

Together Duke: Advancing Excellence Through Community
Academic Strategic Plan

Academic Council, April 20, 2017

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Executive Summary

This academic strategic plan affirms **Duke's commitment to its extraordinary community of scholars and learners** and articulates a cohesive vision of shared community aspirations for the university. The plan builds on a strong foundation of interdisciplinarity, globalization, and knowledge in the service of society. Our commitment to interdisciplinarity manifests itself not only through outstanding institutes and initiatives, but also through collaborations across schools and the integration of research and learning in signature programs. Duke has impressive educational and research programs around the world: researchers with global expertise fill our faculty ranks, and an increasingly international student body gains ever deepening exposure to global cultures and challenges on the Durham campus and abroad. Finally, our dedication to knowledge in the service of society has given rise to unprecedented efforts in civic engagement, entrepreneurship, public scholarship, translational research, and policy engagement.

As we move into Duke's next decade, we will elevate our research, teaching, and service missions. Specifically, we will strengthen our commitments to outstanding fundamental scholarship across the University, to a transformative educational experience for every Duke student, and to engagement with communities around the world on pressing 21st century challenges. This vision is motivated by three core themes:

Theme 1: Inquiry and Discovery

We will place a renewed emphasis on the value of fundamental **inquiry and discovery** across the campus. Whether their scholarship is disciplinary, multidisciplinary, or interdisciplinary, we will provide faculty with support for research that, in accordance with Duke's mission statement, *"advances the frontiers of knowledge and contributes boldly to the international community of scholarship."* While the humanities and social sciences have been prominent at Duke for the past few decades, increasingly we have come to realize that Duke cannot be a great university without great natural and physical sciences. Inquiry and discovery in these sciences brings distinctive disciplinary contributions, invigorates new modes of inquiry in the humanities and social sciences, and makes direct and meaningful contributions to a host of fields across the university, including law, medicine, and the environment.

Theme 2: The Duke Opportunity

Every student who comes to Duke should be intellectually engaged and forge lasting relationships with members of the Duke community. Every student should expect an education that exposes him or her to various modes of thought and inquiry, and to people from different histories, backgrounds, beliefs, and identities. And every student, whether an undergraduate, professional or graduate student, should have access to the best that Duke has to offer. **The Duke Opportunity** expresses the university's commitment to meeting these expectations by providing all students a transformative educational experience. Broadening opportunities includes efforts to make a Duke education accessible and affordable: attracting students

from the full range of identities and socioeconomic groups is vital to the excellence of Duke's educational mission.

Theme 3: Global Engagement, Locally Grounded

In past decades, we built programs around the world with distinct motivations and goals. Today, with a growing recognition of the shared challenges that local communities face across the globe, it is imperative to connect these initiatives in a meaningful way. Thus, we will address issues that cross borders while strengthening our traditional emphasis on place-based engagement. We plan to use local communities as a starting point for our efforts to meet 21st century challenges and to ensure that our **global engagement is locally grounded**. Toward this end, Duke's commitment will be enhanced and characterized by situated knowledge that can be of real service to local communities.

A focus on **Inquiry and Discovery, The Duke Opportunity and Global Engagement, Locally Grounded** is achieved through the four main goals of this plan.

GOAL ONE: Invest in the Duke faculty as scholars and leaders of the University's intellectual communities

We seek to attract, retain, and nurture a diverse community of faculty of true distinction, where distinction is understood to include both powerful intellectual creativity and the eagerness to stimulate the creativity of students and fellow scholars. We will support all research that advances the frontiers of knowledge. We will commit our time, energy, and financial resources to build the natural and physical sciences so they can be as distinctive for Duke as are our humanities, social sciences, and professional school programs. We will broaden the diversity and foster the excellence of our faculty and support them through mentoring and leadership development programs that span all career stages and encompass all faculty ranks.

GOAL TWO: Provide a transformative educational experience for all students

This plan views all students—undergraduates, graduate students, and professional students—as partners in the process of inquiry and discovery. It seeks to engage and support them in their intellectual pursuits and challenge them to learn and grow, so they leave Duke fully aware of their potential and capable of making the most of their own talents and those with whom they will work. As such, this plan underscores signature learning communities that emphasize vertically-integrated, team-based experiences. This plan also creates opportunities for graduate and professional school students to prepare for a wide array of career options, strengthens efforts to diversify our graduate and professional schools, and addresses issues of access and affordability.

GOAL THREE: Strengthen Duke's capacity to address global challenges for communities across the world

Duke's success in interdisciplinarity, globalization, and knowledge in the service of society has set the stage for sustained engagement with the many challenges facing local, national, and

global communities. We will deepen Duke's leadership in strategic areas such as population health, energy and water resources, and race, religion and citizenship. To complement this approach to engaged research and learning, we plan to create a suite of global offices, enhance the Duke in DC office, and create stronger connections to our local and regional communities. Our goal is to achieve earlier, deeper, and more sustained two-way engagement with external communities and organizations.

GOAL FOUR: Create a supportive environment for research, learning, and academic communities

Empowering Duke faculty to achieve research distinction, providing a meaningful education to all students, and strengthening our ability to address local to global challenges requires strong, creative, diverse, and inclusive communities at all levels—on our campus, in our schools and units, in our offices, and elsewhere. We will invest in spaces that facilitate serendipitous interactions and the communal engagements envisioned in this plan. Understanding that a conducive physical environment alone will not produce the kind of university society that lives up to Duke's promise, we will do the hard work to foster a vibrant community in which new ideas and collaborations flourish.

From Duke's earliest years, the University has been distinguished by its ambitions and its capacity to realize them. We enjoy great advantages through our location in Durham, our rich history, and the quality of our people. The goals articulated in this academic strategic plan will bring new distinction to Duke—as a destination for top scholars interested in a welcoming, collaborative, and dynamic environment; as a university where all students are embedded in and inspired by lively intellectual communities that prepare them to be engaged citizens of the world; as a university of consequence committed to engaging in the challenges facing communities—locally, nationally, and globally as a leader in academic excellence, all through the deliberate fostering, cultivation, and support of communities of scholars and learners.

I. Prologue

A university is a crucible for ideas that can be examined, combined, pulled apart, tested, recombined, and refined. But the transformation of these ideas into groundbreaking scholarship, effective teaching, and engaged learning requires robust communities in which faculty and students freely exchange ideas, learn from each other, confidently question premises, and collaboratively gain deeper and richer understandings. Since most new concepts are inspired by older ideas, the creation of new knowledge and understanding is most effectively fostered by exposure to diverse ways of thinking, researching, and knowing. At its essence, a university provides this exposure by promoting the collisions that generate novel approaches to the arts, science, law, literature, medicine, and other fields, which in turn reshape our world.

For more than a century after the industrial and scientific revolutions, universities possessed huge comparative advantages as accumulators, curators, and transmitters of knowledge. Today, however, in an increasingly complex society where access to information is instantaneous and ubiquitous, the research university's most significant function has shifted. It now contributes most effectively by encouraging faculty and students to place information in its historical, cultural, political, and scientific context, and by facilitating interactions that generate new

questions, analytical approaches, and innovative modes of problem-solving. Thus, in the 21st century, it is all the more vital to maintain and strengthen academic communities.

A focus on these communities represents a turning point for the modern university. The dynamic university today must foster recurring encounters among talented individuals with grounding in different backgrounds, perspectives, histories, politics, and identities. It must welcome scholars, students, and ideas that have not always been welcome. It must develop new angles of vision and the ambition to seek solutions to society's thorniest dilemmas, while retaining space for critical reflection. It must encourage intellectual collaborations and recombinations within and across disciplines. It must forge partnerships with local and global communities and institutions. In essence, the university must embrace the essential role of a robust and diverse academic community: to bring faculty and students together for the purpose of generating new knowledge and critical insights, and using those insights to provide practical solutions to society's most pressing problems.

Central to this vision is a university campus that facilitates community – where spaces are thoughtfully designed to promote collisions, where programs maximize the use of those spaces so that ideas are explored both inside and outside the classroom, and where technology is used creatively to nurture and sustain research and learning communities. These ingredients have the greatest impact when faculty are committed not only to excellence in their own research and teaching, but also to full participation in the exchange of ideas across the divides of schools, departments, and programs. A century ago, the French composer Claude Debussy defined music as “what happens between the notes.” To strengthen and enrich our community, we need to pay attention to the ‘spaces’ between and among classrooms, laboratories, studios, and libraries. We must encourage and incentivize not only path-breaking faculty research and first-rate teaching, but also engagement and ownership in the broader university community.

Today, with the work of the university stretching from Durham to sites across the globe, our campus borders have become more figurative than physical. An array of programs, facilitated by advances in communications and technologies that enable collaboration, has increased the speed at which Duke's work has spread across the world and, in turn, has allowed the work of the university to be advanced by the world's ideas, innovations, and people. These interactive and multi-directional engagements have broadened our concept of community and highlighted the need—and opportunity—for the university's transformative work to have an impact upon local and global communities.

At its heart, a university is all about people. Indeed, Duke's core strengths are its faculty, students, and staff, as well as the relationships and connections they forge. The opportunity before Duke now is to capture the power of our community to address the fundamental conundrums of the natural world and the human condition, as well as humanity's most pressing challenges.

II. Duke's rise to prominence

From an 1838 wooden schoolhouse in Randolph County to a modern research university whose work and influence extend around the globe, Duke has ascended, fueled by a commitment to excellence and a willingness to adapt and redefine itself in the pursuit of that excellence.

Because Duke lacked the heritage and resources of many of our peer institutions and because of our relative youth and nimbleness, we developed a culture of collaboration and teamwork that presaged the kind of connections today's complex challenges require. While other universities were building disciplinary strength bounded by high walls, Duke was building bridges to draw creative thinkers together. Through partnerships between engineering and medicine, for example, we have advanced the frontiers of biomedical engineering. More recently, to better facilitate the connection of theory with practical and policy applications, we elevated our Sanford Institute of Public Policy to Duke's tenth school, and to leverage the collective strength of our distinctive humanities departments, we established the Franklin Humanities Institute.

While not all changes have come easily, their effects have been transformative. Speaking before the Academic Council in March 2012, leading up to the 50th anniversary of the enrollment of the first African-American undergraduates at Duke, President Richard Brodhead argued that the commitment Duke made to desegregation in 1963 *"is rivaled by only two others for its impact on what Duke has become. Without the move to Durham from Randolph County in 1892, this school would have been nowhere and would probably have failed. Without the transformational gift from James B. Duke in 1924, we would still be a distinguished regional liberal arts college, not a world-renowned university. Without the repeal of racial exclusion policies, this would not be the place where the brightest minds come from every origin to deepen and expand our knowledge of our world."* Clearly, embracing change has driven Duke's upward trajectory.

