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Home-grown engineers key to Maine's economy

By David M. Fitzpatrick, BDN Maine Special Sections
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Whether we're building roads, repairing bridges, erecting buildings, upgrading rail lines, constructing ports, designing mechanical or technical products, or replacing antiquated water and sewer systems, it all starts with engineers.

In the United States, trillions of dollars in infrastructure improvements alone are looming. In Maine, we have plenty to do; if we don't, we might not attract new businesses and people to the state.

Dana Humphrey, the dean of the University of Maine College of Engineering, believes that we can decrease the "brain drain" exodus of young minds leaving Maine by exposing them to engineering when they're young. And we're going to need a bumper crop of them.

"It's not like something wants to happen in Maine that requires engineers, you can call up the College of Engineering and say, 'Send me another 200,'" Humphrey said. "It takes a while to grow them."

Along with the brain drain, Maine has the oldest population in the country, another reason to keep kids here. And since, as Humphrey states, 80 percent of Maine business relies on engineers at various stages, we should be able to grow plenty of them.

"If you don't have the engineers to design it, you can't build it, whether it be a bridge or a jet engine," Humphrey said. "Engineers, to me, are a force multiplier in terms of economic development."

The CoE certainly produces them, and Maine keeps using them. Ninety-seven percent of CoE students land jobs or enter graduate school within six months of earning bachelor's degrees. Even with 20 percent of students coming from outside Maine, 60 percent of graduates get their first jobs in Maine, starting at $50,000 to $60,000 per year, and sometimes more. And last year, when national unemployment was at 7.7 percent, engineers were about 2 percent. Even in a recession, engineers are first in line for new projects, since planning and design always comes before implementation. So with all those infrastructure improvements coming to Maine, it's a good field to get into.

"It's going to be done by the generation of engineers that we're graduating now," Humphrey said. "It's a very exciting time to be a young person to start a career in engineering."

Humphrey said the state's residents must embrace the push to develop new technologies to keep Maine at the forefront instead of relying on everyone else, whether it's offshore wind, biofuels as a byproduct of papermaking, or other innovations that will come out of Maine.

"Those are the kinds of opportunities that are truly going to move Maine's economy forward and create demand for engineers," Humphrey said. "Engineers are key to making this happen."

But some claim that we don't need to build it here; it will come here anyway.

"When you get it from other people, it's made elsewhere," Humphrey said. "We want to be able to say it's made in Maine. The technology was conceived in Maine, it's made in Maine, and we export it someplace else."

Even though having Mainers do the work means keeping money here, there are still those who seem to make careers out of fighting against projects that will benefit Maine in the long term.

"You can't just be a naysayer and say 'This won't work, that won't work,'" Humphrey said. "We need to create a new paradigm."