Analysis on Workforce Preparedness and Early Career Outcomes for Underrepresented Minority and Low-Income Status Students in Kentucky

For:

Lumina
FOUNDATION

ABOUT THE PROJECT

The Kentucky Council on Postsecondary Education (CPE) received financial support from the Lumina Foundation to conduct research on factors contributing to the workforce readiness of underrepresented Kentuckians. In partnership with Emsi and The Council for Adult and Experiential Learning (CAEL), CPE coordinated this research project evaluating the completion and employment program outcomes by demographic characteristics for URM and low-income status students in the Commonwealth of Kentucky. CPE identified the academic programs demonstrating equitable early career outcomes for low-income and URM graduates. CPE also conducted qualitative research and analysis based on faculty and staff narratives from these high-achieving programs.

CAEL's focus of the project centered around conducting qualitative research and analysis of identified educational pathways that have been successful in closing achievement gaps for traditionally disadvantaged students in the Commonwealth of Kentucky by engaging in focus groups and interview conversations with alumni from specific institutions of higher learning. These pathways were analyzed to determine best practices that can be scaled to Kentucky institutions. While this data will be useful for program planning and institutional support services, the information should also be beneficial for current students.

Emsi used multiple datasets to conduct an analysis of education and workforce outcomes. Emsi's structural labor market, job postings, and professional profiles data were instrumental in providing supply and demand perspectives, while using federal Integrated Postsecondary Education Data System (IPEDS) and/or CPE data to deliver program details. This detailed employment information will not only provide better insight into this student population, but also give actionable data for institutional planning, enrollment, and career service initiatives.

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About Lumina Foundation

Lumina Foundation is an independent, private foundation in Indianapolis that is committed to making opportunities for learning beyond high school available to all. We envision a system that is easy to navigate, delivers fair results, and meets the nation's need for talent through a broad range of credentials. Our goal is to prepare people for informed citizenship and for success in a global economy.

About CAEL

The Council for Adult and Experiential Learning (CAEL) is a non-profit, Strada Education Network affiliate organization working to solve the unique challenges that adult learners face. For more than 40 years, CAEL has championed adult learners in pursuit of one goal: Every adult has a pathway to lifelong learning and meaningful work. CAEL envisions a world where everyone has a clear understanding of the connections between learning and work, with continuous and accessible opportunities for work-relevant knowledge, skills and credentials enabling all to prosper in a complex world. CAEL helps institutions close the gap between "traditional" and "adult" learners and provide access to lifelong educational pathways by working with experts in higher education, talent and workforce, and employer sectors to create solutions for adult learners who seek to work and learn. Together with these stakeholders, CAEL develops innovative solutions through advising, consulting and the creation of tools using technology to drive meaningful change for today's learners and for the workforce of tomorrow.

In 2020, CAEL reorganized along with Strada Education Network's other nonprofit affiliates. (Roadtrip Nation, InsideTrack, and Education at Work) under a new legal entity called Strada Collaborative. This merger will allow CAEL to better align and support the nation's growing needs facing today's working adult learners; and reduce administrative costs over time, ensuring that funds are increasingly allocated to mission advancement rather than indirect overhead costs. CAEL will remain distinct, working with postsecondary providers, employers, foundations, government agencies, and learners directly as we do today. This structure has the capacity to demonstrate a new model for social impact: a collection of mission-driven organizations that operate sustainably with administrative support from Strada, and that demonstrate impact and attract support from external funders and philanthropic partners. As a result of this change all CAEL contracts will reference naming transfers to Strada Collaborative (dba CAEL) as the legal entity.

About Emsi

Emsi is a labor market analytics firm with a nearly 20-year track record of providing labor market data and analysis to colleges and universities to align academic programs with labor market demand, help students identify career paths, and measure economic impact and student outcomes. Emsi currently partners with more than 100 universities and 300 community colleges. Our 200+ person firm provides data, software, and professional services from a one-of-a-kind collection of data sets that bring job posting analytics, alumni outcomes profile data, and localized traditional labor market data together.

Our mission is to use data to drive economic prosperity. To do this, we seek to inform and connect three critical audiences: people, educators, and employers. Since this vital connection takes place in the context of regional economies, we also work with workforce and economic development organizations laboring to improve economic ecosystems. Emsi is based in Moscow, Idaho, surrounded by the picturesque Palouse Hills of northern Idaho and eastern Washington, also home to the University of Idaho and nearby Washington

About the Kentucky Council on Postsecondary Education (CPE)

The Kentucky Council on Postsecondary Education (CPE) coordinates change and improvement in Kentucky's postsecondary education system. Established as part of the education reforms set forth in the Postsecondary Education Improvement Act of 1997, CPE's mission is to strengthen Kentucky's workforce, economy, and quality of life by guiding the continuous improvement and efficient operation of a high-quality, diverse, innovative, accessible, and affordable system of postsecondary education.

CPE's key responsibilities include:
• Developing and implementing a strategic agenda for postsecondary education that includes measures of progress.
• Producing and submitting a biennial budget request for adequate public funding of postsecondary education.
• Determining tuition rates and admission criteria at public postsecondary institutions.
• Collecting and distributing data about postsecondary education performance.
• Ensuring the coordination and connectivity of technology among public institutions.
• Licensing non-public postsecondary institutions to operate in the Commonwealth.

URM graduates face a narrower opportunity for employment following graduation with a postsecondary credential, and URM graduates may be funneled into jobs that require a lower level of education.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This report utilizes employment and earnings data on Kentucky graduates between 2008-2020 to investigate postsecondary career pathways that can provide equitable outcomes for URM and low-income graduates. High-achieving academic programs at the Bachelor, Associate, and Certificate/Diploma levels are identified, and faculty, staff, and student narratives are analyzed to identify best practices for fostering successful early career transitions for low-income and URM graduates.

Academic programs leading into high-demand career pathways were identified as the most successful in graduating URM and low-income students with early career earnings matching or exceeding their more affluent/non-URM peers. However, across all degree levels, URM graduates are underrepresented in key disciplines that provide pathways into high-demand and high-paying occupations, such as STEM and Trade fields (see Figure 14). Among low-income students in Baccalaureate programs, only graduates from STEM programs enter the workforce with equitable opportunity for employment above the average wage.
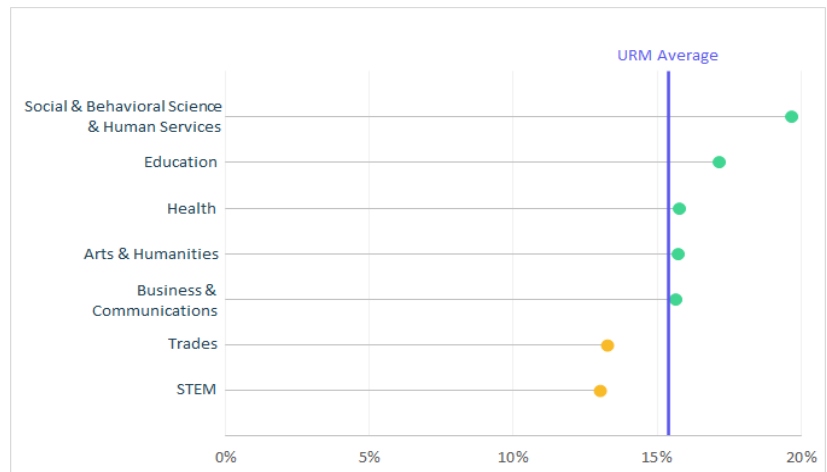
Only Trade programs provide similar opportunities for URM Baccalaureate graduates.

Faculty, staff, and graduates from high-achieving academic programs for URM and low-income success describe a person-centered and career-focused environment as contributing to early career success. Faculty and staff established high expectations for students in the classroom that served to equip students with the applied knowledge and employability skills that made graduates ready to enter the workforce.

"We work really, really hard on putting our graduates to work…Not only are we teachers, we're counselors. Part of our job is job placement because that reflects back through our program. What is the purpose of a college program if your graduates don't go to work?"

Individualized attention that centered the needs of each student was equally emphasized by faculty and staff. Participants described customized support and intentional strategies that they used to support students.

"What it comes down to is… signalling that [you] care, right?... So they can actually believe it; that they are not just a number or they're going through a system. Each one of them is personal and each one of them matters to you as an instructor."

Participants described adopting a student-centered philosophy that drove continuous improvement.

"We continuously try to improve it. We try not to let it be stagnant. We're always thinking about it as a group. What is our students' need and how do we get them there and where do we fit?

Emerging Themes and Best Practices from Faculty & Staff Narratives in High-Achieving Programs

Theme	Secondary Themes	Suggested Practices from Participants
A culture of care and trust	Provide proactive outreach and open communication. Leverage small class sizes or labs Affirm students' place as career-ready learners	• Proactively schedule one-on-one time with students • Provide clear and accessible means for students to connect with faculty • Invest in full-time staff and dedicated support staff • Identify struggling students and holistically troubleshoot student challenges • Provide faculty-led individual or small group tutoring • Use affirming language early to validate students as learners
Their success is our success	Foster a reputation for quality employees based on high expectations and guided support Integrate career and job search skills into formal training or course curricula Develop employability skills and model workplace professionalism	• Hold students accountable to workplace standards in experiential learning environments • Be flexible with assignment deadlines when opportunities to promote mastery exist • Host mock interviews for students • Teach resume and professional writing • Design assignments to emphasize career-related knowledge and skills • Collect evidence on student employability skills and provide regular meaningful feedback • Provide career development education through the voice of faculty or industry veterans
Engage employers	Leverage advisory boards to guide curriculum and create applied content Invite employers to campus to engage with students Maximize the potential of internships, clinical rotations, or supervised practice Provide built-in credentialing or sub-credentialing	• Establish and advisory board with employers, students, and other stakeholders • Collect feedback from employers on their needs • Include employers in decision-making processes to strengthen course curricula • Invite employers into the classroom to teach • Maintain communication with alumni through social networking or on-campus events • Design experiential learning opportunities to maximize mastery of applied skills • Design assignments for students to demonstrate leadership and critical thinking to employers • Provide value-added credentials and licenses to distinguish graduates to employers
Awareness of unique student needs and adapt to shifting concerns	Become an expert of financial aid and unique financial considerations of your students Investigate student learning and success; become the expert Revise and update curricula and program design	• Avoid labeling students as underprepared and instead apply individualized support • Seek out and demonstrate appreciation for diverse perspectives in the classroom • Hire faculty with diverse backgrounds • Educate students on sources of financial aid • Identify funded pathways for postsecondary enrollment and build partnerships with local agencies to recruit students • Diagnose financial barriers to degree completion and develop cost-saving options • Seek out theories and best practices on student success pertaining to the unique needs of your students
Guide underrepresented students into high-demand occupations		

Emerging Themes and Best Practices from Student Narratives in High-Achieving Programs

Theme	Suggested Practices from Participants
Financial Literacy/ Awareness of Students	● Assist students in locating information about scholarships for which they are eligible. ● Provide easy and convenient access to financial aid processes and advisors. ● Build and promote employer partnerships and assist students to process employer tuition reimbursement claims.
Career Counseling Gaps	● Encourage all students to engage with career services early in their program of study. ● Provide and encourage regular contact with an assigned mentor or advisor. ● Integrate life and career planning activities into a student's program of study. ● Provide students information regarding jobs in their chosen field.
Networking	● Provide accessible opportunities for internships with employers. ● Provide students with accessible opportunities for informational interviews with employers in their field of study. ● Provide students with accessible opportunities for networking with alumni. ● Provide networking and personal brand development opportunities which include how to leverage those networks both during and after college.
Social Groups	● Encourage student learning communities, which include those both within and outside of the institution. ● Consider student and community organizations that provide networking opportunities.
Cultural Diversity on Campus	● Establish public institutional commitments to diversity, equity, and inclusion, and allocate resources to reach benchmarks ● Hire faculty and staff with diverse backgrounds ● Recruit a diverse student body through targeted outreach and ongoing support through critical steps such as aid applications and standardized tests. ● Provide individualized mentoring and coaching through first-year experience programs and summer bridge programs ● Develop and facilitate programming to increase the cultural competency of leadership, faculty, staff, and students

INTRODUCTION

Thousands of Kentuckians enroll at postsecondary institutions each year with the hope of obtaining a credential that will ensure their long-term financial security. Indeed, the promise of a college degree is visible in the increase in lifetime earnings for Kentuckians across all degree levels and across all racial/ethnic groups (CPE, 2021). Unfortunately, decades of research has evidenced inequity for low-income students and Underrepresented Minority (URM)[1] students in both the completion of postsecondary degrees and the opportunity to earn comparable wages. Often these disparities in Kentucky exceed national averages. Although the causes of workplace inequality can be difficult to track, measuring earnings disparities immediately after graduation--at the launching point for their careers--provides an opportunity to identify academic and career preparation programs that reduce or eliminate wage inequality for their graduates.

This research seeks to provide evidence that can be used to develop and validate tools that ensure that all academic programs offered by Kentucky institutions prepare graduates with the essential employability skills necessary for life-long success in the workplace. Specifically, this paper addresses the workforce opportunities for URM or low-income graduates from degree programs at either the baccalaureate, associate, or certificate/diploma level. The evidence presented here builds on five guiding research questions:
1. What are the workforce opportunities for low-income and URM graduates?
2. What are the early career earnings opportunities for low-income and URM graduates by major?
3. Which academic programs are producing low-income or URM graduates with early career earnings equal to or exceeding their more affluent or non-URM peers?
4. What are the attitudes, behaviors, and pedagogies of faculty and staff within high-achieving academic programs?
5. What aspects of their postsecondary experience do URM and low-income graduates of high-achieving academic programs attribute to their early career success?

Education pathways are identified which have been successful in closing achievement gaps for traditionally disadvantaged students.

The Commonwealth of Kentucky is committed to providing equitable access to higher education and eliminating workplace disparities. Formally acknowledged in the CPE 2016-2021 Strategic Agenda, CPE is prioritizing research that can advance the career trajectory of low-income and URM students. This research also aligns with two of CPE's strategic priorities: (a) guiding low-income and URM students to completion and a career path, and (b) improving the career readiness and employability of postsecondary education graduates.

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[1] See Appendix A for technical definitions for "low-income" and "URM".

Section 1:

WORKFORCE OPPORTUNITIES FOR KENTUCKY URM GRADUATES

The demographic profile of Kentucky's workforce suggests limited opportunities are available for URM postsecondary graduates. Figures 1-2[2] show the Kentucky workforce includes a slightly higher proportion of URM individuals than the overall state population. A parallel increase in the racial and ethnic diversity of the state (see Figure 4) could partially explain the higher URM proportion of the workforce where growing diversity is centralized in the younger work-age population. However, an even higher proportion of graduates from Kentucky postsecondary institutions suggests that inequities exist. A lack of employment opportunities for the degrees earned by URM graduates could affect the retention of URM graduates into the workforce. Considered in context of pay inequities for URM Kentuckians (CPE, 2021), the evidence suggests that URM postsecondary graduates experience limited opportunities for in-state employment at a competitive wage.

