

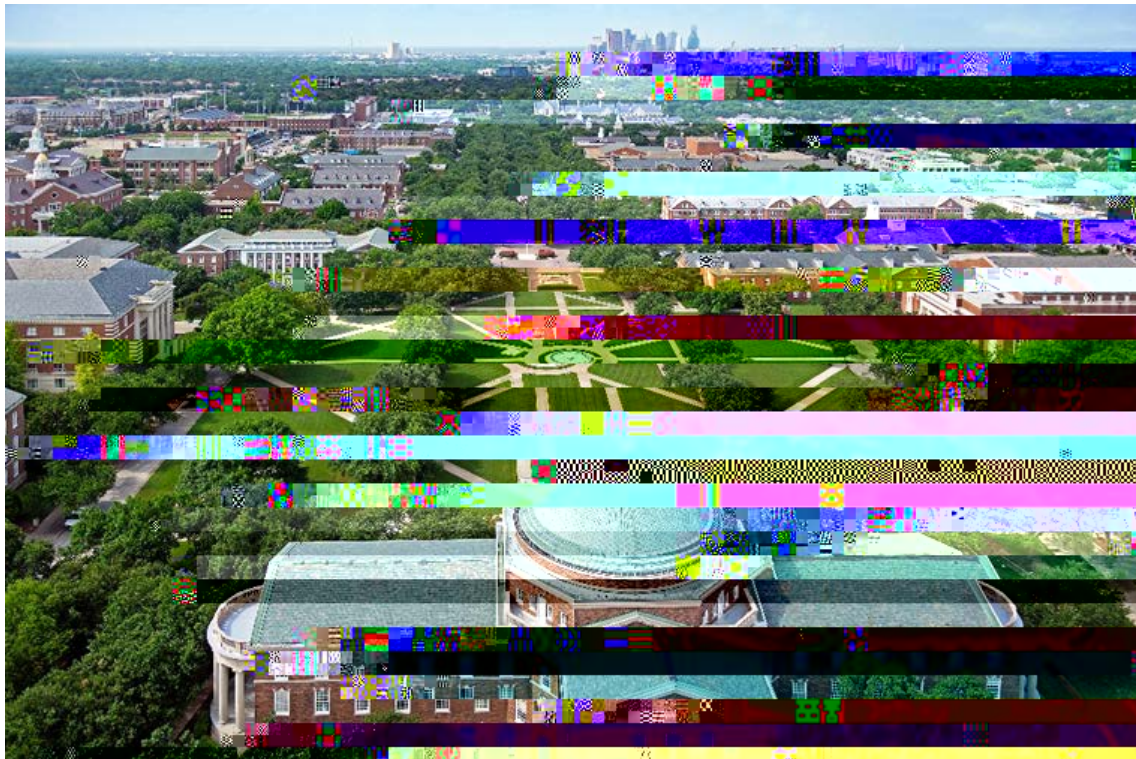
Provost's Task Force on Scholarly Research and Creative Impact

Southern Methodist University



Final Report

March 15, 2017



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Introduction

America's great private universities—including SMU's aspirational peers, Ivy League institutions, and members of the prestigious Association of American Universities (AAU)—boast not only highly regarded undergraduate programs, but also comprehensive and vigorous research programs with broad regional, national, and international impact. Over the past decade, through the efforts of its faculty, administration, and board of trustees, SMU has made great strides in the quality of its undergraduate student body as well as the facilities available to them. Nonetheless, SMU recognizes that more can be done to elevate the institution. Our Second Century Strategic Plan, 2015-2025, identifies that two of our principal goals are to "Enhance the academic quality and stature of the university" (Goal 1) and to "Strengthen scholarly research, creative achievement, and opportunities for innovation" (Goal 3). Meeting these goals is vital to the continued growth, vigor, and value of SMU.

It is heartening to see SMU elevate our national presence and ranking over the last decade. We have been ranked consistently among the top 75 national universities in the U.S. News and World Report Best Colleges Rankings, and last year, we reached our highest ranking ever at #56 in the "National Universities" category. Breaking into the top 50 and maintaining that position may be a tall order, but a reachable one. Doing so will fulfill the Strategic Plan's commitment to "Elevate SMU's national profile to raise rankings" (Goal 6, Objective 4).