III. Strategic planning at Duke

For a top university in a rapidly evolving world, the need for adaptation remains a constant. At critical points in Duke's history, strategic planning has served as a powerful means for the university to refine its mission in light of emerging issues, challenges, and opportunities. In Duke's first strategic plan, begun in 1958, President Hollis Edens posed a series of questions to the University Committee on Long-Range Planning: *"In what areas are we lagging behind? What new directions should we emphasize? In short, what ought Duke University to be in the future?"* In essence, these are still the questions we are asking today.

A decade ago, these questions framed the last strategic plan, *Making a Difference* (2006). The goals set out in that document charted a new course for Duke's preeminence by expanding the faculty; building a strong research infrastructure; creating advances in teaching, learning, discovery and outreach; and designing and implementing programs focused on Duke's strengths in interdisciplinarity, knowledge in the service of society, and globalization. The collective impact of the past decade's investment in these priorities has propelled Duke's rise to the top tier of universities. It has allowed Duke to attract some of the world's finest faculty, build first-rate facilities, and launch model interdisciplinary institutes and global partnerships. We have engaged the minds of a new generation of students – passionate world citizens who push humanity forward and blaze new paths in research and education.

As Duke has been transformed over the past decades, so has the world. Recognizing pivotal changes in the academy, at Duke, and in the national and international landscape, in January 2015 Provost Sally Kornbluth charged the Strategic Planning Steering Committee with gathering broad community input on the direction of Duke's academic mission in the coming decade.

This effort led to the development of an initial *Framework for Discussion and Development of Duke's Strategic Plan* (November 2015), which defined in broad strokes our future academic goals. Built on the university's signature themes, these goals signify the importance of deep fundamental basic research and scholarship, the centrality of disciplinary work to Duke's intellectual foundation, and a commitment to access and affordability. Furthermore, the goals reflect a serious response to a significant shift in career pathways for PhD graduates; a growing demand for public communication of university work; the increase in the number of Duke graduate and professional students; the evolving transformations in the demographics of our campus and our nation; and a response to the technological changes that are affecting almost every sector of society.

IV. Overall vision and themes

Duke has been intertwining disciplines, experimenting with learning methods, and extending our reach around the globe for decades. These investments have prepared Duke well for the current complexity of our research, teaching, and service missions. We are now well positioned to solidify Duke's stature within the highest rank of American higher education and accelerate Duke's distinction as a global leader in research and education by intentionally focusing on the collective ability of Duke's scholars and learners. **Our overarching vision for the next decade is to grow, connect, and empower diverse and inclusive communities of excellence to enhance the creation, delivery, and translation of knowledge for a rapidly changing world.** Three broad themes drive this vision and motivate each of the four goals detailed in section V. These themes are:

Inquiry and Discovery

Creation of knowledge, the sine qua non of a research university, must be front and center of our academic mission. Thus, as we move into Duke's next decade, we will place a renewed emphasis on the value and support of fundamental **inquiry and discovery** across the campus. One hallmark of Duke has been knowledge in the service of society, but the university provides one of the few havens for knowledge generation for its own sake. It is through such foundational inquiry and discovery that we gain fundamental insights into the natural world, the human condition, and our society. Whether their scholarship is disciplinary, multidisciplinary or interdisciplinary, faculty will be provided with support for research that, according to Duke's mission statement, "*advances the frontiers of knowledge and contributes boldly to the international community of scholarship.*"

While the humanities and social sciences have held a pre-eminent place at Duke for the past few decades, increasingly we have come to realize that Duke cannot be a great university without great natural and physical sciences. Indeed, inquiry and discovery in these sciences is a vital component of a comprehensive, world-class university. Strength in these sciences brings not only distinctive disciplinary contributions, but it can also invigorate new modes of inquiry in the humanities and social sciences and can make direct and meaningful contributions to a host of fields across the university, including law, medicine, and the environment. And so, while ensuring the continued vitality of work in the humanities and the social sciences, we must make the long-needed investments in cutting-edge technologies and modern research spaces that will

allow world-class natural and physical science to flourish at Duke.

Inquiry and discovery are accelerated by a robust community of scholars. While individual efforts underpin all scholarship, research communities play an increasingly vital role in amplifying the intellectual work of individuals. Collaborative research, both interdisciplinary and within a single discipline, is necessary for tackling research questions that call for a wider range of skills, perspectives, and knowledge bases than any one scholar can possibly possess. We will enable the establishment of collaborative efforts, as well as modes of constructive criticism and community input, that propel the research of individual scholars to new levels of distinction.

The Duke Opportunity

The university has a responsibility for the delivery of a deep and meaningful education to our students. This education must take full advantage of all that we have learned about effective teaching; it must prepare students to contextualize knowledge and pursue new questions. Every student who comes to Duke should expect to be intellectually engaged and challenged and to forge lasting relationships with members of the Duke community. Every student should expect an education that exposes them to various modes of thought and inquiry and to people with different histories, backgrounds, beliefs, and identities. In essence, every student, whether an undergraduate, professional or graduate student, should have at their disposal the best that Duke has to offer. **The Duke Opportunity** expresses the university's commitment to a transformative educational experience for all students.

Duke's last decade was marked by a remarkable degree of innovation in curricular and co-curricular programming at the undergraduate level and also in some professional degree programs. These innovations, however, have not uniformly benefited all Duke students. Thus, our goal is to take the best of our pedagogical innovation over the past decade and ensure its wider application. We plan to make interactive intellectual engagement inside and outside of the classroom a normative and transformative experience for all students - undergraduate, graduate, and professional students. Furthermore, we want all students to be valued as partners in the process of inquiry and discovery, to be engaged and supported in their intellectual pursuits, to leave Duke aware of their potential and equipped to pursue whatever path they may choose. Duke's recent success in fostering interdisciplinary, vertically-integrated, collaborative research and learning communities motivates us to adopt models for collaborative learning across all university learner platforms, both within and between disciplines. In short, our pursuit of excellence in interdisciplinarity has led to an ethos of community-based learning that can be extended to all scholarly inquiry across the campus.

At all levels, essential curricular elements and research experiences must be combined with the provision of a wider set of competencies, including the capacity to work collaboratively within and across disciplines and proficiency in both written and oral communication. Graduate and professional students, as well as undergraduates, must have access to the resources and programs needed to optimally prepare them for their chosen careers after Duke.

A focus on broadening opportunities for all of Duke includes efforts to make a Duke education

accessible and affordable for all students. Attracting students from the full range of identities and socioeconomic groups is vital to the excellence of Duke's educational mission. So, too, is ensuring that all students—whatever their race, gender, age, ethnicity, cultural heritage or nationality; religious or political beliefs; sexual orientation or gender identity; or socioeconomic, veteran, or ability status—have the right to inclusion, respect, agency, and voice in the Duke community. Thus, providing **The Duke Opportunity** also means creating a more inclusive community of diverse scholars.

Global Engagement, Locally Grounded

As a research university, Duke has a mandate to help solve some of the world's most pressing societal challenges. Deliberate investments in areas such as global health, public policy, ethics, innovation and entrepreneurship, the environment, and biomedical engineering have advanced the university's standing and created an enviable interdisciplinary culture. That culture now sets the stage for Duke to become a recognized leader in addressing vexing issues whose solutions are fundamental to a sustainable future for human societies. In the past decades, we have built programs around the world with individually distinct motivations and goals. Today, with a growing recognition of the common challenges that local communities face across the globe, there is an imperative – and an opportunity – to connect and network these disparate initiatives. Thus, we plan to address issues that cross borders as well as strengthen our traditional emphasis on place-based engagement.

If we take as a given that our interactions outside of our campus walls should be responsible and responsive to local inhabitants, then the starting point of our commitment has to begin locally, whether in Durham, Santiago, or Berlin. Although the problems we address have national or international dimensions, we plan to use local communities across the globe as a starting point for our efforts to meet 21st century challenges. Moreover, our presence in one part of the globe must inform our work on related problems in other areas. In effect, we plan to have **global engagement locally grounded**. By working at select places around the world, Duke can demonstrate *how* a 21st century university can partner with communities to address challenges brought on, for example, by demographic shifts, climate change, and globalization. These are problems that scale—they affect individual communities, but also have a broad collective impact. Duke's planned commitment will be characterized by a grounded, embedded, and networked form of global engagement and situated knowledge that can be of real service to local communities. This situated and networked form of engagement will distinguish Duke by enhancing its ability to focus on how the *intersection* of local, national, and global dynamics plays out at the community level.

Interaction with outside communities was historically considered a one-way street, largely a matter of transmitting knowledge *from* the academy *to* society. Duke has gone well beyond this limited conception to imagine and embody engagement as a two-way street or dynamic intersection, in which society and the academy learn from mutual encounters. Yet we have only begun to tap the ways in which greater collaboration and contact could enhance the impact of our current research and teaching, and, importantly, enrich the quality and relevance of both. Reciprocal relations of learning and accountability have several benefits. The first and most obvious is that academicians have much to learn from those outside our walls. A university that

effectively listens to and connects with the world can learn the most from it. Secondly, deep engagement, particularly early in the research process, can help researchers ask better and more relevant questions. And finally, reciprocal engagement affords the researcher a thorough primer on how best to communicate the essence of research findings to the public.

V. Goals

Moving into the next decade, we believe that a focus on **Inquiry and Discovery, The Duke Opportunity, and Global Engagement, Locally Grounded** will bring international distinction to Duke and its community of scholars, learners, and alumni.

To achieve this vision, we have four central goals:

1. Invest in the Duke faculty as scholars and leaders of the University's intellectual communities
2. Provide a transformative educational experience for all students
3. Strengthen Duke's capacity to address global challenges for communities across the world
4. Create a supportive environment for research, learning, and academic communities

GOAL 1: Invest in the Duke faculty as scholars and leaders of the university's intellectual communities

In order to maximize its potential, the University must attract, retain, and nurture a diverse community of faculty of true distinction, where distinction is understood to include both powerful intellectual creativity and the eagerness to stimulate and support the creativity of students inside and outside of the classroom. Supporting the *work* of the faculty—scholarship, teaching, and engagement—must go hand in hand with supporting faculty themselves, through mentoring and leadership development efforts that span all career stages and encompass all faculty ranks. Such support goes a long way toward building community at each stage of the faculty member's career.

