



THE
UNIVERSITY OF
NORTH CAROLINA
SYSTEM

Letter of Intent to Develop New Academic Degree Program

The following approvals must be obtained prior to sending the Letter of Intent to Develop a New Academic Degree Program to the UNC System Office.

Institution: University of North Carolina at Charlotte

Degree Program Title: BA in Professional Liberal Arts

Reviewed and Approved By (Name and title only. No signature required in this section.)

Check box to indicate participation in review. (Provost is required.)

Provost:

Dr. Joan Lorden

Faculty Senate Chair (as appropriate):

Graduate Council (as appropriate):

Undergraduate or Graduate Dean (as appropriate):

Dr. John Smail

Academic College Dean:

Dr. Nancy Gutierrez

Department Chair:

Program Director/Coordinator:

New Academic Proposal Process

New academic programs are initiated and developed by the faculty members. Approval of the Letter of Intent to Develop a New Academic Degree Program must be obtained from department chairs and college deans or equivalent administrators before submission to the UNC System Office review.

Directions: Please provide a succinct, yet thorough response to each section. Obtain the Provost's signature and submit the proposal via the PREP system to the UNC System Vice President for Academic Programs, Faculty, and Research, for review and approval by the UNC System Office. Once the Letter of Intent to Develop is approved, the institution can begin work on the formal Request to Establish a New Degree Program.

Letter of Intent to Develop a New Academic Degree Program

Institution	University of North Carolina at Charlotte
Joint Degree Program (Yes or No)? If so, list partner campus.	NO
Degree Program Title (e.g. M.A. in Biology)	BA in Professional Liberal Arts
CIP Code and CIP Title (May be found at National Center for Education Statistics)	24.0199: Liberal Arts and Sciences, General Studies and Humanities, Other
Require UNC Teacher Licensure Specialty Area Code (Yes or No). If yes, list suggested UNC Specialty Area Code(s).	NO
Proposed Delivery Mode (campus, online, or site-based distance education). Add maximum % online, if applicable.	Campus and 100% online
Proposed Term to Enroll First Students (e.g. Spring 2019)	Fall 2020
List other programs in the UNC System (may be found at UNC System website)	East Carolina University, North Carolina A&T, North Carolina Central, NC State, UNC Greensboro, UNC Wilmington, Western Carolina [Note: while there are many degrees listed in this CIP code, these are the only institutions that offer a degree focusing on degree completion for part-way home students]

SACSCOC Liaison Statement: *(Provide a brief statement from the University SACSCOC liaison regarding whether the new program is or is not a substantive change.)*

The BA in Professional Liberal Arts is a significant departure in content from what is currently offered at the institution. Therefore, a substantive change prospectus must be submitted and approved by SACSCOC prior to implementation.

PROGRAM SUMMARY:

A. Contribution to the UNC Charlotte and UNC System Missions

UNC Charlotte has a mission to provide high quality educational programs that serve the needs of North Carolina citizens with a particular focus on the greater Charlotte region including non-traditional students. UNC Charlotte is a pioneer in the UNC System with its innovative [49er Finish](#) degree completion program. The proposed Professional Liberal Arts degree (PLAD) expands these opportunities by creating an academic major specifically designed to complement the professional skills and experiences that part-way¹ home students have garnered during their time in the workforce. PLAD will expand on the 49er Finish program in four critical respects:

- PLAD will be open to students with 75 or more earned hours. Expanding the credit hour eligibility requirements makes PLAD an option for over 1,200 stopped-out UNC Charlotte students who are not eligible for 49er Finish.
- PLAD will be open to students regardless of the institution(s) they previously attended. PLAD will thus be an option for all part-way home students in the Charlotte metro region including the large number of students from UNC institutions in the region who were identified in research undertaken for the UNC System's "[Part-Way Home](#)" initiative in 2017. (See Appendix A)
- The PLAD curriculum is a flexible degree completion program that combines a competency-based liberal arts core with concentration areas that complement students' work experience. This flexible curriculum will allow students to tailor their plan of study to their professional goals.
- All required elements of the PLAD curriculum will be offered online. Online delivery will maximize opportunities for students to complete their degree given work and family responsibilities.

As is true of UNC Charlotte, the UNC System has a mission to provide high quality educational programs that serve the needs of the North Carolina citizens, including non-traditional students. The report on the UNC System's "Part-way Home" initiative (Appendix A) concluded that providing more degree completion options was essential to ensure North Carolina's continued economic growth. That study also concluded that there is significant unmet demand across the state from students with some college but no degree. While there are online degree completion programs designed for part-way home students at six other UNC institutions – North Carolina A&T, NC Central, NC State, UNC Greensboro, UNC Wilmington, and Western Carolina University – students interviewed by UNC Charlotte's Office of Adult Students and Evening Services (OASES) expressed a clear preference for academic programs delivered online delivery within reasonable driving distance (~50 miles). Given the large population in the Charlotte metropolitan region we do not believe that UNC Charlotte's PLAD program will be duplicative; rather that it will add opportunities for students not currently being fully served.

B. Curriculum

The curriculum for UNC Charlotte's proposed Professional Liberal Arts degree has four main components: general education, the PLAD core, the PLAD distributed core and a concentration. The details of each are as follows:

General Education: All graduates of UNC Charlotte must fulfill the general education requirements in effect at the time of admission. Given that UNC Charlotte is flexible in allowing students to fulfill general education requirements with transfer credit, we expect that the number of PLAD students who need to complete general

¹ "Part-way Home" describes students who have some college credit but have not earned a degree and who are not currently enrolled in an institution of higher education -- i.e. they have 'stopped out'.

education requirements will be small.

PLAD Core: The PLAD Core, required of all students, is 12 credit hours, consisting of:

PLAD 3001 – Introduction to Professional Liberal Arts: (2 credits) (Writing Intensive)

- Introduction to PLAD, interdisciplinary studies, and career and personal development
- Structured opportunities to synthesize previous coursework and professional experience to inform current learning

LBST 2301 – Critical Thinking and Communication Skills: (3 credits)

- A required critical thinking and communication general education class unique to UNC Charlotte
- Will satisfy both general education and major requirements

PLAD 3201– Information and Cultural Literacy: Interpretive Focus (3 credits) (Writing Intensive)

- Both PLAD 3201 and PLAD 3202 examine a contemporary issue relevant to the region to develop information and cultural literacy skills, ethics, and self and cultural awareness: 3201 does so from an arts and humanities perspective
- Both PLAD 3201 and PLAD 3202 continue to build the expectation that students will synthesize previous coursework and professional experience to inform current learning

PLAD 3202– Information and Cultural Literacy: Quantitative Focus (3 credits)

- Both PLAD 3201 and PLAD 3202 examine a contemporary issue relevant to the region to develop information and cultural literacy skills, ethics, and self and cultural awareness: 3202 does so from a social/behavioral science perspective
- Both of the PLAD 3200 courses continue to build the expectation that students will synthesize previous coursework and professional experience to inform current learning

PLAD 4205 – Individual Capstone: (1 credit) (Writing Intensive & Oral Communication)

- An individual project reflecting on skills and competencies developed in PLAD degree and their plans to apply their learning in professional, community, and personal contexts.

PLAD Distributed Core: Consisting of 9 credit hours, comprised of a minimum of one course (3 credits each) in the following areas chosen from the list of approved courses provided. Students may petition to allow prior credit or a different option to satisfy this requirement:

- Formal Thinking
- Global Perspectives
- Social and Cultural Identity

Concentration:

A concentration consisting of 9 credit hours. Students will work with the PLAD program coordinator to select courses for their concentration, and they can apply prior credit and competency-based learning to meet this requirement. The following are suggestions for concentration areas, but students can design a concentration to meet their needs:

- Arts and Humanities
- Global
- Natural Sciences
- Society and Culture
- Career Skills

Given the program’s competency-based, liberal arts focus, the degree will be administered from the College of Liberal Arts & Sciences (which also offers other interdisciplinary degrees). PLAD 3001 and PLAD 4205 will be taught by the PLAD program coordinator who will be a full-time faculty member at the University. LBST 2301 and PLAD 3201 and 3202 will be taught by PLAD program faculty who we expect to be drawn from faculty in

Humanities and Social Science departments in the College of Liberal Arts and Sciences.

STUDENT DEMAND:

In preparation for submitting this proposal, UNC Charlotte commissioned a study from Hanover Research to assess the student demand for a Professional Liberal Arts degree. (See Appendix B) Using US Census Bureau 2017 data the study found that there are almost 80,000 students aged 20-49 in the Charlotte metro area who have two or more years of college but no bachelor’s degree. While not all of these individuals will meet the 75-credit threshold for admission to PLAD we can safely assume a potential market for the proposed degree in the tens of thousands (particularly if demand from individuals aged 50 and older is included).

The Hanover study confirms data on potential student demand generated by the UNC System as part of its part-way home initiative. It also confirms data available from an analysis of former UNC Charlotte students who attended the university between 2010 and 2018 but stopped out without a degree and have not enrolled elsewhere. This data shows that from this decade alone there are over 1,000 former UNC Charlotte students who would meet the admissions criteria for PLAD but who are not eligible for the existing 49er Finish Program. That number does not include students with financial holds, but we would expect that some of those students could work with our student accounts and financial aid staff to resolve those holds. Finally, it is worth noting that the repeal of the Tuition Surcharge in summer 2019 may enable some students who previously could not afford to finish their degree to do so.

All of the students identified in the Hanover Research study and our UNC Charlotte data are students who are not well served by our existing programs. Currently those students could apply for admission to the university as transfer students or as readmitted UNC Charlotte students, but they would need to complete the requirements for a traditional academic major, very few of which are available in a fully online delivery format. Because the academic requirements in traditional majors are designed to be completed progressively over the typical four-year college degree, very few of those programs can be completed in the two or three semesters that the typical PLAD student will need to complete to earn 120 credit hours.

SOCIETAL DEMAND:

Broadly speaking, the societal demand for higher education is clear. The UNC System’s Part-Way Home report (Appendix A) makes clear the connection between degree attainment and North Carolina’s continued economic growth and identifies part-way home students as a critical potential pool of future college graduates. This societal demand is confirmed in the recent [“Three Educational Pathways to Good Jobs”](#) study by the Georgetown University Center on Education and the Workforce. (See Appendix C) This study found that while there are still educational pathways for high school graduates and associates degree holders that lead to good jobs, the share of such jobs in the United States economy is stagnant. Between 1991 and 2016, the number of good jobs requiring only high

school education declined by 1.8 million and good jobs requiring an associate’s degree increased by only 3.5 million. In contrast, the number of good jobs requiring a bachelor’s degree increased by 18.2 million. Clearly, the bachelor’s degree is the preferred educational attainment to ensure economic mobility.

In its analysis of the labor market in the Charlotte region, the Hanover Research group identified a wide variety of industries that have a large number of openings per year and are on a growth trajectory. Some of these industries require graduates with very specific skills – nursing, computer science, engineering, and licensed educators – that will not be options for PLAD graduates. However, many of the occupations identified has experiencing rapid growth and large numbers of openings are ones that the PLAD program would prepare graduates to fill. Examples include:


- Personal Financial Advisors: 2254 openings, 4.3% annual growth
- Loan Officers: 2106 openings, 2.4% annual growth
- General Operations Managers: 6967 openings, 1.7% annual growth
- Human Resource Specialists: 1645 openings, 1.6% annual growth
- Financial Services Sales: 1569 openings, 2.4% annual growth

Moreover, we expect that many candidates for PLAD will be individuals who are well established in their career but need a bachelor’s degree to be eligible for promotion.

Contact: (List the names, titles, e-mail addresses and telephone numbers of the person(s) responsible for planning the proposed program.)

Position Title	Name	E-mail Address	Telephone
Associate Provost for Undergraduate Education and Dean of University College	John Smail	jsmail@uncc.edu	704-687-5628
Associate Dean, College of Liberal Arts & Sciences	Greg Weeks	gbweeks@uncc.edu	704-687-0060

This Letter of Intent to Plan a New Program has been reviewed and approved by the appropriate campus authorities.

Position Title	Signature	Date
Provost		10/21/2019
Provost (Joint Partner Campus)		

The University of North Carolina
Report on Part-Way Home Initiative

The University of North Carolina General Administration

September 2017

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Executive Summary

As required by Session Law 2016-94, House Bill 1030, SECTION 11.3, the President of the University of North Carolina submits this report on part-way home efforts at the University to the Joint Legislative Oversight Committee, as approved by the Board of Governors.

In Fiscal Year 2016/17, the North Carolina General Assembly approved a one-time appropriation of \$2.3 million to UNC General Administration “for technology and academic support strategies in order to recruit, retain, and graduate students who have not finished their baccalaureate degree”¹, labeled as “part-way home” students.

This work fits well into the context of *Higher Expectations*, the new University of North Carolina 2017-2022 Strategic Plan, which calls for greater student access to a UNC institution, improved student outcomes, a more affordable and efficient education, increased community engagement, and embracing the different and unique roles each of the constituent institutions plays within the system. We believe that non-traditional students, of which many part-way home students would be categorized, will be an important group to address in order to achieve these goals. Nationally, 73% of today’s college students have at least one marker of a non-traditional student, such as long term part-time enrollment, full time employment, , or delaying enrollment in postsecondary education beyond a year after high school. In fact, 37% of all students are part-time and 40% are 25 years of age or older.² By 2023, the National Center for Education Statistics projects a 23% increase in students 24-34 and a 17% increase in students 35 and older.³

North Carolina is one of the fastest growing states and state economies in the country, with job growth projected to outpace population growth by 2024.⁴ Areas with the most significant growth will require a postsecondary credential (associates through Master’s degree).⁵ Although North Carolina has experienced success with increasing the number of traditional aged graduates who complete college, we must expand our scope to include non-traditional students if we hope to reach our attainment and economic goals within this same time frame. Based on the 2008 census, the Lumina Foundation estimated North Carolina has 1.1 million adults between the ages of 25-64 with some college credit but no degree.⁶ Only 14 counties are above the state average of 40.3% of a county population with a post-secondary attainment levels of an Associate’s degree or higher. By increasing the number of North Carolinians who earn a Bachelor’s degree by 1,000 people per year for five years, the State would earn more than \$9 million in taxes in those five

¹ Conference Report on the Base, Capital, and Expansion Budget, House Bill 1030, page F21

² “Why non-traditional student success is more important than ever,” Jed Diamond, Education Advisory Board Research COE Forum, <https://www.eab.com/research-and-insights/continuing-and-online-education-forum/expert-insights/2016/non-traditional-student-success>, accessed July 27, 2017.

³ See “Projections of Education Statistics to 2023,” 42nd Edition (2016), National Center for Education Statistics, U.S. Department of Education, <https://nces.ed.gov/pubs2015/2015073.pdf>, accessed July 24, 2017.

⁴ “North Carolina Employment Projections, 2014-2024,” (updated 4/24/2017), NC Department of Commerce, Labor and Economic Analysis Division, <https://www.nccommerce.com/Portals/47/XML/Summary/2014-2024%20NC%20Employment%20Projections%20Summary.pdf>, accessed July 24, 2017, p. 1.

⁵ “North Carolina Employment Projections, 2014-2024,” pp. 2 and 7-8.

⁶ *A Stronger Nation through Higher Education: How and Why Americans Must Achieve a “Big Goal” for College Attainment*, A Special Report from Lumina Foundation for Education, https://portalcentral.aihec.org/MSIStudentSuccess/StudentSuccess/A_stronger_nation.through%20higher%20education.pdf, accessed July 21, 2017, p. 75.

years alone.⁷ One strategy to improve degree attainment and create an educated workforce to keep up with and attract new job growth is to focus upon improving degree completion among those 1.1 million North Carolina adults (aged 25-64) with some college but no degree.

More than half (52%) of UNC students categorized as “part-way home” who were enrolled between 2003-04 and 2014-15 and have been stopped out at least a semester, have a GPA between 2.7- 3.3. These students are academically qualified to remain at the institution and are leaving for reasons such as family commitments, mental or physical health concerns, or work obligations. A relatively high percentage of students return to UNC (43% of students with 60-89 credits at the time of stop-out and 37% of students with 90+ credits at stop-out). Of those who return, between 56% and 63% graduate. Between fall 2017 and spring 2018, 1,083 students re-enrolled in the UNC system who had been away for one academic year, a GPA of 2.0 or greater, and accumulated 72+ credit hours at stop-out. These students re-enrolled with minimal effort being placed on re-recruitment and facilitation of degree completion.

Adults with some college but no degree are difficult to track and re-recruit the longer they are away from the University. In fact, we found that each semester a student is away decreases their chances of graduating in six years by about 50% and decreases their chances of graduating in eight years by 10%. Additionally, locating contact information for students becomes increasingly difficult the longer they are away. These findings substantiate the need to reconnect with students as soon after they withdraw as possible and indicate that, with a focused and targeted effort, UNC could re-enroll more than 2,000 students per year returning to complete a bachelor’s degree.

The following categorizes the many accomplishments made possible with the Legislature’s support:

- Conducted an environmental scan of successful efforts and messages used to recruit and support returning (and new) adult learners both inside the UNC system and across the country.
- Awarded several member institutions grants to analyze data to better understand the variables related to stop-out, return, and graduation among this population better informing the development of scalable policy, procedural, and intervention strategies.
- Launched pilots and interventions to prevent stop-out and improve access to courses leading to a bachelor’s degree. One example is the UNC Alliance for Collaborative Education pilot; a consortium of five institutions who will share courses to satisfy requirements for interdisciplinary degrees.
- Started developing partnerships with community organizations across the state to scale outreach efforts for adults with some college but no degree.
- Investigated technology solutions to improve degree planning and predictive analysis of student outcomes.

Recommendations and Implementation Plan

In total, more than 6,000 adult learners and 250 of UNC faculty and staff have been touched, directly or indirectly, through the efforts undertaken during the last 12 months. Much of the work accomplished over the last ten months was foundational in nature. In order to recommend a sustainable plan for serving part-way home students, we needed to first understand the scope of the environmental, institutional, and community variables that facilitate both departure and return as well as the unintended barriers hindering re-enrollment. Developing an eco-system that will facilitate degree attainment among returning adults is a dynamic task requiring an inspection of policy, delivery of academic content, delivery of services and

⁷ This calculation is derived from the estimation that Bachelor’s degree holders pay an average of \$70,387 over their working life or \$1,804 per person per year

financial aid. It also requires an understanding of why students leave, what motivates them to return, and what motivates them to complete a degree. From that point, appropriate messages can be created to entice former students to return. A cycle framework guides the implementation of this initiative which includes phases of implementation, evaluation, and revision. A cycle of this sort requires enough time for implementation that the desired outcomes would be realistically possible. For these reasons, we recommend a multi-year implementation plan.

This multi-faceted, multi-year plan envisions the following “pillars” as part of a sustained effort to improve access and success for all UNC students, which includes adult and other nontraditional learners:

- Improved access to courses through flexible modalities.
- Leverage our “system-ness” to deliver services and resources at scale.
- Re-align services and policies to meet the needs of nontraditional learners.
- Utilize technology to improve degree efficiency and student success.
- Serve as a facilitator of statewide, cross sector conversations about attainment goals for NC.

The five pillars of the adult learner initiative provide a framework for recommendations and a multi-year implementation plan that will ensure a strong foundation upon which we can build an effective and sustainable adult learner initiative. Recommendations can be categorized as either contributing to “recruitment” or “completion.” Examples follow from a total of 17.

Recruitment

1. Create a UNC-wide marketing campaign to re-recruit adult learners.
2. Review and revise policies and procedures that create unintended barriers for returning students.
3. Build on and expand current relationships with the NC Community College System.
4. Dedicate staff and recurring resources at UNC General Administration to spearhead UNC’s adult learner initiative.
5. Identify financial aid strategies (at both the institutional and state levels) to provide support to students attempting to complete their credentials.

Completion

1. Develop a multi-university consortial approach to delivering courses to adult learners throughout the system (for more information on the UNC Alliance for Collaborative Education [click here](#)).
2. Improve access to online, hybrid, accelerated, and face-to-face courses.
3. Continue to implement current and pilot promising data and technology solutions to improve student success including degree path software.
4. Create a statewide attainment goal that all sectors work toward achieving.
5. Working with member institutions to identify and implement improvements in advising, particularly for returning adults.

Introduction

In FY2016-2017, the North Carolina General Assembly approved a one-time appropriation of \$2.3 million to UNC General Administration “for technology and academic support strategies in order to recruit, retain, and graduate students who have not finished their baccalaureate degree.”⁸ The University and the General Assembly defined “part-way home” students as adults who “have completed some college but have not earned a degree.”⁹ The previous UNC strategic plan, *Our Time, Our Future*, specifically targeted recruitment of students with at least 90 earned credit hours and at least a 2.0 GPA.¹⁰ For a recent system-wide study, UNCGA used slightly different criteria (60 credit hours, a 2.0 or higher GPA, and who have “stopped-out” at least once for at least one semester) to inform decisions about how best to define a part-way home student, and perhaps guide earlier intervention and prevention.

During the last twelve months, a small team at UNC General Administration (UNCGA) has worked with a variety of stakeholders to research and develop strategies to improve the delivery of academic courses and services to part-way home students and other nontraditional learners. During this same period, the University of North Carolina has begun implementing the 2017-2022 Strategic Plan, *Higher Expectations*. Creating access for students with some college but no degree fits well into the context of the strategic plan, which calls for greater student access to a UNC institution, improved student outcomes, a more affordable and efficient education, increased community engagement, and embracing the different and unique roles each of the 16 constituent universities plays within the system. Nontraditional students are an important group to address in order to achieve these goals.

Nationally, 73% of today’s college students have at least one marker of a non-traditional student, such as long term part-time enrollment, full-time employment, or delaying enrollment in postsecondary education beyond a year after high school. In fact, 37% of all students are part-time and 40% are 25 years of age or older.¹¹ By 2023, the National Center for Education Statistics projects a 23% increase in students aged 24-34, and a 17% increase in students 35 and older.¹²

North Carolina’s population includes 1.1 million adults between the ages of 25-64 with some college credit but no degree.¹³ Of those, the National Student Clearinghouse Research Center identified 133,271 adults with two or more years of progress toward a degree or certificate who were enrolled between August 15, 2005 and August 14, 2015 but are not currently enrolled. The majority of these

⁸ See Session Law 2016-94, House Bill 1030, SECTION 11.3, p. 48, <http://www.ncleg.net/Sessions/2015/Bills/House/PDF/H1030v8.pdf>, accessed July 14, 2017.

⁹ See NC House Bill 1030, Session Law 2016-94, Section 11.3, p. 48. See also “Our Time, Our Future: The UNC Compact with North Carolina, Strategic Directions, 2013-2018,” p. 19 and 28, https://www.northcarolina.edu/sites/default/files/strategic_directions_2013-2018_0.pdf, accessed June 16, 2017.

¹⁰ “Our Time, Our Future: The UNC Compact with North Carolina, Strategic Directions, 2013-2018,” p. 29.

¹¹ “Why non-traditional student success is more important than ever,” Jed Diamond, Education Advisory Board Research COE Forum, <https://www.eab.com/research-and-insights/continuing-and-online-education-forum/expert-insights/2016/non-traditional-student-success>, accessed July 27, 2017.

¹² National Center for Education Statistics (2013), Projections of Education Statistics to 2023 42nd Edition

¹³ *A Stronger Nation through Higher Education: How and Why Americans Must Achieve a “Big Goal” for College Attainment*, A Special Report from Lumina Foundation for Education, https://portalcentral.aihec.org/MSIStudentSuccess/StudentSuccess/A_stronger_nation.through%20higher%20education.pdf, accessed July 21, 2017, p. 75.

individuals were between the ages of 24-39.¹⁴ Indeed, only 14 counties have post-secondary attainment (associate's degree or higher) levels above the state average of 40.3% of the population¹⁵. Despite these attainment levels, North Carolina remains one of the fastest growing states and state economies in the country, with job growth projected to outpace population growth by 2024.¹⁶ Educational requirements for the fastest growing job areas necessitate a post-secondary credential (post-secondary certificate through Master's degrees).¹⁷ A new study by Carnevale, Stohl, Cheah, and Ridley demonstrates that the proportion of good jobs (those that pay at least \$35,000 per year for those under age 45 and \$55,000 for those 45 and older) available for individuals without a bachelor's degree is shrinking—from 60% to 45% in 2015. When ranking states by the share of good jobs for workers without a bachelor's degree, North Carolina ranks 47th. Those jobs that remain are largely going to Associate's degree holders leaving few for those with a high school diploma.¹⁸

Although North Carolina has experienced success with increasing the number of traditional aged graduates who complete college, higher education must expand its scope to include adult learners if we hope to meet the state's attainment and economic needs as early as 2024, while also distributing job growth and economic development across the state. One strategy for improving degree completion among adults is to focus on NC adults with some college but no degree.

With this context in mind, the one-time legislative appropriation was timely and supports the University's strategic plan goals of access, student success, economic impact, and community engagement. The following categorizes the many accomplishments made possible with the Legislature's support:

- Conducted an environmental scan of successful efforts and messages used to recruit and support returning (and new) adult learners both inside the UNC system and across the country.
- Awarded several member institutions grants to analyze data to better understand the variables related to stop-out, return, and graduation among this population better informing the development of scalable policy, procedural, and intervention strategies.
- Launched pilots and interventions to prevent stop-out and improve access to courses leading to a bachelor's degree. One example is the UNC Alliance for Collaborative Education pilot; a consortium of five institutions who will share courses to satisfy requirements for interdisciplinary degrees.
- Started developing partnerships with community organizations across the state to scale outreach efforts for adults with some college but no degree.
- Investigated technology solutions to improve degree planning and predictive analysis of student outcomes.

¹⁴ "Some College, No Degree: A National View of Students with Some College Enrollment, but No Completion" (Signature Report No. 7), D. Shapiro, A. Dundar, X. Yuan, A. Harrell, J. Wild, and M. Ziskin, Herndon, VA (July 2014), National Student Clearinghouse Research Center, <https://nscresearchcenter.org/signaturereport7/>, accessed July 27, 2017.

¹⁵ Lumina Foundation analysis of US Census Bureau (2010-14) ACS 5-year Estimates.

¹⁶ "North Carolina Employment Projections, 2014-2024," (updated 4/24/2017), NC Department of Commerce, Labor and Economic Analysis Division, <https://www.nccommerce.com/Portals/47/XML/Summary/2014-2024%20NC%20Employment%20Projections%20Summary.pdf>, accessed July 24, 2017, p. 1.

¹⁷ "North Carolina Employment Projections, 2014-2024," pp. 2 and 7-8.

¹⁸ *Good Jobs that Pay without a BA*, A.P. Carnevale, J. Strohl, B. Cheah, R. Neil, Georgetown University Center on Education and the Workforce, 2017.

In total, more than 6,000 adult learners and 250 UNC faculty and staff have been touched, directly or indirectly, through the various efforts undertaken during the last 12 months.

The following report provides summaries and findings from the various efforts and initiatives completed or initiated during this time period and will conclude with recommendations and plans for a multi-year plan of activity and evaluation.

National and UNC Efforts to Re-enroll Adults with Some College but No Degree

Overview

As part of our investigation, we assessed various approaches utilized by other states to recruit, retain, and graduate adult learners. Some common practices include:

- Statewide partnerships between community and higher education organizations, four year institutions, and community colleges.
- Greater access and efficiency for adult learners through facilitating credit transfer between institutions, flexible degree pathways, online course availability, military articulation agreements, and developing system-wide policies to maximize Prior Learning Assessments (evaluating prior learning or employment experience to determine competency in exchange for academic credit).
- Centralized resources, branding, and communication across institutions.
- Marketing and recruitment of adult learners through community and employer networks.

National Efforts

The higher education system contexts discussed here are a brief overview of successful practices that could serve as models for North Carolina. These initiatives can be broken down into three levels: state, institution, and local community. The states that are most effective at recruiting and graduating adult learners are those that integrate these three levels. Oversight and resources are provided at the state level to support and facilitate what happens at the institutional and local level.

