



CAREER &  
TECHNICAL  
EDUCATION  
Including: SEATTLE  
SKILLS CENTER  
JANUARY 2016

CTE  
ANNUAL  
BOARD  
REPORT  
2015-2016

Submitted by: Mary Davison

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# CAREER and TECHNICAL EDUCATION

## Definition

Career and Technical Education (CTE) is a planned program of courses and standards that begins with exploration of career options, supports academic and life skills, and enables achievement of high academic standards, leadership development, and preparation for career and college. A sequence of courses can provide students with entry-level employability skills for internships, apprenticeships, preparation for industry certification, and pursuing career options in college.

## Mission

The Career and Technical Education Department broadens career choices for students, supports and promotes quality instruction, and ensures that every secondary school has a range of CTE offerings for every student, including skill center options.

## Vision

Career and Technical Education: Where all students imagine, design, and craft their future.

## Central CTE Staff

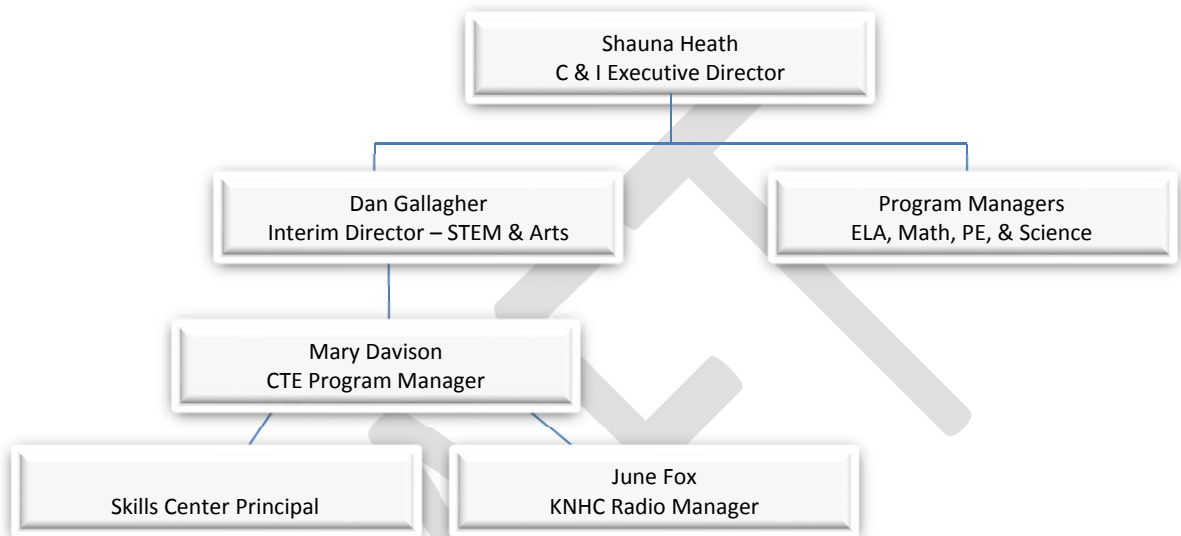
Manager .....	Mary Davison
Administrative Assistant .....	Mark Daniels
Fiscal .....	Wendy Turner
Specialists:	
Academies and Work-Based Learning .....	Joanne Patrick
Agriculture, Arts, Media, Science & Engineering .....	Robert Austin
Business, Marketing, & Information Technology .....	Jane Hendrickson
Career & Guidance Services — .6 shared with College & Career Director. ....	Myrna Muto
Health & Human Services and Family & Consumer Science .....	Roxanne Trees
Non-traditional Counseling - .6 part-time .....	Cathi Rodgveller
State and Federal Reporting — .2 Part-time .....	Patsy Ethridge-Neal

**Additional Seattle Public Schools Skills Center CTE Staff**

Principal Interim..... Sherri Kokx

Registrar ..... Deanna Gallichan

**ORGANIZATIONAL CHART – CTE**



**ASSESSMENT OF CTE PROGRAM**

Career and Technical Education is an essential component of the high school curriculum. It is critical in meeting the needs of students in academic achievement, career exploration, career preparation, and leadership development with 21<sup>st</sup> Century Skills attainment.

