gender, race, and ethnicity responses more closely mirror the industry's demographics.

Online Survey Analysis

The principal charge of the survey was in three parts:

- determine how well workers in the construction field felt their high school experience prepared them for success in the field of construction.
- determine if new entrances to the construction field, more recent high school graduates, are better or worse prepared for success; and
- determine what, if anything, high schools can do to better prepare students going into the construction field are better prepared for success.

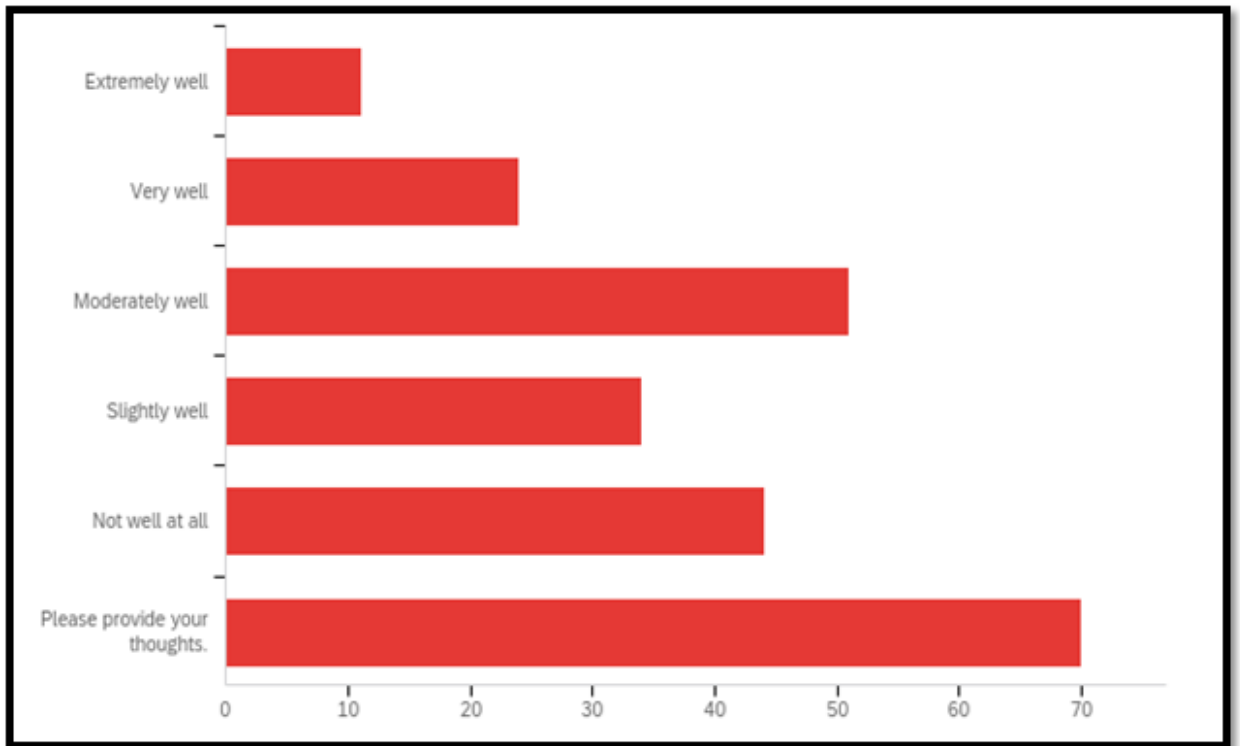
First basic demographic questions were asked and answered. Next a foundation was established by first asking questions about how well the survey takers believed their high school experience helped them.

The raw, unfiltered response was overwhelmingly unfavorable. The clear majority, 78.2%, of the survey responses to this basic line question felt that their high school experience prepared them 'moderately well,' 'slightly well,' or 'not well at all.' There was an option for the survey takers to add comments to further explain their responses. Nearly half, 70, of the workers who answered this question did provide

additional comments. Those comments can be found in Appendix G. As a measure of interest or importance, this was the most responded to question of any opportunity in the survey.

Table 4.9

Phase I The number of responses to the survey question: How well do you feel your high school education prepared you to be successful in your career?



The next step was to look at the response to this question across several different demographics to try to determine what if any patterns emerged. To do that we looked at the responses to this question sorted and tabulated against different demographics. The total for the different cross-tabulations varies due to the survey not requiring respondents to answer every question. For example, the responses to the question about how well

high school prepared respondents will remain the same, but the outcome may differ if someone who answered that question did not also answer the demographic questions about race or gender.

Table 4.10

Phase I survey Responses, the Effectiveness of Their High School Education, by Race.

How well do you feel your high school education prepared you to be successful in your career?					
Race	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
No Race Given	1 (50%)			1 (50%)	
American Indian or Alaska Native			1 (50%)	1 (50%)	
Asian					1 (100%)
Black or African American		2 (66%)		1 (33%)	
Native Hawaiian or Another Pacific Islander	1 (100%)				
Other	1 (33%)			1 (33%)	1 (33%)
Two or More Races		1 (50%)	1 (50%)		
White	8 (5.4%)	21 (14.2%)	47 (31.8%)	30 (20.3%)	42 (28.4%)
Totals 162	11 (6.8%)	24 (14.8%)	49 (30.3%)	34 (21.0%)	44 (27.2%)

The low number of responses from non-White workers rendered any assumptions that could normally be drawn from a study like this mute. As a result, we find this question un-answerable and meriting further study.

Table 4.11

Phase I survey responses', the effectiveness of their high school education, by race comparing White male responses to all other responses.

How well do you feel your high school education prepared you to be successful in your career?					
Race	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
White Male	7 (5%)	20 (14%)	48 (35%)	29 (21%)	35 (25%)
Non-White Male Responses	4 (18%)	4 (18%)	3 (14%)	5 (23%)	6 (27%)
Total 161	11 (7%)	24 (15%)	51 (32%)	34 (21%)	41 (26%)

However, when looking at the White male responses versus all of the non-White male responses, while the sample size of the non-White male is still small it is significant enough to draw some comparisons. The White male responses (139) vs an aggregate of non-White male responses (22) found White male responding 81% that high school prepared them 'moderately well', 'slightly well' and 'not well at all' versus a 66% by the non-White male responses in the same category to the same question. It is not clear why non-White-male workers have a more favorable view of their high school experience. Additional research would be required to answer that question.

Table 4.12

Phase I survey Responses, the Effectiveness of Their High School Education, by Ethnicity.

Ethnicity	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
Latinx/Hispanic	2 (29%)			1 (14%)	4 (57%)
Non-Latinx/Hispanic	7 (6%)	20 (16%)	40 (32%)	28 (22%)	31 (25%)
Total Responses 133	9 (6.8%)	20 (15.0%)	40 (30.1%)	29 (21.8%)	35 (26.3%)

Workers who identify as Latinx or Hispanic indicate a slightly higher “Extremely Well” and “Not Well at All” evaluation of their high school experience than the non-Latinx/Hispanic workers. The small sample size makes it difficult to discern whether the differences in the responses along ethnic parameters are an anomaly or reflective of their actual experiences. The disproportionately higher response rates from non-Latinx/Hispanic workers make these comparisons questionable. Therefore, this question with these demographics inconclusive and merits further study.

In table 4.10 you will find in Phase II, the interview phase, of the research that the White vs. non-White demographics. The results closely follow the composition of the construction industry.

Table 4.13

Phase I survey Responses, the Effectiveness of Their High School Education, by Gender.

Gender	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
Female	1 (14%)	2 (29%)	2 (29%)	1 (14%)	1 (14%)
Male	10 (6.2%)	23 (14.3%)	49 (30.4%)	32 (19.9%)	40 (24.9%)
Total Responses 161	11 (6.8%)	25 (15.5%)	51 (31.7%)	33 (20.5%)	41 (25.5%)

Here, we have a small sample to review. In doing so, we see that female construction workers rate their high school experience “Extremely Well,” “Very Well,” or “Moderately Well” 72% of the time versus their male co-workers 54% of the time. The small female sample size, 4.8% of survey responses (see Table 4.12), calls into question whether these results are an anomaly or accurately represent this demographic in the industry. Therefore, this question with these demographic merits further study.

Table 4.14

Phase I survey Responses, the Effectiveness of Their High School Education, by the Length of Time in Their Career.

Length of Time in Their Current Career	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
0 – 2 Years	1 (2%)	6 (14%)	15 (34%)	11 (25%)	11 (25%)
3 – 5 Years	2 (6%)	6 (18%)	13 (39%)	5 (15%)	7 (21%)
6 – 8 Years	1 (12.5%)	1 (12.5%)	1 (12.5%)	4 (50%)	1 (12.5%)
9 – 10 Years	-	-	3 (43%)	2 (29%)	2 (29%)
10 – 15 Years	1 (8%)	1 (8%)	1 (8%)	5 (39%)	5 (39%)
15 – 20 Years	2 (14%)	4 (29%)	4 (29%)	1 (7%)	3 (21%)
More than 20 Years	4 (9%)	6 (14%)	14 (33%)	6 (14%)	13 (30%)
Total Responses 162	11 (7%)	24 (15%)	51 (32%)	34 (21%)	42 (26%)

Workers who have been in the construction field for 15 to 20 years have a more positive perspective of their high school education than the other demographics of

workers. These workers only responded to the midpoint to lower survey scale, “Moderately Well,” “Slightly Well,” and “Not Well at All,” 57% of the time. That was much more favorable than the 84% of the zero-to-two-year demographic or the 75% for the three to five year as well as the six to eight year or the 100% of the nine to 10 year and the 77% of the more than 20-year groups. The other research questions do not explain the difference in results between the demographic. Answering that question would merit additional research. Yet overall, 79% responded that high school prepared them moderately well, slightly well, or not well it is clear that current workers do not believe high school prepared them for success.

Table 4.15

Phase I survey Responses, the Effectiveness of Their High School Education, Based on High School Completion.

Completed H.S.	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
No	-	1 (14%)	-	1 (14%)	5 (71%)
Yes, GED	1 (4%)	1 (1%)	10 (42%)	4 (17%)	8 (33%)
Yes, Graduated	11 (8%)	22 (17%)	41(31%)	29 (22%)	29 (22%)
Total Response 162	12 (7%)	24 (15%)	50 (31%)	34 (21%)	42 (26%)

While 78% of the survey takers who answered the question of their high school completion status, responded that their high school experience prepared them

“Moderately Well,” “Slightly Well,” or “Not Well at All,” of those who completed their high school with a GED was most interesting. Ninety-eight percent of those who completed high school with a GED said their high school experience prepared them “Moderately Well,” “Slightly Well,” or “Not Well at All.” There were a small number of responses, seven in total, who did not complete high school. Yet the overall response to the question was significant enough at 4% of the responses to the question for an overall determinate. Breaking down that sample of seven creates too small of samples to draw any further reliable conclusions. With 78% of the overall responses being “Moderately Well” or less, workers surveyed viewed their high school preparedness for their current career less than favorable. Clearly, most of the workers surveyed do not think their high school education helped them prepare for success in this field.

Table 4.16

Phase I survey responses’, the effectiveness of their high school education, by state.

Location Finished HS	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
Illinois	4 (6%)	10 (15%)	21 (31%)	15 (22%)	18 (27%)
Missouri	3 (6%)	6 (12%)	17 (35%)	10 (20%)	13 (27%)
Wisconsin	2 (20%)	3 (30%)	3 (30%)	-	2 (20%)
Total Responses 127	9 (7%)	19 (15%)	41 (32%)	25 (20%)	33 (26%)

The clear majority of the survey responses from both Illinois, 80%, and Missouri, 82%, felt that their high school prepared themselves for success only “Moderately Well,” “Slightly Well,” or “Not Well at All.” That is in contrast with the results from Wisconsin, which was only 50% for the same responses. It is interesting to note that of the only three states with survey responses that were in the double digits, two of those states’ demographics so closely aligned resulting in the third states’ results really stand out. Future research should put an emphasis on acquiring larger data sets from more comparable states to better compare outcomes between an even larger number of states.

Table 4.17

Phase I survey responses’, the effectiveness of their high school education, by generation.

Generation	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
Gen Z, iGen, or Centennials Born 1996 – present	-	6 (24%)	6 (24%)	6 (24%)	7 (28%)
Millennials or Gen Y 1977 – 1995	5 (6%)	9 (11%)	24 (30%)	19 (24%)	22 (28%)
Generation X 1965- 1976	1 (3%)	5 (16%)	12 (38%)	5 (16%)	9 (28%)
Baby Boomers 1946 – 1964	4 (17%)	3 (13%)	9 (39%)	3 (13%)	4 (17%)
Traditionalists or Silent Generation Born 1945 or before	-	-	-	-	-
Total responses 159	10 (6%)	23 (15%)	51 (32%)	33 (21%)	42 (26%)

More Millennials, or Gen Y, workers answered this question than any other generation, with 79 of 159 or 50% of the survey responses to this question where ages were also provided. That was followed by Generation X with 32 of 159, 20%, of the responses. Both the Millennial and Generation X rated their high school experience as preparing them “Extremely Well” or “Very Well” 17% and 19%, respectively for the careers in construction. That contrasts with Gen Z and Baby Boomer generations, 24 % and 30%, responses to the same question. It is an interesting anomaly to note, but this author is not sure the results are significantly important.

The next one of the questions taken up from the principal charge of the survey was:

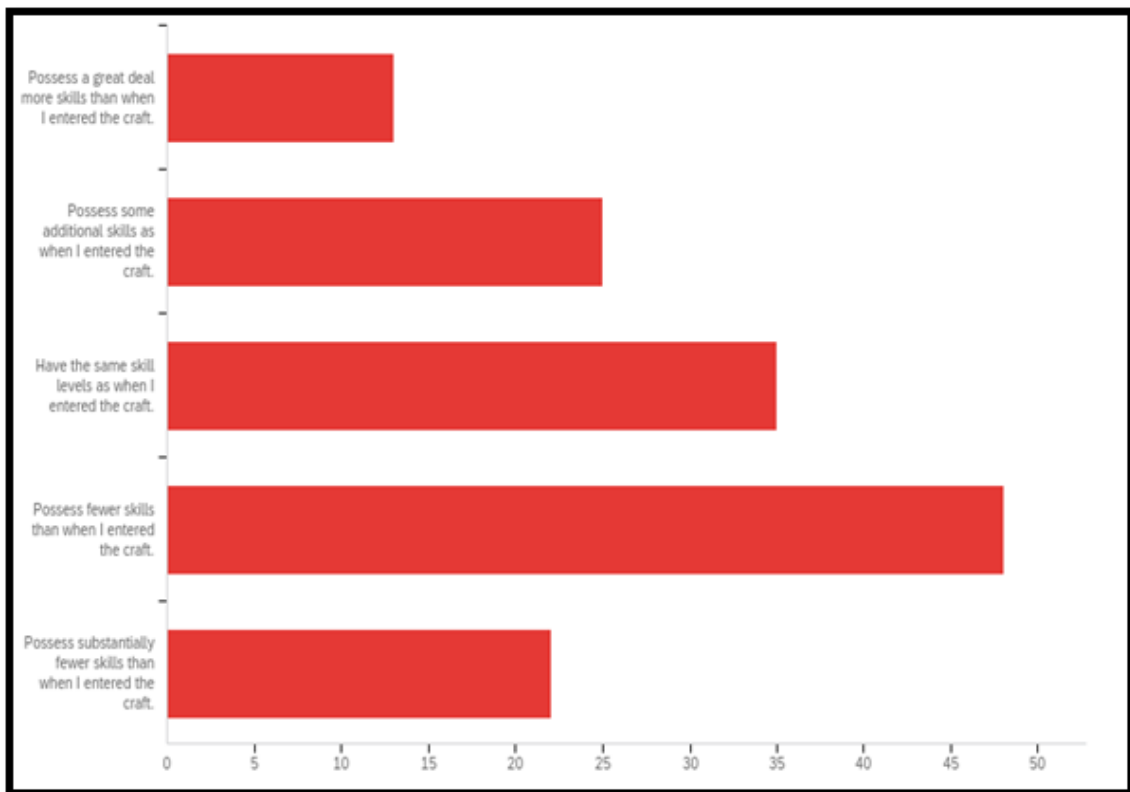
- determine if new entrances to the construction field, more recent high school graduates, are better or worse prepared for success.

By first asking the survey respondents to assess their high school educations, with respect to how well it prepared them for success in their careers in the construction industry, we provided not only an opportunity to learn about their high school education, but the question also created a benchmark for them to compare other responses too. Having just thought about their high school experience, that gave them a point of reference to compare the question of “Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce?” We examined the response to this question against basic demographics to not only learn how well people in the construction industry feel high schools are preparing future workers for success, but we also looked to see if those opinions varied by demographic.

The unfiltered response was overwhelming that the current workers believe new entrances to the workforce have less of the skills needed to be successful than when they had entered the workforce.

Graph 4.18

Phase I the number of survey question response to: Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce? Please complete the following sentence that best describes your views.



Many of the workers who answered this question did provide additional comments. Those comments are found in Appendix H. This was the second most popular question commented on. Two of those comments include “A lot of newer people

coming into my workforce stand around to be told what to do instead of asking or know from the previous day,” and “They are lacking discipline, Focus, Problem-solving skills, lack communication skills, lack understanding, discretion, and discernment.”

This question was examined across several different demographics to determine what, if any, patterns emerged. Once again looking at the responses to this question by sorting and tabulating the responses against different standard demographics. The total for the different cross-tabulations varies due to the survey not requiring respondents to answer every question. For example, the number of responses to the question about the skills of current entrances into the workforce will remain the same, but the outcome may differ if demographic questions are not answered, such as race or gender.

Table 4.19

Phase I survey responses', does the new workforce have the same skills you had, by race.

Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce?					
Race	A great deal more skills	Some additional skills	Have the same skills I had	Fewer skills	Substantially fewer skills
No race given				1 (100%)	
American Indian or Alaska Native	1 (50%)				1 (50%)
Asian	1 (100%)				
Black or African American	1 (25%)	1 (25%)	1 (25%)	1 (25%)	
Native Hawaiian or another Pacific Islander		1 (100%)			
Other	1 (100%)				
Two or More Races				1 (50%)	1 (50%)
White	9 (7%)	23 (18%)	34 (26%)	45 (34%)	20 (15%)
Totals 143	13 (9%)	25 (18%)	35 (25%)	48 (34%)	22 (15%)

The low number of responses from non-White workers to both this question, as well as the question of what race they identify as, rendered making any assumptions that would normally be drawn mute. The question of whether there are any differences in responses to this question due to race is unanswerable and merits further study.