The system-wide initiatives include Oklahoma Reach Higher, West Virginia Degree Now, Indiana You Can Go Back, and Tennessee Reconnect. Public higher education governing or coordinating boards provide oversight for each of these statewide initiatives: the Oklahoma State Regents for Higher Education, the West Virginia Higher Education Policy Commission, the Indiana Commission for Higher Education, and the Tennessee Higher Education Commission. These organizations partner with community colleges, independent four-year institutions, employers, faith-based organizations, and other state-based organizations (such as community centers and economic development groups) to offer resources and programs geared specifically for adult learners.

Specialized Degree Programs: Oklahoma, West Virginia, and Indiana

Oklahoma and West Virginia's initiatives center upon specific degree programs for adult learners. Oklahoma's degree programs are offered at both community colleges and public universities, with designated adult learner coordinators and faculty at each institution. The State Regents for Higher

Education organizes regular meetings for these adult learner contacts to ensure communication and continuity throughout the state. By offering customized associate's and bachelor's degree programs, Oklahoma can target a much larger population of adult learners. The Reach Higher program began in 2007 and, as of fall 2016, they have graduated 3,809 adults.

West Virginia's system-wide interdisciplinary degree program, the Regents Bachelor of Arts (RBA), is unique because of its large Prior Learning Assessment (PLA) component. The PLA component provides adult learners the opportunity to turn life experience into course credit through a portfolio review process. The RBA program also relies heavily on "WVROCKS," an online course platform, to provide flexible and condensed 7-8 week course offerings for adult learners. Students at participating RBA institutions can cross-register for courses through WVROCKS. Since the RBA program began in 1975, 30,000 adults have earned their bachelor's degree.

Indiana also instituted a successful institutional-level degree program for adult learners, the Adult and Career Education Major at Indiana State University, but it developed independently from the statewide initiative. Like the RBA program, this program provides an individualized approach to adult degree completion through accelerated 8-week courses and identifying prior learning experiences that qualify for credit. The program launched in 2010, with 102 graduates to-date.

Community Networks & Partnerships: Indiana and Tennessee

A central tenet of Indiana and Tennessee's initiatives involves building community networks to connect prospective adult learners to institutions and resources that are already in-place. After a year of planning, Indiana launched its statewide initiative in 2016, focusing primarily on recruitment by direct outreach campaigns and capitalizing on its statewide platform to engage employers to provide resources and information on adult learner completion to their employees. In the first year of their program, 9,000 students who received targeted outreach have re-enrolled.

Tennessee Reconnect is part of the "Graduate! Network." The Graduate! Network (Network) is a national non-profit organization whose mission is to increase the number of adults completing college through engagement with business, higher education, government, organized labor, workforce and economic development, community building organizations, and social service providers. Through aligning existing resources to provide necessary services to returning students, the Network seeks to remove barriers and create new pathways for adults to complete post-secondary credentials.¹⁹ Their comprehensive model is delivered locally to improve awareness among leaders, students, partner organizations and to provide services at scale. The Graduate! Network provides training, benchmarks, and other resources to local network partners.

Tennessee's adaptation of this community network provides state resources to community centers that act as the connection for local employers, higher education institutions, and prospective adult learners. These community centers are essential for successfully marketing to, recruiting, and connecting adult learners to programs and resources. Additionally, the Tennessee Higher Education Commission (THEC) works in partnership with the University of Tennessee system and Tennessee Board of Regents to maintain a web portal with centralized resources for adults seeking to return to complete a postsecondary credential. This web portal also provides unified branding and marketing for the community networks. In 2014-2015 alone, Tennessee Reconnect graduated 15,297 adults. Of those, 8,061 earned an Associate's degree.

¹⁹ See "The Graduate! Network," <http://graduate-network.org/about-us/>, accessed August 14, 2017.

The initiatives in Oklahoma, West Virginia, and Indiana State University illustrate several key strategies to increasing degree attainment among returning adults. They include:

- Providing specialized degree paths geared towards adult learners results in higher degree attainment.
- Ensuring flexible pathways through online learning.
- Offering accelerated course formats (7/8 week courses).
- Awarding academic credit for prior learning, and experience.
- Creating and marketing a unified brand for these initiatives.
- Partnerships with community networks such as The Graduate! Network community model.

All of these programs offer financial aid to adult learners or specifically to students returning to complete a credential. The following section describes some of the approaches.

Use of Financial Aid to Improve Adult Learner Success

Although not a universal approach, some institutions and states provide financial aid to adult learners as a tool for improving this unique population's recruitment and graduation rates. Financial aid opportunities for adult learners primarily take the form of emergency or "last-dollar" grants. The goal of these grants is to either provide adult learners who are very close to graduating with emergency funds to help them complete their degree, or to fill the gap between financial aid and the real costs of college. The grants do not cover the full cost of attending college, and students must find other ways to finance living, travel, and other related expenses.

The Central Oklahoma Workforce Investment Board funds Oklahoma's grant program for adult degree completion, "Project Finish Line." Open to students who are residents of four central Oklahoma counties, this grant targets students who are within 15 hours of earning a college certificate, associate, or bachelor's degree.

Tennessee uses several programs to target these student populations. The Community College Reconnect Grant provides a last-dollar scholarship to adults who want to return to community college and complete their associate's degree in applied science at one of the Tennessee Colleges of Applied Technology (TCAT). The TCAT Reconnect Grant pays the remaining balance after students have exhausted other state and Pell Grants. Additionally, Tennessee has the HOPE Scholarship for nontraditional students. Students must be 25 or older to qualify and the state provides \$1,500 per semester for a two-year institution, or \$1,750 per semester for a four-year institution.

In addition to last-dollar grants, some states provide funding to cover the cost of part-time studies or certificate programs. The West Virginia Higher Education Adult Part-Time Student Program (HEAPS) provides needs-based grants for students who attend college part-time. This grant provides up to \$2,000 per year and covers the full cost of attendance, with the goal of encouraging adult learners to continue their education on a part-time basis. The HEAPS Program also includes a workforce development component. A needs-based grant, West Virginia uses this program to encourage students to enroll in a post-secondary certificate, industry recognized credential, or other skill development program for in-demand occupations to both upgrade the individual's skills but also improve the workforce in West Virginia as a whole. Eligible programs are skill upgrade programs the complement West Virginia's Development Office's initiative for targeted industries or employers, promote job

creation or retention, or assist individuals in developing skills for new jobs in emerging economies or high performance workplaces.

UNC Approaches

During the last academic year (2016-2017), 1,803 students re-enrolled at a UNC institution who, at the time of re-enrollment, were bachelor's degree seeking students who had earned 72+ credit hours, a GPA of 2.0+, and had been away from the University at least a year. Most returners were between the ages of 22-34 with another spike of returners between the ages of 40-49. Ninety-three (93%) of students returned to their original institution of enrollment. For context, there are 4,054 part-way home students whose first term of enrollment was fall 2010 or later, who had 72+ credit hours at the time of stop-out and have been away for at least one semester.

The number of re-enrolled students between fall 2016 and spring 2017 was achieved with very little marketing or structure to attract and retain students. Coupled with the data from Stamats, a marketing research firm retained by UNC General Administration to conduct market analysis, illustrating that there is interest on behalf of adult learners in re-enrolling and completing their degree, it is apparent that there is excellent potential for improving State-wide degree attainment by re-enrolling adult learners with some college but no degree.

Currently, only seven of the sixteen UNC institutions have programs in place to either directly or indirectly serve adult learners returning to complete a bachelor's degree: UNC-Chapel Hill, UNC-Pembroke, North Carolina A&T University, East Carolina University, UNC-Charlotte, North Carolina Central University, and Western Carolina University. Two additional institutions are planning to launch programs to serve this population: Elizabeth City State University and Fayetteville State University. Each program has varying levels of staffing and priority on campus which affects program intensity and no system-level approach exists to scale these efforts across the State.

ECU, NC A&T, and NCCU developed their programs around specific degree offerings. The other institutions rely heavily on UNC Online courses to provide flexibility and distance learning opportunities. Overall, these programs have limited resources and staff with one person serving in multiple roles--such as orientation leader, advisor, or program manager. While the focus of these programs is primarily on reaching students who have stopped out and getting them re-enrolled, marketing and recruitment is limited and the programs primarily rely on word of mouth, email, and direct mail campaigns. Only UNC-Charlotte has a dedicated office for serving nontraditional students. The Office of Adult Students and Evening Services (OASES) serves nontraditional learners, most of whom are adults returning to complete a credential through the 49er Finish program. UNC-Charlotte and UNC-Chapel Hill are the only institutions to offer scholarships for these students. The following table presents enrollment and graduation numbers for four of these programs, WCU, UNCC, NC A&T, and NCCU, over the last academic year and from the start of their programs. The table also illustrates the number of students these institutions are actively working to re-enroll. It should be noted that most of these programs were only started a year ago and there is currently no systemic method of tracking part-way home students; it is difficult to know how many students were contacted to yield these enrollment figures. What is apparent from this table is that the majority of students who re-enroll do graduate.

Table 1: Graduation Numbers for UNC Institutions, WCU, UNCC, NCAT, NCCU²⁰:

Re-enrolled 2016-2017	Graduated 2016-2017	Re-enrolled Since Programs Started	Graduated Since Programs Started	In Pipeline for Re-enrollment
245	84	1,180	905	134

Assessment to Understand the Part-Way Home Student Population

System-Wide Data on Part-Way Home Students

Overview

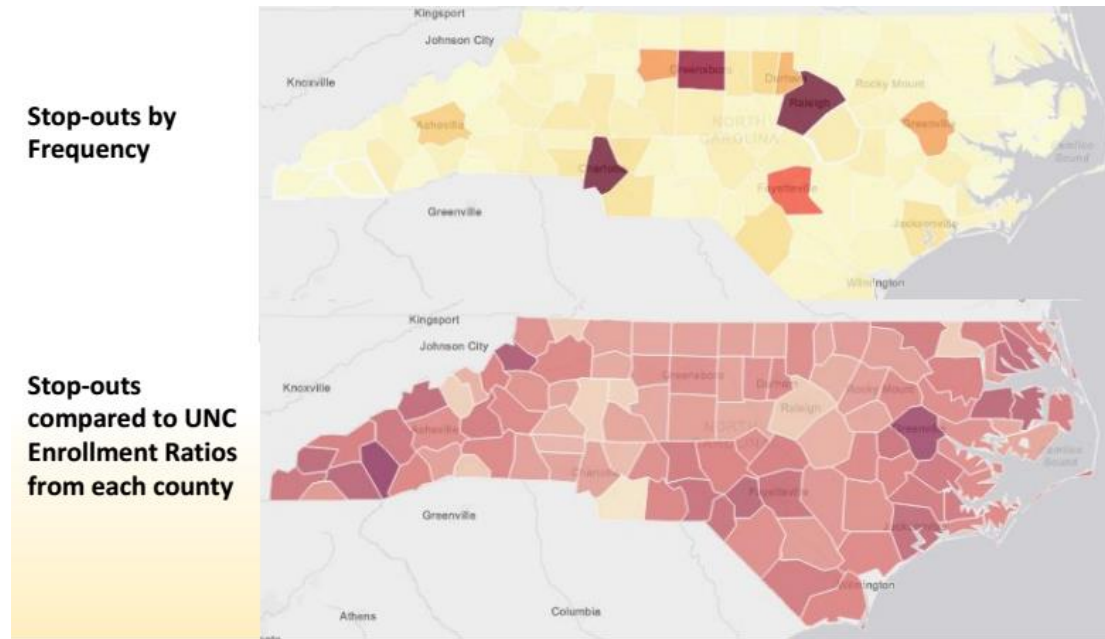
UNC General Administration conducted a high level quantitative data analysis of PWH students, those who stopped out at least once between fall 2003 and spring 2015, to include those who have returned (graduated and not yet graduated), and those who have yet to return. The study looked at students who had achieved at least junior status (more than 60 credit hours of completed coursework), and totaled 52,267 unique students. Drill down data analysis continues with the desired outcome being a predictive model of students or subgroups of students who have indicators of possible future stop outs, which could lead to earlier interventions.

Demographic Characteristics

Demographically, the findings show that students who start college at a younger age and/or were at a younger age at their first stop out are more likely to return and complete college, indicating an urgency in re-enrolling students after they have left the institution. NC residents represented the highest volume of graduates, but non-NC resident students graduated at the 6- and 8-year points at a slightly higher percentage. Even when looking within NC, students who were between two and four hours from their home counties graduated at higher rates the farther they went to school, perhaps demonstrating that relocating for school is related to a stronger commitment to finish a degree. It is likely that students who relocated to attend school may remain in the area after attendance, making it easier for them to return to their institution after brief periods of withdrawal. It should be noted that not all returning students will be able to relocate to complete a degree. Providing students with access to coursework through flexible delivery methods will increase the likelihood that students can complete a degree when they are outside of a drivable distance.

²⁰ UNC-Chapel Hill's program is not a degree program, therefore they do not have graduation numbers. Students enrolled in the Part-Time Classroom Studies program who would like to earn an undergraduate degree must transfer to one of UNC-Chapel Hill's upper-level schools or colleges and become a full time student for their final semester. The Part-Time Classroom Studies Program currently totals 62 degree-seeking students (Fall 2017). East Carolina University's program is geared towards retaining students who are at high risk of stopping-out rather than re-enrolling stopped-out students. The program is focused around the Bachelor of Science in University Studies Program. This degree program allows students with a high number of completed credit hours to utilize their prior courses to architect a major that meets their academic and career goals. Since the program began in spring 2014, there have been 233 graduates, and there are currently 387 students active in the program. Since the program began, 41 part-way home students have graduated and 60 are currently active in the program.

Figure 1: Stop-Outs and Reenrollment Ratios by County (darker colors indicate higher #'s of stop-out)



Environmental Factors

Students who come from the more prosperous (Tier 3) counties, graduated at higher rates than those from distressed (Tier 1 and 2) counties. Of note, Tier I and II area students performed better at baccalaureate- and Master’s-level schools, and Tier III area students performed better at doctoral-level schools. These findings should be interpreted through the context of research literature that shows a relationship between socioeconomic status and under resourced school systems. Students from low-income backgrounds often attended under-resourced schools and therefore are less prepared for college than students attending more affluent school systems.²¹

Whether or not a student received financial aid is related to the number of stop-outs and likelihood of graduating. PWH students who received no or low levels of financial aid had more multiple stop-outs, but were also more likely to return than those who received no financial aid. However, students who received no aid were more likely to graduate, both at the six and eight year points. Over time, however, the completion rate narrows between those receiving financial aid and those not receiving financial aid. The same trends are seen with Pell Grant recipients. PWH students who received their first Pell Grant after the age of 24 are more likely to have multiple stop-outs and graduated at a lower rate. However, they were much more likely to return than any other financial aid group and the lower eight-year graduation rates are statistically indistinguishable from those who did not receive a Pell Grant at this age or later. These findings are related to the previous findings that students from Tier I and II counties have

²¹ See: “What higher education has to say about the transition to college,” S. Goldrick-Rab, D.F. Carter, & R. Winkle Wagner, *Teachers College Record* (2007), pp. 109, 2444-2481; “Following their every move: an investigation of social-class differences in college pathways, S. Goldrick-Rab, *Sociology of Education* (2006), pp.61-79; and “Students whose parents did not go to college: Postsecondary access, persistence, and attainment,” S.P. Choy, *NCES*, Washington, DC: National Center for Education Statistics, U.S. Department of Education (2001), p. 126.

lower levels of attainment than students from Tier III counties due to lack of financial resources to remain enrolled-particularly as students age.

Additionally, the finding that students who receive their first Pell Grant after the age of 24 have lower graduation rates and multiple stop-outs indicates that as students age, finances become a more significant variable to their ability to complete a degree and the availability of Pell Grants enables students to return and finish. Relatedly, tuition surcharges also present barriers for students wishing to return and complete a degree. Reducing or eliminating the tuition surcharge and providing financial assistance will likely improve graduation rates among this population of students.

Academic Factors

Academically, the significant findings were in number of transfers, the frequency and lengths of stop outs, and enrollment status. Students who graduated (at the six and eight-year points), tended to be those who stopped out/transferred only once, and stopped out for only one semester. Students who transferred only once graduated at a much higher rate than those with more than one transfer at both the six and eight-year points. The same holds true for stop-outs--the more stop-outs, the less likely students are to complete a degree. From 2010 to 2016, 5,971 graduates met the baseline criteria of the study. Of those, 5,825 had only one stop-out, 145 left college twice (for at least one semester), and only one graduated with three or more stop-outs. Of the 7,051 graduates who earned a degree in the eight-year timeframe (2008-2016), 6,596 had only one stop-out, 434 left college twice (for at least one semester), and 21 graduated with three or more stop-outs.

Each semester a student stays away from school drops their chances of graduating. In fact, we found that each semester a student is away decreases their chances of graduating in six years by about 50% and decreases their chances of graduating in eight years by 10%. The eight-year graduation rate drops precipitously once a student stops out for more than four semesters (only 12.6% graduation rate). Those who returned and enrolled full-time are much more likely to graduate (3,865 full-time students out of 5,971 graduates at the six-year mark; only 16 graduate who were less than part-time).²²

Summary

Variables that proved significant form the basis of a predictive model to determine which stop-out students might be successful upon return and create implications for policy and practice. These findings suggest the following:

- It is important to re-enroll students as soon as possible after they have stopped out. To do this, we must have better procedures in place to track withdrawn students and follow-up with them during their time away.
- Success coaching and improved advising would help students stay motivated while navigating them through any challenges that may arise once re-enrolled such as juggling busy schedules, family and work commitments, and other obligations.
- Providing financial assistance and removing or reducing tuition surcharge would improve the likelihood of return and graduation for these students.

²² Enrollment status is defined as: 12+ credit hours per semester equals full-time student; part time is 6-11 credit hours per semester; and less than part time is 5 or less credit hours. These definitions align to standard practice and financial aid guidelines.

Institutional Data Partnership

In addition to that deeper and broader analysis of the data from a system perspective, UNCGA requested data on PWH students from the institutions in December 2016, based on the criteria of at least 72 earned credit hours, a 2.0 GPA or higher, who stopped-out at least one semester, and were enrolled for at least one semester between 2008 and 2016. The Data Partnership Initiative’s goal was to identify the quantitative characteristics of PWH students and then better inform the system’s institutions about their PWH populations. Ten of our institutions provided data on 13,131 students. Table 2 summarizes the demographic information for the total sample population of part-way home students per institution.

Of note, the data support a finding in the UNC Degree Completion Improvement Plan²³--**GPA is not a factor in why students leave UNC system institutions.** From the smaller institutional data, all PWH students who left college averaged a B-, while those who reenrolled averaged C+/B-. Other demographic trends are similar to what one would expect, based on the make-up of UNC students overall.

Table 2: Demographics for All Part-Way Home Students with 2008 as First Term of Initial Enrollment

	Avg. Age	Race (% White)	Gender (% Female)	Pell Students	Avg. Credit Hours Completed	Avg. GPA	Avg. Years out of College^	Most Common Initially declared majors
ECSU (n=137)	26	7% (87% AA)	61%	68%	106	2.66	3.8**	Biology (18%)
ECU (n=854)	25.2	71%	55%	28%	106	2.73	3.6	General College (34%)
NCCU * (n=589)	25.2	15% (77% AA)	70%	73%	100	2.73	3.1**	Undeclared (25%)
NCSU (n=2,396)	20.2	71%	41%	29%	107	2.79	2.9	Engineering un-matriculated
UNCA (n=922)	25.1	87%	54%	70%	98.7	2.93	2.25	Undeclared (29%)
UNCC (n=5,877)	28	59%	54%	58%	77.5	2.83	1.19	Undeclared (8%)
UNCP (n=101)	25	51%	70%	44%	92	2.23	5	Pre-Nursing (30%)
UNCW (n=1,076)	25	84%	58%	39%	66	2.90	1.5	Undecided (10%)
WCU (n=127)	22	81%	58%	37%	90	2.65	3.0**	Undeclared (24%)
WSSU (n=1052)	27	3.9% (74.9% AA)	67%	64%**	100.8	2.58	3.8	Interdisciplinary Studies (10%)

*NCCU reported students entering between 2008 and 2011

**Statistics were not reported so previous analysis from 2014 was used to determine time away

^UNC System-wide average for years out of college for re-enrolled students is 2 years.

²³ The University of North Carolina Degree Completion Improvement Plan, p. 6. “On average, of the UNC students who stop out, 27% departed school with a GPA of 2.5 or higher. At the system’s minority serving institutions, approximately 35% stopped-out with B- averages (2.8 GPA) or higher.” For the UDCIP Report, see <https://sites.google.com/a/northcarolina.edu/udcip/>.

Similar demographic information was examined for students who returned (see Table 3). The demographic make-up of these students (gender, race/ethnicity, and financial aid status) is similar to the general make-up of UNC students overall. Most students are away an average of almost two years before re-enrolling. No clear distinctions were identified in the declared majors of students prior to stop-out, except that many students were undeclared. Although research has shown that undeclared students are not at a higher risk of attrition in their first or second year due to not declaring a major²⁴, students who prolong their decision past their sophomore year are more likely to stop-out.²⁵

Table 3: Demographics for Part-Way Home Students who Re-Enrolled after Stop-out*

	Avg. Age	Race (% White)	Gender (% Female)	Pell Students	Avg. Credit Hours Completed	Avg. GPA	Avg. Years out of College [^]	Most Common Initially declared majors
ECSU N=Not Reported*	26	9% (85% AA)	62%	69%	98	2.90	3.1 ^{^*}	Biology (19%)
ECU N=355	25	71%	55%	28%	106	2.73	3.6	General College (20%)
NCCU^{^*} N=175	25	15% (62% AA)	70%	48%	103.6	2.97	3.1 ^{^*}	Undeclared (22%)
NCSU^{**} N=872	20.2	70.74	41%	29%	121.7	2.64	2.9	Engineering- Un-matriculated (% not provided)
UNCA N=116	28	84%	46%	73%	105.5	2.797	1	Undeclared (21%)
UNCC N=Not Reported*	28	58%	52%	64%	93.69	2.66	1.13	Undeclared (7%)
UNCP N=26	26	52%	70%	53%	92	2.81	1.2 ^{^*}	Business Admin (18%)
UNCW N=Not Reported*	25	84%	58%	39%	66	2.90	1.5	Pre Business Admin (10%)
WCU N=85	22	81%	58%	37%	90	2.65	3.0 ^{^*}	Undeclared (28%)
WSSU N=331	28	2.2% (94% AA)	58%	64% ^{^*}	106.6	2.39	3.7	Business Admin (13%)

*Some institutions did not provide the sample size for students who re-enrolled but provided the demographic percentages of this population

**NCSU did not provide specifics and raw data for re-enrolled PWH students; data used reflects their total PWH population

^{^*}NCCU limited their investigation of returning students to those who entered in 2008

^{^*} Statistics was not reported so previous analysis from 2014 was used to determine time away

[^] UNC System-wide average for years out of college for re-enrolled students is 2 years.

²⁴ "Students decided and undecided about career choice: A comparison of college achievement and student involvement," W.C. Lewallen, *NACADA JOURNAL*, 15(1) (1995), pp. 22-30.

²⁵ "Campus leaving behavior," B. Janasiewicz, *National Academic Advising Association Journal* 7 (1987), pp. 23-30, and "College student attrition and retention," L. Raimst, College Board Report No. 81-1, New York: College Entrance Examination Board (1981).

These findings align with recommendations from the UNC Board of Governors Educational Planning, Policy, and Programs Committee Subcommittee on Advising Report, which recommended an integration of advising services including academic, career, and financial advising.²⁶ Through the integration of academic and career advising, students will have a better understanding of the relationship between majors and careers allowing them to determine a major by the end of their sophomore year. Assisting students with the decision of selecting a major may contribute to the decrease in stop-out.

Market Research Analyses

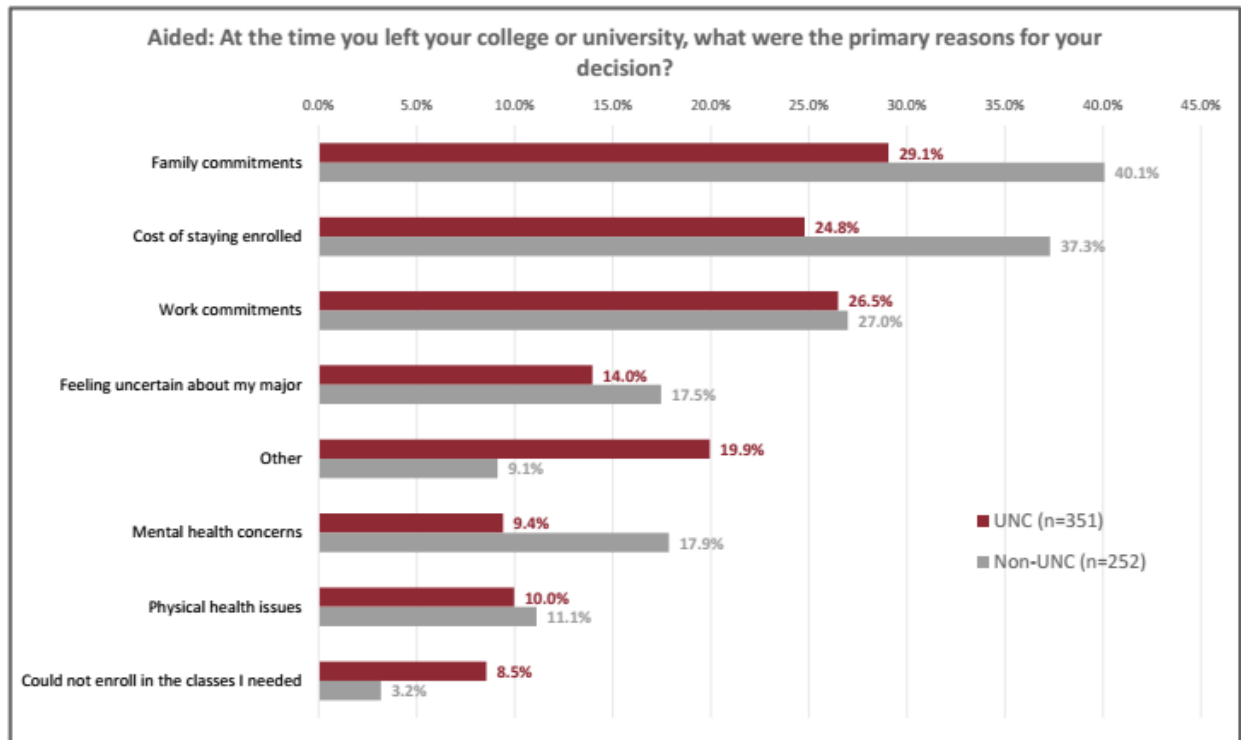
UNC GA hired Stamats, a market research firm, through a competitive RFP process to conduct research to analyze the Part Way Home “student marketplace,” with an eye toward UNCGA later working with a company to design a campaign to draw students back to complete college. Stamats looked at those defined by the earlier “standard” of 2.0+ GPA, stopped out for at least one year, and with 90 or more credit hours between 2008 and 2014. Rather than using just available statistics, Stamats contacted actual PWH students to participate in focus groups and quantitative surveys. In total 13,750 were identified meeting these criteria and telephone numbers were appended for 11,897 UNC PWH students. There were a total of 603 respondents (351 UNC PWH and 252 non-UNC PWH) to the quantitative surveys and an additional 60 UNC PWH students participated in telephonic or bulletin board focus groups. Stamats contacted 4,097 UNC-PWH students and 51 panel respondents to yield the sample size of 351. Of the 4,097 UNC-PWH students contacted, 1,832 were screened out of the study for one of the following reasons:

- No longer a valid phone number: 1,073
- Currently enrolled in college: 269
- Already graduated with a Bachelor’s degree: 429
- No longer a resident of North Carolina: 61

Students had many reasons for leaving school, with the most noted being family and work commitments, costs/financial constraints, health concerns (mental and physical), and concerns regarding major and course availability to complete their program. Although financial burden was among the top commonly cited reason for leaving the University, it was always mentioned in the context of another factor. For example, if a course was not available students questioned their program of study, leading to an examination of whether the cost of attending was worth continued enrollment. When asked, “What was it about the cost of staying that led you to leave,” 49.4% stated that financial aid was not enough (with 18.4% saying they had reached federal financial aid limits), and 49.4% stated that they needed to work in order to provide for themselves and/or their family. Figure 2 summarizes the findings of this aided question, meaning respondents were given multiple choice options of which they were able to choose one or more.