Figures 1-3. Demographic Make-up of Kentucky, the KY Workforce, and KY Postsecondary Graduates
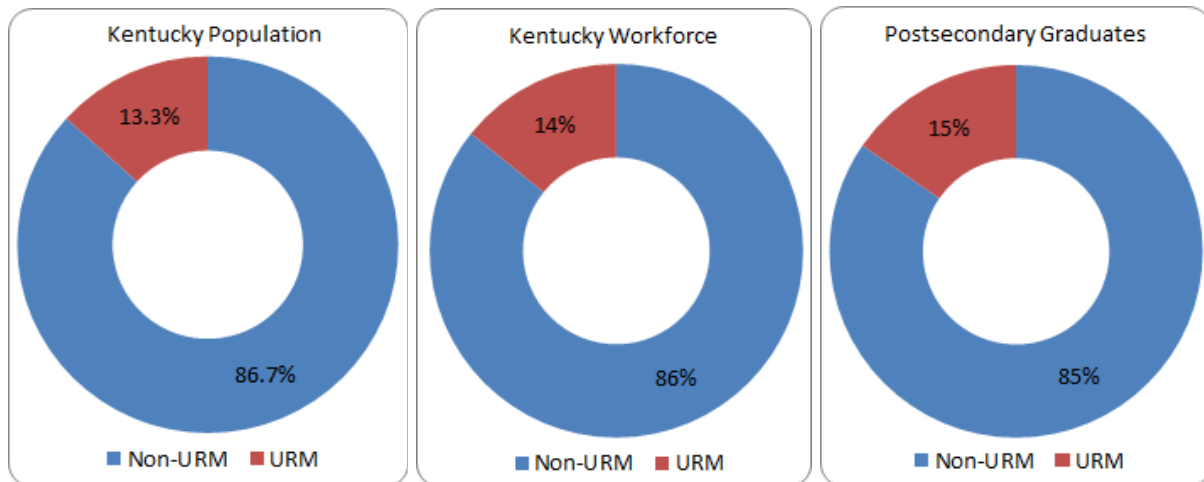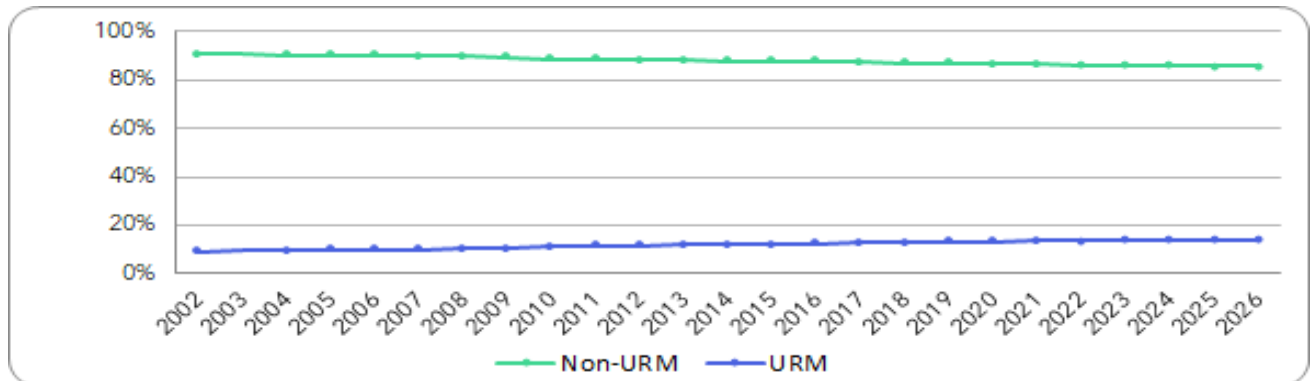

*Figure 4. Longitudinal Trends and Projections in Kentucky General Population Demographics*

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[2] See Appendix C for data supporting Figures 1-18

The 15% of postsecondary graduates who identified as URM constitutes a 3-year average of 12,006 students annually.[3] As with the workforce population, the slightly higher proportion of URM graduates compared to the state-wide population can likely be attributed to an overall increase in the diversity of the state. In fact, we know that URM students continue to be underrepresented in postsecondary enrollment and completion.

Student participants shared a positive outlook on the representation of URM students at their postsecondary institutions, but were less optimistic about workforce opportunities. One participant stated that "their institution did a good job attracting diverse individuals from other states due to their 'out of state tuition deal' which allowed the school to cast a broader net in bringing more diverse students to the institution." When seeking employment within Kentucky however, some participants from both the URM and low-income groups indicated that they struggled to find employment locally or statewide in Kentucky and cast their nets wider across the United States in areas like Washington, D.C., for example, as there were more available jobs in their desired field of interest.

Figure 5. *Kentucky Jobs by Educational Attainment Level*
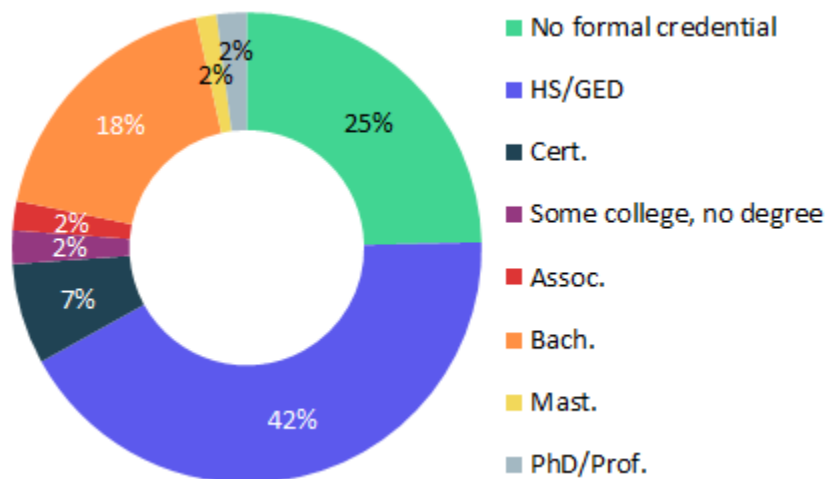
The lack of employment opportunities in Kentucky for URM postsecondary graduates is further evident in the demographic composition of the workforce when disaggregated by required degree level. Figure 5 depicts the highest education level of workers employed in Kentucky across all Kentucky occupations. Figures 6-8 show the proportion of URM workers with Bachelor degrees, Associate degrees, and Certificates/Diplomas in the Kentucky workforce, which hover between 9% and 15%. Not only do most employment opportunities in Kentucky require a high school diploma or less (67%), but also URM workers are underrepresented in the Kentucky workforce for jobs requiring a postsecondary degree. The evidence suggests URM graduates face a narrower opportunity for employment following graduation with a postsecondary credential, and URM graduates may be funneled into jobs that require a lower level of education. Again, this depiction was highlighted in the student focus group sessions where participants at the Bachelor level or higher indicated they struggled to find adequate employment in their field of study within the state of Kentucky.

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[3] The data source for all figures on postsecondary completion in this section is IPEDS. Data reflects all Kentucky postsecondary completions across all award levels and across a three-year average from 2017, 2018, and 2019.

Figures 6-8. *Demographic Composition of the Kentucky Workforce for Bachelor Degree Jobs, Associate Degree Jobs, and Certificate/Diploma Jobs*

Bachelor Degree Jobs — 9% URM, 91% Non-URM
Associate Degree Jobs — 10% URM, 90% Non-URM
Certificate/Diploma Jobs — 15% URM, 85% Non-URM
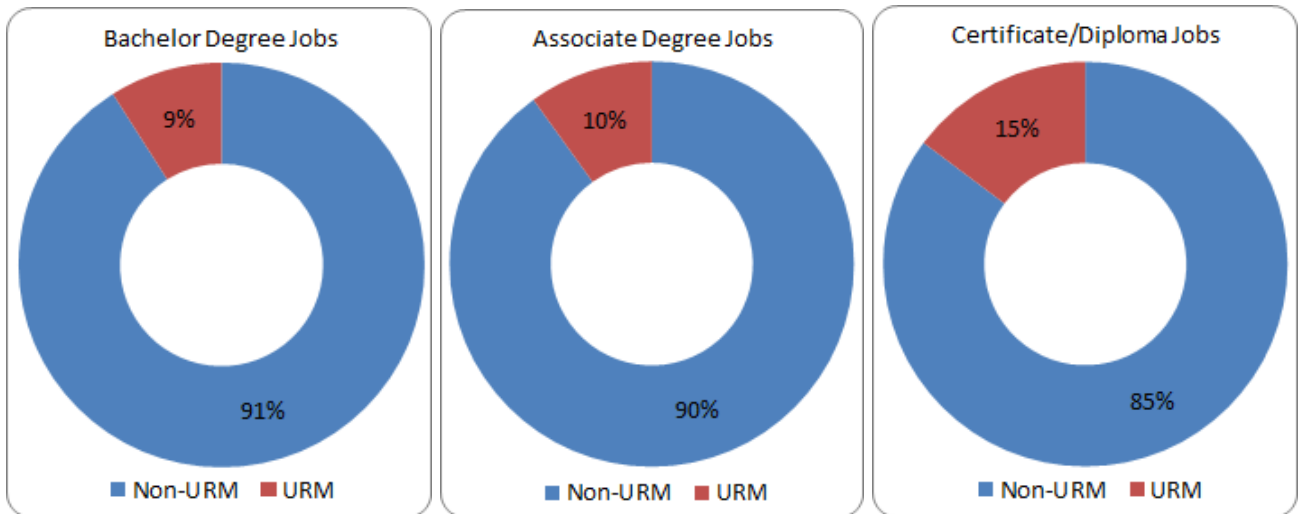
Figure 9. *Jobs by Typical Education Level with Median Annual Wage*

500K Jobs
250K Jobs
100K Jobs

PHD/Prof. $105,172
Mast. $73,549
Bach. $66,312
Kentucky Average $42,155
Assoc. $49,635
Cert. $39,110
Some College, No Degree $35,273
No credential $25,284
HS/GED $37,916
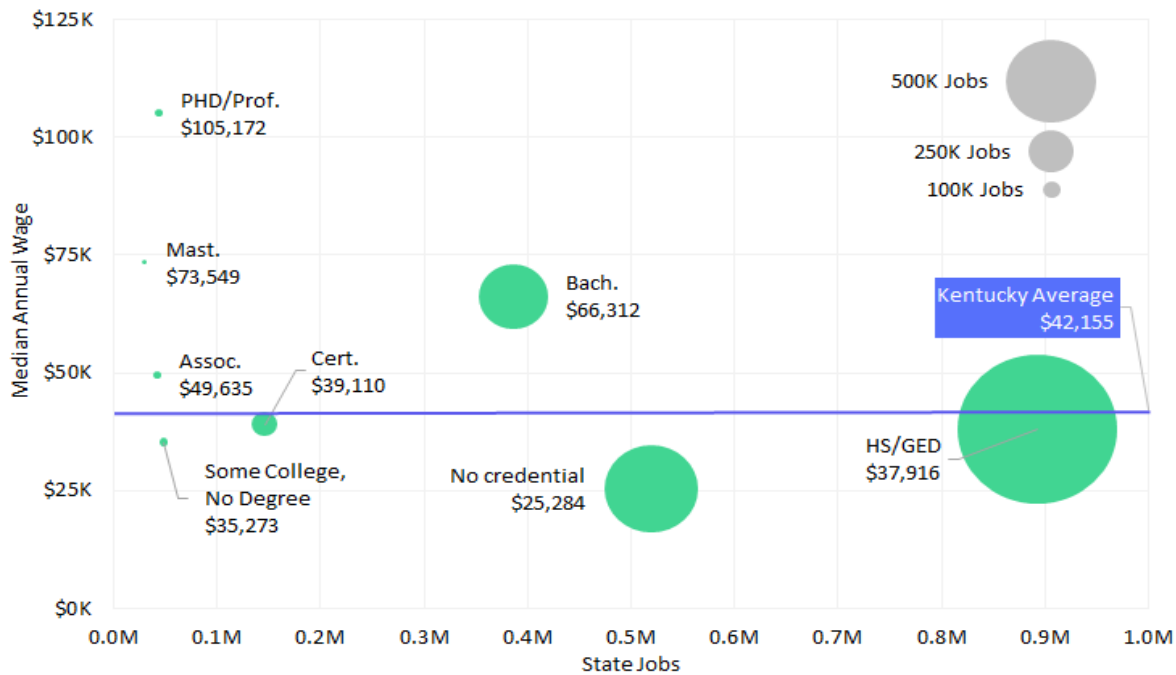
The narrow opportunity for obtaining well-paying in-state employment is visualized in Figure 9. The number of jobs in Kentucky by degree attainment is represented by the size of the green circles. Greater employment opportunities (as defined by more Kentucky jobs), are graphed along the x-axis. The expected earnings associated with the occupations typical of that degree level are aligned on the y-axis. For example, HS/GED is the largest bubble – indicating a large number of jobs in Kentucky require HS/GED as the typical entry level of education. However, the earnings are fairly low at $37,916. Jobs above the Kentucky average wage were significantly less attainable, even for Associate degree earners or those with some college but no degree.

Comparing this to the above data, the highest number of URM Associate or Certificate holders across Kentucky have the smallest number of employment opportunities at their current entry level of education.

The workforce opportunities for URM graduates in Kentucky are not consistent across occupations. Figures 10-13 highlight the occupations with the highest percentage of URM workers. Figures 11-13 only show occupations typically requiring a Bachelor degree. Insufficient data was available to provide meaningful analysis at the Associate and Certificate/Diploma level. Even at the Bachelor level, some of the occupations may have a relatively small number of workers. The black dots indicate that the occupation is in the top 20 in terms of the number of workers in the occupation. You will notice in Figure 11 that of the top 20 largest Bachelor-level occupations for URM representation in Kentucky, only two occupations make the list of top 20 largest occupations irrespective of degree level. Furthermore, URM workers are underrepresented in these professions. This illustrates that Kentucky's Bachelor-completing URM workforce is largely employed in occupations with relatively low numbers of workers, which could impact employment opportunities. Expanding the diversity of the workforce within other top occupations by number of workers would provide additional opportunities for Kentucky's growing URM population.

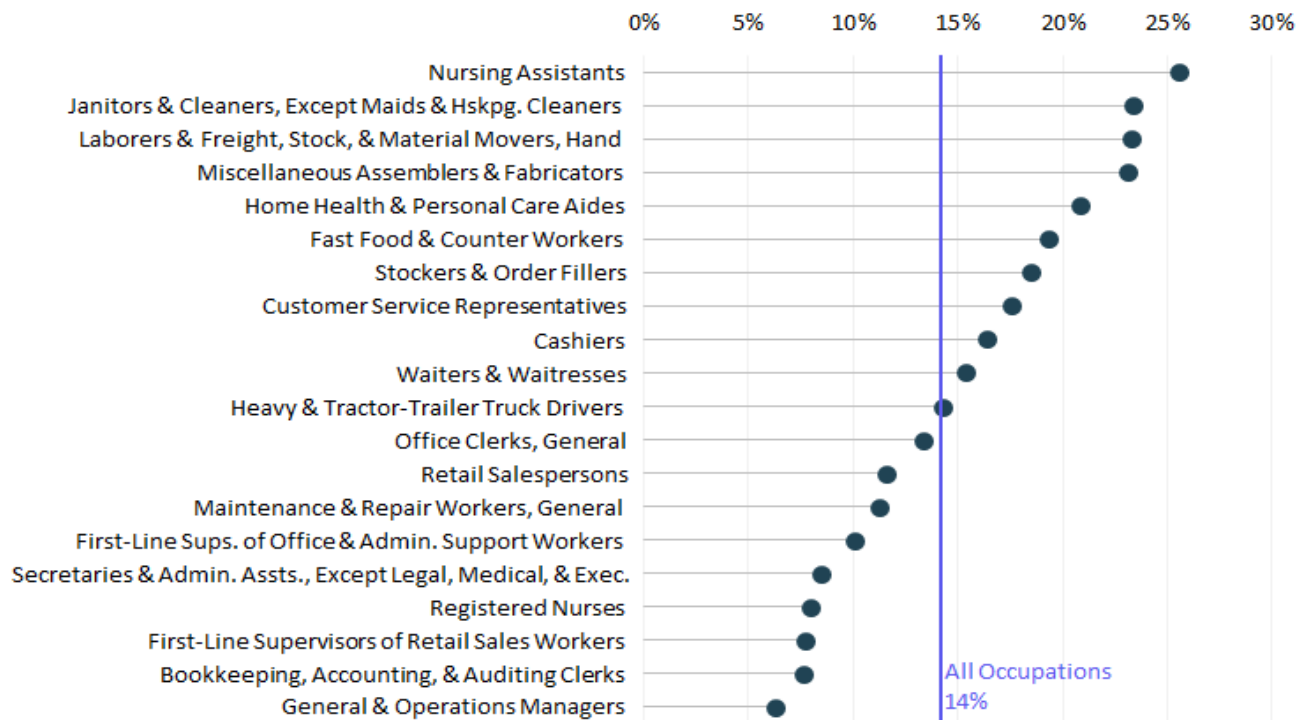**Figure 10.** *URM Representation Within Top 20 Largest Occupations in Kentucky*

