

Olympia Business Watch

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Here's How Education Is Changing to Help Students and the Economy

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COMMON CORE : Incoming AWB President Kris Johnson; independent consultant and former CH2M Hill Senior Vice President Kathy Lombardo; Brad Jurkovich, principal at Fisher-Jurkovich Public Affairs; and Steve Leahy, Washington director for America's Edge, met Thursday morning at the AWB offices in Olympia to release a new report on education, "Ensuring Washington State's Global Success."

and abilities students need to compete in the global economy. Kris Johnson, incoming AWB president, also participated in today's report roll-out.

"Students will need to develop both technical skills and work skills -- such as effective collaboration, critical thinking, and problem-solving -- in addition to mastering the core academic content of reading and math," Johnson said.

Only 11 percent of Washington's college degrees and certificates are in STEM fields, the study notes, yet jobs in science, technology, engineering and math fields will grow by 22 percent between 2010 and 2020.

"The lack of a skilled workforce comes at a high cost for individuals, businesses, and the economy," said Kathy Lombardo, former senior vice president of CH2M Hill Engineering and an independent Olympia-based consultant. "Across Washington State, each new class of high school dropouts will earn \$4.8 billion less over their lifetimes than their high school graduate peers."

Many students, particularly in high school, don't see a link between their education and their future job prospects. That explains part of the drop-out rate, according to the report.

Washington students -- and businesses -- will have a brighter, more prosperous future if the educational system can be enhanced through innovations like the practical, work-based learning already on display in so-called "career academies" scattered throughout the state.

That was one of the findings highlighted in a new report released today about the skills gap in American education. The report, "Ensuring Washington State's Global Success," notes the strong growth in highly

skilled, STEM-based (science, technology, engineering and math) jobs in Washington -- and the state's glaring lack of qualified graduates and workers. The study was produced by America's Edge, a business-based group focused on the knowledge, skills

"The lack of a skilled workforce comes at a high cost for individuals, businesses and the economy," the report notes. Workers with a two-year degree make \$15,000 more a year than high school graduates. Those with a bachelor's degree earn \$25,000 more annually.

Fortunately, there are solutions. The report identifies four key innovations that are essential to changing course:

1. **Work-based learning** such as mentorships, job shadowing opportunities and internships.
2. **Project-based learning** to help students make connections that bring relevance to classroom learning. Collaborations develop key "soft skills" such as communication and critical thinking.
3. **School-based enterprise**, such as student-led businesses or community service initiatives that allow students to design, produce and deliver real products and services.
4. **Support services** that include counseling and more instruction in reading, writing and mathematics to stay on course for graduation.

Washington already has "career academies" that are serving the needs of students and the state's economy, according to the report. Some of these cutting-edge institutions are:

- **The Highline Big Picture High School** in Burien, which opened in 2005 and focuses on relationships, relevance and rigor. A full 80 percent of its 2010 graduates are enrolled in college, compared with 47 percent for low-income students across the nation.
- **The Raisbeck Aviation High School** in Tukwila, which was founded in 2004 near SeaTac International Airport and is focused on aviation and STEM. Students must apply and be interviewed before being accepted, and all must sign a four-year commitment to stay until graduation. Upperclassmen form corporations and compete with each other; students in group projects can "fire" unproductive teammates.
- **Cleveland High, School of Engineering and Design and School of Life Sciences** in Seattle, founded in 2010, have teams of teachers focusing on STEM program such as computer game design, aeronautics, rocket design, biochemistry and global health issues.

[Washington's Common Core Standards](#), when fully put into place with their matching assessments, will help students develop the deeper learning skills needed in today's workplace, according to the report. Those deeper skills necessary for success are:

- **Mastering core academic content**
- **Thinking critically and solving complex problems**
- **Working collaboratively**
- **Communicating effectively**
- **Learning how to learn**
- **Developing academic mindsets**

"If we are serious about securing Washington's economic future, we must act now to get our businesses the skilled workforce we need to innovate and grow in the global marketplace," the report concludes.