

8. UNC Engagement Report Update 2016 Leslie Boney

Situation: Presentation of the 2nd UNC Community and Economic Engagement Report.

Background: This report captures key data quantifying how UNC institutions connect to their surrounding communities and the state of North Carolina through outreach. Analysis focuses on how many students are doing experiential learning in communities; how much research faculty is doing in key areas of the NC economy and in partnership with communities. It also reviews public service work on UNC campuses and the contributions of five UNC-based, state-serving entities to the state’s communities and economies.

Assessment: Since campuses are just beginning to collect most of these data, our confidence in its completeness has grown this year compared to last. In all measures, it appears UNC’s community and economic engagement increased in 2014-2015 compared to 2013-2014. More students enrolled in community-engaged or applied learning classes. More students graduated. In research faculty conducted nearly 1 billion dollars in research in four sectors key to the state’s economy, Enrollments in continuing education classes continued to grow.

We recommend 1) continued efforts to grow experiential learning opportunities for students and 2) increased attention to meeting the state’s adult learning needs.

Action: This is for Information Only.



UNC Engagement Report 2015

Update:

Creating Impact in North Carolina Communities and the Economy

March 3, 2016
Office of International, Community, and Economic Engagement
UNC General Administration

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UNC Engagement Report 2015: Update

Background

In 2015, in response to the call in the UNC Board of Governors' Strategic Plan to develop a system-wide "engagement report," the University of North Carolina's Office of International, Community and Economic Engagement released its first-ever report on the community and economic engagement activity of our 17 campus system. The report was developed with the leadership of two system-wide councils, the UNC Economic Transformation Council (made up of the lead economic development officers on each campus) and the UNC Engagement Council (made up of the top public service or community engagement officers on each campus). It aims to describe and measure some of the ways in which UNC campuses were connecting to their surrounding communities through teaching, research and public service activities and to track progress in these areas over time.

The Community and Economic Engagement report purposely focuses on a small number of indicators that would be:

- Relevant: Where possible, we sought indicators measuring activities that the overwhelming majority of UNC campuses were participating in.
- Significant: With limited resources, we selected indicators we believed would tell us something meaningful about economic and community engagement activity on the 17 UNC campuses.
- Measurable: We looked for indicators that campuses could gather accurate data on without having to hire additional staff.
- 'Effectable': We included only indicators we believed that campuses could change through intentional effort over time.

Even with an eighteen month planning effort, some of the data sought in the earlier [2015 report](#) proved difficult to gather. In many cases, the data had not been collected before or had been collected only sporadically, in preparation for accreditation efforts, award applications, or requests. After a thorough review of the challenges that campuses faced preparing data for last year's report, the 2016 Community and Economic Engagement report update is shorter, with improved collection of data for both individual campuses and the system as a whole.

Reporting on a system level on engagement efforts is uncharted territory – no other public higher education system is currently doing this. And while there are several national groups seeking to develop engagement metrics, there is no consensus yet on exactly which indicators matter for assessing campus-level activity. The result is that, for now, there are no national benchmarks to measure our engagement against, and, instead, campuses will need to look at their own improvement year-to-year. We hope that by beginning to track these indicators here, we can develop a useful baseline to assess UNC's outreach and engagement in North Carolina over time.

Executive Summary

When North Carolina's public universities are working on projects, research or service in North Carolina communities, everyone wins. Students get hands-on opportunities to learn; faculty and staff get a chance to test out their knowledge, research or projects in real-world settings; government and nonprofit organizations get new ideas for how to solve some of their trickiest problems. Businesses get support or access to research or technology. Community members get access to inspirational performances, thought-provoking discussions; and lifelong learning. Along the way, everyone learns. Our state gets better together.

This report is the second in an ongoing effort to describe and quantify what the UNC system's community and economic engagement adds up to. The short answer: a lot.

During the academic year 2014-2015:

- Faculty taught hundreds of courses that sent students into their surrounding communities to test out and apply their learning in businesses, nonprofits and governmental agencies. Reported numbers are up 12% over the previous year.
- UNC researchers conducted nearly \$1 billion worth of research on four key sectors of the state's economy: life sciences, engineering, education and agriculture. About \$100 million of this research was conducted in collaboration with community groups.
- Universities help meet the state's huge and growing need for continuing education; there were 1.7 million enrollments in such non-academic credit courses.
- State-serving entities ranging from the Small Business and Technology Development Center to Industry Expansion Solutions to Cooperative Extension, from the Area Health Education Centers to the School of Government provided hands-on assistance to more than 6 million people in North Carolina, including individuals, businesses large and small, health care providers and government officials.

The activity of our universities in our communities is significant and we should increase awareness of it through regular reports to state and local leaders. In addition, though, we need help from the UNC Board of Governors in supporting development of thoughtful, data-driven approaches in at least two critical efforts going forward:

- Employers of all kinds increasingly look to recent graduates to be able to immediately address their talent shortfalls. We need to launch new dialogue with the employment community about roles and responsibilities in addressing this "talent gap." In the meantime, the Board should continue to support expansion of applied learning opportunities for students, inside and outside the classroom, during their college careers.
- Automation and globalization are accelerating the rate of economic and societal change. Universities have a growing responsibility to help communities manage through this change. The Board should expand support for research into the ongoing economic transition and increase support for campus-based efforts to expand services to adults needing new skills and knowledge, through both for-credit and noncredit education offerings.

Report Highlights

The 2015 [UNC Engagement Report](#) represented a first-ever effort to measure the community and economic engagement activity of all UNC campuses. Using data from the 2013-2014 academic year, we described the UNC system's institutional and system-wide connections to the state of North Carolina. This report is an update, with improved data collection from academic year 2014-2015 and highlights of several areas of special interest. Building off of a recommendation in the 2013-2018 UNC strategic plan, [Our Time, Our Future](#), this update, together with the 2015 report, begins to build a foundation of information that will help set baselines so that trends and progress can be assessed going forward. The report breaks the key findings into three sections, corresponding with the university's three-part mission of teaching, research and public service:

I. Getting Students Ready to Connect

UNC campuses provide students numerous academic courses that enable them to engage with community partners – government, nonprofits and for-profit entities – as well as the opportunity to learn entrepreneurial skills.