²⁶ See <http://www.northcarolina.edu/apps/bog/doc.php?id=55416&code=bog>

Figure 2: Primary Reasons for Decision to Leave College/University²⁷



Of note, Stamats also found that the vast majority of UNC PWH students (62.8%) who wanted to return to school desired re-enrolling at their previous university. Former UNC students showed a higher desire to return to school than non-UNC students, and had taken steps to do so. PWH students who previously had not attended a UNC school, desired a different university (62%), and 85.6% indicated they were very or somewhat likely to enroll at a UNC institution. Overall, these trends and other data show an overall level of happiness with and support for UNC institutions. Twenty-eight percent (28%) of UNC respondents and 38% of non-UNC respondents selected more than one answer to this multiple choice (aided) question.

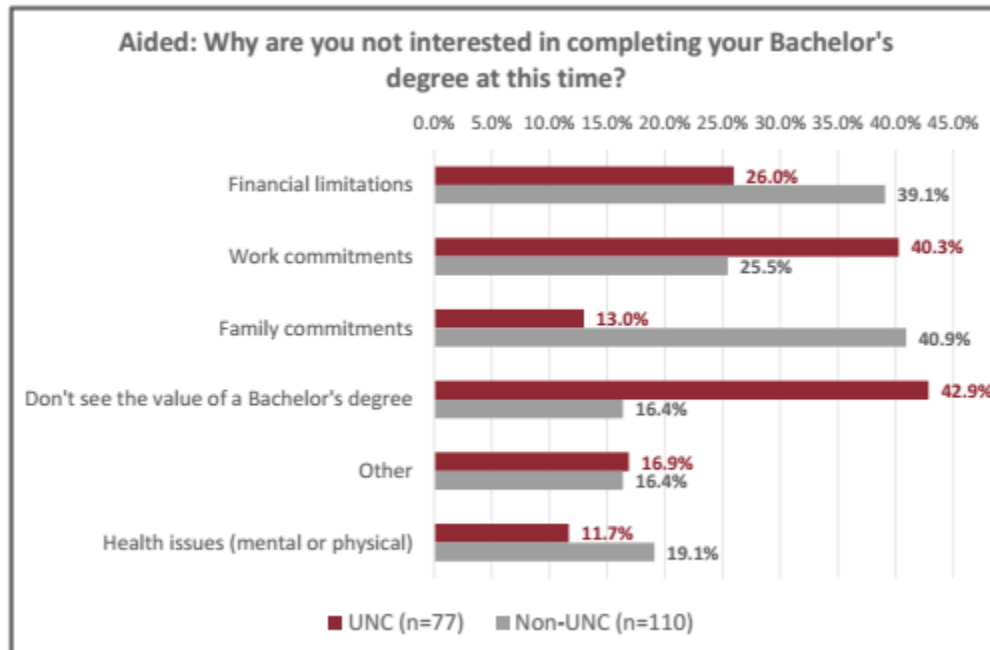
Survey responses indicated that retention and reenrollment efforts would be enhanced by improved academic advising, having the universities streamline and reduce logistical roadblocks to reenrolling, and offering additional undergraduate online courses. Older students cited frustration with changing degree requirements, leading to taking additional classes (and costs). Students need help finding and/or envisioning the path to graduation (with an eye toward efficiency and costs) to keep them from leaving.

Stamats analysis showed that among those students who had no interest in returning to school, 42.9% of UNC PWH students cited “don’t see the value of a bachelor’s degree” as compared to 16.4% of non-UNC PWH students as the top reasons (see Figure 3). It should be noted that the age of UNC PWH students surveyed is lower than that of non-UNC PWH students. Fifty-nine percent (59%) of UNC-PWH

²⁷ “Survey of Part-Way Home Students,” Stamats Market Research for UNC-GA, final report dated July 14, 2017. When pressed for the “other” concerns, students most commonly mentioned low grades, not wanting to remain in school, and conflicts/disagreements with the university.

respondents were between the ages of 25-35 as opposed to 58% of non-UNC PWH students being between the ages of 31-55. The difference in age could be impacting the perception of a bachelor's degree, as older PWH students may have had the unfortunate experience of being turned down for job opportunities or promotion which younger PWH students have yet to experience. Again, this was an aided question and respondents were allowed to select more than one reason. Thirty-nine or 50.6% of UNC-PWH respondents and 58 or (52.7%) of non-UNC PWH respondents selected more than one response.

Figure 3: Primary Reasons for not Being Interested in Completing a Bachelor's Degree²⁸

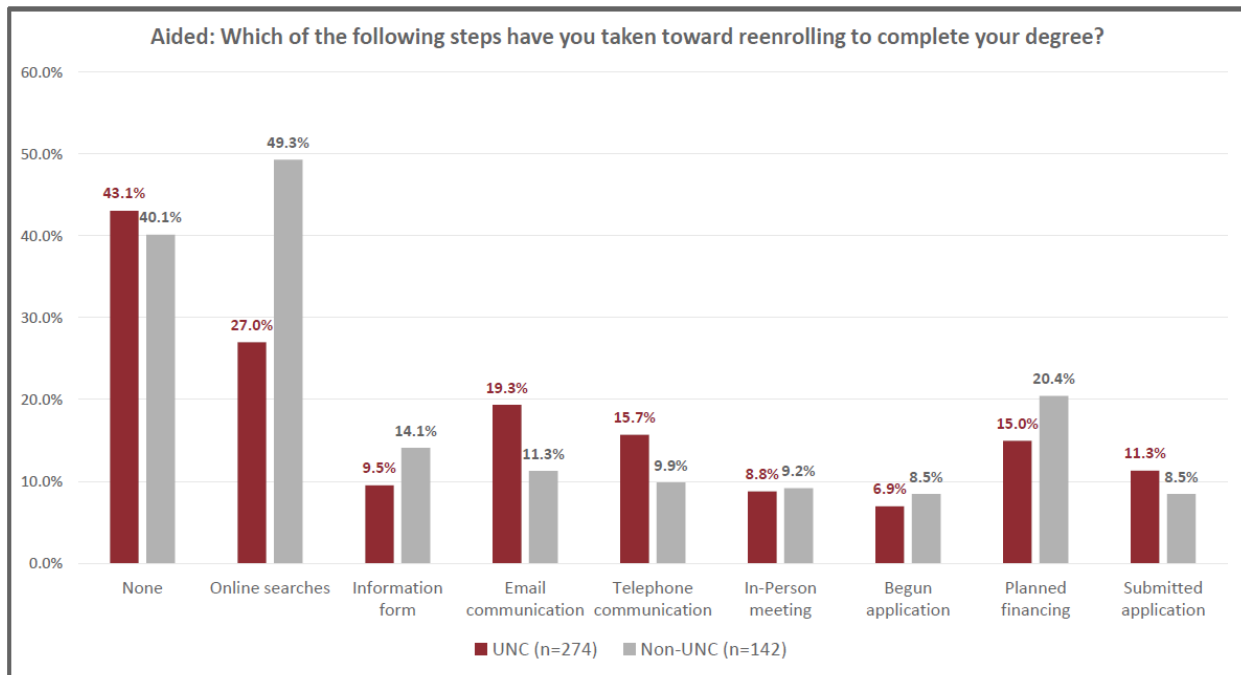


Despite this finding, 45.3% of UNC-PWH students are very interested and 32.8% somewhat interested in completing their bachelor's degree (78.1% total). More than half of UNC-PWH students intend to enroll within the next year (52.9%). Figure 4 illustrates that more than half of respondents indicated they have taken one or more steps toward re-enrolling (online searches, completing an information form, email/telephone communication, in-person meeting, began an application, started financial planning, or submitted an application). However, 43% of respondents had taken no steps toward re-enrolling. Fifty-eight or 21.2% of UNC-PWH respondents and 50 or 35.2% of non-UNC PWH respondents selected more than one choice to this aided (multiple choice) question.

These results may support the daunting reenrollment process described by students during the focus groups. In order to facilitate re-enrollment, we should remove barriers within the re-enrollment process such as eliminating application fees, offering an online degree audit, and storing students' academic documents (e.g., transcripts) so that students do not need to retrieve them.

²⁸ "Survey of Part-Way Home Students," Stamats Market Research for UNC-GA, final report dated July 14, 2017.

Figure 4: Steps Taken to Re-enroll²⁹

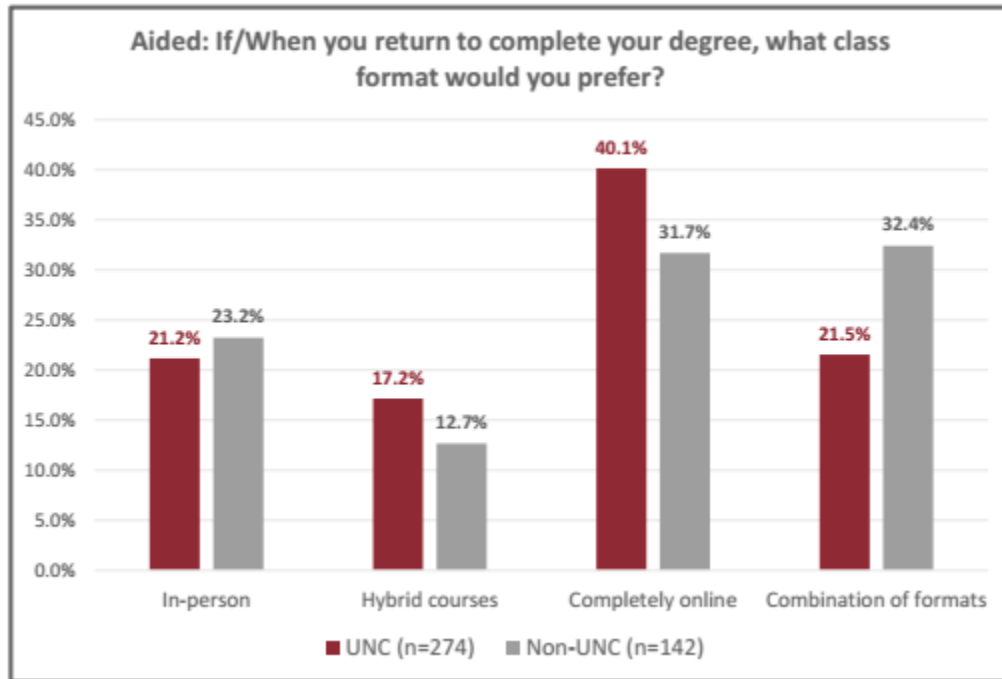


For those who reenrolled, students would like to meet very early with advisors and see a clear academic plan--a “roadmap”--to graduation. Universities could help those students reenroll, especially if they are recent stop-outs, by reducing the readmissions steps and requirements and limiting steps and costs (such as waiving readmissions fees and the requirement to resubmit transcripts the institution received when they initially applied for admission). One concept for consideration would be institutions having some advisors dedicated to reenrolling PWH students, who understand their concerns and needs, and perhaps even a centralized reintegration team, to include financial aid and student life.

For students with life/family and/or health concerns, increased flexibility of online classes would help them return and graduate, and students found those options lacking--especially upper-division majors’ courses (see Figure 5 below for results to this multiple choice question). Faculty and staff at system constituent institutions corroborated the need for additional online classes to the PWH staff during site visits and during the adult learner convenings in October 2016 and April 2017. Only 21% of potential returning PWH students desired in-class formats, whereas more than 40% wanted completely online offerings.

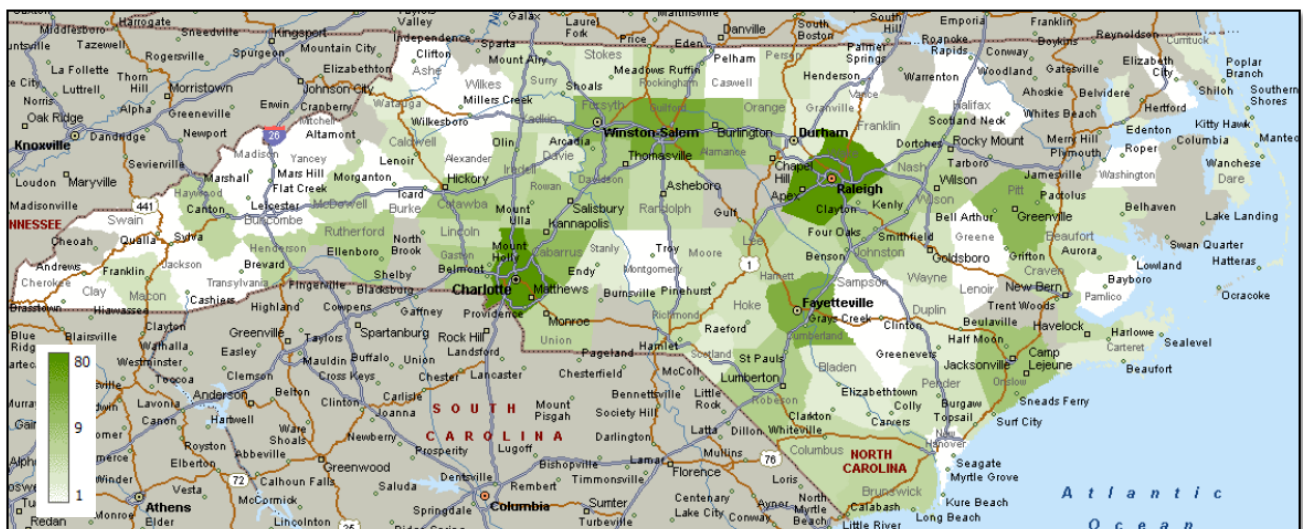
²⁹ “Survey of Part-Way Home Students,” Stamats Market Research for UNC-GA, final report dated July 14, 2017.

Figure 5: Desired Class Formats for Potential PWH Returnees³⁰



Potential returners are distributed throughout North Carolina, but are primarily located in metropolitan areas: Raleigh, Charlotte, Greensboro, Winston-Salem, and Fayetteville. Note, however, that there is fairly large contingents of potential returners near Jacksonville, Greenville, Burlington, and Hickory. It is interesting to note that the areas of the state with large military populations are also areas with high concentrations of PWH students.

Figure 6: Location of UNC PWH Survey Respondents³¹



³⁰ "Survey of Part-Way Home Students," Stamats Market Research for UNC-GA, final report dated July 14, 2017.

³¹ "Survey of Part-Way Home Students," Stamats Market Research for UNC-GA, final report dated July 14, 2017.

The market research uncovered many other important findings related to financial advising, mental health counseling, withdrawal procedures, and the re-enrollment process. The market research summary report can be found on the Adult Learner Initiatives Portal.³²

Summary

Students leave for varying, and often a combination of reasons. The most notable include:

- Family commitments
- Work commitments
- Physical or mental health related concerns
- Finances alone often are not the reason students stop-out

More than half of UNC-PWH students wish to re-enroll and return to their previous university. Many of them are looking to enroll in the next two years and have taken at least preliminary steps to being the re-enrollment process.

To better facilitate their return, UNC should:

- Identify and remove re-enrollment barriers that exist (e.g. re-application fees, providing an online degree audit tool, and storing academic documents (like transcripts)).
- Establish a meeting with an advisor early in the process (perhaps even prior to acceptance) to receive a clear degree pathway.
- Dedicate advisors for returning adult learners would ensure students are receiving the attention they require and that students have a contact they meet with regularly throughout their enrollment.
- Provide clear information on the cost of attendance and financing options.

Part-way home students are largely located near metropolitan areas although there are large concentrations near military installations, Pitt County, Robeson County and other areas. The market research also uncovered findings related to withdrawal procedures, financial advising, mental health counseling and the re-enrollment process. These findings were shared with institutional representatives, including Provosts, to make them aware of the challenges faced by these students.

Pilots and Other Initiatives to Improve Access and Completion

Overview

Several pilot studies and initiatives were developed based on the findings of the various research and data efforts. These included a degree audit project, pilot tests of interventions to prevent stop-out, enhanced access to flexible 7- and 8-week courses, development of online learning orientation to better prepare students new to online learning, creating competency based education programs, and use of technology to enhance teaching and learning.

³² See: <https://myapps.northcarolina.edu/alstakeholder/resources/reports/>.

Conducting degree audits for returning adult learners can be extremely complicated and time consuming. Each institution has varying degrees of tools and staff to complete this sort of work. Additionally, through the research conducted on best practices for serving adult learners, returning students are eager to know how many credits they are required to complete, how long that will take, and how much it will cost. A robust advising tool that can create degree maps for students in multiple pathways allows advisors to provide students with multiple options for degree completion, to include an expeditious path which may save time and money. Institutions were provided funding to conduct degree audits providing information on the amount of time, number of personnel, time-to-degree (both in semesters and credit hours), and degree pathways available. Audits revealed not only the number of accumulated credits at stop-out but, the number of credits that fulfilled degree requirements.

Early in the process, Provosts were consulted regarding institutional definitions of part-way home students and procedures for reaching out to students who hadn't registered for the following semester by registration deadlines. These discussions lead to the development of a competitive grant to support campus initiatives to prevent stop-out through creating or enhancing outreach to students who accumulated 60+ hours, were in good academic standing, but who had not registered by the registration deadline.

National scans and literature presenting strategies to better support non-traditional learners identified accelerated courses and competency based education as tools to improve time to degree for both traditional and nontraditional learners. Based on these findings, a competitive grant was issued to support the development of 7- and 8-week courses. Work was already underway at the system-level to develop competency based education programs, which is an approach to teaching and learning that focuses on developing skills or "competencies" that serve as the unit of measure for credit, instead of "seat time." Once students demonstrate mastery of competencies, they move through the curriculum.

In 2015 institutions responded to a questionnaire reviewing online education policies and practices and revealed the need to better prepare new online learners for this unique learning environment. A small working group was created to develop an online learning orientation to better prepare students new to online learning. In this same review, UNC General Administration discovered that faculty and staff across the system desired the revival of a teaching and learning conference that focused on technology. This workshop was a valuable professional development tool for many across the system. Based on this desire, UNC General Administration will be reviving and revamping this workshop to focus on adult learners to be held in the spring of 2018.

Below is a summary of each project and resulting findings.

Degree Audit Pilot

Nine institutions participated in a degree audit pilot where staff examined transcripts of 100 randomly selected stopped out students and collected similar data. Each auditor mapped the student's degree path in their original major and one alternative major, while collecting information related to the number of credits the individual had earned, the types of courses taken, the time to degree in both pathways, the average time to complete an audit, and the availability of online courses. The purpose of this exercise was to identify procedural, policy, and operational obstacles to creating clear degree paths for returning students.

The audit revealed some interesting procedural and policy related challenges. As with other studies, no clear trends emerged between a student's major and a tendency to stop-out. The larger majors on campus seemed to contain larger numbers of stop-outs, but this trend is expected, given the proportion of students these majors represent. One telling finding related to major was the number of undeclared majors who stopped out. These individuals often had high accumulations of credit hours but no clear path toward a degree. For these students, and others who are close to financial aid limits, the tuition surcharge presents an even larger barrier for them to complete a degree. With little financial aid available, the additional cost of a tuition surcharge could mean students are unable to return and complete degree requirements. Several key recommendations were made based on the findings in the degree audit pilot:

- Improve monitoring, tracking, and outreach of stopped out students to ensure they understand their re-enrollment options.
- Ensure a robust degree audit system is in place which is frequently updated to navigate curricular changes and includes past (not only current enrolled) student data.
- Improve advising.
- Ensure all students declare a major before their junior year.
- Identify off-ramps for competitive majors.
- Provide focused services for transfer students.
- Train specialized auditors for the part-way home population who look for at least one alternative pathway outside of the students originally declared major.
- Create or clarify policies and procedures determining by which catalogue returning students should be evaluated.
- Waive tuition surcharge for students meeting specific criteria.
- Improve partnerships and communication with community colleges.
- Facilitate academically rigorous alternative pathways for students with large numbers of credits but who are not close to completing requirements for a specific major through Interdisciplinary/General Studies degrees.

Preventing Stop-Out at UNC

UNCGA funded a Preventing Stop-out at UNC initiative, a competitive grant opportunity to test interventions that would improve the registration of current students who had not registered for courses by the applicable deadline and to analyze the characteristics of this population. The desired outcome for this initiative was to use this data to design interventions and improve the likelihood of registration, thus preventing stop-outs and creating PWH students. UNCGA awarded funding to East Carolina University, UNC-Charlotte, UNC-Chapel Hill, and UNC-Wilmington through this grant opportunity.³³ East Carolina University and UNC-Wilmington tested interventions to support students who had not registered for courses by the registration deadline. UNC-Charlotte evaluated data to create a predictive model for understanding the characteristics of students who had not registered for the upcoming semester. UNC-Chapel Hill took a hybrid approach, conducting both analysis and outreach to PWH students and providing them with support to re-enroll.

³³ For complete results and information, see the Adult Learner Initiatives Portal: <https://myapps.northcarolina.edu/alstakeholder/resources/reports/>.

UNC-Charlotte:

UNC-Charlotte developed a predictive model to identify factors that predict stop-out. The study used a sample of 17,639 students who were either late-registering or stopped-out. In addition to this model, UNC-Charlotte conducted a survey on students' reasons for delaying course registration and stopping-out, inviting 3,621 students to participate; 157 students completed the survey (a response rate of 5%).

UNC-Charlotte's predictive model found that previous stop-out history, lower academic performance, and financial student account holds are significant predictors of stop-out. Student subpopulations with increased risk of stopping out include: female, African American, transfer, and students affiliated with the College of Liberal Arts & Science. Consistent with Stamat's findings, UNC Charlotte found that students are unlikely to stop-out for solely financial reasons. When additional factors, such as lower than desired academic performance or medical or mental health issues arise, students re-evaluate financial pressures, and ultimately stop-out. As a result of these findings, UNC-Charlotte has identified the following areas of focus moving forward: providing more resources and assistance to transfer students, the African American female population, and students with a major in Liberal Arts & Sciences; and developing additional need-based financial aid in the form of micro-grants to provide gap aid for students near completion with small financial need.

UNC-Wilmington:

UNC-Wilmington conducted two outreach interventions in Spring 2017 targeting students who had not registered for Fall 2017 courses by the registration deadline. Intervention I was a more intensive, professional advisor outreach, and Intervention II was a lighter-touch, faculty and staff outreach. The interventions had 162 total participants, including a control group. In both interventions, university officials attempted to contact their students multiple times based on a prototype intervention schedule. For Intervention I, 30% of students who were contacted registered for fall 2017 courses, and that percentage increased to 32% for Intervention II students. About half of students who registered did so within a week of the first contact.

UNC-Wilmington did not note major differences in the success of the two interventions and will be repeating both activities in Fall 2017 to clarify their results. They expect to see different results with their fall intervention because the fall and spring semesters have different registration patterns. They discovered that in the spring, students do not feel a sense of urgency to register for fall courses, as there is an extended period of time between registration and the start of class. In the fall, the period between registration and the start of class is much shorter. Additionally, UNC-Wilmington believes that some students may delay registering for fall courses because they need to work over the summer to fulfill financial obligations. Based on the results of the spring interventions, UNC Wilmington's preliminary results show that reach-outs such as this, even if not responded to, seem to encourage earlier registration, and students appreciate being contacted. After conducting their fall intervention, UNC-Wilmington plans to establish protocols for reaching out to non-registrant students to encourage registration, including a campus wide email one-to-two weeks after the end of the regular registration period, and departmental interventions six weeks after the regular registration period.

East Carolina University:

Like UNC-Wilmington, East Carolina University focused on students who had not registered by the registration deadline, although they targeted students in their Bachelor of Science in University Studies (BSUS) program. This program was designed to prevent stop-out by providing students who were academically qualified to remain enrolled, but who were unable to gain admission to their preferred

major, with an alternative academic pathway. Advisors contacted students who had not registered for the major gateway course, UNIV 2000, encouraged them to re-enroll, and asked them to complete a Qualtrics survey. Although only 10 students responded to the survey, of the 48 contacted, 36 (75%) ultimately enrolled in the spring 2017 semester, and 13 of the 36 (36%), enrolled in the gateway course. Like UNC Wilmington's findings, reach outs, even when the students do not reply directly, do seem to encourage registration.

East Carolina University also established a mentorship program for spring 2017 to address themes that impact persistence in their University Studies program, including lack of support, unfamiliar territory, and loss of community. For the mentorship program, they established a test and a control group consisting of 114 total participants who were enrolled in UNIV 2000. Half of the participants were enrolled in face-to-face sections, and half were enrolled in online sections. The students in the test group were assigned a student and staff mentor to offer support and guidance, while the students in the control groups worked within the program's traditional advising framework. Their results show that the mentorship program had a larger impact on students in online sections than face-to-face sections, as 71% of the online test group enrolled in UNIV 4990, the capstone course, while only 57% of the control group did so. Of the face to face sections, 73% of the test group and 75% of the control group enrolled. East Carolina University will continue to develop this mentorship program and plans to scale it to serve other part-way home students beyond the University Studies major. The results of this pilot illustrate the importance of creating opportunities for online students to connect and build community among peers, faculty, and staff.

UNC-Chapel Hill:

UNC-Chapel Hill took a hybrid approach, conducting outreach to stopped-out students and providing them with support to re-enroll through a mentorship program for Part-time Classroom Studies students. Students were assigned to different advisors based on their specific needs--Transfer Students Coordinator if they were a transfer student, Graduation Coordinator if they were close to graduating, and so forth. The intervention totaled 127 participants, who were contacted by phone and email during a four week period. Of those responding to the outreach, roughly $\frac{2}{3}$ re-enrolled. An issue UNC-Chapel Hill encountered when attempting to contact their stopped-out students, is that for many of the students the contact information was outdated or inaccurate; 90 out of 127 didn't respond, possibly due to inaccurate contact information.

For the Part-time Classroom Studies Mentorship program, four currently stopped-out students initially agreed to participate, with three ultimately participating. Each student was assigned a peer mentor who followed up with them on a monthly basis to facilitate their return to campus and connect them with resources. All three students re-enrolled for fall 2017. Based on feedback from these students, UNC-Chapel Hill believes a primary factor contributing to stop-out is the inability to come to campus, whether due to accessibility issues, family or financial constraints, or full time employment. Therefore, the university believes it would be beneficial to establish a fully online degree completion option for adult learners, which it currently does not have. As with the other interventions, students indicated that they appreciated the outreach. The finding that pre-enrollment mentors facilitated re-enrollment is support for partnering with community-based, grassroots, and employer partners to create a community-based network of pre-enrollment coaches at scale. Additionally, the challenge of contacting stopped-out students can be addressed and facilitated through these community and employer partners.

Competency-Based Education Pilots

Several institutions received funding to develop competency based education (CBE) programs. CBE programs allow students to move through curriculum based on their mastery of content, versus the traditional classroom “seat time.” North Carolina Central University, North Carolina State University, UNC-Chapel Hill, and Winston Salem State University all received funding to support the development of CBE programs.