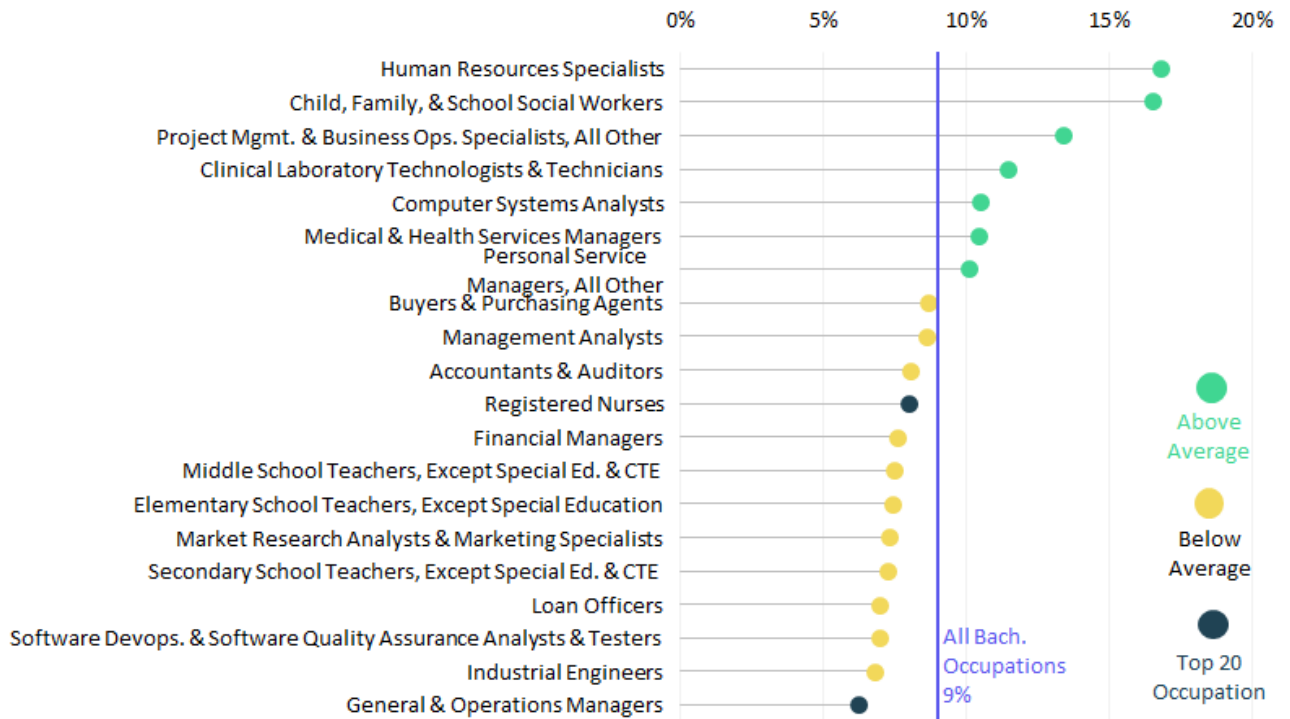**Figure 11.** *URM Representation Within Top 20 Largest Bachelor-Level Occupations in Kentucky*

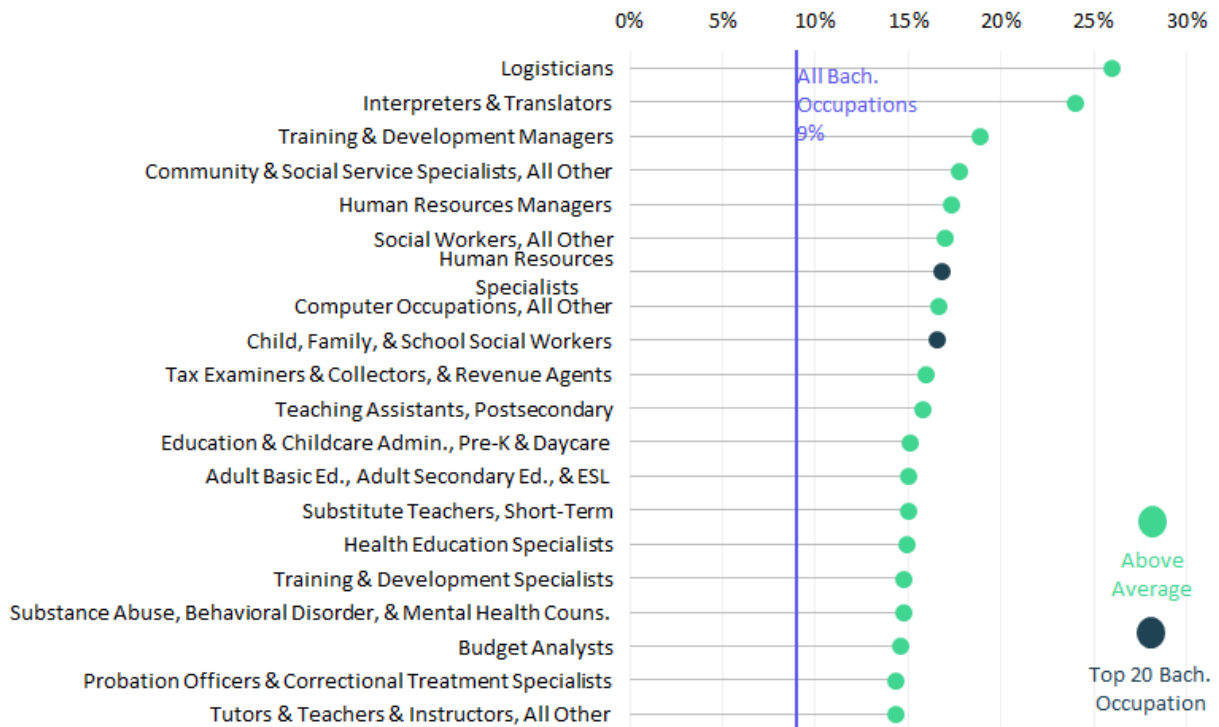**Figure 12.** *Top 20 Bachelor-Level Occupations for URM Representation*

Figure 13. *Bottom 20 Bachelor-Level Occupations for URM Representation*
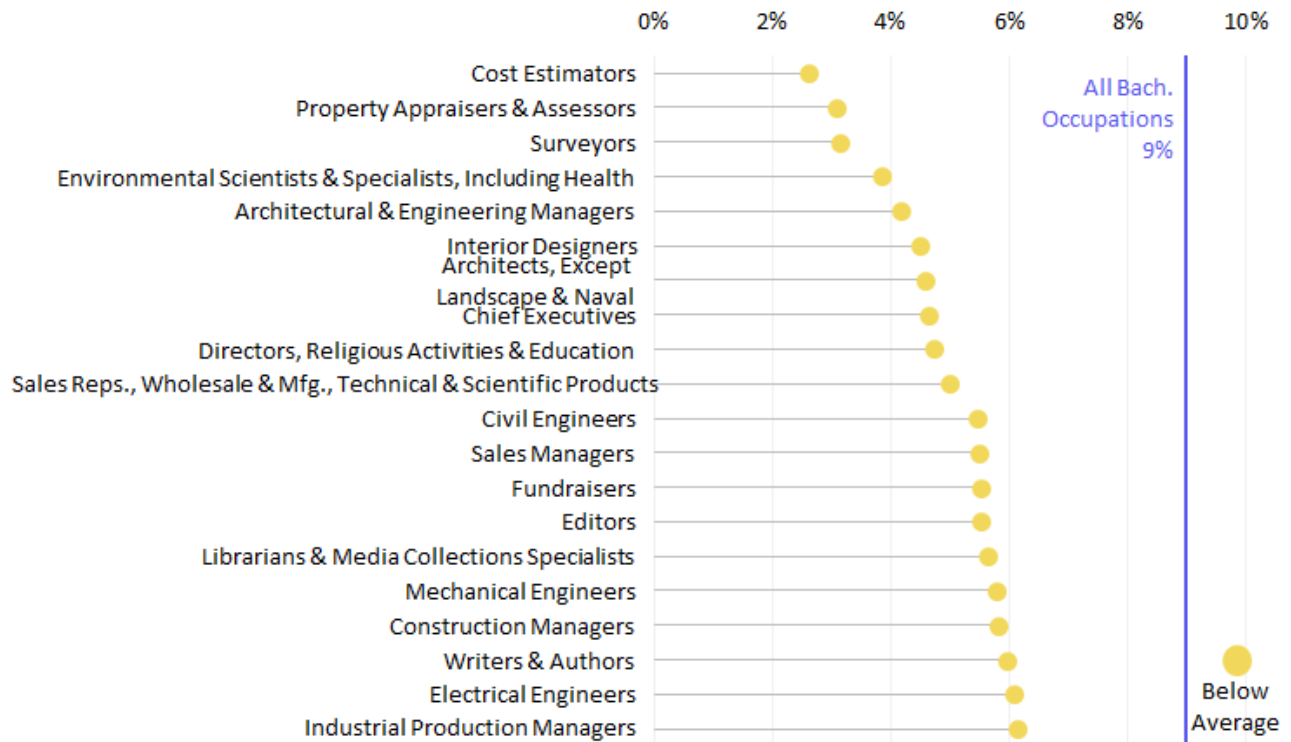
EDUCATION TO CAREER PATHWAYS FOR KENTUCKY URM & LOW-INCOME GRADUATES

The employment and earnings opportunities for graduates vary greatly based on the academic major they obtain (Wolniak & Engberg, 2015). Disaggregating workforce participation and anticipated earnings by URM and low-income representation can provide further evidence of career opportunities that hinder or promote a more equitable workforce. Figure 14 shows the percentage of postsecondary completers identified as URM by major groups disciplines[4]. The 15% average (discussed above) indicates whether the major group has above or below average representation of URM completers.

Figure 14. Representation of URM Graduates in Major Group Disciplines
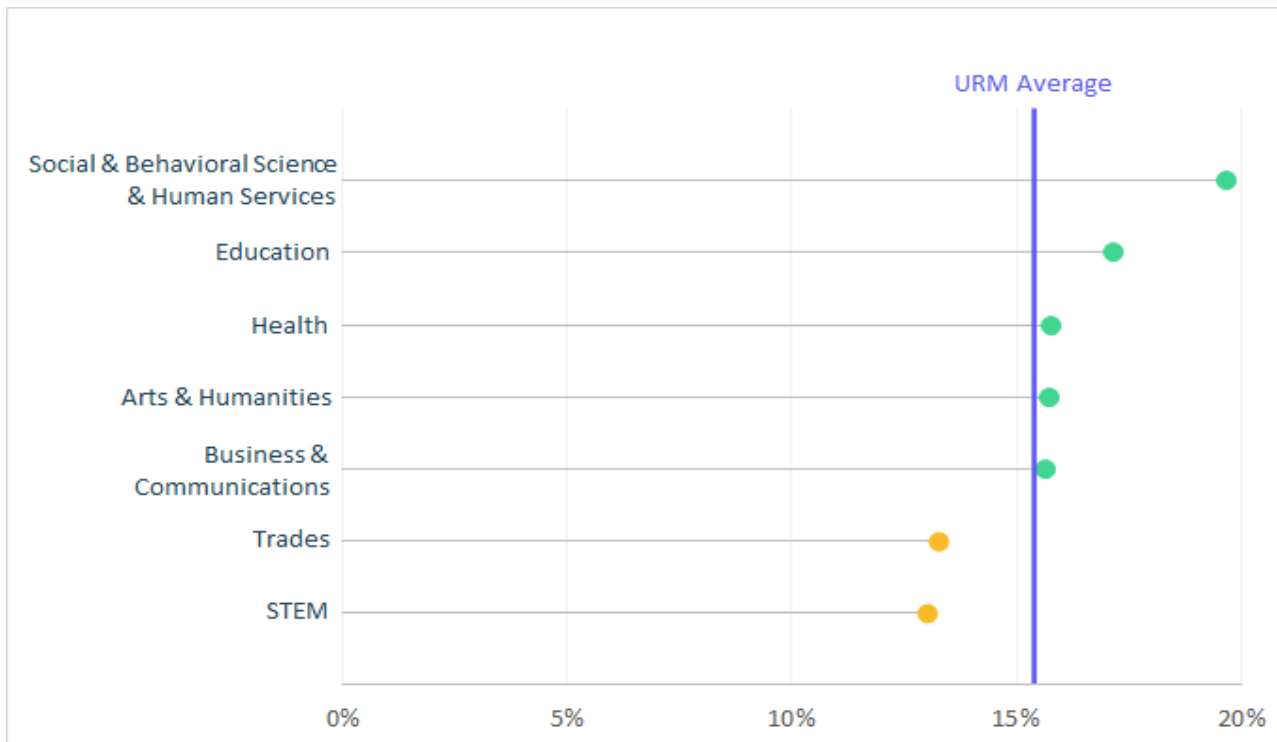
As demonstrated in Figure 14, Social & Behavioral Science & Human Services and Education groups had the most URM completer representation, Trades and STEM were below the benchline average and Health, Arts & Humanities, and Business & Communications had an average number of URM completers. These numbers correlate with the career pathways of the former students who participated in the focus groups for this research and highlight the ongoing need for increased URM representation in STEM fields.

Evidence on the earnings opportunities for URM and low-income graduates by academic major highlights areas where inequality persists and where opportunities to expand equity exist. Figures 15-16 showcase the

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[4] See Appendix B for definitions of major groups by CIP code.

estimated average wages for URM and Non-URM, Pell and Non-Pell recipient Baccalaureate graduates in Kentucky.[5,6] Of note, estimated wages are not adjusted by race. Rather, estimated wages reflect the average earnings opportunities for similarly educated and employed persons in the same geographical region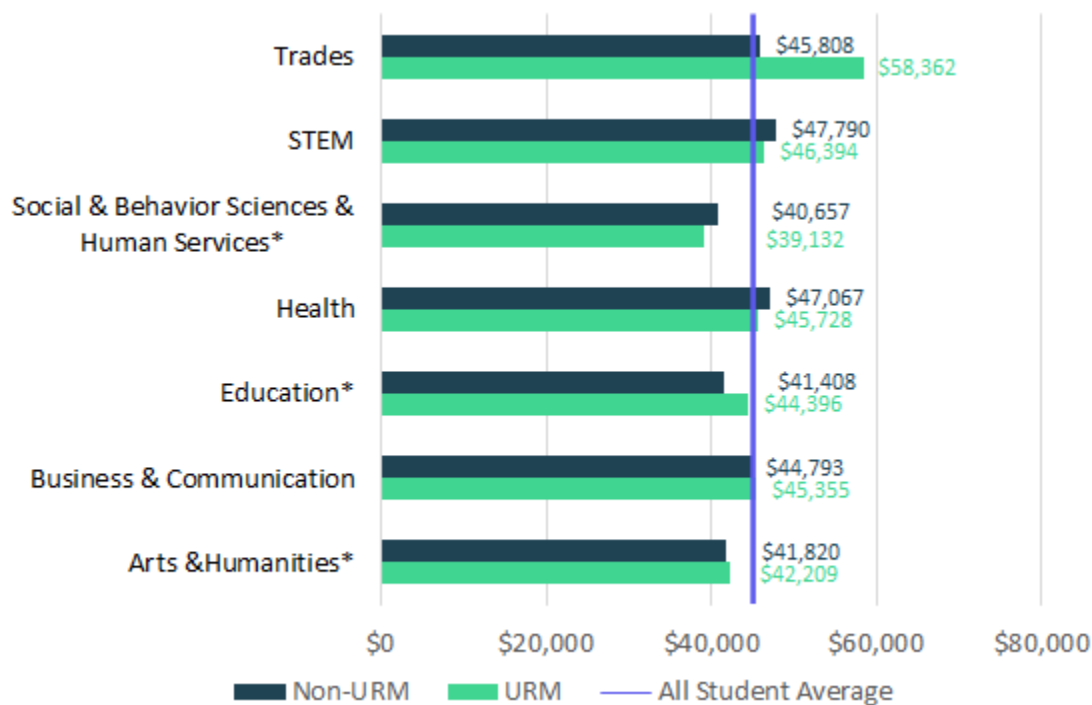. Differences in earnings opportunities for URM/non-URM or low-income/non-low-income graduates can be interpreted as a consequence of county-level demographic trends and the employment opportunities therein.

Across demographic identifiers, estimated annual wages in Trades, STEM, and Health occupations exceed the state-wide average, indicating employment areas with greater earnings opportunities. However, URM graduates with a Baccalaureate degree in a STEM, Health, or Social Sciences field can expect to earn around $1,500 less annually than their non-URM counterparts. URM graduates from Trade and Education programs graduate with the greatest opportunity for achieving equitable pay. Trades and Health programs provide the least opportunity for low-income graduates, with STEM and Social Science being the only areas where equitable career opportunities are indicated.

Figure 15. Estimated Average Wages for URM and Non-URM Baccalaureate Graduates

	Non-URM	URM
Trades	$45,808	$58,362
STEM	$47,790	$46,394
Social & Behavior Sciences & Human Services*	$40,657	$39,132
Health	$47,067	$45,728
Education*	$41,408	$44,396
Business & Communication	$44,793	$45,355
Arts & Humanities*	$41,820	$42,209

Non-URM ◼   URM ◼   —— All Student Average

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[5] The data source for all figures on postsecondary completion and majors in this section is CPE's KPEDS database. Data reflects all Kentucky postsecondary completions across all award levels between 2008-2020.

[6] Occupation employment data are based on final Emsi industry data and Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. Occupational wage estimates are also affected by county-level Emsi earnings by industry and are adjusted for the individual's age and highest level of education completed using a Mincer function (Mincer, 1958; Polachek, 2008).