- In academic year 2014-2015, there were nearly 84,000 enrollments in 'community-based' academic courses (those involving an internship, co-op, clinical, practica¹ or other external experiential opportunity), with all sixteen four-year campuses reporting such courses. While this number is up about 12% from the previous year, we do not know how much of the increase resulted from increased student interest in these courses versus improved identification of such courses by campuses or both. Regardless, it is a large number.
- 'Community-engaged' courses are a subset of 'community-based' courses and involve more intense activity by students, sometimes called 'service learning.' This year's reported numbers of enrollments in these courses are up. Eleven campuses reported courses like these, with 26,000 enrollments, up more than 50% from the prior academic year. Again, since campuses are still developing their collection processes, we do not know how much of the increase resulted from increased interest and/or from improved counting.
- Twelve campuses reported students taking courses of study resulting in an "entrepreneurial" credential. In academic year 2014-2015, there were 561 of these credentials awarded, a 28% increase over academic year 2013-2014. The biggest growth was in the number of students graduating with entrepreneurship "minors," up 68% from the previous year.

¹ Practica are courses requiring students to participate in an approved project or proposal that practically apply previously studied theory of the discipline under the supervision of an expert or qualified representative of the field.

II. The Impact of UNC Research on the Economy and the Community

As noted in this year's 2015 [President's Report on Research and Sponsored Programs](#), sponsored research at UNC is at an all-time high, with research and development contract and grant awards to UNC faculty this year totaling \$1.36 billion. The research activity funded by these awards creates economic impact, with funding going to hire employees, support students, purchase equipment and supplies, and construct space. In this report, we look at some other ways of describing the impact of UNC research on constituencies and communities in North Carolina by reporting on how researchers work with community partners through "engaged research."² Among the findings:

- UNC researchers conducted research in key sectors important to the North Carolina economy, including \$600 million in health and life sciences, \$127 million in engineering, \$109 million in education and \$86 million in agriculture.
- Almost \$100 million in research funding went to "community-engaged" activities.
- Industries sponsored about \$75 million in research on UNC campuses last year, with \$23 million of that coming from North Carolina companies.
- UNC institutions reported 31 startups or spinoffs based on UNC research and technology.

III. Public Service Work in the Economy and the Community - Building the 'Communiversality'

As public universities, UNC's campuses also undertake a variety of activities that may not fall into the traditional teaching or research categories, but instead provide a distinct public service to their surrounding communities. Some of these activities are difficult to quantify, such as the participation by campuses in recruitment of new companies, assistance to existing companies, market studies, the indirect results of campus business incubators, service by faculty and staff on nonprofit boards and other activities that contribute to the economic and social health of a community. For this report, we have focused on a small number of indicators.

- In preparation for this report, we asked each campus to identify a small number of projects that represented intentional partnerships for the university with the surrounding community. While this sample did not include all such projects, the projects identified involved more than 17,000 students and more than 1,700 faculty and staff, working in all 100 North Carolina counties.
- System-wide enrollment in face-to-face and online continuing education courses totaled 1.7 million again in academic year 2014-2015.
- Five state-serving agencies within the University of North Carolina provide key service to people across the state. For example:

² Community-engaged research is a framework or approach for conducting research, not a methodology. At the core of all community-engaged research is the understanding that the community will be involved in a meaningful way.

- The Cooperative Extension Service, a program of NC State and NC A&T State, delivered non-degree programs to more than 500,000 participants in academic year 2014-2015.
- The NC State-based Industry Expansion Solutions, or IES (formerly the Industrial Extension Service), helped industrial clients in 44 counties, with a reported economic impact of \$82 million.
- The Small Business and Technology Development Center (SBTDC), a system-wide service based at NC State, but with offices on every UNC campus, provided more than 65,000 hours of counseling to small- to medium sized business clients, while also helping UNC General Administration in launching a multi-campus internship program.
- UNC-Chapel Hill's School of Government offered close to 200 courses, webinars, and specialized conferences for almost 13,000 North Carolina public officials.
- The Area Health Education Centers, or AHEC, also based at UNC-Chapel Hill, provided educational programs and services to almost 300,000 individuals in all 100 counties.
- Attendance at university-sponsored events – lectures, performances, athletic contests and other activities – totaled more than 6 million at all 17 campuses.

This update provides additional detail and context for these numbers. In addition, on our website are a series of detailed [case studies](#) that illustrate what UNC's engagement looks like in practice.

Taken together, the data and stories provide a valuable snapshot of the work UNC campuses are doing to respond to the needs of the state of North Carolina. As we periodically review this information, we hope to be able to assess progress on campuses over time, to provide groups wishing to engage with our campuses ideas for how to do so, and to enable campuses to learn from the insights and approaches their peer campuses are taking to engage in community and economic development activities.

I. Getting Students Ready to Connect

There is considerable evidence that student engagement activity during their time at a university meaningfully improves post-graduation outcomes. The largest study of this issue, the 2014 [Gallup-Purdue](#) index, a collaborative study by Gallup, Purdue University, and the Lumina Foundation, looked at 30,000 bachelor's degree recipients to assess the connection between undergraduate experiences and post-graduation success.

The study found that students' future community, physical, financial and social well-being could be predicted by a small number of factors. Three had to do with the support or encouragement a student received while a student, whether from a faculty member or mentor. The other three involved "hands-on" activities: working on a long-term project, working in a team setting on extracurricular activities, and completing a job or internship related to classroom coursework.

Separate studies of employers have also found they prefer to hire graduates who have worked on long-term research projects, have balanced curricular and extracurricular challenges, or have completed internships.

Since UNC's Board of Governors recommended, in its 2013 strategic plan, *Our Time, Our Future*, that UNC campuses look for ways to increase "experiential internships" to better prepare students for success following graduation, efforts on a system and campus level have increased.

In this section, we look at three measures that our community and economic engagement leaders have identified as important indicators of engaged learning that prepare students to connect to their communities post-graduation. By looking at 1) "community-based" and 2) "community-engaged" learning activities, we can get a partial picture of the number of students who are applying what they are learning "in the field" through some form of other experiential learning. By tracking 3) the number of students taking courses of study in entrepreneurship, we can keep up with the number of students who have been exposed to entrepreneurial thinking and experience, which may help prepare them for a post-graduation world where the ability to invent and innovate is more important than ever.

A. Getting Involved in Hands-On Learning

I. Community-based courses at UNC

“Community-based” courses refer to a range of courses that bring students into contact with business, agencies and other external community members – including host employers. All campuses, with the exception of the UNC School of the Arts (which uses a different definition for the work its students do with external collaborators), indicate that they offer courses for credit that bring students into contact with external partners. These courses include internships, field experience, cooperative education, student teaching, clinical experience and practica.