For our investment in the Duke faculty as scholars and leaders of the university's intellectual communities, we will:

- *Build on the excellence of the faculty through a strategic hiring program*
- *Develop a diverse and vibrant faculty community*
- *Invest in the sciences and technology*
- *Provide new resources to support the faculty and their work*

Build on the excellence of the faculty through a strategic hiring program

While deans have developed annual hiring plans and the central administration has considered faculty hiring from the university perspective, we have not been as deliberate as we might have been in integrating department, school, and university opportunities. To this end, in addition to the normal hiring process, the Provost will make available to deans targeted recruitment funds through a **Strategic Hiring for Faculty Excellence (SHFE) initiative**. This program will support the appointment of outstanding faculty members, at any rank, who can advance disciplinary areas of true distinction, enrich the diversity of our faculty, bridge scholarship in creative new directions, including the translation of basic research, and/or address an emerging societal or scholarly issue in a way that leverages the unique strengths and expertise of our existing faculty.

Overall, the SHFE initiative will emphasize faculty as *the* key nodes in scholarly networks that link communities both within and outside of Duke. For example, the Mellon-funded *Humanities Writ Large* project, with its Humanities Labs, such as *Borderworks*, and its Emerging Humanities Networks, such as *Art, Law, and Markets*, has piloted the sort of creative partnerships that we hope to catalyze across the campus with strategic faculty hires. Similarly, materials science faculty from across the campus have come together and developed a blueprint for developing distinction in research, teaching, and service, which can be enabled by strategic hiring. We seek to promote such opportunities across other fields and disciplines where synergies can build real Duke distinction. For example, we will more intentionally consider the advancement of the social sciences, not solely through the lens of the relevant Trinity College departments, but in conjunction with schools such as Sanford and Law, and institutes and centers such as the Social Science Research Institute.

Develop a diverse and vibrant faculty community

Faculty with diverse histories, backgrounds, experiences, and expertise are necessary for an academic community that values unique perspectives, histories, and ways of thinking about important, complicated questions. While we have made remarkable strides in diversifying our student populations, our success with faculty has not kept pace. Thus, we must focus efforts on continuing to build the broad and diverse faculty community that underpins all scholarship, teaching, and service. We must expand the recruitment of talented faculty from a wide array of backgrounds, particularly faculty from underrepresented racial and ethnic groups as well as members of the LGBTQ community. Accordingly, **resources within the SHFE will be specifically earmarked for increasing the diversity of our faculty**. These resources will be used to fulfill the goals and aspirations set forth in the Faculty Diversity Task Force report and its implementation plan, such as the provision of funds for strategic opportunity hires for under-represented women and minorities in each discipline. In contrast to Duke's previous target of opportunity program that focused primarily on hiring senior faculty, these funds will be directed, on a competitive basis, toward faculty at all levels. They can also be used to identify potential candidates through visiting professorships, speaker series, and seminars; provide incentives for hiring underrepresented faculty in traditional searches; provide supplemental funds for faculty retention packages; and support newly hired faculty through such means as start-ups or graduate student support. It should be noted that the most rapid advances

in diversifying our faculty, particularly in an era when the total number of faculty in many schools is not growing, will be achieved by **hiring diverse faculty into existing lines through traditional searches**. The Provost's office will make available funds to incentivize such hiring.

To promote the diversification of our faculty, **Duke has established a new position, the Vice Provost for Faculty Advancement**, to work closely with the senior administration and deans to provide intellectual leadership, guidance, and oversight of university-wide strategy to enhance faculty excellence. The Vice Provost for Faculty Advancement will also help to identify areas where Duke might have a singular opportunity to recruit minority faculty, initiate programs and support structures to attract and retain talented minority faculty, promote collaboration within and across schools, serve as a resource for faculty development across the lifespan, and explore means to increase the pipeline of under-represented female and minority faculty. Finally, we understand that new faculty alone cannot provide an intellectually diverse community: it is incumbent on all faculty to be engaged in developing new ways of thinking that are both critical and inclusive.

Invest in the sciences and technology

Duke has a unique and timely opportunity to develop the sciences. Since the mid-1980s the University has made important investments in the humanities and social sciences, and Duke has concomitantly risen rapidly in national rankings, in large part due to the hiring of excellent faculty in these areas. We have also seen dramatic progress in engineering with an investment of university resources. We have not, however, developed the natural and physical sciences in the same way, and we lag behind our peers. This was, of course, a strategic choice at the time: Duke could not afford to double or triple the number of our science faculty for the simple reason that many science faculty require relatively large start-up costs, laboratories, computational resources and specialized instruments, as well as teams of postdocs, lab managers, and materials. Today, however, we understand that a full panoply of strong disciplines is critical for our growth as a major research university. Thus, while we will continue to support and build excellence across all of our schools and divisions, in the coming decade we will make strategic additions to our natural and physical science faculty so that these sciences at Duke can be as distinctive as our humanities, social sciences, and professional schools.

Over the coming months, we will be developing strategies to build on existing areas of strength across the natural and physical sciences, and to identify needed areas that will complement and/or deepen our current expertise; it will be particularly advantageous to leverage the strength of our School of Medicine by developing new collaborative projects that span the entire campus. For example, with excellent faculty in data analytics, mathematics, computational biology, computer science, engineering, and statistics, we can create a signature program in the quantitative sciences. **Expanding our cadre of quantitative scientists** will allow us to fully leverage the tremendous amount of data generated by our health care system as well as by analytic initiatives in the social sciences (including those that impact health). Scholars in the Sanford, Pratt and Nicholas Schools, Global Health, Social Science Research Institute, Information Initiative, Duke's Health Policy Center, and Science and Society Initiative, as well as in many other units across campus, study and engage with issues increasingly undergirded by data. The planned enhancement of faculty with quantitative expertise can also advance

research in the humanities, as for example in the analysis of works of art or the reconstruction of historical documents.

We will bolster the sciences through targeted hiring of both junior and senior faculty in areas such as mathematics, statistics, chemistry, biology, energy, materials sciences, computer science and physics, particularly faculty working at the interface of fields such as medicine and engineering. We will also aggressively **recruit and support women and underrepresented minorities in STEM fields**. These efforts will be reinforced by an intentional effort to proactively retain successful faculty through targeted investment in areas that can facilitate their research creativity. Our goal is for Duke and the Research Triangle region to lead the nation in building STEM communities that value and support women and minorities.

Although there has been a recent emphasis nationally on the funding of translational science and engineering—and there is no doubt that an investment in quantitative sciences will help to accelerate data-based translation—**the university must also be the epicenter of deep curiosity-driven basic research in science**, as in all fields of research across the university. We must provide the necessary resources to engage in research that is not immediately “applied”—for without investment, there would ultimately be nothing to translate.

To enable such discovery research, Duke must invest in the laboratory sciences, which means **a commitment to modernizing our science and computational infrastructure**. We cannot conduct and deliver world-class, 21st century science in outmoded laboratories and classrooms equipped with obsolescent instrumentation and 20th century computational capacity. We have neither the requisite natural science and engineering facilities needed to accommodate emerging technologies, nor the infrastructure vital for faculty research and innovation across the natural and physical sciences. As for the latter, we particularly need to **enhance and simplify faculty access to shared cyberinfrastructure facilities** such as high-performance computer clusters and storage and networking facilities. This infrastructure needs to connect our research not only across the physical campus, but also to our digital and global efforts.

Understanding that current resources are insufficient to provide the investment needed for meaningful improvement in science infrastructure, we will prepare an extensive review and prioritization of needs and make meeting these needs an institutional development priority.

Provide new resources to support the faculty and their work

Excellent faculty research rests on a foundation of discovery, debate, curiosity, artistic creation, and inspiration. To nurture and strengthen that foundation, we will provide new resources to support our faculty. In addition to regular school and institute funding, the Provost’s Office will release an annual Request for Proposals to **provide seed funding for pilot programs to explore research** that may not be eligible for external support without preliminary investigation. Pilot funding will also **provide incentives for group collaborations and community building** through Institute and Initiative calls for proposals and Intellectual Community Planning Grants available to faculty interested in convening a group of colleagues to begin or test a new collaboration around a shared intellectual interest. To facilitate collaborations across the University, the Provost’s Office will create opportunities for internal

visiting appointments for faculty just after earning tenure.

For tenure-track junior faculty in the humanities and social sciences, the Provost's Office will support the **expansion of the current faculty manuscript workshops**, which generate constructive, informed criticism from colleagues within and outside the university. For junior faculty in the sciences and engineering, the Vice Provost for Research will help **organize internal panels for grant review** and offer coordinated support of complex, multi-investigator grants to critique and bolster high impact grant applications.

Duke's commitment to quality education starts with quality teaching. While technology in the 21st century has allowed for a plethora of online courses, their emergence has highlighted the valuable elements of an education not easily provisioned in digital format: presence, participation, and physical access. Thus, the digital age has presented Duke with the opportunity for experimentation with the use of technology to enrich on-campus learning, and the imperative to focus on the central values of the university in the classroom: critical thinking, hands-on learning, and collaborative exploration. Charting a path forward for innovative teaching needs to involve the collective wisdom and creativity of all faculty. To work toward this goal, Duke will **transform the Center for Instructional Technology into the Center for Innovative Teaching**. This reconfigured center will retain the functions of the current CIT, but will also work with groups of faculty in departments and schools to assess needs, develop programs, and help with assessment and evaluation. In addition to a strong focus on classroom pedagogy, CIT will help develop online and hybrid programs and courses, promote collaborations and the exchange of best practices, and catalyze experimentation with emerging technologies. As for the latter, CIT will explore the use of evidence-based active learning teaching models and self-paced study with digital materials, which will personalize learning for individual needs, support student success, and allow more free time for projects. Realizing the potential of these changes will require new levels and types of faculty support from CIT and deeper collaborations among faculty and instructional designers.

To further build a community of faculty interested in and committed to teaching, we will **expand the Duke Faculty Mentoring Program on Teaching**, which currently pairs senior professors with interested junior faculty members in Nicholas, Pratt, Sanford and Trinity. We will also **further develop the TEACH-X program**, in which Duke faculty visit their colleagues' classes campus-wide, and link it to CIT's Visit a Classroom program and the annual CIT Showcase.

Creative pedagogical approaches and an abundance of technology are not sufficient to fully engage students in the classroom if they feel unwelcome. As revealed in the 2016 report of the Task Force on Hate and Bias Issues, underrepresented students at Duke report feeling isolated and marginalized in classrooms where professors may lack the skills for navigating issues of race, ethnicity, sexual orientation, and gender identity. Thus, **it is critical that we confront marginalization and exclusion in the classroom**. Peer institutions have deployed a range of programs to address these issues, but it is not yet clear which approaches are most effective. Thus, **funds will be available for experimental programs**, such as the Teaching for Social Equity program offered in 2016 and 2017 by the Duke Human Rights Center of the Franklin Humanities Institute, and to support the expansion of successful efforts.