- **North Carolina Central University, School of Education, Department of Curriculum and Instruction. Degree completion program, BA Teacher Education, early & middle grades**
This pilot involved curriculum and business process redesign for the existing, successful “Teacher Assistants to Teachers Program” currently operating at NCCU. Student surveys consistently noted “time for program completion” as a barrier to pursuing this path. The newly-redesigned curriculum will allow students to work through the program at a personalized pace. The faculty team committed to working alternating Saturdays to revise and redesign the curriculum and assessments around competencies. All rubrics use a four point scale with levels of emerging, developing, proficient, and accomplished. A student is required to meet a proficiency level at each competency before being allowed to move forward. Next steps include: implementation of a CBE learning platform; funding for Phase II of the project (the Methods courses); and completion of the full NCCU approval process. The initial pilot in AY18 will enroll 10-20 students. Experiential classroom experience is woven into the program. Students will enroll in this program through a traditional registration semester, but each course is eight weeks long and awards three semester hours.
- **University of North Carolina at Chapel Hill, School of Education and North Carolina State University, College of Education. Lateral-entry teacher certification, non-credit credential. Four tracks: Math, Science, English, Social Studies**
This initiative represents the inaugural joint effort between two UNC Research I institutions toward developing a solution to help North Carolina’s teacher shortage. Both of these teacher preparation programs are recognized as among the state’s most effective teacher preparation programs. The program plans to enroll a minimum of 50 lateral entry teachers in year one, and another 150 in the second year. Built on five pillars (The Learner and Learning; Content Knowledge; Instructional Practice; Professional Responsibility; and Faculty Concerns), the program is designed for the student to complete within one year. These students are already employed in a NC public school in a core content area (i.e., they already have a teaching job but must complete a licensure program to keep the job). The program will be evaluated on teacher performance in four areas: completing the program; performance on the edTPA; Teacher effectiveness; and K-12 student performance. P2PNC has the potential to significantly impact alternative teacher preparation in North Carolina. As the first competency-based teacher licensure program, they are establishing a model for the state--and possibly for the country. Of special note, this post-baccalaureate credential ventures outside of a traditional credit-bearing model that would be transferable to a Master’s program, and instead follows the models established by entities such as coding boot camps. The program will charge \$1,250 for a three month subscription to content and assessments.

- Winston-Salem State University, School of Health Sciences, RN to BSN Program**
 The RN to BSN program is offered in a traditional semester-based online format, an accelerated online format, and now (with \$75,000 in supporting funding from the NC Community College System) a CBE format. UNCGA awarded WSSU the grant to engage a curriculum support consultant, who will help migrate the content into the learning management environment. This pilot is on track to enroll 10 students in Academic Year 2017-2018. The RN to BSN program will charge \$1,250 for a 3 month subscription to content and assessments.

The following table summarizes enrollment expectations for each of these programs:

Table 4: Competency Based Education Programs*

University	School, Department	Faculty Involved	Staff Involved	Project Funds	Annual Projected Enrollment AY2018	Annual Projected Enrollment AY2020	Three-year Projected Revenues
NCCU	School of Education, Curriculum and Instruction	10	7	\$75,000	20	40	\$223,680
WSSU	School of Health Sciences, RN to BSN program	9	10	\$5,000	20	100	\$500,000
UNC/NCSU	UNC School of Education; NCSU College of Education	32	15	\$150,000	50-100	500	\$2.5 Million

* All estimates are tuition only--no fees and no appropriation

Enhancing Course Formats to Serve Adults and Other Nontraditional Learners

Through a request for proposal process, UNCGA awarded grants to support innovative 7- and 8-week (or “accelerated”) course formats for 31 three credit hour, online courses at seven UNC system institutions: East Carolina University, Elizabeth City State University, Fayetteville State University, NC A&T University, NC Central University, UNC-Chapel Hill, and UNC-Charlotte. Increasing the number of courses offered in a single semester provides more opportunity for students to take necessary courses without waiting for a new semester. Initiatives selected focused on high-demand or over-subscribed courses, foundations or entry courses required for adult students in a targeted “adult degree completion” program, sets of core courses for degree programs. The seven institutions are developing these courses, which will be open for enrollment in spring 2018.

Reformatting courses for an online and 7 and 8 week delivery is a challenging task requiring assistance from Instructional Design Technologists to support faculty in the course development. Instructional Technologists are specialists in designing and developing technology enhanced processes and resources for learning. These individuals train and assist faculty in designing courses to meet their intended learning outcomes. Each institution’s capacity in this area varies with some having very robust distance education and instructional design staff and others having very minimal support in this area. For this reason, of the 31 courses being reformatted, UNCGA selected 17 courses at four institutions to receive additional technical assistance grants: Elizabeth City State University, Fayetteville State University, NC A&T University, and NC Central University. The additional funding will cover the cost of instructional design and technologist support from an external vendor, iDesignEDU, which was selected through a competitive RFP process. Utilizing this vendor alleviated the burden from the institutions to completing these intricate course reformatting projects within a compressed timeframe. The following tables lists the 17 courses selected to receive this additional support.

Table 5: Courses Awarded Technical Assistance Grants

Institution	Course Number	Title
Elizabeth City State University	BUAD 360	Quantitative Methods
	CJ 206	Police in American Society
	CJ 313	Research Methods in Criminal Justice
	CJ 392	Statistics in Criminal Justice
	ENGL 102	English Composition and Grammar
	ENGL 322	Advanced English Grammar
	ENGL 401	Technical Writing
	SOWK 367	Social Work Practice I: Individuals, Families, and Groups
	SOWK 370	Social Welfare Policy
	SOWK 372	Human Behavior and the Social Environment II: Adolescence through Adulthood
Fayetteville State University	MATH 130	PreCalculus II: An Online Course for STEM Learner Students
NC A&T University	BUED 110	Business Computer Applications
	BUED 260	Business Communication
	BUED 279	Personal Finance
	BUED 342	Business Programming
	BUED 400	Business Reports & Presentations
NC Central University	SOCI 3700	Sociological Research

In addition to the staffing required to successfully develop 7- and 8-week courses, there are also structural considerations to take into account when delivering courses at multiple times within a given semester. Examples include changes in the student information system (i.e. Banner) as well as enrollment and financial aid procedural changes.

Improving Access to Courses through Other Flexible Modalities

UNCGA used a guiding, central theme for these various initiatives--improving access to courses through flexible modalities. Flexible modalities refer to modes and deliveries of academic programs that are more accommodating and accessible to nontraditional students, such as online courses, 7- and 8-week courses, competency based education, and assessing prior learning assessment for academic credit.

Awarding Credit for Military Training and Education

Although a separate project not funded through the part-way home appropriation, the collaboration between the UNC system and the North Carolina Community College System (NCCCS) to evaluate military training and education for academic credit is an example of creating flexible pathways for military personnel (many of whom could be considered part-way home students) and worth mentioning in this report. N.C. Senate Bill 761, ratified July 2014, requires the UNC Board of Governors and the State Board of Community Colleges to devise and implement a plan for the uniform granting and transferring of course credits for military training and occupational experience to veteran students enrolled in North Carolina universities and community colleges. The effort includes four goals:

- To facilitate and record the awarding of academic credit by current UNC and NCCCS faculty members, based on commensurate military training and experience and, where applicable, to a selected degree plan or course, to active duty and military veteran students currently enrolled in one of the 58 public community colleges or 16 public universities in North Carolina, or to members of this group who are contemplating such enrollment.
- To provide an on-call/available (24/7), automated assessment to current and potential military and veteran students on academic credits they would receive, based on their military training and experiences, through the Community College Common Core library, or at any of the 16 constituent four-year UNC institutions.
- To promote and increase, through these developed capabilities, the attraction of military and veteran students to these institutions, and to increase the retention of these students once enrolled.
- To encourage military members who are retiring and separating from military service to attend an institution of higher learning in this state, and to use their skills to enhance this state's economy and to fill shortages in identified vocational and professional fields.

To satisfy the requirements of SB 761, representatives from UNCGA and the NCCCS formed a Military Credit Advisory Council (MCAC), comprised of faculty, staff, and administrators from both systems' institutions and systems offices. The overarching purpose of the MCAC is to ensure that faculty members from our own universities and community colleges evaluate military training courses and occupational experiences in an independent manner using standard levels of objectivity and rigor. The MCAC will also facilitate the creation of a transparent and accessible system for informing veteran students how this credit will transfer to any North Carolina Community College or UNC institution. To accomplish these purposes, the MCAC has formed academic discipline-based evaluation panels comprised of faculty members from both systems. Faculty panels have convened in the following 15 academic disciplines: Nursing, Allied Health, Business, English and Communications, Humanities and Foreign Language, Criminal Justice and Criminology, Computer Science and Information Technology, Education, Culinary, Emergency Management Services/Emergency Management Technician, Aviation, Automotive, Supply Chain Management, Engineering (AAS), and Fire Protection.

Since July 2016, 67 separate military occupations have been evaluated. Based on these evaluations, faculty member evaluators have recommended the awarding of 3,830 lower- and upper-level semester credit hours. Additionally, 12 formal military training courses have also been evaluated. With hundreds of military occupations, and thousands of military training courses, this evaluation process will be ongoing. Approximately 90 faculty members from both systems have participated thus far. Faculty panels will convene again in October 2017 to evaluate additional military training and experiences for academic credit. Project directors from both the systems are working to present proposed policies and guidelines to their respective system boards for approval by fall 2017. They will subsequently disseminate credit approval decisions made to-date by faculty panels to the constituent institutions.

Offering academic credit for military training and education will be a leap forward in providing military personnel and veterans' pathways to a postsecondary credentials and preparing them for post-military employment. The military credit program also provides an excellent example of how our two systems can provide rigorous prior learning assessment to accelerate student pathways toward degree/credential completion.

Improving the Accessibility of Courses

One of the many challenges of serving adult learners is ensuring access to specific courses necessary to move students toward a degree-specifically upper-division courses. To meet this challenge, institutions must ensure flexible course scheduling and modalities. In addition to those programs/methods mentioned previously, UNC has implemented, or will implement, three strategies to increase access to necessary courses:

1. **UNC Online:** Currently offers students across the system the opportunity to cross register for online courses at other system institutions. UNC Online expands the availability of courses beyond a student's institution and helps students stay on track toward graduation.
2. **Orientation to Online Learning:** Design a best in class web-based guidance and information to better prepare students across the UNC system for their first online course.
3. **Utilizing Technology to Enhance Teaching and Learning:** Workshop for faculty and staff across the system focused on new approaches to pedagogy, adaptive learning courseware, open educational resources, use of technology to enhance online and face-to-face classes.

Providing access to the courses students need--particularly returning adults whose needs are very specific and nuanced--can be challenging for any single institution. As a system of higher education, UNC has the opportunity to provide greater access to courses utilizing its network of member institutions.

Leveraging 'System-ness' to Deliver Services and Resources at Scale

UNC Alliance for Collaborative Education

UNC has started leveraging the system's course inventory through UNC Online, a technology solution providing students with the ability to seamlessly cross-register for online courses at all 16 member

institutions. UNC Online launched two year ago, in 2015, and has experienced dramatic growth in utilization with very little direct marketing. Capitalizing on UNC Online's infrastructure, several institutions will be collaborating to offer courses for interdisciplinary studies programs (online completion degrees), with an emphasis on 7- and 8- week accelerated or hybrid courses. Interdisciplinary degree programs offer students a flexible pathway toward a degree, while maintaining academic rigor and the ability to specialize in a given concentration area. The UNC Alliance for Collaborative Education will provide returning adult learners/PWH students the opportunity to work toward a degree while taking advantage of courses from five different UNC institutions: East Carolina University, Fayetteville State University, NC A&T University, NC Central University, and UNC-Greensboro. Pooling courses in this way will increase the availability of needed courses hence moving students toward completion in a more efficient way.

External Marketing

The UNC system can leverage the strengths and diversity of the member institutions to offer services and resources at scale. Building on the market research completed in the 2016-2017 academic year, UNCGA will partner with several member institutions and an external vendor to develop a system-wide marketing and outreach campaign to re-recruit PWH students. UNCGA's efforts, which will amplify the messages of individual institutions as was done in Tennessee, can target and reach a broader audience than any single institution could do on their own. We will develop and distribute templates and guidance that will promote one recognizable brand for returning PWH/adult learners, but direct them to the individual institutions that best meet their needs. Our efforts will create efficiencies and maximize the efforts of institutions that have fewer staff resources devoted to marketing activities, allowing them to focus upon students locally.

Internal Marketing and Creating Communities of Practice

Internal marketing is arguably just as important as external marketing. To improve communication to internal and external Adult Learner Initiative stakeholders, UNCGA has developed a prototype (or beta test) Adult Learner Initiatives Portal, which will house information and resources for both potential adult students and various stakeholder groups. Having a central portal for prospective returning (and perhaps new nontraditional learners) will be key to disseminating information in an efficient and concise way. Students will have access to generic information on financial aid and re-admission procedures and specific information about available programs and contacts at institutions. Specific information for transfer and military students will also be included, as well as testimonials of students who have returned to complete their degree. To view the in-progress site visit: <https://myapps.northcarolina.edu/adultlearners>.

Collaboration--especially via building communities of practice--across the UNC system is vital to understand and address the barriers inhibiting adult learner success in North Carolina and implement successful strategies to aid in adult learner completion. Through communities of practice, UNC faculty and staff are able to share their knowledge, successful practices, and experiences with one another to improve processes, policies, and services system-wide. The Adult Learner Initiatives Portal, workshops, advisory committees, and communities developed around targeted initiatives will provide opportunities for this sharing to occur and ensure a better developed strategy for serving this population of students. To this end, UNC-GA held two Adult Learner Convenings with the intention of engaging faculty and staff

across the UNC institutions to brainstorm, share information on data and best practices, and develop initiatives both at the system and institutional level.

On October 5, 2016, UNC-GA held a convening on *Part-Way Home: Retention and Recruitment to Address Stop-out in the UNC System*. This convening engaged teams from all 16 Universities to begin a dialogue about stop-outs in the UNC system. Fifty attendees participated in sessions focused on reviewing system-wide and institution-specific trends, characteristics of part-way home students, information gathered from preliminary data analysis and focus groups, and successful practices from existing UNC part-way home programs. Based on attendee feedback, the convening exceeded its objectives, which were to: discuss challenges associated with stop-outs, examine successful practices from peers, brainstorm strategies for addressing stop-outs, and learn about opportunities to support the implementation of these strategies. These efforts led to the creation of a logic model pathing-out the distribution of funds and initiation of projects and mid-term goals.

For two days in April 2017 (20th and 21st), UNCGA held a second convening, *Improving Degree Completion in North Carolina: Addressing Retention and Recruitment of Adult Learners*. This convening reengaged the teams that participated in the first convening, as well additional campus representatives, to continue the dialogue about adult learner success across the UNC system, and allowed UNCGA to update the institutions regarding ongoing initiatives. More than 150 attendees, panelists, speakers, and sponsors from 15 UNC institutions participated, as did UNC-TV. The event was sponsored by The Lumina Foundation, EduNav, Hobson's, Burning Glass, and iGrad, and featured both national and local speakers. Plenary and concurrent sessions discussed topics relevant to the development, implementation, and success of serving nontraditional learners. The goals of the event included:

- Raising awareness of the challenges and opportunities surrounding degree completion.
- Sharing promising practices from across the UNC system and nationally.
- Sharing key learnings from work to date.
- Identifying and crafting pilot strategies, collaborations, and ideas to improve recruitment, retention, and degree completion among adult students.

Themes highlighted during this convening focused primarily on the need to implement practices both at a system wide and institutional level to aid in adult learner success. Learnings contributed to the creation of a multi-year sustainability plan to reach and serve adult learners. The full plan is described on page 30 ([Recommendations and Implementation Plan](#)). The desired outcome of the plan is a cohesive, system-level strategy for re-recruiting, re-enrolling, and graduating nontraditional learners.

Re-aligning Services and Policies to Meet the Needs of Nontraditional Learners

Just as adult and non-traditional learners require flexible courses and course modalities, policies and services must also be flexible enough, as well as current, to meet their needs. Such a realignment is no small undertaking and first requires an understanding of strengths and opportunities. To start, institutions participating in the UNC Alliance for Collaborative Education (UNC-ACE) will conduct policy and procedural assessment to identify and recommend changes which will facilitate adult learner and nontraditional student degree completion. The assessment will include the review of policies, procedures, and services to determine how they align to the needs of adult and nontraditional

learners. Alliance institutions will also work together to investigate the potential for developing robust prior learning assessment policies and implementing the continued work of the military training articulation panels. These two mechanisms will provide opportunities for future students to receive credit for prior and experiential learning. The three strategies of course-sharing (focused on accelerated, online, and hybrid courses), policy/procedural assessment, and prior learning assessment will create a holistic approach to facilitating degree completion. As we continue to develop successful approaches to serving adult and nontraditional learners, other system institutions may choose to participate in the Alliance or adopt any developed policies.

One concrete example of such a re-alignment is the Reverse Transfer project, a collaborative effort between the NCCCS and the UNC system started in the spring of 2015. Reverse Transfer helps students to earn a certification, and protects students who transferred from a community college but cannot (or may not) finish a bachelor's degree. Students who transfer to a UNC system school from one of the 58 NC community colleges prior to earning their AA/AS are given the opportunity to combine the credits earned at the university with credit already earned at the community college. Once the student completes the required additional coursework at the university, and appropriate associate degree requirements are met, the community college awards the student their AA/AS. To date, more than 2,200 students have earned their associate degrees, translating to an 8% annual increase in those degrees awarded. Emerging data indicate that students who receive their associate's degree via reverse transfer may have an increased likelihood of completing a bachelor's degree.

Technology to Improve Degree Efficiency and Student Success

A distinctive feature of the many strategies already discussed is their transferability to serving traditional students. Nowhere is that more true than with technology. We identified three areas where the system can leverage technology to improve efficiency and student success:

- Adopt integrated degree mapping and registration software for current and prospective students.
- Deploy technology to better track student outcomes and plan to meet course demands.
- Utilize predictive analytics and data visualization software to proactively identify students who may benefit from specific services (such as Heliocampus and the PAR Framework).

Implementing these recommendations would result in increased success for adult learners, and they are aligned perfectly with recent legislative requests for data/technology modernization, to include: degree path software, predictive analytics platforms, and data visualization tools. These tools will benefit the University's student community beyond adult learners, but using the adult learner population as the pilot group to adopt these tools offers us the best opportunity to identify operational issues and evaluate functionality before deploying these solutions to the larger community.

Specifically, we plan to deploy a tool that institutions can use to easily track adult learners through the registration process, and to easily identify and assign students to faculty and staff for outreach during integral points in their academic careers. This tool will improve efficiency for institutions who do not currently have an automated mechanism for identifying and assisting these students. This tool, coupled with information generated from predictive analytics software, like Hobson's PAR Framework (Predictive

Analytics Reporting Framework), will enhance the level of actionable information institutions have at their disposal when designing interventions to serve specific populations on their campus.

Statewide, Cross-sector Engagement for Increased Post-Secondary Attainment in North Carolina

The oft-mentioned statistic of 1.1 million PWH students in North Carolina, combined with many counties with post-secondary attainment levels below the state average, and North Carolina's national ranking as 39th in per capita income³⁴, offers a stark contrast to the state's projected job growth, which will outpace overall population growth. The projected jobs will require employees with postsecondary credentials, and UNC alone cannot undertake the daunting task of offering educational opportunities for such a large number of potential students and meet the future needs of our state and its growing economy. It will require a coordinated effort among the various higher education sectors, industry/employer, military, and private/non-profit partners. These efforts include the strengthening of partnerships between UNC and the NC Community College System by leveraging and building on existing policies, such as the Comprehensive Articulation Agreement, Reverse Transfer, and more.

Better industry and employer partnerships need forged, not only to assist in identifying and marketing opportunities for students, but also to help students complete their education through tuition assistance programs and flexible work arrangements. Higher education partners should work with industry partners and military bases and entities to provide educational programs that develop the skills and abilities employers say are important to them, including critical thinking, communication, and interpersonal skills. Partnering with community organizations can provide much needed pre-enrollment support to adult learners looking to return to complete their credential.

Higher education partners should expand work with one another and each of these other sectors to develop strategies to reach the full spectrum of North Carolina's attainment goals, not just the P16 pipeline. UNC will be piloting such an approach through a partnership with The Community Foundation of Greater Greensboro, whereby they will provide pre-enrollment coaching to adult learners interested in returning to complete a credential. This pre-enrollment coaching will improve the likelihood of re-enrollment by supporting students through the various required processes, such as applying for financial aid and identifying funding to finance their education, connecting to social service organizations, and identifying the best fit institution based on a student's goals and needs.

To begin this work, UNC-GA has partnered with the Community Foundation of Greater Greensboro to pilot a community network to serve as pre-enrollment coaches for returning students in the Guilford County area. This community is modeled on Tennessee Re-Connect, discussed earlier in this report. A lesson from the Tennessee approach is that these community network organizations are sometimes difficult to sustain financially, particularly in rural areas. MDC, Inc, a research firm in Durham, North Carolina, has been commissioned to conduct an environmental scan of five counties (Guilford, Durham, Pitt, Cumberland, and Jackson) to identify industry, philanthropic, faith-based, higher education, and other potential partners throughout the state and issue a sustainable implementation plan.

³⁴ Bureau of Economic Analysis and Equality of Opportunity Project

Recommendations and Implementation Plan

Improving student success and degree completion is a complex endeavor that stretches across the university and is affected by variables beyond its borders. Yet researchers and practitioners have identified strategies that move the needle in this critical area. Adult and non-traditional learner success is just as complicated, if not more so, and requires partnerships within and outside colleges and universities to be truly successful. The plan proposed by UNC General Administration is derived and informed from the work with constituent institutions, national foundations, and efforts in other states. It is a comprehensive plan that will take time to implement. Once implementation is complete, assessment and evaluation will be important components to an on-going refinement of the approach. In addition to UNC students who are faced with life challenges and forced to leave the University without completing a credential, North Carolina has the fourth largest population of military personnel in the country, in addition to hosting military family members. The pipeline of students with some college but no degree is sure to remain for the foreseeable future. It is incumbent upon us to create various access points to the University to ensure the opportunity for students to return and complete what they started.

The elements of the multi-year sustainability plan are grounded in the findings of all the data analysis, pilot projects, and recommendations from national organizations like Higher Ed Insight and State Higher Education Executive Officers Association (SHEEO).³⁵ Each organization notes the importance of: publicizing resources for adult learners; providing strong academic, career, and financial advising; providing financial aid, particularly at the state level; flexibility in course delivery; providing prior learning assessment opportunities beyond DANTEs and CLEP exams; and easing the process of re-admission. The multi-year plan incorporates work to improve course offerings in flexible formats (hybrid, online, and 7- and 8-week courses); provide success coaches for students as they move through their degree plan; expand marketing and outreach efforts through targeted marketing and partnerships with community organizations; improve employer and community college partnerships; pilot technology solutions that would improve the timeliness of completing degree audits; identify policy barriers and make revisions to remove them; and create guidelines and recommendations on the implementation of rigorous prior learning assessments.

The five pillars of the adult learner initiative provide a framework for recommendations and a multi-year implementation plan. Multi-faceted and ambitious, the multi-year plan is the beginning of a sustained effort to improve access and success for all UNC students, which includes adult and other nontraditional learners. This sustainability plan focuses on five categories we feel will improve the attainment of credentials across the state:

- Improving Access to Courses through Flexible Modalities.
- Leveraging ‘system-ness’ to Deliver Services and Resources at Scale.
- Re-aligning Services and Policies to meet the Needs of Non-Traditional Learners.

³⁵ Adult College Completion in the 21st Century: What We Know and What We Don’t (2015) https://higheredinsight.files.wordpress.com/2015/06/adult_college_completion_20151.pdf, and Adult Promise Program: A Pilot Design Template for States (2016), http://www.sheeo.org/sites/default/files/Adult%20Promise%20Design%20Template%20Final_120616_0.pdf.

- Implementing Technology Solutions to Improve Degree Efficiency and Student Success.
- Facilitating Statewide, Cross-Sector Conversations about Post-Secondary Attainment in North Carolina.

North Carolina lags behind other state systems of higher education in the development of a coordinated initiative aimed at assisting adults who have stopped-out to return and complete a credential. A goal of UNC General Administration’s multi-year sustainability plan is to leverage our role as the UNC system to provide resources to our institutions to support and develop programs they already have in-place. The UNC Alliance for Collaborative Education, a course share initiative we are currently piloting, will provide the opportunity to develop initiatives based on the successful practices discussed above such as:

- Develop unified branding for adult degree completion within the UNC system.
- Model Tennessee’s community network. We are partnering with The Community Foundation of Greater Greensboro, to pilot a community network approach to outreach. As the Community Foundation of Greater Greensboro already has an initiative in place that serves adult learners working to re-enroll in college in its community, building upon that foundation and existing community network provides the opportunity to experiment and evaluate ways to connect with and recruit adult learners in North Carolina.
- Capitalize on the resources we already have in place and making these resources accessible to adult learners through statewide, system-wide, community, and employer partnerships. These efforts will aid in adult learner recruitment and completion and bring us closer to achieving the goals of the UNC Strategic Plan and meeting the state’s need for a more educated and qualified workforce.

The five pillars are also directly tied to the focal areas of the *Higher Expectations* strategic plan, including improving access to underrepresented students, improving degree attainment and student success, engaging with the community to improve the economic mobility of citizens in Tier I and Tier II counties, improving efficiency, and leveraging the diverse and unique attributes of our member institutions. Each recommendation aligns with one or more of the five pillars and ensures a strong foundation on which an effective and sustainable adult learner initiative should be built. Recommendations can be categorized as either contributing to “recruitment” or “completion.”

Recruitment

1. Create a UNC-wide marketing campaign to re-recruit adult learners.
2. Review and revise policies and procedures that create unintended barriers for returning students.
3. Build on and expand current relationships with the NC Community College System.
4. Create employer and community partnerships to locate and support adult learners interested in returning to the University.
5. In partnership with NC Community College System, NC Independent Colleges and Universities, as well as public and private entities, develop a sustainable framework for a statewide network of community organizations to provide pre-enrollment coaching and support to adults looking to return to complete a credential.
6. Dedicate staff and recurring resources at UNC General Administration to spearhead UNC’s adult learner initiative.

7. Identify financial aid strategies (at both the institutional and State levels) to provide support to students attempting to complete their credentials.

Completion

1. Develop a multi-university consortial approach to delivering courses to adult learners throughout the system (for more information on the UNC Alliance for Collaborative Education [click here](#)).
2. Improve access to online, hybrid, and face-to-face courses.
3. Develop guidelines for implementing rigorous prior learning and experiential credit.
4. Complete the military training articulation project.
5. Create incentives for institutions to share online courses and increase summer course availability.
6. Incentivize institutional performance in graduating adult learners.
7. Continue to implement current and pilot promising data and technology solutions to improve student success including degree path software.
8. Create a statewide attainment goal that all sectors work toward achieving.
9. Explore market demand for, and potentially develop, alternative credentials (certificates, badges, stackable credentials, etc.).
10. Working with member institutions to identify and implement improvements in advising, particularly for returning adults.

Implementing these recommendations will require a multi-year effort. Multiple universities, higher education partners, and private and public partners are necessary to ensure the proper framework and structures are in place to adequately serve nontraditional learners. Additionally, many of these recommendations will require significant changes to policy and practice at member institutions that will require time for pilot initiatives and evaluation to verify identified approaches are achieving the desired outcomes. Although the effort required is significant, once implemented, many of these strategies are transferrable to the retention and success of traditional students as well.

As has been demonstrated, serving nontraditional learners--and particularly students returning to complete a degree--is challenging and nuanced. These challenges cannot be overcome with a singular effort or one-time initiative. To be effective, these efforts must be integrated into the daily operations and focus of the University and must have sustained funding to support them. Without such a commitment, it will be impossible to generate the necessary buy-in and dedication to implement innovative strategies to effectively serve nontraditional learners.

Each of these recommendations has been translated into an actionable multi-year sustainability plan that includes cycles of pilots of initiatives, evaluation and assessment. Based on results from the evaluation and assessment, adjustments to initiatives will be made to increase their effectiveness. During the 2017-18 academic year, UNC-GA will partner with several member institutions to develop the foundation for the UNC-Alliance for Collaborative Education, a marketing campaign, a community network and other activities including technology pilots. This will be a developmental year creating the infrastructure possible to kick-start future growth and evaluation efforts.