Table 1A: Enrollments in Community-Based Academic Learning Course Sections by Campus (Academic Year 2013-14 & 2014-15)

UNC Campus	Academic Year 13-14	Academic Year 14-15
ASU	4,445	7,956
ECSU	174	378
ECU	13,840	12,288
FSU	1,298	2,297
NC A&T SU	421	896
NCCU	3,530	4,067
NCSSM	148	158
NCSU	9,787	9,962
UNCA	1,023	709
UNCC	3,243	3,510
UNC-CH	11,522	11,490
UNCG	5,971	5,814
UNCP	1,912	1,528
UNCW	4,398	9,386
WCU	8,254	9,182
WSSU	1,366	3,682
Total	74,480*	83,753

*Figure revised from last year based on updated information; UNC System Community Engagement and Economic Development Metrics Surveys data

The numbers of students enrolled in these course sections is more than 83,000 -- about 12% higher than the numbers reported last year. The numbers are “duplicated,” which means that students may have enrolled in more than one course represented above. Given that identification of courses as “community-based” is still a new process, we do not know if the increase over the prior year is the result of actual increased student enrollment or of improved identification of these courses, or some of both.

The number of community-based courses is the most carefully-tracked indicator of engaged student learning, but that number does not capture student “applied learning” activities that take place outside of the classroom. Many internships and other applied learning experiences are not taken for academic credit and are not captured by this measure. The 2013 UNC “Senior Survey” found that roughly 55% of graduating UNC seniors who responded³ reported participating in “a

³ In all, 11,730 students responded to this survey question.

major that included an internship, co-op, etc.” during their time at a UNC institution. That means there are a number of students who are connecting to these opportunities outside of the official academic curriculum, plus another large cadre who are not involved in any such activities.

To gain a more accurate picture of how students are connecting, we need to identify new strategies to capture data about the full range of ways students are connecting.

II. Community-engaged courses at UNC

Community-engaged learning is a subset of community-based learning, and the former term refers to courses that are more intensively focused on public service and community-driven outcomes. In its 2015 community engagement criteria, the Carnegie Foundation noted that community-engaged courses bring together faculty, students, staff and the community in “mutually beneficial and respectful collaboration.” Typically these courses are conducted through connections to governmental, nonprofit or other community organizations.

Table 1B: Enrollments in Community-Engaged Academic Courses by Campus (Academic Year 2013-14 & 2014-15)

UNC Campus	Academic Year 13-14	Academic Year 14-15
ASU	1,610	6,447
ECSU	7	0
ECU	1,538	2,091
FSU	589	1,808
NCCU	2,160	2,734
NCSU	4,232	4,327
UNCA	591	586
UNC-CH	2,420	2,556
UNCG	1,445	1,400
UNCP	896	693
UNCW	0	2,425
WCU	462	918
Total	16,754*	25,985

*Figure revised from last year based on updated information; UNC System Community Engagement and Economic Development Metrics Surveys data

Some campuses do not distinguish community-engaged courses – sometimes called “service learning” or “public service” courses -- from the larger category of community-based courses: only eleven campuses reported activity in this voluntarily-submitted category. Appalachian State has the highest number of courses that fit this description, followed by NC State and UNC-Chapel Hill. NC Central, which has a community service component as a graduation requirement, has a high proportion of course participants relative to its enrollment. Overall, the reported number of community-engaged courses increased by more than 50% in 2014-2015 over 2013-2014. We do not know the reasons for this increase: it could be the result of increased activity on campuses or improved data availability or both. Activity in these community-engaged courses should help students be better prepared for post-graduation participation in government or nonprofit work, whether through paid or volunteer work in the sectors they want to work in or continue to study.

What we are doing to increase community-based and community-engaged learning:

Community-engaged and community-based courses offer students a chance to apply what they have learned in school, return to the classroom with increased confidence and practical knowledge, and then enter the workforce and community life with valuable hands-on experience with public, private and nonprofit employers.

In 2015, UNC launched three multi-campus pilots designed to increase the number of students connecting to different sorts of internships, all of which will be expanded in 2016:

- The UNC Board of Governors is expanding a new Duke Energy-funded program designed to connect rising seniors who have not previously had internships to opportunities during the summer before their senior year. With the support of SBTDC and Career Services Offices, students will get 8-week internships at small- to medium-sized companies.
- The State Employees Credit Union Foundation is providing students with stipends to intern at nonprofits and governmental organizations in rural areas.
- The NC General Assembly is providing students at Historically Black Colleges and Universities funding to connect to internships at large North Carolina companies.

Support received from the UNC Board of Governors in November 2015 will enable us to evaluate these programs to determine their impact on student success and post-graduation outcomes.

B. Increasing Entrepreneurship Credentials

Our Time, Our Future called for UNC to “better prepare more UNC undergraduate students for our fast-changing world, where they will need to be prepared to create or work, as noted in the 2006 video *Shift Happens*, “in jobs that don’t yet exist, using technology that hasn’t yet been invented in order to solve problems we don’t even know are problems yet.” While the call for funding to support develop new undergraduate entrepreneurship initiatives has not moved forward, campuses are finding ways to increase the number of students enrolled in degree programs related to entrepreneurship.

Over the last 10 years, twelve UNC campuses have now developed formal efforts to encourage and support entrepreneurship among students, faculty, staff, and, in some cases, entire ‘eco-systems’ or communities. Eight are UNC-constituted Centers and the remaining four are considered “initiatives.” All provide opportunities for students to learn about basic small business principles and entrepreneurial thinking.

- [ASU's Transportation Insight Center for Entrepreneurship](#)
- [ECU's Entrepreneurial Initiative](#)
- [FSU's Center for Entrepreneurship](#)
- [NCATSU's Interdisciplinary Center for Entrepreneurship and E-Business \(ICEEB\)](#)
- [NCSU's Entrepreneurial Initiative \(EI\)](#)
- [UNCC's Ventureprise](#)
- [UNC-CH's Carolina Entrepreneurship Initiative \(CEI\)](#)
- [UNCG's North Carolina Entrepreneurship Center \(NCEC\)](#)
- [UNCP's Thomas Family Center for Entrepreneurship \(TFCE\)](#)
- [UNCW's Center for Innovation and Entrepreneurship \(CIE\)](#)
- [WCU's Center for Entrepreneurship and Innovation \(CEI\)](#)
- [WSSU's Center for Entrepreneurship \(CFE\)](#)

To measure progress in this area over time, we will continue to track the number of students graduating with recognition for a course of study related to entrepreneurship.