Table 4.20

Phase I survey responses', the effectiveness of their high school education, by race comparing White male responses to all other responses.

How well do you feel your high school education prepared you to be successful in your career?					
	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All
White Male 139	7 (5%)	20 (14%)	48 (35%)	29 (21%)	35 (25%)
Non-White Male Responses 22	4 (18%)	4 (18%)	3 (14%)	5 (23%)	6 (27%)
Total 161	11 (7%)	24 (15%)	51 (32%)	34 (21%)	41 (26%)

However, when looking at the White male responses versus all of the non-White male responses, while the same size of the non-White male is still small it is significant enough to draw some comparisons. The White male responses (139) vs an aggregate of non-White male responses (22) found White male responding 81% that high school prepared them 'moderately well', 'slightly well' and 'not well at all' versus a 66% by the non-White male responses in the same category to the same question. It is not clear why non-White-male workers have a more favorable view of their high school experience. Additional research would be required to answer that question.

Table 4.21

Phase I survey responses', does the new workforce have the same skills you had, by ethnicity.

Ethnicity	A Great Deal More Skills	Some Additional Skills	Have the Same Skills I Had	Fewer Skills	Substantially Fewer Skills
Latinx/Hispanic	2 (20%)	1 (25%)	1 (25%)		
Non-Latinx/Hispanic	7 (6%)	23 (20%)	30 (26%)	35 (31%)	20 (17%)
Total Responses 119	9 (8%)	24 (20%)	31 (26%)	35 (29%)	20 (17%)

Only 3.4% of the survey responses answered this question and identified as Latinx/Hispanic, slightly down from the 4% who identified as Latinx/Hispanic who took the survey. While the raw number of responses, 4, to this question by Latinx/Hispanic workers may seem low, it is representative of the overall responses from workers who identified as Latinx/Hispanic in the survey. It is notable that 100% of the Latinx/Hispanic responses felt that new workers coming into the construction industry have “A Great Deal Or More Skills,” “Some Additional Skills,” or “The Same Skills” that they had when they entered the workforce. That is in sharp contrast to the 54% of the non-Latinx/Hispanic who answered this question the same way. The small sample size calls into question whether a larger sample would produce a different outcome. This question, with these demographics merits further study, but due to the nature of how the blind sample was gathered, the outcome, and the stark contrast of these results, this author finds them acceptable.

Table 4.22

Phase I survey responses', does the new workforce have the same skills you had, by gender.

Gender	A Great Deal More Skills	Some Additional Skills	Have the Same Skills I Had	Fewer Skills	Substantially Fewer Skills
Female	3 (43%)		3 (43%)	1 (14%)	
Male	10 (7%)	25 (18%)	32 (24%)	47 (35%)	22 (16%)
Total Responses 143	13 (9%)	25 (18%)	35 (25%)	48 (34%)	22 (15%)

Females responded that the new entrances to the workforce possess “A Great Deal of More Skills,” “Some Additional Skills,” or “Have the Same Skills,” 83% of the time to males responding the same way only 49% of the time. This was a small sample size. Yet, 6 of the 7 female construction workers who took the survey, responded consistently and that fact cannot be overlooked. This question with these demographics would benefit from a larger study to see if this outcome is replicated with a larger sample. Until then, the outcomes and results of this study speak for themselves.

Table 4.23

Phase I survey responses', does the new workforce have the same skills you had, by the length of time in their career.

Length of Time in the Current Career	A Great Deal More Skills	Some Additional Skills	Have the Same Skills I Had	Fewer Skills	Substantially Fewer Skills
0 – 2 years	3 (7%)	8 (19%)	19 (44%)	11 (26%)	2 (5%)
3 – 5 years	4 (13%)	5 (16%)	6 (19%)	13 (42%)	3 (10%)
6 – 8 years		1 (17%)		4 (67%)	1 (17%)
9 – 10 years		1 (25%)	1 (25%)	1 (25%)	1 (25%)
10 – 15 years	2 (22%)	1 (11%)	1 (11%)	2 (22%)	3 (33%)
15 – 20 years	2 (18%)	1 (9%)	1 (9%)	5 (46%)	2 (18%)
More than 20years	2 (5%)	8 (21%)	7 (18%)	12 (31%)	10 (26%)
Total Responses 143	13 (9%)	25 (18%)	35 (25%)	48 (34%)	22 (15%)

Here we find the overwhelming majority, 89%, of the workers with 0 – 2 years' experience in their current careers responded that they feel new entrances to the workforce have "Some Additional Skills," "The Same Skills," or "Fewer Skills." With 43, or 30%, of the responses, they also constitute most of the total responses to this question. Contrast that to the 10 – 15 year and the 15 – 20-year groups who responded, 44% and 64%, respectively with the same answers to the question. Workers with 6 – 8 years' experience responded 84% of the time that they felt new workers possess "Fewer Skills" or "Substantially Fewer Skills."

Table 4.24 shows that when we contrast and compare the responses to “Some Additional Skills,” “Same Skills,” and “Fewer Skills” by length of time in the workforce, except for workers with 10 – 15 years of experience, we see a steady decline in positive responses, with only a mild uptick between the last two generations.

Table 4.24

Phase I survey responses’, does the new workforce have the same skills you had, by the length of time in their career, aggregated responses.

Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce?	
Years in the Current Career	Responded: New Workers Possess Some Additional Skills, Same Skills, and Fewer Skills
0 – 2	89%
3 – 5	77%
6 – 8	67%
9 – 10	75%
10 – 15	44%
15 – 20	64%
20+	70%

Apart from the 10 – 15-year outlier, the other responses to the research questions may be a result of time dimming memories of high school. It may also point to overtime skills needed for success in this career field are being offered less and less in high schools. Phase II of the research would try to determine which it is.

Table 4.25

Phase I survey responses', does the new workforce have the same skills you had, based on high school completion.

Completed High School	A Great Deal More Skills	Some Additional Skills	Have the Same Skills I Had	Fewer Skills	Substantially Fewer Skills
No	1 (20%)		1 (20%)		3 (60%)
Yes, GED	2 (10%)	3 (14%)	5 (24%)	7 (33%)	4 (19%)
Yes, Graduated	10 (9%)	22 (19%)	27 (24%)	41 (36%)	15 (13%)
Total Responses 141	13 (9%)	25 (18%)	33 (23%)	48 (34%)	22 (16%)

Other than those who did not graduate from high school, who responded 80% of the time that new workers have “Substantially Fewer skills,” the demographics are consistent with the aggregate results on this question. The majority, 57%, of the workers responding to this question feel that new workers entering the construction trade possess the “Same Skills” or “Fewer Skills” as when the respondents started their career. Again, we are seeing that most of the workers surveyed do not think their high school education helped them prepare for success in this field.

Table 4.26

Phase I survey responses', does the new workforce have the same skills you had, by state.

Location Finished High School	A Great Deal More Skills	Some Additional Skills	Have the Same Skills I Had	Fewer Skills	Substantially Fewer Skills
Illinois	5 (8%)	10 (15%)	26 (39%)	20 (30%)	5 (8%)
Missouri	6 (15%)	5 (13%)	5 (13%)	15 (39%)	8 (21%)
Wisconsin		1 (11%)	1 (11%)	5 (56%)	2 (22%)
Total Responses 114	11 (10%)	16 (14%)	32 (28%)	40 (35%)	15 (13%)

Of 175 survey responses, only three states Illinois, Missouri, and Wisconsin had responses in the double digits. Of those three states, the responses to this question totaled 114. Wisconsin had 78% of their responses feel that new workers possess “Fewer Skills” to “Substantially Fewer Skills.” That is slightly higher than Missouri, 60%, and more than twice as high as Illinois, with 38%.

Contrast those results to the more favorable new workers comments of “A Great Deal Or More Skills” and “Some Additional Skills” that we see from Missouri workers, 28% of the time. Illinois followed closely with 23%, and Wisconsin only responded favorably 11% of the time.

From these results, we learn that workers in Illinois are most inclined to have more favorable views of new workers entering the construction field, followed by workers in Missouri with workers in Wisconsin least likely to see new workers as having the skills needed to be successful.

Table 4.27

Phase I survey responses', does the new workforce have the same skills you had, by generations.

Generation	A Great Deal More Skills	Some Additional Skills	Have the Same Skills I Had	Fewer Skills	Substantially Fewer Skills
Gen Z, iGen, or Centennials Born 1996 – Present	1 (4%)	6 (24%)	10 (40%)	6 (24%)	2 (8%)
Millennials or Gen Y 1977 – 1995	7 (11%)	9 (13%)	19 (28%)	22 (33%)	10 (15%)
Generation X 1965- 1976	1 (4%)	5 (17%)	4 (14%)	14 (48%)	5 (17%)
Baby Boomers 1946 – 1964	2 (11%)	4 (21%)	3 (16%)	5 (26%)	5 (26%)
Traditionalists or Silent Generation Born 1945 or Before	-	-	-	-	-
Total Responses 140	11 (8%)	24 (17%)	36 (26%)	47 (34%)	22 (16%)

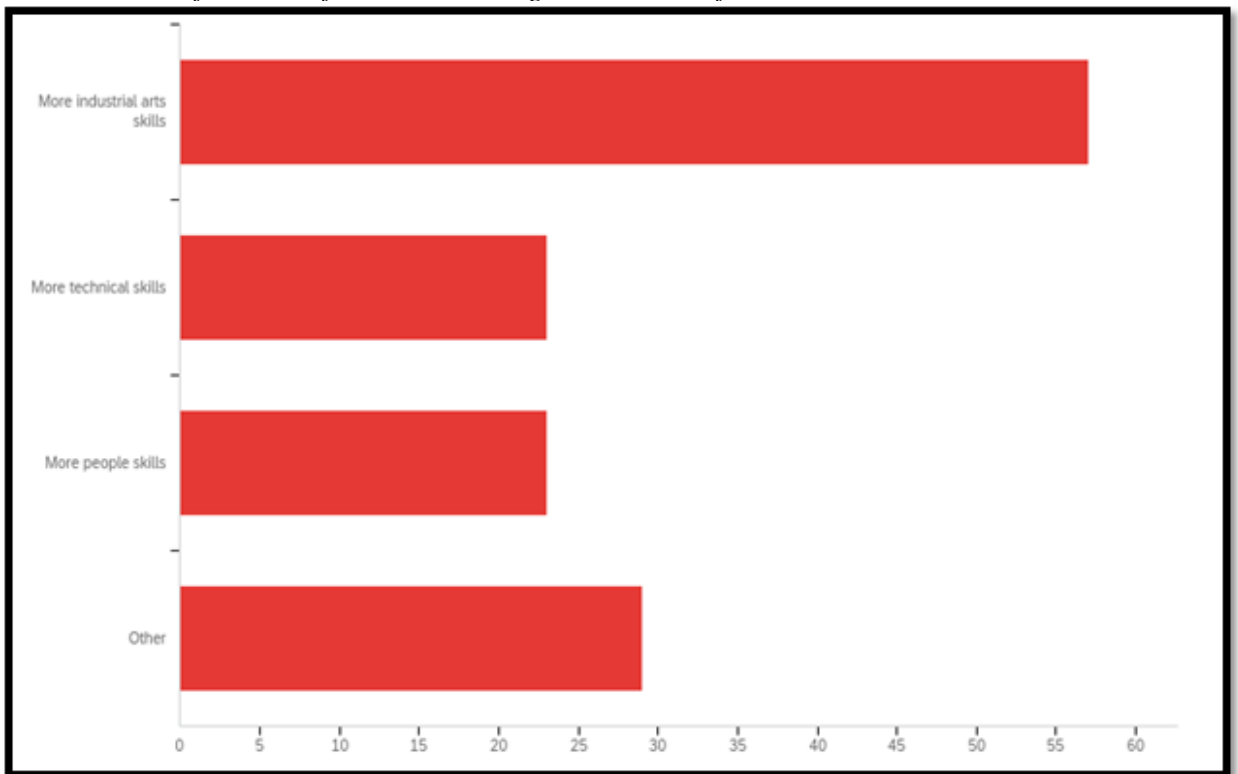
Millennials, or Gen Y, workers answered this question in a higher number than any other generation with 67 responses. The responses from Gen Z, Gen X, and Baby Boomers were consistent at 25, 29, and 19, respectively. Here, we see the younger workers, Gen Z, responding 32% of the time that new workers entering the workforce have “Fewer Skills” or “Substantially Fewer Skills” than when they did. That is significantly different than the responses from Gen Y, Gen X, and the Baby Boomer

generations who responded 48%, 65%, and 52%, respectively. Gen Z's deviation from the other generation may be attributed to their being the youngest generation in the workforce. Regardless, a clear 50% of all the workers who answered this question, feel that new workers are entering the trade with "Fewer Skill" or "Substantially Fewer Skills" than they did.

A follow up to the question 'Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce?'. The follow-up question was asked: 'What skills do you believe the current new members of the workforce are lacking to be successful? The graph below shows the results of that question.

Graph 4.28

Phase I the number of survey response to question: what skills you believe the current new members of the workforce are lacking to be successful.



There were 131 responses to the follow-up question. Of them, 57 responded that “More Industrial Arts Skills” are needed, 23 felt that “More People Skills” are needed as well, and 23 felt “More Technical Skills” are needed. An additional 28 responded. Appendix I contains comments, suggestions, and recommendations related to these two questions. Examples of those comments are “I believe today’s generation lacks Industrial Art Skills and People skills, too much technology isn’t always a good thing”, and “I think those entering the workforce today have less ambition, most can’t even read a tape measure or use a shovel.” The question ‘what skills do you believe the current entry-level workforce lack in order for them to be successful in today’s workforce’ was also asked. Results of that question are in Appendix J and produced results like “This country needs more Vocational-Technical Schools. Parents need to be educated about industrial arts and the trades. School counselors need to be educated”, and “many of the entry-level workers I meet do not possess these basic skills and seem to have no drive or motivation to obtain them. They simply want to exist in the workforce and receive a paycheck.”

The third part of the principal charge of this research project was to determine what, if anything, high schools can do to better prepare students going into the

construction field and be better prepared for success. To begin to assess that question, we included the following question in the survey:

“Think about how much the skills needed to be successful in your job have changed or have not changed over the past 5 - 10 years. Taking into consideration the skills you observe in current entry-level workers, do you think workers entering the workforce 5 - 10 years from now will possess the skills needed to be successful in your trade?”

Graph 4.29

Phase I the number of responses to survey question: Will workers in the future have the skills needed to be successful in this trade?



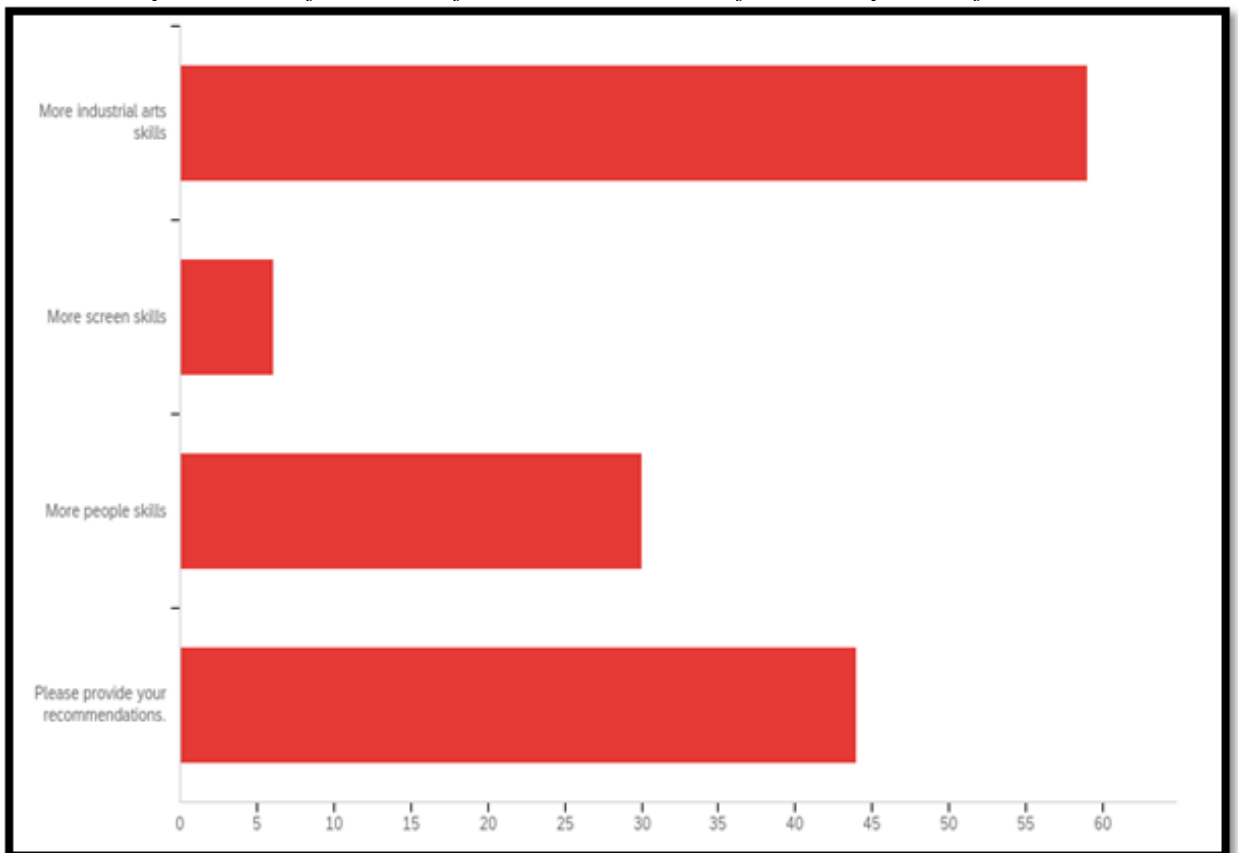
Of the 175 responses to the survey 143, 82%, answered this question. Of those responses, 49 said no they would not, 48 responded that yes, they would, while 46 did not know. Two-thirds of the workers who responded to this question do not believe that they

are confident that future high school graduates will possess the skills needed to be successful in the field of construction. That does not bode well for the future of this industry.

