

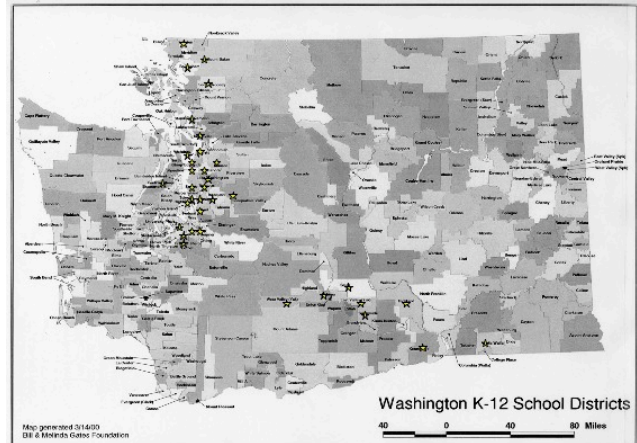
Professional Development Overview

In 2009, the Center for Inquiry Science:

- Supported science educators from **44 school districts** whose combined populations serve **45 percent of the students** in Washington state
- Hosted **99 professional development sessions** attended by **818 educators** over the course of **195 workshop days**

2009 School Districts Served

Bellevue	Bellingham	Bethel
Everett	Franklin Pierce	Highline
Lake Washington	Lynden	Marysville
Mukilteo	Northshore	Puyallup
Sedro-Woolley	Selah	Shoreline
Sunnyside	Tukwila	Walla Wall
Central Kitsap	East Valley	Edmonds
Issaquah	Kennewick	Kent
Monroe	Mt. Baker	Tacoma
Renton	Richland	Seattle
Snoqualmie Valley	Stanwood-Camano	Sumner
West Valey	Yakima	



2009 Professional Development Programming

Fee-for-Service

In 2009, the Center for Inquiry Science was contracted to support 16 fee-for-service professional development experiences. Together these experiences supported more than 250 science teachers.

New Grants in 2009

Everett Science Partnership

In partnership with Everett Public Schools, RMC Research Corporation, the Center for Research and Learning, the Harvard-Smithsonian Center for Astrophysics, and scientists from the University of Washington and Seattle Pacific University, the Center for Inquiry Science received a \$600,000 grant from Washington's Office of the Superintendent of Public Instruction. Over three years, the *Everett Science Partnership*, a state Math and Science Partnership project, will support 60 secondary science teachers and their principals from Everett's 9 middle and high school science departments in implementing the Observing for Evidence of Learning professional development model.

Grants Continued in 2009

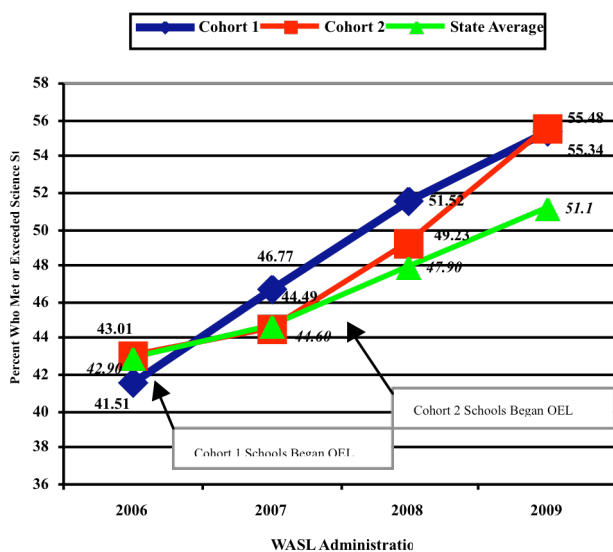
Observing for Evidence of Learning

Observing for Evidence of Learning (OEL) is a school-based professional development model being researched with funding from the National Science Foundation and through a partnership between the Center for Inquiry Science, RMC Research Corporation, and the middle school science departments in four Puget Sound region school districts (Bellevue, Highline, Seattle, and Shoreline).

In 2009, the OEL project supported 173 classroom teachers as they engaged in 51 OEL professional development cycles. The project continued to depict gains in student achievement in science.

OEL Research Question: To what extent does participation in OEL professional development result in improved student science achievement in grades 6-8?

Adjusted Means on the Grade-8 Science WASL



Note. Mean values adjusted for percentage free or reduced-price lunch and percent minority. Mean values weighted by the number of students assessed. A total of 5173 students were assessed in 2006, 5040 were assessed in 2007, 5014 were assessed in 2008, and 5062 in 2009. Because of the weighting and the large number of students the 95% confidence interval is too small to show as error bars on this graph (<.01).

Science Educators' Network for Professional Growth

The *Science Educators' Network for Professional Growth* (SEN) supports Puget Sound region classroom science educators experienced in teaching standards-based science instructional materials in becoming consumers, advocates and facilitators of professional development. Over the 7-day summer experience, SEN participants review research and best practices as they deeply study their instructional materials and related underpinnings of professional development. During the school year, SEN alumni are invited to participate and contribute to professional interest groups. In 2009 a cohort of 11 teachers joined SEN, increasing the number of SEN alumni to more than 40. SEN was initiated with funding from The Boeing Company and ISB's Center for Systems Biology (funded by NIH).

North Sound LASER Alliance

The *North Sound LASER Alliance* (NSLA), one of 10 Alliances funded by Washington LASER (Leadership Assistance for Science Education Reform) hosts several regional networks designed to promote regional collaboration in science education. Notably, in 2009 the NSLA hosted 4 Science TOSA (Teacher on Special Assignment) meetings, supporting 52 Puget Sound region educators purposed with supporting in-district professional development; and a Networking Forum featuring Dr. Robert Tai of the University of Virginia who guided 84 educators from 14 school district teams in updating their districts' science education strategic plans with data from the research study entitled, *Factors Influencing College Success in Science*.

Systems Education Approach to Science

The *Systems Education Approach to Science* (SEA-Science) project funded by the Howard Hughes Medical Institute (HHMI) partners ISB and the Renton School District in the study of a model for improving science education in grades K-5. Over the course of 5 years, ISB and community scientists work with teacher leaders from the school district's 13 elementary schools as they study 3 levels of systems in science education: the school system; systems in science (science content); and the systems of the scientific community (the nature of science). In turn the teacher leaders support and advocate for science education in their schools and across the school district. In 2009, 31 teacher leaders focused on strategies for integrating science and writing.

In addition, in 2009, with supplemental funding from HHMI, SEA-Science project staff, ISB scientists, and Renton teachers hosted 3 Family Science events attended by 662 Renton students and their families/caregivers.

Professional Development for Professional Development Providers

The *Professional Development for Professional Development Providers* (PD-4) project, a 2-year award from Washington LASER provided professional development for experienced professional development providers. Four 3-day PD-4 experiences were offered in locations across Washington state. Fifty-three participants, representing school districts, Educational Service Districts, curriculum vendors, and informal science education organizations worked to update their professional development facilitators guide as informed by research on conceptual change, that is, instructional strategies designed to facilitate students' learning progressions of science concepts. By the end of the 2-year period, PD-4 alumni had used their updated facilitator guides to provide 720 hours of "initial use" professional development.