Table 1C: UNC Campuses with Formal Entrepreneurial Education Graduates
Academic Year 2013-2014 and 2014-2015

Campus	Major 2013-14	Major 2014-15	Minor 2013-14	Minor 2014-15
ASU			22	27
ECU				
FSU				
NC A&T SU	5	5		
NCCU				
NCSU			8	23
UNC-CH			69	94
UNCG	24	24	12	15
UNCP			1	
UNCW				
WCU	43	42	3	34
Total	72	71	115	193

Campus	Concentration 2013-14	Concentration 2014-15	Certifi cate 2013- 14	Certific ate 2014-15	ME* 2013-14	ME* 2014-15
ASU	52	64				
ECU		26				
FSU	6	2				
NC A&T SU		20	32	15		
NCCU		1				
NCSU	24	24	1	3		
UNCC			24	26		
UNC-CH	36	27				
UNCG						
UNCP	3	1	14	6		
UNCW	51	35				
WCU		38			9	9
Total	172	238	71	50	9	9

*ME is Master of Entrepreneurship degree

Total Credentials (Major, Minor, Concentration, Certificate, ME)	
2013-14	439*
2014-15	561

*Figure revised from last year based on updated information; UNC System Community Engagement and Economic Development Metrics Surveys data

Data in this category has been internally consistent between the two reporting years. Between 2013-2014 and 2014-2015, the number of people graduating from UNC campuses with an entrepreneurship credential of some sort (major, concentration within major, minor, certificate) increased by about 27%. The largest increase was among students with a “minor” or “concentration” in entrepreneurship; the largest campus increases came at Western Carolina, UNC-Chapel Hill and NC State. Western Carolina, East Carolina and NCA&T graduated their

first students with entrepreneurship concentrations. Western Carolina remains the only campus with a Master of Entrepreneurship program (ME), delivered online.

The number of campuses granting these credentials is expected to continue to increase in 2015-2016, as UNCW sees the first graduates from its minor in entrepreneurship, Elizabeth City State launches a new minor, certificate and concentration, and other programs grow.

While degrees and other credentials capture one important measure of campus entrepreneurial activity, they do not show the full range of student activity, whether in individual courses, working with entrepreneurial faculty members, or formal and informal internships. Nevertheless, we believe this measure to be an important indicator of increased campus activity.

II. The Impact of UNC Research on the Economy and the Community

The most recent UNC [President's Report on Research and Sponsored Programs](#) provides an extensive look at UNC's research efforts, which reached an all-time high in the 2014-2015 fiscal year, with \$1.36 billion in research awards. This research has huge impacts for the future of our state, as faculty members use the funding to explore new ideas, make scientific discoveries and develop new products. In this report we look at some of the economic impact of that research, showing the key sectoral areas where research is focused and some of the indicators of scientific breakthroughs, then examining some of the indicators of how that research is connecting the university to government, nonprofit and for-profit entities across the state.

A. Research Impact on Major Economic Sectors

UNC research is focused on a wide variety of sectors of importance to North Carolina, as shown in Table 2A, including health and life sciences (more than \$600 million), engineering (\$127 million), education (\$109 million) and agriculture (\$86 million).

Table 2A: Fiscal Year 2014-2015 Research Awards by Subject Area

Subject Area	Total	Subject Area (cont.)	Total (cont.)
Health Professions	\$307,304,655	Public Administration	\$8,092,538
Biological Sciences	\$293,017,051	Math/Statistics	\$7,219,051
Unspecified Discipline/Program	\$158,650,254	Area/Ethnic/Culture Studies	\$4,399,475
Engineering	\$127,374,551	Business/Management	\$3,623,377
Social Sciences	\$109,365,426	Communication	\$2,388,713
Education	\$108,842,834	Visual/Performing Arts	\$1,315,619
Agriculture	\$86,299,707	Legal Professions	\$959,866
Physical Sciences	\$58,764,982	Architecture	\$759,954
Computer/Information Sciences	\$26,892,456	Parks and Recreation	\$561,808
All Other- Public Service/Non-Instructional	\$23,230,156	Foreign Language/Literature	\$483,469
Natural Sciences	\$21,756,902	English	\$329,010
Psychology	\$18,148,840	Philosophy/Religious Studies	\$241,026
Transportation	\$11,992,542	All Other- Instructional	\$156,210
		Homeland Security	\$75,031
Total			\$1,382,784,889

*Classifications are reported in campus electronic research administration tools and based on a condensed version of the National Center for Educational Statistics' Classification of Instructional Programs (CIP). For full CIP subject name, see <http://nces.ed.gov/ipeds/cipcode/browse.aspx?y=55>. Inter-institutional awards are included in figures shown. CIP classifications are not reported for NCSSM and UNCOSA awards.

Source: Institutional data reported in RAMSeS (Research Administration Management System and eSubmission)

Table 2A shows the range of disciplines in which UNC research is conducted. Within these broad areas of research, UNC is paying particular attention to a smaller number of areas.

Our Time, Our Future called for UNC to engage in “game-changing research that solves the problems of North Carolina – and the world.” With support from the North Carolina General Assembly, UNC has launched a [Research Opportunities Initiative](#), or “ROI,” that is investing \$3 million a year to support research in areas identified by the state as particularly promising: data science; defense, military and security; energy; coastal and marine science; pharmacoengineering, and advanced manufacturing.

In each of these areas, multi-campus teams are exploring promising possibilities for new breakthroughs.

Meanwhile, UNC researchers continue to make new discoveries each year, disclosing inventions, filing for patents, licensing new technologies for use in the private sector, and creating start-ups.

Table 2B: Intellectual Property on UNC Campuses, 2011-2015⁴

Year	Invention Disclosures Received	US Patents Issued	Licenses & Options Executed	Start-Ups
2011-2012	532	91	149	17
2012-2013	449	85	197	30
2013-2014	467	97	212	31
2014-2015	581	90	218	31
Total	2029	363	776	109

⁴ Source: Data is a combination of AUTM statistics (for UNC-CH, UNCG, ECU, UNCC, NCAT, NCSU) and institutional self-reporting (for all other campuses). The majority of the commercialization activity takes place at our doctoral granting institutions (ECU, NC A&T, NC State, UNC-CH, UNCC, UNCG).

B. Research Impact on Communities

I. Community-engaged research

In order to better quantify community-engaged activity through sponsored programs, the UNC Research and Graduate Education office worked with campuses in the 2014-2015 fiscal year to initiate a new set of questions that faculty and staff now answer about their sponsored projects. Data now reflect whether or not a sponsored project activity or budget can be classified as “community engagement” and at what percentage. For example, a faculty member can now report that 50% of project activity meets the definition of community engagement⁵ and that 25% of the project budget is applied towards community engagement. The questions also ask where the community engaged activity is taking place and where the community engaged budget is applied: in North Carolina, out of state, or internationally.