Figure 16. *Estimated Average Wages for Pell and Non-Pell Baccalaureate Degree Graduates*
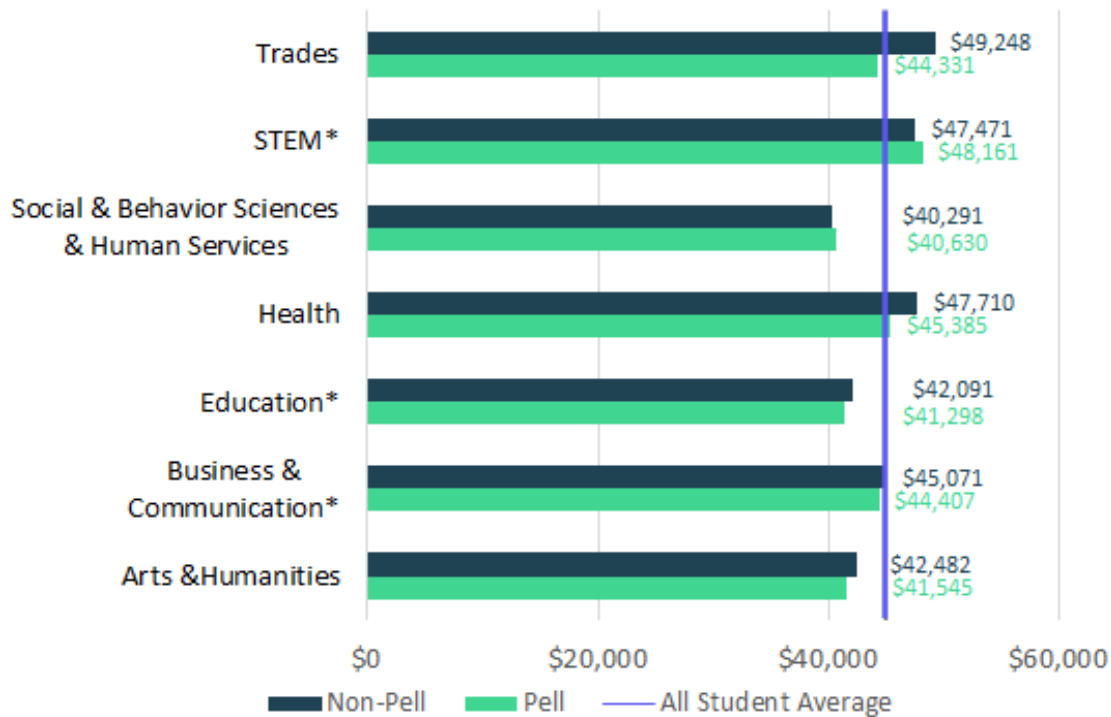
A lack of sufficient data limits the comparisons that can be made at the Associate and Certificate/Diploma level. Figure 17 displays overall earnings opportunities for Associate degree recipients, and Table 1 disaggregates earnings by graduate demographics. Findings are reproduced for Certificate/Diploma recipients in Figure 18 and Table 2. Associate degree earnings with STEM and Social Science degrees possess the best opportunities for good wages, but unfortunately comparison data is not available for these groups based on low frequencies in these groups. The limited data available suggests that earning disparities across major groups at the Certificate/Diploma level may not be as severe as at other attainment levels--evidence that counters long-term trends in earnings disparities (CPE, 2021). Yet the overall trend of the evidence is consistent in highlighting a lack of opportunities for URM and low-income graduates to achieve equitable pay in Kentucky.

Figure 17. *Estimated Average Wages for Associate Degree Graduates*
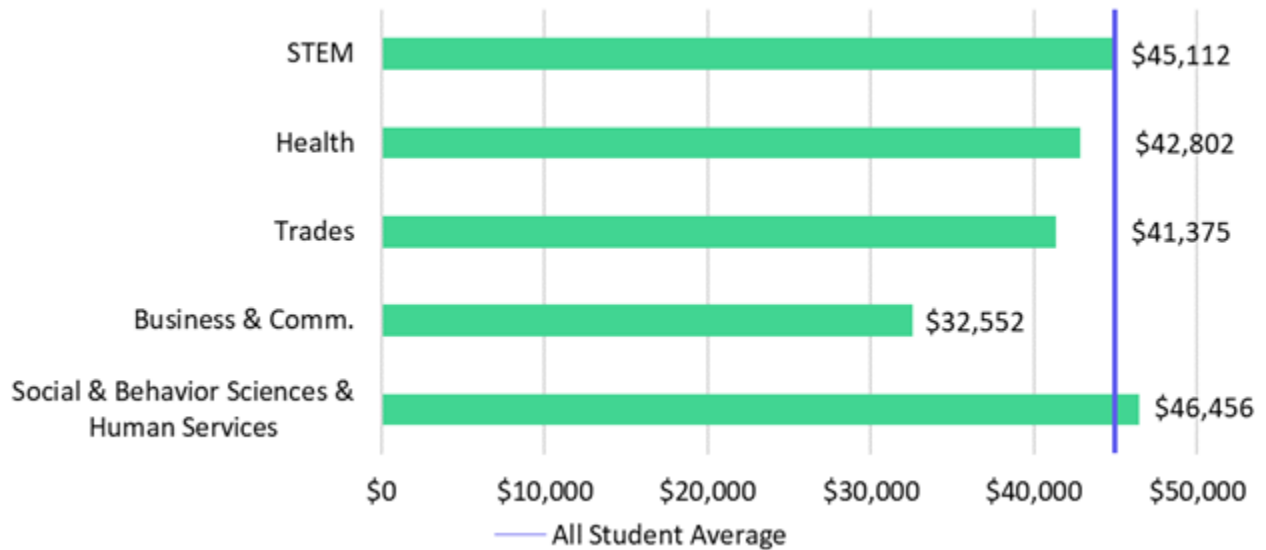
Table 1. *Estimated Average Wages for Pell/Non-Pell and URM/Non-URM Associate Degree Graduates*

Major Group	Pell	Non-Pell
Arts & Humanities	$26,002	$29,325
Education*	$40,003	$42,657
Health	$40,573	$47,890
	URM	**Non-URM**
Health	$35,228	$43,563

Figure 18. Estimated Average Wages for Certificate/Diploma Graduates

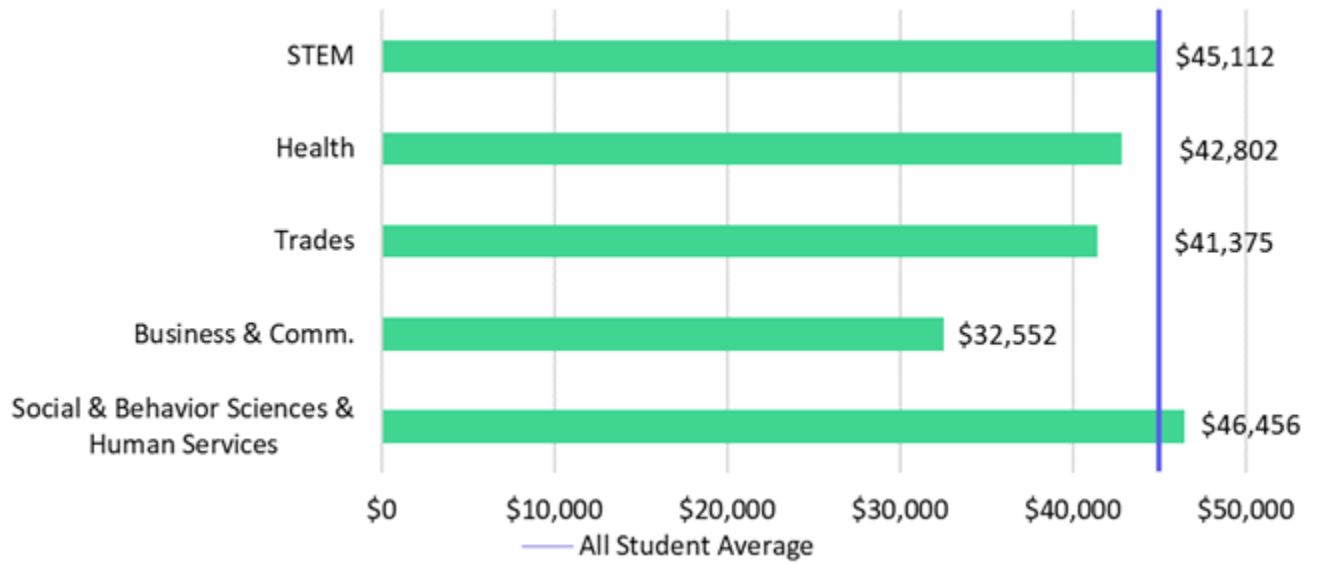*Table 2.* Estimated Average Wages for Pell/Non-Pell and URM/Non-URM Certificate/Diploma Graduates

Major Group	Pell	Non-Pell
Business & Communication*	$49,104	$44,135
Health	$40,061	$43,289
	URM	**Non-URM**
Health	$42,634	$41,062

* Indicates areas that include a high-achieving academic program participating in qualitative analysis

Section 2:

IDENTIFYING AND REPRODUCING BEST PRACTICES FROM HIGH-ACHIEVING PROGRAMS

Evidence presented thus far highlights significant disparities for URM and low-income graduates in terms of employment and earnings opportunities in Kentucky. However, limited evidence on URM and low-income graduate earnings by academic major suggests that pockets of opportunity may exist. Further narrowing the workforce context to graduates of specific academic programs provides greater specificity to the circumstances that can reduce or eliminate wage inequality for postsecondary graduates. Identifying high-achieving academic programs for equitable early career outcomes will provide the context for qualitative research on best practices in URM and low-income student career preparation.

Methodology

Median annual earnings were identified for URM, non-URM, low-income, and non-low-income graduates graduating between Fall 2008 and Fall 2018. Earnings were defined as 12-month wages beginning in the quarter following graduation at their highest degree level earned (excluding graduates still enrolled) and as reported through Kentucky Unemployment Insurance. Inclusion was limited to graduates with earnings in all four quarters of their first year after graduation. URM:Non-URM and Low-Income:Non-Low-Income wage ratios were calculated for each academic program, and academic programs across the state were ranked by the wage ratios. Academic programs were excluded where the median wage of URM or low-income graduates was less than the living-wage in Kentucky for a single adult with no children ($28,048; Glasmeier, 2020). Academic programs were also excluded where the total number of URM or low-income graduates in the sample was less than 10.

Table 3. Sample Count by Degree Level

Degree Level	N
Bachelor	72,299
Associate	34,307
Certificate/Diploma	17,411

Results

The top five high-achieving programs for equitable early career outcomes are listed in Tables 4-9. The list of programs represents a wide range of public and private postsecondary institutions across the state. High-achieving programs at the Bachelor's level are also representative of a range of academic disciplines, although Education programs are highly represented in both the low-income and URM program lists. Medical programs predominate both the Associate URM and Associate low-income list. Notably, trade programs were found to be high-achieving in producing equitable outcomes from low-income graduates at the Certificate/Diploma level, but this result was not reproduced when ranked by the success of URM graduates.

Table 4. *Top 5 Programs for Bachelor's-Level URM Graduates' Wage Ratio*

Institution	CIP	CIP Program Name
University of Kentucky	30.2001	International Studies
Campbellsville University	13.1210	Early Childhood Education
Western Kentucky University	45.1001	Political Science
Asbury University	13.1202	Elementary Education
Spalding University	44.0701	Social Work

Table 5. *Top 5 Programs for Bachelor's-Level Low-Income Graduates' Wage Ratio*

Institution	CIP	CIP Program Name
Murray State University	15.0613	Manufacturing Engineering Technology
Northern Kentucky University	52.0601	Economics
Northern Kentucky University	52.0701	Entrepreneurship
Morehead State University	13.1203	Middle Grades Education
University of Cumberlands	13.1202	Elementary Education

Table 6. *Top 5 Programs for Associate's-Level URM Graduates' Wage Ratio*

Institution	CIP	CIP Program Name
Bluegrass Community & Technical College	11.0301	Computer & Information Technologies
Jefferson Community & Technical College	43.0103	Criminal Justice
Kentucky State University	51.3801	Nursing
Bluegrass Community & Technical College	51.0908	Respiratory Care
Jefferson Community & Technical College*	51.0707	Health Information Technologies

Table 7. *Top 5 Programs for Associate's-Level Low-Income Graduates' Wage Ratio*

Institution	CIP	CIP Program Name
Southcentral Kentucky Community and Technical College	51.0908	Respiratory Care
University of Louisville	22.0302	Paralegal Studies
Morehead State University	51.0907	Radiological Science
West Ky Community & Technical College	51.0910	Diagnostic Medical Sonography
Jefferson Community & Technical College*	51.0707	Health Information Technologies

Program duplicated in the Low-Income table

Table 8. *Top 5 Programs for Certificate/Diploma-Level URM Graduates' Wage Ratio*

Institution	CIP	CIP Program Name
Bluegrass Community & Technical College	51.0716	Medical Office Administrative Assistant
Jefferson Community & Technical College	11.0101	Computer & Information Technologies
Bluegrass Community & Technical College*	47.0201	Air Conditioning Technology
Hopkinsville Community College**	49.0205	CDL Certificate
Jefferson Community & Technical College**	52.0201	Business Administration

*Program duplicated in the Low-Income table
**Wage ratio below 1.0

Table 9. *Top 5 Programs for Certificate/Diploma-Level Low-Income Graduates' Wage Ratio*

Institution	CIP	CIP Program Name
West Ky Community & Technical College	47.0201	Air Conditioning Technology
Southcentral Kentucky Community and Technical College	47.0303	Industrial Maintenance Technology
Southcentral Kentucky Community and Technical College	48.0508	Welding
Southcentral Kentucky Community and Technical College	46.0302	Electrical Technology
Bluegrass Community & Technical College	46.0302	Electrical Technology

*Program duplicated in the Low-Income table
**Wage ratio below 1.0

FACULTY & STAFF VOICES ANALYSIS

Findings from the quantitative analysis of high-achieving academic programs for URM and low-income early career outcomes were used to identify participants for the qualitative portion of this study. A phenomenological research design was implemented to elucidate the attitudes, behaviors, and pedagogies of faculty and staff within high-achieving academic programs that were most likely to contribute to the success of their URM and low-income graduates.

Methodology
A total of 29 academic programs at 16 institutions were contacted to solicit participation in virtual focus groups. Contacts were solicited directly from program websites, as well as through snowball sampling based on referrals from senior academic leadership and other faculty. Faculty and staff were invited to participate in focus group interviews seeking to identify the characteristics of their programs that may contribute to successful early career outcomes for URM and low-income graduates. Focus groups were separated by degree level and URM/low-income program list. A total of 13 virtual focus groups were conducted with 41 participants representing 25 different academic programs. Focus groups were conducted as semi-structured interviews with participants invited to respond to questions about their program as well as contribute their own thoughts and perspectives. Transcripts from the focus groups were sorted and edited to create an individual transcript for each participant. Transcripts were then coded based on an interactive process using analytical frames from Human Capital Theory (Becker, 1993), Student Involvement Theory (Astin, 1984), and Career Development Theory (Holland, 1959).

Results
The narratives of faculty and staff participants centered around five central themes:
- A culture of care and trust
- Their success is our success
- Engage Employers
- Awareness of unique student needs and adapt to shifting concerns
- Guide underrepresented students into high-demand occupations

A Culture of Care and Trust

The most prominent theme emerging from the interviews was an overwhelming emphasis on building a "culture of care and trust" within the academic programs. Faculty described the importance of building individual relationships with each student as central to fostering their success. A faculty member in an Associate program a WKCTC described her commitment as:

> "We're invested in your future. And, you know, sometimes we get emotional about it because we really do care. And I think that they pick up on that and that makes them want to succeed even that much more because they want to show us that they are there to really be successful and to show us that they can do it."

Participants also described a caring and nurturing community as approachability, non-competitiveness, mentorship, responsiveness, counseling, and person-centered.

The culture that was developed at the high-achieving programs was also strategic. Faculty and staff viewed the culture as essential to building relationships with their students, and those existing relationships provided the context to support student success. A faculty member at Spalding University emphasized how strategically placed contact points allow faculty "to catch things early and be assertive and proactive in our advising." The importance of individual attention and student-faculty interaction is a well-established best-practice in higher education (Kuh, 2008). The difference for many of the participants in this study was the intention that they placed on using one-on-one time to demonstrate their care and leverage those relationships to help students succeed. A faculty member at NKU stated the distinction this way:

> "What it comes down to is every person over here has indicated that they signaled that they care, right? Not saying that other people don't care, but what are you doing to send that signal to your students? So they can actually believe it; that they are not just a number or they're going through a system. Each one of them is personal and each one of them matters to you as an instructor."

The nature of these connections looked different based on the style of each program and the needs of their students. Strategies included:
- Provide proactive outreach and open communication
- Leverage small class sizes or labs
- Affirm students' place as career-ready learners

Provide proactive outreach and open communication
Participants described a number of ways that they went above and beyond in their outreach to students. One faculty member at WKCTC described calling each student admitted into his program several weeks before the start of term to touch base and make sure they had everything needed. Multiple faculty described the importance of sharing their personal cell phone with students. Sharing their cell-phone became a symbol of the importance of the relationship and served to foster trust and responsibility in students.