Achieving this goal will require intentional, sustained commitment to the university's research mission. Indeed, U.S. News and World Report categorizes schools as "National Universities" on the basis of their research activity and graduate programs: "Schools in the National Universities category offer a full range of undergraduate majors, plus master's and doctoral programs, and emphasize faculty research." Last year U.S. News updated its method for classifying schools by drawing more directly on the Carnegie

expenditures, size of research staff, and doctoral conferrals. The two universities tied with SMU at #56 in U.S. News (George Washington University and the University of Georgia) are both R1 schools under the Carnegie system. SMU, in contrast, falls into the subcategory of “R2: Higher Research Activity.”

Remaining in the U.S. News “National Universities” category at all requires SMU to continue its long-running support of research and research-oriented graduate programs. Neglecting either could downgrade SMU to the category of “Regional University,” where

the best students increasingly demand instruction from those who generate these innovations, inventions, and creative outputs.

If SMU is to seize a larger role in the rapidly growing North Texas economy, we must become a primary source of subject matter expertise and thought leadership across disciplines. This notion is conveyed most effectively, perhaps, by the AAU itself:

“Research conducted at America’s research universities carries a dual benefit. It creates the foundation for major advances in such areas as health and medicine, communications, food, economics, energy, and national security. And it helps educate students to be scientific leaders and innovators. The national investment in university research, in turn, has fueled U.S. economic growth and prosperity, and made the nation a beacon for the best and brightest from around the world. But this leadership is not guaranteed. Federal budget constraints have reduced funding for basic research, even as other nations ramp up their own spending, creating an innovation deficit. We must strengthen our investment in university research to maintain our scientific and technological leadership and our economic competitiveness.”³

The idea that university research can act as a centrifuge for spreading innovation and economic growth throughout a region is best demonstrated by the economic prosperity brought by the great university systems of New York and California, or even the more recent growth of the technology industry in Austin and its ties to the University of Texas. Thus, a sustained effort to promote SMU’s research capabilities, creativity, and productivity could generate similar benefits for North Texas. Fortunately, SMU is uniquely well situated to the task—we sit on a beautiful campus in the heart of an already-thriving Metroplex, with strong ties to a highly supportive external community. This Report identifies clear steps that SMU can take toward becoming the next great American research university.

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Charge to the Task Force

In October 2016, SMU Provost Steve Currall convened a Task Force on Scholarly Research and Creative Impact, which he charged with developing “faculty-led guidance” on how to strengthen our scholarly research and creative activities, with an eye toward cementing SMU’s position as the leading global research university in the North Texas region.

Summary of Findings

To answer the charge to the Task Force, we had to evaluate the current state of affairs of scholarly research and creative activity at SMU. This state of affairs both provides the foundation for our recommendations and helps point the way forward. Thus, to preface our recommendations, we make some key observations about the current state of research and creative activity at SMU.

SMU faculty activities reach beyond campus, of course, and already include collaborations with a variety of external organizations, businesses, and institutions, including the University of Texas Southwestern Medical Center (UT Southwestern), the Baylor Medical System, Texas Instruments, the Federal Reserve Bank, the Botanical Research Institute of Texas (BRIT), the Press Club of Dallas, multiple museums and arts organizations in the city, non-profit organizations, Houston Methodist Hospital System, other universities in Texas and beyond, and a variety of other institutions across the country and around the world. At the moment, these collaborations are principally the

for example, research success is measured not only by publication of books and papers in leading journals, but also by the extent to which the research affects professional practice, law and public policy. For those whose research or creativity is played out on a public stage, these could include invitations to present their research to policymakers or other relevant stakeholders, performances in top venues, art exhibitions at major galleries, and the creation (and positive reviews) of new plays, dances or musical pieces. Importantly, while these many and varied accolades are earned by individual faculty, they ultimately accrue to the benefit of the institution, and become the measure of its scholarly reputation. At a more general level, given our vision of membership in the AAU, SMU should increasingly focus on the AAU admission criteria.