Next, we asked the workers responding to the survey, what skills future workers will need more of. Their opinions are reflective of their experiences as both workers and in many cases trainers of the newer entrants to the workforce.

Graph 4.30

Phase I number of responses to the survey question: what skills do you believe the current entry-level workforce lacks for them to be successful in today's workforce?



The majority, 59, responded that more industrial arts skills or training are needed. Just over half that, 30 responses, felt that additional people skills are needed. Only 6 responded that more screen skills are needed for future workers to be successful in this industry.

Why this is important to the study is that the focus on the study is how well construction workers are prepared for success in their chosen fields. Up to this point, the study has focused on how well high schools are preparing students for this career field. During the in-person discussions, several people commented that during their high school days, students seeking out industrial arts classes were often seen as trying to avoid ‘learning.’ implying that the industrial arts courses are easy and only students who wanted to escape real classes would take them. The online survey provided an opportunity to ask about post-high school education in their chosen fields. The point was to see how they pursued post-high school education and training that was career-specific, and how and what they felt about the career training and education.

One of the reasons this industry was selected for this study was driven by the fact that nearly all the different construction skilled trades have some form of an apprenticeship program. In the construction industry, any of those programs are run by Joint Apprenticeship and Training Committees (JATCs), which are collaborations between labor unions and construction companies. Most of these apprenticeship programs are at little cost to the apprentice workers. Not all of the construction industry is unionized, so apprenticeship programs that are not run by JATCs may have other costs associated with them. Apprentice programs are often referred to as ‘earn as you learn’ programs.

JATCs apprenticeship programs run by unions and their management counterparts are certified by the U.S. Department of Labor. As such they are industry-recognized, as opposed to employer-specific certifications. This provide workers industry wide recognized credentials that are portable, even across state lines. These programs are a combination of classroom education and hands-on skills proficiency training. One hundred forty-eight workers responded to this question: the overwhelming majority, 126, 85%, responded that this was the training they took. Only 4%, 6, did not with 11%, 16 not recalling.

Of the 175 survey responses, 158 acknowledged that their career paths had an apprenticeship program. Four percent, 6, did not. Two, or 1% did not recall. An overwhelming 95%, 150 responses, said that their careers have a training or apprenticeship program.

Of the 146 workers who responded to this question, 94% responded that the training/apprenticeship program takes 3 – 5 years to complete. When you also consider that 54% of the respondents have more than five years' experience in their industry, we see that the majority of the survey responses were from people who had completed training or apprenticeship programs that were likely 3 – 5 years in length. Leading us to conclude that most of these workers sought out post-secondary education and training. The problems they may have with their high school education did not transfer over and prejudice their post-secondary opportunities.

Phase II: Interviews' Outcomes

A total of twelve individuals were interviewed for this phase of the research. Each was contacted by the researcher through the course of his work as a State Specialist

in Labor and Workforce Development with the University of Missouri Extension Department of Workforce Development and, or his work as the Labor Studies Certificate Coordinator with the University of Missouri Saint Louis. Having met the basic criteria for the study, being in the construction field, or have been in the construction field, the participants were asked if they would be interested in being interviewed for the study. The randomness of these contacts provided a sampling that could not be scripted or predicted.

The individuals surveyed were all male. One was Latinx, four were African Americans, and seven were Caucasian. They all graduated from High School, between 1977 and 2012 and have worked in the construction field for between 3 ½ years and 40 years. The specifics of what year they graduated and how long they have worked in the construction field is as follows:

Table 4.26

Phase II, subjects by race.

Gender	Number of Interviewees	%
Black	4	33.3
Latinx	1	8.3
White	7	58.3

Table 4.27

Phase II, subjects by year graduated from high school.

Year of Graduation	
1977, 1985, 1989, 1992, 1994(3), 1996, 1998, 2000, 2002 and 2012	The Average Being in 1994, or 26 Years Ago

Table 4.28

Phase II, subjects by years of experience in the construction field.

Number of Years in the Construction Field	
3½, 7, 10, 17, 18, 21, 26, 28, 29, 35 and 40 (one did not answer this question)	An Average of 21.3 Years of Construction Work Experience

Table 4.29

Phase II, subjects by gender.

Race	Number of Interviewees	%
Male	12	100
Female	0	0

On the surface, the gender mix, more specifically the lack of gender diversity, created by this random sample was less than ideal. Yet, according to The National Association of Women in Construction (NAWIC), in 2018 women made up one and one-half percent of the construction industry (NAWIC, 2020). This sample, twelve interviews, may have been too small to generate a more diverse gender mix.

Other than the lack of gender diversity, the random sample provided responses that had only a slight, 1.3 years, a higher number of years of construction experience than the ideal target of 20 years' experience.

There was a slightly older, by six years, average higher age than the targeted subjects' ages. This was still well within the generational parameters. The target goal for the interviews was workers who had been both out of high school and in the construction field for approximately 20 years with a representative social mix.

There was not a targeted goal of responses by race. The responses of 58% White, 33% black, and 8% Latinx was lower than expected for Latinx. Due to the randomness of the sample and the small size of the sample, 12, this outcome was otherwise acceptable.

Taken as a whole, this random sample was very satisfactory for the purposes of this study. Several themes emerged from these discussions.

Phase II, question “Did High School Prepare you for Success in the Field of Construction”

Only one of the persons interviewed answered this question in the affirmative. In this case, the person took shop classes learning basic tool skills and enough about electronics that along with their history and math classes, he was successful in the military. That military experience became the foundation for his success in the construction field. One other respondent did feel that his math and science education helped him, but he did not have enough access to industrial arts, or shop classes, to really enter the field well prepared. Another one did mention that the drafting class that he had taken in high school assisted him by being able to read construction plans easier when first entering the field. One interviewee summarized their high school experience this way, “I got a good high school education. I learned a lot. I mean, I feel like I grew up pretty well rounded, but they just never prepared me to go to work.” Another one summed their high school experience this way, “Well, to be honest with you, I think, high school didn't prepare me at all for what I was going to be doing, but at the same time, I really didn't know what I was going to get into.”

From the interviews, there was a sense that the interviewees felt that high schools could do more to promote careers, like those in construction, that do not require a college education. The majority felt that too much pressure had been put on them to go to college and figure out a career afterward instead of going into careers working with their hands directly out of high school.

Phase II, question “What High Schools Are Doing Well”

After the discussions that resulted from asking the interviewees ‘Did high school Prepare you for Success in the Field of Construction’ the interviews did segue into a discussion of the positive outcomes from the current high schools, i.e., what are high schools getting right with workers leaving high school these days? The ensuing discussion of the positive skills the current entrances to the construction workforce possess, along with the earlier question of how well high school had prepared them personally, helped to bracket the remaining discussions. While the first question, remembering their high school experience, established a benchmark for comparison. The second question, current new workers skills, gave the interviewees the opportunity to conclude if high schools are better preparing, or not, today’s students. This set up the discussions of what high schools should be doing differently.

While a great deal of the information learned from the interviews may appear negative or critical of high schools, it is important to note that the tone of the conversations was not overwhelmingly condemning of the education system. Several positive attributes that new high school graduates possess were discussed. Highlights of

those comments include “New workers are quick to pick up on the newer tech skills/screen skills.” Other comments can be found in Appendix K. This was the least commented upon the question of those where comments were allowed.

New workers are better positioned to work the newer more technologically advanced equipment on construction projects, which puts them at a distinct advantage over the older workers with the newer equipment. It was felt that they could enhance those tech skills by learning how to do the task without the tech so that when the equipment stops working, they do not.

Phase II, recommendation “What High Schools Need to Start Doing or Do Differently?”

The third part of the interview was to talk about the future. Will those workers entering the construction industry in 10 years be better or worse prepared for success in this field? This part of the ensuing discussions did require the interviewees to speculate, drawing on their high school experience and their experiences more importantly in training and mentoring current new entrances into their chosen fields. These conversations could not take place without looking at what high schools are doing, could be doing, or perhaps doing differently. The general tone of the conversations was not critical of the education system but more, *if I could change things I would change, it would be*. A few of their specific comments from those conversations can be found in Appendix L. An example of which is “They are not prepping you to work, they were prepping us for college, in which I did not go because I had to have a job to get by. I didn’t know how to fill out insurance papers, w2, w4, and had no knowledge of anything work force related,” “There is a need to teach skills for working with older workers. It is

not like being in school or dealing with your friends. Those older workers may come off as being gruff but mean well, and there is a lot that can be learned from them if you talk with them,” and “There has been a shaming of working in the building trades. That needs to be reversed.”

One of the attitudes of the interviews that emerged could best be described as, educators do not understand the construction industry, how it operates, and the kinds of careers and career paths that exist. Because of that disconnect, the educational system does not provide a similar amount of support for industrial arts-based careers as post-secondary education receives.

A solid foundation in math is still very important. It is more important for students to be able to function without the need for calculators, computers, and smartphones to do the basic things. Incorporating problem-solving skills into course curriculum(s) would also help students develop confidence in their problem-solving skills. Learning the skills needed to work in multi-generational workforces, as opposed to just being in class with people their age, would also strongly benefit a student’s ability to acclimate to the workforce.

These generalized discussions of their experience with their high school, the job skills possessed by the current entrances to the workforce, and their thoughts on the future of work skills were further broken down into more detail. This area of discussion was pivotal to the goals of this research, meriting drilling down into the discussions more. In doing so additional themes emerged from the further scrutiny.

Phase II, observation “The Stigma of Working with Your Hands, vs. Everyone Needs to Go to College”

One hundred percent of the interviewees spoke to the fact that there is a negative perception of those who work with their hands. Their common belief is that both societies, as well as educators, do not value career tracks that result in students working with their hands, ‘getting dirty’, as opposed to careers that require college first. Most of them recall that just a generation ago where students could enter the workforce with high school education and be successful.

This research did not focus on distinguishing between the union and non-union workers. Yet, many of the interviewees commented about their having come through apprentice training programs. Training programs like those mentioned are often run by labor unions, at little or no cost to the trainees. Trainees in apprenticeship programs work while they learn or as they say, earn as you learn. The inequity of paying for an education, without the promise of a job vs. being paid to learn a skill was not lost in these discussions. Yet it was felt that the social stigma appears to still linger over skill trades. Specific comments from the interviewees summarizing this point are located in Appendix M. A couple of examples of those comments are “When I attended high school shop classes were thought to be for dumb kids when in reality, they teach you fundamental life skills and common-sense ways to problem solve. There is way too much focus on how well someone can take a test and not”, and “They only considered those that were going to college would be successful. My career gave me the opportunity to

become an instructor, apprenticeship coordinator and now I am the Executive Director of the Roofers & Waterproofers Research and Education Trust Fund for our International Union in Washington, DC.”

Whether by intent or by accident, it is felt that high schools are steering all students to college as a default. If you are not interested, or capable of, going to college you are looked down upon while in high school. This adds to or has created the social stigma that casts a negative perspective on those individuals who work with their hands.

Society glorifies scientists and engineers who do the designing of projects but not the men and women who build them, maintain them, and make them work.

High schools could be the change agents in reversing this trend by focusing on the positives that come from being a skilled worker.

Phase II Study Thoughts on the Need for Industrial Arts Programs (Shop Class)

Three-quarters of the respondents, nine of the twelve people interviewed, talked specifically about the need for industrial arts programs, shop classes, in high schools, and, or, how to improve those programs where they still exist. As one of the interviews commented, “High school is not typically trade-oriented.” Real or perceived the perception is that industrial arts programs have been cut or eliminated due to budget reasons over time. Additionally, the perception is that not all schools have equal access to these more costly programs. As one interviewee said, “If you’re in the 'hood' they don't teach skill trades like construction. If I am from the country, they teach these things there.” Another commented that “I had no idea what skilled trades were until I met a friend when I was 27. If I knew about skilled trades such as a Millwright, I would have

never tried college I knew it wasn't for me, but I was pushed to try and I did and I dropped out and started working.” Additional comments are in Appendix N.

It was felt that too few school systems offer industrial arts classes. Even when there are industrial arts classes offered it was felt that space in them is limited. In some cases, it was felt that where there are programs, they do not go into either enough detail and/or do not go into enough, if any, real-life experience, or skills development.

In conducting these interviews there was an overwhelming sense that high schools without industrial arts programs are not able to introduce students to the kinds of careers that often would lead them to the construction industry. Without being exposed to these kinds of skills in high school, it was felt that except for having personal knowledge of someone in the construction field students would not know about the options these kinds of careers provide, including that many times these careers have apprenticeship programs that allow workers to earn-as-they-learn.

Because students do not get exposed to these kinds of skills, careers, in high school most of the workers interviewed felt that students are left feeling that their only option is to go to college, incurring debt in doing so, with the understanding that it will improve their chances of finding meaningful and better-paying employment, but not a direct pathway to a job. One of the interviews noted that “I believe that shop classes are needed in high schools, to promote building trades. We must understand that not all kids will go to college or can afford to go. Apprentice programs allow them to work in the field of their choice, and earn a good wage, with good benefits while attending a 3 to 5-year program, graduate with no debt.”

Phase II, Observations that “Students Need to Learn How to Work Their Way Out of Problems”

Universally, the workers interviewed talked about how students going into the construction field need to be better prepared to work their way out of problems. Most often they elaborated that these skills are valuable skills for any profession, not just those engaged in the construction industry. It was felt that too much time was spent on computer-based theoretical skills and not enough time on hands-on and real-life examples. Not that computer skills are not important, but that focusing primarily on how things *should* work using a computer model does not prepare future workers for what to do when faced with the need to *adjust to fit field conditions*. Few workers spend their entire lives building only new projects. Most spend most of their careers putting on additions, repairing, and remodeling projects that require a considerable amount of time, and skill, to adapt plans to meet field conditions.

It was felt that high schools more often are spending a disproportionate amount of time on computer skills at the expense of hands-on or real-life experiences to prepare students for having this education and these skills enhanced, later in college. This assumption that high school educations are providing a foundation for college educators to expand upon creates a hole in the skills students takes into the workforce who have not gone on to college. That hole that the workers interviewed talked about came to be defined as the skills needed to adapt and work their way out of problems encountered, or of their own making.

A subset of this discussion was the observations made that new workers coming into the construction workforce often seem to lack the sense that learning is an ongoing,

lifelong endeavor. It was felt that high schools could do more to provide life skills for students that include the understanding that having the education and skills get you in the door but that does not mean it is the end of your journey or learning. Key comments on this topic made by the interviewees are found in Appendix O, such as: “If you can't problem-solve, it is going to be tough on you to be successful in this field”, “we need more bright people; we need people to the problem to solve on the fly”, and “current entrances to the trade are not as well prepared. Newer workers will go to the computer (or smartphone) and google a question, then assume it's correct, instead of talking to a person with experience.”

Regardless of the career path taken it was felt by the interviews that all students would benefit from a more comprehensive life skills training program. Being problem solvers, self-starters, even willing to make mistakes, and try again. While in the construction industry mistakes can be costly, even deadly, the fear of failure can damage production. A balance is needed. That balance is most often achieved through education and experience.

The most successful people in this industry possess the ability to solve problems. That comes from a combination of taught skills and confidence. It was felt that high schools could do a better job of building these skills and the confidence in students. This can be done by incorporating problem-solving skills and personal development problems rooted in real life and building problems in the science and math classes.

Another topic that emerged from the conversations around industrial arts classes and learning to work through problems was the recurring theme that job skills training is

missing from the current entrances to the workforce. Much of these discussions were centered around basic skills all workers would benefit from regardless of the industry they go into. These were often spirited conversations with frank, blunt talk about the experiences the interviewees are having with the current crop of entrances to the workforce. A great deal of these conversations was forward focused on what future workers need to be better prepared for success. I did not detect anything that would make me believe that these conversations were mean spirited in any way but genuinely intended to be helpful. Additional comments are in Appendix P. A couple of those comments are “These days I hear it more and more from the foreman out in the field and from the contractors that they need somebody that is reliable, that gets up every day, no matter what the issue is, and goes to work,” and “Getting your butt out of bed in the morning, that should not be difficult for a lot of the kids and that’s just the basics for everything. Instead of so much focus on being good test takers and what college are you going to get into, can you just give them the life skills that they need to get out on their own and to do well to succeed?”

All the workers interviewed talked at some length about the need for work skills training for current high school students. These are skills that the current new workers are mostly missing. Too often current new workers were felt to be lacking both the confidence to talk with more senior workers about how to do their jobs safely and effectively as well as the respect for paying their dues and working their way up the ladder.

Several talked specifically about new workers spending too much time on their cellphones while working. Most of the jobs are dangerous and being distracted by a cell

phone puts them at risk as well as those around them. The excuse most often given of listening to music comes across as disrespectful to the need for safety. Another common excuse is that they were looking up how to do the task at hand on YouTube, instead of talking to their lead worker on the job. This not only puts the new worker in an unfavorable light due to using their phone, but it also demonstrates an unwillingness to follow proper normal job site protocols.

It was felt that new workers are too complacent with regards to showing up to work on time and even being available to work overtime when needed. Some of this was believed to be learned behavior from having been allowed to arrive at school, or class, late with little or no consequences, or being able to turn in assignments late without consequences.

The conversations did try to focus on what basic, uniform, work skills high schools could teach even if they lacked industrial arts programs. They lacked basic life skills like packing your lunch the night before and fueling your vehicle on the way home from work instead of on the way to work. Still, these are no substitution for having the motivation for getting out of bed in the morning, every morning and showing up.

Criticisms aside, it was felt by some of those interviewed that most of these new workers do not know what they are capable of. Either they have not been challenged in their life, or they have always received participation trophies for just showing up.

Phase II, the Observation that Schools Need to “Teach the History of Work and Working”

A subset of the discussion on the need for working skills was a discussion of the need for a better understanding of the history of work and working in the United

States. These conversations were rooted in students, now workers, not understanding the basics of work and working culture and why the rules are what they are. An understanding of why work laws, rules, practices, and customs are what they are would better prepare new entrances into the workforce with a clearer understanding of both expectations of what is expected of them, as well as what they can expect in return.

