

UNIVERSITY OF HAWAI‘I SYSTEM LEGISLATIVE TESTIMONY



HB 2084 – MAKING AN APPROPRIATION TO THE UNIVERSITY OF HAWAII

Testimony Presented Before the
House Committee on Higher Education

January 22, 2008 at 2:00pm

by

Peter E. Crouch, Dean
College of Engineering
University of Hawaii at Mānoa

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Chair Jerry Chang, Vice Chair Joe Bertram, III and Members of the Higher Education Committee

My name is Peter Crouch, Dean of the University of Hawaii College of Engineering. I have been Dean at the College for just over a year and a half. It has been a challenging time as we have been urgently consulting and collaborating with Hawaii's engineering stakeholders and aggressively working to re-position the State's only school of engineering by developing a viable and relevant focus and corresponding bold strategies.

I appreciate the opportunity to provide testimony in strong support of HB 2084 which appropriates funding for administrative support positions in research and professional development and distance learning provided that its passage does not replace or adversely impact priorities as indicated in our BOR Approved Executive Supplemental Budget. To clarify, these positions were part of the UH Biennium Request FY07-08 and FY08-09 however, it is not part of the University of Hawaii's Board of Regents approved supplemental request for FY08-09.

The College of Engineering at UH today plays a key role in supplying engineers to the construction industry, the naval shipyards, and many state agencies such as the Department of Transportation. It also supplies a number of students to the defense contractors that have a presence in Hawaii to supply the military represented in Hawaii. It has established a 100 year old tradition for this function beginning at UH in 1908. Many construction companies and state agencies have many employees and senior employees who are alumni of the Engineering College at UH, and so the College is integral to the State's work force in some critical areas of Hawaii's economy.

Entering the next century Hawaii faces a serious shortage of engineers required to support our high technology, construction, and infrastructure related State and City agencies. The shortage of engineers and technical talent is a national crisis and one which is being address by the major government and industry stakeholders. Locally, the

urgent demand for engineering graduates at the College's twice yearly career fairs are key indicators that the shortage is real and current.

We believe that a new vision and a bold plan is imperative for our 100 year old College. Our "Fifteen Year Vision" for the College is summarized in the following statement: Being recognized within the Pacific Rim for its unique and distinctive characteristics emanating from its roots in the Hawaiian and Pacific Island communities, its oceanic environment and its East-meets-West location; delivering a significant proportion of the engineering and construction sector's workforce to the State and playing an important role in attracting and retaining high technology personnel and companies to the State; recipient of a stellar national reputation for its programs rooted in its one hundred year old teaching tradition that attracts an increasing number of the State's K-14 students to the College's programs; supporting an internationally competitive extramural research agenda and recognized as "National Class" through steadily improving rankings.

In order for the College to ramp up its operations and to enable a more pronounced and visible impact in the State and with national funding agencies, it is essential for the Dean to have two senior deputies whose portfolios are directed at 1) research and 2) professional development and distance learning respectively.

- An Associate Dean for Research provides key leadership and management for the growth of the College's research initiatives and the strengthening of technology transfer mechanisms. Identifies new research opportunities in key federal and state agencies that attracts additional federal funds to the College, develops key research collaborations between faculty and companies in Hawaii and the mainland. Establishes partnerships with state agencies and key research units in the University that leverage opportunities for new funding and programs.

- A Director of Professional Development and Distance Learning provides leadership and management to support professional development and outreach services to the engineering community and technology based industry. Distance learning is now an imperative component to a spectrum of engineering education opportunities, capable of effecting substantial growth of pre-engineering programs at the community colleges, through online MS, Ph.D. and engineering continuing education certificates. Life-long learning in the engineering profession represents a key investment in the future growth of technology based industry in Hawaii

While the College has a history of creating some highly innovative new technologies and associated research programs – some indeed contributing toward the creation of the internet - for many years now its principal goal has been one of teaching undergraduate students for employment in local industry. While this is an important goal for the College and the State, it needs to be recognized that nationally top ranking engineering colleges play a much more expanded role. Given the importance of

technology and engineering for the future of Hawaii it is important to build new initiatives in the College that will expand its functionality and ability to generate external revenues in the following areas:

- Education - building the technology workforce pipeline (K-12 outreach, recruitment, retention and placement activities (interns, co-ops etc)
- Research
- Distance and professional education
- Technology transfer and economic development
- Expert advice and consultancy for state and related agencies, in areas such as disaster mitigation, water, energy, economic development

In closing, the College of Engineering's ability to move forward with our vision depends critically on State and University investment in the College, and the College's reciprocal delivery of programs and graduates to the business and government community of Hawaii while simultaneously enhancing its own reputation and national rankings.

Thank you very much for the opportunity to provide testimony on this critical requirement as we move to implement the College of Engineering's 15 Year Strategy.