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Chair Fahey and members of the House Rules Committee,

For your record, I am Scott Ashford, dean of the College of Engineering at Oregon State University.

You've heard about the Oregon Semiconductor Competitiveness Task Force Report which created a road map for the State of Oregon. HB 3254 addresses two essential components of the road map needed to build the semiconductor infrastructure:

- 1. **R&D Strength**: Semiconductor research and development is Oregon's competitive advantage. Oregon's strategy to secure chip investment should focus on solidifying a world-class innovation ecosystem.
- 2. **Talent**: Premier access to talent and a robust, private sector-led innovation ecosystem separates Oregon from others. Oregon must invest across the talent continuum to preserve this advantage, from entry-level positions to PhDs.

Simply put, if Oregon seeks to claim our R&D advantage, we must invest in the research missions of the state's higher education institutions. Oregon is lagging badly behind states like Ohio, Georgia, California, and Washington which have propelled their institutions to be among the top public universities in the country.

I just returned from the National Conference of Engineering Deans. My colleagues and I are all on the same page. There are generational federal funds available to build the research and talent missions – and the competition to build the university research ecosystems is intense. We are all competing for the best and most diverse faculty, graduate, and undergraduate students.

To build Oregon's competitive advantage, the task force advocated for two recommendations that HB 3254 addresses and that I fully support:

- 1. **Establish and fund a bold faculty recruitment initiative** to attract 25 new leading engineering and computer science faculty. This is very similar to the state's investment that started 25 years ago and transformed the engineering programs in the state.
- 2. Create a fund to support STEM faculty "start-up" packages. Faculty start-up packages which include non-recurring support for lab upgrades, equipment, and initial graduate student recruitment—can make a tremendous difference in attracting the best and most diverse research faculty to Oregon, supporting the academic goals of Oregonians of all backgrounds, and recruiting diverse undergraduate and graduate students to the state.

Investments in higher education are critical to advancing Oregon's semiconductor ecosystem. The National Science Foundation, Department of Energy, National Institute of Standards and Technology, and Department of Defense will release billions of dollars for semiconductor and advanced manufacturing research in the next few years. These research programs will accelerate discovery and innovation and require talent development.

We envision the HB 3254 investment distributed in a model similar to the Engineering Technology Innovation Fund (ETIC), now called the Engineering Technology Sustaining Fund (ETSF), and the investments directed to the research missions and education demands.

Over 20 years, the ETIC/ETSF program helped triple the number of engineering graduates in the state, more than triple research expenditures (nearly all those dollars new to the state), and diversify faculty and students. ETIC/ETSF is one reason OSU ranks in the top five among public R1 universities for the percentage of engineering faculty who are women. We have the opportunity to have similar success directed to semiconductors.

The legislature's investment in faculty and research support will result in more graduates and leverage more federal research dollars into Oregon. In turn, foster the growth of the semiconductor ecosystem that is critical to Oregon's economy.