Success at SMU is possible, but there are many impediments to enhancing research and creative impact . This question drew the most extensive comments from faculty and other stakeholders across the university, and can be sorted into six broad categories related to staff, faculty, graduate students, infrastructure, research support, and culture. Because of their importance, we discuss each in turn:

- (1) Staff: Largely as a result of OE2C, staff positions have been cut drastically (e.g. halving their number in many areas of the university). Although this may have produced modest financial savings, it has sharply increased the burden on remaining staff, and also the amount of faculty time and resources that must be devoted to administrative and clerical tasks: so-called 'shadow work.' These are tasks that trained staff could do—and before OE2C used to do—in less time and at far less per unit cost. It has been estimated that ~25% of a faculty member's time is now taken up with shadow work (with Concur singled out as a particularly egregious, poorly-supported time-sink). This effort severely reduces the amount of time faculty can devote to research and teaching; in fact, it is antithetical to the goals of raising SMU's research profile and standing. Given the present low level of staff support, not only is it unlikely SMU will make significant sustained progress upwards in the rankings, it is quite possible that over the long run it will lose ground, will fail to meet its stated Strategic Plan objective to “attract and retain a competent, diverse, and professional staff to support efficiently the academic centers of teaching, learning, and research, along with staff in administrative units,” and will find it increasingly difficult to recruit and retain gifted researchers. SMU's research agenda requires a robust, empowered, resourced, and appreciated staff working alongside faculty.
- (2) Faculty: Several areas of concern were identified here, first and foremost that the tenure-track faculty are too few in too many areas, particularly in STEM disciplines, making it difficult to meet research expectations and obligations, in the face of greater teaching loads and increasing shadow work. Our small faculty numbers likewise make it difficult to develop the critical mass campus-wide that will be necessary for boosting the amount of research funding, which is vital to enhancing

redundant and irrelevant layers of IRB and 'good research' modules that must be completed prior to submission, which add weeks to proposal submission time. Other concerns included the cumbersome process for approving license

Recommendations of the Task Force

Based on our findings, the Task Force generated eight categories of recommendations, a brief rationale for each category, followed by specific actions that the University can take:

Recommendation	
I. Foster an environment that produces high-impact research and creative scholarship	<p>Rationale: A vibrant research community enhances the intellectual and cultural capacity of a university. The best American research universities incentivize and reward high-impact research. SMU's aspirant universities allot approximately 17% of all expenditures to research; SMU now spends only 5%. Thus we must increase the weight of scholarly productivity and impact in policy decisions and resource allocations.</p> <p>Actions: ”</p>

- o \$10,000 per award to \$100,000 per award.
 - o Create a financial “war chest” for hiring new endowed chairs and directors of centers of excellence.
 - o Create endowed research programs (as opposed to positions).
 - o Increase the number and size of university-level and school-level grants for faculty development and research.
 - o Increase the number of grant cycles for University Research Council funding to accommodate time-sensitive research projects. Likewise, extend the windows of time within which such awards must be spent.
 - o Provide institutional support for grant and fellowship proposal writing, either in the form of release time or funding.
- ” Focus physical, financial, and personnel resources on research centers and institutes. Provide funding for faculty, postdoctoral fellows, and graduate students at a level of \$10-15M per center/institute.
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which national 12 0 0 E5 international 12 0 0 regard 515.2P senior
facult 12 0 0 can 15.2P be recruited, which will in turn provide
resources to hire facult 12 0 0 within those centers.
 - o Facilitate bottom-up creation of thematic research clusters and institutes that precipitate high-impact

Recommendation	
IV. Support a larger cohort of graduate and postdoctoral researchers	<p>Rationale:</p> <p>Across the university—but particularly in the core sciences, engineering, and the social sciences—graduate students and postdoctoral researchers are vital to research. However, university support for graduate and postdoctoral researchers lags far behind peer and aspirant institutions, which makes it difficult to attract the next generation of researchers and scholars. Postdoctoral researchers in particular are essential to a vibrant research environment, as they bring in new expertise and are usually heavily involved in graduate student training. A critical mass of postdoctoral researchers is a hallmark of highly active research universities. Annual surveys by the Office of Institutional</p>



better integrated for streamlining, efficiency, and timely and proper handling of requests and proposals. Improve transparency and efficiency of reporting on how funds, especially start-up money and external (grant) funds, are handled by financial officers and administration. Doing so