Most of the interviewees found that few new workers possess a basic understanding of the history of work and working in the U.S., let alone what workplace culture, policies, and practices. This basic lacking puts any worker at a disadvantage with regards to being successful before they even begin their careers. Supplementing history, social studies, or other curriculums with workplace history would help students better enter the workplace prepared to succeed. One interviewee commented “We do not have any paid holidays. When you are off you collect unemployment, that is what it's there for. Save your money. We get paid a good wage. We get paid well and I tell it to the young people all the time. Put money away for a rainy day. That is why we get paid the good wage that we do, it is not so you can go get a lake house and all that other stuff. It is to save your money for a rainy day”, as an example of the lessons learned on the job. More detailed comments from the interviews are found in Appendix Q.

Phase II, comments that “Workers Need to be More Self-Reliant”

Nearly all the workers interviewed were either formally responsible for overseeing the training, providing training, or informally mentoring new workers entering their construction craft. While construction workers generally work on crews, large and small, the work that they perform is often independent and on-their-own. Independent and often on their own they need to complete a task. While the

discussion was wide-ranging two themes did occur; students entering the field need to be more self-reliant and able to solve their own problems as well as take responsibility for their work and their actions. The perspectives of the interviewees on current workers entering their craft may be indicative of new entrants to the workforce in other industries as well. Comments regarding this theme can be found in Appendix R and include “Do not do everything for them (students). Let them work their way out of a problem”, and “Future students who want to go into the trades would be better served with programs and classes that teach individuals technical problem-solving skills, like how to work solutions by deconstructing the problem and creating options that will allow them to achieve their desired outcome.”

High schools need to do more to help students become more self-reliant before they embark upon their professional careers. Regardless of that career. This was one of the most consistent themes of the interviews. Workers need to be responsible. Show up, on time, and every day. This is not just unique to the construction industry. The same can be said for every industry. What is somewhat unique to the construction industry is that workers need to come prepared to work with what they can carry with them. On some projects, they may be able to return to their vehicles to retrieve something that they need, but that is not always the case. In general, you show up and work with what tools, and skills you bring to the game. There is no phoning a friend. There are no do-overs. You need to be ready.

CHAPTER V: CONCLUSIONS & RECOMMENDATIONS

Conclusions and Recommendations: The American Dream: For Latinx in the United States

The purpose of this qualitative study was to identify the most common barriers to higher education encountered by Latinx students in Saint Louis, Missouri, and to ascertain whether those barriers are comparable to those experienced by Latinx students in other parts of the United States, in particular, Plano, Texas. This chapter discusses the major findings related to the role that family, friends, teachers, and counselors play in the post-secondary academic pursuits and general living situation of Latinx students. The findings are compared to those from previously published literature. Other major factors discussed include immigration status, language, and cultural assimilation, and most importantly, economics. Included in this chapter are considerations of the study's limitations, a summary of the major findings, and an identification of areas that need further research.

The academic advancement of Latinx students after high school are multidimensional and intertwined with the following five factors: a) the role of family on post-secondary decision making, b) language acquisition and language barriers, c) second culture assimilation and legal status, d) academic tracking and advising, and e) finances and economics. Each one of these factors can create an impediment to a Latinx's pursuit of higher education, but not all factors affect every Latinx student equally and the relative impact of these five factors varies from student to student. Additionally, I found that many of the participants in this study went back to school at a later time when they felt

that their economic situation was more stable, and they did not depend on their parents' financial support. To exemplify this finding, I would like to include the story of one of my former students.

A Cry for Help!

A few months ago, I received a letter from a recent Latinx student that I had the opportunity to teach for two years. The student was seeking advice, because she realized that the rewards and opportunities that should have resulted from the academic success, she had worked so hard to achieve during high school were now slipping away with each passing year. She worked hard to learn English and studied hard to earn good grades despite the limitations associated with being an undocumented immigrant. She had come to this country at a very young age with her parents and had learned to speak English through the program provided by the school district where I work. She worked very hard to obtain good grades, to learn the educational system of this country, to assimilate to the American culture, but most importantly, to obtain good grades so that she could go to a community college, and later to a university. Her goal was to become a professional and to find a professional job so that her future would be more stable than the one she is living at the present moment. I decided to include this letter as part of my research because it highlights some of the factors that I was investigating and analyzing. The letter itself answers some of the questions that I asked in my surveys and in the interview that I did with my students. The letter, written in Spanish, is found in Appendix D.

In her letter, the student is seeking help. She is undocumented, and because she graduated with good grades, she obtained a small monetary scholarship offered from a local program in the community where she studied. The amount of the scholarship was

sufficient to pay for one semester at a local community college. She wanted to attend a local community college in the city where she lives, because it is less expensive. She would not have to move to another location, and it is what she can afford at the moment. However, her parents suggested that it would be better for her to join them in the workforce. They told her that even if she graduates with an associate degree from the community college, she will not get a job in her profession, because she is undocumented. It is an emotionally difficult situation, because the student has a younger sibling that was born in the United States; therefore, his situation is very different from hers. He will not face the same legal barriers to higher education that my former student faces.

The letter from this young Latinx person clearly demonstrates two facts about her character. First, she has a strong work ethic and wants to be a productive member of society, and second, she has the ambition to pursue higher education and to achieve a higher level of professionalism. She wants a college degree and the financial rewards associated with a profession rather than a job. Her success in her current job has made her realize she has the talent and ability to pursue higher education and that other people also recognize that ability within her. The problem is, she is only 18 years old and lives with her parents. This means that she is constantly reminded of the obligations she has to her family. She does not have the money to pay for school, and she has no support from her family. She also feels that in the last few months she has been put in a difficult and dangerous situation. She is working face-to-face in a restaurant as a server. Because of

the present pandemic situation, she does not feel that her patron really protects the employees, and she is constantly at risk from customers that do not wear masks. Also, the restaurant sometimes serves the maximum capacity of customers.

This letter was important for my discussion of barriers to higher education for multiple reasons. First, I know the student very well. She works very hard and sets goals for herself, and therefore, I feel it is a great injustice that she does not have the same opportunities as other students due to decisions made by her parents when she was still a small child. Secondly, I know that her parents are correct when they say that she will have a difficult time obtaining a professional job if she is undocumented. Without documentation, there is very little help that she can get in reference to money and academic support from many schools.

This former student is not alone in her cry for help. Other Latinx students have similar barriers, although each student's unique situation creates different versions of the impediments to higher education. One of the Latinx students I interviewed for my research graduated from high school in the spring of 2019. He has no legal barrier to pursuing a college education, because his family legally immigrated to the United States. However, they did so when he was already in high school, and unlike the previous undocumented student, he had to learn English as a young adult. And this created a language and comprehension barrier. But even that barrier was not his greatest impediment to pursuing a college education. He told me that he is working to help financially support the family. Like so many other Latinx immigrants that come to the USA, he works in the landscaping industry with his father. They work long and physically demanding hours from March to November, because from December to the

end of February they do not have work. They have to save money during their working months in order to have sufficient money for food, housing and other amenities that they need to survive during the winter months. He has put off college for a later time. At the moment, the money he is earning is good, he is making much more than what he was making while he was a junior and senior in high school. This is one of the reasons why he is postponing his pursuit of higher education at the moment. The immediate needs of the family can make it difficult, or even impossible, to make the financial sacrifices needed to pursue a college degree. Nevertheless, the idea of attending a community college or university is in his plan for the future.

Interpreting the Findings

Each individual participant in my study has taken a different path to get to where they are in 2021. However, each of the five common themes that I investigated were prominent factors in determining the current situation of each Latinx interviewed for this study. These themes have a dynamic dimension to them in the sense that what is important or relevant to the individual changes over time. Each theme is described in detail in the following sections.

The Role of Family on Deciding Post-Secondary Path

A significant finding from this study was that nearly all of the Latinx students who completed the surveys had the intention, while still in high school, to continue their education after graduation. This clearly demonstrates that the desire was there, but there were barriers that prevented them from doing so, or at the very least, that created obstacles in their path. Although the majority of the parents of these Latinx students wanted their child to pursue higher education, their commitment to that goal was related

to their own academic background. Those Latinx students who did not receive encouragement or help to pursue a college degree were more likely to have parents who had completed only elementary school or some high school. This factor is influential, because a lot of those poorly educated parents hold many jobs and simply do not have the time to be significantly involved in their child's day-to-day educational experiences. Many cannot help their children with homework and assignments at home, even if they have the time and inclination, because they lack the knowledge to do so. Parental and family involvement in their child's education is a major predictor of achievement. Parent engagement plays one of the most significant roles in increased achievement for Latinx children (Carpenter et al., 2006).

Language Acquisition and Language Barriers

Language barriers played a role in the academic success of all four students who were interviewed for this study. All of them had to learn English in the United States and learn how to engage and participate in class. Two Latinx talked about how discouraged they were, because they spoke with an accent and internally, they felt embarrassed to make mistakes in front of their peers. One of them admitted that keeping up with English was a struggle, especially during the beginning days after they were mainstreamed into regular classes from their ESL classes. Students who needed to learn English also noticed that professors in courses other than English seemed to be bound by a time-sensitive curriculum and did not always thoroughly explain concepts or offer to help before moving on to the next topic (Barbosa, 2012).

An important factor was the pace of the classroom. It was common for Latinx students to feel that they were constantly trying to keep up with the native English-

speaking students in their classes. They always felt they were behind other students in mastering the subject material, because they struggled with in-class comprehension. Although they were able to speak English, the interpretation of reading and auditory material was difficult and required more time than they were permitted.

Culture Assimilation and Legal Status

Although many of the participants in this study were born in the United States, three of the four that were interviewed were born in other Spanish speaking countries. The fourth student was born in the United States to Mexican citizens, but she was raised in Mexico from the time she was one year of age until she returned to the United States during elementary school. For her, English was a second language that she had to learn in elementary school. It is difficult to master English when Spanish remains your home language.

Along with the language barrier is the challenge to assimilate into a second culture. Latinx students who immigrate to the United States typically spend the first few years of their education with other students who are in similar situations. The four students interviewed for this research interacted mostly with other Latinx students while attending high school and therefore, they did not significantly intermingle with non-Latinx students. Since a major part of knowledge acquisition comes through interaction with peers, many Latinx students did not adequately benefit from that natural process. In other words, students learn from each other. This interaction is especially important during the last two years of high school when students are taking entrance exams and

applying for college. Immigrant Latinx students are at a serious disadvantage in this process. As one interviewee said, “My friends did not know how to apply for college, we did not know how to help each other.”

Academic Tracking and Advising

Three of the interviewed students took AP Spanish Language and Culture classes in high school but did not take any advanced placement classes in any other subject. Nor were they part of any program that helped them prepare for the ACT or SAT exams. These Latinx students felt that counselors enrolled them in the AP class only because they already knew Spanish. Two of them said that they took only basic mathematics classes. One of the students that went to a community college after high school said that he failed College Algebra, because he had only taken basic mathematics classes in High School. It is common for academic advisors to place Latinx students into less rigorous educational tracks because of implicit biases and misconceptions about their learning ability (Meier & Stewart, 1991).

None of the four students interviewed recalled having any interaction with a career counselor at their high school, let alone visiting a college campus. One admitted that he never sought the help of a counselor because of the language barrier, and that the counselor never invited him to talk as he did with other students in the class. Another Latinx student said she wanted to meet with a college and career counselor, like most of the students in her class. However, she did not know how to initiate the communication and the counselor did not demonstrate an interest in learning about her or her interest in academics. Many times, stereotypes threaten or impede the academic success of pre-college Latinx students (Crisp et al., 2015). This research did not address the actions of

high school counselors and academic advisors, and the experiences described by the Latinx students interviewed for this study were solely from their own perspective.

However, it demonstrates that whether intentional or not, lack of academic advising is a barrier for immigrant Latinx students.

Finances and Economic

Lack of funds to pay for college is not unique to Latinx students, but the problem is more serious for Latinx and African Americans students, because their families have much less access to wealth than do White Americans in the United States (Bhutta et al., 2020). The four Latinx students interviewed for this research indicated that lack of funds to pay tuition and expenses was their biggest barrier to attending college. They all stated that they felt pressure to seek employment after graduating from high school in order to help support their families. It is common for high school students to seek employment during high school, although not all students are expected to contribute part or all of their earnings towards supporting the family unit. Their experiences entering the workforce with only a high school degree has reinforced the knowledge that their future earning potential will be limited without some post-high school education. Two of the students have had the opportunity to continue studying in a community college and will graduate in spring 2021. Those two have been accepted to a university where they intend to finish their bachelor's degree. They both have received indications that they will be able to vertically advance in their places of work. Even for the Latinx undocumented student, the lack of money is not stopping her from finding a lawyer that can help her with

processing legal documentation. She is hopeful, especially with the 2021 change in leadership in the United States, that she might be able to apply for admittance to a university and apply for scholarships.

Recommendations for Future Studies

The idea for this study originated in my mind many years ago when I noticed that many of my former Latinx students were not advancing in their post-high school careers, even though I knew most of them had done well in high school and had dreams of pursuing professional careers. Upon completion of the surveys and interviews conducted for this research project, it was clear to me that more in-depth case studies are needed to better understand the various pathways that Latinx youth follow after their graduation from high school. A more in-depth study would require institutional or programmatic histories, document analyses, participant interviews and measures of change over time. Classroom observations combined with post-graduation tracking of Latinx high school juniors and seniors would create a more thorough understanding of the variables that lead to their academic success, or conversely, to additional educational barriers. Classrooms in the United States will continue to have increasing numbers of Latinx students for the foreseeable future (Krogstad, 2020) so classroom teachers and academic counselors will need training and tools to help them recognize the academic potential of Latinx students and to break down or bypass those academic barriers that result in unfulfilled potential of many Latinx youth.

Conclusions and Recommendations: College Preparation Programs and Intervention

From the data collected, it can be concluded that of the high school graduates that completed the survey, all of them perceived that college preparation programs are useful and effective when preparing students for college. Based on the qualitative data gathered from the survey conducted for this study, high school graduates preferred college preparation programs. Through their perspectives, researchers were able to conclude from a sample that these graduates viewed college preparation programs beneficial for the transition to and through college.

What Went Well with the Sampling

Researchers believe the number of students gathered to complete surveys was the perfect amount. The amount was very manageable and easy to work with, without becoming overwhelming. Researchers also believe the number and structure of questions were simple and easy to understand which in-return probably helped with the successful turn out for all selected student participants completing their surveys. All surveys were returned in a timely manner and all answers were completed thoroughly and provided a lot of content and context for researchers to fully understand participant's thoughts and perceptions.

Recommendations on Future Sampling

As far as future sampling, because this was a pilot study the only recommendation that researchers would have when expanding this work would be reaching more students. Researchers would like to gather an array of perspectives from inner-city graduates from all over the United States. Capturing this data will help to amplify and expose the lack of

preparation that these students are facing as they transition to college. It is important for samples to be greater in numbers to reveal the common theme of the problem that inner-city high schools filled with minority students are facing.

Implications

The result of this study can help in a school district for high school students. Implementing more of the college preparation programs can potentially elevate the number of high school graduates that go on to and through college to receive degrees. Ultimately this study can open up many new doors and avenues for ensuring that more minority high school students become successful post-secondary. These programs will help to break down barriers standing in between the success for minority students after high school graduation. The literature review compared graduation and drop-out rates among students who were prepared and participated in preparation programs and students who had not. From the review statistics showed that a student's academic preparation in high school is one of the strongest predictors of college degree attainment (Chingos, 2018). The National College Access Network captured data from students of the class of 2010 who participated in college access and preparation programs. They found that these students had a 49.6 completion rate for obtaining a degree and outperformed their peers who had not participated. If we use this study to break down those barriers holding high school students back from attending and successfully completing college, we can change the data and performance of many inner-city minority high school graduates. This study can also shed light on a high school counselors' day-to-day duties helping school administration and officials to prioritize the counselor's duties, and they can begin to help

students in the college preparation process as well. This study can imply that a better structure for high school students regarding transitioning to and through college needs to be implemented within the curriculum in high schools.

Recommendations

I would recommend that more area high schools take time out to start discussing the topic of how to successfully add these college preparation programs to their schools. I would also recommend that high schools make these programs more accessible to all high school students including inner-city minority students. These programs are beneficial for all students. During the literature review portion of this study, researchers wrote about how high school students often face a ton of complicated experiences, while also lacking the appropriate support needed to motivate and encourage them to continue on to and thorough college. College preparation programs will not only help to prepare students for college but will also help to support students and their families along their journey. These programs will ultimately work as a collaborative effort with the schools. Prep programs can also be beneficial to schools helping to add rigor to their curriculum and also helping with successful completion rates. Adding college preparation programs will help high schools with graduate rates which most schools rely on for accreditation and state requirement purposes. The implementation of these programs in schools have the ability to change and correct a failed system to level out the playing field for all high school students, and not just one fortunate population.

Conclusions and Recommendations: The Workers' Perspective on Their Postsecondary Success Opportunities

Three decades involved with labor unions as a worker advocate taught this author a lot. It was that experience that taught me workers, in general, do not believe their views are taken into consideration very often, if ever. The lower the organization chart of a company the less they feel that their input is either sought out or valued when given. The literature review found no material evaluation of secondary educations in the context of how workers felt that education prepared workers for success. It is the workers who are the end-users of education, not the employers or the educational systems. It is their opinions that should matter most.

The need to work to provide for ourselves and our loved ones is a universal truism. Very few people do not face this struggle. The need to work creates a portal of the intersectionality of sexism, racism, and classism creating barriers as students move from the world of education to the workplace. The interest convergence of all workers, regardless of sex, race, or class, begins with how future workers are prepared for success when entering the workforce. The desire for family supportable jobs, jobs with dignity, unit people across the isms.

The construction industry was selected in part because it is often seen as a non-post-secondary education career path. It was also selected because the industry has apprenticeship education and training programs. While not required for all workers, many workers find their way into the industry through these apprenticeship programs. It

was thought that workers' view of their post-secondary education and training afforded through their apprenticeship training could be used to evaluate the workers' thoughts on post-secondary schooling that was not college-bound oriented.

What Went Well with The Sampling

The online survey had 175 responses, exceeding expectations. Of the 175 workers who participated in Phase I, the online survey, 95% (166) responded to the question regarding their completion of high school. Of the 96% (159) completed high school, with 81% (134) had graduated, the remaining (25) having earned GED's. Their high school experience ranged across 25 states, and two foreign countries also exceeded planned expectations. Illinois, Wisconsin, and Missouri were the only three states with responses in the double digits, allowing for comparisons in education between states. Illinois and Missouri's outcomes aligned very closely. With 166 of the 175 responses to the survey (95%), providing their age we found a very satisfactory disbursement of responses from workers with zero to two years' experience (28%) to workers with over 20 years' experience (27%).