Each subsequent year features a series of activities that would continue to expand the scope and capacity of the initiative. In academic year 2018-19 the UNC-Alliance for Collaborative Education initiative will be implemented and should begin enrolling students. Implementation and evaluation of

policy recommendations and community partnerships will also take place as well as initiating employer partnerships. Academic year 2019-20 will include the issuing of grant opportunities for member institutions to enhance and expand course offerings through UNC Online as well as 7 and 8 week courses. Expansion of members in the UNC-ACE initiative may also be possible by this time. The cycle of expansion, development, and evaluation of activities within the scope of the five pillars will continue as the project progresses as these activities become a part of daily operation of the University.

The budget is presented in the conclusion of this report, and the full plan is available on the Adult Learner Initiatives Portal.

Finally, in order to clarify misconceptions and establish a clear baseline definition, the University proposes the following definition for part-way home students: ***Adults (24+) with some post-secondary work completed, but who lack any academic credential.***

The University would also like to move away from the part-way home terminology, and focus on “**Adult Learner Initiatives**.” The broader term would incorporate a broader range of potential students, to include military affiliated students, veterans, and their family members who move to the state. Market research, conducted by Stamats, and planned marketing development may also provide additional terms and program name for use in campaigns later this year. Additionally, by focusing on “academic credentials” instead of four-year degrees, all educational entities in the state can appropriately engage students to meet their needs. The University can work with the NC Community College System (engaging our new Director of Community College Partnerships) in this effort.

Conclusion

Creating a strategy to assist adult learners in completing a credential is important to both the citizens and the State of North Carolina, because of the following factors:

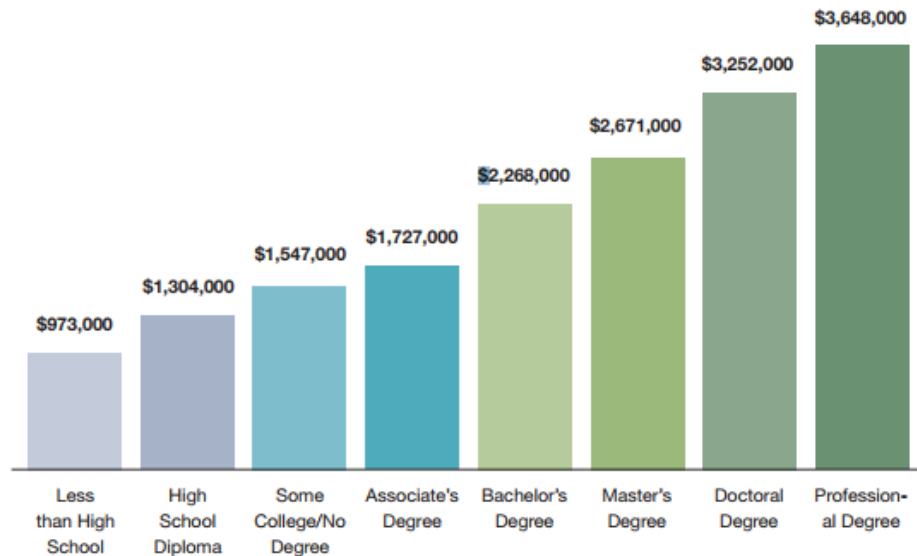
- Population growth will outpace job growth by 2024 and the areas of job growth will require post-secondary credentials.
- Increased degree attainment will improve the economic status of Tier I and II counties through the creation of a skilled workforce that will attract employers.
- Doing so will make North Carolina a national competitor for industry and economic opportunity.
- Additional adults with degrees, and better jobs, will increase the tax revenue for the State.
- It contributes significantly to UNC’s Strategic Plan goals of improving access, affordability, efficiency, and community engagement.

Degree Attainment’s Impact on Citizens and the State of North Carolina

The impact of improved degree attainment will be felt by both individuals and the State of North Carolina. Continuing job growth is an opportunity for improved economic development across the State, but it also presents challenges for many across our State who have some college but no credential--due to an increasing proportion of these jobs requiring associate’s and bachelor’s degrees. A 2009 study conducted by Georgetown University’s Center on Education and the Workforce, “The College

Payoff: Education, Occupations, Lifetime Earnings,”³⁶ identified that a bachelor’s degree is worth \$2.8 million, on average over an individual’s lifetime as compared to an average lifetime earnings of \$1.52 million for non-college graduates. Associate degree earners add approximately \$450,000 more to lifetime earnings compared to just a high school diploma.

Figure 7: Median Lifetime Earnings by Highest Educational Attainment (2009 dollars)



One preliminary estimate of benefit to the state follows. Increased individual earnings translates to higher tax revenues for the State over time, as the figure below from “The Economic Benefit of Postsecondary Degrees: A State and National Level of Analysis” by State Higher Education Executive Officers (2012)³⁷ illustrates. Rough calculations demonstrate that if 1,000 more North Carolinians earned a bachelor’s degree each year for five years, the State would receive more than \$17 million in taxes in those five years alone (and possibly more, given that 20% of students who earn a bachelor’s degree enter a Master’s degree program (completing the graduate degree in two years). This calculation is derived from the estimating the increased pay earned from having a bachelor’s degree (based upon the 2012 study quoted above) and applying the current flat tax rate (5.499%).³⁸

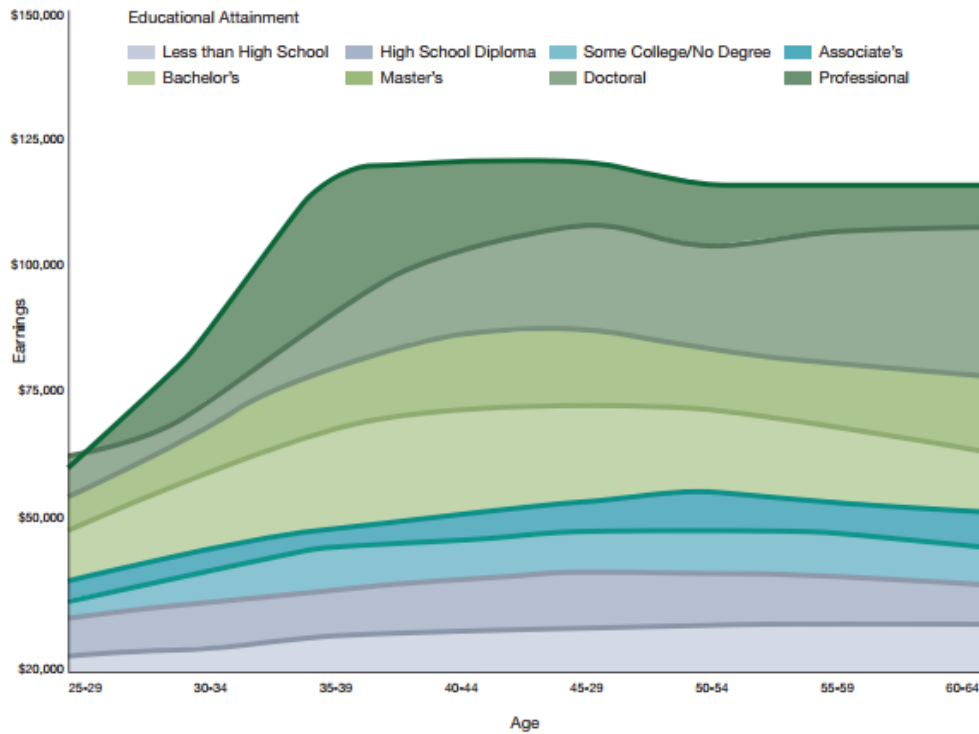
³⁶ <https://cew.georgetown.edu/wp-content/uploads/2014/11/collegepayoff-complete.pdf>

³⁷

<http://www.sheeo.org/sites/default/files/publications/Econ%20Benefit%20of%20Degrees%20Report%20with%20Appendices.pdf>

³⁸ The difference between a bachelor’s degree and a high school degree (in 2012) was \$20,937 per year. The first year group of 1,000 more degree holders would add \$104,685,000 for the 5 years, and each group would have one year less of earning, with the 5th year counting only one year of salary total (\$20,937,000). Applying the current tax rate to that total of \$314,055,000 equates to \$17,269,844.45.

Figure 8: Lifetime Earnings Trajectories (2009 dollars)



A Focus on Adult Learners is aligned with the UNC Strategic Plan

The UNC Strategic Plan, *Higher Expectations*, calls for greater student access to a UNC institution, improved student outcomes, a more affordable and efficient education, increased community engagement, and embracing the different and unique roles each of the constituent institutions plays within the system. The strategies UNC is currently (and plans to) engage in will improve access for this underrepresented population of students, which includes our active duty, veteran, and military dependent population. Our strategy for improving access includes both institutional and system level efforts that would build on the existing efforts already underway, and bring the most promising strategies to scale. Additionally, initiating partnerships with employer, community, and philanthropic organizations, as well as the North Carolina Community College System, will not only facilitate pathways toward a degree, but could also provide either sustained or seed funding to create and test success coaching/mentor programs, as well as financial aid strategies.

The UNC-GA team has learned a great deal from other states and will utilize those lessons to develop and evaluate a successful effort in North Carolina that builds on our current efforts and brings them to scale. UNC is already engaging in many efforts that complement the work of attracting returning adult learners to complete their degrees. The following table summarizes these initiatives, which were described earlier in this report, and plans for evaluation or follow-up.

Table 6: Current UNC Initiatives

Initiative	Current Status	Planned Evaluation/Follow-up
Military Training Articulation	Credit Evaluation On-Going (3,800 semester hours of credit have been recommended for approval) Military Student Success policy is also being reviewed and updated for approval in November	Continuous Review and Evaluation of Military Training and Education for Academic Credit
UNC-ACE Pilot	Pre-launch and Planning	Annual Enrollment Graduation Rate Graduation Efficiency Relationship between policy changes and enrollment/graduation rates/graduation efficiency
Prior Learning Assessment Guideline Development	Pre-launch and Planning	Examining the potential for developing guidelines to implement robust and rigorous PLA programs
System-wide Marketing	Planning	
7/8 Week Course Development	Development	Enrollment and enrollment demand Academic success of students Assisting institutions with overcoming structural barriers to offering 7/8 week courses with multiple registration periods and evaluating whether implemented solutions have mitigated or resolved those barriers
Community Partnership	Pre-launch and Planning	Assessment of sustainable implementation plan Number of students served Number of students who have applied for re-admission at any institution (Community College, Public 4-year, or Independent 4-year Number of students assisted/or working through loan default Number of students who have re-enrolled at any institution
Competency Based Education Pilots	Curriculum and faculty development complete Last-stage development of software systems On-going quality assurance Currently enrolling students for Fall 2017	Time to degree/credential completion Cost to student Professional certification achievement (edTPA) Annual enrollment Retention and Graduation rates Student satisfaction Employer satisfaction

Resources to Implement Multi-Year Plan

In order to sustain the work outlined in the multi-year plan, resources are needed. As time and the plan progress, resources needs taper off as initiatives and strategies become part of day-to-day operations of UNC General Administration and constituent institutions.

UNC General Administration is also now actively seeking external funding sources to sustain community outreach efforts and to fund pilot initiatives, which may include financial aid opportunities for nontraditional learners. Our staff are engaging in conversations with institutions and foundations nation-wide to share best practices and develop sustainable approaches to serving nontraditional students. These efforts will ensure that UNC is at the forefront of this increasingly important work.

NOTE: For additional information and the complete reports noted, see the Adult Learners Initiative website: <https://myapps.northcarolina.edu/alstakeholder/resources/reports/>.

Appendix A

Budget Expenditures Aligned with Part-Way Home Projects/Initiatives

Task Name	Budget	Comments
Market Research RFP	\$144,000	Purchase Order/Open RFP
Data Partnership and Degree Audit Pilot	\$90,000	Internal Grant
October Convening	\$1,400	Meeting/Amenity
Preventing Stop-out at UNC RFP	\$93,331	Internal Grant
Undergraduate CBE RFP	\$175,000	Internal Grant
Enhancing Course Formats RFP	\$110,000	Internal Grant
General Administration Data Analysis		Budget identified in personnel costs
Statewide Visits and National Scan	\$7,663	Travel associated with visit to Tennessee
Personnel Costs	\$143,521	Personnel to support initiatives related to the PWH project (portions of current full-time staff salaries and one temporary employee)
Predictive Modeling-Data Analysis	\$17,113	Transferred to campus (ASU CARE)
Retention Tracking Tool (Helio Campus)		Budget for this project is in IT
First-time Online Learner Orientation	\$70,000	Development and deployment of Orientation
Spring Conference	\$50,000	Meeting/Amenity
UNCTV Videography (Conference)	\$8,500	\$8,500 for Convening
UNCTV Video Editing (4 testimonials/4 plenary videos)	\$20,000	Video editing and development
Adult Learner Initiative Portal	\$10,000	Freelance Copywriter and web development
UNC Alliance for Collaborative Education	\$310,000	Funding for UNC-ACE initiatives including course articulation, adult learner coordinators, policy assessment, PLA training, Workshop on using technology in teaching and learning, and other related work
UNC-GA/Community Foundation of Greensboro Partnership	\$306,785	Partner with CFGG to pilot a community approach to pre-enrollment coaching for returning adult students (\$306,785). MDC to conduct feasibility study on state-wide approach to community networks (\$150,000).

Task Name	Budget	Comments
Instructional Design Support	\$277,000	Campuses work directly with vendor, iDesignEDU, to facilitate the development of 7/8 week courses
Marketing Development/UNC-G Partnership	\$150,000	Tie to current re-branding effort and work with UNC-G and a vendor to create an awareness, messaging, and branding strategy.
PAR Framework Membership Dues	\$50,000	Membership dues for institutions participating in the PAR Framework predictive analytics pilot
Technical Assistance Grants	\$86,000	Partnership with UNC-TV to provide technical assistance for faculty to enhance online courses through the use of the lightboard and other media production assistance for online courses.
Misc. Costs (Supplies, software, printing etc.)	\$13,236	

Totals

Total Spent/Encumbered	\$2,133,550
Total Remaining/Contingency	\$166,450

Appendix B

Part-Way Home Funds Expenditure Summary

**61080 Part-Way Home Students Expense
Summary
at 6/30/2017**

Fund	Source	Dept	Account	Acct Description	Budget	Actuals	Balance Available
10141	61041	160000- UNCTV	520000	Purchased Services Budget	86,000.00	0.00	86,000.00
10170	61007	102000-SVP Academic Affairs	511120	EPA Non Teach On Campus	30,315.00	27,788.79	2,526.21
			515120	Social Security ORP-TIAA	2,319.00	2,070.17	248.83
			515410	Retirement	6,219.00	3,607.82	2,611.18
			515530	Medical Insurance Purchased Services	2,382.00	2,181.05	200.95
			520000	Budget	582,799.00	0.00	582,799.00
			522810	Honorariums	0.00	1,000.00	(1,000.00)
			522820	Honorarium Expense Non Instructional	0.00	2,000.00	(2,000.00)
			522922	Services	0.00	306,785.00	(306,785.00)
			522928	Service Agreement- Others	0.00	159,785.90	(159,785.90)
			524440	Maint Agree-Other Software	0.00	3,000.00	(3,000.00)
			526120	Travel In NC-Ground	0.00	747.79	(747.79)
			526140	Travel In NC-Lodging	0.00	118.30	(118.30)
			526150	Travel In NC-Meals	0.00	290.30	(290.30)
			526210	Travel In US Not NC- Air	0.00	661.60	(661.60)
			526220	Travel In US Not NC- Ground	0.00	461.03	(461.03)
			526240	Travel In US Not NC- Lodging	0.00	573.64	(573.64)
			526250	Travel In US Not NC- Meals	0.00	91.40	(91.40)
			526711	Travel Bd Non Emp Tran Air	0.00	3,426.04	(3,426.04)
			526712	Travel Bd Non Emp Tran Ground	0.00	175.71	(175.71)
			526713	Travel Bd Non Emp Tran Other	0.00	297.26	(297.26)
			526741	Travel Bd Non Emp Lodging	0.00	16,562.70	(16,562.70)
			526742	Travel Bd Non Emp Meal	0.00	88.80	(88.80)

	527240	Computer/Data Process Service	0.00	4,999.00	(4,999.00)
	527310	Software			
	527310	Subscriptions	0.00	25,000.00	(25,000.00)
	531110	Supplies-Office	0.00	390.14	(390.14)
	531210	Supplies-Software - Licensing	0.00	240.00	(240.00)
	558310	Institution Dues - Memberships	0.00	50,000.00	(50,000.00)
	558921	Meetings and Amenities	0.00	15,107.10	(15,107.10)
	558925	Temporary Contract Serv NCSU	0.00	2,086.30	(2,086.30)
	569486	Subcontracts-Greater Than 25K	0.00	200.00	(200.00)
102000 Total			624,034.00	629,735.84	(5,701.84)
	102210	Purchased Services			
	520000	Budget	8,820.00	0.00	8,820.00
	558921	Meetings and Amenities	0.00	621.71	(621.71)
102210 Total			8,820.00	621.71	8,198.29
	102230	Tech			
	Based	EPA Non Teach On			
	Learning	Campus	23,038.00	20,075.65	2,962.35
	511120	SPA Regular Salaries	32,651.00	30,474.14	2,176.86
	512120	Social Security	4,260.00	3,839.76	420.24
	515120	State Retirement	3,714.00	3,210.40	503.60
	515210	Optional Retirement	4,204.00	3,919.21	284.79
	515420	Medical Insurance	3,773.00	3,295.65	477.35
	515530	Travel In US Not NC- Air	0.00	1,573.40	(1,573.40)
102230 Total			71,640.00	66,388.21	5,251.79
	102510	Data			
	& Analytics	EPA Non Teach On			
	511120	Campus	6,488.00	5,947.44	540.56
	512120	SPA Regular Salaries	9,729.00	8,759.86	969.14
	515120	Social Security	1,240.00	1,054.92	185.08
	515410	Optional Retirement	2,080.00	1,900.44	179.56
	515530	Medical Insurance	1,075.00	1,096.36	(21.36)
102510 Total			20,612.00	18,759.02	1,852.98
10170 Total			725,106.00	715,504.78	9,601.22
Total 16010			811,106.00	715,504.78	95,601.22

Fund	Source	Description	Amount of Transfer
PWH Reserves		Beginning Appropriation	2,300,000
		Transfer to UNCGA	(142,307)
		Transfer to UNCGA-Market Research PO	(100,000)
		Transfer to UNCGA-Prelim Participant Study	(900)
		Transfer to UNCGA-Market Research PO Addendum	(44,000)
		Transfers-Preventing Stop-Out Awards-UNCC, ECU, UNCW, UNCCH	(93,331)
		Transfers-Data Partnership and Degree Audit Pilots	(85,000)
		Transfer to ASU-Faculty Fellowship Extension	(2,362)
		Transfer to UNCCH & NCSU- CBE Project	(150,000)
		Transfers-Enhancing Course Formats Project	(110,000)
		Transfer to ASU-Predictive Modeling	(14,751)
		Transfers to NCCU-CBE Project	(75,000)
		Transfers-Enhancing Course Formats Technical Assistance	(277,000)
		Transfer to UNCGA-PAR Contract Year 2	(50,000)
		Transfer to ECSU Degree Audit Pilot	(5,000)
		Transfer to UNCGA-D2L BrightSpace Software for CBE Learning	(25,000)
		Transfer to FSU-Development & coordination of UNC ACE Pilot Project	(310,000)
		Transfer to UNCG-Development & coordination of UNC ACE Pilot Project	(220,000)
		Transfer to UNCTV-Online course multi-media content	(86,000)
		Transfer to UNCGA-Program support and video/audio editing of PWH Symposium	(36,114)
	Transfer to UNCGA-Support for partnership with CFGG	(306,785)	
Total Reserves Available			166,450

Appendix C

Multi-Year Plan Initiatives Alignment to UNC Strategic Plan

	Access	Student Success	Affordability and Efficiency	Economic Impact and Community Engagement	Excellent and Diverse Institutions
Adult Learner Portal	+				
Re-enrollment Advisor		+			
Accreditation Leadership		+			+
Populate Transfer Equivalency Tool	+	+	+		
Course Availability (UNC ACE Pilot)	+	+			
Employer Partnerships	+			+	
Community Partnerships	+			+	
Withdrawal/Re-admit Policy & overall policy audit	+	+	+		
UNC-Wide General Ed Articulation Agreements		+	+		
Military Articulation Agreement		+	+	+	
Statewide Branding	+		+		
On-going Market Research		+			
Pre-enrollment Advisors		+		+	
Classroom Experience		+			
Best Practices/Executive briefings/Toolkits		+		+	+

Appendix D

Part-Way Home Exploratory Analytics Report³⁹

Thank you for the opportunity to work on the part-way home project. Over the last several months our team⁴⁰ has combed through 350,477 student records to find 52,267 unique UNC students who meet the following criteria:

- They were UNC system students between Fall 2003 and Fall 2016.
- They had at least one stop-out of one or more semesters.
- They had 60 or more credit hours (junior standing).
- They had a GPA of at least 2.0.

In the following sections of the Part-Way Home Exploratory Analytics Report, we will discuss the target variables we are most interested in understanding and the five categories of input variables we included in the analysis, in addition to summarizing key findings, and discussing next steps.

Target Variables

We aimed to better understand two primary target variables through our analysis. These variables are:

- *Return*: those who return after one or more stop-outs. Return is broken into two sub-conditions:
 - Multiple vs Single: those who had exactly one stop-out for one term vs those with multiple stop-outs.
 - Return vs Non-return: those who returned for one or more semesters after a stop-out vs those who did not.
- *Graduation*: those who graduated in six or eight years from their first term of enrollment.
 - Six-Year: students who started between Fall 2003 and Fall 2010 and had at least six years from their first term of enrollment to when they could have graduated. Of the 52,267 total students there are 36,930 students that meet this timeline.
 - Eight-Year: students who started between Fall 2003 and Fall 2008 and had at least eight years from their first term of enrollment to when they could have graduated. A total of 27,334 of the 52,267 students meet this time restriction.

Input Variables

We were given access to a raw data set that contained variables regarding each student's academic history (e.g., Institution, GPA, Credit hours) and basic demographic information (e.g., birthday, home county). We were able to expand and link this raw data set to include data on sociographic information,

³⁹ Research, analysis, and report conducted by the Appalachian State University Center for Analytics Research and Education, under the supervision of Dr. Joseph Cazier. This appendix is a summation of CARE's report. The complete report is available at the Adult Learner Initiatives Portal: <https://myapps.northcarolina.edu/alstakeholder/resources/reports/>.

⁴⁰ Special thanks to CARE Data Analyst Matthew Dawson, Anthony Berghamme, Kyle McMakin, Qiu Xing, and Avery Dobbins for their dedicated and insightful work on this project.

academic history, career prospects, and institutional profiles. These groupings were each supported by the scientific literature and/or suggested by theory or history.

- **Demographic Information:** these input variables describe who the students are as individuals.
- **Sociographic Information:** these variables attribute summary information based on a student's North Carolina home county.
- **Academic History:** these input variables represent a student's interaction with his or her institution(s).
- **Career Prospects:** these variables represent the economic vitality of a student's chosen major.
- **Institutional Profile:** these input variables describe the most recent UNC institution a student attended and serve as control variables to better understand how certain types of students interact with the system.

By bringing in the aforementioned secondary data sources, we could look at each student in a more holistic way to better understand the factors influencing return and graduation rates.

Key Findings by Variable Category

We include an exploratory analysis of the significance of the variables in each of the five categories for which we were able to obtain data in relation to student returns and graduation rates. This is a necessary and important step to building a predictive model that can identify, in advance, how likely a student is to return or graduate. Note: many research projects stop and publish at this stage, as it identifies input variables that are highly related to the target variables and tests their significance in a systematic manner.

Please note that this data set includes only those who stopped out at least once, had 60 credit hours, and a 2.0 or above GPA. Therefore we cannot generalize to members of the population who had zero stop-outs and/or did not reach junior standing and/or had a GPA below 2.0.

Below we summarize the key findings from each category of variables in relation to student returns and graduation rates.

Demographic Information

Age: Age seems to matter a great deal as to whether stop-out students completed college. For example:

- Students who returned to college after having at least one stop-out were more likely to graduate if they started college at a younger age.
- Students who started college in the UNC system at a younger age were more likely to return and graduate after a stop-out than those who started at another institution at the same age.
- Students whose first stop-out happened at a younger age were more likely to return, with 21 seeming to be a meaningful cut off.

Re-engaging stop-out students with the university at a younger age improves desirable student outcomes for those who return.

Gender: Females had lower multiple stop-out rates than males (82.9% vs 84.3%). They also had slightly lower return rates if they did stop-out (42.4% vs 43.9%). In general, females who returned had better

six-year (16.8% vs 15.4%) and eight-year (26.0% vs 25.5%) graduation rates than males. Of particular note with regard to gender are those who reported a different gender or gender expression during their studies. If their information was recorded and shared with us correctly, it would suggest the following:

- These students represented about 1 out of 1,000 of the Part-Way Home students examined during the time period studied.
- These students were more likely to have multiple stop-outs at 85.7% vs 84.3% for males and 82.9% for females, respectively. A stop-out of a year or more might make sense to give this group time to complete a transition.
- These students had one of the lowest six-year graduation rates (8.2% vs 16.8% for females and 15.4% for males), but a higher than average eight-year graduation rate (27.8% vs 26% for females and 25.5% for males).
- These students had much higher return rates than almost any other group we studied at 59.2%, suggesting that the time off was planned.

Please also note that while the number of students was small (49 for the six-year group) the magnitude of the effect was strong enough for the results to be statistically significant.

Non-North Carolina Residents: Students who made a significant commitment to attend a UNC institution by moving from out-of-state or internationally tended to perform better. For example:

- Graduation:
 - Non-US Citizens who had at least one stop-out graduated at higher six-year graduation rates (23.0% vs 15.9%).
 - Non-NC Residents who had at least one stop-out had higher six-year (23.3% vs 14.9%) and eight-year (25.2% vs 20.4%) graduation rates.
 - Non-Resident Aliens who had at least one stop-out had the highest six-year (43.1%) and eight-year (54.7%) graduation rates.
- Return:
 - US Citizens who had at least one stop-out and returned had higher multiple stop-out rates than Non-US Citizens (83.7% vs 77.4%).
 - Non-NC Residents who had at least one stop-out and returned had fewer multiple stop-outs (77.6% vs 84.6%), but lower return rates if they did a stop-out (40.4% vs 43.6%).
 - Non-Resident Aliens who had at least one stop-out and returned had the lowest multiple stop-out rate (58.8%) and highest return rate (57.3%).

Distance from Home - NC Residents Only: Similar to non-residents, we also see a statistically significant impact based on the distance between a student's North Carolina home county and the campus where that student is enrolled. This analysis focused only on students who applied from within NC. For these students we see that, to a point, those who made a stronger commitment to attend school by moving to another town had more favorable outcomes. For example:

- Those NC residents who initially traveled farther to attend their institution were less likely to have multiple stop-outs (79.8% vs 85.9%) and more likely to return if they did stop-out (46.4% vs 42.6%).
- Those students who moved farthest away (>200 miles) to attend college had better six-year (20.4% vs 12.9%) and eight-year (29.5% vs 23.2%) graduation rates than those who attended less than 50 miles away from home.

We do not believe that being close to home is necessarily a negative, but rather that those students who go through the effort and make a commitment to go to a university farther from home are more likely to finish than those that make the default choice nearest home. These students may also have more financial means if they can afford to make the initial move to attend college.

Financial Aid: PWH students who received financial aid had more multiple stop-out periods, but were also more likely to return (43.7% vs 40.7%) than those who received no financial aid. However, students who received no financial aid were more likely to graduate in six years (20% vs 15.1%) and eight years (27.0% vs 25.5%). It is noteworthy that the financial aid completion rate narrows over time.

Results are similar when you look at the more need-based Pell Grant, where those that received one at any time had higher rates of multiple stop-outs (85.4% vs 81.5%), but also higher return rates (46.2% vs 39.8%).