Career and Technical Education (CTE) in Seattle Public Schools continues to offer students some of the finest CTE experiences in the nation. Through CTE in our district, students explore and prepare for career opportunities and learn how other subjects like math, science, reading, and writing are used in real-life. CTE students gain leadership skills through activities in their classrooms and participation in organizations such as DECA (Marketing), Future Business Leaders of American (FBLA), Skills USA, First Robotics, Family Career and Community Leaders of America (FCCLA), HOSA-Future Health Professionals, Computer Science Teachers Association, and First Robotics. CTE prepares students to succeed in high demand occupations in the 21<sup>st</sup> century competitive global economy by promoting quality instructional partnerships with business, industry, and the post-secondary community.

Nationally, Career and Technical Education (CTE) is organized around the [16 Career Clusters](#)<sup>1</sup>. Seattle Public Schools (SPS) CTE is organized around the following pathways with Specialists to

<sup>1</sup> See Appendix #1 – Career Clusters Pathways – Course Offerings, Pages 19-21

support current programs, research new programs and initiatives, remain OSPI compliant, and work with industry partners for advice in keeping our programs current for now and in the future:

- **Arts, Communications, and Media**
- **Business, Marketing, Information Technology and Computer Science**
- **Environmental Science and Agriculture**
- **Health & Human Services, and Family & Consumer Science**
- **Science, Engineering, and Industry<sup>2</sup>**

We have very strong programs in most pathways, and are moving to a Program of Study model for all course offerings.<sup>3</sup> Programs of Study<sup>4</sup> are detailed guides for students, mapping out specific course options for a chosen career path from high school through postsecondary education. Programs of Study show how to smoothly transition into postsecondary education, apprenticeships or work from high school CTE. These Programs of Study are done for all of our Tech Prep courses. Tech Prep courses are our articulation agreements with the Seattle Colleges so that students earn college credit for free in most of our CTE courses.

### **Program and Teacher Quality**

As we continue to offer our students some of the finest Career and Technical Education experiences in the nation. Research we use to indicate delivery in ways that are aligned to industry standards and best practices are: The 2011, [Pathways to Prosperity<sup>5</sup>](#) report from the Harvard School of Education cited Career Academies and Project-Lead-the Way (PLTW) engineering programs as best practices and bellwethers of quality; and [Investing in America's Future A Blueprint for Transforming Career and Technical Education<sup>6</sup>](#) a report from the U.S. Department of Education, April 2012.

Seattle Public Schools is one of the only Washington State school districts to sustain Career Academies and we have done so since 1987. We were the first district in Washington State to implement [Project Lead the Way](#) (PLTW) and one of the first districts to offer Advanced Placement CTE course and College in the High School courses as well as having computer science in each of our comprehensive high schools. Other high-quality, award-winning, and high-profile programs include:

- C89.5 KNHC Radio Station program at Nathan Hale
- Film/Video at Ballard, Center School, Cleveland, Hale, and Franklin
- *ProStart* Culinary at Roosevelt, Ingraham, West Seattle, and Skills Center @ Rainier Beach

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<sup>2</sup> See Appendix 1 – Career Clusters Pathways – Course Offerings, Pages 19-21

<sup>3</sup> See Appendix 1 - Career Clusters™- Pathways – Course Offerings – Pages 19-21

<sup>4</sup> <http://www.k12.wa.us/CareerTechEd/ProgramsofStudy.aspx>

<sup>5</sup> [http://www.gse.harvard.edu/news\\_events/features/2011/Pathways\\_to\\_Prosperty\\_Feb2011.pdf](http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperty_Feb2011.pdf)

<sup>6</sup> <http://www2.ed.gov/about/offices/list/ovae/pi/cte/transforming-career-technical-education.pdf>

- Photography at Garfield and AP Photography at Ballard
- Automotive Tech at Ingraham, West Seattle, and Skills Center
- Marketing at Ballard, Garfield, Hale, Roosevelt, and West Seattle
- Graduation, Reality and Dual-Role Skills (GRADS) Teen Parent Program at South Lake
- Microsoft IT Academy at Sealth and Ingraham
- Biotech at Ballard
- Biomed at Cleveland
- AP Psychology at Chief Sealth, Roosevelt and IB Psychology at Ingraham

In addition, we are using the Microsoft sponsored TEALS (Technology Education and Literacy in Schools) program to increase and sustain our computer science offerings at Ballard, Franklin, Garfield, Hale, Ingraham, Rainier Beach, and Roosevelt, and have been able to hire highly qualified computer science teachers at Ballard, Cleveland, Garfield, Hale, and Roosevelt and sustain our International Baccalaureate computer science program at Ingraham.