The top part of Table 2C indicates that 37% of research awards to UNC institutions in fiscal year 2015 involved some kind of community engagement activity, with the majority of that activity taking place in North Carolina.

⁵ Carnegie defines community engagement as “collaboration between institutions of higher education and their larger communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity.” Community-engaged research is identified by researchers as involving the community in a meaningful way.

Table 2C: Fiscal Year 2014-2015 Community-Engaged Research by Campus

Campus	% FY15 awards reporting CE activity	Total CE budget	Total CE budget spent in NC
ASU	62%	\$7,226,531	\$6,863,061
ECSU	33%	\$1,514,297	\$1,514,147
ECU	43%	\$10,698,140	\$10,510,363
FSU	58%	\$1,231,401	\$1,206,211
NC A&T SU	29%	\$12,939,674	\$12,814,470
NCCU	30%	\$1,116,505	\$1,047,925
NCSU	5%	\$3,383,810	\$2,855,232
UNCA	37%	\$236,354	\$ 236,354
UN-CH	11%	\$46,733,643	\$34,945,739
UNCC	39%	\$8,301,647	\$6,491,920
UNCG	39%	\$9,398,157	\$8,166,330
UNCP	39%	\$1,635,893	\$1,635,893
UNCW	50%	\$3,149,485	\$2,357,872
WCU	58%	\$1,450,037	\$1,353,230
WSSU	35%	\$228,977	\$ 210,444
UNCGA	23%	\$4,386,027	\$4,386,027
Total	37%	\$113,630,579	\$96,595,219

Source: Institutional data reported in RAMSeS (Research Administration Management System and eSubmission)

In all, about \$114 million of UNC's sponsored research was focused on community engagement activity with about \$97 million of that research focused in North Carolina communities.

II. Sponsorship of Research by North Carolina Stakeholders

A second way of looking at UNC's connection to North Carolina's community and economic needs through research is to consider the source of the funding. For example, when local governments, nonprofit organizations, and businesses invest in university research, that investment signals that the investing agencies trust and value the institutions. As in past years, about two-thirds of all UNC research funding comes from the federal government. But significant amounts also come from other sponsors, many of them in North Carolina, including state and local government, nonprofits, foundations, business and industry and other associations.

Table 2D: Fiscal Years 2013-2014 & 2014-2015, Research Awards by Sponsor Type

State Government	2013-2014	2014-2015
State of North Carolina	\$95,919,942	\$73,727,803
All Other States	\$1,038,883	\$8,090,476
Total Awards from State Government	\$96,958,824	\$81,818,279
Local Government		
NC Local Government	\$5,604,320	\$6,913,438.35
All Other Local Government	\$252,646	\$511,928.88
Total Awards from Local Government	\$5,856,965	\$7,425,367.23
Foundations		
NC Foundations	\$16,758,017	\$26,830,469.21
All Other foundations	\$47,808,304	\$68,761,659.33
Total Awards from Foundations	\$64,566,321	\$95,592,128.54
Associations		
NC Associations	\$1,972,757	\$2,091,829.70
All Other Associations	\$16,416,651	\$14,031,845.01
Total Awards from Associations	\$18,389,409	\$16,123,674.71
Nonprofit Organizations		
NC Nonprofit Organizations	\$18,461,528	\$13,828,950.38
All Other Nonprofit Organizations	\$25,223,949	\$24,891,045.91
Total Awards from Nonprofit Organizations	\$43,685,477	\$38,719,996.29
Business and Industry		
State of North Carolina	\$21,750,965	\$21,842,255
All Other States	\$75,432,722	\$73,669,640
Total Awards from Business and Industry	\$97,183,687	\$95,511,896
Non-Federal sources total	\$326,640,682	\$333,191,341
Total in NC	\$160,675,528	\$145,234,746

In difficult fiscal times, organizations will not invest in research they do not believe is of direct assistance to them. These data indicate that in 2014-2015, UNC institutions were likely directly involved in meeting needs of NC units of government, nonprofits and for-profit companies through over \$145 million in sponsored project partnerships, including about \$74 million from state government and more than \$20 million from both NC private sector businesses and NC foundations. Source: Data reported in RAMSeS (Research Administration Management System and eSubmission)

III. Public Service Work in the Economy and the Community – Building the ‘Communiversality’

The third part of UNC’s mission is public service. Beyond the engaged teaching and learning students and faculty do with our states economic and community agencies, and beyond the research done in response to the state’s needs, UNC campuses are at work daily in the community on projects that may have academic or research components, but which may also ‘simply’ benefit the people of North Carolina. The shared responsibility on the part of the community and the university is helping create a new dynamic of mutual benefit, the “communiversality,” where both the public and the university are “served.” In this section, we look at four different sorts of activities in this category: campus-community partnerships; delivery of non-academic courses, both face-to-face and in person; activities and services delivered by UNC-based agencies with a state-wide service mission; and attendance at and participation in university events.

A. University-Community Partnerships

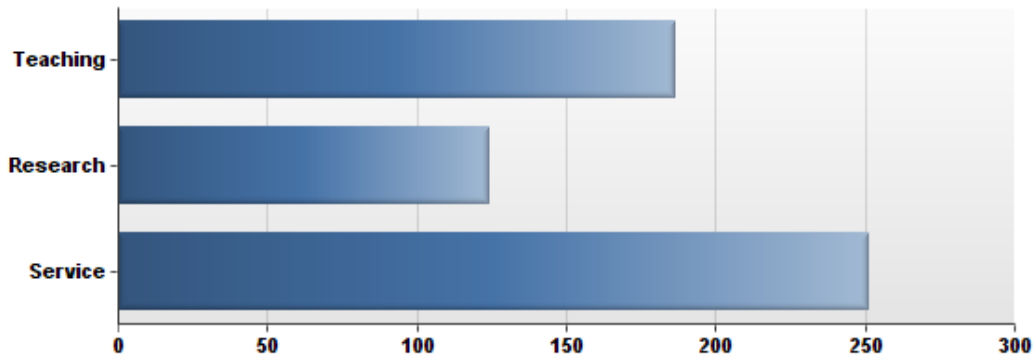
In order to better understand the variety of ways in which campuses are working collaboratively with community partners , we asked each campus to list between 15-25 “community-university” projects that had been active during the 2014-2015 academic year, projects that served both the community and university, meeting important community goals. We asked them to identify the university’s role, the nature and location of the activity, the sorts of community groups they were working with, the impact of the activity.