Other faculty and staff described intentional ways that they initiated outreach to students, often in ways that served to break down barriers and address the needs of diverse and non-traditional learners. A staff success coach at SKCTC described her routine of visiting the classrooms and labs several times a day to chat with students, build rapport, and see if there were any issues she could help with. Faculty universally agreed that open office hours were not sufficient, and in fact could serve to further disadvantage first-generation students. A faculty member at NKU described the challenge of connecting with faculty and finding support to be the "hidden curriculum" of higher education. He recalled agreeing to meet a sophomore student during office hours, only to realize later that the student had attempted to meet at the classroom rather than the faculty member's office. Proactive and student-centered outreach serves to remove hidden barriers to student success.

Proactive outreach to students after a missed assignment or poor grade was a common practice of participants. A faculty member at BCTC had even made it a program requirement to meet one-on-one if a student earned a test grade below a certain threshold. But rather than simply refer students to tutoring, many faculty used the opportunity to investigate students' environment and provide support for them to persist. A faculty member at JCTC described the message as "'Hey, we care. We're here to work with you. Let's fix this problem and move on.'" Many faculty also described a significant portion of their time being spent providing individual tutoring to students during these appointments, or even scheduling group tutoring sessions with several students.

Leverage small class sizes or labs

The importance of building individual relationships was the single most common theme expressed by faculty and staff participants. In most cases, the classroom was only one of multiple avenues for making connections with students. However, faculty frequently discussed the importance of small class sizes as important to facilitating connections. In some cases, a low student-to-faculty ratio was characterized as making it more manageable to reach out and meet with individual students outside of class. Other faculty discussed the importance of small classes so that they could ensure student learning and mastery of course content in the classroom. Alternatively, some faculty emphasized using in-class time and leveraging small class sizes to learn more about the personal background of students.

Faculty in programs that have teaching labs were strategic about using that time to build relationships with students--including faculty in both trade and medical areas. A trades faculty member at SKCTC was intentional about spending one-on-one time with each student during their lab. He described the importance of that time as:

> "If you don't have that time to go around and spend that 10 or 15 minutes with that student, you don't really know what they're going through that day. They may be truly struggling… But that one time you go over there and you sit down and reassure them that they're on track and they're on track for success and that you're there for them, and you can do whatever they need."

Time spent with students in labs were used to both assess student learning and support students holistically. The same faculty member described how those one-on-one conversations in labs helped him diagnose key barriers for low-income students such as accessing proper tools and securing transportation to class. Similar strategies were used in a medical program at WKCTC, where both full-time instructors regularly attended the labs of each other's courses so that they could be available to students.

Notably, these comments were repeated by faculty across education levels, at public and private institutions, and pertaining to all student demographics. However, the faculty at community colleges were the most likely to point out the uniqueness of maintaining small class sizes or having multiple full-time faculty available to connect with students.

Affirm students' place as career-ready learners

An important component of expressing care for students was affirming their place in the classroom. Many faculty shared the explicit ways that they communicate their support and belief in their students. Affirming students was almost always described in conjunction with a student's responsibility for their own learning. An instructor from WKCTC stated:

> "We believe in them. We're constantly telling them we believe in them… 'If you got in, you deserve to be here.' And that's what we constantly tell them: 'you can succeed, don't give up on yourself, you can do this,' [even] when they think they can't. When they go into the corner and cry, we're there to go and build them back up, and [we say] 'come back over here and try again', and 'every sonographer has been at the same point you are right now. I was too, [your other instructor] was too, if you can ever believe it, but you're not going to get it right away.'"

Faculty viewed their affirmation of students as a way to balance how they challenge and support students. Their affirmations served to build resilience in students amid difficult assignments or personal challenges. As with other dimensions of care and trust, many faculty described ways of affirming students early in their academic program. A faculty member from SKCTC described some of his first interactions with students: "I try to tell my students up front: 'I believe in you, I trust you until you give me a reason to doubt you. There is complete acceptance. I put all of my faith in you.' I think that gives them a good reason to try even harder."

For some faculty, creating an affirming environment requires emphasizing a non-competitive dynamic between students. Faculty viewed competition between students as setting-up some students to fail and distancing students from the care and trust faculty want to provide. A veteran faculty member at NKU described the connection between competition and trust as a direct link to their academic learning, explaining that their faculty are "looking to have the students realize that their faculty members are their allies, that we're in their corner, that we're trying to get them to build their skillsets, that we're not putting them in competition against each other. We want all of them to succeed." Removing competition from the classroom also empowers students to become more engaged in the learning process without worrying about their standing with their peers.

Faculty frequently were explicit in how they viewed affirmations as important for low-income and URM students. A faculty member from a different program at NKU made this connection pertaining to the ability of low-income students to increase their academic self-efficacy and raise their career goals: "we've tried to make the students see beyond their initially conceived realm of possibilities and with a lot of first-generation students what we can see as a possibility for them--because they haven't been exposed to that kind of environment--is they tend to hold themselves back." Other faculty approached affirmations as helping to break down any imposter syndrome students may be experiencing and foster greater academic persistence through challenging assignments. The importance of affirming minoritized students is grounded in decades of research on academic self-concept and stereotype threat (Steele & Aronson, 1995), where student's risk internalizing and reproducing stereotypes placed on them by peers or instructors. Hearing affirmations from program faculty serves to personalize the learning environment and empower underrepresented students to succeed.

Shared Practices
- Proactively schedule one-on-one time with students
- Provide clear and accessible means for students to connect with faculty
- Invest in full-time staff and dedicated support staff
- Identify struggling students and holistically troubleshoot student challenges
- Provide faculty-led individual or small group tutoring
- Use affirming language early to validate students as learners

Their Success is Our Success

The phrase "their success is our success" was repeated by numerous voices across multiple focus groups without prompting. Faculty and staff participants viewed their investment in teaching as directly tied to the academic and career success of their students. Although faculty were overall very aware of how their teaching tied into department learning outcomes or accreditation standard, the reciprocity implicit in "their success is our success" was more often linked to the applied knowledge and career skills accumulated by their students at graduation. A faculty member at BCTC captured the essence of investing in student success by describing his team-based approach. He explained:

> "I think one of the things that gets lost in the whole process of higher education is that every student is ...coming [to college] for a specific reason--they have a plan in mind; they have an outcome that they desire--and these are the stepping stones and the building blocks to them achieving what they want to achieve in life--whether it's for themselves or for their family or for both. And I think if you keep that in mind, as you go through the educational process, then the outcome is more ensured as long as the student is dedicated to that outcome as well. Right? So it has to be a team process."

Being attune to the background and the goals of students cued participants into an applied definition of student learning and success. For most participants who taught at the Associate or Certificate level, responsibilities recruiting and evaluating candidates for admission enabled them to learn about the interests and goals of their students (including open or selective admissions sites). One faculty member at SKCTC assigned a paper for students to tell him about their career goals. Faculty and staff followed up on this information by building their academic program to best prepare students for their careers.

Participants differed in how they articulated a shared commitment for student success. Several faculty embraced the philosophy of students-as-customers as applied to their efforts to activate student potential, yet several notable exceptions rejected this notion in favor of viewing students as their "products." In either case, there was broad agreement that the central role of faculty and staff is to actively and proactively help students succeed academically and in their careers. A faculty member from SKCTC described his commitment: "the students know that we're invested in them, that we are not just here to teach a class, but to actually see their success, because that's what I'm here for; that's [what] gets me up in the morning to see those kids and to see what happens in their lives." Participants teaching at every education level were aware of the importance of a postsecondary credential on the career opportunities for their graduates. Faculty sometimes used different vocabulary to describe their graduates, including terms as impersonal as "taxpayers" or as intimate as "providers for their family." Yet in each case they saw their work as a commitment to the career success of their graduates and applied whatever strategy they felt necessary to ensure that success.

- Foster a reputation for quality employees based on high expectations and guided support
- Integrate career and job search skills into formal training or course curricula
- Develop employability skills and model workplace professionalism

Foster a reputation for quality employees based on high expectations and guided support
All faculty and staff participants expressed pride in their programs, with a vocal subset emphasizing the importance of their programs rigor and reputation. Notably, participants also referred to their reputation from the perspective of potential employers for their graduates; rarely was their reputation described in comparison to other colleges. Faculty viewed a strong program reputation with employers as essential for ensuring the continued employability of their graduates. Faculty believed that employers will evaluate the qualifications of the next generation of students based on how today's students perform in their first jobs. As a result, faculty and staff consistently described strategies to prepare career-ready graduates.

Ensuring student success often meant holding students to high standards where they could demonstrate mastery of course content or career readiness. Maintaining these high standards included providing clear feedback when students failed to meet expectations as well as providing the necessary resources and support to help students learn and persist. A faculty member from NKU explained the dynamic of challenge and support as: "we're always thinking about... what our students need and how do we get them there and where do we fit? ...And then making sure they get there so that nobody messes up our reputation… I think that that is a big part of how we got them to be successful: sticks and carrots."

Several other faculty participants described the importance of a "stick"--more often referred to as student accountability for mastering content and professionalism. Numerous strategies for ensuring student accountability were described by faculty, and often these examples occurred during labs or experiential learning activities. One faculty recalled working with a student in a medical simulation lab where they refused to allow a student to turn to the side to collect themself emotionally, telling the student, "if you have a 98-year-old dementia patient, you can't turn your back and collect yourself. No, [because then] they fall off

the table [and] that's your responsibility." The professor hoped to instill the emotional intelligence and fortitude necessary to work in their profession. A faculty remember in a different medical program described removing a student from a clinical rotation based on negative feedback from the site director. As a potential employer to future graduates, the site director's needs were relevant to the program faculty, and a more compatible and educational clinical setting was found for the student. The same NKU faculty member described not allowing a student to present a capstone project to an alumni panel because the product failed to meet their standards. The most vivid and emotional examples were recalled by faculty, but they reflect an ongoing theme of holding students accountable to high standards for career readiness. A BCTC faculty tempered the occasional brusqueness of enforcing accountability, stating "at the end of the day, I don't expect anything from my students that the employer won't expect."

Maintaining high standards was an active process for faculty, and was never as simple as assigning a poor letter grade. Faculty were not content to let students fail. Again in the words of the NKU faculty member, the message to students was, "So you're gonna get an incomplete, [and] we're going to keep working on this." In every case, high expectations for students were followed by guided support. Several faculty members described grading systems that enabled students to resubmit assignments or retake tests where they underperformed--sometimes for the entire class. Faculty at WKCTC described implementing regular opportunities to provide personal and structured feedback to students. Even in the case of student departure, faculty and staff participants described a supportive, personalized, and career driven approach to advising. A faculty member from KSU described brainstorming alternative medical training programs for former students, introducing them to colleagues at the programs, and helping them with their application for admission. In each case, faculty participants understood that the ability of students to master those difficult lessons would enhance their employability and reflect more positively on the academic program as a whole.

Integrate career and job search skills into formal training or course curricula

Faculty and staff participants held the employability of their graduates as a top priority. As such, employability skills were integrated into course curricula and were adopted as key outcomes for graduates. A faculty member from SKCTC explained the priority placed on career development in the classroom: "We work really, really hard on putting our graduates to work…Not only are we teachers, we're counselors. Part of our job is job placement because that reflects back through our program. What is the purpose of a college program if your graduates don't go to work?"

Integrating employability skills was not limited to community colleges or trade programs. Across degree levels, faculty approached their courses with the objective of teaching content that enhanced employability. An NKU faculty member explained his approach as, "Can the students say that after this class, 'I advanced myself, I've made myself more marketable?'" A University of Kentucky faculty member described a five-pronged career pathway strategy that was developed by the academic program to enhance collaboration with other departments and narrow the career development focus of their students. Within the Political Science department at Western Kentucky University, faculty were attuned to the degree-related career paths that could be achieved with a Bachelor's degree (rather than pursuing graduate school or law school), while also encouraging students to integrate skills from other academic departments to enhance their employability.

A wide variety of career-ready skills were integrated into the curriculum by faculty participants within the common framework of enhancing employability. A faculty member at Spalding University described integrating career advising appointments, video and in-person mock interviews, and a career plan assignment into their course curriculum. A faculty member at BCTC described a "career prep day" hosted by their

program, and another BCTC faculty member taught a "professional skills class" in their program. Similar strategies and practices were shared by faculty and staff and multiple other academic programs. Notably, only three participants mentioned reaching out to a career services office. In two of those instances, the faculty described inviting staff from the career services office to present in their classroom. In the third instance, the faculty referred to a career services unit that was housed within their academic college and was attuned to the unique needs of their students. The absence of evidence on outreach to career centers despite the overwhelming importance of career preparedness suggests that URM and low-income students benefit when career skills are integrated into course content or taught by faculty and staff with expertise in the area of employment.

Develop employability skills and model workplace professionalism

In addition to career development and job search skills, faculty and staff participants were attuned to the professionalism and interpersonal competencies necessary in good employees. Sometimes referred to as "soft skills" by participants, these employability skills encompass a range of attitudes and behaviors that students demonstrate in the classroom and in the workplace. Ensuring students graduate with these employability skills was part of how faculty sought to ensure the success of their graduates. A BCTC faculty member distinguished between traditional course content and employability skills, explaining that mastering the course content will get students a job, but employability skills are "what's going to keep them employed--their ability to communicate professionally, to dress professionally, to speak professionally. So they need to have a whole circle of skills [in order] to complete." Several faculty, including professors at NKU and SKCTC, described integrating employability skill training after receiving feedback from local employers. Teaching these employability skills is another way faculty practiced a holistic concern for the success of their students.

The list of employability skills named by participants was numerous. Generally, the employability skills could be categorized as either, (a) concrete professional behaviors, or (b) interpersonal competencies. In either case, faculty and staff described a consistent approach to establishing expectations and providing meaningful feedback to students.

Employability skills were sometimes described as concrete workplace expectations. These faculty hoped to set classroom expectations that matched expectations students could expect in the workforce. Often, these concrete expectations were built into the curriculum: a professor at KSU described detailed expectations for professional communication via text or email in the class syllabus, and a professor at SKCTC described having students sign a professionalism agreement. A faculty member at JCTC described her persistence in maintaining these expectations, explaining "if I have a student that emails me and it's just terrible, I immediately go into that mode of, 'we need to work on your work communication skills, because this is imperative in the workforce.'" Faculty teaching in trade professions often emphasized the appropriate dress code needed for labs, such as long pants and closed-toed shoes. Appropriate use of personal protective equipment was also emphasized, including in a program at SKCTC where students are asked to recite daily commitments to safety standards at the beginning of each day. Abiding by these professionalism expectations was established by faculty as a prerequisite for participation in class. Far from creating disdain in students for the strictness with which these expectations were enforced, faculty believed that maintaining these standards engendered respect and trust--students understood that the requirements were designed to match future workforce expectations.

Participants described ways that they were persistent in collecting and delivering feedback to students on employability skills. Faculty at Morehead State University and University of the Cumberlands described

"disposition lists" that were used to evaluate students on employability skills. At Morehead State University, the attitudes and behaviors on their disposition assessment were used for both formal evaluation as well as ongoing informal feedback. Instructors used the disposition assessment to ask, "Is the student on time? Is the student prepared for class? Has the student done their homework?... Are they respectful of other cultures? Do they watch their language when out in public?" Several participants described collecting feedback from clinical sites on the employability skills of their students, and using that feedback to better prepare their students. Several others utilized self-assessments to bring attention to important skills and foster greater self-awareness.

Shared Practices
- Hold students accountable to workplace standards in experiential learning environments
- Be flexible with assignment deadlines when opportunities to promote mastery exist
- Host mock interviews as students near their final semester
- Teach resume and professional writing
- Design assignments to emphasise career-related knowledge and skills
- Collect evidence on student employability skills and provide regular meaningful feedback
- Provide career development education through the voice of faculty or industry veterans

Engagement With Employers

Faculty and staff participants from nearly every academic program contacted in this study described frequent interactions with potential employers. Building these relationships was often an intentional effort to expand career pathways for their students. Faculty with a background outside of academia frequently described how they leveraged their former professional network to connect students with career opportunities. Often, these conversations were initiated by employers in high-demand industries looking to recruit graduates. More senior faculty frequently described the power of their alumni network for opening career opportunities for new graduates. These faculty typically maintained an email list or a social networking group that allowed for ongoing engagement.

Relationships were equally effective as two-way partnerships where faculty sought employer engagement in the academic experience. A professor from NKU described the value of investing in partnerships with employers:

> *"Our involvement with the community is really to educate the employers. The common language that we usually hear from employers is [that] our students are not prepared for the labor market--which obviously I totally disagree with. What we've done is bring [employers] into the educational landscape; invite them to the presentations to see the investment that goes on. The more buy-in that they have, the more likely they are to see the value that the students bring to the classroom, and also recognize their responsibility in training and preparing new employees. The way I envision our community outreach is more awareness of what our students are actually doing in the classroom. What they're learning."*

Facilitating engagement with employers served to improve the reputation of the academic program with potential employers, and consequently improve the employability outcomes of graduates.