Seattle's CTE teachers and staff win recognition and awards and are consistent leaders at regional, state, and national levels. Our Roosevelt Project Lead the Way program has been designated as a PRIME (Partnership Response in Manufacturing Education) Program for the Society of Manufacturing Engineers (SME) and the teacher was named the National SME teacher of year for the 2014-2015 school year. Students who concentrate their studies in CTE, which is taking four semesters in a program area, go to college at a greater rate, and complete their programs more often than other students who do not as evidenced in research from the National Academy Foundation and the Work Force Training Board of Washington State as well as our Carl Perkins Indicators. We plan to feature teachers and students at a June board meeting.

Because of OSPI requirements and best practices for CTE, courses are up for reapproval on a four-year cycle. Courses have been rewritten incorporating 21<sup>st</sup> Century Skill indicators, and the Common Core Standards for English Language Arts and Mathematics, and the Next Generation Science Standards that apply to the course content. The final group to add all of these standards, Environmental Science and Agriculture, was submitted in January, 2015. This year's reapprovals are for the Trade and Industry, and Arts Communication and Media pathways and will be submitted in January, 2016.

### **Current Skills Center Initiatives**

Launching the Seattle Public Schools Skills Center was a major focus and opportunity and consumed much time and energy in the department over the last four years. Programs have been proposed; locations sought; skill panels designed by industry partners; facilities provided support; courses and frameworks were written and approved for OSPI and Seattle Public School course catalogs; instructors were hired; school partners approved locations and sites; and programs are up and running. Skills Center programs are half-day programs for students 16 and over. Students attend their assigned high school and then travel to the Skills Center for 2½ hour

sessions of their school day. This can occur during the regular school day or after the regular school day. The following are current Seattle Skills Center programs and locations:

- Academy of Interactive Entertainment (AIE) Animation and Gaming – West Seattle - 2 sessions
- Aerospace Science and Engineering – Rainier Beach – 2 sessions
- Auto Body Collision – South Seattle College – 1 session
- Auto – Shop behind Washington Middle School – 2 sessions
- Construction, Pre-Apprenticeship – Rainier Beach – 1 session
- Culinary Arts – Rainier Beach – 2 sessions
- Fire Science – Rainier Beach – 1 session
- IT CISCO Networking – Rainier Beach – 1 session – on hold for 2015-2016
- Maritime Science and Engineering – planned for Ballard currently at Rainier Beach – 1 session
- Nursing Assistant – West Seattle – 2 sessions
- Health Sciences/Medical Assisting –Lincoln (moved in January 2015)– 2 sessions
- Multimedia Broadcasting – KNHC – Nathan Hale – 1 session

Planning for next year is taking place and other than adding back the Cisco program, we are focusing on increasing enrollment and marketing existing programs rather than adding any programs.

We successfully completed our third summer of Skills Center offerings for rising 9<sup>th</sup> through 12 graders last summer and expect attendance to again double from the previous two years for next summer.

### **Enrollment/Staffing and CTE Funding**

Our overall trends are increasing from 11.97% in 2009-10 to 12.97% in 2015-2016 of all high school students. Our middle school CTE Science Technology Engineering Math (STEM) offerings are increasing from .3% in 2009-10 to 3.5% in 2015-2016. We now have CTE middle school programs in engineering and/or computer science in 7 middle and K-8 schools. Our Skills Center is slowly gaining student enrollment each year. We lost our Skills Center Principal in June 2015 and have had some difficulty filling the position. We've had interims managing day-to-day operations, but promoting the programs, and driving future initiatives of the Skills Center has been stalled. Although we've been able to add CTE courses in many schools, principals decide what programs and courses they will offer in their schools and are sometimes hard to convince to add or keep CTE staffing with other initiatives. We offered a Skills Center Summer School Program for the third time in the summer of 2015. We receive allocation dollars from the state for our summer Skills Center programs at the regular CTE enhanced rate of revenue. The summer Skills Center programs are open to rising 9<sup>th</sup> graders through 12<sup>th</sup> graders and are funded by OSPI as if a student was in a regular Skills Center program. We offered five sections our first summer and were able to offer 26 sections in two sessions for 2015 and serve 333