While campuses were asked to include only a sample of the community-university partnerships they were involved in, it is interesting to note that the projects named include specific activity in 98 of North Carolina’s 100 counties, and that 30 of the projects provided a “service” in all 100 counties of the state. Guilford, Forsyth, Jackson and Buncombe counties were mentioned most frequently, each with 33 – 35 such efforts.

In all, campuses reported on 305 community-university partnerships, with slightly more than 17,300 participating students and 1,760 faculty and/or staff involved.

Figure 3A depicts how universities described their role in these projects.

Figure 3A: How UNC Institutions Described Their Role in Project (Teaching, Research, Service)*

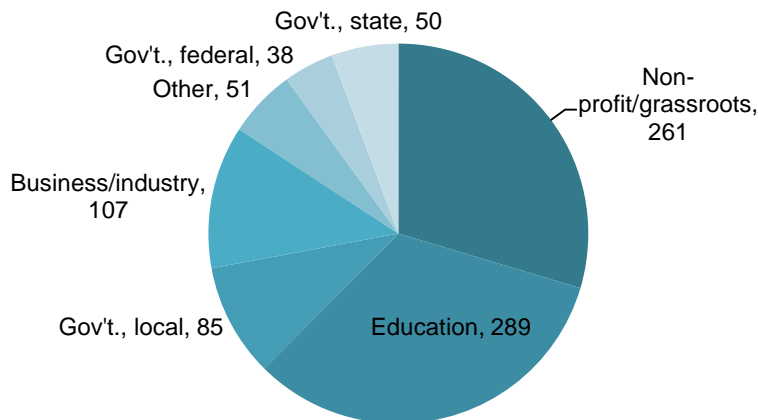


**Note: Includes duplicates as projects could involve 1-3 roles for our institutions*

While these projects were classified as “community-university” projects, Figure (bar graph) 3A demonstrates the extent to which these collaborations frequently involve all three elements of UNC’s three-part mission: 85% of the projects involved “service,” 63% “teaching” and 42% “research.”

Figure 3B depicts the number of collaborators that campuses have in various sectors.

Figure 3B. Community Partner Sectors



Most frequently mentioned as collaborators on community-university projects were education (32.8%) or nonprofit (29.6%) partners, followed by business (12.1%) and government (9.6%) partners. Since we asked campuses to list only their “most active” 15-25 community partnerships, the mix of activity does not provide exact data on all community-university partnerships, but the responses give some indication of where this campus engagement activity is taking place.

B. Non-Academic Credit Education at UNC

University courses that count toward a degree may attract the most attention on UNC campuses, but the number of people served through noncredit or non-degree courses, an activity sometimes known as “continuing education,” is a significant public service and a key way in which UNC campuses engage their communities.

Going forward, as product lifecycles shorten and the skills needed for success in the economy change more quickly, citizens must increasingly become lifelong learners. Universities can either play a key role in meeting this demand, or watch as other entities move in and meet these needs.

We asked campuses to report on how many noncredit courses they are delivering, and in what format.

The data show the majority of courses (5,366 compared to 949) still being delivered face-to-face or through some combination of face-to-face and online (hybrid). But it also shows a large number of people (463,084 – see Table 3D) are being served through noncredit courses taken totally online.

Figure 3C shows the numbers of courses, enrollment and continuing education credits (CEUs) or certificates granted by UNC campuses in face-to-face or hybrid courses.

Table 3C: Non-Academic Credit Education at UNC Academic Year 2013-2014 & 2014 – 2015 (face-to-face, or hybrid)

Campus	Courses offered		Enrollments		CEUs/certificates	
	AY* 13-14	AY 14-15	AY 13-14	AY 14-15	AY 13-14	AY 14-15
ASU	118	117	5,873	10,089	438	917
ECSU	3	3	138	155	N/A	N/A
ECU	363	264	7,327	22,810	2,798	8,143
FSU	157	310	4,293	9,798	15	209
NC A&T SU	64	43	472	529	461	135
NCCU	42	18	N/A	15	26	15
NCSSM	4	4	1,540	1,984	216	110
NCSU	1,164	1,672	270,561	317,373	111,008	249,994
UNCA	52	46	8,113	13,976	66	1,534
UNCC	406	319	5,207	6,400	3,513	5,158
UNCCH	3,327	2,060	138,241	114,158	8,443	N/A
UNCG	100	42	6,772	4,813	N/A	N/A
UNCP	5	20	310	83	302	8
UNCSA	18	46	571	1,082	22	0
UNCW	31	197	3,960	6,852	3,864	711
WCU	46	188	3,521	5,168	652	1,415
WSSU	10	17	187	133	177	96
Total	5,910	5,366	456,951	515,418	132,001	268,445

*AY = Academic Year; UNC System Community Engagement and Economic Development Metrics Surveys data

In all, during Academic Year 2014-2015, our 17 UNC campuses delivered almost 5,400 non-degree courses to learners either face-to-face or through a combination of face-to-face or

online, with more than 515,000 enrollments in those classes. That's an increase of almost 60,000 over the 2013-2014 academic year. The dominant players in this field are NC State (61.6% of all enrollments) and UNC-Chapel Hill (22.1% of enrollments). But all campuses deliver some sort of noncredit education courses in their community and most showed an increase in enrollments between 2013-2014 and 2014-2015. A careful analysis of market demand may enable campuses to excel in particular areas of strength. For example, Appalachian State plans to offer and award credit in the coming year to instructors who teach Adult Basic Education at the community colleges across the state.

Interestingly, about 52% of the 515,418 enrolled in 2014-2015 were granted some sort of credential or recognition, either in the form of Continuing Education Unit (CEU), Continuing Medical Education (CMU), or some sort of certificate. This represents a doubling of the number reported last year with NC State (93% of these credentials) clearly dominating activity in this area. This recognition (CEU/CMU) provides important information to an employer or potential employer that an individual has skills or abilities in a particular area, and is likely to become more important in the future as employers look for assurance that employees have achieved a degree of mastery of emerging skillsets. In future analysis, it would be useful to review which fields are attracting the greatest number of enrollments and compare those to areas of perceived demand in the state.

Table 3D depicts the number of people that are getting their continuing education completely online.