Many faculty also utilized relationships with employers to improve their program in some way. Responsiveness to employer feedback served to deepen the investment of employers in the educational process and provide an overall stronger curriculum.

- Leverage advisory boards to guide curriculum and create applied content
- Invite employers to campus to engage with students
- Maximize the potential of internships, clinical rotations, or supervised practice
- Provide built-in credentialing or sub-credentialing

Leverage advisory boards to guide curriculum and create applied content

Nine of the interview sites described formalized relationships with local employers through the creation of advisory boards. Advisory boards were discussed across degree levels and at both public and private institutions. For some programs, creating an advisory board was necessitated through a policy mandate, but many other programs described creating advisory boards to deepen engagement with employers and strengthen the academic program. UK even described a second advisory board comprised of faculty and staff partners. For academic programs that required clinical hours, maintaining an active and engaged advisory board was also an ethical imperative. A professor at the University of the Cumberlands made the point that, "Whereas we have students going into their buildings and we're asking them to open their doors and to allow for those experiences, we're also seeking their input actively and giving them a foothold in our own leadership and decision-making."

Although the pathways to employment opened through advisory boards were perhaps the most direct outcome of this type of employer engagement, participants described numerous other benefits that the program received. Several faculty described using employer feedback to adjust elements of the curriculum--NKU changed the statistical software they used to be more closely aligned to industry norms, and the University of the Cumberlands integrated advanced training on a learning management system used in primary education. Several participants, including professors from Murray State University and the University of Kentucky, described seeking feedback on curricular elements beyond the advisory board--even so far as to conduct reviews of course syllabi with employers. These proactive efforts sought to identify the skills and competencies needed by employers and seek feedback on the preparation of graduates already working in the field.

Several faculty highlighted ways that employers on advisory boards provide support for low-income students. A professor at SKCTC recalled that,

> "A lot of them support the programs in other ways, besides just being a member on our advisory board--buying equipment or donating equipment to the program, a lot of them put in place scholarships just for… low-income students…, a lot of them will hire them after a couple, two or three semesters and then... pay for the rest of their education while they're working for them. So these employers, they invest a lot into the college with those scholarships and those other resources to help us get those low-income students through this program."

Not only do strong career pathways provide great opportunities for low-income student postgraduate student success, but also tangible benefits from employers that provide resources and incentive for students to persist.

Invite employers to campus to engage with students

Engagement with employers was not limited to interactions with faculty. Many participants described strategic ways that employers were invited onto campus or into the classroom to engage with students directly.

Potential employers provided expertise based on experience in the workforce that faculty participants believed strengthened the quality of course content as well as made the content appear more relevant to students. A faculty members at SKCTC explained his strategy for engaging students:

> "Sometimes when you're teaching students something, they don't really understand [the relevance], especially in a prerequisite course. [Students ask]: 'where am I ever going to use this, what do I need this for, I don't see the purpose in learning this.' But if you bring an employer in and they reinforce what you're showing them and show them how they're going to use it on the job site, it really helps out a whole lot."

Several faculty participants described using guest instructors to help make course content relevant. Several other participants described inviting faculty to campus to help evaluate student presentations and provide feedback to students. On at least a few occasions, faculty described employment opportunities emerging directly from these presentations.

Faculty that were intentional about teaching career and job search skills often relied on the perspectives of local employers and alumni. Faculty described having solicited employers to conduct mock interviews, advise on resume writing, and explain workplace culture. These training opportunities were described as taking place on campus or in the classroom where content was integrated into broader career development for workforce readiness.

Maximize the potential of internships, clinical rotations, or supervised practice
The high frequency of medical and education academic programs identified in the study correlated with a high proportion of participants that described degree requirements for clinical rotations or student teaching. However, experiential and hands-on learning experiences were not limited to medical and education programs. Nearly every participant described efforts to introduce students to contexts where they could apply course content and build workplace skills. Trade and medical programs utilized labs to provide hands-on instruction, and several programs brought in employers to reinforce course material. Several bachelor-level programs required internships and provided an accompanying course for academic credit where students honed workplace skills.

In cases where clinical hours were a mandated component of a credential, participants were quick to point out ways that their requirements went above the baseline requirement or were otherwise customized in a way that provided greater opportunities for student learning. Faculty described raising expectations by increasing the overall number of hours, providing a tiered system that gradually increased student exposure and competency, or working with employers to ensure a more hands-on experience for their students.

Clinical experiences were embedded with feedback loops that helped ensure a high-quality learning environment. Faculty often described close working relationships with clinical sites, and often the clinical site supervisors were alumni of the academic program. Two professors at WKCTC described visiting each student at their clinical site every semester as a way to identify student learning needs and better understand the workplace environment. A faculty member from an education program and a faculty member from a business program each described assignments within clinical rotations or internships where students were tasked with a leadership project. Presenting and receiving feedback on their work from potential employers served to strengthen the workforce readiness of students.

Perhaps the strongest theme related to experiential learning opportunities was its relevance to employment opportunities for graduates. Participants observed their students getting hired by the sites where they completed internships or clinical rotations. As a result, faculty were intentional about setting up students to

succeed and make the best possible impression. A professor from the University of the Cumberlands recited her message to students:

> "We remind the candidates that the clinical hours and their student teaching are all part of a job interview, that people are looking at them, they're watching how they behave--how they interact professionally, they're watching their skillset, they're watching their work ethic, their compassion for the students. And even if they don't have a job open for the student, they would be able to give a reference or recommendation to a school where there is a job opening."

Purposeful hands-on experience in the workplace, coupled with a strong relationship rapport and relationship between faculty and employers, serves to create direct career pathways that fostered success of low-income and URM students.

Provide built-in credentialing or sub-credentialing

Several participants described creating program changes that integrated sub-credentials or certifications within the program design. For trade programs at the associate level, this included government licenses that could be earned or partially earned through the degree program. These faculty were often strategic about integrating some of the credentials within the first one or two semesters, thereby providing an immediate deliverable to students that would immediately enhance their employability and demonstrate an incentive to persist. Faculty at all levels were aware of the advantages and disadvantages of pursuing a more advanced degree in their field, and sometimes faculty made curricular decisions to facilitate that pathway for interested students. Even in academic disciplines not traditionally associated with licensures, faculty sought out national exams or industry certificates that could enhance the employability of their graduates, describing them as attractive items to differentiate their graduates' resumes.

Shared Practices

- Establish and advisory board with employers, students, and other stakeholders
- Collect feedback from employers on the workforce readiness of graduates
- Collect feedback from employers on their workforce needs
- Include employers in decision-making processes to strengthen course curricula
- Invite employers into the classroom to teach course content
- Maintain communication with alumni through social networking or on-campus events
- Design experiential learning opportunities to maximize mastery of applied skills
- Design assignments for students to demonstrate leadership and critical thinking to employers
- Provide value-added credentials and licenses to distinguish graduates to employers

Awareness of Unique Student Needs and Adapt to Shifting Concerns

Despite being identified as academic programs that support early career success for low-income and URM students, there was not a uniform or intentional approach described by faculty to meet the needs of these groups. In part because many faculty did not have access to student financial records, faculty could not provide any targeted support or instruction unless a student self-identified their background. As pertaining to the programs graduating high-achieving URM students, URM-identified students often comprised just a small portion of their overall population. Providing customized interventions to a relatively small number of students was not feasible for many participants.

Irrespective of whether participants expressed explicit interventions for URM and low-income students, narratives collected from interviews revealed a high-level of awareness of the unique experiences and needs of URM and low-income students. Many faculty displayed an intricate knowledge of the multiple sources of

financial aid utilized by their students. Participants also expressed value for the diverse voices and perspectives that could be heard in their classrooms. The common theme emerging from these narratives was an awareness and appreciation for unique student needs and a willingness to adapt to provide a stronger student experience.

The actions of participants embodied the practice of "meeting students where they are." Faculty universally accepted students as individuals, and many faculty went out of their way to praise the resilience of their students. Even one of the faculty participants in a highly-selective and rigorous academic program hinted at the type of attitude necessary to welcome students authentically as learners. They recalled a particularly poignant conversation where, "I had one graduate one time say, 'I haven't told anybody this, but I couldn't read and write very well when I started.' And now she says, I know you're not a reading and writing teacher, but thanks to the program and everything, I have come a long way that way.'" Another faculty member teaching in a trade program explained, "I'm literally teaching what screwdrivers are. That was a big thing for me, realizing the things that you think everybody knows. [Just] because everyone you know knew that at a young age doesn't mean that everyone knows [today]." Faculty described an unwavering commitment to student success such that they either intentionally ignored or chose to overcome any societal or economic barriers hindering the success of their students.

The ability for some participants to relate to the unique challenges of underrepresented and low-income students may be partially due to their shared experience as first-generation students. Twelve participants explicitly mentioned their experience as a low-income or first-generation student, despite this not being directly asked as an interview prompt. Several of these participants shared ways that they shared their personal background with students. A faculty member from the University of the Cumberlands shared that, "I always start one of my classes with a picture of the house I grew up in--which you could just look at it and tell there was extreme poverty--and then talk to them about my experiences, how a teacher changed my life and things like that." Other faculty described connecting with students to highlight the opportunity college can provide and to "push students to better themselves."

- Become an expert of financial aid and unique financial considerations of your students
- Investigate student learning and success; become the expert
- Revise and update curricula and program design

Become an expert of financial aid and unique financial considerations of your students
Most of the participants in the study demonstrated a high degree of awareness of the financial commitment required for their program and the opportunities for students to access financial aid. Not only were FAFSA application deadlines and scholarship opportunities articulated, but also faculty were aware of other local funding pipelines for students. Faculty at BCTC and HCC described a close relationship with their Workforce Investment Board and other agencies and nonprofits that could provide tuition and financial assistance to unemployed or low-income potential students.

Faculty also cited awareness and concern for the per-credit cost of tuition alongside added fees, books, and materials costs. Several faculty teaching in trade programs described intentionally placing course materials--including things like tools, uniforms, and gloves--on class syllabi so that unemployment benefits could cover some of the costs. One program partnered with a local tool shop to allow students to rent or buy necessary tools at a discounted rate, and a WKCTC faculty member described working with students to coordinate a fundraiser that would provide funding for medical board examination fees. A faculty member at the University of the Cumberlands contributed to a University partnership with a local department store

where the store closed down for a day and allowed low-income students to purchase professional attire for interviews at a 60% discount. Participants from three different programs described efforts to address food insecurity for their students beyond campus-wide initiatives. Efforts ranged from a formal food pantry to a refrigerator in the department lounge that was kept stocked with food. Multiple programs coordinated efforts to make test-prep books and laptops available to students, and several other programs helped coordinate public transit or carpooling to clinic sites for students without a license or a vehicle. In each case of addressing student financial needs, faculty described the work as consistent with the responsibilities of their work. Addressing unique student needs was just one more way that participants supported students and worked to ensure their success.

Investigate student learning and success; become the expert
A relatively high number of participants explained their programs in ways indicative of a fluency in student success literature. Several faculty referred to their work through the lens of adopting high-impact practices and experiential education programs. Notably, much of this expertise was articulated by participants teaching in disciplines other than education, and participants sometimes undervalued their competency, explaining that, "I've never taken a class called 'student metrics theories'. [Success theory] is not organized in my brain that way, although I guess that's what it is." Often, the information was collected over time or by necessity when faculty sought evidence to improve a specific dimension of their program. Several faculty participants cited experience with university committees on issues tied to student success, or otherwise through institutional accreditation and quality enhancement plan responsibilities. In two cases, academic programs employed staff with Master's degrees in higher education or student affairs that served to embed student success principles into the program.

Equally impressive was the number of participants that described writing grants, presenting research, and publishing articles related to pedagogy and student success themes. A faculty participant at UK authored and received significant grant funding to develop experiential learning programs accessible to URM students. Several faculty, including those at community colleges, referenced engagement with national associations on teaching within their discipline that included presenting at conferences and publishing research on student learning. Two faculty participants at NKU even utilized an experimental research design to investigate and publish a teaching pedagogy that could train more career-ready graduates. The time and effort participants invested to better support their students indicates a deep commitment to student success. Participants showed awareness of ways that the status quo was not meeting student needs, and they investigated and applied methods that improved student outcomes.

Revise and update curricula and program design
Eight academic programs interviewed for the study described either a significant program redesign in the last ten yours or otherwise an ongoing process of improvement. A faculty member at NKU described the thinking driving continuous improvement:

> "We continuously try to improve it. We try not to let it be stagnant. We're always thinking about it as a group. What is our students' need and how do we get them there and where do we fit? How do we build our program? Not just a class, but how do we build up the whole sequence of courses that they take to get them where we want them to be."

Participants described these changes as seeking to address shifting student needs and stay current with emerging trends in the workforce. Faculty at all credential levels were aware of shifting technology--ranging from education learning management software to integrated electronics in HVAC systems--and they viewed providing dedicated training for new technologies as enhancing the employability of their graduates. Participants from five different programs described new initiatives aimed at increasing mentorship for

students. A faculty member at SKCTC described adjusting course sequences and faculty assignments to ensure all faculty could build relationships with students from the beginning through the completion of the program, and a faculty member at KSU described implementing a mentorship program where faculty would be expected to connect individually with five students on a weekly basis. Revisiting pedagogy and advising through the lens of today's student and their unique needs helped participants ensure that students were gaining the knowledge and competencies to succeed.

Shared Practices
- Avoid labeling students as underprepared and instead apply individualized support
- Seek out and demonstrate appreciation for diverse perspectives in the classroom
- Hire faculty with diverse backgrounds and experiences
- Educate students on multiple sources of financial aid and the advantages and disadvantages of each
- Identify funded pathways for postsecondary enrollment and build partnerships with local agencies to recruit students
- Diagnose financial barriers to degree completion and develop cost-saving options
- Seek out theories and best practices on student success pertaining to the unique needs of your students, or research best practices within your program
- Collect feedback from students and employers to identify potential changes to academic programs, and engage constituents in the redesign process.

Guide underrepresented students into high-demand occupations

Nearly every participant in the study was aware of a high-demand in the workforce for graduates of their program. Many faculty described receiving regular outreach from recruiters and employers that need to hire. In some cases, the demand for trade jobs created an issue for student retention where an employer would view a student as qualified for employment before completion of the program.

The presence of so many high-demand occupations from the quantitative analysis indicates that URM and low-income students are more likely to receive equitable wages where demand for employees is high. Indeed, results from the EMSI analysis indicates that low-income and URM graduates from major groups that include these high-achieving programs have estimated average wages near or exceeding their peers (see Figures 15-18 and Tables 1-2). The structural foundations for inequity appear most likely to be reproduced in occupations where resources are scarce. In these contexts, more affluent cultural natives maintain an advantage over URM and low-income graduates in accessing high-paying jobs. In contrast, URM and low-income graduates entering into high-demand occupations appear more likely to overcome structural barriers and more likely to access high-paying jobs. In the latter case, postsecondary education provides the decisive gateway for URM and low-income students.

Although a diverse workforce is needed in all occupations, evidence on early career earnings indicates that students choosing high-demand career paths are more likely to achieve an equitable outcome. Moreover, the persistence of inequitable lifetime earnings for URM graduates across degree levels threatens the value-proposition of postsecondary education for underrepresented groups (CPE, 2021). As such, guiding underrepresented students into education programs with pipelines to high-demand occupations provides a direct strategy for reducing inequality in postsecondary institutions and in the workforce.

Section 3:

CAEL STUDENT VOICE ANALYSIS, THEMES, AND RECOMMENDATIONS

CAEL worked with Emsi to assess LMI data in Kentucky to conduct qualitative research and analysis about URM and low-income status students and their employers by conducting focus group discussions and interviews with former students and institution leaders based on a quantitative analysis determining institutions which have closed wage gaps for URM and low-income status students. The focus of the discussions were anchored on the experiences of URM and low-income status students and include the following insights:

- How do students from successful academic programs characterize the undergraduate and early career experiences in contributing to their success?
- In what ways do the experiences of students from unsuccessful academic programs differ from students from successful academic programs during their undergraduate or early career?
- What, if any, programmatic interventions by colleges or employers aided or hindered the undergraduate to early career transition in a way that contributed to positive employment outcomes?
- What social support or frameworks may be necessary to ensure early career success?

CAEL collected and combined feedback with Emsi data to identify common themes and develop recommendations for implementation of diversity campaigns and worked to refine findings for various target audiences through the lens of higher education, economic development, and workforce. **See Appendix D**.