The graduation rate trend also holds with those not receiving a Pell Grant having higher six-year (19.1% vs 13.3%) and eight-year (26.0% vs 25.6%) graduation rates. Notice the greatest gap exists for the Pell vs No Pell students at the six-year rate and that the Pell vs No Pell difference almost disappeared (though it is still statistically significant) at the eight-year mark. Additionally, there seems to be a key marker at age 24. If PWH students received their first Pell Grant after they were 24, when they no longer needed to include their parents' income for financial aid purposes, they were still more likely to have had multiple stop-outs, (86.7% vs 82.8%), which is not surprising given their age. However, they were much more likely to return than any other financial aid group (52.9% vs 40.8%).

It may be that the availability of the Pell Grant at this threshold age makes it easier for them to return. This idea is reinforced by the low six-year (10.1% vs 17.6%) graduation rate for those who received their first Pell Grant after reaching the age of 24. However, their eight-year graduation rates (25.7% vs 25.8%) are statistically indistinguishable from those who did not receive a Pell Grant at this age or later. **It seems that Pell Grants are especially useful in helping students who qualify for the first time at this age to return and finish.**

Race: African American PWH students had more multiple stop-outs than white students (87.1% vs 82.8%) and were less likely to return after a stop-out (41.1% vs 43.4%). They also had lower six-year (11.4% vs 17.5%) and eight-year (21.1% vs 27.2%) graduation rates than white students in the PWH population. Hispanic students were statistically in line with white students on most variables, but had a better eight-year graduation rate (30.1% vs 27.2%).

The few (349) students who reported being of two or more races had the highest return rates (51.0%) and eight-year graduation rates (37.4%), but were statistically in line with white students on other measures. Native Americans had the lowest eight-year graduation rates (20.4%) and were lower than white students on most other measures, but not statistically significant except on the eight-year graduation rate. Most other groups were not statistically different from white students (possibly due to a smaller sample size).

Sociographic Information

Home County Crime Statistics: We examined crime rates from the part-way home students' home counties. Results were largely inconclusive.

Home County Education Rates: Part-way home students from counties with higher educational rates had better outcomes. For example, those from counties where more than 45% of adults had a bachelor's

degree had fewer multiple stop-outs (81.1% vs 86%) and higher return rates (47.0% vs 42.9%) than those where less than 15% of adults had a four year degree. They also had better six-year (19.0% vs 13.2%) and eight-year (29.0% vs 22.7%) graduation rates than those from counties with the lowest educational rates. The impact was largely linear across various educational levels and held up across different types of measurements (High School completion rates, some college, etc.).

Home County Economic Performance: We looked at several measures of the economic performance of the home county, including poverty rates, income rates, median home values, and the counties' relative income compared to the rest of the state. They all told the same story—PWH students from wealthier counties had fewer multiple stop-outs, were more likely to return, and had better graduation rates.

The current county unemployment rate, used as a proxy for relative economic performance for the time period, indicated very clearly a mostly linear relationship. PWH students from counties with less than 5% unemployment rates had fewer multiple stop-outs (81.9% vs 86.9%) and were more likely to return after a stop-out (45.8% vs 41.0%) than those from counties with greater than 9% unemployment. We also looked at county tiers, but the more granular analysis above shows the effect more clearly.

PWH students from counties with less favorable economic conditions struggle to stay in college, return, and graduate more than those from more prosperous counties.

Home County Urban Rural Analysis: Not surprisingly, we had a greater number of students in our sample from the more populated areas of the state. The few students from the most remote parts of the state were not present in large enough numbers to detect statistical differences, therefore we will focus this discussion on those from the largest areas (more than 1 million) to those from metro-adjacent areas with 2,500 to 20,000 people. These groups each had samples of more than 1,000 PWH students with enough statistical power to detect meaningful differences.

Looking at this urban-rural comparison, we see some very clear trends. Namely, those that are from more populated areas (> 1 Million) have fewer multiple stop-outs (82.5% vs 85.9%) and more frequent returns (45.9% vs 42.7%) than those from the smaller areas (<20,000 residents). The trend is consistent as we move through the scale.

Academic History

Class Standing: With respect to class standing at time of stop-out, seniors were more likely to have multiple stop-outs, juniors were more likely to return after a stop-out, and those who first stopped out as juniors graduated at higher rates at both the six- and eight-year levels. The high multiple stop-out rate for seniors can likely be explained by two financial factors: the possibility that all sources of financial aid had been exhausted and the possibility that the tuition surcharge was levied. There is also the possibility that they had high credit accumulation that was not leading them to complete any specific degree requirements contributing to their ineligibility for financial aid.

Grade Point Average (GPA): With respect to GPA, students with higher GPAs had the fewest multiple stop-outs. There was a dramatic difference between those with a GPA below 2.5 and those above that cutoff. The 3.0 mark seems to be another significant benchmark, as those with a 3.0 or higher GPA had the highest return rates after a stop-out. Academic probation kicks in when a student's GPA falls below 2.0, but many departments require a GPA of 2.5 in all major courses to earn a degree. As a result, a GPA in this range (2.0 - 2.49) puts a student in a kind of academic limbo, where he or she may be in good academic standing, but may not meet the minimum qualifications required to earn a degree.

Enrollment Status: Enrollment status also appears to play a key role. Part-time students were more likely to have multiple stop-outs and less likely to return to school after stopping out. There was a dramatic drop off in six-year and eight-year graduation rates for half-time (6 to 12 credit hours/term) and part-time (less than 6 hours per term) students.

Additionally, the eight-year graduation rate for full-time students was more than 17 times greater than the eight-year graduation rate for part-time students. Logic tells us that a student who is able to attend only half or part-time will take much longer to graduate than a full-time student. These students may benefit from more intensive advising and encouragement to stay engaged as they move through their coursework. However, we need to keep in mind that it is not feasible for many students to increase the number of classes they are taking. **This finding illustrates the need for more intrusive advising and coaching for students to keep them engaged and motivated as they move through their required coursework.**

Tuition Surcharge: PWH students who had to pay the tuition surcharge were less likely to stop-out (76.8% vs 84.5%) and more likely to return (66.7% vs 39.5%) if they did stop-out compared to those who did not pay the surcharge. Those who paid the surcharge were also less likely to graduate in six years (14.2% vs 16.5%) but more likely to graduate in eight years (35.9% vs 24.2%) compared to those who did not incur a tuition surcharge.

Please note that the magnitude of the difference is very significant. Logic suggests no one would want to pay the surcharge. It is more likely that the difference is great because so many who did not want to pay the surcharge stopped working towards a degree and those who did pay were the ones determined to finish despite the higher cost of the surcharge. **Reducing or eliminating the tuition surcharge will likely improve graduation rates among the PWH population.**

Transfer History: PWH transfer students were less likely to have multiple stop-outs (81.0% vs 85.4%), and more likely to return (46.8% vs 40.3%) after a stop-out than non-transfer students. Transfer students also had higher six-year (19.1% vs 13.9%) and eight-year (27.8% vs 24.1%) graduation rates. **It seems plausible that a recommitment to a new school may help these students succeed after a period away.**

Major Changes: The percentage of students returning after stopping out increased as the number of major changes increased, suggesting that many returning students did so with a new major in mind. This “fresh start” may help returning students earn a degree. Furthermore, the numbers suggest that better major advising earlier may reduce the overall percentage of stop-outs. Two changes seems optimal, perhaps refocusing after a stop-out. More than three changes in a student’s major reduced the likelihood of degree attainment in six years, as compared to those who changed majors three times or less.

National Clearinghouse Comparison: To better understand how PWH students who stayed within the UNC system did compared to those who transferred to schools outside the UNC system, we pulled data from the National Clearinghouse. **There was no statistical difference in the performance of the two groups: they were all equally likely to graduate at the same rates.**

Career Prospects

Expected Income for Chosen Major: We explored career prospects by linking student majors to reported income levels and employment rates for those majors, both nationally and for North Carolina. Generally, the higher the expected income for a given major, the fewer multiple stop-outs and greater return rates. For example, students in majors with a North Carolina median income of less than \$40,000 a year had considerably more multiple stop-outs than those whose majors had incomes over \$100,000 per year (91.4% vs 80.0%). Their return rate was also much lower (30.4% vs 50.9%). Likewise, their graduation rates were much lower at both the six-year (8.0% vs 19.6%) and eight-year (14.4% vs 31.1%) marks.

This suggests that the expected income of a given major is a very strong influencer for PWH students to complete their degree. Offering these students an option to complete a major with a high expected income will likely lead to much higher returns and graduates.

Increasing or Decreasing Employer Demand for Chosen Major: We compared students in majors where North Carolina employment levels had recently declined with those where employment levels had increased at various levels of growth. The relationship was not linear. Sometimes, those with the highest level of growth had poorer results than those majoring in areas with lower growth. However, **overwhelmingly, students who had majors linked to employment declines had markedly poorer results than those in majors linked with employment growth.**

Those in majors with employment declines were more likely to have multiple stop-outs than those in areas of employment growth (92.9% vs 78.6 to 86.4%). Those majoring in areas with North Carolina employment declines had a return rate of only 26.8% compared to rates of around 44% for those with various levels of employment growth. Likewise, their six-year (6.9% vs 12.5% to 21.8%) and eight-year (12.4% vs 23.4% to 29.6%) graduation rates were lower.

This reinforces the economic reality many of these students face. **The prospect of finding a job in their chosen major is a very strong indicator of their likelihood to return and graduate.** Any interventions designed to help these students should consider the economic reality of a desire for higher incomes and the likelihood of finding a job relevant to the student's major that is driving many of these students' behavior.

Institutional Profile

Carnegie Class: Overall, PWH students who attended master's level schools had better outcomes than doctoral or bachelor's level schools, as broken down by Carnegie Class. For example, master's level schools had lower multiple stop-out rates (81.9% MS vs 84.3% Ph.D vs 86.3% BS) and higher return rates (44.2% MS vs 42.9% Ph.D vs 36.7% BS). They also had higher six-year (17.8% MS vs 15.2% Ph.D vs 14.4% BS) and eight-year (27.0% MS vs 25.4% Ph.D vs 21.9% BS) graduation rates.

Cost of Attendance: The total cost for attendance was also significant: schools with a higher cost for attendance had more favorable outcomes. For example those with a total annual cost of attendance >\$20K had fewer multiple stop-outs (76.8% vs 88.4%), more frequent returns (49.1% vs 38.8%) and higher 6-year (25.2% vs 10.2%) and 8-year (33.9% vs 19.0%) graduation rates than those with a total annual cost of attendance below \$15K.

We do not believe that raising the cost of attendance will help students graduate, rather, that students of more financial means who have other factors helping them achieve college success are more likely to go to more expensive schools, likely lifting their success rate.

School Size: There were some areas of small significance related to campus size and the population makeup in terms of graduate/undergraduate and full/part-time student body. However, there were no clear or consistent trends we could discern and support at this stage of the analysis.

Minority-Serving Schools: Minority-serving schools face many challenges. Among them is the PWH student population, which had less favorable outcomes on all measures. For example, these students had more multiple stop-outs (88.0% vs 82.2%), fewer returns (39.1% vs 44.2%), and lower six-year (10.5% vs 17.8%) and eight-year (19.5% vs 27.7%) graduation rates than non-minority-serving schools.

Economic Typology: The economic typology of a university's location seems to have a significant impact on PWH student outcomes, especially when the institution is located in an area where recreation plays a significant role in the region's economy. For example, PWH students attending universities in areas designated as highly economically-influenced by recreation had notably fewer multiple stop-outs (70.4% vs 86.6%), were more likely to return (51.7% vs 41.4%), and graduated at higher six-year (32.2% vs 12.5%) and eight-year (39.9% vs 22.2%) rates than those listed in non-specialized areas.

The magnitude of this impact is very strong and significant. Thus, **it appears that the attractiveness of a school's location may play a significant role in keeping PWH students in school and helping them complete a degree.**

Next Steps

This exploratory analysis has given our team a greater understanding of the key variables which have the strongest influence on the PWH population's multiple stop-out, return, and graduation behaviors. This valuable information, in and of itself, has the ability to lead to better and more informed policies that will help these students complete at higher rates. However, each of these variables has thus far been analyzed in isolation, largely showing the individual variables' impact on the targets of interest (multiple stop-outs, return and graduation rates). Additionally, this analysis is mostly a descriptive one of the key variables to this study with significance testing.

Some of these variables are covariates of others which likely have collinear properties, meaning that it is unclear which measures are causing the behavior, since many of the variables are highly correlated and move together (perhaps by some other dominant variable that influences many factors). For example, family income likely influences many factors related to degree attainment. Therefore we recommend that this research be continued by supporting the next steps of the analytics process outlined below.

The next phase of the analytics process is the diagnostic stage, where we would move from identifying variables of importance to understanding cause and effect. This stage would involve techniques for dimension reduction by collapsing many highly correlated variables into a few that can provide a stronger signal of cause and effect. The process would be achieved by identifying variables that are especially predictive on their own or building composite variables to represent a latent, or hidden, factor causing the observed behavior. It would also include standardizing some of the variables with unusual distributions to create a more stable diagnostic, and later predictive, model.

In the following stage, we would use the identified and composite variables, along with the causative theory developed in the diagnostic stage supporting them, to develop a predictive model that could be used to score new students, before they have multiple stop-outs, on their likelihood to return and eventually graduate. Such a model could be fine-tuned with respect to individual institutions, potentially offering unique insights into interventions for a school. Based on the data type, we would test a decision tree, logistic regression model, and perhaps a neural network to see which method gives the most predictive power.

In the final stage, we would utilize the predictive model to work toward a prescriptive model. Such a model would go beyond predicting who would have multiple stop-outs, return, or graduate and would help identify, through experimentation and profiling, the interventions, policies, and structures that can help improve the desired outcomes. While all stages are valuable, this is where the greatest value to the UNC system would likely be realized.

It is also worth noting that if we had access to data from students who have not stopped out (students who are not part of the PWH population) then we could better compare these groups and develop a more robust model for predicting stop-outs much earlier in the process, rather than being limited to predicting multiple stop-outs today. This would lead to a much deeper analysis, as well as more stable and predictive models not just for PWH students, but for other groups within the UNC system, as well.

I hope that this analysis has helped you better understand the part-way home population and that we can find a way to continue to work together to complete the following stages of diagnostic, predictive, and prescriptive analytics in order to better serve this key group of students.

Respectfully submitted,

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Market Sizing for Professional Liberal Studies

Prepared for University of North Carolina - Charlotte

December 2018

In the following report, Hanover assesses the prospective student market for a professional liberal studies bachelor's program in Charlotte, North Carolina. This report includes an examination of prospective student demographics, state and local labor market demand, and an analysis of current job postings.



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Executive Summary

Market Sizing for Professional Liberal Studies

Recommendations

Based on an analysis of prospective student demographics, labor market demand, and current job postings, Hanover recommends that:

- ① **UNC Charlotte should target recruitment at prospective students aged 20-29 and in the health care and retail trade industries.** Among students with some college/associate's education, the largest proportion are aged 20-29. In respect to industries, a plurality work in health care or retail industries. UNC Charlotte would reach the widest audiences in their prospective market by marketing to these populations.
- ② **UNC Charlotte should offer coursework to strengthen technology and finance skills in their program.** Technology and finance are among the top industries in Charlotte, boasting some of the best current and future job prospects. It would behoove UNC Charlotte to incorporate course options that build upon these skills in addition to more general liberal studies skills such as analytical thinking to provide a well-rounded education that would prepare students for Charlotte's job market.
- ③ **Consider adjusting the admissions standards to accept students with fewer than 60 credit hours.** Most prospective students in the Charlotte metro area have one year of college experience. This would widen the prospective student market, and help UNC Charlotte maximize enrollment, should that be the institution's goal.

Fast Facts



244,055

Number of students aged 20-49 with some college/associate's education in the Charlotte metro area.



67.5%

Percentage of students in the prospective market with one year of college education.



122,073

Number of prospective students working in the top five industries: health care and social assistance, retail trade, accommodation and food services, manufacturing, and transportation and warehousing.

Key Findings

Technology, business and marketing, and finance are among the top industries in Charlotte and statewide.

Based on labor market projections and volume of job postings, these three industries are among the most prominent in growth and size within the Charlotte metro area. In addition, other notable sectors include education, health care, and human resources. Given the diverse number of industries for graduates in the area, UNC Charlotte's proposed flexible program will be well-positioned to offer students the ability to take courses in areas of study in which they are most interested.

Charlotte employers seek job candidates with soft skills such as leadership and analytical thinking, and more specific skill sets, such as computer programming and finance.

Among job postings over the last six months, computer programming and finance rank in the top three most requested hard skills for Charlotte employers. For soft skills, self-leadership and analytical thinking fall in the top five for in-demand skills. While the proposed program is unlikely to meet the needs of employers who require complex technical skills, the program is well-positioned to address these less technical skills such as leadership and communication.

Employment in the finance, marketing, and technology industries is projected to grow at an above average rate in North Carolina and Charlotte over the next decade.

Occupations such as personal financial advisors, general and operations managers, and computer systems analysts are among the fastest growing and largest occupations in North Carolina and the Charlotte metro area. An additional field of note is education, which is among the largest sectors due to projected openings at multiple grade levels. Incorporating coursework that could be applied in these areas would be beneficial for UNC Charlotte's prospective students.

There are 244,055 prospective students in the Charlotte metro area with some college or associate's education.

Of these students, 14.3 percent work in the health care and social assistance industry, and 12.3 percent work in retail trade. The population is also predominantly white (61.5 percent) and female (53.4 percent). Marketing to students in the above industries would allow UNC Charlotte to target a large portion of the prospective student population.

Prospective Student Market Sizing

Market Sizing for Professional Liberal Studies

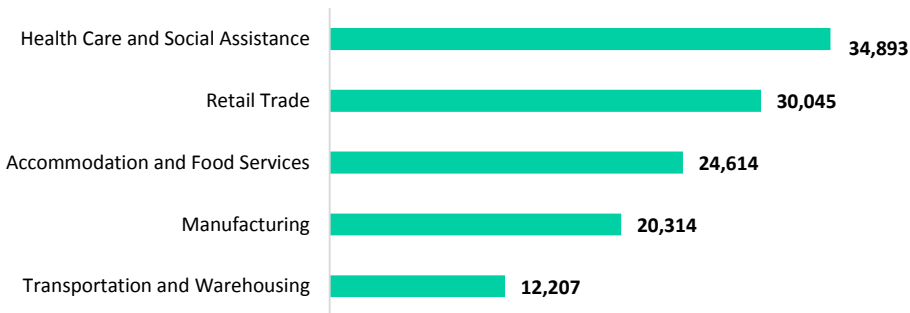
Methodology

In sizing the prospective student market, Hanover examines 2017 data from the U.S. Census Bureau's American Community Survey ([ACS](#)) to estimate the number of people in the Charlotte metro area that fit UNC Charlotte's prospective student profile for the Professional Liberal Studies program. Specifically, Hanover focuses on individuals who are between the ages of 20 and 49, live in the Charlotte metro area, and who have an associate's degree or some college as their highest level of education.

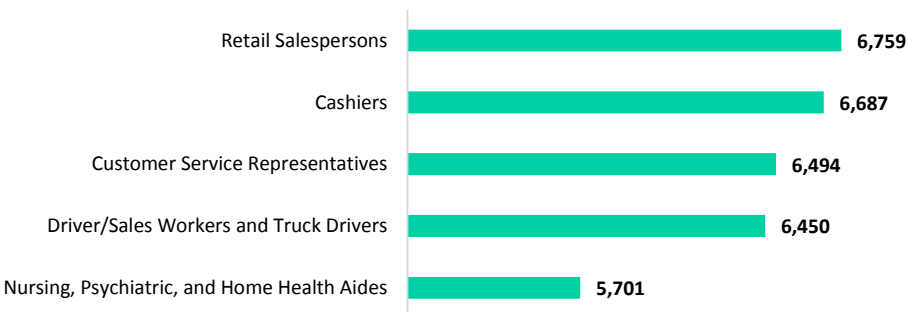
Employment Trends Among Prospective Partway Home Students

Across prospective students in the Charlotte metro area as of 2017

Top NAICS* Industries Among Partway Home Students



Top Occupations Among Prospective Partway Home Students



*North American Industry Classification System

Employment Distribution by Demographic

Across prospective students in the Charlotte metro area as of 2017

	Group	Total	In Top Industries	In Top Occupations
Age	20-29	93,271	51,902	17,502
	30-39	74,149	37,696	7,867
	40-49	76,635	32,475	6,902
Education	Some college, 1 year	164,719	82,852	23,299
	Associate's/some college, 2 years	79,336	39,221	8,792
Gender	Female	130,398	67,492	18,525
	Male	113,657	54,581	13,566
Race/Ethnicity	American Indian/Alaska Native	627	56	--
	Asian or Pacific Islander	6,114	1,390	139
	Black/African American	70,775	39,273	13,665
	Hispanic	--	--	--
	Other	16,436	7,526	1,483
	White	150,103	73,828	16,804

Analysis of Findings

The Charlotte metro area hosts a sizeable population of prospective students with some college education, predominately in the health care and retail sectors.

As of 2017, there were 244,055 individuals with one to two years of college education in the Charlotte metro area, of whom 38.2 percent are 20-29 years old, 67.5 percent have one year of college education, 53.4 percent are female, and 61.5 percent are white. Additionally, 14.3 percent of these individuals work in the health care and social assistance industry, and 2.8 percent work as retail salespersons. However, while less than a third of the prospective student market holds an associate's degree (meeting the 60 credit criteria for the proposed program), this represents a sizeable market of an estimated 79,336 individuals.

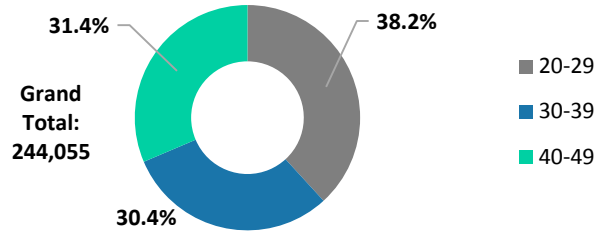
Prospective Student Market Sizing

Market Sizing for Professional Liberal Studies

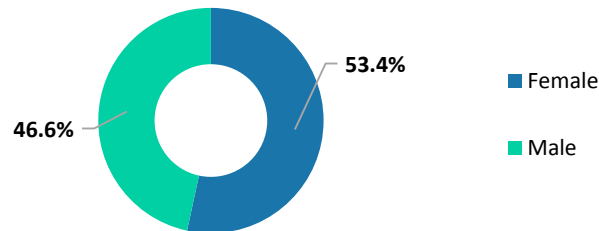
Demographic Trends for “Partway Home” Students

Across prospective students in the Charlotte metro area as of 2017

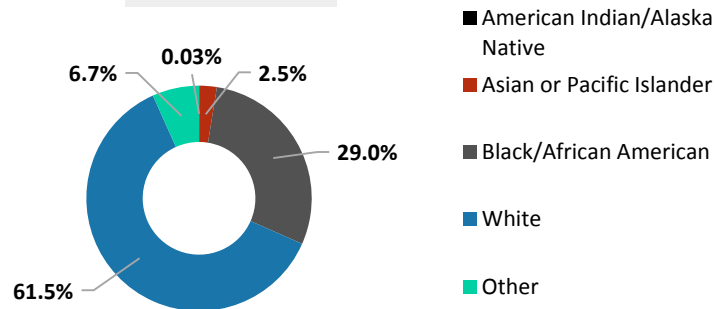
Age Group Distribution



Gender Distribution



Racial Distribution



Education Distribution by Demographic

Across prospective students in the Charlotte metro area as of 2017

	Group	Total	Some College	Associate's
Age	20-29	93,271	68,147	25,124
	30-39	74,149	49,319	24,830
	40-49	76,635	47,253	29,382
Gender	Top Five Industries	122,073	82,852	39,221
	Female	130,398	86,087	44,311
Race/Ethnicity	Male	113,657	78,632	35,025
	American Indian/Alaska Native	627	627	--
	Asian or Pacific Islander	6,114	3,594	2,520
	Black/African American	70,775	51,917	18,858
	Hispanic	--	--	--
	Other	16,436	11,970	4,466
	White	150,103	96,611	53,492

Analysis of Findings

The majority of prospective partway home students in Charlotte have completed one year of college.

Overall, 67.5 percent of those with some college/associate's education have only one year of college credit. The majority of those with "some college" are between the ages of 20 and 29 (27.9 percent of the prospective market), female (35.3 percent), and white (39.6 percent). In the labor force, health care and retail trade are again the most common industries. In building their new program, UNC Charlotte should consider adjusting the 60 credit criteria to allow students with fewer credits achieved in the attempts to maximize enrollment. If it does make this adjustment, UNC Charlotte should strategize around marketing to younger prospective students who will need larger numbers of credits to complete their degree.

North Carolina Fastest Growing Occupations

State bachelor's level positions as of 2016 and 2026 (projected)

SOC Code	SOC Title	Annualized Growth	Total Openings
15-2031	Operations Research Analysts	3.6%	1,038
13-2052	Personal Financial Advisors	3.5%	4,640
17-1021	Cartographers and Photogrammetrists	3.2%	339
13-2071	Credit Counselors	3.1%	382
27-3091	Interpreters and Translators	3.1%	1,213
15-1121	Computer Systems Analysts	2.7%	7,491
19-4092	Forensic Science Technicians	2.6%	254
15-1122	Information Security Analysts	2.5%	1,269
11-3021	Computer and Information Systems Managers	2.4%	4,700
13-1161	Market Research Analysts and Marketing Specialists	2.4%	5,316
13-2061	Financial Examiners	2.4%	643
15-2011	Actuaries	2.3%	192
15-1132	Software Developers, Applications	2.2%	8,499
13-2072	Loan Officers	2.2%	4,645
11-2021	Marketing Managers	2.2%	2,710

Analysis of Findings

Finance, technology, and marketing are the predominate industries for fast-growing occupations in North Carolina.

The most rapidly growing occupation based on recent statewide projections is operation research analysts, which are expected to see 3.6 percent annualized employment growth by 2024 (state average is 1.2 percent). Other top-growing occupations include personal financial advisors (3.5 percent projected growth) and cartographers and photogrammetrists (3.2 percent projected growth). Overall trends indicate that the most common state industries for fast-growing occupations are finance, technology, and marketing. While the Professional Liberal Studies program is designed to be flexible and meet students' interests, UNC Charlotte should ensure students are able to pursue courses or majors within some of these fast-growing fields.

North Carolina Largest Occupations

State bachelor's level positions as of 2016 and 2026 (projected)

SOC Code	SOC Title	Annualized Growth	Total Openings
11-1021	General and Operations Managers	1.4%	22,222
13-2011	Accountants and Auditors	1.7%	14,786
25-2021	Elementary School Teachers, Except Special Education	0.8%	11,853
15-1132	Software Developers, Applications	2.2%	8,499
15-1121	Computer Systems Analysts	2.7%	7,491
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	0.8%	7,242
11-3031	Financial Managers	1.7%	6,751
21-2011	Clergy	0.8%	5,694
13-1111	Management Analysts	2.0%	5,629
13-1161	Market Research Analysts and Marketing Specialists	2.4%	5,316
25-2022	Middle School Teachers, Except Special and Career/Technical Education	0.8%	5,117
13-1071	Human Resources Specialists	1.0%	4,890
11-3021	Computer and Information Systems Managers	2.4%	4,700
13-2072	Loan Officers	2.2%	4,645
13-2052	Personal Financial Advisors	3.5%	4,640

Analysis of Findings

In addition to finance and technology, education is among the top state industries for largest occupations.

General and operations managers is projected to be the largest relevant occupation, with 22,222 total openings expected between 2014 and 2024. Other high-volume occupations include accountants and auditors (14,786 total projected openings) and elementary school teachers, except special education (11,853 total projected openings). The most common industries in North Carolina for the largest occupations are finance, technology, and education.