students. This number is projected to increase for the summer of 2016 as there will be two sessions of morning and afternoon classes rather than all-day to take advantage of space and staffing considerations and our marketing efforts have already begun.

High School and Middle School CTE have seen increased offerings of Computer Science – now at all ten comprehensive high schools, Engineering, Material Science, *Pro Start* Food Production, Visual Communication/Video Production, Microsoft IT Academy courses, IB and AP Psychology. We are also working with the University of Washington Computer Science Department and the Seattle Colleges to offer College in the High School programs. Our Tech Prep articulations have also increased and the free tuition is being taken advantage of by more students.

**CTE Full-time Equivalent (FTE) Student Numbers are Averaging**

YEAR	FTE HS	FTE MS	SKILLS CTR	TOTAL FTE
2009-2010	1501.63	18.37		1520
2010-2011	1464.49	26.78		1491.27
2011-2012	1464.99	50.67		1515.66
2012-2013	1485.54	72.41	50.5	1608.45
2013-2014	1556.49	102.55	65.27	1724.31
2014-2015	1517.23	143.97	72.07	1733.27
2015-2016	1625.54	247.87	71.18	1959.85

We were pleased that despite Skills Center enrollment, our regular CTE FTE has grown in the high schools in numbers but not in percentage of total students. While CTE FTE totals are increasing, compared to total High School and Middle School enrollment, the increases are still far below the averages of many other large districts. The following table shows the enrollment as a percent of the total high school and middle school enrollment.

**ENROLLMENT AS A PERCENT OF TOTAL ENROLLMENT IN HS and MS**

Year	CTE/HS	CTE/MS
2009-2010	11.97%	0.30%
2010-2011	11.66%	0.43%
2011-2012	11.51%	0.78%
2012-2013	11.47%	1.08%
2013-2014	11.99%	1.49%
2014-2015	12.02%	1.71%
2015-2016	12.97%	3.50%



Our Skills Center enrollment has stayed even this year. Our City Campus programs that are not special education programs have been repositioned and updated as a Skills Center model. For this year that included Auto Body and C-West Construction. There is also a solid model for Fire Science that includes a location (Rainier Beach) and an instruction model through a contract.

### Skills Center Enrollment

School Year	Total Average FTE	Additional FTE Summer School
2012-2013	58.58	0
2013-2014	65.27	22.47
2014-2015	72.07	27.52
2015-2016	71.18	Estimated 35

CTE FTE totals have seen modest gains in the last 6 years but are still far below other districts in Washington State.

### REVENUE and FTE COMPARISONS

#### Student FTE Comparison with other Washington State Districts

Districts were chosen for comparison based on proximity to Seattle and their reputations for quality educational experiences for their students as well as the largest districts in the state. These are the last two years data for comparison.