Issue 1: Financial Literacy/Awareness of Students

A common theme arising from the focus groups is a feeling that they lacked a true understanding of the student loan process and how their educational activities related to debt. One student described a "shocked feeling" when, upon graduating, the bills for his student loans began to arrive;he realized his living situation and location were not exactly tenable and he could not afford to live and pay down his debt with his current job. Another student described a similar situation in which he completed an initial course of study only to end up living with his father to make ends meet. He later re-enrolled in another program and completed the program with financial aid and support from his family. A third student described financial literacy/awareness as the greatest opportunity of the university system, stating that many students do not understand the debt they are taking on until they are responsible for paying it, and by then it is often too late.

The abundance of financial aid is a tremendous success for many students who lack the support and/or the financial ability to attend college. A communicated downside to financial aid is the lack of understanding of how the student loan process works and how students will be affected by debt upon graduating from their course of study. Students communicated a sense of "shock", or surprise, regarding the effects of their student loan payments on their income and ability to take home sustainable wages. Specifically, one student mentioned his inability to sustain a suitable lifestyle and maintain the job offered to him as a promotion upon graduation once he realized that his student loan debt payment and other expenses left him without much room for anything else.

CAEL Recommendations:

- Consider increased or enhanced financial options and financial literacy programming, specifically targeted toward returning, new and first generation students. Examples include:
  - **Assist students in locating information about scholarships for which they are eligible**. Much of the financial burden to students relates to student loan debt and its impact both during and after college. Reducing the amount of debt a student incurs is a tried and true method to help offset the impact of this barrier to student success. Scholarship eligibility for students is often unclear and a student may be confused and overwhelmed by scholarship options. Recommend building a filter into any scholarship list that allows students to recognize which scholarships they may qualify for (first generation, returning, minority, adult learner, full-time, part-time, etc.). Market scholarships and key deadlines to these same student groups, with ample time for students to take advantage of these opportunities. Ensure instructors and advisors also promote scholarships as faculty and staff play a critical role in student support and persistence.

  - **Provide easy and convenient access to financial aid processes and advisors.** Clarity around financial aid options helps students leverage available financial assistance. Without financial literacy and student-friendly assistance, students may stop out for avoidable reasons related to affordability. Ensure communication to students includes financial aid deadlines, scholarship options, and funding models that can help support tuition and fees for offerings that attract them to your institutions. Post key deadlines to the website and student-facing social media. Hold financial aid workshops at flexible times and over video technology. A single point-of-contact for financial assistance is recommended.

  - **Build and promote employer partnerships and assist students to process employer tuition reimbursement claims**. Partnerships with employers provide expanded networks and employment/skill building opportunities for students. These employer partners can provide valuable insight to institutions as they develop curriculum and programming to prepare students for professional careers after college and provide potential direct pathways to employment. Employers who provide tuition assistance also reduce the financial burden students incur.

Issue 2: Career Counseling Gap

Students discussed a gap in received, or perceived, career services offered through their institution. One student did not feel he fit in with the type of student or job seeker that the career services department was interested in serving. He found that external networking events and connections served him better in his job search. He believed the school had an idealistic student or career path to send graduates down and he did not fit the mold. Another student discussed that the main push was to pursue his entrepreneurial track, which resulted in a focus on discovering the next big idea (or that is how he felt) but was not focused on how to sustain a venture or provide for oneself. He ended up taking a job in sales that led him down his current career path. Career services did not seem to be an option for the students. Another graduate did not feel that services offered were appropriate for students with more clearly defined pathways, such as prospective law students attending law school upon graduation. The same law student also discussed a lack of understanding

of the career possibilities and educational tracks for law students, for example a law school student could pursue a doctorate in law and teach rather than a J.D. and practice.

Each institution has an established career services office with a mission to promote and further the professional careers of its recent graduates. Not every graduate student felt the career services office was able or ready to help them and believed they fell outside of the scope of the office. It is possible that the students were not fully aware of the services offered or the goal of the office. An example of a proposed lack of communication as to career services opportunities is the student with a lack of knowledge of services available for that individual due to their course of study and then also describe a lack of awareness for career paths associated with their course of study.

CAEL Recommendations:

- **Encourage all students to engage with career services early in their program of study.** Early engagement with a career advisor helps all students make decisions regarding courses, programs of study, and experiential learning opportunities that set them up for post-academic success. Incorporate career advising into orientation modules and encourage all advisors to explore career opportunities with all students regardless of program, direction, or academic level. Market career advising as a service that helps students identify prospective careers, whether they are entering the workforce for the first time, reentering, or changing/advancing careers. Encourage connections with career advising and services early and often. Provide information regarding local job opportunities in a student's chosen field. Incorporate connections to career advising in the classroom by creating collaborative opportunities between faculty and career services staff.
- **Provide and encourage regular contact with an assigned mentor or advisor.** Students benefit from advising and mentoring to learn strategies for overcoming barriers to success in higher education. These barriers may be personal or structural. This is particularly important for students who may not have the support structures in place outside of the institution. Access to advisors or mentors can provide opportunities to develop trusted connections on campus. These connections can lead to referrals to appropriate support systems. Encourage advisors to proactively meet with all students at regular intervals throughout their college careers. By dispelling the myth that advising exists simply as a step in the course registration process, advisors can fill a needed mentorship role for students.
- **Integrate life and career planning activities into a student's program of study.** Integrating life and career planning activities both inside the classroom and out provides balanced support for students to achieve their career goals. It creates a culture of shared responsibility for guiding students from college to career. Career-oriented classroom activities, such as a job analysis or guest lecture from a working professional in the field of study, invite both career planning and reflection. These activities encourage all students to consider their futures and the resources needed to reach their career goals.
- **Provide students information regarding jobs in their chosen field.** Access to local job and labor market information helps students understand career demand and job placement opportunities in their chosen field of study. It also provides valuable insight that can guide career readiness. Include local and national labor market information in online tools and information for students in admissions, marketing, program, and career service areas. Develop and market, early and often, online assessment tools for enrolled students to use to link skills, interest, and experience with career goals. Provide students with salary or job prospect information upon program completion. Career staff can provide coaching for career planning, which includes alternative options if initial plans do not develop.

Issue 3: Networking

Networking opportunities and options were a consistent theme for the students. They believed that their institutions did not provide access to or create the most beneficial networks for graduates. One student described that he felt on his own to develop a network and pursue a career. After leaving his first job post-graduation, he began building a network with some fellow graduates on LinkedIn in another metro-area which eventually provided a job lead. Another student described networking in his program as a highly promoted activity, but very focused on entrepreneurship. He eventually found a job in sales through the student job board and has now transitioned to another career opportunity, but he is not an entrepreneur. Another student described her experience in networking as self-driven and community-driven: she developed her own networks with others as a part of her social groups and through her own relationships with professors. She found networking to be easy and a key part of her social groups through greek life - greek life events had an element of networking to them. She found others outside of greek life to have a difficult time with networking. She also discovered her next opportunity through a networking relationship built with her professor.

Students mentioned a general struggle with networking and a lack of an overall strategy or access to networking for career opportunities. This lack of opportunity and lack of fit mentioned by some students could be due to a lack of communication or a student feeling that they were not a target or priority for the office of career services.

CAEL Recommendations:

- **Provide accessible opportunities for internships with employers.** Internships provide opportunities for students to put their learning into practice and provide experience that can be helpful as they pursue career opportunities. Facilitate program networking opportunities with students, alumni, and employers. Networking opportunities should include internship focused events. Create, grow, and promote employer partnerships to students through program career liaisons, classroom/program resources, and on institution and employer marketing.
- **Provide students with accessible opportunities for informational interviews with employers in their field of study.** Students may be unsure of their exact career interests and opportunities, including where they would like to work and how to successfully interview for a job in their field of study. Employer partnerships can help students identify career goals, skills, and provide current, real-world, career information that can help students choose the right program to meet their career goals.Consider augmenting your career services with program career liaisons. Develop and market online assessment tools where students can link their skills, interests, and experience with career opportunities. Include opportunities for all students to develop portfolios, build resumes/CVs, and access informational interviews. Guest lectures, networking events, and career fairs offered at flexible times and through multiple modes provide additional access to employers.
- **Provide students with accessible opportunities for networking with alumni.** Networking provides opportunities for students to develop relationships and connections that can help open up opportunities to advance their careers.Networking opportunities should include alumni or alumni focused events. Alumni can provide direct links and referrals to an institution's graduates, beyond the reach of campus career centers.
- **Provide networking and personal brand development opportunities which include how to leverage those networks both during and after college.**

Issue 4: Social Groups

The students described how their social groups provided guidance and opportunity for their careers and advancement post-graduation. Several of the opportunities accessed by the students derived from social organizations or focused, "major" based activities. In some cases, the opportunities for financial support during school came from personal or group connections. The development of networking skills and other unique opportunities came from social organizations. Later, access to job leads came from unique relationships rather than institution sponsored events or groups.

An opportunity exists to educate students on networking and how opportunities are truly developed. Institutions can provide a job board and services but cannot offer a unique and "inside" experience to each student seeking services for every job. For example, if there are 500 students seeking a sales position and only one opening on the job board, an advisor cannot promote all 500 individuals for that role. Institutions have an opportunity to promote personal networking through unique social groups as a means to fulfilling access to opportunity. One student mentioned that true, unique opportunities began to surface as he became involved in a minority serving group on campus. Institutions could look for opportunities to support minority serving groups in order to provide access to networking opportunities for students who may not join other social groups.

CAEL Recommendations:

- **Encourage student learning communities, which include those both within and outside of the institution.** Establishing social relationships promotes student engagement with their learning and career planning. These help to enhance the classroom experience and build a learning support network for students. These social relationships also serve as personal career pathway connectors once students leave the institution. Beginning with student welcome/orientation, encourage student learning communities. Emphasize that students will learn from each other and expand the course content and overall learning experience.
- **Consider student and community organizations that provide networking opportunities**. Special attention should be given to minority and other underserved student populations who may benefit from assistance in connecting with these learning communities. Emphasize the importance of building networks for all students, and ensure your students benefit from the social networks that emerge through academic pathways.

Issue 5: Cultural Diversity on Campus

Colleges and universities that recognize the importance of diversity in and out of the classroom —from residential life to cultural events—give all students a richer experience. (Shorelight) A University of Michigan study showed that educational interactions among racially and ethnically diverse groups resulted in positive learning outcomes, such as students feeling more engaged in class and motivated to study. They also showed that students who attended culturally diverse colleges and universities had strong critical thinking, problem solving, and writing skills. (Gurin et al. #)

Institutional Recommendations from U.S. Department of Education:

According to a 2016 report by the U.S. Department of Education, Office of Planning, Evaluation and Policy Development, to provide equitable, valuable experiences to students of color and low-income students — as well as other underrepresented populations -- colleges and universities must implement practices designed to meet the needs of their campuses. The report sheds light on the following areas of focus meant encompass practices that research suggests can help advance diversity and inclusion on college campuses:

- **Institutional Commitment to Promoting Student Body Diversity and Inclusion on Campus.** Research shows that colleges and universities seeking to promote campus diversity identify how diversity relates to their core institutional mission and the unique circumstances of the institution. For example, mission statements and strategic plans that promote student body diversity and inclusion on campus establish priorities that can, in turn, lead institutions to allocate the necessary funds and resources for those purposes. Institutions are encouraged to consider building their capacity to collect and analyze the data required to set and track their diversity and inclusion goals.

- **Diversity Across All Levels of an Institution.** Research shows that campus leadership, including a diverse faculty, plays an important role in achieving inclusive institutions. For example, faculty members' curricular decisions and pedagogy, including their individual interactions with students can foster inclusive climates. Also, students report that it is important for them to see themselves reflected in the faculty and curriculum to which they are exposed to create a sense of belonging and inclusiveness.

- **Outreach and Recruitment of Prospective Students.** Institutions committed to student body diversity can take steps to improve outreach and recruitment to a diverse array of students. For instance, institutions often work to proactively develop relationships and provide support to the elementary and secondary schools that are located within communities surrounding the institution. Some strategies supported by research include comprehensive and ongoing support from administrators and peers; peer advising provided by similarly aged students; targeted support for critical steps such as completion of the Free Application for Federal Student Aid (FAFSA) and test prep; and exposure for students to college-level work while they are in high school.

- **Support Services for Students**. In general, student support services are associated with improved academic outcomes, including after students' first years in college. Well-designed course placement strategies mitigate the time students spend in remedial education without making progress toward a credential. Individualized mentoring and coaching can increase the odds that students remain enrolled in school. First-year experience programs, such as summer bridge programs that support incoming students, can improve academic achievement and credit-earning.

- **Inclusive Campus Climate.** Students report less discrimination and bias at institutions where they perceive a stronger institutional commitment to diversity. Institutions are encouraged to develop and facilitate programming to increase the cultural competency of leadership, faculty, staff, and students. Institutions are also encouraged to perform an assessment of their campus climate related to diversity in order to identify areas for improvement. Many institutions include cultural competency training in new student orientation and require that students take coursework in diversity as freshmen. Cultural and socio-emotional support systems like personal mentoring and counseling can help all students to thrive on campus and are important for students who do not comprise a racial or ethnic majority. Institutional leaders create support systems individualized to students' needs that are highly visible and accessible, and engage students in the decision-making process regarding campus

climate. Successful institutions also make financial support available to close the need gap for economically disadvantaged students. (Office of Planning, Evaluation and Policy Development, Office of the Under Secretary, U.S. Department of Education)

References

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*, 297-308.

Becker, G. S. (1993). Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education. University of Chicago Press: Chicago, IL.

Council on Postsecondary Education (CPE). (2021). Earnings Gaps Based on Race/Ethnicity and Education Level. Kentucky Council on Postsecondary Education. https://cpe.ky.gov/data/reports/earningsbrief-3.pdf

Glasmeier, Amy K. Living Wage Calculator. 2020. Massachusetts Institute of Technology. livingwage.mit.edu.

Gurin, P., et al. "Diversity and Higher Education: Theory and Impact on Educational Outcomes." Harvard Education Review, vol. 72, no. 3, 2002, pp. 330-363. Diversity and Higher Education: Theory and Impact on Educational Outcomes, https://igr.umich.edu/files/igr/Diversity%20and%20Higher%20Education.pdf.

Holland, J. L. (1959). A theory of vocational choice. *Journal of Counseling Psychology, 6*(1), 35–45. https://doi.org/10.1037/h0040767

Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Washington, DC: Association of American Colleges and Universities.

Mincer, J. (1958). Investment in Human Capital and Personal Income Distribution. *Journal of Political Economy 66*, 281–302.

Office of Planning, Evaluation and Policy Development, Office of the Under Secretary, U.S. Department of Education. (2016). Advancing Diversity and Inclusion in Higher Education. U.S. Department of Education, https://www2.ed.gov/rschstat/research/pubs/advancing-diversity-inclusion.pdf.

Polachek, Solomon W. (2008). Earnings Over the Lifecycle: The Mincer Earnings Function and its Applications. *Foundations and Trends in Microeconomics, 4*, 165-272.

Shorelight. (2021). Why Is Cultural Diversity Important for Colleges and Universities? *Shorelight*. https://shorelight.com/student-stories/why-is-cultural-diversity-important-for-colleges-and-universities/

Steele, C. M. & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69,* 797–811. doi:10.1037/0022-3514.69.5.797.

Wolniak, G. C. & Engberg, M. E. (2015). The Influence of "High-Impact" College Experiences on Early Career Outcomes. Paper presented at the AERA Annual Meeting, April 2015, Chicago, IL. Retrieved from https://www.aera.net/Newsroom/Recent-AERA-Research/The-Influence-of-High-Impact-College-Experiences-on-Early-Career-Outcomes

ANALYSIS ON UNDERREPRESENTED MINORITY AND LOW-INCOME STATUS STUDENTS IN KENTUCKY

APPENDIX A: Technical Definitions

Underrepresented minority (URM) includes Black, American Indian or Alaskan Native, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, and two or more races from the following categories: Nonresident Alien; Black, Non-Hispanic Only; American Indian or Alaskan Native, Non-Hispanic Only; Asian, Non-Hispanic Only; Hispanic or Latino, regardless of race; White, Non-Hispanic Only; Race and Ethnicity Unknown; Two or More Races; and Native Hawaiian or Other Pacific Islander, Non-Hispanic Only.

Low-income includes postsecondary students that received a Federal Pell Grant award in one or more semesters during their enrollment at the Certificate/Diploma, Associate, or Baccalaureate level.