Duke's expectations of a faculty member to produce excellence in research, teaching and service must be accompanied by a commitment to support the scholar-teacher at every phase of the career span. Thus, Duke will **develop a culture of mentoring** so that all faculty can succeed to their full potential. Leadership development for faculty will also be stressed. While leadership training in the past was reserved for faculty in formal leadership positions, today's expansive view of leadership skills—the ability to collaborate, convene and inspire; to elicit candid feedback; to listen broadly and gain wide input before making decisions—considerably expands the pool of faculty that would gain from leadership education. Moreover, this capacious view of leadership dovetails nicely with Duke's emerging emphasis on communities and collaborative research. The Vice Provost for Faculty Advancement will work with the Deans to **develop mentoring and leadership programs** and share best practices. Support for the diversity of activities and service that regular rank, non-tenure track faculty provide will also be stressed. The Provost will establish guidelines for new appointments, annual reviews and reappointment reviews to ensure that the crucial contributions provided by these faculty are appropriately recognized and rewarded.

Though crucial to the research enterprise across the university, postdoctoral associates, positioned between graduate students and faculty, are not always privy to mentoring or leadership development programs available to these groups. Since mentoring and leadership development are best administered on a continuum, we will help postdoctoral associates take advantage of existing programs, and we will pursue the possibility of building additional new programs in a collaboration between the Duke Postdoctoral Services Office and the Vice Provost for Faculty Advancement. Finally, retirement from active faculty status at Duke need not signal an end to active university participation. Many emeriti faculty desire continued engagement in a community of scholars, and they represent an untapped font of expertise, both in their own areas of academic interest and as Duke faculty with deep experience in teaching, research, and service. We plan to **establish an Emeritus College** to draw on their experience and continue their intellectual engagement.

Finally, we recognize that **increasingly diverse forms of scholarship** have not been taken into account in our appointment, promotion, and tenure processes. While progress has been made on the consideration of interdisciplinary efforts, criteria for rigor and impact in less traditional, alternative, or emerging forms of scholarly expression, including online education, public scholarship, and policy outreach, have not been well defined. Furthermore, while **new modes of communicating scholarship** have allowed for the work of the University to be expressed creatively to a broader audience, these contributions have also not been adequately considered. For example, academic presses publish monographs that are accompanied by author-designed websites offering video, audio, and interactive applications that support text-based arguments. Indeed, in fields such as the arts, sound studies, performance studies, and emerging areas of the digital humanities, these media may displace text from the center of an argument. Under the auspices of the Vice Provost for Faculty Advancement, the Provost will charge a committee to **re-evaluate the criteria for tenure and promotion** to clearly define criteria that reward the many scholarly activities we value as a community. Furthermore, to support the work of the faculty in this direction, the Duke Libraries will provide platforms for creating, exhibiting, and communicating new forms of scholarship and expression.

GOAL 2: Provide a transformative educational experience for all students

Duke's focus on innovative education over the past decade has largely concentrated on the undergraduate program. Programs like Bass Connections have been developed to encourage students to join hands-on research teams, delve into interesting and complex issues, and engage in intellectual communities outside of the classroom. While these programs have been highly successful, their reach has been limited due to funding constraints. Furthermore, graduate and professional students in general have not been sufficiently connected to these university-wide innovative programs. At the same time, there has been a significant increase in the proportion of these students on campus. Twenty years ago, there were 6,326 undergraduates and 5,263 graduate and professional students at Duke. Today, those numbers are 6,638 and 9,345, respectively. These numbers not only illustrate Duke's growth as a major research university, but they remind us of the obligation and opportunity to more fully engage graduate and professional students in all aspects of our research, teaching, and service missions. Thus, as we look to the decade ahead we are committed to **The Duke Opportunity**, where all students have access to and benefit from the unique aspects of a quality Duke education.

To provide a transformative educational experience for all students, we will:

- *Expand signature learning communities, including for disciplinary inquiry*
- *Expand opportunities for graduate and professional school students to apply their education to an increasing array of career options*
- *Strengthen efforts to diversify our graduate and professional schools and address issues of access and affordability*
- *Provide high impact undergraduate educational opportunities that intensely engage undergraduates with faculty*
- *Enable all undergraduates to access and benefit from the best of Duke*

Expand signature learning communities, including for disciplinary inquiry

Learning communities of faculty, students and staff are at the core of academic inquiry and, as such, are crucial for the development of students' intellectual engagement. The purpose of these learning communities, as defined in the 2007 Campus Culture Initiative report, is to provide an *"ongoing conversation in which the community and its members grow in wisdom and understanding through inquiry and interaction. This conversation is not just confined to the classroom, but extends to every aspect of campus life and is the underlying narrative running through both academic and social encounters."* We have been progressively building these communities, and with greater investment, they could have an even greater influence on the intellectual culture at Duke. Bass Connections and other programs have succeeded in providing these ongoing conversations, yet their reach has been limited due to funding—and also because the focus of these communities was intentionally on interdisciplinary and problem-based inquiry. To make learning communities a signature of a Duke education,

we plan to provide funding for vertically-integrated teams of undergraduates, graduate and professional students, and faculty to work within and between schools and departments on a broader range of scholarship, including within disciplines. Our more expansive definition of a learning community would include, for example, enterprises like DukeCreate, a faculty-student workshop collaboration in the studio arts, video, photography, and audio engineering, and also the graduate student communities in the Center for Philosophy, Arts and Literature, focused on philosophical perspectives on literature and the arts. As these learning communities evolve, we will connect them more closely to the scholarly experience for undergraduates, and, where possible, to master's and professional student projects and doctoral dissertations. To create a more integrated intellectual experience, efforts will also be made to **link new and existing learning communities to residential communities**.

Widely used technologies for gathering and sharing data, and for simply communicating, will be used to enrich the experience for students and faculty in these learning communities so that they can stay connected. Mobile communication and social learning tools can help **build relationships around common interests**, as Duke student veterans found when they established a virtual veterans center using an online mentoring platform. Another example of a bottom-up approach to community is *Duke Conversations*, a program for intellectual discussion between faculty and students outside of the classroom initiated and led by undergraduates. Building on this successful model, we will provide funding to other student groups desiring to organize their own student-faculty conversations.

Expand opportunities for graduate and professional school students to apply their education to an increasing array of career options

Duke PhDs, along with recipients of our master's and professional degrees, embark on careers that expand the frontiers of scholarship and embody the values of knowledge in the service of society. They make a difference in the public sector and the private sector, within and outside of the academy, at home and abroad. The capacity of these Duke graduates to make their mark in so many arenas depends on the excellent training they receive in research methods and analysis. But to meet the great societal challenges that confront us, we must combine these essential elements with a wider set of competencies: the capacity to work collaboratively within and across disciplines, proficiency in communicating, and experience with organizational leadership. For several years, The Graduate School has invested considerable resources to foster these wider capacities, through professional development workshops, extensive resources on mentoring, an Emerging Leaders Institute, and an acclaimed program in Preparing Future Faculty. We can do much more, however, to amplify these efforts and to tailor them to the needs of students from a wide variety of graduate and professional programs. Fortunately, Duke possesses superb professional and graduate programs set in a highly interdisciplinary, liberal arts environment. This combination enables us to seize new opportunities in graduate education so that our graduate and professional students are able to increasingly navigate a diverse and quickly evolving career landscape.

Accordingly, we will fund **Interdisciplinary Graduate Networks (D-SIGN) Grants** and encourage graduate and professional student groups to propose interdisciplinary projects, training, or experiences. These proposals will give students experience in designing a

plan of work, articulating anticipated outcomes and working collaboratively. We will also **provide graduate student training enhancement grants**, where students can propose an experience outside or within their discipline, such as an internship or field work, to enhance their training. Based on the success of the undergraduate certificate offered by the Innovation & Entrepreneurship Initiative (I&E), we will **offer an I&E certificate to graduate and professional students**. Students in this program will collaborate on the development of solutions to some of the world's most pressing problems; learn the pathways for moving innovations out of Duke's laboratories and research initiatives; and be exposed to career options in research and innovation. Through the enhanced efforts of the Center for the Advancement of Social Entrepreneurship, graduate and professional students will also be exposed to and involved with **social entrepreneurship**. Programs and training offered through the Innovation Co-Lab are already providing a means of exploring new applications of technology as co-curricular endeavors; these will be continued and extended.

Additionally, we will raise graduate and professional student awareness of the I&E StartupConnect Summer Entrepreneurs Network, which connects entrepreneurial Duke students, faculty, and alumni in cities across the country for networking and educational events. A burgeoning entrepreneurship ecosystem in Durham provides additional opportunities for students to translate knowledge to practical application. Finally, we plan to **build on the successful model of the Data+ program**, a summer research experience offered by the Information Initiative at Duke in which teams of undergraduates learn how to analyze and visualize data, as well as how to communicate with the client providing the data and sponsoring the project. These teams are mentored by graduate students and postdocs who develop skills in team-building and client-based work. We plan to apply this model of student-centered inquiry to programs focused in the humanities and interpretive social sciences and to mobile app development and coding. We also plan to create opportunities for graduate students to engage with the data/visualization and digital scholarship units of the Libraries to develop and certify skills in these fields.

While amplifying opportunities for all graduate and professional students is a priority, our education of PhD students needs particular focus because of a marked shift in their career pathways from past decades. Currently, only 25% of Duke PhD recipients pursue academic careers, yet our PhD education, in general, is largely focused on training for just those careers. Duke is not alone in this situation. Across the country there is a growing consensus among government funding agencies and educational thought leaders that high-level doctoral training needs serious reexamination. Given our distinctive innovation of the undergraduate experience and the synergies between our doctoral programs and our professional degree programs, Duke is poised to lead this reexamination. Thus, in partnership with the Graduate School, the Provost will convene a major university-wide committee to **re-imagine doctoral education at Duke**. This committee will examine how to balance the need to sustain disciplinary excellence with our responsibility to offer PhD training that prepares our students to make a difference in a wide array of professional contexts. The committee will be tasked with ascertaining best practices for developing students' skills in communication, leadership, and teaching and mentoring, as well as their ability to work effectively in teams, both within and across disciplines. Finally, the committee will examine how best to meet the career advising needs for our PhD recipients.

Strengthen efforts to diversify our graduate and professional schools and address issues of access and affordability

The intellectual vibrancy of our graduate and professional schools hinges on the diverse experiences and perspectives of admitted students. Toward this end, the Office of Biomedical Graduate Diversity in the School of Medicine has developed a model program that has not only greatly increased the inclusiveness of the community and supported and retained URM students, but has doubled the number of matriculating URM PhD students. Similar efforts in other schools will be supported through the Provost's office in partnership with The Graduate School to **increase the diversity of our graduate student programs and build a pipeline of future faculty and professionals** across the disciplines. Moreover, greater access to our graduate and professional programs is helpful only if these programs are affordable. Although Duke maintains a policy of need-blind admissions for undergraduate students, and PhD students in general receive institutional support, master's and professional students are largely responsible for their own cost of attendance. This lack of support limits the diversity of the class and constrains career choices after graduation, limiting the ability of graduates to pursue work in public service fields. In addition to fundraising for resources to offset MA and professional student debt, we will **explore ways to reduce student expense**, such as extending online degree components and providing 4+1 options that allow Duke undergraduates to earn MA degrees in less time through consolidation of undergraduate and graduate education.