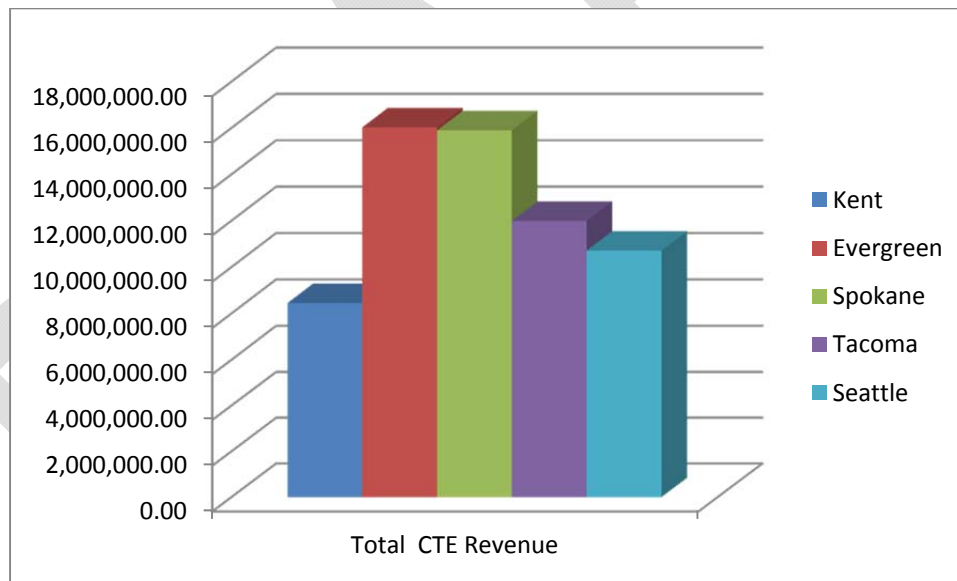
#### DATA for 2013-2014 SCHOOL YEAR

District	7-8 CTE FTE	% of Total	9-12 CTE FTE	% of Total	Skills Center	Total CTE Revenue
Bellevue	136.49	4.84%	588.77	10.07%	101.38	\$4,959,195.40
Federal Way	41.88	1.29%	1092.36	17.64%	0	\$6,682,310.98
Issaquah	52.58	1.84%	695.95	13.79%	21.37	\$4,545,168.12
Highline	83.83	3.28%	850.59	15.42%	500.58	\$8,639,578.74
Lake WA	207.86	3.06%	858.21	12.65%	113.86	\$6,977,963.39
Kent	0	0	1374.35	18.31%	0	\$7,870,748.03
Evergreen	113.38	2.87%	1835.55	22.57%	632.16	\$15,790,099.04
Spokane	439.18	10.14%	1767.56	22.75%	424.79	\$16,167,235.54
Tacoma	223.93	5.55%	1758.67	23.55%	0	\$10,660,850.31
Seattle	102.55	1.50%	1556.49	12.50%	65.27	\$10,196,694.81

### DATA FOR 2014-2015 SCHOOL YEAR

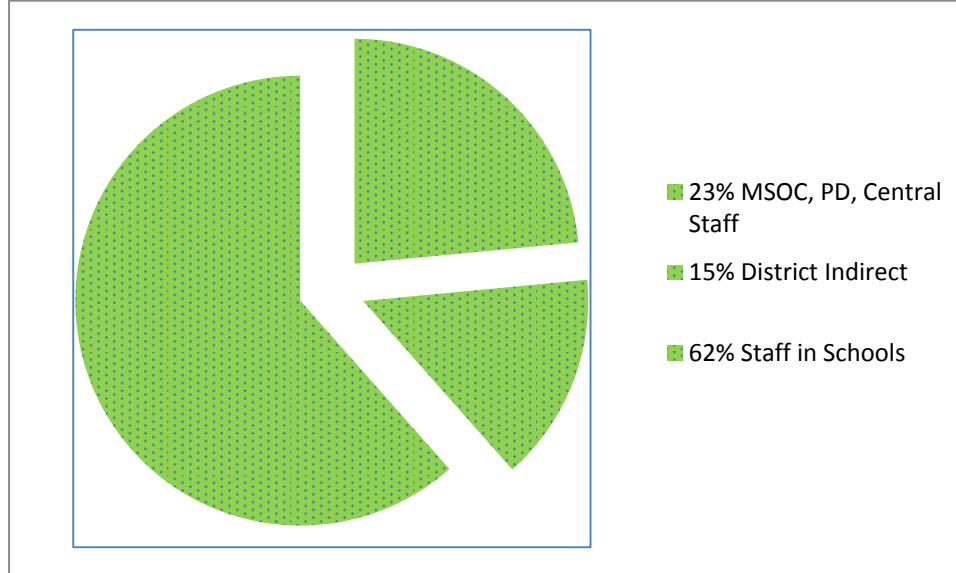
District	7-8 CTE FTE	% of Total	9-12 CTE FTE	% of Total	Skills Center FTE	Total CTE Revenue
Bellevue	128.66	4.35%	662.38	11.11%	104.76	\$5,453,298.68
Federal Way	83.14	2.56%	6346.22	17.27%	0	\$6,869,435.63
Issaquah	53.07	1.81%	779.26	14.95%	19.5	\$5,074,626.99
Highline	112.42	4.27%	882.72	15.97%	418.86	\$8,525,235.71
Lake WA	180.23	4.45%	907.47	13.10%	120.6	\$7,194,087.23
Kent	0	0	1472.99	19.62%	0	\$8,450,969.05
Evergreen	131.81	3.17%	1821.69	20.91%	598.52	\$16,026,740.24
Spokane	421.21	9.68%	1748.61	20.61%	377.12	\$15,896,139.78
Tacoma	255.83	6.28%	1710.55	22.86%	0	\$11,990,137.38
Seattle	143.97	1.10%	1517.23	11.54%	72.07	\$10,710,298.22

