School of Science and Engineering 201 Lindy Boggs Center Tulane University New Orleans, LA 70118

March 23, 2015

President of the United States The White House 1600 Pennsylvania Avenue NW Washington, DC 20500

Dear Mr. President,

The School of Science and Engineering at Tulane University is unique in that it is the only school/college in the country to house the physical sciences, mathematics and computer science, the biological sciences, and the cognitive/behavioral sciences with the engineering disciplines in one integrated science and engineering school. It is a school in which scientists and engineers learn, discover, and innovate collaboratively and it is now the home to nearly 30% of the undergraduate students and nearly 40% of the doctoral students at Tulane.

The NAE Grand Challenges form a foundation for not only our engineering programs but also our programs in the sciences. Our school is inherently interdisciplinary and we have built strong interdisciplinary ties with the Schools of Medicine, Public Health and Tropical Medicine, Business, Law, Liberal Arts, Social Work and Architecture. Every undergraduate student at Tulane is required to do a "capstone course" and, in the School of Science and Engineering, that is a creative learning experience such as team design or research. A significant number of these creative learning experiences can be directly related to one or more of the NAE Grand Challenges.

Tulane University also has established a two-tier undergraduate service learning requirement that includes courses at the freshman-sophomore level and junior-senior level, respectively, having significant service learning components. In the School of Science and Engineering, that second requirement is tied to the student's major so that all of our students are engaged in problem-based community projects that tie their majors to serving human welfare and societal needs.

More and more of our engineering and science students are taking advantage of courses, seminars and workshops on innovation and entrepreneurship. A new "maker space" is under construction that will draw students from all disciplines across campus to interdisciplinary teams and a "novel tech challenge" has been initiated that facilitates start-ups based on student innovations. Over the past three years, there have been 65 patent disclosures, 50 new patents filed, and 10 licenses/options issued. At least 9 recent start-up companies in New Orleans are based on intellectual property developed in the Tulane School of Science and Engineering.

Sincerely,

Nicholas J. Altiero, Dean

Tulane
University
SCHOOL OF
SCIENCE AND ENGINEERING