What Did Not Go Well with The Sampling

Distributing the link for the Phase I online survey via 'snowballing' methodology successfully prevented the researcher from skewing the outcomes by determining who received the survey link. It did not however provide the robust number of responses from women, Latinize/Hispanic, and minorities in the construction industry that would have been preferred for providing more well-rounded comparisons by race, gender, or ethnicity. In addition, the randomness of selecting workers for the Phase II interviewed, workers in the construction field who contacted the researcher in the course of his work

as Labor and Workforce Development Specialist for the University of Missouri Extension and as the Labor Studies Program Coordinator for the University of Missouri-St. Louis, also did not provide a representative sample of workers from the sample industry.

Recommendations on Future Sampling

The benefit of the randomness of the sample would support using a similar methodology for distributing future surveys. However future projects should cap the number of responses with specific caps by race, gender, or ethnicities. For example, cap the responses at 100 for White workers, closing the survey when that number of responses in that demographic have been received but continue to take responses from minorities to pursue a more representative sample. Additional follow up interviews should be directed to create a sample representative of the industry's race, gender, and ethnicity.

A sampling of additional careers should be undertaken. For example, sampling from manufacturing, agriculture, white-collar, and the medical fields to build a more multi-dimensional view of education from the perspective of different career paths.

Conclusions and Recommendations

Most of the workers surveyed did not think their high school educations helped them prepare for success in this field. The overwhelming majority felt that current new entrances to the workforce have less of the skills needed to be successful than when the survey responders entered the workforce. Clearly, 50% of all the workers responding to the question felt that new workers are entering the trade today with "Fewer Skill" or "Substantially Fewer Skills" than they did. Furthermore, we learn that two-thirds of the

workers who responded to the question are not confident that future high school graduates will possess the skills needed to be successful in the field of construction. That does not bode well for the future of this industry.

One hundred percent of the interviewees spoke of the negative perception they experienced in high school of those who work with their hands. Most of them recall that just a generation ago where students could enter the workforce with a high school education and be successful. From the interviews, we learned that the interviewees felt that high schools could do more to promote careers, like those in construction, that do not require a college education. Because of that disconnect, the educational system does not provide a similar amount of support for industrial arts-based careers as post-secondary education receives. Whether by intent or by accident, it is felt that high schools are steering all students to college as a default.

Both the survey and interviews supported that incorporating more problem-solving skills into course curriculum(s) would also help students develop the confidence and problem-solving skills needed. Learning the skills needed to work in multi-generational workforces, as opposed to just being in class with people their age, would also strongly benefit a student's ability to acclimate into the workforce. We also learned that new workers coming into the construction workforce today seem to lack the understanding that learning is an ongoing, lifelong endeavor and that regardless of the career path taken it was felt by the interviewees that all students would benefit from more comprehensive life skills training program. Being problem-solvers, self-starters, even willing to make mistakes needed to be taught.

Students entering the field need to be more self-reliant and able to solve their own problems, as well as take responsibility for their work and their actions. Criticisms aside, it was felt by some new workers do not know what they are capable of accomplishing. Either that or they have not been challenged enough in their life. High schools need to do more to help students become more self-reliant before they embark upon their professional careers, regardless of what that career is.

Final Thoughts

Real or perceived, construction workers do not believe high schools understand the skills needed for workers to work in their industry or how to explain the benefits of a career in those industries. Culture change does not happen quickly. High schools are poised to have the greatest impact in influencing the culture changes needed to reverse this real or perceived opinion. Yet high schools cannot change the culture by themselves.

High schools were found to be failing students going into the construction industry. Like most problems there is not one solution for that. Multiple approaches will need to be taken. More immediate than waiting for culture to change on its own, a coalition of secondary educational institutions, construction companies, trade organizations and apprentice training programs that prepare workers for careers in this industry should be convened to address how to break the stigma that steers workers away from the construction industry. Several approaches should be pursued, not in opposition

with one another but in search of multiple ways to address the challenges facing the industry. A good starting point would be to:

- Convene listening sessions with school career counselors and industry representatives to discuss how to talk about jobs in this career and the types of materials that would help the counselors talk with students about careers in the industry.
- Convene listening sessions with groups of high school sophomores and juniors who have decided that they do not want to pursue careers that would require going to college to understand what kinds of careers they are considering and why. Asking them if they have considered careers in the construction industry. If so, why and if not, why not.
- Convene listening sessions with groups of high school sophomores and juniors who have decided that they want to go to college but have not decided what career they expect to get into after graduating from college in order to learn and understand why they have chosen this path. Also, to find out if they considered careers in construction.
- Convene listening sessions with groups of third- and fourth-year apprentices from assorted programs training workers for the construction industry to learn how they chose to enter the apprenticeship. What their career and education path was before entering the apprentice program. What was the motivation that led them to the chosen career?

- Convene listening sessions that would include construction company foreman and apprenticeship coordinators to discuss the skills new entrances into the industry possess that will help them succeed. As well as the skills needed that they do not possess, and what is needed to get the new hires to the point where they can be successful.

By examining perspectives from the position of early secondary students, late secondary students, recent secondary education graduates, school counselors, school educators in the industrial arts fields, apprentice coordinators who are training former students as well as from construction company executives and project managers a true multi view perspective is created. From that perspective not only is insight created, but collaborations are formed.

A neutral convener, like the University of Missouri Extension, or a non-profit, like FOCUS St. Louis, should facilitate the meetings for the parties to remain objective. Compiling the outcomes of these discussions can provide perspective on a pathway to post-secondary success in the construction industry. It would be expected that school counselors, construction companies and apprenticeship training coordinators would both contribute to as well as benefit from the collaborations. Having a neutral, like the Extension, conducting the research would also insulate the parties from influencing, or the perception of influencing, the outcomes of the analysis.

The end goal is to effect change in the narrative and stigma of how these kinds of careers are discussed and perceived. As noted in so many of the interviews and by many of the survey responses, college is not for everyone. All students should not be steered

toward college when there are jobs in the construction industry, for example, that can provide a good family supportable income for those who have the skills needed to be successful, and workers are in demand.

Epilogue

“If people can learn to hate they can be taught to love. For love comes more naturally to the human heart than its opposite.”

Nelson Mandela, Former President of South Africa (Mandela, 1994)

Individually each of our research has demonstrated different barriers to the post-secondary success of our students. Nevertheless, to say that they constitute the only barriers to the success of the students after high school. It is in the sum total of looking at the three different examinations of post-secondary success that the greatest impact is seen. Individually and collectively, by examining of Latinx, college preparation, and workers 20 years removed from high school perspectives we see the intersectionality of three different barriers to students' success. In each case, we see impediments that can overlap and compound their impact. Race, ethnicity, and class should not be used to create a means for separation as that only enhances and creates more impediments to success. Instead, the construct of race, ethnicity, and class should be deconstructed to eliminate barriers, creating greater pathways for success.

There is not one barrier to success. We used three unique and different frameworks and perspectives to examine impediments of success for our students to demonstrate that there is no one barrier in particular. That access to success should be examined and tested from various perspectives. Each of these examinations into students' access to success should continue to be examined, however not at the expense of looking at other ways and means that prevent students of all races, classes, and cultures from leading meaningful and successful lives.

References

- Abedi, J. (2008). Classification system for English language learners: Issues and recommendations. *Educational Measurement: Issues and Practice, 27*, 17–31.
- Adams, J. T. (1931). *The epic of America*. Boston: Little, Brown, and Company.
- Alvarado, S. E., & Lopez-Turley, R. N. (2012). College-bound friends and college application choices: Heterogeneous effects for Latino and White students. *Social Science Research, 41*(6), 1451-1468. doi: 10.1016/j.ssresearch.2012.05.017
- Amadeo, K. (2020). *What is the American dream today?* The Balance.
- Anderson, C. (2017). *White rage, the unspoken truth of our racial divide*. Bloomsbury USA.
- Ascher, C., Henderson, A. T., & Maguire, C. (2010). *Putting kids on the pathway to college: Framework and Rubric*. Retrieved from <http://www.annenberginstitute.org/pdf/BTORubric.pdf>
- Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education, 11*, 273–298.
- Barbosa, L. L. (2012). A study of college access and academic success among first generation Hispanic language minority students at the community college level. Seton Hall University Dissertation and Theses (ETDs). <https://scholarship.shu.edu/dissertations/1788>
- Barnes, R., Turner, M. G., Paternoster, R., & Bushway, S. D. (2012). Cumulative prevalence of arrest from age 8 to 23 in a national sample. *Pediatrics, 129*(1) 21-27. Retrieved from <https://doi.org/10.1542/peds.2010-3710>
- Barone, A. (2021). What is the American dream? *Investopedia*. Retrieved from

<https://www.investopedia.com/terms/a/american-dream.asp>

- Bhutta, N. A., Chang, C., Dettling, L. J, and Hsu, J. W. (2020). "Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, September 28, 2020, <https://doi.org/10.17016/2380-7172.2797>
- Boraz, S. C., & Bruneau, T. C. (2006). Are the MARAS Overwhelming governments in Central America. *Military Review*, 86(36-40). Retrieved February 6, 2021, from https://www.researchgate.net/publication/235157461_Are_the_Maras_Overwhelming_Governments_in_Central_America
- Borden, L., Perkins, D., Villarruel, F., & Stone, M. (2005). To participate or not to participate: That is the question. Retrieved January 31, 2021, from <https://experts.umn.edu/en/publications/to-participate-or-not-to-participate-that-is-the-question>
- Bovy, P. M. (2017). *The perils of "privilege."* New York: St. Martin's Press.
- Bruenig, M. (2014). White high school dropouts have more wealth than Black and Hispanic college graduates. *Demos' Policy Group*. Retrieved from https://www.huffpost.com/entry/white-high-school-dropout_b_5881838
- Brown, J. (2019). *Birth strike, the hidden fight over women's work*. Oakland, CA: PM Press.
- Brown-Murray, A. (2016). Differences between the theory of change and the logic model. Retrieved from <https://www.annmurraybrown.com/single>

- Buchanan, L., Bui, Q., & Petel, J. K. (2020). Black lives matter may be the largest protest movement in U.S. history. *Nation*. Retrieved from <https://www.nytimes.com/interactive/2020/07/03/us/george-floyd-protests-crowd-size.html>
- Burtless, G., & Quin, J. (2002). *Is working longer the answer for an aging workforce?* Brief, Center for Retirement Research at Boston College. Retrieved from <http://fmwww.bc.edu/EC-P/wp550.pdf>
- Callan, P. M., Finney, J. E., Kirst, M. W., Usdan, M. D., & Venezia, A. (2006). *Claiming common ground: State policymaking for improving college readiness and success*. San Jose, CA: The Institute for Educational Leadership, The National Center for Public Policy and Higher Education, and The Stanford Institute for Higher Education Research.
- Carnevale, A. P., & Fry, R. A. (2000). Crossing the great divide: Can we achieve equity when generation Y goes to college? *Washington, DC: ETS Public Leadership Office*. Retrieved from www.ets.org/research/dload/CrossingDivide.pdf
- Carnevale, A. P., & Strohl, J. (2013). *Separate and unequal: How higher education reinforces the intergenerational reproduction of White racial privilege*. Washington, DC: Georgetown Public Policy Institute and the Center on Education and the Workforce. Retrieved from <http://www.voced.edu.au/content/ngv:57695>
- Carpenter, D. M., II, Ramirez, A., & Severn, L. (2006). Challenging the singular definition of the achievement gap. *Education and Urban Society*, 39(1), 113–127. doi:10.1177/0013 124506291792

- Cass, O. (2018). *The once and future worker, a vision for the renewal of work in America*. New York: Encounter Books.
- Catano, J. V. (2001). *Ragged dicks, masculinity, steel, and the rhetoric of the self-made man*. Southern Illinois University Press.
- Chingos, M. M. (2018). What matters most for college completion? Academic preparation is a key predictor of success. *American Enterprise Institute*. Retrieved from <https://www.aei.org/research-products/report/what-matters-most-for-college-completion-academic-preparation-is-a-key-predictor-of-success/>
- Conchas, G. Q. (2001). Structuring failure and success: Understanding the variability in Latino school engagement. *Harvard Educational Review, 71*, 475 – 504.
- Conley, D. T. (2005). *College knowledge: What it really takes for students to succeed and what we can do to get them ready*. San Francisco: Jossey-Bass.
- Conley, D. T. (2007). *Redefining college readiness*. Eugene, OR: Educational Policy Improvement Center.
- Contreras, F. (2011). *Achieving equity for Latino students: Expanding the pathway to higher education through public policy*. Excerpts from Chapter 5, "Undocumented Latino Students and the DREAM of Pursuing College." pp. 97-110, 117-120. New York: Teachers College Press, Columbia University.
- Creswell, J., & Creswell, D. (2018). *Research design, qualitative, quantitative, and mixed methods approach*. Sage Press.

- Crisp, G., Taggart, A., & Nora, A. (2015). Undergraduate Latina/o students: A systematic review of research identifying factors contributing to academic success outcomes. *Review of Educational Research, 85*(2):249–274
<https://doi.org/10.3102/0034654314551064>
- Cross, P. (2017). *What is intersectionality and how does it impact my work?* Ontario Canada: Luke's Place.
- DeBaun, B., Melnick, S., & Morgan, E. (2017). Closing the college graduation gap: National college access and success benchmarking report. *Journal of College Access, 2*(1), 25-30.
- Despres, C. (2020). *Coronavirus and Latino health equity*. Retrieved from <https://salud-america.org/coronavirus-latino-health-equity/>
- Declaration of Independence, The. (1779). Retrieved from www.archives.gov/founding-docs from <https://www.straighterline.com/blog/college-dropoutstatistics-part-time-students-suffer-the-most/>
- Dixson, A. D. (2017). “What’s Going On?”: A Critical Race Theory Perspective on Black Lives Matter and Activism in Education. *SAGE Journals*. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/0042085917747115?journalCode=uxa>
- Ellis, L. M., & Chen, E. C. (2013). Negotiating identity development among undocumented college students: A grounded theory study. *Journal of Counseling Psychology, 60*(2), 251-264. doi:10.1037/a0031350

- Federal Reserve System. (2017). *Report on the economic well-being of U.S. household in 2016 –May 2017*. Retrieved from <https://www.federalreserve.gov/publications/2017-economic-well-being-of-us-households-in-2016-education-debt-loans.htm>
- Fogli, A., & Guerrieri, V. (2019). *The end of the American dream? Inequality and segregation in U.S. cities*. Cambridge, MA: National Bureau of Economic Research.
- Freire, P. (1993). *Pedagogy of the oppressed* (2nd ed.). New York: The Continuum Publishing Group.
- Fry, R., & Passel, J. S., (2009). *Latino children: A majority are U.S.-born offspring of immigrants*. Washington, D.C.: Pew Hispanic Center.
- Gillborn, D. (2015). *Intersectionality, critical race theory, and the primacy of racism: Race, class, gender, and disability in education*. Sage.
- Giridharadas, A. (2019). *Winners take all, the elite charade of changing the world*. Vintage Books.
- Gonzales, N. A., Doane, L. D., Sladek, M. R., Jenchura, E. C., & Kennedy, J. (2015). *What influences college-going pathways for Latino high school students: The voices of Arizona students* [Policy brief]. *Helios Education Foundation*. Retrieved from <https://www.helios.org/news-media/publications/College-Going-Pathways-LatinoStudents>
- Greene, J., & Winters, M. (2005). Public high school graduation and college-readiness rates: 1991-2002 (No. 8). Manhattan Institute for Policy Research.

- Harris, D. (2020). *Are America's rising high school graduation rates real – Or just an accountability-fueled mirage?* Brookings, Brown Center Chalkboard. Retrieved from <https://www.brookings.edu/blog/brown-center-chalkboard/2020/03/02/are-americas-rising-high-school-graduation-rates-real-or-just-an-accountability-fueled-mirage/>
- Harris, D. N. (2020). How will COVID-19 change our schools in the long run? Retrieved from <https://www.brookings.edu/blog/brown-centerchalkboard/2020/04/24/how-will-covid-19-change-our-schools-in-the-long-run/>
- Helhoski, A. (2020). Filling out the FAFSA: I am an undocumented immigrant. Retrieved from <https://www.nerdwallet.com/article/loans/studentloans/fafsa-guide-undocumented-immigrant>
- Hemlich, R. (2010). *Baby boomers retire*. Pew Research Center, Fact Tank News by the Numbers. Retrieved from <https://www.pewresearch.org/fact-tank/2010/12/29/baby-boomers-retire/>
- Henderson, A., & Mapp, K. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. National Center for Family and Community Connections with Schools.
- Hill, N. E., & Torres, K. (2010). Negotiating the American dream: The paradox of aspirations and achievement among Latino students and engagement between their families and schools. *Journal of Social Issues*, 66(1), 95-112.
doi:10.1111/j.1540-4560.2009.01635.x

- Hogan, B. (2019). Derrick Bells Dilemma: The interest convergence principle and racial realism. *Berkeley Journal of African-American Law & Policy*.
- Hohler, J. (2019). *After 3 decades, privatization has been proven a failure. Let's bury it for good*. Retrieved from <https://inthesetimes.com/article/privatization-alexandria-ocasio-cortez-rich-charter-schools-healthcare>
- Immerwahr, J. (2003). With diploma in hand: Hispanic high school seniors talk about their future (National Center Report #03-2). San Jose, CA: National Center for Public Policy and Higher Education and Public Agenda.
- Isenberg, N. (2016). *White trash, the 400-year untold history of class in America*. New York: Viking Press.
- Johnson, L. (2005). *Rethinking company loyalty*. Harvard Business School. Retrieved from <https://hbswk.hbs.edu/item/rethinking-company-loyalty>
- Krogstad, J. M. (2020). Hispanics have accounted for more than half of total U.S. population growth since 2010. Pew Research Center. July 10, 2020. <https://pewrsr.ch/324NHu4>
- Krueger, A. (2013). *Where have all the workers gone?* Princeton University and the National Bureau of Economic Research (NBER).
- Ladson-Billings, G. (2000). Racialized discourses and ethnic epistemologies. Retrieved from https://www.researchgate.net/publication/247325991_Racialized_discourses_and_ethnic_epistemologies
- Lafer, G. (2018). *Breaking point: The cost of charter schools for public school districts*. In the Public Interest.