Provide high impact undergraduate educational opportunities that intensely engage undergraduates with faculty

The greatest advantage of a research university is its ability to connect students and faculty in the active process of inquiry and discovery. In expanding its undergraduate course of study, Duke has built upon such **high-impact educational practices** as first-year seminars and experiences, writing-intensive courses, undergraduate research, global learning, service learning, and capstone courses and projects. These developments have brought with them both opportunities and challenges: opportunities to solidify Duke's position as an innovator and leader in defining best practices in higher education for the next generation, and challenges associated with helping students more fully and deeply engage intellectually with each other and their Duke experience. Moving forward, we will continue to enhance the first-year intellectual experience, provide gateway courses that capture students' imaginations and recruit them into disciplines, increase research opportunities that build relationships between students and faculty, provide more coherent pathways for study in the major, and offer greater opportunities for signature and capstone work.

Duke's leadership in undergraduate education rests on an array of innovative programs that deeply engage its students in and out of the classroom. In the upcoming years, we will build on programs that have demonstrated their ability to authentically engage students in the scholarly community, and to enhance them in ways that further increase their impact and reach.

One such program for expansion is FOCUS, Duke's signature program for freshmen, which provides clusters of seminars around themes such as *Ethics, Leadership & Global Citizenship, Cross-Cultural and Cosmopolitan Medieval and Renaissance Worlds, Modeling in Economic and*

Social Sciences, and Genetics and Genomics. FOCUS has proven to be one of our most effective means for engaging the intellectual interests of first-year students and for forging deep and lasting relationships among students and faculty, yet only a quarter to a third of each incoming class participates in the program. One limitation to expansion has been a lack of space for weekly cluster dinners: fortunately, recent dining renovations have removed this constraint. A second limitation has been resources to support faculty participation. We will provide the resources to remove this limitation as well as place an emphasis on greater student and faculty outreach. Another transformative program is **DukeImmerse**, a semester-long, full-immersion program in which students participate in an integrated, faculty-led teaching and research project. The impact of DukeImmerse programs, such as *Governance, Policy & Social Justice: Urban Politics in the American South and South Africa*, and *Uprooted/Rerouted: The Ethical Challenges of Displacement*, is clearly demonstrated in the large percentages of participants pursuing senior honors theses. We plan a modest investment to bring DukeImmerse to a steady state with several programs running each semester, and we plan to realign this program with its original goal of primarily providing an on-campus experience, so as to give students more flexibility and increase the possibility of graduate student involvement.

In spring 2017, Duke launched the **Spring Breakthrough Program**. This program, taught by some of our best faculty, provides short courses for first- and second-year students during spring break to immerse them in an intellectual area of inquiry in a risk-free manner. The format for these prerequisite-free, ungraded, intellectual explorations includes a mix of classroom based discussions, hands-on exercises, field trips and group outings, recreation, and common meals to allow for intellectual exchange among the participants outside of the classroom.

Over the past several years, DukeEngage, now one of Duke's signature programs, has been one of the most commonly cited reasons prospective students give for their interest in Duke. This program provides summer funding for undergraduates to pursue an immersive service learning experience locally, domestically, or internationally. DukeEngage students have, for example, designed health education programs, developed microfinance opportunities for disadvantaged families, and helped build bridges in underserved communities. As successful as this program has been, there is an opportunity **to connect students' DukeEngage experiences more intentionally with their academic trajectories** and with Duke faculty. Moving forward, all programs offered through external organizations will be linked to Duke faculty members and will identify appropriate academic goals for their program. We will also work to align and integrate DukeEngage experiences more closely with the curriculum through such means as curricular pre-requisites, as well as follow-up and house courses.

Although we want to encourage shared experiences across the student body, there is no question that Pratt School students must immerse themselves in a proscriptive set of educational experiences to acquire the skills and expertise required for a career in engineering. That said, the **introduction of novel elements into the Pratt curriculum that expand team-based, collaborative problem-solving approaches**, some of which can include Trinity students, will energize the teaching and learning of engineering principles at Duke. For example, students will be introduced to design much earlier in their education by working in collaborative teams to design and build solutions to authentic real-world challenges.

Enable all undergraduates to access and benefit from the best of Duke

By any measure, the undergraduates who matriculate at Duke increasingly represent the very best students the world has to offer, and they increasingly reflect the diverse backgrounds and ethnicities of our entire world. To enhance the excellence of Duke's communities, we must continue to attract and retain students from the full range of ethnic identities, religious and cultural heritages, sexual identities, socioeconomic groups, and full life experiences. Recognizing the need to increase the socioeconomic diversity of our undergraduates, Duke established the **Washington Duke Scholars** program in 2105 to support and enrich the experience of first-generation and low-income students. This program provides these students with a special summer orientation program and targeted faculty mentoring to ensure that they succeed and thrive at Duke. We will monitor the success of the 2016-2017 participants and continue to evaluate and build out this program.

The Office of Undergraduate Scholars and Fellows (OUSF), created in 1998 to provide administrative support for Duke's merit scholarship programs, was reorganized in the 2015-2016 academic year with the **goal of transforming OUSF into a center of intellectual engagement for all students**. To continue to expand the reach and impact of OUSF, we plan to allocate resources to consolidate all scholars and fellows programs under the OUSF umbrella and to migrate to OUSF existing successful programs for scholarly engagement, such as the East Campus Chautauqua Lecture series. Additionally, to expose undergraduates to the full range of research opportunities across the university, OUSF will develop a program modeled on MUSER (Matching Undergraduates to Science and Engineering Research), developed in Duke's Department of Biology. MUSER, a central Web-based location for Duke researchers to advertise undergraduate research projects, has provided a clear, accessible view of available scientific and engineering research opportunities.

Duke's innovative curricular and co-curricular opportunities, layered on top of the fundamental curriculum and linked with opportunities such as professional internships, DukeEngage, theme-based houses and house courses, entrepreneurship start-ups and technology maker spaces provide a rich landscape on which students can build an exceptional experiential education. But as options have increased, students require additional guidance so that they can navigate those options in a thoughtful and intentional way. Thus, to help each student craft a coherent educational plan, Duke has implemented a new conceptual approach to advising, one that affirms the essential mentorship that faculty must provide, while at the same time supporting that mentorship through an integrated network of advisers. The undergraduate advising system has been supplemented by a cadre of Directors of Academic Engagement (DAEs), full-time professional advisers who help students make deeper and more intentional connections across the curricular, global, and co-curricular opportunities. We will **further develop our DAE and four-year dean model** to increase the personalization of our advising system, and we will expand the peer advising program, both in scope and number. We will also experiment with online tools that can provide students with a simple means to access common instructions and requirements so that the time with advisors can be spent more productively on their individual educational aspirations and trajectory.

A key goal of advising moving forward will be to **communicate to students that the university**

fundamentally values all areas of intellectual inquiry and to encourage them to sample these areas broadly. As described in “The Heart of the Matter,” a national report issued in 2013 by the Commission on Humanities and Social Sciences, organized by the American Academy of Arts and Sciences and co-chaired by President Brodhead:

...a fully balanced curriculum—including the humanities, social sciences, and natural sciences—provides opportunities for integrative thinking and imagination, for creativity and discovery, and for good citizenship. The humanities and social sciences are not merely elective, nor are they elite or elitist. They go beyond the immediate and instrumental to help us understand the past and the future. They are necessary and they require our support in challenging times as well as in times of prosperity. They are critical to our pursuit of life, liberty, and happiness, as described by our nation’s founders.

At a time when society desperately needs these broad perspectives, Duke and peer institutions must demonstrate commitment to the humanities and interpretive social sciences. Moreover, we must communicate the excitement and insights that can be derived from exploration of these areas. We plan to attract and recruit more students with interests in the humanities and interpretive social sciences and **encourage all students to seriously explore the rich array of curricular offerings in the humanities and interpretive social sciences** regardless of their majors. Toward this end, we will foreground innovative projects and research in these areas, as well as the cross-cutting interdisciplinary pathways students can pursue that meaningfully integrate these modes of inquiry into their course of study.

As much as the university is committed to providing students with an outstanding experience while at Duke, the university must also prepare students for life after their formal education. Thus, a key part of our advising infrastructure should be aimed at facilitating access to a wide range of career choices, including those in public service. To this end, the university will **enhance advising and career services** so that students can make more informed employment decisions. Consistent with our desire to expand post-graduation opportunities for our PhD recipients, this enhancement of career services will be inclusive of graduate students.

GOAL 3: Strengthen Duke’s capacity to address global challenges for communities across the world

In the past decade, we have built global programs while simultaneously deepening Duke’s involvement and investment in Durham. These investments have been thought of as separate endeavors with distinct institutional motivations. Yet, with our goal of addressing common challenges for communities across the globe, we have an opportunity to connect research in our own local community, Durham, and more broadly, North Carolina, with our world-wide research efforts. Improving our interactions with all communities requires that we recognize and support the many forms that engagement takes at Duke, from civic and entrepreneurial ventures to public scholarship and participation in public policy. Understanding the challenges each form faces in developing a new model of engagement will enable Duke to strengthen each and identify opportunities for integration among them. Finally, building a stronger community of alumni across the globe by connecting them more purposefully to the university’s mission can

only serve to advance the goals outlined in this plan.

To strengthen Duke's capacity to address global challenges for communities across the world, we will:

- *Build on Duke's strong institutes and schools to deepen Duke's leadership on global issues*
- *Build nodes for local and global influence*
- *Strengthen mechanisms for outside engagement*
- *Strengthen links between local and global education*
- *Enhance alumni engagement across the globe*

Build on Duke's strong institutes and schools to deepen Duke's leadership on global issues

Duke has targeted three strategic areas in which to build initially, based on their societal relevance, our internal capacities to address them, and their alignment with our global strategy: **energy and water resources; race, religion and citizenship; and population health.** Of course, these global challenges will not be solved by Duke alone. Indeed, government agencies, international organizations, and nonprofits across the globe have been working and will continue to work on these challenges at the local, state, national, and global scale. However, major research universities have distinctive roles to play as well: they are uniquely positioned as providers of the fundamental research that undergirds knowledge in the service of society. Duke can be a university that distinguishes itself in this regard. Duke has the intellectual resources and organizational nimbleness to convene technical, legal, scientific, ethical, cultural and historical explorations of these issues. Our growing activity in innovation and entrepreneurship provides a ready mechanism through which to ensure that knowledge born at Duke enters the marketplace where it can address societal challenges. By drawing on our disciplinary depth, our interdisciplinary strengths, and our commitment to engagement, we have the capacity to make crucial research contributions in these three vital areas.