Charlotte Prosperity Zone Fastest Growing Occupations

Metro area bachelor's level positions as of 2014 and 2024 (projected)

SOC Code	SOC Title	Annualized Growth	Total Openings
13-2052	Personal Financial Advisors	4.3%	2,254
15-2031	Operations Research Analysts	4.1%	434
17-1021	Cartographers and Photogrammetrists	3.6%	95
27-3091	Interpreters and Translators	3.5%	316
19-4092	Forensic Science Technicians	3.4%	66
13-2071	Credit Counselors	3.2%	114
15-1121	Computer Systems Analysts	3.0%	2,615
13-2061	Financial Examiners	2.9%	265
11-2021	Marketing Managers	2.8%	1,092
11-3021	Computer and Information Systems Managers	2.8%	1,714
11-3121	Human Resources Managers	2.8%	670
15-1122	Information Security Analysts	2.8%	465
29-9091	Athletic Trainers	2.7%	58
15-2011	Actuaries	2.7%	70
13-2051	Financial Analysts	2.6%	1,549

Analysis of Findings

Finance accounts for many of the fastest-growing occupations in the Charlotte metro area, but there are also a number of opportunities in management.

Within the Charlotte metro area, the most rapidly growing occupation based on recent projections is personal financial advisors, which are expected to see 4.3 percent employment growth by 2024 (average is 1.6 percent for all occupations in Charlotte). Similar to statewide trends, additional fast-growing occupations include operations research analysts (4.1 percent growth) and cartographers and photogrammetrists (3.6 percent growth). Finance is the predominate industry for fast-growing occupations in Charlotte, but there are also several management-related careers that are growing rapidly, which are better aligned with UNC Charlotte's proposed program.

Charlotte Prosperity Zone Largest Occupations

Metro area bachelor's level positions as of 2016 and 2026 (projected)

SOC Code	SOC Title	Annualized Growth	Total Openings
11-1021	General and Operations Managers	1.7%	6,967
13-2011	Accountants and Auditors	2.0%	4,680
11-3031	Financial Managers	2.2%	2,790
25-2021	Elementary School Teachers, Except Special Education	1.4%	2,775
15-1121	Computer Systems Analysts	3.0%	2,615
15-1132	Software Developers, Applications	2.4%	2,427
13-2052	Personal Financial Advisors	4.3%	2,254
13-2072	Loan Officers	2.4%	2,106
13-1111	Management Analysts	2.4%	1,840
13-1161	Market Research Analysts and Marketing Specialists	2.8%	1,762
11-3021	Computer and Information Systems Managers	2.8%	1,714
21-2011	Clergy	1.1%	1,689
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	1.4%	1,677
13-1071	Human Resources Specialists	1.6%	1,645
41-3031	Securities, Commodities, and Financial Services Sales Agents	2.4%	1,569

Analysis of Findings

Charlotte's largest industries reflect those of the rest of the state: finance, technology, and education.

Like the state at large, the largest occupation in the Charlotte metro area is general and operations managers, which are projected to have 6,967 total openings between 2014 and 2024. Additional high-volume occupations in Charlotte include accountants and auditors (4,680 total projected openings) and financial managers (2,790 total projected openings). The most common local industries for high-volume occupations are finance, education, and technology.

Real-Time Job Postings Intelligence

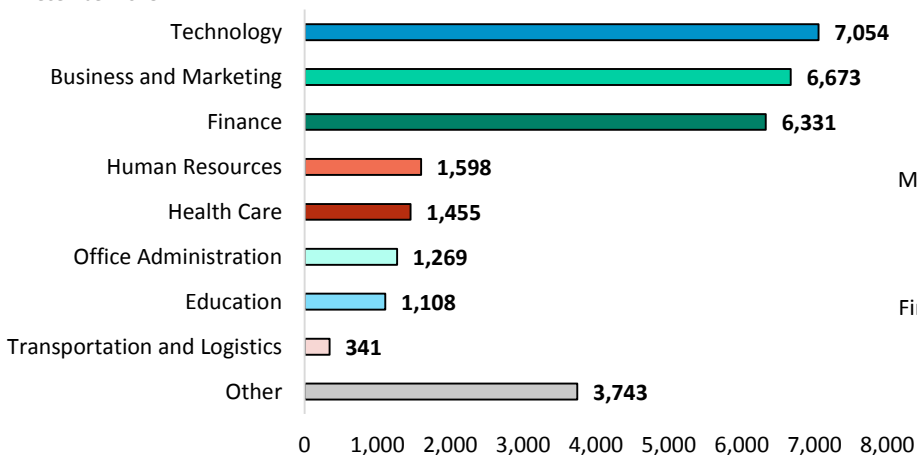
Market Sizing for Professional Liberal Studies

Methodology

Hanover identified the top 100 occupations in the Charlotte metro area (controlling for occupations that fall outside the scope of liberal studies, such as nursing) through JobsEQ, a job postings aggregator. From these data, occupations were sorted into common and salient industries for the Charlotte metro area, as seen below. Important local industries were identified through North Carolina and Charlotte occupational projections and targeted industries from the [Charlotte Chamber of Commerce](#).

Charlotte Industry Distribution

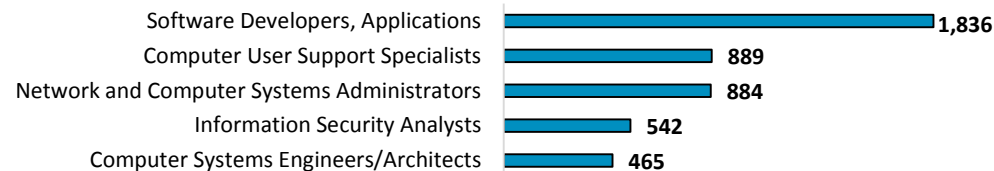
Metro area industries, based on top 100 relevant occupations during the past 180 days as of December 2018



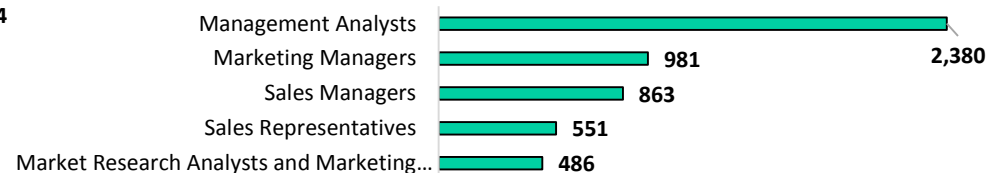
Charlotte Top Industries

Metro area top jobs within top industries, based on top 100 relevant occupations during the past 180 days as of November 2018

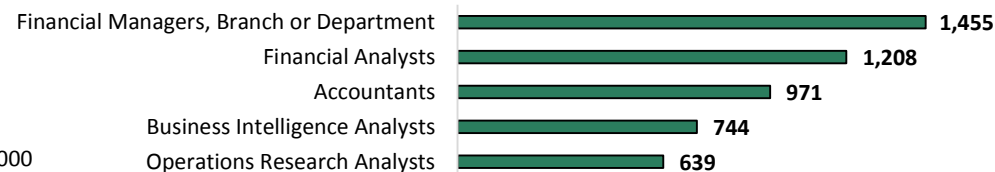
Technology



Business and Marketing



Finance



Analysis of Findings

Top industries in Charlotte reveal a number of in-demand occupations where liberal studies could be applied.

Based on the top 100 relevant occupations, the top industries by volume of job postings are technology, business and marketing, and finance. Although not quite as large, there have also been a considerable number of postings for occupations in human resources, health care, and office administration, which lend themselves well to a bachelor's degree in liberal studies. Technology-related positions are likely to be more specifically technical, but other notable positions in which graduates may succeed in the business and finance sectors include marketing and sales managers, sales representatives, and financial and operations research analysts.

Note: Other includes occupations related to retail, accommodation and food services, construction, and insurance.
Source: JobsEQ

Top Employers

- Carolinas Healthcare
- Bank of America
- Wells Fargo
- Novant Health
- Lowes
- Ernst & Young Global Limited
- Ranstad
- TalentBridge
- TIAA
- Robert Half
- Charlotte - Mecklenburg Schools
- Charter
- Communications
- XPO Logistics
- AccruePartners
- Ally
- Honeywell
- Accenture
- United Technologies
- Compass Group
- Duke Energy



Carolinan HealthCare System

In-Demand Skills

Hard Skills	Total Ads	Soft Skills	Total Ads
Computer Programming/Coding	4,310	Communication	26,148
Presentation	3,657	Cooperative/Team Player	16,604
Finance	3,421	Supervision and Management	10,113
Structured Query Language (SQL)	3,181	Self-Motivated/Ability to Work Independently/Self Leadership	9,343
Computer Networking	1,892	Analytical	9,239
Sales	1,878	Problem Solving	8,274
Oracle	1,820	Project Management	7,029
Marketing	1,710	Detail Oriented/Meticulous	6,645
Business Development	1,692	Interpersonal Relationships/Maintain Relationships	6,473
Java	1,686	Organization	6,224

Analysis of Findings

Charlotte houses a diverse range of large employers who are looking for business and marketing expertise in addition to attuned analytical thinking and problem solving skills.

According to the [Charlotte Chamber of Commerce](#), more than 425 companies have made Charlotte their global or North American headquarters, and more than 250 house their regional headquarters in the city. The volume of high-caliber companies across a variety of industries is evident among the areas top employers, including Wells Fargo, Lowes, Ernst and Young, Honeywell, and Accenture. Many of these large employers also align with top jobs presented in the previous slide. Based on job postings from these exemplar employers (and others), in-demand skills in the Charlotte metro area include expertise in programming, finance, marketing, and business development, and soft skills in self leadership, analytical thinking, problem solving, and project management. In addition to industry-specific skills, there is a diverse range of employers and hard and soft skills that UNC Charlotte could accommodate in their liberal studies program curriculum. In addition, UNC Charlotte might consider forming partnerships with some of these large entities to incorporate experiential learning opportunities into the program, as well as direct hiring of graduates.

HR HANOVER
RESEARCH



THREE EDUCATIONAL PATHWAYS TO GOOD JOBS

HIGH SCHOOL, MIDDLE SKILLS, AND BACHELOR'S DEGREE

Anthony P. Carnevale, Jeff Strohl, Neil Ridley, and Artem Gulish



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Acknowledgments

We are grateful to JPMorgan Chase & Co. for the generous support that made this report possible, particularly to Sarah Steinberg, Chauncy Lennon, and Whitney Smith, who contributed their insights and feedback as the report was developed.

The staff of the Georgetown University Center on Education and the Workforce was instrumental in the production of this report, from conception to publication. In particular, we would like to thank:

- Andrea Porter for strategic guidance
- Ban Cheah for project conceptualization, data programming, and analysis
- Nicole Smith for economic methodology
- Kathryn Peltier Campbell, Tanya I. Garcia, and Martin Van Der Werf for editorial and qualitative feedback
- Hilary Strahota, Vikki Hartt Salinkas, and Frank Zhang for communications efforts, including design development and public relations
- Joe Leonard and Coral Castro for assistance with logistics and operations

Many others contributed their thoughts and feedback throughout the production of this report. We especially are grateful to our talented designers, editorial advisors, and printers, whose efforts were vital to its successful completion.

The views expressed in this publication are those of the authors and do not necessarily represent those of JPMorgan Chase & Co., or any of its officers or employees. All views, and errors, or omissions are the responsibility of the authors.

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Introduction

In the post-World War II period, workers with a high school diploma or less were able to attain jobs with middle-class wages in American industry. Good jobs¹ were available in manufacturing and other blue-collar industries that employed large numbers of high school-educated workers. But as automation, globalization, and related phenomena have led to major structural changes in the American economy, economic opportunity has shifted toward more educated workers with higher skill levels. Whereas two out of three entry-level jobs in the industrial economy demanded a high school diploma or less, now two out of three jobs demand at least some education or training beyond high school.²

Today, there are three pathways to good jobs, each defined by education and skills: the **high school pathway**, the **middle-skills pathway**, and the **bachelor's degree (BA) pathway** (Figure 1).

1 See Goodjobsdata.org for our earlier reports on good jobs. In those reports, we define a good job as one paying a minimum of \$35,000 for workers between the ages of 25 and 44 and at least \$45,000 for workers between the ages of 45 and 64. This results in 2016 median earnings of \$56,000 for workers without a bachelor's degree, up from \$55,000 in 2015; median earnings of \$75,000 for workers with a bachelor's degree or higher; and overall median earnings of \$65,000 for all good jobs.

2 Carnevale and Rose, *The Undereducated American*, 2011.



The Three Pathways

- The **high school pathway** includes workers with a high school diploma or less.
- The **middle-skills pathway** includes workers with more than a high school diploma but less than a bachelor's degree. This includes people with associate's degrees, postsecondary certificates, licenses, certifications, and some college but no degree.
- The **BA pathway** includes workers with bachelor's degrees, master's degrees, professional degrees, and doctoral degrees.

Figure 1. The high school pathway still accounts for 20 percent of good jobs, the middle-skills pathway accounts for 24 percent, and the BA pathway accounts for 56 percent.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

High School Pathway

The high school pathway has persisted despite declines in manufacturing.

Although manufacturing declines primarily affected workers with a high school diploma or less, there are still about 13 million good jobs for workers with no more than a high school diploma. These 13 million jobs account for 20 percent of all good jobs. Of all high school jobs, nearly one out of three jobs (32%) is a good job. The high school pathway includes many workers who started in lower-paying jobs and worked their way up to managers, supervisors, and other senior positions across a variety of fields, such as construction, manufacturing, retail, food services, and office support, among others. It also includes truck drivers, carpenters, drillers, oil and gas equipment operators, construction equipment operators, and other industrial machinery operators.³

The decline in opportunity for those with no more than a high school diploma should not be misconstrued as a lack of opportunity. Among young workers (25–34), who because of their age best reflect the generational shift in economic opportunity, 27 percent (2.9 million) of those with no more than a high school diploma currently have a good job. This is down only slightly from 29 percent in 1991.

That said, prospects for those on the high school pathway are mixed. On the one hand, this pathway has held on through the massive dislocation of manufacturing, which hit workers with a high school diploma or less quite heavily. But on the other hand, the share of employment for workers on this pathway has steadily declined. Furthermore, the good job opportunities it provides are primarily for men.

³ The majority of figures provided in this report are based on the Georgetown University Center on Education and the Workforce's analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey (CPS)*, 1992–2017. The analysis years are 1991–2016 because *CPS* provides respondents' earnings for the prior year.

Middle-Skills Pathway

While middle-skills jobs in manufacturing generally have been on the decline, a new set of good middle-skills jobs has appeared in recent years.

The middle-skills pathway, which includes skilled-services and blue-collar employment, now accounts for about a quarter (24%) of good jobs. Nearly half of middle-skills jobs are good jobs. The middle-skills pathway is in the midst of major transformation from traditional blue-collar jobs to more skilled technical jobs across skilled-services and blue-collar industries. It includes those in traditional middle-skills jobs, such as firefighters, law-enforcement officers, electricians, mechanics, installers, repairers, technicians of industrial equipment, and highway maintenance workers; it also includes those in skilled and technical jobs, such as healthcare technologists and technicians, computer control programmers and operators, surveying and mapping technicians, and information and record clerks.

All of the growth of net new good jobs in the non-BA economy has been in middle-skills jobs.⁴ Within this pathway, the bulk of good jobs are held by workers with some college but no degree; but good jobs are growing the fastest among workers with associate's degrees (AAs). In addition, education and training that support the middle-skills pathway have been particularly innovative and responsive to changes in labor market demand. A growing array of approaches has evolved to prepare students for middle-skills jobs, including apprenticeships, on-the-job training, college career and technical education, customized training, non-credit education, certificates, certifications, and associate's degrees.

Blue-Collar and Skilled-Services Industries

Blue-collar industries

include manufacturing, transportation and utilities, wholesale and retail trade, natural resources, and construction.

Skilled-services industries

include government services, education services, consulting and business services, financial services, healthcare services, leisure and hospitality services, and personal services.

Bachelor's Degree Pathway

The bachelor's degree has become the premier pathway to economic opportunity.

The BA now accounts for 56 percent of all good jobs⁵ due to greater demand for workers with at least a four-year college education. Nearly three out of four BA jobs (74%) are good jobs. This pathway comprises a majority of professional and technical jobs, including those held by doctors, lawyers, engineers, accountants, computer programmers, journalists, architects, and managers, among many others.

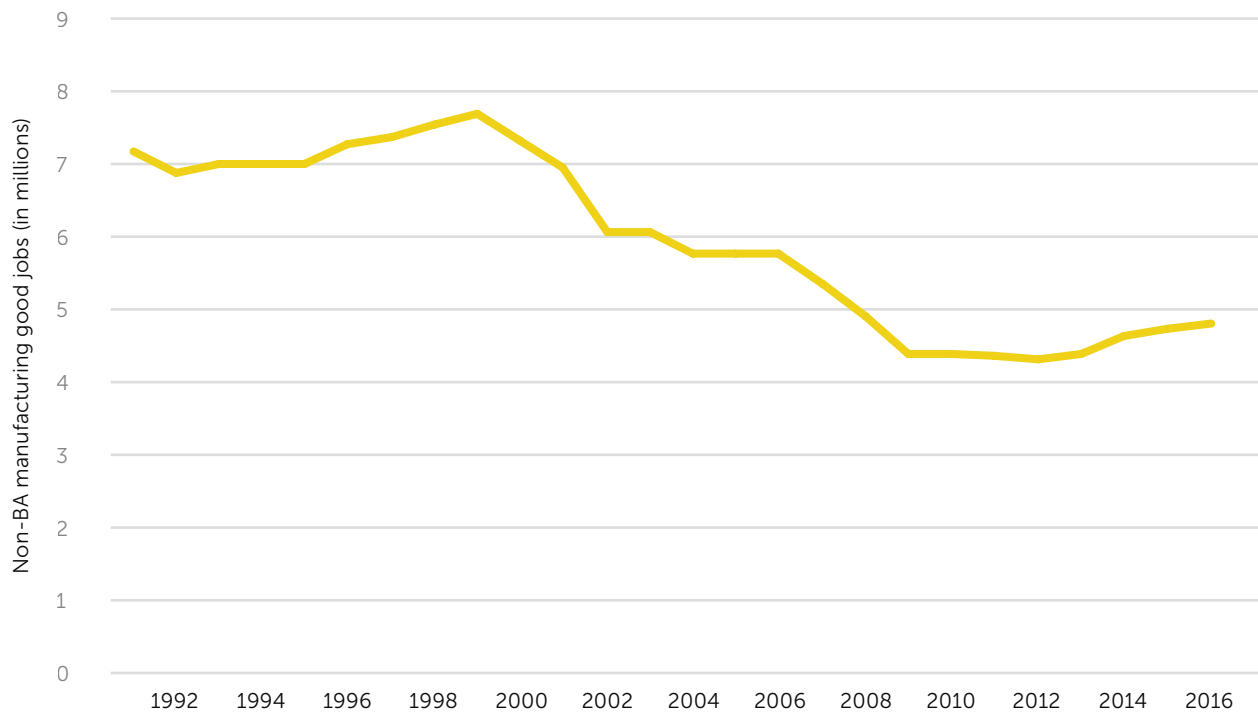
4 Carnevale et al., *Good Jobs That Pay without a BA*, 2017.

5 This has increased from the 55 percent figure reported for 2015 in our earlier reports.

THE DECLINE OF THE MANUFACTURING ECONOMY AND THE RISE OF THE COLLEGE ECONOMY

Since the 1980s, good jobs in industrial America have been under attack by four interrelated economic trends: globalization, automation, upskilling, and the shift in good jobs away from manufacturing toward skilled-services industries such as information technology and healthcare. Together, these four forces have coalesced to make postsecondary education and training the dominant pathway to good jobs that pay a median of \$65,000.⁶

Figure 2. Good manufacturing jobs for workers with less than a bachelor's degree steeply declined beginning in 1999 when the use of industrial robots was surging and China was about to join the World Trade Organization.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

⁶ The median earnings in this report differ from our earlier reports on good jobs due to the inclusion of workers with a BA and higher; previous reports only included workers without BAs.



Globalization. A complex phenomenon with far-reaching consequences, globalization is significantly responsible for the loss of good jobs in American manufacturing. Industrial employment plummeted after 1999, when China was on the verge of entering the World Trade Organization (WTO),⁷ which had a very large impact on workers without a BA (Figure 2).



Automation. Automation is also a major culprit in the decline of manufacturing.⁸ If not for automation and trade, an estimated 5.7 million additional US manufacturing jobs would have been created between 1999 and 2017.⁹ Yet even as the number of manufacturing jobs has fallen, productivity has increased as a result of automation. Manufacturing output is now 7 percent higher in the United States than it was in 1999, even though the number of manufacturing firms declined by 75,000 and manufacturing employment declined by 27 percent.¹⁰

The use of industrial robots began increasing at around the same time that China entered the WTO, and has roughly doubled since 1999.¹¹ In addition, since the early 1980s, computer-based technology¹² has reduced labor costs and increased labor output while allowing for higher levels of quality control, variety, and customization. Powerful and flexible new technologies have created an entirely new competitive framework supercharged by global competition.

New computer-based technologies not only have reduced the number of manufacturing workers needed, but also have changed the nature of their work. Because these technologies are more powerful and flexible, they require workers with higher levels of skill. As the pace of

New computer-based technologies not only have reduced the number of manufacturing workers needed, but also have changed the nature of their work.

7 China entered the WTO in 2001.

8 See Autor et al., "The China Syndrome: Local Labor Market Effects of Import Competition in the United States," 2013, and Charles et al., "The Transformation of Manufacturing and the Decline in U.S. Employment," 2018, for thorough analyses of automation as a response to globalization and how import competition affected US employment.

9 Georgetown University Center on Education and the Workforce calculation based on Charles et al., "The Transformation of Manufacturing and the Decline in U.S. Employment," 2018. Manufacturing output is 7 percent higher than in 2000, when manufacturing employment was roughly 17 million. This estimate assumes that without robots and globalization, the labor share of output would be the same as it was in 2000. A 7 percent increase would imply employment around 18.2 million, compared to the approximate 12.5 million employed in manufacturing in January 2017.

10 Charles et al., "The Transformation of Manufacturing and the Decline in U.S. Employment," 2018.

11 "Compete," presentation on April 18, 2016, at the University of Texas VERTEX conference by William Bates of the Council on Competitiveness.

12 See Carnevale and Rose, *The Economy Goes to College*, 2015, for a detailed analysis of the impact of technology on the US economy.

technological change has increased and the intensity of global competition has grown, the ability to innovate has become a core asset for the post-industrial workforce.



Upskilling. The new competitive environment generated by the synergy of automation and globalization has led employers to demand a higher level of skills from workers, leading in turn to the upskilling of the workforce across most industries. These skills gaps may reflect the differences between the knowledge new workers have and the needs of employers seeking to fill entry-level jobs;¹³ or they may reflect technological advances that require more experienced workers to expand their content knowledge and general skills to cope with change on the job.

New technology, combined with new competitive requirements, has increased both the depth and scope of competencies required on the job, accelerating the demand for an upskilled workforce. The majority of American workers now need deeper knowledge in their fields and also a broader set of general problem-solving and critical-thinking skills to perform new tasks. This is the case for workers who are required to produce more variety and customization in shorter manufacturing production runs. It is also true for workers who serve individual clients in skilled-services industries, such as healthcare and financial services.

The new competitive environment generated by the synergy of automation and globalization has led employers to demand a higher level of skills from workers.

Because new technology has automated repetitive tasks, workers have been left to focus on non-repetitive tasks, utilizing their new technical capabilities to meet broader goals that are less specialized and involve overlapping areas of responsibility, such as quality or innovation. These new realities of work require new sets of soft skills, including teamwork and leadership, to facilitate collaboration. In other words, the competencies required of workers have become both deeper and broader. Similarly, computer-based technologies have created new organizational formats at every institutional level, from teams at the worksite to complex networks of individual contractors, institutional partners, and customers.

While 20 percent of workers with good jobs still attain those jobs with no more than a high school diploma and on-the-job training, increasingly the competencies necessary to succeed in the modern labor market require at least some formal postsecondary education

13 See Carnevale and Rose, *The Undereducated American*, 2011, and Carnevale and Rose, *The Economy Goes to College*, 2015.

and training. Automation and globalization moved the United States from an industrial economy, in which two-thirds of the entry-level jobs required a high school diploma or less, to a postindustrial economy, in which two in three jobs require at least some education or training beyond high school.¹⁴ Technology and globalization have led to the automation of existing blue-collar jobs and inhibited the creation of new blue-collar jobs for high school-educated workers.¹⁵ The same forces that increased industrial productivity fueled wealth creation, which in turn fueled increased consumption and subsequent growth in good jobs in the skilled-services sector.¹⁶



The shift to skilled services. The economic transformation supported by the integration of technology and new work processes has resulted in a significant decline in the blue-collar economy. Blue-collar jobs now make up 21 percent of employment (7 percentage points less than in 1991) and 18 percent of good jobs. The workforce has shifted toward skilled services, with new jobs in areas such as healthcare, finance, information technology, education, and white-collar business services. This shift has provided economic opportunity across all education levels, but increasing numbers of good jobs in skilled-services industries have gone to workers on the middle-skills and the BA pathways.

Skilled services saved the middle-skills pathway.

14 Carnevale and Rose, *The Undereducated American*, 2011.

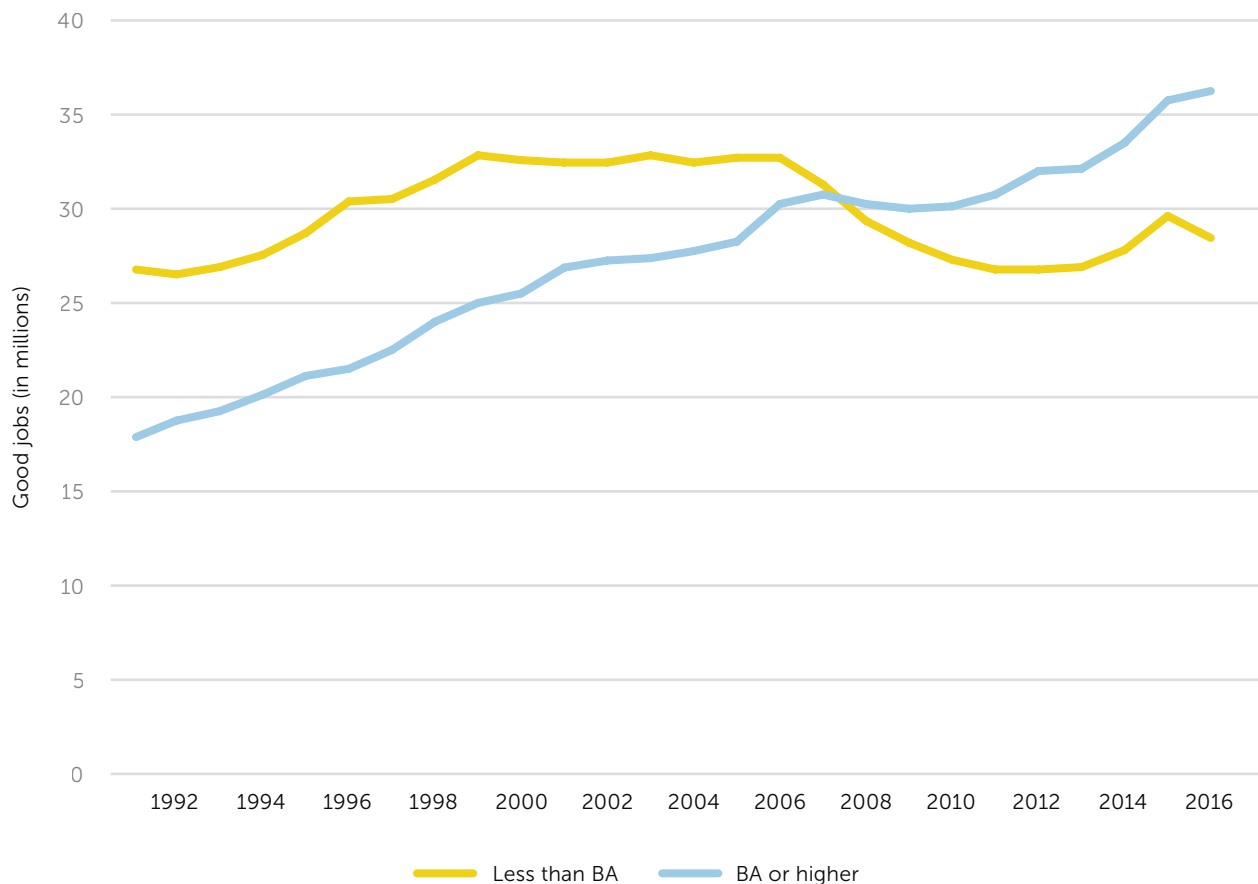
15 See Carnevale et al., *Help Wanted*, 2010, and Carnevale and Rose, *The Undereducated American*, 2011, as well as Goldin and Katz, *The Race Between Education and Technology*, 2008, for analysis demonstrating how enhanced productivity and resulting higher wages for college graduates explain the decline in the number of workers with no more than a high school education.