Table 3D: 100% Online Non-Academic Credit Education⁶ at UNC
Academic Year 2013-14 & 2014 -15

Campus	Courses		Enrollments		CEUs/ certificates	
	AY* 13-14	AY 14-15	AY 13-14	AY 14-15	AY 13-14	AY 14-15
ASU	3	0	37	0	20	0
ECSU	0	0	0	0	0	0
ECU	68	23	8,985	1,481	5,083	1,481
FSU	10	10	44	109	35	0
NC A&T SU	8	8	63	17	8	7
NCCU	418	422	22	15	0	0
NCSU	33	34	289,379	299,625	13,169	13,198
UNCA	0	0	0	0	0	0
UNCC	136	242	337	446	322	312
UNC-CH	140	100	166,633	160,470	N/A	N/A
UNCG	21	13	175	190	N/A	N/A
UNCP	19	16	72	18	72	18
UNCSA	0	0	0	0	0	0
UNCW	1	4	112	475	0	475
WCU	26	69	807	230	155	180
WSSU	3	8	25	8	0	1
Total	886	949	466,691	463,084	18,864	15,672

*Academic Year; UNC System Community Engagement and Economic Development Metrics Surveys data

⁶ Another way of defining the activity captured in this table would be "Online Continuing Education"

NC State (64.7% of all enrollments) and UNC-Chapel Hill (34.7% of all enrollments) enroll almost all students taking noncredit online courses, but twelve campuses have some activity in non-academic online course delivery. NC State grants most (84.2%) of the continuing education units (CEUs) or certificates awarded from these courses - UNC-Chapel Hill does not yet have a mechanism for tracking CEUs.

As with face-to-face or hybrid courses, the number of learners interested in acquiring new skills online is growing and should grow even more quickly in the future as more adult learners get accustomed to online course delivery, more young learners demand online continuing education options, and more employers demand just-in-time proof that employees have achieved mastery of key subject matter.

In fact, demand is already significant. Adding the enrollments in online continuing education courses (463,084), face-to-face or blended courses (515,418) and courses delivered through the Cooperative Extension Service and Allied Health Education Centers (534,549 and 188,518 respectively – see figures below) means UNC had more than 1.7 million total enrollments in such courses last year.

C. State-serving Entities

The University has a long history of working directly with the people of the state through organizations with a specific outreach mission. Among these, five organizations have a distinctly statewide focus: the [Cooperative Extension Service](#), [Industry Expansion Solutions](#) (formerly known as the [Industrial Extension Service](#)), and the [Small Business and Technology Development Center](#), all of which help advise businesses and community organizations on how to work more effectively, as well as UNC Chapel Hill's [School of Government](#), which helps teach government leaders to work more effectively and efficiently, and the North Carolina [Area Health Education Centers](#), which meet various healthcare needs. Smaller university-based centers throughout the state have addressed regional needs.

These organizations play a critical role in extending the University into every county in the state. In this report, we look at these five state-serving organizations performing different functions in assisting elected officials, farmers, nonprofit leaders, health care professionals and business owners, large and small, in becoming more successful.

Cooperative Extension Service (based at NC State and NCA&T State)

North Carolina Cooperative Extension is a partnership between the state's land-grant institutions, NC State and NC A&T State universities, local governments and the U.S. Department of Agriculture's National Institute of Food and Agriculture (USDA-NIFA), designed to deliver research-based agricultural, food and youth development programs to agricultural producers, small business owners, consumers, families and young people. At each of 101 local centers across the state, county agents are the bridge between the public and university Extension specialists. Agents educate the public through local meetings and workshops, field days and personal consultations, as well as online trainings, social media outreach and innovative web resources.

In 2014, Extension generated an economic impact of \$182 million in North Carolina, or nearly 60% more than its annual funding allocations. As a result of Extension's programs, more than 36,000 people increased their consumption of fruits and vegetables, 232,000 youth participated in 4-H camps and programs, and sales of N.C.-grown agricultural products to local buyers increased by \$2 million.

More than 78,000 Extension volunteers dedicated 700,000 hours of service last year, donating a total of \$5.4 million in time, services and in-kind contributions last year.

In addition, during FY 2014-2015, NC Cooperative Extension agents:

- Facilitated 5.2 million client contacts (1.7 million face-to-face contacts and another 3.5 million contacts via other means).
- Delivered non-degree programs to 534,549 participants through 14,890 programs. Key programs included pesticide application, master gardeners, and good agricultural practices (GAPS).

- Served other participants: 19,366 people received re-certifications in 40 different fields of interest and 9,253 citizens received new certifications (certification information is for calendar year 2014; all other figures are for FY 2014-2015).

Going forward, N.C. Cooperative Extension will undergo a process of rebranding to better serve its universities, increase public understanding and awareness, and help position Extension in North Carolina for long-term success. More information about the N.C. Cooperative Extension Service is in [this report](#).

Industry Expansion Solutions, or IES (based at NC State)

Newly re-branded Industry Expansion Solutions (IES) of NC State University provides education and technical assistance to businesses and industries across the state. IES works one-on-one with small- and medium-sized manufacturers to help them stay competitive and in the process save jobs and increase profits. IES staff help those companies with improvements, the use of modern practices, and new technology.

NC State IES also administers the National Institute of Standards and Technology's Hollings Manufacturing Economic Partnership (MEP) center for North Carolina (NCMEP).

The NCMEP center provides manufacturing extension services that enhance productivity, innovative capacity, and technological performance, and strengthen the global competitiveness of small- and medium-sized U.S.-based manufacturing firms. NCMEP links IES and its manufacturing partners to a network of national expertise and suppliers, creating a hub of innovation and knowledge for North Carolina.

In fiscal year 2014-2015, IES client projects in 44 counties reported:

- Economic impact of \$82,179,950
- 652 jobs created or retained
- 91 open enrollment courses with 1524 students enrolled.

For more information on IES, consult their [website](#).

North Carolina Area Health Education Centers, or NC AHEC (based at UNC-Chapel Hill)

The mission of the North Carolina Area Health Education Centers Program (NC AHEC) is to meet the state's health and health workforce needs. NC AHEC provides educational programs and services that bridge academic institutions and communities to improve the health of the people of North Carolina, with a focus on underserved populations. NC AHEC's vision is to lead the transformation of health care education and services in North Carolina. Program values include a commitment to collaboration, diversity, service excellence, innovation, and integrity.

During FY 2014-2015, NC AHEC served 298,535 individuals. These services included the following:

- 188,518 health professionals attended 8515 continuing medical education and continuing education programs for a total of 21,767 instructional hours

- 1076 providers received on-site support services for practice improvement across the state
- 5,679 health professions students were placed in NC AHEC rotations in 90 counties
- 2053 health professions students were housed while providing service in 90 counties
- 3,397 health careers pipeline students (K-12) from 79 counties participated in educational opportunities
- A total of 1,163 health care residents were trained in NC AHEC residencies in all 100 counties (includes all active, instate, nonfederal, non-resident-in-training physicians licensed in NC indicating completion of an AHEC residency).