Latino Impact Report, L.C. (2020, April 14). COVID-19 Latino impact report.

Retrieved from https://lulac.org/news/pr/COVID-1_Latino_Impact_Report/

Lee, T. (2019). *Let's not give up on the American dream. Testimony before the economic policy subcommittee of the U.S. senate committee on banking, housing, and urban affairs.* Economic Policy Institute.

Leopold, L. (2016). *Runaway inequality, and activist's guide to economic justice.* New York: Labor Institute Press.

Livingston, G. (2019). *Is U.S. fertility at an all-time low? Two of three measures point to yes.* Pew Research Center, Fact Tank News in the Numbers.

Lopez, M. H., Gonzalez-Barrera, A., & Krogstad, J. M. (2018, September 11). Latinos are more likely to believe in the American dream, but most say it is hard to achieve. Retrieved from

<https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=29422>

Lopez, M., Gonzalez-Barrera, A., & Krogstad, J. (2020, August 18). Latinos now more negative about their place in America. Retrieved from

<https://www.pewresearch.org/hispanic/2018/10/25/latinos-have-become-morepessimistic-about-their-place-in-america/>

Mandela, N., (1994). *Long Walk to Freedom.* Brown publishing.

Manzano-Sanchez, H., Matarrita-Cascante, D., & Outley, C. (2019). Barriers and supports to college aspiration among Latinx high school students. *Journal of Youth Develop, 14*(25-45).

- Martinez, N. (2014). *Factors that Latino high school students identify as influencing their graduation from an urban high school and their decision to enter postsecondary institution*. (Doctoral Dissertation, St. John Fisher College - Rochester, NY: Fisher Digital Publications).
- McWhirter, E., Luginbahl, P. J., Brown, K. (2014). ¡Apóyenos! Latina/o Student Recommendations for High School Supports. *Journal of Career Development*, 41(3-23). Retrieved from <https://eric.ed.gov/?id=EJ1020491>
- Meier, D. (2002). *The power of their ideas, lesson for America from a small school in Harlem*. Beacon Press.
- Meier, K. J., & Stewart, J. (1991). *The politics of Hispanic education: Un paso pa'lante y dos pa'tras*. State University of New York, Albany, SUNY Press.
- Metzl, J. (2019). *Dying of Whiteness, how the politics of racial resentment is killing America's heartland*. New York: Basic Books.
- Miles, M. B., & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis* (Second ed.). London, United Kingdom: Sage.
- Moore, J. T., Ricaldi, J. N., Rose, C. E., Fuld, J., Kang, G. J., Driscoll, A. K., Norris, T., Wilson, N., Rainisch, G., Valverde, E., Beresovsky, V., Brune, C. A., Oussayef, N. L., Rose, D. A., Adams, L. E., Awel, S. Villanueva, J., Meaney-Delman, D., Honein, M. A., COVID-19 State, Tribal, Local, and Territorial Response Team. (2020). Disparities in incidence of COVID-19 among underrepresented racial/ethnic groups in counties identified as hot spots during June 5–18, 2020, — 22 States, February–June 2020. *MMWR Morb Mortal Weekly Rep.*, 69(33):1122-1126. doi: <http://dx.doi.org/10.15585/mmwr.mm6933e1>

- Muñoz, J., & Rincon, B. (2015). Unpacking the layers: Financial aid and Latino high school students' postsecondary plans. In P. Perez & M. Ceja (Eds.), *Higher education access and choice for Latino students: Critical findings and theoretical perspectives* (pp. 8–54). New York: Routledge.
- Muñoz, S. M. (2008). *Understanding issues of college persistence for undocumented Mexican immigrant women from the new Latino diaspora: A case study* (Doctoral dissertation, Iowa State University – Ames, Iowa).
- Murold, P., & Chitty, A. B. (2018). *From the folks who brought you the weekend, a short, illustrated history of labor in the United States*. The New Press.
- National College Attainment Network (NCAN). (n.d.). We can achieve postsecondary access and success for all students. Retrieved from <https://www.ncan.org/>
- The National Association of Women in Construction (NAWIC). (2020). *Statistics of women in construction*. Retrieved from <https://www.nawic.org/nawic/statistics.asp#:~:text=31%2C%202018%2C%20approximately%201%2C106%2C919%20women%20were%20employed%20in,of%20the%20construction%20industry%20in%20the%20United%20States>
- Norman, P. C. (2016). *Teacher attitudes and perceptions of low and high socioeconomic status students*. Retrieved from <https://digitalcommons.usu.edu/etd/4873>
- Núñez, A.-M., & Cuccaro-Alamin, S. (1998). *First-generation students: Undergraduates whose parents never enrolled in postsecondary education*. Statistical Analysis Report. Postsecondary Education Descriptive Analysis Reports.

- Oakes, J. (1995). Two cities' tracking and within-school segregation. *Teachers College Record*, 96(4), 671–690.
- Olivérez, P. M. (2006). *Ready but restricted: An examination of the challenges of college access and financial aid for college-ready undocumented students in the U.S.* (Unpublished doctoral dissertation). University of Southern California.
- Olivérez, P. M., Chavez, M. L., Soriano, M., & Tierney, W. G. (2006). *The college and Financial aid guide for AB 540 undocumented immigrant students*. Los Angeles, CA: University of Southern California Center for Higher Education Policy Analysis.
- Paulsen, M. B. (1990). *College choice: Understanding student enrollment behavior (ASHE-ERIC Higher Education Report #6)*. George Washington University, School of Education and Human Development.
- Pérez, P. (2010). College choice process of Latino undocumented students: Implications for recruitment and retention. *Journal of College Admission*, 206, 21-25.
- Perna, L. W., & Swail, W. (2001). Pre-college outreach and early intervention. *Thought And Action*, 17(1), 99-110.
- Pratt, C. (2012). Are African-American high school students less motivated to learn Spanish than other ethnic groups? *Hispania*, 95, 116-134.
- Pope, M. L., & Fermin, B. (2003). *The perceptions of college students regarding the factors most influential in their decision to attend post-secondary education* (Background Brief). Public Interest, In The. (2011). *The High Costs of Privatization*.

- Quirk, A. (2020, July 28). Mental health support for students of color during and after The coronavirus pandemic. Retrieved from <https://www.americanprogress.org/issues/education-k-12/news/2020/07/28/488044/mentalhealth-support-students-color-coronavirus-pandemic/>
- Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin, 130*(2), 261-288.
- Rosenbaum, E., & Cortina, R. (2004). *The schooling of immigrants in New York: Graduating high school cohort of 1999* (RSF Project #88-03-01). New York: Russell Sage Foundation.
- Rosenfeld, J. (2013). *What unions no longer do*. Cambridge, MA: Harvard University Press.
- Sabic-El-Rayess, A., Mansur, N. N., Batkhuyag B., & Otgonlkhagva S. (2019). *School uniform policy's adverse impact on equality and access to schooling*. Retrieved from <https://www.tandfonline.com/doi/10.1080/03057925.2019.1579637>
- Shell, E. (2018). *The job, work and its future in a time of radical change*. New York: Currency.
- Shelton L. (2018). Who belongs: A critical race theory and Latino critical theory analysis of the United States immigration climate for undocumented Latinx college students? *Journal of Critical Thought and Praxis, 7*(1).
- Snyder, T. D., & Dillow, S. A. (2010). *Digest of education statistics, 2009* (NCES 2010-013). Washington, D.C.: National Center for Education Statistics.

- Solórzano, D., & Delgado, B. D. (2001). Examining transformational resistance through a critical race and Latcrit theory framework: Chicana and Chicano students in an urban context. *Urban Education, 36*(3), 308-342.
- Stiglitz, J. (2013). *The price of inequality, how today's divided society endangers our future*. New York: W. W. Norton and Company.
- Tenenbaum, H. R., & Ruck, M. D. (2007). Are teachers' expectations different for racial Minority than for European American students? A meta-analysis. *Journal of Educational Psychology, 99*, 253 – 273.
- Tierney, W. G., Bailey, T., Constantine, J., Finkelstein, N., & Hurd, N. F. (2009). *Helping students navigate the path to college: What high schools can do: A practice guide (NCESS #2009-4066)*. Washington, D.C.: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U. S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>
- Tobar, H. (2018). How Latinos are Shaping America's future. Retrieved from <https://latinostrategies.com/index.php/2018/07/11/how-latinos-are-shaping-america-future/>
- Turner, L. (2019). 'They're targeting us.' BBC News, El Paso. Retrieved https://bbc.com/news/world-us-canada-49226573?ocid=socialflow_twitter
- U.S. Bureau of Labor Statistics. (2014). *BLS report, women in the labor force: A databook*. Retrieved from <https://www.bls.gov/opub/reports/womens-databook/archive/women-in-the-labor-force-a-databook-2014.pdf>

- U.S. Bureau of Labor Statistics. (Last date modified January 22, 2021). *Labor Force Statistics from the Current Population Survey*. Retrieved from <https://www.bls.gov/cps/cpsaat18.htm>
- USA GOV. (reviewed February 22, 2021). *Data and statistics about the U.S.* Retrieved from <https://www.usa.gov/statistics>
- Venezia, A., Kirst, M. W., & Antonio, A. L. (2003). *Betraying the college dream: How disconnected K-12 and postsecondary education systems undermine student aspirations*. Stanford, CA: Stanford University, The Bridge Project.
- Venezia, A., Kirst, M., & Antonio, A. (2004). *Betraying the college dream: How disconnected. K-12 and post-secondary systems undermine student aspirations*. San Francisco: Jossey-Bass.
- Villalpando, O. & Solórzano, D. (2005). *The role of culture in college preparation programs: A review of the research literature. Preparing for college: Nine elements of effective outreach*. Albany, NY: Suny.
- Vinel, J-C. (2013). *The employee, a political history*. University of Pennsylvania Press.
- Wartzman, R. (2017). *The end of loyalty, the rise and fall of good jobs in America*. New York: Public Affairs.
- Wildes, K. W. (2016). *The great melting pot*. Huffington Post.
- Wise, T. (2015). *Under the affluence*. City Lights Books.
- Writers, S. (2019). *College guide for undocumented students – Best colleges*. Retrieved from <https://www.bestcolleges.com/resources/undocumented-studentsguide/>

- Yang, A., & Garza, R. O. (2016). Americanizing Latinos, Latinoizing America: The political consequences of Latino incorporation. *Social Science Quarterly*, 98(2), 690-727. doi:10.1111/ssqu.12325
- Young, J. W., Lakin, J., Courtney, R., Martiniello, M., Adler, R., Blood, I., Miller, S. (2012). Advancing the quality and equity of education for Latino students: A White paper. *ETS Research Report Series*, 2012(1), I-92. doi:10.1002/j.2333-8504.2012.tb02283.x
- Zinn, H. (2003). *A people's history of the United States 1492 – Present*. Perennial Classics.

Appendices

Appendix A

How do the regional identities and social- economic backgrounds of Latinx immigrant students determine their future higher educational advancement?

Questions:

1. What is your gender?

- Male
- Female
- Other

2. With what region of the Spanish speaking world do you identify?

- North American-Mexican
- Central American
- Caribbean Spanish speaking country
- South America Spanish speaking country

3. Do you speak Spanish?

- Yes
- No

4. What is your degree of comfort when using Spanish?

- Primary language
- Secondary Language
- Understand the language but I can't speak
- Unable to understand or speak Spanish

5. What is your immigration status in the United States?

- U.S. Citizen
- Naturalized citizen
- Undocumented
- Refugee
- Permanent resident (Green card)

6. What is your family's socioeconomic status?

- Upper
- Upper-middle
- Middle
- Lower

7. What academic preparation have you received in your high school?

Remedial classes
Regular classes
Honor classes
AP classes

8. Did you seek additional academic support from your teacher(s) or counselor when struggling with a subject?

Yes
No

9. Has (did) an academic counselor guide you in choosing what classes to take in order to be on track with meeting all graduation requirements?

Yes
No

10. What level of education did your parents complete?

Elementary school diploma
Some high school
High school diploma
Bachelor's degree
Graduate degree

11. Did you receive encouragement and motivation from parents or guardians to continue with studies beyond high school?

Yes
No

Appendix B

Questions posed to Latinx students in the follow-up online survey:

Questions:

- a.1. While you were in high school, did you have the intention to continue your education after graduation?

No

Yes

- a.2. Did you apply to a trade school, community college or 4-year college/university while in high school?

No → Continue to question a.3.

Yes → Jump to question b.1.

- a.3. Which activity best describes your first year after high school?

Part-time employment

Full time employment

Unemployed

Other: _____

- a.4. Do you think you will attend a community college or a 4-year college at some point in the future?

No

Yes

a.5. What are the barriers that are keeping you from attending college? Select all that apply.

- I don't think I am prepared for college
- I don't have enough money to pay for college
- My family doesn't want me to go to college
- College is too far away from my home
- Other: _____

[Stop here]

b.1. Select the option that best describes your situation.

- Attended the college of my first choice
- Attended a college of secondary choice
- Not accepted into any college where I applied.

b.2. How are you paying for your college tuition? Select all that apply.

- Savings
- Student Loans
- Parents or other family members are contributing.
- Full-time or part-time employment
- Scholarships

b.3. What were the barriers you had to overcome in order to attend college? Select all that apply.

I didn't know how to complete the college application or who to ask for help.

I had to convince my parents to let me apply to college.

I didn't have the money to attend college.

My high school grades were not very good.

English is not my first language.

I didn't have any serious barriers preventing me from attending college.

Appendix C

Thank you so much for agreeing to have this interview with me today. For this face-to-face (via Zoom) interview I am going to ask you the following questions. If you feel uncomfortable answering these questions, you don't have to answer them. I will record the answers, and I will keep my files in order to use them as part of my research. I will destroy the recording as soon as I am done with the project.

1. When did you graduate from high school and what did you do after graduation? Can you please talk about your high school experience as well?
2. What were barriers that you felt you have had in order to continue studying after graduation from high school?
3. What are you doing at the moment and what are your future academic plans?

Appendix D

A Cry for Help: This is a letter to Señora Sloan from a former student seeking advice about post-secondary pathways to a higher education.

Hola señora Sloan ,

Espero que se encuentre bien y con buena salud. Yo se que no soy su estudiante pero pensé que talvez usted tendría una opinión que me ayudaría más para saber que hacer en la situación que me encuentro en ahorita. Este semestre no empece mis estudios en el community college porque tenía solamente suficiente para un semestre con la beca y dinero ,que he ahorrado para estudiar. Mis padres piensan que talvez es mejor que solamente trabaje por lo que me va a costar y porque no es seguro que me den la oportunidad de después trabajar en la carrera que quiero estudiar. Pero antes de dejar unos de mis sueños más grandes que tenía en mi vida le quería preguntar a alguien por su opinión que me podría entender más o menos. Si, yo pago mis estudios y pongo todo el esfuerzo usted piensa que habrá forma en que yo pueda trabajar en la carrera que yo quiera estudiar en el futuro? Aunque mi estatus aquí en los Estados Unidos no cambie? La verdad es que no sabía a quien más preguntarle o quien me pueda entender. Nose si usted pueda en verdad contestar mi pregunta pero también me ayudaría mucho su opinión. Yo a usted, la admiro muchísimo porque ha hecho y alcanzado muchas cosas grandes . Algo que yo espero lograr un día pero ahorita me siento un poco perdida y nose si sería buena idea dejar de estudiar y solamente trabajar. Espero que usted esté bien, la extraño mucho a usted y sus clases de español. También le quería dar las gracias por todo lo que hizo por tratar de ayudarme desde mi corazón.

Appendix E

Phase I respondents to phase one online-survey asking respondents to provide their current career or job title information. Not all respondents responded to each of the questions.

Job Title	Number of Responses
Apprentice Coordinator	1
Apprenticeship Coordinator	1
Associate Scientist	1
Carpenter	35
Carpenter Apprentice	4
Carpenter Apprentice, Union	3
Carpenters Union	20
Concrete	1
Concrete finisher	1
Construction	1
Construction worker	1
Construction/Land development	1
Coordinator	1
Director of Apprenticeship Program	1

Elected Official of Teamster Union	1
Electrician	3
Extension	1
General Laborer	1
Health and Safety Specialist	1
Industrial Electrician	1
Instructor for Roofers and Waterproofers	1
Insulators Union	1
Ironworker	2
Journeyman Painter in Painters Union	1
Labor	3
Labor Rights Program Director (answering all questions based on previous experience as a crane operator)	1
Labor Union Leader	3
Labor/Oilfield	1
Laborer in Laborers Union	9
Male stripper	1
Mechanic	1

Millwright	1
Minor	1
Operating Engineer	1
Regional Manager Carpenters Union	1
Retire in 2017 from the Roofers Union	1
Retired Senior Electrical Designer	1
Roofer	8
Roofer Retired	1
Roofing Foreman	1
Skilled laborer	2
Surface Mining	1
Tile setter	1
Trade School Instructor	1
Training Coordinator for Plumbers and Gasfitters	1
Training Director	1
Union Business Manager	6
Union Business Representative	4
Union Construction	1

Union Electrician, Currently the Assistant Business Manager	1
Union laborer	8
Union Laborer and Local Union Executive Board Member	1
Union Operating Engineer	1
Union Organizer	1
Union Roofer	2
Union Roofer & Waterproofer	3
Union Roofer/Waterproofers Apprenticeship Coordinator	1
Blank response	1

Appendix F

Phase I, states where respondents finished high school.

State	Number of Responses	%
Alaska	1	0.60
Florida	1	0.60
Idaho	1	0.60
Illinois	70	42.17
Indiana	3	1.81
Iowa	2	1.20
Kansas	3	1.81
Louisiana	1	0.60
Massachusetts	2	1.20
Michigan	1	0.60
Minnesota	1	0.60
Missouri	51	30.72
New Jersey	3	1.81
New York	3	1.81
Ohio	1	0.60
Oklahoma	1	0.60
Oregon	1	0.60
Pennsylvania	3	1.81
Tennessee	1	0.60
Texas	1	0.60
Virginia	1	0.60

Washington	1	.060
West Virginia	1	0.60
West Virginia	1	0.60
Wisconsin	10	6.02
Other	Mexico (1), Jamaica (1)	1.20

Appendix G

Phase I Survey responses to the question, “How well do you feel your high school education prepared you to be successful in your career?” Additional comments.