To do so, we will support faculty and students from across the university who join forces with external partners and stakeholders in addressing each of the identified challenges. These **collaboratories, identified through an open RFP process, will harness Duke's existing human capital and institutional capacities in order to advance understanding of and solutions to targeted problems,** amenable to tangible contributions in a 5-year window. Collaboratory teams will address specific challenges and share their findings and recommendations widely in ways that **make Duke a hub for global problem-solving and two-way engagement** with external stakeholders. Finally, a critical aspect of these collaboratories will be the participation, support, education, and professional development of graduate students. The goal of these collaboratories is to not only produce solutions, but also to train graduate students who can leave Duke with a working knowledge of how to engage with societal challenges and how knowledge is translated into action.

The initial focus on these three areas will not preclude the emergence of other themes over time. Duke provides multiple avenues for faculty to coalesce their efforts and pilot potential larger projects, including university-wide RFPs from the Provost's Office and the institutes and initiatives as well as school-specific funding mechanisms. In this way, other thematic areas will no doubt emerge for central investment over the lifetime of this plan.

Energy and Water Resources in a Changing Environment

Access to secure and sufficient energy and water resources has always been critical for the security, growth, and well-being of communities. Today's changing environment makes planning for that access particularly difficult. Population changes, rapidly developing energy technologies, shifting market conditions, and policy uncertainties would present daunting planning dilemmas even under a stable global climate system. However, even under optimistic scenarios for future reduction of greenhouse gas emissions, we can expect warming temperatures and possibly significant shifts in precipitation patterns in the coming decades. These changes will disrupt our provision of energy and water. Thus, society will need to adapt and build systems that are resilient to the resulting environmental transformations.

The design of those systems is challenging on several fronts. Current access to high quality energy and water resources is uneven across the globe, as are the risks posed by anticipated global climate change. Moreover, the exact nature, scale and location of these future changes is uncertain. Effective plans for adaptation must then account for these regional variations and uncertainties. The task before us is to design, construct, and maintain adaptable systems so that societies across the globe can cope with the socio-environmental challenges to come. The goal of resilience, moreover, must include accounting for the differential impacts that climate solutions may have on specific groups. We must, in other words, remain alert to the social and ethical dimensions of adaptation.

Duke has the intellectual resources and organizational nimbleness to convene technical, legal, scientific, and humanistic explorations to develop workable solutions around energy and water access. Nicholas School and Energy Initiative researchers have deep investments in energy and water issues. Nicholas School faculty have proven expertise in the analysis of model simulations of future climate scenarios. Scholars in Pratt and Nicholas can provide insights into how current and emerging technologies can provide affordable sources of energy and water, while minimizing environmental costs. An *Energy Access* effort to bring electrification to low-income countries has begun as a partnership between the Nicholas Institute, Sanford School and the Energy Initiative. Campus-wide strengths in data analytics and systems modeling will inform optimal design of electrical grid and water delivery systems, the exploration and design of energy sources, and the analysis and forecasting of vulnerabilities to sea level rise and other environmental threats. Sanford, Fuqua and Duke Law have expertise to bring to bear on likely shifts in public policy, economic incentives for systems change, and implications for property rights and regulation. Finally, expertise in the humanities, social sciences, and the Kenan Institute for Ethics is available for analyses of how race, class, gender, and ethnicity bear on issues of resource utilization, and of how benefits and costs could be optimized overall and distributed across regions, neighborhoods, and social groups.

Race, Religion, and Citizenship

Processes of mass migration, whether forced or voluntary, are generating increasingly multi-cultural, multi-faith communities in the United States, and multi-cultural, multi-faith societies across the globe. In the United States, these processes articulate with the history of chattel slavery and its foundational role in shaping American democracy. Legacies of inequity and the diffusion of social and cultural diversity raise the perennial question of how people with different histories and cultures forge a common life, or even simply peaceable coexistence, despite divergent and often conflicting visions of human flourishing. Although by some measures the extent of geopolitical violence has declined in recent decades, we are witnessing an increasing intersection of religious, racial, ethnic, and cultural tensions. These conflicts range from disputes over gender, sexuality and health care, to outrage occasioned by mass incarceration and racial profiling in policing, to fury directed at unrestricted trade and lax border enforcement, to the global jostling over climate change, to the full-fledged armed confrontations in the Middle East, Eastern Europe and Africa.

As we seek to identify the practices, policies, and norms that societies have generated and are most likely to foster a just and generous common life, we must begin by understanding the multifaceted sources of religious, racial, ethnic, and cultural identities, as well as their political, legal, and socio-economic histories and consequences. We must similarly engage with the meanings and practices of democratic politics, citizenship, and other forms of affinity through which individuals and groups make sense of their lot, communicate their concerns, and resolve their disputes. Democratic citizenship most directly denotes a legal status with certain civil and social rights and demarcates who may—and may not—participate in systems of governance. It also confers an identity as a member of an imagined community and so generates questions about communal boundaries and the norms of civic engagement.

Duke has deep faculty expertise in the study of civic, religious, racial, and ethnic identities. As a result, we are well positioned to think about how identities are formed and to tackle global issues such as racial bias in criminal justice systems, the value and limits of both nationalism and cosmopolitanism, and the challenges of responding to mass migration and refugees. Located as we are in the American South, with its vexed history, rapidly changing demography, and sharp social and political fault lines, Duke has a particularly valuable perspective on the challenges and promise of defining rights and crafting citizenship. Grappling with these challenges will involve building on our current linkages to a heterogeneous set of community organizations, NGOs, firms, arts organizations, religious congregations, and government agencies. It will also require the development of more ambitious collaborative research initiatives, as well as new companion courses and co-curricular experiences.

To encourage our faculty to engage more fully with the interconnected issues of religion, race, ethnicity, nationalism, culture, and citizenship, we will support collaboratories that explore the complex linkages among these themes. The collaboratories will draw on the convening capacity of our cross-cutting institutes in humanities, social sciences and ethics, our problem-focused institutes in global health and the environment, and other campus units that focus on social equity, race and ethnicity, and religion. They will pursue questions about local and regional challenges while linking such research to national and global contexts, leveraging traditional U.S.

and area study strengths as well as recently launched initiatives in Asia, Africa, and Brazil.

Population Health

Optimal health is central to well-being in modern societies. Improving and maintaining health involves more than access to individual-level quality health care: socio-economic factors, community or culturally-based health behaviors, and environmental factors also impact the health of populations. As such, policymakers across the globe are shifting from an exclusive focus on individual health care toward efforts to optimize health outcomes of groups of individuals. Although population health has been a key focus of Duke Health for some time, the campus side of the university now includes a large number of faculty members interested in this undertaking: faculty drawn from global health, environment, law, engineering, humanities, public policy, statistics, mathematics, the Information Initiative, business, and the social sciences. Furthermore, since a major driver of population health is the quality of food and nutrition, Duke's emerging World Food Policy Center will provide expertise on hunger, obesity, the reciprocal relationship of agriculture with the environment, and food safety and security.

With the collaboratory model and local work in sites across the globe, Duke can build toward an improved understanding of population health challenges as well as means to address them. Faculty and students will be able to analyze and visualize data to better understand the root causes of suboptimal health, and to develop, test, and evaluate health care and health promotion innovations in Durham and communities around the world. Duke will develop and propose health policy improvements that support population health and generally expand the use of implementation science to understand the most effective approaches to improve health under real-world conditions.

Central to this work will be the electronic health record, a rich source of data that, if mined thoughtfully, can track trends in disease, health outcomes, and opportunities for intervention. We will make these data accessible to investigators across campus in a de-identified and secure way. We will support research app development for mobile platforms to collect health information from broad and diverse groups of individuals and for implementing health interventions. These efforts will build upon our university-wide strengths in data analysis, modeling, and theory; disciplinary strength in mathematics, statistics, computer science, and machine learning; and broader efforts, such as the Quantitative Initiative and the Information Initiative at Duke. We will create a Center for Data-Driven Health Solutions to analyze complex data to understand population and public health issues. We will partner with Fuqua's Center for the Advancement of Social Entrepreneurship and the Innovation & Entrepreneurship Initiative to translate innovative ideas into solutions that have a positive impact on individuals and communities and with Nicholas School researchers to examine the interplay between environmental and population health. Finally, we will collaborate with our health policy-focused centers at the Sanford School, the Robert J. Margolis Center for Health Policy, and the Duke Global Health Institute to transform promising ideas on health reform into meaningful practice and effective policy.

Build nodes for local and global influence

Virtually every unit on campus has projects and programs with a wide variety of stakeholders in Durham and the Research Triangle, in North Carolina and Washington, DC, and in various parts of the globe. Collectively, these programs reflect the value of a decentralized approach to engagement that connects faculty and students with communities and collaborators where they live. Without restricting the diversity of efforts underway, Duke will launch or enhance the following key nodes and modes of engagement in order to support the strategic themes mentioned in this document.

Duke's leadership has enhanced the present vibrancy of Durham and the Triangle region. At the same time, the many ways that faculty and students pursue research and education in Durham and the Triangle region imposes an obligation on Duke to ensure that those communities are partners in a two-way process that results in mutual benefits. To this end, Duke will **convene a Durham and the Triangle Working Group** to inventory existing projects and develop a guiding philosophy, best practices, and an appropriate infrastructure to maximize these benefits. We will also **expand Duke in DC**. Since Duke in DC opened in 2012, it has grown into a hub of activity in the nation's capital, hosting undergraduate and graduate classes, organizing "think tank-style" public programs, and offering resources to Duke faculty, staff, and alumni. We will build out this center, as we connect Duke's intellectual capital more directly to the "thought ecology" in our nation's capital—policymakers, foundations, think tanks, and the media. Another important node in our emerging network is Sanford's North Carolina Leadership Forum, which focuses on identifying and advancing policies to improve the lives of North Carolinians.