16 Another factor contributing to these trends was that imports of manufactured goods substantially reduced the prices of those goods and their share of consumer budgets. For instance, wardrobe budgets are at 1986 levels, and the price of furnishing a home is the same as it was in 1980. *The Economist*, "Trade, at What Price?" 2016.

SHIFTING ECONOMIC OPPORTUNITY

The underlying structural economic changes described above have culminated in a major shift in how American workers get good jobs. The year 2008 marked the official beginning of the college economy,¹⁷ as workers with a BA or higher for the first time held more good jobs than workers without a BA (Figure 3). Yet, the momentum had been building long before then. Starting in the 1980s, manufacturing employment began to decline and the demand for workers with BAs began rising over the demand for those with only a high school education.

Figure 3. The year 2008 marked the beginning of the college economy: more good jobs are now going to workers with BAs than to workers without them.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

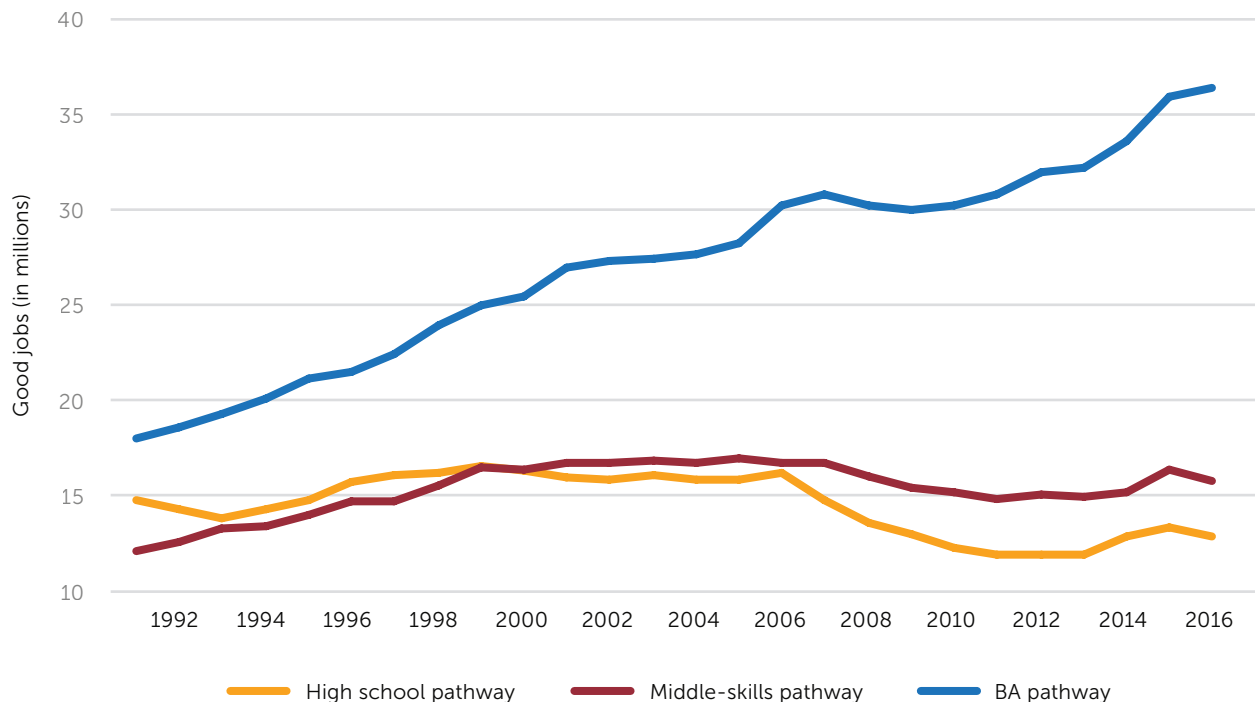
¹⁷ The year 2008 represented a major shock to the US economic system with the beginning of the Great Recession. For more on how recession and recovery cycles have accelerated the upskilling trend and on how the Great Recession and the recovery that followed it affected the labor market demand for workers, see Carnevale et al., *America's Divided Recovery*, 2016.

Young workers moved to the middle-skills and BA pathways as the high school pathway shrank.

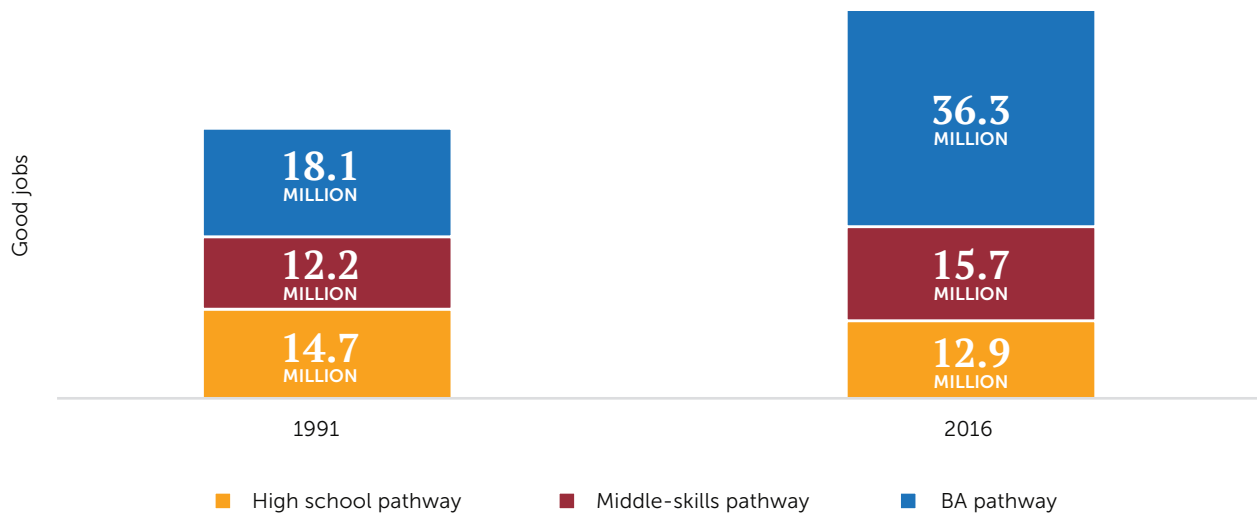
The behavior of workers entering employment is one marker of change in the economy; over the past two decades, young people recognized where the economy was headed and went to college in large numbers. In 1991, 48 percent of young workers (ages 25–34) had a high school diploma or less, compared to 25 percent who had a BA or a graduate degree. By 2016, 30 percent of young workers had a high school diploma or less, while 40 percent had a BA or higher. These new BA workers made a good decision. In 1991, 34 percent of young workers with a good job had no more than a high school diploma; by 2016, that figure had declined to 19 percent. Meanwhile, the share of young workers with a good job who had a BA increased from 38 percent to 57 percent.

But upskilling is not just a BA phenomenon. While the middle-skills economy is often overshadowed by the shift toward the BA, middle-skills jobs play a key role in providing economic opportunity. Good jobs for those with middle skills surpassed the number of good jobs for workers with a high school education in 2000 (Figure 4). As a result of this transformation, postsecondary education began to provide two distinct paths in the college economy.

Figure 4. By 2000, the middle-skills pathway surpassed the high school pathway in providing good jobs.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

Figure 5. The number of good jobs for workers on the BA pathway doubled between 1991 and 2016.

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

In 1991, workers with a high school diploma or less held one-third of all good jobs, 14.7 million, and workers with BA or higher held 18.1 million good jobs (40%). By 2016, 36.3 million good jobs (56%) went to workers with BAs and graduate degrees, while those with a high school diploma or less held only 12.9 million good jobs, or 20 percent of the total (Figure 5).

Overall, the share of good jobs has shifted dramatically to workers who have at least a BA: these workers have gained more than 18 million good jobs over the last 25 years. The BA pathway now also has the largest concentration of good jobs; nearly three out of four BA jobs (74%) are good jobs, compared to almost half (46%) of middle-skills jobs and one out of three (32%) high school jobs. While the middle-skills pathway did not grow quite as quickly as the BA pathway, it also added 3.5 million new good jobs during the same period. The high school pathway, on the other hand, declined by 1.8 million good jobs.

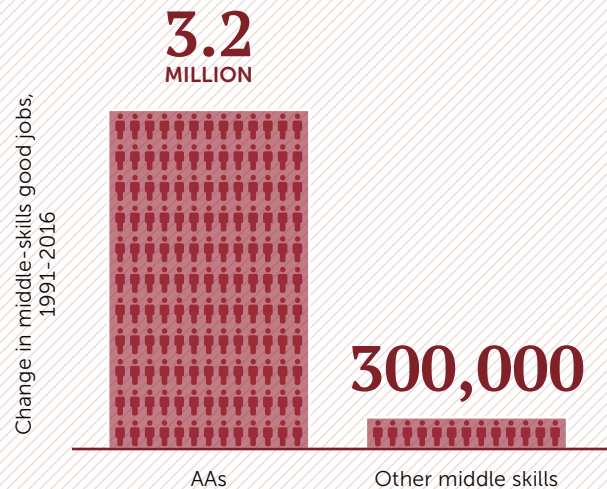
The high school pathway remains a viable alternative for some young workers.

Considering how disruptive economic restructuring has been to the high school economy, it is notable that the high school pathway still has nearly 13 million good jobs. As older and more experienced workers continue to retire, the high school pathway to good jobs will likely remain available to a limited number of younger workers. Experience helps workers on the high school pathway to attain good jobs, but good jobs on this pathway are not restricted to just older and more experienced workers.

Associate's degrees showed the strongest growth among middle-skills jobs.

Within the middle-skills pathway, the associate's degree (AA) labor market has shown remarkable strength.ⁱ Good jobs for workers with AAs grew by 83 percent between 1991 and 2016, a growth rate close behind that of good jobs for workers with BAs and graduate degrees (101%). The growth of good jobs among AA holders has dwarfed the growth of other good jobs on the middle-skills pathway, with 3.2 million good jobs added for workers with AAs, 10 times more than the growth in other middle-skills good jobs (Figure I). As good jobs on the high school pathway have declined, the AA has offered high school graduates the most efficient option for upskilling.ⁱⁱ

Figure I. Workers with AAs have been responsible for the bulk of growth in good middle-skills jobs.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

- i For the purposes of presenting aggregated analysis of the three pathways, we have limited this report's analysis on AAs to this box. For more detailed analysis of trends in AA good jobs, see Carnevale et al., *Good Jobs That Pay without a BA*, 2017.
- ii While the number of good jobs for workers with AAs has grown substantially over the past 25 years, the number of workers with AAs has also grown substantially as workers have recognized that the AA offers high school graduates the most efficient option for upskilling. As a result, the competition for good jobs among AA workers has increased, with the share of good jobs relative to overall employment declining from 54 percent to 49 percent for AA workers.

In 2016, older workers (ages 55–64) held 21 percent of all good jobs on the high school pathway,¹⁸ while younger workers (ages 25–34) held 23 percent. However, the high school pathway will continue to offer fewer good job opportunities for young workers than the middle-skills and BA pathways: 27 percent of jobs for young workers on the high school pathway are good jobs, compared to 35 percent for young workers on the middle-skills pathway and 62 percent for young workers on the BA pathway. And workers with a high school diploma or less are often the last hired during economic expansions and the first fired during economic downturns.

18 The share of jobs that are good for older high school workers has increased from 24 percent in 1991 to 30 percent in 2016. This is likely due to changes in supply, with the move of young workers to college resulting in lower availability of experienced workers on the high school path.

The continued opportunity to attain a good job on the high school pathway has largely been a function of young people leaving this pathway for better opportunities available on the middle-skills and BA pathways. In fact, the number of workers who left the high school pathway is larger than the number of good jobs that disappeared on that pathway: in 2016, there were nearly 6 million fewer young workers on the high school pathway than in 1991, compared to 2 million fewer good jobs. This dynamic has kept opportunity for young workers on the high school pathway stable—27 percent of jobs for young workers with a high school diploma or less were good in 2016, compared to 29 percent in 1991. Due to this dynamic, the high school pathway to good jobs is likely to remain stable, absent any new major cyclical or structural economic disruptions.¹⁹

While good jobs for those with a high school diploma or less still exist, many young workers have gravitated toward the middle-skills pathway. In 1991, 26 percent of young workers entered employment via the middle-skills pathway, and that share has increased to 29 percent in 2016. This suggests that the middle-skills economy is vibrant. But as the shift occurred, the share of young workers with a middle-skills education who were able to attain good jobs declined from 44 percent to 35 percent, indicating that the middle-skills pathway also carries some risks. The considerable innovation occurring on this pathway contributed to these trends. People once prepared for middle-skills jobs through community college education, apprenticeships, or on-the-job training; today, their options have expanded to include education at for-profit colleges, certificates, certifications, badges, coding and technology boot camps, course clusters, and career and technical education (CTE) programs that start in high school and extend into community colleges. Those on the middle-skills pathway must assume some of the associated risk as these new forms of occupational and professional development succeed and fail. In this environment, the fields students choose and the specific skills they acquire make a big difference in the value of their middle-skills education and training.

The high school pathway will continue to offer fewer good job opportunities for young workers than the middle-skills and BA pathways.

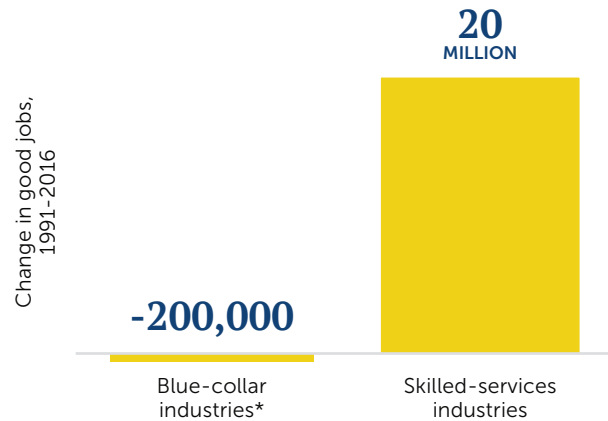
¹⁹ Of course, it is reasonable to imagine that a revitalized approach to career and technical education (CTE) or the expansion of apprenticeships could increase the number of workers on the high school pathway, but history suggests that the impact of efforts like these would be either small or short term. For example, large government investments in infrastructure upgrades and repairs might result in a short-term boost to the number of good jobs available for high school workers.

Good jobs have shifted to skilled-services industries.

The nature of good jobs shifted as the US economy was restructuring from a manufacturing to a skilled-services economy. Between 1991 and 2016, employment declined in the industrial sector, particularly in manufacturing, which meant that there were fewer jobs for workers with a high school diploma or less. At the other end of the spectrum, the shift to skilled services and the growth of jobs in the knowledge-based economy resulted in good jobs going primarily to workers with a BA or higher (Figure 6).

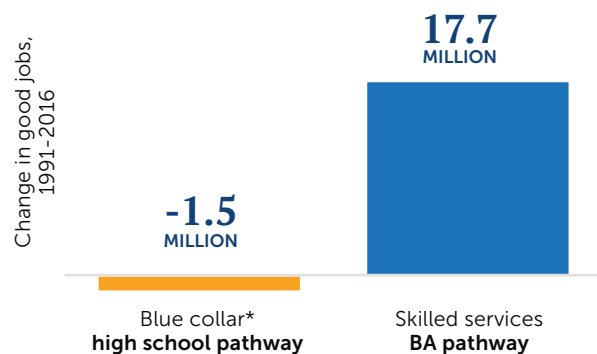
The upskilling phenomenon is nothing short of a generational shift. Between 1991 and 2016, good jobs in skilled services for workers with at least a BA more than doubled, while good blue-collar jobs for workers with a high school diploma or less shrank (Figure 7). The gap between these two extremes points to the extent of this generational change and the transformation of the economy from a high school to a college economy. All of the net losses in good jobs between 1991 and 2016 were suffered by workers with a high school diploma or less.

Figure 6. More than 20 million new good jobs were created in skilled services between 1991 and 2016, while the net number of good blue-collar jobs shrank slightly.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

Figure 7. Good jobs in skilled services for workers on the BA pathway grew by 17.7 million. Meanwhile, good blue-collar jobs for workers on the high school pathway declined by 1.5 million.



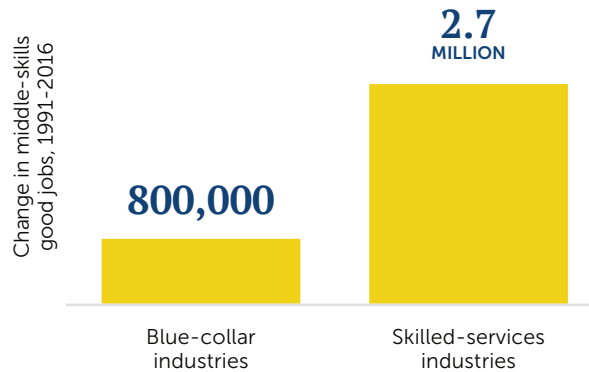
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

* Note: Blue-collar industries include manufacturing, transportation and utilities, wholesale and retail trade, natural resources, and construction; skilled-services industries comprise government services, education services, consulting and business services, financial services, healthcare services, leisure and hospitality services, and personal services.

The shift to skilled services saved and transformed the middle-skills pathway (Figure 8). A total of 3.5 million net new good jobs were created for workers with middle skills from 1991 to 2016. Skilled-services industries added 2.7 million middle-skills good jobs, and blue-collar industries added another 800,000 middle-skills good jobs.

The largest growth within skilled services was on the BA pathway (Figure 9). The number of good jobs for workers with a BA or higher in skilled-services industries more than doubled between 1991 and 2016, from 17.2 million to 34.9 million. This segment of the economy has experienced the strongest upskilling trend, highlighting the growing value of postsecondary education in the modern economy.

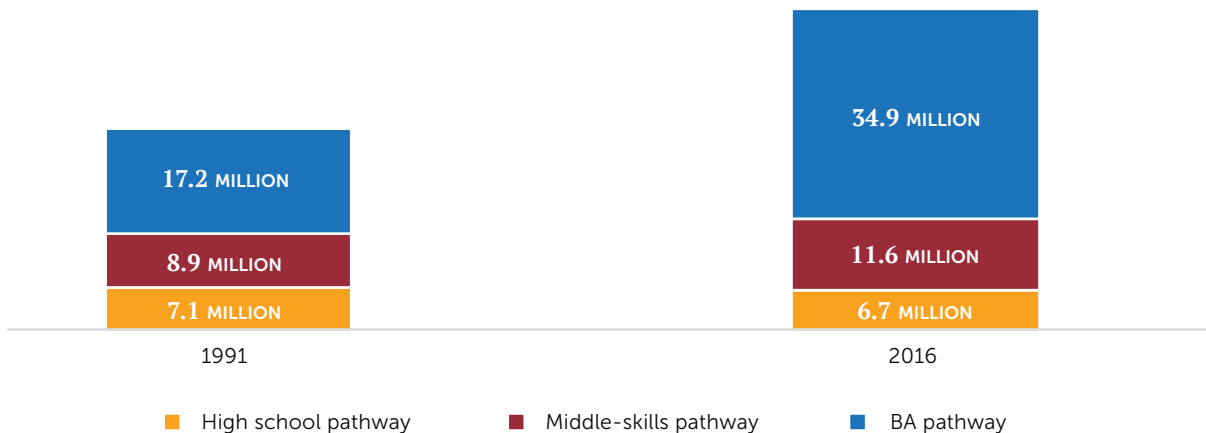
Figure 8. Skilled-services industries accounted for 77 percent of job growth for workers with middle skills.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

Note: Blue-collar industries include manufacturing, transportation and utilities, wholesale and retail trade, natural resources, and construction; skilled-services industries comprise government services, education services, consulting and business services, financial services, healthcare services, leisure and hospitality services, and personal services.

Figure 9. The number of good jobs in skilled services for workers on the BA pathway doubled between 1991 and 2016.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

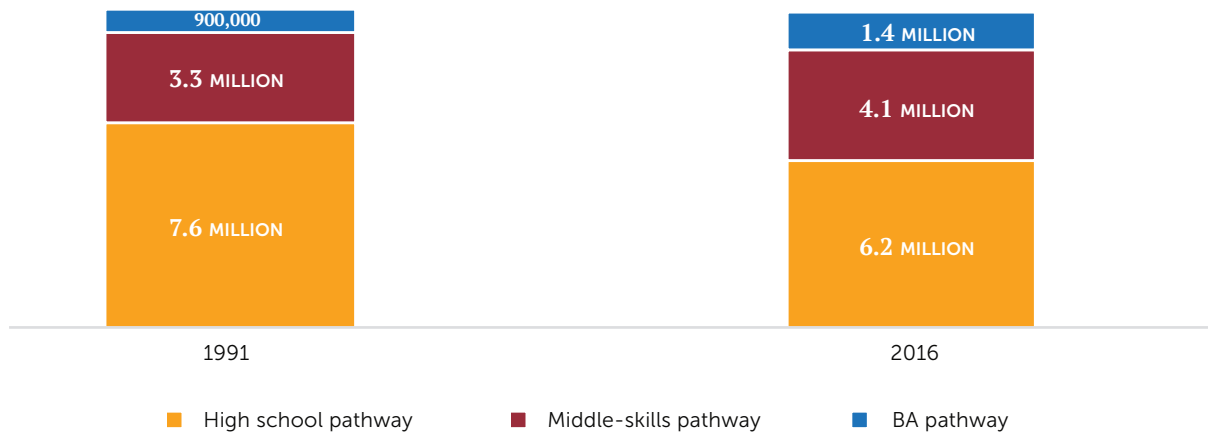
Note: Skilled-services industries include government services, education services, consulting and business services, financial services, healthcare services, leisure and hospitality services, and personal services.

In blue-collar industries, good jobs have transitioned to the middle-skills pathway.

Blue-collar industries have also experienced upskilling. Even as blue-collar industries shed 1.5 million jobs for high school-educated workers, these industries added 800,000 jobs for middle-skills workers and 500,000 jobs for workers with a BA or higher (Figure 10).

The high school economy, providing about 20 percent of all good jobs, has been buttressed by skilled-services industries. Because good blue-collar jobs for high school workers declined by 1.5 million, skilled-services industries now account for a greater share (52%) of good high school jobs.

Figure 10. Blue-collar industries also experienced upskilling—500,000 good jobs were added for workers on the BA pathway, and 800,000 good jobs were added for workers on the middle-skills pathway.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1992–2017.

Note: Blue-collar industries include manufacturing, transportation and utilities, wholesale and retail trade, natural resources, and construction.

CONCLUSION

The complex effects of deindustrialization and upskilling have shifted the US economy from an industrial economy to a skills-based economy, fundamentally changing the structure of good job opportunities for workers. These forces have created three pathways to good jobs for which previously there had been one primary route. The emergence of the three educational pathways to economic opportunity—high school, middle-skills, and BA—reflects a profound transformation in how workers access the middle class. In 1950, 72 percent of the middle class had not completed even high school, and only 2 percent had a BA or higher.²⁰ As post-World War II industrialization shifted the minimum workforce requirement toward a high school diploma, high school-educated workers came to dominate the middle class. By 1980, 40 percent of the middle class consisted of people who had no more than a high school diploma. This was the pinnacle of the high school economy.²¹

Then, the American industrial economy began to sputter in the face of modern global competition, as technology and new work processes raised the demand for workers with education beyond high school. In 1980, college-educated workers (those with more than one year of postsecondary education or training) were 38 percent of the middle class, but by 2000 they had reached 49 percent of the middle class,²² far surpassing the share of high school-educated workers. Since that point, most gains in access to the middle class have gone to workers with BAs and graduate degrees, or at least middle-skills education.

Good jobs for workers with a high school diploma or less still exist, but they have declined precipitously. The fall of the high school economy is really the story of manufacturing decline. Taking this into account, the fact that good jobs for high school workers have persisted to the extent that they have is a testament to the resilience of this pathway. The high school economy will likely remain a stable pathway to good jobs in the near term even as older workers with no more than a high school diploma continue to retire. It is difficult to predict where the high school economy is headed in the long term, especially given the headwinds of automation and upskilling, but it clearly still is a significant part of the workforce and still provides many good jobs.

*There are now
three pathways
to good jobs
for which
previously there
had been one
primary route.*

20 Georgetown University Center on Education and the Workforce analysis of US Census Bureau, *Decennial Census* data, 1950.

21 Georgetown University Center on Education and the Workforce analysis of US Census Bureau, *Decennial Census* data, 1980.

22 The middle class is defined here as the middle 40 percent of the earnings distribution. Georgetown University Center on Education and the Workforce analysis of US Census Bureau, *Decennial Census* data, 1980, 2000.

Middle-skills jobs that require more than high school but less than a BA have increased. The growth of good middle-skills jobs in skilled-services industries has proved a wellspring of opportunity, while the shift toward middle-skills jobs has revitalized blue-collar industries. In fact, the growth in good jobs for workers with AAs is outpaced only by the growth in good jobs for workers with BAs and graduate degrees. The growth of skilled-services jobs that do not require a four-year college degree has allowed the sub-baccalaureate labor market to keep providing more good jobs, while the growth of middle-skills jobs has transformed blue-collar industries even as they face declines in manufacturing employment.

In the end, all of the net good job losses between 1991 and 2016 were among workers with no more than a high school diploma, particularly those who worked in manufacturing. Yet the focus on manufacturing and declining economic opportunity in the era of college for all disguises the fact that there is a robust non-BA economy in the United States, driven primarily by the rise of skilled-services industries.

The blue-collar economy has modernized and transformed itself into something more like a middle-skills sector.

The fact that blue-collar employment has not grown is a hard burden for workers invested in blue-collar jobs, especially workers with no more than a high school diploma. It is impressive that blue-collar employment has held fairly steady while absorbing all of the downward economic pressure of the decline in manufacturing. In a sense, the blue-collar economy has modernized and transformed itself into something more like a middle-skills sector.

Workers in blue-collar jobs have upskilled right along with workers in skilled services. The adoption of new technologies has driven the need for more technicians and fewer mechanics, and as a result, the remaining good jobs in blue-collar industries are increasingly filled by workers with middle skills, rather than workers with a high school diploma or less. There has also been a slight increase in good blue-collar jobs for workers with a BA or higher.

Upskilling is clearer in skilled-services industries. Almost all of the net good job growth is going to workers with BAs and graduate degrees. This shift alone accounted for 17.7 million net new good jobs, doubling the number of good jobs in skilled services for workers with a BA or higher.

Yet not everyone needs a BA to get a good job. Evidence is mounting that programs that are well aligned with the labor market can lead those who complete sub-baccalaureate degrees and awards to attain good jobs.²³ Therefore, policymakers should promote transparency and accountability by ensuring that students and their families are provided information about the value they will get for their investment, particularly the employment and earnings outcomes of different education and training programs. Policymakers and education providers should also seek to increase graduation rates, especially at two-year colleges. There are significant differences between earnings for college dropouts and earnings for workers with AAs. Finally, education and training providers at all levels should strengthen their efforts to align their curricula with job requirements to ensure that students who complete their programs are able to secure good jobs.

23 Schneider, "The Value of Sub-Baccalaureate Credentials," 2015.

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Three Educational Pathways to Good Jobs: High School, Middle Skills, and Bachelor's Degree can be accessed online at cew.georgetown.edu/3Pathways

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