- Everyone needs an education!!
- In the late 70's, the courses during my high school years were geared towards "hands on" applications, not electronic interactions.
- Carpentry does not require that much academic schooling. The math I did in High School is sufficient to help me with the math in my career. Everything else can be learned on the job. Although my High School did have a woodworking class as well.
- Things like shop class, basic computer skill class, math, gym, drafting/architectural drawing.
- When I attended high school shop classes were thought to be for dumb kids when in reality, they teach you fundamental life skills and common-sense ways to problem solve. There is way too much focus on how well someone can take a test and not enough on preparing young adults what you experience in a real work environment.
- I did learn some useful skills; however, my high school did not teach about trade school and honestly after being in the trades for a year it is better than college.
- College is pushed by several of the teachers. They acted like that was the only way to be successful. Although there are a lot who push for college, some of the teachers I know are and would be very supportive, they just didn't do much to prepare me.
- My high school offered a building trades class.

- My high school had nice technical education classes such as building trades where we built a customer a house. We had different levels of classes depending what grade you're in. But being a union carpenter, you don't do a lot of the residential work. So, when I got into the union, all the commercial stuff was new to me, but I knew the basic concepts of construction.
- My high school had a very well put together industrial arts program that I spent the majority of my electives in. that type of program in my opinion was a major reason I chose and have done well in my field of work today.
- To prepare me for a job in construction, high school did a reasonable job in terms of math and critical thinking. I did not learn any mechanical skills in high school, though there were "shop" classes offered that likely would have helped had I taken them. One major deficiency was not enough foreign language courses. Being fluent in Spanish would be an asset on most any major construction site (at least in Texas/Louisiana).
- I am in a scientific field and use the metric system often that would have been helpful to learn at an early age. I also feel like some of the life sciences and other sciences that are used in research and lab settings are never explained or the need explained for even natural resources.
- Fractions, algebra, geometry, and personal finance could all be covered in more detail.
- My original direction out of school was to be in artistic field but with advent of a child coming I stepped into the career field I currently reside to provide better for my child. Healthcare insurance, pension, and higher pay was my reason to switch trades.
- College in Columbia made the different in getting the best jobs and having a future.

- Too many students in the classrooms.
- Didn't try. High School never kept my interest, boring.
- There was no hands-on component at my high school for being a trades worker.
- Life's lessons prepared me for my career far more than high school could have.
- It was the trade classes that I took in Middle school that I found to be my best class.
- More information about other options than college, Financial literacy classes, More communication skills.
- Luckily, my school had wood, metal and auto shops.
- I learn hands on sitting in a classroom all day was not helpful to me.
- I needed a lot of algebra to get through my apprenticeship.
- I took many shop classes including electronics. These classes taught me how to use various tools and meters.
- At the time I was in high school I was horrible at math. Obviously as a carpenter all I do is math. I think schools could prepare students better by teaching to a wider range of learners. Not just sit behind a desk, learn a formula, type learning but also visual learners like me.
- I had no idea what skilled trades were until I met a friend when I was 27. If I knew about skilled trades such as a Millwright, I would have never tried college I knew it wasn't for me but I was pushed to try and I did and I dropped out and started working.
- No shop or woodworking classes available.
- I don't read books ever. math is easier in real life then school. there's no science in the field.

- High school pushes towards college, not skilled trades.
- They wanted me to attend college instead.
- I do not think that my mechanical abilities were encouraged. Too much emphasis is put on going to college.
- I was pushed through. Nobody really cared if I knew the lesson.
- I was an athlete in school and didn't truly have a support system that was financially stable to attend a better or higher education.
- They only considered those that were going to college would be successful. My career gave me the opportunity to become an instructor, apprenticeship coordinator and now I am the Executive Director of the Roofers & Waterproofers Research and Education Trust Fund for our International Union in Washington, DC.
- My profession requires specific training that wasn't provided during my time in high school. I don't believe even trade/vocational schools associated with high schools don't offer the type of training that is required to be an operating engineer.
- When I went to High School, if there were any suggestions for us at a career, it was to go to college. Nothing at all about a career in the Building trades.
- They only taught you classes that would prepare you for college and not for the trades.
- I believe that shop classes are needed in high schools, to promote building trades. We have to understand that not all kids will go to college or can afford to go. Apprentice programs allow them to work in the field of their chose, and earn a good wage, with good benefits while attending a 3 to 5-year program, graduate with no debt.

- There are no workforce training programs at the high-school level other than Boces, which is not available to everyone.
- They prepared you for College.
- They are not prepping you to work, they were prepping us for college, in which I did not go because I had to have a job to get by. I didn't know how to fill out insurance papers, w2, w4, had no knowledge of anything work force related.
- All you need to know is math.
- I don't believe high school prepares kids for the actual workforce or general life experiences. Most grads don't understand how to balance a checkbook or the difference between credit and debit. Most construction-based jobs are learned in tech schools instead of the high school.
- There were no classes on construction. We had shop and wood class. We learned a little about working with materials but not about specific industry. Training could have been broader about how vast the construction industry is.
- No Hands-On Learning.
- None.
- Awful. Inadequate. Schooling needs massive reform.
- The only useful thing that transfers to my career is high school math.
- School did not prepare me for my job, I did not attend high school. I started working construction at the age of 13 with friends, I have now been working in construction 27 years. Books are not for everyone; some are better at hands on learning than reading from a book. I got a diploma in 2018, when I was 38 years of age. The only reason I got the

diploma is because I was pressured into having it or never progressing forward in my career. It is disappointing that jobs will choose someone with a better education who really cannot do the hands-on part of the job over someone less educated who can do the job very well. Looking at a person's degree does not make them capable of picking up a tool belt and getting the job done.

- The only classes that helped towards any construction at all were my wood shop classes I took throughout high school, math wasn't like shown in a construction sense, so it didn't do much for me then.
- High school is not typically trade oriented.
- The School push that everyone should go to college. there was not very much talk about trades and going straight into the workplace.
- Algebra.
- I was preparing for secondary schooling during high school but found later on that most colleges did not have degrees that suited my personal goals. Not to mention most high school programs only cater to white-collar careers.
- Very little of what I was exposed to in high school could be considered as preparation for my current career choice. I would say about my only take away from high school that I could consider as preparation for my current career or any career was the social aspect. High school (public school) gives people a chance to be exposed to a cross section of people from all walks of life.
- I believe there should be more shop classes and real-life learning such as reading a tape measure in high school.

- I am not sure if high school could prepare me for my career, however high school did provide me with basic math, English skills.
- High school teaches very basic skills or knowledge.
- I went to a private school called Church On the Rock Christian School who use the Abecka and switched to the PACE program, it was more of a lower income school, the teachers were not the best on making sure you were grasping, I was once told by my math teacher that some students have the mental capacity to understand and they're some that don't..... you so happen to be one of those who don't, so from that point i didn't believe in myself nor the teachers.
- Math I believe was the biggest help for the real world along with woodshop and metal shop. Other things that helped may have been electives like Spanish or building trades.
- Public school, I wasn't a good student and could have received a better education if I desired but chose to take the easiest classes I could sign-up for. In 1975 we didn't need as many credits to graduate and if you didn't care about your future there was no system in place to oversee the class choices you made.
- I took as many shop and vocational classes as I was able to. They all have had some impact in my construction career (worked for general contractor(s) before roofing). It is a shame that this country is forcing states to remove these classes (many I took are no longer in existence) as they prepared me more than many other mandatory classes.
- I was an athlete through out school, but I wasn't that motivated through school. Did the cool kids thing and I regret it know it wasn't very beneficial because my support system wasn't very supportive.

- There seemed to be a push for college or military then anything at that time. I remember them coming in during a lunch period to offer 4 years of free college for 1 term in the military.
- Had option of trade school.
- My answer is twofold. First in high school, I chose to have fun instead of learning. On the other hand, the courses offered were not life skill classes.
- I absolutely think high school prepared me.
- I was fortunate that shop classes still existed when I was in High School. I was bored with school, so they sent me to shop classes. It was probably not their intent to prepare me for life, but I had exceptional shop teachers who I responded to very well.
- The education received at home and in social settings best prepares one for success in life.
- I was going to college after high school. So, during my 4 years I was taking courses that met or exceeded the minimum needed to apply for college. By doing so I feel that helped me with my current career.

Appendix H

Phase I Survey responses to the question, “Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce?” Additional comments.

- The will and desire to get up and go to work.
- A lot of newer people coming into my work force stand around to be told what to do instead of asking or know from the previous day.
- There is a noticeable diminishing of work ethic in the younger generation.
- General math skills are lacking with new members.
- I think people need to be more well-rounded before choosing a career. I think we should stop pushing trades for people who "aren't good/smart enough for college." I also think that people shouldn't be pushed into college or university settings.
- Work ethic and dedication and focus.
- The new generation has no idea what work is.
- The younger generation has difficulty taking instruction from people in higher positions.
- It's vital in my opinion when groups of people work together to achieve a common task that they are able to communicate with others.
- Good work ethic.
- Good Work Ethics, dedication, motivation and willingness to continue learning for the future and betterment of themselves.
- They lack the drive to actually do physical work.
- Good work ethic.

- I think those entering the workforce today have less ambition, most can't even read a tape measure or use a shovel. I don't believe they have the backbone for the world they are choosing to do. I think too many get higher positions according to who they know in the field or office.
- Technical skills meaning computer technology if one hasn't been taught or shown how certain modern technology is used then an individual may lack common ground to establish a mindset to advance in the workforce.
- Work ethic.
- The generation today, to me, they are lacking a good work ethic. It seems that they are owed a job and paycheck, but don't put in as much effort or show up on time. Not necessarily all, but a lot of them.
- I believe today's generation lacks Industrial Art Skills and People skills, too much technology isn't always a good thing.
- No work ethic.
- The roofing trade draws many people who are somehow related to it. The kids who enter that have never seen it, need to be made aware of the conditions, hours, lack of work due to weather if they are going to be successful.
- Work ethic.
- People now lack overall smarts.
- Working skills.
- I think a lot of people in all industries should seek therapy. Some people just don't know how to work well with others and clearly have some issues they need to work out.
- I guess this could be considered more people skills.

- They are lacking discipline, Focus, Problem solving skills, lack communication skills, lack understanding, discretion and discernment.
- I would have picked all of the above if that was an option.
- Attitude is the biggest factor in the workforce in my industry. If you have the wrong attitude, you won't make it far.
- All around knowledge of the trade!

Appendix I

Phase I Survey responses to the question “What skills do you believe the current new members of the workforce are lacking in order to be successful?” Additional comments.

- I think people need to be more well-rounded before choosing a career. I think we should stop pushing trades for people who "aren't good/smart enough for college." I also think that people shouldn't be pushed into college or university settings.
- Working skills.
- A lot of newer people coming into my work force stand around to be told what to do instead of asking or know from the previous day.
- I think a lot of people in all industries should seek therapy. Some people just don't know how to work well with others and clearly have some issues they need to work out. I guess this could be considered more people skills.
- The generation today, to me, they are lacking a good work ethic. It seems that they are owed a job and paycheck, but don't put in as much effort or show up on time. Not necessarily all, but a lot of them.
- It's vital in my opinion when groups of people work together to achieve a common task that they are able to communicate with others.
- Good work ethic.
- Work ethic.
- The younger generation has difficulty taking instruction from people in higher positions.
- Work ethic and dedication and focus.
- All around knowledge of the trade!
- There is a noticeable diminishing of work ethic in the younger generation.

- I think those entering the workforce today have less ambition, most can't even read a tape measure or use a shovel. I don't believe they have the backbone for the work they are choosing to do. I think too many get higher position according to who they know in the field or office.
- Work ethic.
- The new generation has no idea what work is.
- All the above.
- Good Work Ethics, dedication, motivation and willingness to continue learning for the future and betterment of themselves.
- I believe today's generation lacks Industrial Art Skills and People skills, too much technology isn't always a good thing.
- I would have picked all of the above if that was an option.
- Attitude is the biggest factor in the workforce in my industry. If you have the wrong attitude, you won't make it far.
- They lack the drive to actually do physical work.
- The roofing trade draws many people who are somehow related to it. The kids who enter that have never seen it, need to be made aware of the conditions, hours, lack of work due to weather if they are going to be successful.
- No work ethic.

Appendix J

Phase I Survey responses to the question, “What skills do you believe the current entry-level workforce lacks in order for them to be successful in today's workforce?” Additional comments.

- Due to both parents working or single parent households, children have lost a lot of industrial art skills and people skills due to parents not being there, too much reliance on the instant babysitter i.e., the computer, video games, cell phone, and TV, they tend to hide behind their devices thus eliminating the necessary people skills needed in the workplace today.
- As stated above, having the right attitude is key for construction. We work in adverse conditions and sometimes that takes the right mindset. Showing up on time and being ready to face the day with the right attitude, no matter the conditions, is the key to success. That said, over the year's construction has become a lot more technical with advancements of computers & technology. In my trade, you must constantly evolve and learn.
- The job focus with the entry-level employees at this time is not on the physical blue-collar jobs as what I do. This will leave us with a gap of entry-level employees that have a lack of drive and determination.
- This country needs more Vocational Technical Schools. Parents need to be educated about industrial arts and the trades. School counselors need to be educated.
- Knowledge of how the construction industry works. You can teach someone how to work with the tools in construction. It is hard to teach the conditions you work in. there can be hazing, unemployment, racial discrimination and unsafe working conditions at times. These things should be discussed with the new people entering the industry.

- They need to know how to get up in the morning and go to work also need the desire to learn whatever trade they join.
- Those starting out need progress on their own by their work ethics and not by hand ups from family members or being pushed through to get them placed over those who have been breaking their backs for companies their whole lives.
- The desire to go to work and personal accountability are fading fast.
- Lack of knowing what it means to work.
- They also are lacking people skills. Our job consists of a lot of communicating within the company, customers, and the people you work with.
- Need to know the importance of showing up every day, on time, and put the phone down.
- Self-Reliance: I think a lot of the Entry level workers have issues withstanding on their own two feet and being responsible for their own actions.
- To be successful in any workforce no matter the direction of your trade, you need to be present, and you need to plan for the future. You can't just enter a career field and not have a plan, you need a goal, something to shoot for.
- When you have a goal, you tend to work extra hard to meet it. By that I mean, you gas up the night before, you pack your lunch. You leave 15-30 minutes early so your never late. You study and practice your work. If you don't know how to do something or don't understand you learn it. You take pride in what you do, and you take the necessary steps to become an expert in the subject matter.
- It takes all of these skills to be successful in any field. It's what makes you a desirable employee to employers and helps you stand out among the crowd.

- Many of the entry level workers I meet do not possess these basic skills and seem to have no drive or motivation to obtain them. They simply want to exist in the workforce and receive a paycheck.
- Being able to have the availability to grow as a individual and strongly desire ability to make a difference in the said industry as a successful person. Majority of the people in construction come from broken homes and usually end up in dead in jobs and don't have any income they end up locked up and out hustling to make ends meet and truthfully their unfortunate. Because they are the ones that are the most loyal but always struggling to get their feet above water. So, if that individual heart is truly in the field, they love the yes, they should be shown the right technology techniques and have the right mindset and be surrounded by positive influences.
- The will to work.
- General smarts and humbleness.
- Mixing of two generations has proven to be difficult. With gen z coming into the workforce soon I think that communication skills will be important as well as practical math.
- Scientific.
- This trait is very broad between building interior systems, welding, exterior paneling, decking, and a lot more in the commercial side and a lot on the residential side.
- The younger generation today don't think they need to work for anything, it should be given to them.
- Basic shop skills. Read a tape measure, use basic hand and power tools. Common sense and work ethic should be taught as well! However, I personally think common sense (some) comes with age while a strong work ethic is instilled in you. Parents need to do MUCH

better instilling accountability and responsibility. I personally have found 2 interesting tidbits of info...1. Sports or athletic background, military and even in several cases jail/correctional facilities seem to produce the work ethic/hustle. 2. Family background- bad family/strict old school parents ethic.

- Everything that involves the building trades.
- Seems to be a disconnect in working with your hands and putting things together. Getting your hands dirty seems to be going away. Lacking people skills is a close second as the apprentices I teach seem to not be able to communicate as well as apprentices in the past.
- Shop skills ex: basic tools, math, intro to blueprint, and communication would help.
- Kids are lazy and don't want to work.
- I think all skills are important, but I feel there are a lot of kids missing out when they removed the Industrial Arts from schools.
- Know how to work together in a physical work force. teamwork matching the pace of others.
- In the roofing trade you need to wake up early and be on the job site on time. Be respectful to others and willing to work hard and learn the trade.
- Our schools have dropped the industrial arts for computer related training, causing a loss of graduates being able to work hands on in a social fueled work environment.
- The vocational programs in high school in my area have been removed. You used to be able to try a few different work force related programs to see what fits you.
- Industrial classes that require a fee can lead to a student unable to participate. there should be no added fees for classes.
- They actually need more of both industrial art skills and people skills.
- There needs to be more hands-on activities in school.

Appendix K

Phase II interviews comment on the positive attributes that new high school graduates possess coming into the current construction workforce includes:

- One of the companies we work with a lot now does their punch list (a final inspection list of final touch up items that need to be addressed after a project has concluded and inspected) on a tablet or iPad. You used to receive a letter with a list of items to address. Now, they just email you the PDF of the whole list with photos attached. You go through and you mark off or check a box when it is done with supporting documentation and attach photos to return it. These kids who have grown up with a smartphone will know how to operate all these operating systems out there.
- These new workers can probably operate any computer program-based equipment that they run into with only a few minutes of messing with it.
- New workers are quick to pick up on the newer tech skills/screen skills.
- The newer workers are better position to do the newer tech jobs. They learn them quicker. They do not write an algebraic equation to figure out ‘a cut’ for conduit, they use an app instead. Is it wrong? No, but they should learn how to write the formula as a backup. I do not care how they learned, only that they learn to do it right.

