



**Written Testimony to the Kansas House Appropriations Committee on Sen. Sub for HB 2149
Submitted by Zulma Toro-Ramos
Dean College of Engineering, Wichita State University
4/27/2011**

Dear Chairman Rhoades and honorable members of the Kansas House Appropriations Committee:

It is my pleasure to submit this testimony on behalf of John English, Stuart Bell and myself, the deans of Kansas' three engineering colleges and schools at Kansas State, University of Kansas and Wichita State.

It is important to recognize that we are testifying about this topic today due to the leadership of Senate President Steve Morris who over three years ago called the three of us to talk about the shortage of engineers in our state and to ask us to work together on a plan to address the problem. The plan that emerged from the collaboration between President Morris and the three engineering deans is aimed at increasing the number of engineering degrees awarded to domestic students by nearly 60 percent. This plan was embraced by the Honorable Governor Sam Brownback who made increased funding for engineering education a priority, and he inspired the conversation about funding this initiative by proposing an investment of a \$1M for fiscal year 2012. Furthermore, the Kansas Senate Ways and Means Committee identified additional funding to increase the engineering degrees awarded by our institutions and approved Sen. Sun for HB 2149 making a long-term commitment to fund this initiative.

The fact that you are affording the Kansas' engineering deans the opportunity to share this testimony with you is evidence that the Kansas House Appropriations Committee also recognizes the key role of engineers in our state and nation. In fact, 80 percent of all science and technology-based occupations in Kansas are in the engineering and information technology fields. Furthermore, economic studies have shown that as much as 85 percent of measured growth in income per capita in the United States is due to technological advancement. The creators of this technological advancement are the engineers, and Kansas' engineering programs are the primary source of this workforce in our state.

The Kansas Board of Regents has also been supportive of this effort to increase the number of engineering graduates and have included it as one of the priorities for the university regents system. The Regents have been receptive to the message conveyed by the leaders of our three institutions; engineers fuel innovation and create wealth.

A quick review of the 21st century engineering challenges leads us to conclude that the demand for engineers in areas such as aviation, energy, design and consulting, pollution control, water, and health care is only going to increase. If Kansas' core industries are going to retain and create new jobs, then the required engineering talent has to be available. This has been the message shared with us and with the general public by our industry partners. They have communicated in many ways how important it is for us to grow the engineering workforce in our state.

While each of the three institutions will implement a unique plan for its campus that maximizes the effectiveness of the state investment in this initiative, there are several strategies common to the three universities. The common strategies are: 1) recruitment of more new students; 2) increase the percentage of students succeeding through graduation; and 3) build capacity to accommodate a larger student body.

The three institutions will continue to work together and we are eager, willing, and ready to work with the Governor, the Kansas Senate and House, industry, the K-12 school system and the Kansas community to educate the

Appropriations Committee

Date April 27, 2011

Attachment 3

...eers needed by the state to maintain our competitive advantage in today's and tomorrow's global ec...
and the standard of living in our charming and welcoming state.

We would appreciate your support of HB 2149 the "University Engineering Initiative Act" and the opportunity to share our plan with you. Dean English, Dean Bell and myself would be pleased answer questions and provide additional information if so is needed.

Appropriations Committee
Date April 27, 2011
Attachment 3-2