For more information on AHEC, please go to their [website](#).

UNC School of Government (based at UNC-Chapel Hill)

The mission of the University of North Carolina at Chapel Hill's School of Government is to improve the lives of North Carolinians through engaged scholarship that helps public officials and citizens understand and improve state and local government through nonpartisan, policy-neutral, responsive educational activities.

As the largest university-based local government training, advisory, and research organization in the United States, in 2014-2015, the School of Government:

- Offered 195 courses, webinars, and specialized conferences for 12,720 North Carolina public officials in fiscal year 2014-15.
- Produced 238 unique books, manuals, reports, articles, bulletins, and other print and online content related to state and local government.
- Produced *Daily Bulletin Online* each day that the NC General Assembly was in session, a report on the day's activities for members of the legislature and others who need to follow the course of legislation.
- Responded to 15,548 phone and email inquiries on routine and urgent matters and also engaged in long-term advising projects for local governing boards, legislative committees, and statewide commissions. These inquiries took anywhere from 10 minutes to several weeks to research and resolve.
- Enrolled 61 Master's of Public Administration (MPA) students in its nationally-ranked program and an additional 129 students in its online program, MPA@UNC.

In addition, the School is also home to several entrepreneurial initiatives, including the Center for Public Technology and the Development Finance Initiative (DFI), which helps local governments find innovative ways to finance the revitalization of North Carolina cities and towns. Created in 2011, DFI has leveraged an initial investment by Local Government Federal Credit Union to fund its work. Since then, DFI has been offering a graduate course in community revitalization and has collaborated with local governments, developers, and nonprofit organizations on 77 projects to date in 52 North Carolina communities. During the 2014-15 fiscal year, DFI had 26 active collaborations with local governments and their partners on projects of broad scope and impact.

Small Business and Technology Development Center (a program of UNC General Administration housed at NC State)

The SBTDC is the University’s largest inter-institutional program and functions as a business and technology extension service. It provides business advisory services, management education and training, publications and other tools and resources that enable existing small and mid-sized businesses, emerging entrepreneurs, economic development organizations, and local and state leaders to innovate and succeed.

Administered on behalf of the UNC system by NC State University, its 16 offices across the state are hosted by constituent institutions of UNC. This structure allows the SBTDC to have extensive connections with faculty, staff and students at each campus, which enhances its service capabilities and supports its outreach to clients in all 100 counties of the state.

The SBTDC’s performance and fiscal management is routinely monitored by federal program managers and The University. It is required to undergo a rigorous external accreditation process every five years and has been continuously accredited without conditions. Its economic impact results are also assessed annually through required independent third party studies. Some key results of these include:

- Counseling provided to clients consistently generates \$3.67 in new tax revenue for every \$1.00 invested in the SBTDC program.
- SBTDC client businesses consistently outperform average North Carolina businesses in sales growth (SBTDC client 14% vs. average NC business 1.8%) and employment growth (SBTDC client 16.5% vs. average NC business 5%).

Each year, hundreds of students work through SBTDC obtaining and sharing hands-on skills and expertise as part of internships, practicums and student competitions.

Table 3E: SBTDC Key Outcomes for FY 2014-2015

Metric	Results
# Students Working with Client Businesses	504
# Student Hours	29,912
# SBTDC Business Clients	6,148
# Counties Served	100
# SBTDC Counseling Hours	65,401
# Businesses Started	122
# Jobs Created	1,308
# Jobs Retained	812
\$ Capital Formation	\$123,191,761
\$ Sales Increases	\$102,735,005
\$ Contract Awards	\$173,106,184

D. Attendance at University Events

One final way UNC campuses engage with their surrounding communities is through the range of cultural, educational and athletic events they hold each year. This year UNC member institutions submitted data about attendance at events on campus, summarized in Table 3F.

**Table 3F: Total Attendance at University Events
(Academic Year 2014-15)**

UNC Campus	AY14-15
ASU	321,391
ECSU	22,847
ECU	626,070
FSU	30,732
NC A&T SU	186,705
NCCU	59,142
NCSSM	14,799
NCSU	945,773
UNCA	210,943
UNCC	293,470
UNCCH	1,567,677
UNCG	350,040
UNCP	218,319
UNCSA	86,312
UNCW	646,940
WCU	469,905
WSSU	270,436
Total	6,321,501

UNC System Community Engagement and Economic Development Metrics Survey data, 8/15

While we are not close to being able to count attendance at every event on campus, these figures show an entirely different way in which our campuses serve their communities, providing education and entertainment to the people in their hometowns as well as drawing people from surrounding communities, who generate economic impact when they buy gas, eat in local restaurants, or stay overnight.

E. 'Universities in Action'

A final set of information campuses provided information on is what we call 'Universities in Action.' For this piece, campuses reported in narrative form 3-5 exemplary projects, programs, or initiatives that make a positive and profound impact on the quality of life in North Carolina.

These campus narratives further illustrate how they work in community and economic engagement in a manner consistent with their mission and unique circumstances and can be accessed at: <https://www.northcarolina.edu/?q=our-time-our-future/unc-engagement-reports>.

Acknowledgements

The areas we survey in this report were recommended after a year-long effort by two committees appointed by UNC President Tom Ross, one focused on community engagement metrics and the other on economic engagement metrics. Following the publication of the 2015 report, Dr. Emily Janke of UNC Greensboro assisted Tim Moore at UNC General Administration in revising the metrics, data collection tools and overall instruction manual.

On many campuses, pulling together the data fell to the offices of institutional research, and we thank them for the timely submission of this year's data.

The assembly of the data from campuses was facilitated by James Whalen, a Presidential Intern at UNC General Administration. Additional valuable data and insight came from Dan Cohen-Vogel, Courtney Thornton and Sweta Bhakta at UNC General Administration. Paige Marley, another Presidential Intern with UNCGA, provided formatting and editing that made the report easier to read and understand. Chris Brown, Dan Cohen-Vogel, and Kate Henz reviewed the full draft report and made valuable edits, which are reflected in the final version.

Initial preparation of report analysis, revisions, and final presentation on the report was led by Tim Moore, manager of community and economic engagement programs at UNC General Administration.

Thanks to all of the participants in the effort to describe how UNC campuses are engaging in strengthening the economic and community health of our state.

-Leslie Boney, March 2016