Appendix L

Interviewees comments in response to the question, “Will the workers entering the construction industry in 10 years be better or worse prepared for success in this field?” Or, *if I could change things I would change ...*

- To be successful you need a strong foundation in math, decimals, fractions, simple geometry. Consider integrating construction problems into math and science classes so students can conceptualize how to use the lessons being learned.
- You need to be able to do some of this math (fractions for example) etc. in your head and not relying on a calculator, computer, or smartphone. Learn the skill before learning to rely on the machines.
- There has been a shaming of working in the building trades. That needs to be reversed.
- There is a need to teach skills for working with older workers. It is not like being in school or dealing with your friends. Those older workers may come off as being gruff but mean well, and there is a lot that can be learned from them if you talk with them.
- They need to know how to frame the math problem in their heads so that they can figure it out on the fly.
- The shop class that I had did not go into any detail and did not prepare you for working in the field. More real-life experience is needed.
- General problem-solving skills are critical.
- My high school was very college prep oriented and did not want to focus on the trades (building trades) and teaching for the trades. Schools today should broaden their career offerings.
- High Schools are still very focused on college as the only way to become successful in life.

- High Schools focus a lot on computers skills but there's still good paying jobs that you do not need computers skills for.
- At one time person could graduate with an actual trade skill, like plumbing, laboring, or carpentry. Now, the assumption is that you must continue to keep going to school before going to work.
- They get no hands-on training in school, spend too much time on computers.
- Not everyone is going to want to go to, or needs to, go to college. Too much emphasis is put on college preparedness.
- Students today are way worse off than when he entered the workforce. No shop classes.
- Don't even have home economics classes. Both parents work so they do not have time to teach their kids how to do the things we use to learn at home.

Appendix M

Comments from the interviewees that best summarize how they feel that a negative social stigma appears to linger over skill trades, and the workers in them.

- High schools need to teach an actual trade so than an educated choice can be made, as opposed to seeing college as the only option.
- Guidance counselors do not ever show you a curriculum that encourages people to go to work with their hands and do any kind of physical labor. It is almost like they are seen as shameful careers. If you went to a counselor to talk about shop classes, you would almost feel like the guidance counselor thought you were trying to escape by not actually learning a real skill.
- They never told you that there was an opportunity to graduate high school, join an apprenticeship program and start making money right away, instead of starting out accumulating debt.
- There were guys that think 'I'm not going to be a blue-collar worker, working with my hands, I'm going to college' without an idea of what they were going to do afterwards. I kind of think that if you know they had some opportunities to show people like hey look, you can make a decent living at doing this other stuff people would think differently about these jobs.
- My older sister, she is a successful woman, but she went through college. She is still paying on college debt and she graduated two years before me. I have never paid one cent of college debt. I do not understand why our school systems think that's a successful way to move into your adulthood. I think apprenticeship programs can be applied almost unilaterally across the board with other skills as well.

- High schools need to stop pushing college as the end all of everyone. Support the apprentice programs.

Appendix N

Comments made in support of the need for ‘Industrial Arts Programs (Shop Classes).’

- I think current students are less prepared than I was. They get no hands-on training in schools these days, they spend too much time on computers.
- Not everyone is going to want to go to or needs to go to college. Too much emphasis is put on college preparedness. If you are not going to college, what are your options?
- Bring back shop class and bring in someone with construction experience and background to teach the classes who can provide experience, context, and actual examples of what you might see in the field.
- Teach basic electronics and shop classes in conjunction with math and science classes.
- Future students who want to go into the trades would be better served with hands on shop classes. Learning basics about working with tools. Mathematical theory of construction projects. Working solutions from ‘if we want to do this, how to we deconstruct the process of achieving that goal’ type of planning and thinking. Technical problem solving.
- What really helped me a lot getting into the industry was the work ethic. That and you needed to know the basics of reading a tape measure and all those things that have helped me along the way that basic shop classes should teach.
- Teach the simple stuff, it is not like they are going to be going out and start wiring a house right away, but they will know enough about the basics to know if they like that kind of work.
- Expose the children to the building trades/skills, so they know what the different crafts do.

Appendix O

Interview comments made that indicate, ‘Students Need to Learn How to Work Their Way Out of Problems.’

- Future students who want to go into the trades would be better served with hands on shop classes. Learning basics about working with tools. Mathematical theory of construction projects. Working solutions from ‘if we want to do this, how to we deconstruct the project and build a process to achieve the desired goal.’ Technical problem-solving planning and thinking skills.
- Current entrances to the trade are not as well prepared. Newer workers will go to the computer (or smart phone) and google a question, then assume its correct, instead of talking to a person with experience.
- Younger workers lack the desire or initiative to self-start on a problem, instead sitting down and waiting for someone to come along who can solve the problem encountered for them.
- Stop helicopter parenting kids. Do not do everything for them, let them work their way out of a problem. By never allowing them (the kids) to have their feelings hurt and always giving them participation trophies for everything you are not teaching them how to solve problems.
- I have had apprentices in their late 20’s whose parents would call in here and talk to me about what their child needs, you know, some scheduling changes etc. What is going on here? Why are the parents even involved in this?
- If you can't problem solve, it is going to be tough on you to be successful in this field.
- We need more bright people; we need people to problem solve on the fly.

- There is a heck of a lot of technological advancements going on these days, more than what I had to deal with. They will probably adapt to the technological changes better than I did, but I just worry about their work ethics and their being so sensitive about everything all the time.
- There is a lot to be done out there and we need people that are willing to do it and it is harder and harder to find them.

Appendix P

Comments made during the interviews that draw the conclusion that there is a 'Need for Work Skills Training' include:

- By teaching an actual trade, union etiquette should be taught so than an educated choice can be made, as opposed to college as the only option.
- Stay off your phone because the boss or your foreman sees you on it once, twice, three times the next thing you know they think you are on that thing all day. Saying that you are on YouTube to see how to do something instead of asking the foreman isn't how it works.
- You have got to start down here, and you work your way up to here. It is almost like some of these kids want to be making the big bucks right away. They will but you got to be patient. For lack of a better term or understand paying your dues.
- There's respect and then there's respect you know on the job. Respect is earned. They say, 'look, I showed up for work today', and it is like, Oh, congratulations, that is a basic one, it's kind of what's expected. There is a disconnect there.
- I feel like there is a sense of complacency right now. Like, it is okay because you know they do not get the assignment done today. There is always tomorrow. Well, the rules are the rules, you should follow them, and they should be applied. I just do not think it's preparing kids because on job sites punctuality is extremely important. You must be accountable. It is extremely important, everybody else on that job sites relying on you to do what you are supposed to do in a safe productive manner. Because if you're not accountable. You are going to end up costing somebody somewhere down the line. Maybe not physically but you just do not know.

- Some newer apprentices that we are getting even at this time would never want to show up on time, they always had an excuse, like their 'mom didn't get them out of bed'. Or 'oh, its Saturday, I can't work the overtime'. You know, things like that. I don't know if it doesn't compute. They do not care. I do not know where the disconnection is.
- I think that a big thing is that kids need to be exposed to what they are capable of and what they can do with their hands and a good education. The funny part is that we will glorify a scientist that works with his hands every day, but we do not do the same thing for the people in the trades that are basically doing the same thing. They are just putting the building components together.
- Something that we (apprentice training coordinators) cannot teach a kid is to show up a half an hour early to work, or pack their lunch the night before, to fill your fuel tank on the way home instead of the way to work, or basically how to prepare themselves daily to be successful. Everyone must make those decisions on their own.
- I do not know what it is that must happen in their lives for them to get that motivation behind them to get them up and get them going. I wish it were a teachable skill, but no two people are the same when it comes to that kind of stuff.
- These days I hear it more and more from the foreman out in the field and from the contractors that they need somebody that is reliable, that gets up every day, no matter what the issue is, and goes to work.
- It is just kind of nice if they can teach them a little bit about taking care of their cars or how to do some basic measurements and that sort of stuff. The basic life skills that most of us lack when we get out of college or get out of high school are the things that I would like to

see them teach more of. I would like to have had them teach us some real-life skills like how to do their taxes and balance a checkbook and that sort of stuff, the basic things that we all need to do.

- It is the small things like that, they are small, but they grow to be large things in our life. Basic life skills that all of us need.
- Getting your butt out of bed in the morning, that should not be difficult for a lot of the kids and that's just the basics for everything. Instead of so much focus on being good test takers and what college are you going to get into, can you just give them the life skills that they need to get out on their own and to do well to succeed?
- Current entrances to the trade are not as well prepared. Googling a problem on your smart phone is not the same as knowing how to talk to a person with experience who can teach you something.
- Teach them the skills to deal with older workers. Newer workers need to understand that those old guys are gruff but mean well and there is a lot that can be learned from them if you talk with them. A job site is not like being at school with your friends.

Appendix Q

Interview comments that indicate high schools need to ‘Teach the History of Work and Working’ include:

- We do not have any paid holidays. When you are off you collect unemployment, that is what it's there for. Save your money. We get paid a good wage. We get paid well and I tell it to the young people all the time. Put money away for a rainy day. That is why we get paid the good wage that we do, it is not so you can go get a lake house and all that other stuff. It is to save your money for a rainy day.
- When it comes to hiring someone when you're at the job fair and you find that young mind that's interested in the trades. Their like “Oh, how do I get a job”. Well, I got to tell them that the hall may have to call 50 people to see which one the contractor is going to hire. If you do not go out on the job, then you need to wait until the next contractor needs help.
- People are 'I need a job.' It is not like ‘can I work my way towards that dream in that career?’ Along the way they may decide to change that dream. We keep trying to educate them on the fact that the end all can be either a labor job or that there is more. I tell them all the time, there is as much room to move up and the construction industry as there is in a fortune 500 company. These contractors are dying for people to come up through the ranks that have done the trade out in the field and take over management positions. The unfortunate part is, it is hard to find somebody that is reliable enough to do that and take on a management role and represent a company. You know, being an estimator a business owner, any of those different fields are open to them if they're willing to put in the hard work just becoming a journeyman, or a foreman or supervisor of some sort.

- There is so much more you can do. Then you have the Union side to move into as well if you want.
- You know, these are the steps you need to take to keep advancing and not just get stuck into that five by nine cubicle and work 30 years.
- There is a certain freedom that comes along with a construction career, moving job sites every couple of days. Never doing the same thing over and over.

Appendix R

Comments made in the interviews leading to a conclusion of ‘Workers Need to be More Self-Reliant’ include:

- Do not do everything for them (students). Let them work their way out of a problem.
- When encountering a problem younger worker’s lack the desire or initiative to self-start to solve the problem. They will more often sit down and wait for someone to come along who can solve the problem for them instead of trying to work it out or seek out the lead worker for help.
- Helicopter parenting has not taught them how to solve problems or how to stand on their own.
- Future students who want to go into the trades would be better served with programs and classes that teach individuals technical problem-solving skills, like how to work solutions by deconstructing the problem and creating options that will allow them to achieve their desired outcome.
- Newer workers will go to the computer (or smart phone) and google a question, then assume its correct, instead of talking to a person with experience and learning how to deal with the situation.
- They need basic math, without a computer, without a phone, and even without a calculator in some cases. They need to not be completely dependent on technology. They need to know how to frame the math problem in their heads so that they can figure it out. That and general problem-solving skills.

- It may sound simple, but we are making kids unaccountable when they get a second chance to turn in assignments or not having consequences for being late for school instead of giving them a zero for the day.
- Punctuality is one of those things that is important in our field. Everything we do every day, if we are not on time and not accounted for it affects everybody else.
- In my high school days, my job was to push carts at Walmart. I worked the cash registers, things like that. You start to learn those skills like it is important that I come to work on time. It is important. It is your responsibilities. Well, those are the places where a lot of those jobs are being replaced. Auto checkout or self-checkouts things like that where it seems like the basic entry level jobs are disappearing. Maybe that has something to do with it.

Appendix S

Phase I, the worker, on-line-survey questions.

Q1 – You are invited to participate in a research study being conducted by Douglas J. Swanson with Dr. Matthew Davis. The purpose of this research is to answer the question, ‘how well do construction workers believe a high school education prepared student for success in the workforce’ and will take about 10 minutes.

Participation in the study is voluntary. You may withdraw from of the study at any time without penalty. Participants are encouraged to answer all of the questions but are under no obligation and may not answer individual questions.

Participants with questions, comments and concerns regarding this study, or if any problems arise from the study can be directed to Investigator by calling Douglas Swanson, 314/516-6698 or the Faculty Advisor Dr. Matthew Davis, 314/516-5953.

Taking the survey constitutes your consent and acknowledges your opportunity to ask questions.

Q2 - What is your current age?

Q3 - What is your gender?

Q4 - What is your race?

Q5 - What ethnicity do you identify as?

Q6 - What year did you last attend high school?

Q7 - Did you complete high school?

Q8 - What is your current career?

Q9 - How long have you been in your current career?

Q10 - In what state did you attend high school? (If you went to high school in more than 1 state, choose the state where you spent the majority of those years).

Q11 - How well do you feel your high school education prepared you to be successful in your career?

Q12 - When you were in high school, do you feel you were being prepared to go:

Q13 - For the next several questions, we will use the terms like ‘**Industrial Arts**’, ‘**Technical Skills**’ and ‘**People Skills**’. For these questions, use the following definitions:

An Industrial Arts educational could include:

- Fabrication of objects in wood, metal, plastics or composites;
- Use of a variety of hand, power or machine tools;
- Electrical or electronics systems installation or repairs;
- Small engine repair; and
- Automobile maintenance and repair.

Example of Industrial Arts careers would include:

- Construction industry jobs;
- Mechanics; and
- Tool and die makers.

Industrial Arts jobs are sometimes referred to as jobs where you are ‘working with your hands.’

Technical Skills education could include:

- Skills utilized in operating computers and tablets run machines,
- Installing programs and up-keeping systems that are necessary to operate equipment, machinery and/or to input data for the equipment and machinery to operate.
- Skills needed in operating programs and applications that are accessible through touchscreens. These jobs do not rely on basic office skills (word-processing, spreadsheets and PowerPoint) computer skills but some data entry may be used.

Examples of Technical Skill job include:

- 3D printer operator;
- Machinist; and
- Machine operator (i.e., lathe, punch press, etc.)

Technical Skills jobs are sometimes referred to as jobs that require workers to operate or use ‘screens’ to access equipment and/or programs or spend a lot of ‘screen time’ during their work shift.

People Skills: is a broad umbrella term for skills intended to improve a person’s interaction, intercession and personal effectiveness skills when working with other people. People skills jobs often require one to develop teamwork, problem-solving, and emotional intelligence skills.

Examples of People Skills jobs would include:

- Customer service
- Sales and
- Jobs in the service sector

People Skills job educational programming may have focused on skills like:

- Speech / Oral Communications
- Psychology and
- Human relations

Q14 - Did the high school that you attended for the longest part of your high school tenure offer an industrial arts program?

Q15 - Did you enroll in any industrial arts courses?

Q16 – did the industrial arts courses that you took in high school help you to prepare to be successful when you entered the workforce?

Q17 - Did the high school that you attended for the longest part of your high school tenure have courses that helped you with computer/screen skills that you utilize in your work today?

Q18 - If yes, did you enroll in any technical skills courses?

Q19 - Did the technical skills courses that you took in high school help you to prepare to be successful when you entered the workforce?

Q20 - Did the high school that you attended for the longest part of your high school tenure have a program that provided you the skills that you need to work well in industries that demanded good 'people skills'?

Q21 - Did you enroll in any people skills courses?

Q22 - Do you think the people skills courses helped to prepare you to be successful when you entered the workforce?

Q23 - Today, can someone with only a high school education be successful in an entry-level position in your profession?

Q24 - Does your current career have a training or apprenticeship program?

Q25 - Is there a fee required to enter the training or apprenticeship program?

Q26 - Once you entered the training or apprenticeship program was there a cost to continue in the program?

Q27 - In total, how much did the training cost you?

Q28 - Is the training/apprenticeship program industry recognized and transferable to other states (or countries)?

Q29 - If you answered yes, your craft/profession has a training/apprenticeship program, is it able to attract all of the new workers to its training/apprenticeship program that it needs to meet current demand?

Q30 - As your industry is changing, do you believe your current craft/profession training/apprenticeship program is going to be able to attract enough new members to meet the future demands for workers?

Q31 - Typically, how long does it take someone to complete the training/apprenticeship program?

Q32 - Regarding the knowledge it takes to be successful in your trade, do you think your job is more or less complicated or complex than when you started in your current career?

Q34 - Do you feel that the workers entering the workforce today have the same skill(s) needed to be successful as you and your generation did when you entered the workforce? Please complete the following sentence that best describes your views.

Q35 - What skills do you believe the current new members of the workforce are lacking in order for them to be successful?

Q36 - Think about how much the skills needed to be successful in your job have changed or have not changed over the past 5 - 10 years. Taking into consideration the skills you observe in current entry-level workers, do you think workers entering the workforce 5 - 10 years from now will possess the skills needed to be successful in your trade?

Q37 - What skills do you believe the current entry-level workforce lacks in order for them to be successful in today's workforce?

Appendix T

Phase II, the worker, in person, via Zoom, interview questions include:

What year did you last attend high school?

Making you what age currently?

Did you complete high school?

If yes, graduated or with a GED?

What state did you spend most of your high school years in?

What ethnicity do you identify as?

Reflecting on your high school education and the time since high school, do you feel that your high school education prepared you for success in your current field?

Looking at the workers, more recent high school students, entering the workforce now do you think they are better or worse prepared for success in your industry then your generation was when you entered the field?

Again, reflecting upon your entrance into your industry and seeing the skills current new workers bring to your industry, projecting 10 years from now, how well do you think those new workers entering your field will be prepared for success? What, if anything, should schools be doing differently?

Collective Epilogue

“If people can learn to hate they can be taught to love. For love comes more naturally to the human heart than its opposite.”

Nelson Mandela, Former President of South Africa

Individually each of our research has demonstrated different barriers to the post-secondary success of our students. Nevertheless, to say that they constitute the only barriers to the success of the students after high school. It is in the sum total of looking at the three different examinations of post-secondary success that the greatest impact is seen. Individually and collectively, by our examining of Latinx, college preparation, and workers 20 years removed from high schools’ perspectives we see the intersectionality of three different barriers to students’ success. In each case, we see impediments, that can overlap and compound their impact. Race, ethnicity, and class should not be used to create a means for separation as that only enhances and creates more impediments to success. Instead, the construct of race, ethnicity, and class should be deconstructed to eliminate barriers, creating greater pathways for success.

There is not one barrier to success. We used three unique and different frameworks and perspectives to examine barriers of success for our students to demonstrate that there is no one barrier. That access to success should be examined and tested from a multitude of perspectives. Each of these examinations into students’ access to success should continue to be examined, but not at the expense of looking at other ways and means that prevent students of all races, classes, and cultures are prevented from leading meaningful and successful lives.