APPENDIX B: CLASSIFICATION OF ACADEMIC MAJORS INTO MAJOR GROUPS

Major Group	2-Digit CIP Code	2-Digit CIP Family Title
Arts & Humanities	05	Area, Ethnic, Cultural, Gender, & Group Studies
	16	Foreign Languages, Literatures, & Linguistics
	23	English Language & Literature/Letters
	24	Liberal Arts & Sciences, General Studies & Humanities
	30	Multi/Interdisciplinary Studies
	38	Philosophy & Religious Studies
	39	Theology & Religious Vocations
	50	Visual & Performing Arts
	54	History
Business & Communication	09 10 52	Communication, Journalism, & Related Programs Communications Technologies/Technicians & Support Services Business, Management, Marketing, & Related Support Services
Education	13	Education
Health	51	Health Professions & Related Programs
Social & Behavioral Sciences & Human Services	19	Family & Consumer Sciences/Human Sciences
	22	Legal Professions & Studies
	25	Library Science
	31	Parks, Recreation, Leisure, & Fitness Studies
	42	Psychology
	44	Public Administration & Social Service Professions
	45	Social Sciences

STEM	01	Agriculture, Agriculture Operations, & Related Sciences
	03	Natural Resources & Conservation
	04	Architecture & Related Services
	11	Computer & Information Sciences & Support Services
	14	Engineering
	15	Engineering Technologies & Engineering-related Fields
	26	Biological & Biomedical Sciences
	27	Mathematics & Statistics
	28	Military Science, Leadership & Operational Art
	40	Physical Sciences
	41	Science Technologies/Technicians
Trades	12	Personal & Culinary Services
	33	Citizenship Activities
	43	Homeland Security, Law Enforcement, Firefighting & Related Protective Services
	46	Construction Trades
	47	Mechanic & Repair Technologies/Technicians
	48	Precision Production
	49	Transportation & Materials Moving

Figures 15-16 frequencies

Major Group	Total	URM	Non-URM	Pell	Non-Pell
Arts & Humanities	14,534	1,826	12,708	5,827	8,707
Business & Comm.	31,385	3,677	27,708	10,005	21,380
Education	3,956	514	3,442	1,415	2,541
Health	6,355	661	5,694	2,162	4,193
Social & Behavior Sciences & Human Services	16,881	2,665	14,216	6,183	10,698
STEM	19,781	1,662	18,119	6,745	13,036
Trades	2,922	411	2,511	1,273	1,649

Figure 17, Table 1 frequencies

Major Group	Total	URM	Non-URM	Pell	Non-Pell
Arts & Humanities	2,199	277	1,922	1,382	817
Business & Comm.	3,724	354	3,370	2,717	1,007
Education	31	2	29	14	17
Health	3,166	290	2,876	2,248	918
Social & Behavior Sciences & Human Services	301	52	249	219	82
STEM	3,474	323	3,151	2,229	1245
Trades	3,331	281	3,050	2,087	1244

Figure 18, Table 2 frequencies

Major Group	Total	URM	Non-URM	Pell	Non-Pell
Arts & Humanities	21	4	17	8	13
Business & Comm.	336	53	283	228	108
Education	3	1	2	0	3
Health	583	77	506	370	213
Social & Behavior Sciences & Human Services	92	12	80	49	43
STEM	407	59	348	240	167
Trades	857	72	785	513	344

APPENDIX C: EMSI QUALITATIVE ANALYSIS FIGURES

Figure 2 data: This table represents that across all jobs across all award levels in Kentucky, 14% of workers are URM. This provides an average that can be used in later figures.

Group	Jobs	% Jobs
Non-URM	1,808,284	86%
URM	299,430	14%
Total	2,107,714	100%
Jobs in Kentucky		N = 2.1M

Figure 3 data: This figure is a summary of URM vs non-URM completions (see definition above for how we classified URM). Overall, 15% of completions across all programs are URM. The 15% is used as the average in later figures – in other words, to compare whether a particular program/major group has above or below average URM completers. Note that this excludes 2,784 completers who were "nonresidents".

Group Status	Total	%
Non-URM	65,989	85%
URM	12,006	15%
nonresidents	2,784	
	77,995	Excludes 2,784 nonresidents

Figure 5 data:

Award	Jobs	% Jobs	Awd. for Label
No formal educational credential	519,156	25%	No formal credential
High school diploma or equivalent	891,974	42%	HS/GED
Postsecondary nondegree award	146,241	7%	Cert.

Some college, no degree	48,439	2%	Some college, no degree
Associate's degree	42,322	2%	Assoc.
Bachelor's degree	386,550	18%	Bach.
Master's degree	29,689	1%	Mast.
Doctoral or professional degree	43,342	2%	PhD/Prof.
Total	2,107,714	100%	
	N = 2.1M		

Figure 6 data: This figure focuses on occupations that list a bachelor's degree level of education as the typical entry level of education. For those specific occupations, we show that 9% of workers are URM.

Group	Bach. Jobs	% Bach. Jobs
Non-URM	351,796	91%
URM	34,755	9%
Total	386,550	100%
Bach. Jobs in Kentucky		N = 387K

Figure 7 data This figure is similar to the Figure 6 data, except it focuses on occupations that list an associate degree as the typical entry level of education. For those specific occupations, we show that 10% of workers are URM.

Group	Assoc. Jobs	% Assoc. Jobs
Non-URM	38,108	90%
URM	4,214	10%
Total	42,322	100%
Assoc. Jobs in Kentucky		N = 42K

Figure 8 data: This figure is similar to the Figure 6 data, except it focuses on occupations that list some college, no degree (our proxy for certificate) as the typical entry level of education. For those specific occupations, we show that 15% of workers are URM.

Group	Cert. Jobs	% Cert. Jobs
Non-URM	124,658	85%
URM	21,583	15%
Total	146,241	100%
Cert. Jobs in Kentucky		N = 146K

Figure 9 data

Award	Jobs	% Jobs	Average Wage
No formal educational credential	519,156	25%	$25,284
High school diploma or equivalent	891,974	42%	$37,916
Postsecondary nondegree award	146,241	7%	$39,110
Some college, no degree	48,439	2%	$35,273
Associate's degree	42,322	2%	$49,635
Bachelor's degree	386,550	18%	$66,312
Master's degree	29,689	1%	$73,549
Doctoral or professional degree	43,342	2%	$105,172
Total	2,107,714	100%	$42,155
	N = 2.1M		

Figure 14 data

Major Group	Total	URM	Non-URM
Arts & Humanities	16,754	2,107	14,647
Business & Comm.	35,445	4,084	31,361
Education	3,990	517	3,473
Health	10,104	1,028	9,076
Social & Behavior Sciences & Human Services	17,274	2,729	14,545
STEM	23,662	2,044	21,618
Trades	7,110	764	6,346
Sum	**114,339**	**13,273**	**101,066**

APPENDIX D: CAEL STUDENT INTERVIEWS SYNOPSIS

The results of the student qualitative analysis were organized by Underrepresented Minority Groups (URM) and Low-Income Status Students in the following categories:

1. First Post-Graduation Employment Experiences
2. Undergraduate to First Employment Experiences
3. Educational & Career Support Systems
4. Diversity, Equity & Inclusion
5. Personal Identity
6. Career Preparation Experiences

Focus Group A: URM Group

Participant Summary

Two interviews were conducted in this category and participants were all identified as underrepresented minority students when they attended their respective institutions. One individual studied Political Science at the Bachelor's level and later went on to obtain their Juris Doctorate and work for the U.S. Department of Defense. The other participant obtained a Bachelor's degree in International Studies and now works as a Director at a global research and advisory firm.

First Post-Graduation Employment Experiences

Participants in this group had internship opportunities that helped them access their first employment experiences post-graduation. One individual had internship opportunities derived from campus to help them prepare for law school but was unfamiliar with undergrad internship opportunities. Generally, participants noted that "students are expected to automatically know how to network, dress, and act in order to make connections." One participant had a professor acting as a mentor informally - the mentor helped but it was informal and not set up by the school or supported as an official program.

Another participant was a first generation college graduate who worked part time during college and obtained an unpaid internship outside of their degree field through a LinkedIn unofficial University of Kentucky network. They utilized the University of Kentucky Career Center but the participant felt as a student that they "didn't fit the mold" or fit into those university networks and did not have a great response from obtaining resume assistance from the university Career Center. His first post-graduation employment experience was outside his career field in a retail position in a NYC flagship store that "proved unsustainable due to cost of living, plus student loan debt was very quickly breathing down my neck." This participant had to financially support themselves while also paying their own way through college, working a few various jobs for two to three years before pursuing an opportunity in their desired career path. They eventually leveraged Linkedin and other connections to network and land Internship

with Teach for America which the participant felt helped them stand out with their current employer and land his current job where he has been for the last nine years.

Undergraduate to First Employment Experiences

Participants stated that the courses they took in undergrad prepared them well for the next step of their educational and career journeys. One participant stated that field trips associated with their career path and mentorship helped them in their career journey as well. This participant also noted that a university faculty member with experience in the field could have been especially useful to help mentor students going into that particular field. They shared, "It would be very helpful for students who don't come from families familiar with college or have the support needed to excel being away from home". They also suggested that having a faculty mentor to help students navigate the undergraduate experience in general would be helpful, as well as advisors to check in every now and then to ask students how they are doing and if they are on track to graduate. Having access to alumni from various professions as external mentors or guides would have also been helpful.

Another participant mentioned that alumni as mentors would be a great addition to student's academic success - this participant in particular expressed interest in being a mentor to undergraduate students if such a program became available, and stated that the alignment and connection of students to alumni in the "real world" is critical to helping students understand how to best prepare for the future and what to expect.

Educational & Career Support Systems

Participants shared that finances were their biggest barrier. They were not aware of the impact that student loans would have on their financial situation after graduation, especially as a first-generation college graduate. One participant took the first job opportunity that came their way, even though it was not in their desired field of study because they needed to start paying on their student loans right away. This student expressed that they felt underserved by the University of Kentucky and high school system they came from in regard to finances connected to student loans and debt burdens. After graduation, this participant did not feel that connecting with university Career Center was an option to find a job in Kentucky, so they moved to Washington D.C. based on their own personal connections they made outside the school system. This participant felt like they did not "fit the mold" for what the university's Career Services department was looking to work with. They expressed feelings of isolation - that they had to navigate their uncertain career future on their own.

The other participant knew their plan of action was to go to law school so it wasn't as imperative to have a support system that could guide her to next steps. She was not aware of any barriers to achieving her goal. It could have been helpful to reiterate what programs were available and what options were available to assist students and help students understand when to utilize programs based on availability and what makes sense for their program and end goal.

Diversity, Equity & Inclusion

Participants were asked about their exposure to multicultural experiences on campus. One participant noted that Kentucky has a lot of organizations, such as student groups and fraternities and sororities that are diverse. She took part in those organizations and knew they existed. It was contentious (on campus) specifically during the election of Obama in 2008 and it could have been helpful for a Roundtable discussion to exist or be sponsored by the university in order to discuss issues and allow people to share ideas. There are always opportunities to do more like sponsoring small-group discussions or truly learning about other cultures. Learning about different people and seeing others in leadership positions can help shape young minds and create different perspectives and diversity. This participant said their institution did a good job attracting diverse individuals from other states due to their "out of state tuition deal" which allowed the school to cast a broader net in bringing more diverse students to the institution. They expressed that the student body was diverse but most of the faculty and staff, including department heads, were not.

Another participant said they sought out diversity classes but that there wasn't a lot of information provided to the student body broadly at the time that encouraged all students to take the classes. They did take a class focused on "The African-American Experience in Kentucky", which they said was a great class taught by an "active professor". They also experienced diversity through the women's basketball team and the CATS program. Through active participation in multicultural activities on campus, they felt well prepared to be able to make connections with clients in the work world.

Personal Identity

Participants were asked how their personal identity shaped their undergraduate experiences at their respective institutions. One student noted, "I am the first college graduate of my family. I moved to Kentucky my junior year of high school but had always wanted to go to the University of Kentucky. My stepfather was a legacy at Kentucky. Being from the southwest specifically New Mexico made me want to look for diverse opportunities at the University of Kentucky. I also always worked growing up. Having a diverse background and living in different countries is something I still leverage today."

The other participant shared that she already knew what she wanted to do in her career and what the plan would be. She always wanted to be a lawyer. She wished that her undergraduate experience provided more understanding of what she could do with a law degree or what other programs to pursue in the legal field besides Law School. Her institution offered her a minority scholarship and provided the tuition deal for out-of-state students. As soon as she was on campus she felt like she belonged there.

Career Preparation Experiences

Participants were asked what career preparation experiences prepared them well for the world of work. One participant shared that she took honors classes that prepared her for law school and she felt at ease when she entered her program and ready to begin her law school journey. Social sororities and fraternities on campus allowed her to meet people from other states that she may not have got to meet otherwise. Greek life promoted networking and philanthropy - she stated that "students who don't

belong to Greek life organizations miss out on those opportunities and would not have the structural support to attend those events."

Another participant got involved in a Christian organization in high school. When they transitioned to the university as a Freshman, they became involved with the Young Life organization on campus and became a leader in the group. They shared that "Some of my Young Life friends encouraged me to go to Events and linked me with events in the DC area that aided my job search." They also shared that they wished they had received more assistance with financial Wellness or financial literacy at the university level.

Focus Group B: Low Income Group

Participant Summary

One interview was conducted in the low-income student category. This participant studied Entrepreneurship at the Bachelor's level and is currently a Sales Consultant for a global beverage distributor. They had previously completed a culinary arts degree at another institution and went on to open their own catering business for about a year-and-a-half, then went back to college for an Entrepreneurial program after catering business encountered issues.

First Post-Graduation Employment Experiences

This participant entered the entrepreneurial program at their institution where the program director created an accelerator program. They participated in the accelerator program twice, right out of his university program. He also tutored and did other small jobs for extra income and relied on scholarships and financial aid, worked at a pizza place, and his first "real" job was with TSC Apparel in Sales where he worked in that role for about three years before transitioning to his current role in the alcohol industry.

Undergraduate to First Employment Experiences

When asked about his undergraduate transition to first career experiences, the participant shared that the entrepreneurship degree helped him because he had otherwise felt like "a fish out of water in his new job and in the world of business". The entrepreneurship degree was like a "buffet" where he was able to sample a little bit of everything to determine areas of interest while focusing on creating ideas and having them be challenged and validated. Through the program, the participant created a small business plan for an apparel company and won.

The participant also noted that most business programs/courses were theoretical whereas the entrepreneurship program was focused on application in the real world and real world transfer of knowledge. (which he liked). He mentioned that an internship program or some kind of career based learning would have also been useful to him during his undergraduate years.

Regarding who helped him in his early career transition, the participant knew just about everyone in his college's department and he liked that most of them came from the field rather than purely academics,

though most of the relationships he built with faculty came from his own pursuit, not any connections from the University itself. Regarding family ties, the participant's brother helped him get in the door at his current job and his dad was very supportive of him. However, even with this support, he believes that he wasn't ready for the world of work after college.

The college job board helped him find his first job-- he knew that there were career services available like resume help and interview assistance but he did not believe that that was very helpful. The participant shared that he was not focused on seeking out career assistance because he was sold on creating his own business and applying the things he learned in entrepreneurial competitions. He does wish he would have had the space to explore more options and doesn't believe the next step after college was very clear. "Like, what if I don't start my own business? What are my employment options?"

The participant provided feedback, indicating that he believes internships or creating a Capstone course where you work for an actual company would create a better transition to employment because it would provide real experience that you can leverage in a job interview.

Educational & Career Support Systems

The participant could not say specifically if he felt prepared for his career goals coming out of the program. He remembers being very engaged with faculty and staff and regularly participated in many events. While the participant was very connected to what the university had to offer in his desired career path, he doesn't believe that many conversations occurred surrounding what happens next after graduation.

He would have appreciated guidance on what happens if you don't start your own business? What is your backup plan or alternative career opportunities?

Diversity, Equity & Inclusion

The participant refers to his alma mater as a commuter School and said there wasn't a strong Campus Life. He shared that there wasn't a lot of connectivity between schools at the college as each program/college operated in a silo with not much opportunity to interact across campus.

As a part of his program, students in Entrepreneurship were encouraged to go out and connect with people who have a variety of skill sets so he made good relationships with folks in the Design College and other areas. The participant shared that he "didn't feel much of an effort to promote DEI from the university directly". However, his experiences outside of campus in the "Accelerator Ecosystem" of Cincinnati were great and exposed him to many ideas.

Personal Identity

When asked how his personal identity affected his career trajectory, the participant shared that he was an older, adult student when he attended university to complete his undergraduate degree. He had attended another institution straight out of high school without an idea of what he really wanted to do, but dropped out and went to work for eight years before going to culinary school.

His family offered him a place to stay and family support which he felt was especially important to his success. As an adult learner, he was motivated to get financial aid and scholarships in order to complete school. He felt very strongly that his maturity and willingness to speak out affected his educational experiences in a positive way and believes his experience set him apart and allowed him to be more focused in school.

Career Preparation Experiences

The participant was asked how prepared he was to enter the world of work upon graduation from undergrad. He stressed that there needs to be an experiential component to drive home a real life application of the degree program and referenced the potential to become absorbed in the program or school rather than thinking about what happens next in the career journey. He felt that when he graduated, he had an apartment and bills waiting to be paid for and not a real sense for what the next steps should be to achieve career success.