Conclusions

SMU is at a crossroads today. Of the many paths we can take, only the path that emphasizes research and creative activity can lead us to national prominence. Even though numerous SMU faculty make significant contributions to their fields, the university's reputation as a whole is primarily regional rather than national. To change this, SMU must become a major research institution, which itself requires considerably more support for research, scholarship, and creative activities across campus.

As this Report has noted, in order for SMU to realize this goal, a series of changes are required. Perhaps most importantly, research and creative activities will have to become more integral to the culture of the university by incentivizing them in different ways: principally through tying such achievement to raises and leave policies, and by elevating the standards for promotion and tenure according to the national standards in particular fields. Research should be given greater visibility at SMU through the creation of a new position of Vice President for Research, someone who would report directly to the President. Programs will need to recruit nationally-known faculty who are shaping their fields, which will require larger endowments than SMU is presently offering. Along with the addition of stellar faculty, new research facilities will have to be created, including a top-notch dedicated science and engineering building, as well as an enhanced budget for library acquisitions, from the addition of books and journals to digital resources. The university will also need to enlarge substantially its services for the support and administration of outside research grants. Mentoring of junior faculty will become more critical than ever, along with startup funding for their research. SMU will also need to enlarge its in-house funding for faculty research.

Resources are always limited, so SMU should regularly assess the research productivity of all of its programs in order to provide a clear view of which departments should be strengthened and which should be downsized. Without increasing the scale of certain programs, especially in the sciences and engineering, SMU will never obtain national prominence as a research university. It may also be necessary to add new schools, for instance a School of Public Health. One of the great challenges is staying nimble enough to respond to changes in technology and the marketplace, and that could be achieved by promoting the ground-up development of innovative interdisciplinary clusters of faculty with synergies from across the campus. Moreover, the North Texas area offers countless opportunities to spark faculty and student research, and partnerships between our programs and regional businesses, universities, government institutions, and arts organizations should be expanded. The university would also benefit from sponsoring more national and international conferences at SMU. Finally, administrative barriers that exist make it unnecessarily difficult for faculty to compete for external funding.

University Name	Award Amount	Award Description	Year Received	Website
				center/#3b2f098e3c07
University of California – San Francisco	\$185 M	-Start an Institute for Neurosciences, a building campaign with 45 basic research labs and clinics -Hire 40-50 new researchers for the Institute	2016	https://www.insidehighered.com/quicktakes/2016/04/26/185-million-gift-u-california-san-francisco
University of Miami – Coral Gables	\$100 M	-Provide institutional support in the areas of Applied Sciences and Engineering	2016	http://philanthropynewsdigest.org/news/university-of-miami-receives-100-million-for-science-engineering
Harvard University	\$400 M	-Endow the School of Engineering and Applied Sciences to support research, financial aid, and faculty development	2015	http://news.harvard.edu/gazette/story/2015/06/harvard-receives-its-largest-gift/
	\$100 M	-Provide research support for the Broad Institute for Biomedical Studies. This center researches cancer, chemical biology, genome sequencing and analysis, medical and population genetics, and infectious diseases	2013	https://www.broadinstitute.org/news/broad-institute-launches-next-decade-new-100m-gift

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University Name	Award Amount	Award Description	Year Received	Website
Florida State University	\$100 M	-Create a School of Entrepreneurship	2015	https://www.fsu.edu/indexTOFStory.html?lead.gift
University of California – Los Angeles	\$100 M	-Endow financial aid for students and to support research -Build a new building to house research centers	2015	http://www.latimes.com/local/education/la-me-ucla-gift-20150514-story.html
Northwestern University	\$100 M	-Create an Institute for Global Studies	2015	https://news.northwestern.edu/stories/2015/01/roberta-