And finally, we will **leverage our global platforms**. Talent has no borders or boundaries, and globalization affects every aspect of our lives. For Duke to excel in this environment, we must develop global academic leadership that matches the prominence we have achieved nationally. The establishment of Duke-NUS Medical School and Duke Kunshan University marks significant steps to achieving this goal. Duke will add to these operations a series of global nodes—small, agile offices located in countries where there is currently a high level of Duke activity among students, faculty, and alumni. The first office will open in Bangalore, India, and then additional offices will open in cities where Duke has a strategic critical mass of activity. These offices will serve as sites of concentrated engagement for addressing local, regional, and global challenges, serve as a "footprint" for Duke around the world to attract and recruit the best students and faculty, and function as a convening place for Duke alumni. We will link these global hubs through online networks that build on existing relationships and share knowledge across geographies. Such offices could host scholars in residence, coordinate new research collaborations, provide summer courses, short-term learning or research experiences, or host discussion sections for online courses. Finally, working in conjunction with the Office of Global Programs, staff at these global nodes will also strengthen our support services for global work, including grant and contract management, as well as financial, legal, and human resource issues.

Strengthen mechanisms for outside engagement

Duke's ability to address important societal challenges will be facilitated by connecting its scholarship more directly with policymakers and practitioners at all levels of governance and civil society. Duke has an extraordinary number of centers, initiatives, and individuals involved

with policy engagement to facilitate that greater connection. To forge greater communication, coordination, and mutual support amongst these efforts, Duke will **invest in building a Policy Bridge** situated at the Sanford School that serves the entire university. The Policy Bridge will have three broad functions. First, because most scholars have neither the time nor the expertise to know how best to engage with the policy community, a team of “policy navigators” will provide direct assistance to scholars interested in making connections, identifying potential research partnerships, translating research for policymakers and civil society actors, and otherwise navigating the unfamiliar policymaking terrain. Second, to increase understanding and awareness of how researchers can have the greatest societal impact, the Policy Bridge will conduct policy workshops and trainings for researchers on how to most effectively engage. This has potential to be of greatest value to our PhD students, many of whom may find that their training is of considerable value in the policy world. Third, the Policy Bridge will leverage Duke’s already considerable engagement capacity by facilitating greater communication, coordination, and mutual support amongst Duke’s numerous institutes, centers, initiatives, and individuals involved with policy engagement. Overall, the Policy Bridge will build mechanisms for ongoing dialogue with external stakeholders that can serve their needs, shape new research questions and create the conditions for long-term collaborations. In particular, the Policy Bridge will support convenings of policymakers, civil society actors, and scholars and facilitate conversations among leaders across political and other divides.

Knowledge enables solutions to a vast array of problems, both local and global. The means by which that knowledge is brought to bear on our most significant problems are many and varied, but translation of fundamental knowledge to tangible goods and impactful services is an important component of that armamentarium. Innovation involves the process of converting ideas into actionable concepts, and entrepreneurship makes those concepts real, bringing them to life through manufacture, distribution, and implementation. The **Innovation and Entrepreneurship Initiative** at Duke assists the entire university community – faculty, students, staff, alumni, and parents – in putting knowledge to work in the service of society. This Initiative will continue to grow and expand its reach, assisting all who seek to make practical use of Duke knowledge to solve the most pressing problems of our time.

In addition to impact through research, teaching, and outreach, Duke has made a strong commitment to **support public scholarship** that focuses on how knowledge can be accessible to various peoples and groups as well as help shape local, state, national and international debates and discussions. While public scholarship can be problem-focused, addressing issues of contemporary concern, it can also be focused on sharing forms of historical and cultural analysis and understanding to enrich the lives of individuals and communities. This work often involves collaboration with journalists, filmmakers, artists, teachers and schools, and community organizations. Duke will build upon programs such as The Forum for Scholars & Publics, Science and Society, and cross-cutting units, such as the Library, to share and communicate knowledge and creative ideas beyond our walls. Finally, as a recognized leader among research universities in civic engagement, Duke aims to become a model for the integrity, consistency and reciprocity of its partnerships around the world. Central to this goal, and consistent with Duke being a signatory to Campus Compact’s 30th Anniversary Statement, is the **development of a civic action plan** in the spring of 2017.

Strengthen links between local and global education

Duke's global aspirations also touch our educational mission. Educating students to understand and engage in the world outside of Duke has included a number of opportunities for engagement. These opportunities range from US- and international-based DukeEngage projects to multiple study away programs that add immeasurably to the student experience. In 2005, Duke took a bold step in establishing a partnership with the National University of Singapore to create the Duke-NUS Medical School. This brick-and-mortar educational enterprise quickly led to significant pedagogical innovation; we anticipate the same kind of **bi-directional educational innovation to emerge from Duke Kunshan University**. DKU is in the process of launching a four-year undergraduate degree program founded in the Western liberal arts tradition, deeply cross-cultural in its orientation, infused with Duke's signature strengths, and uniquely adapted for a 21st century global campus. DKU provides Duke an opportunity to see some of its best practices in new combinations and configurations and to explore the relevant implications. As the educational programs at DKU and on the Duke campus evolve, we will make sure that pedagogical innovations are shared between the two campuses, a goal that will be facilitated by heightened opportunities for faculty and student exchanges, both online and on campus. As faculty teaching at DKU have already experienced, teaching a student body with significantly different backgrounds from those of Duke students will prompt a revisiting of familiar preconceptions and can spark pedagogical innovations. We will design technological tools to turn those encounters into "teachable moments" for students on both campuses, fostering community, cultural sensitivity, and a global mindset.

Regardless of whether students study at DKU or at other points around the world, we plan to continue work on **connecting global experiences more closely to academic study**. To help undergraduates organize their paths through the curriculum and integrate their experiences abroad, we will support and expand the role of **global advisors**. We will also review and propose ways in which global education—study abroad, DukeEngage, Bass Connections, and other programs—can be better linked with academic courses of study, major academic centers such as schools, institutes and initiatives, and learning communities. Finally, in order to maximize the benefit of a global experience, we plan to provide improved training in cultural competence and ethical decision-making to students before they study abroad.

Finally, we are mindful that Duke's global reach is no longer limited to our physical sites. With a wealth of open-access digital materials available in many formats, in multiple languages, and from people with different types of expertise, students can find, evaluate, and integrate materials from diverse sources and contribute content in turn back to the world community. Such access and integration will be facilitated and encouraged for all Duke students.

Enhance alumni engagement across the globe

Duke's more than 160,000 living alumni comprise a global network that runs through virtually every field and profession. The talent, experience, and resources alumni can offer, particularly when combined with their uncommon Duke commitment, represent an asset that can be more fully leveraged to enhance the experience of Duke students, faculty, and staff. Yet, the advantage of strengthening Duke's connections to its alumni should be reciprocal. In this regard, we

envision **an arc of learning opportunities** that begins with prospective students, peaks with the on-campus student experience, and continues with alumni throughout their lives. With digital tools, we can support learning in this more holistic way, retaining and deepening the communal ties that learners make even as they move from one phase to the next, or one place to the next. When learning is unbound from time and space, Duke can strengthen its connections with – and among – learners throughout their lives. As an example, Duke could offer just-in-time opportunities to learn material relevant at turning points in our graduates’ lives. We could also continue to challenge alums with the timeless, foundational questions that are meaningful in different ways throughout life. In this vision, **graduates may leave Durham but they will never leave Duke.**

Duke will work to create and support more formal and informal ways for alumni to share perspectives with students, faculty, and staff around topics related to their expertise, allowing them to provide mentorship and feedback, and to foster connections for Duke with industries, NGOs, universities, and other partners that can advance Duke’s work. At the same time, Duke will work toward developing an arc of learning opportunities so as to more fully engage alumni in the educational mission of the university. Duke will support these efforts by **creating an alumni task force** to advise the Provost and senior leadership on its vision for alumni engagement.

Goal 4: Create a supportive environment for research, learning, and academic communities

To achieve the preceding three goals, we must build the cultural sensibility and physical spaces that make all manner of healthy communities possible. We must invest in the infrastructure necessary for our research, teaching, and service missions, and we must plan for spaces that foster the community engagement that will advance these missions. That said, a conducive physical environment alone will not produce the community that lives up to Duke’s promise. We must articulate and constantly reinforce our commitment to a vibrant, diverse, and inclusive community. And we must do the hard work to make that commitment a reality.

To create a supportive environment for research, learning, and academic communities, we will:

- *Cultivate an inclusive community, culture, and climate*
- *Create spaces on campus that facilitate community*
- *Accelerate the establishment of residential house-based living-learning communities*

Cultivate an inclusive community, culture, and climate

The *Duke University Community Commitment*, adopted in May 2016, states: “Because diversity is essential to fulfilling the university’s mission, Duke is committed to building an inclusive and diverse university community. Every student, faculty, and staff member —whatever their race, gender, age, ethnicity, cultural heritage or nationality; religious or political beliefs;

sexual orientation or gender identity; or socioeconomic, veteran or ability status—has the right to inclusion, respect, agency and voice in the Duke community. Further, all members of the University community have a responsibility to uphold these values and actively foster full participation in university life.” We have work to do in order to meet this commitment. The 2016 *Report of the Duke University Task Force on Hate and Bias Issues*¹ noted that “significant changes are needed to enhance transparency, alter and clarify policies and procedures, build in the areas of prevention and training, and further invest in a climate that is inclusive, open, and supports a diverse Duke community.” Though the charge to the Task Force was focused on the student experience, the committee wrote their recommendations inclusive of students, staff, and faculty. The Vice Provost for Faculty Advancement will work with the senior administration in implementing the recommendations of this report.

We understand the hard truth that there is no quick or proven path to building community. Though a plethora of training programs on implicit bias, diversity and inclusion are available, recent scholarship suggests that mandatory training is not the best mechanism for building a diverse and inclusive environment. At the same time, there are no clear consensus alternatives. Thus, we plan to **experiment with new approaches to educate members of the Duke community on issues of diversity, inclusion, hate, and bias**. Resources will be made available for each academic unit to experiment with different strategies for enhancing cultural awareness, reducing bias, and encouraging workplaces characterized by open expression and mutual respect. Findings from this experimentation will be widely shared across the university so as to mutually advance our understanding of effective approaches. We also plan to facilitate dialogue between and across university communities on pressing and challenging issues such as inequality, race, politics, and civil discourse by using pop-up or flash conversations. The structure of these conversations will be fluid so that conversations can “pop up” as issues arise. Moderated conversations will be organized through the office of the Vice Provost for Academic Affairs. Dedicated space for these conversations will be provided to minimize organizational barriers.

However, we understand that programming and conversations alone will not change our campus community. Issues of diversity and inclusion must therefore be understood as central to all the communities of learning that lie at the heart of this plan, and not simply as the subject of training modules or conversations. Indeed, these issues can be perhaps more deeply engaged while working together on common endeavors in which issues of difference have to be navigated in real terms, not abstract ones. This “side-by-side” work forms the core of all communities of learning that genuinely foster growth in wisdom and understanding through inquiry and interaction. Whether in research, learning or social communities, the interactions and connections that emerge can generate the social capital that bridges differences and promotes active forms of respect.

