



Engineering

Briefing Paper

Engineers are critical to any state’s economy. The situation in Alaska is acute. Alaska’s employers need about 400 engineers per year to keep up with demand. Currently the University of Alaska graduates about 100 per year, but has recently instituted an initiative to increase yearly graduates to 200. It takes five years to train an engineer, so the increased cohort entering this year will graduate in 2012. UA has requested funding to bolster engineering in the last two fiscal years, but has only received partial funding to this point. This year’s budget will be the third request by the university to increase funding for engineering.

UA’s engineering departments have joined with private and public employers to address this critical shortage. Early efforts to recruit students from Alaska’s high schools have been successful. UAA has increased engineering enrollment an average of 16% annually since 2001, with a 26% increase this year; while UAF has increased 7% per year and experienced an 80% increase in freshmen enrollment in the fall of 2007.

Alaska’s state agencies are experiencing a particularly acute need for engineers especially in the Departments of Transportation, Environmental Conservation and Natural Resources. Demand for agency engineers will increase due to projected extraordinary increases in retirement.

Demand for engineers is projected to increase even without major projects like a gas-line. North-Slope producers are planning massive yearly capital expenditures (\$3-5 billion per year) to shore up declining production and there will be heightened demand for engineers associated with these projects.

History has proven that engineers who are trained in the state will stay here and contribute to the pool from which Alaskan businesses and agencies can recruit. Data shows that 80% of engineers trained at UA will remain in Alaska.

UA has been able to increase engineering graduates with very little financial support from the state, but the funding is temporary in nature and will not be available to build sustainable programs.

Alaska’s employers are hiring UA engineering graduates as fast as they can be trained. They are working closely with UA to expand these programs because there is a high cost associated with retention and recruiting. Alaska’s employers are also forced to hire nonresident workers to fill these positions which increases their turnover rates substantially.

Board of Regents FY09 Operating Request includes the following requests for Engineering & Related Programs:

- UAA** **\$1.212 million GF** -- Expand BS Engineering & Civil Engineering programs; expand/enhance Geomatics programs; initiate BS in Construction Management; enhance mining/petroleum training through MAPTS program; enhance student recruitment and advising services.
- UAF** **\$850.0 thousand GF** -- Funding will support student recruitment and advising services, graduate assistant support; expanded support in core instructional areas.
- UAS** **\$100.0 thousand GF** -- Initiate program to recruit engineering students from southeast region and provide first-year curriculum at Juneau campus in collaboration with UAF and UAA.

For Information Contact:
Pete Kelly, Director, State Relations
450-8006/465-2382