In seeking to foster a student experience that benefits from and contributes to a rich and diverse campus environment, the Academic Council will form a committee **of faculty and students to address the overall undergraduate, graduate, and professional student experience**. The committee will focus on understanding and broadening the social community of Duke

¹ <https://spotlight.duke.edu/taskforce/wp-content/uploads/sites/2/2016/05/Final-Report-from-Task-Force-on-Hate-and-Bias-Issues.pdf>

students, both outside and within their academic endeavors. Since the student experience is impacted by administrative decisions, this committee will also be tasked with assessing how the administration can more effectively work with students to improve communications and outcomes.

Finally, we affirm that our Duke academic community is inclusive of all students, faculty, *and* staff. Staff members across the university play an increasingly independent and direct role in Duke's academic mission. They serve as academic advisors, hold leadership roles in programs, direct co-curricular activities, and are primary contacts between Duke and off-campus communities. Understanding that the success of the goals outlined in this plan depends critically on an engaged and well supported cohort of university staff members, we aim to meaningfully increase their participation on and inclusion in committees, task forces, and planning groups so as to maximize the institutional strength of this human resource.

Create spaces on campus that facilitate community

Space that allows for both planned and unplanned collisions and interactions will foster the types of community engagements envisioned in this plan. In addition to their social, cultural and intellectual purpose, **collision spaces should promote inclusiveness among diverse segments of the Duke community** and support cross-generational connections, both among undergraduates and between undergraduates, graduate and professional students, staff, and faculty. The von der Heyden Pavilion, the newly renovated West Union Building, and the reconfigured Penn Pavilion are communal dining and gathering spaces that allow for these interactions, while interactions around innovation and entrepreneurship are facilitated by The Bullpen, located in the heart of the Durham Innovation District in the Imperial Building. To build on this hub, there are plans to move the Office of Licensing and Ventures (OLV) to the Imperial Building, where OLV staff can more effectively partner with I&E to help Duke investigators bring discoveries to the marketplace. Duke is also investing in collaborative research space in downtown Durham: the Chesterfield Building will be home to researchers from both the School of Medicine and the Pratt School of Engineering. As we move forward, we plan to use these spaces to **catalyze student groups and research and learning communities** across campus.

Other new collision spaces have widened the scope of teaching and learning possibilities. *The Link*, located in Perkins Library, affords technological approaches to teaching and learning, and *The Edge* extends the Duke Libraries' commitment to experimental space by providing collaborative space for interdisciplinary, data-driven, digitally reliant, and team-based research. The newly-established Technology Engagement Center provides 3D printers, maker technologies, as well as student collaboration and innovation space. Plans are under discussion for the renovation and expansion of Lilly Library so as to create a crossroads on East Campus where first-year students engage intellectually with one another and with faculty and graduate and professional students. The new Duke Arts Center will have flexible studio space for collaborative projects, thus expanding the reach of the arts by supporting arts-focused collaborations that reach across campus. While Duke has invested well over the past decade in academic and research space, it must continue to do so, particularly in terms of updating our classrooms. Thus, we will **build toward the goal of having all classrooms support 21st century pedagogies**. Classrooms should facilitate flexible, technology-enhanced teaching

and learning and be able to capture and disseminate digital content. They should facilitate movement between large scale and small scale learning activities, and they should allow for more blended classroom opportunities, with the possibility of including matriculated degree-seeking online students, as we have already seen in some master's-level experiences on campus.

Accelerate the establishment of residential house-based living-learning communities

One of Duke's greatest strengths is that we are a residential university with a very strong sense of place. We require our students to live on campus for the majority of their undergraduate careers, understanding the value added by integrating all facets of a student's educational experience in the context of a living-learning community. Progress towards building communities in houses not affiliated with a selective living group has been steady since the launch of the new house system in 2012: the number of students returning to a house, numbers of house-based community activities, and self-reported student satisfaction with their residential experience have all increased. But this progress has been slow, and the value of residential houses as living-learning communities remains to be fully realized five years into the new housing system. Given the power of the residential experience to augment student engagement in the scholarly life of the university, we plan to **accelerate the re-establishment of residential house-based living-learning communities for undergraduates**. Specifically, we will embark on a comprehensive five-year plan for new residence halls that will include a new residence hall on East Campus, new residence facilities in Edens Quad, a renovation of Crowell and Craven Quads, and replacement of all undergraduate housing currently on Central Campus.

We plan to **encourage and support student-faculty efforts to link academic programs with houses**. In addition to engaging additional FOCUS clusters, Bass Connections themes and the new disciplinary learning communities envisioned in this plan provide other obvious candidates for programmatic linkage with Duke Houses. Importantly, these linkages must emerge from the bottom up, with student interests driving the selection of themes and the recruitment of faculty.

VI. Epilogue

By all measures, Duke is an impressive university with a beautiful campus, outstanding undergraduate and graduate students, and a world-class faculty. But what sets Duke apart from other universities across the world is its willingness to experiment, its demonstrated ability to innovate, and its unusually collaborative environment. Since these characteristics are precisely what is needed to achieve the goals outlined in this plan, we are optimistic about their realization. However, this realization also depends on the wise use of resources—human, physical, and monetary—to ensure the long-term vibrancy of the university over the coming years. This plan is a road map, not a contract, but if implemented well, it can fuel within our institution an ever more vital and robust community of scholars and learners—faculty, staff, graduate and professional students, and undergraduates alike—that will ensure our preeminence in the decades to come. Duke University has much to offer to its own internal constituents and to the world at large. This plan is written in the hopes that we, as a community, will extract maximal value from all that we have and will contribute to the world all that we can.

VII. Financial Roadmap for the Strategic Plan

Duke is fortunate to have central resources to support its strategic priorities, enabling the Provost to invest in the goals of this strategic plan. The Provost provides strategic funding to the Deans, Institute and Initiative Directors and Vice Provosts responsible for delivering Duke's academic programs to further specific goals identified in the plan. The Provost expects to invest at least \$132 million in support of the plan's goals over the next five years, although, as with previous plans, implementation will likely extend over a decade, with renewal of the central commitment beyond 5 years. **Thus, the central dollars noted here should be considered, in effect, a down payment to jump start the goals outlined in this plan.** The promise of the plan requires that we build upon this initial investment with funding from philanthropy, sponsored research funds, corporate partnerships, and co-investment with schools.

The table on the following page provides the roadmap for the initial strategic investments organized according to the goals of the plan in the following proportions:

- Goal 1 Empower the Duke Faculty: \$70 million
- Goal 2 Provide a Transformative Educational Experience: \$25 million
- Goal 3 Address Global Challenges Locally: \$25 million
- Goal 4 Create a Supportive Environment: \$12 million

This roadmap is intended to be a flexible guide to allocation decisions that the Provost will make in collaboration with Deans, Directors and faculty governance groups as the plan is implemented. Detailed implementation plans for each goal will be developed once the overall planning framework is approved. Implementation plans will include identification of the individuals (e.g., Vice Provosts) primarily responsible for a particular goal; the process for requesting/allocating funds; measures of expected outcomes; and funding criteria such as programmatic impact, potential to attract internal or external matching funds, and long-term sustainability.

The roadmap remains flexible at this stage for several reasons. First, cross-cutting thematic goals of the plan require experimentation and continuous adjustments based on results. Second, philanthropic support could boost some goals, allowing adjustments in the allocation of central funds. Finally, since central strategic funds ultimately depend on DUMAC's investment performance, the pace of investment may have to be modulated based on investment results.

2017 Strategic Plan: Funding Roadmap

Programmatic Goal	Downpayment from Provost's Office (Millions)	Examples
GOAL 1: Invest in the Duke faculty as scholars and leaders of the university's intellectual communities	70.0	
Build on the excellence of the faculty through a strategic hiring program	15.0	Funding allocated by the Provost to Schools and Institutes/Initiatives through a program of Strategic Hiring for Faculty Excellence (SHFE)
Develop a diverse and vibrant faculty community	20.0	Funding allocated by the Provost through the Vice Provost for Faculty Advancement to Schools and Institutes/Initiatives to increase the diversity of the Duke faculty
Invest in the sciences and technology	15.0	Funding allocated by the Provost to Schools and Institutes/Initiatives to deepen Duke's capabilities in the natural and physical sciences, including support for women in STEM fields
Provide new resources to support the faculty and their work	20.0	Funding to the Vice Provost for Research to support research activity; to the Vice Provost for Faculty Advancement to support programs focused on mentoring and leadership; and to programs that promote innovative teaching
GOAL 2: Provide a transformative educational experience for all students	25.0	
Expand signature learning communities, including for disciplinary inquiry	3.0	Funding to support new campus learning communities
Expand opportunities for graduate and professional school students to apply their education to an increasing array of career options	8.0	Funding to support deeper involvement of graduate and professional students in interdisciplinary and vertically-integrated programs that will broaden their experience and career options.
Strengthen efforts to diversify our graduate and professional schools and address issues of access and affordability	2.0	Funding to increase the diversity of graduate student programs and build a pipeline of future faculty and professionals across disciplines
Provide high impact undergraduate educational opportunities that intensely engage undergraduates with faculty	4.5	Funding to expand existing programs like FOCUS and DukeImmerse, and to develop new programming like the Spring Breakthrough program
Enable all undergraduates to access and benefit from the best of Duke	7.5	Funding to support the Washington Duke Scholars, broaden the role of the Office of Undergraduate Scholars and Fellows, and increase the number of academic engagement advisors
GOAL 3: Strengthen Duke's capacity to address global challenges for communities across the world	25.0	
Build on Duke's strong institutes and schools to deepen Duke's leadership on global issues	15.0	Funding to support collaboratories in critical topical areas
Build nodes for local and global influence	7.0	Funding to support the creation and operation of Duke support centers in Washington DC and several international locations
Strengthen mechanisms for outside engagement	2.0	Funding to extend two-way engagement, and to build upon programs that share and communicate the work of the University to the public
Strengthen links between local and global education	0.5	Funding to increase faculty and student international exchange, expand the undergraduate Global Advisors program, and deepen pre- and post-Study Away education
Enhance alumni engagement across the globe	0.5	Funding for projects that deepen alumni engagement with Duke students and programs
GOAL 4: Create a supportive environment for research, learning, and academic communities	12.0	
Cultivate an inclusive community, culture and climate	2.0	Funding to support efforts by academic units to enhance cultural awareness and build more inclusive communities
Create spaces on campus that facilitate community	10.0	Funding for renovations to classrooms and gathering spaces to enhance academic communities
Accelerate the establishment of residential house-based living-learning communities	N/A	Note: Funding for undergraduate housing is developed through the University's capital budget and, as such, is not included here.
TOTAL	132.0	

Note: This Plan addresses operating costs only and does not include major construction costs, which will require other funding strategies.