### REVENUE COMPARISON for LARGEST 5 DISTRICTS in WA for 2014-2015 SCHOOL YEAR



As you can see from the table and chart, even though Seattle has about double the number of students as each of the next three largest districts, our CTE revenue, and percentage of enrollment in CTE courses is far below Evergreen, Spokane, and Tacoma. Placement of CTE courses in those districts is directed by the CTE office rather than the individual high schools as we do in Seattle Public Schools.

## CTE BUDGET ALLOCATIONS FROM 1191CTE



In addition to apportionment Career and Technical Education received \$608,546 in Carl Perkins, TEALS, Project Lead the Way, and other OSPI grants for particular programs and courses in 2014-2015.

### STRENGTHS AND QUALITY INDICATORS

When principals are asked about exemplar programs or have outside visitors in the schools, you will often see that they point out their Career and Technical Education (CTE) programs and that these CTE programs are a point of pride for the school and community. Recent media articles have been about Video, Project Lead the Way, Computer Science, Culinary, the Academies of Finance and Hospitality and Tourism (part of the [NAF](#) network) and Radio at Nathan Hale. Our strengths and quality indicators are characterized by:

#### Strengths

- Strong programs in each of the pathways<sup>7</sup>
- Curriculum, instruction, and assessment aligned with standards
- Teachers who are leaders in instruction and in their schools and state and nationally in CTE
- The SPS Skills Center programs and the strong attendance in Skills Center Summer School
- Consolidated Program Review (CPR) Office of Superintendent of Public Instruction (OSPI) Audit for CTE was completed in March 2015. There were no direct CTE

<sup>7</sup> See Appendix #2 – Exemplars in Each Pathway – Page 22

noncompliant items. The noncompliant issues were related to data that needed to be provided by Technology Services and Title IX Coordinator.

- Advanced Placement programs up and running in each pathway except Agriculture
- Tech Prep Articulations – dual credit with the Seattle Colleges are up and running and gaining strength and participation
- College in the High School for Computer Science and Oceanography and soon to be for Psychology, Sociology and Career Exploration with the University of Washington and the Seattle Colleges Baccalaureate programs
- Academies that are long-lived and strong especially the National Academy Foundation (NAF) Academies<sup>8</sup>
- Community engagement and strong advisory boards<sup>9</sup>
- Clear and shared focus, mission, and vision
- High Standards and Expectations – new frameworks (program standards) on 4 year cycle for review and approval, common core state standards, Next Generation Science Standards, and 21<sup>st</sup> Century Skills incorporated into all frameworks with specific objectives
- Strong Career and Technical Student Organizations (CTSOs) that give students opportunities to compete alongside other students in the state and nation
- Opportunities such as IGNITE (Inspiring Girls in Technology Evolution) and ACE (Architecture, Construction, and Engineering) Mentors to provide students with opportunities and industry mentors
- Learning environments that focus on meeting industry and program design standards
- High levels of communication and collaboration

### Quality Indicators

- Middle school offerings in Career and Technical Education gaining steam with additional schools and offerings in the STEM fields
- Alignments with industry standards through the National Academy Foundation, the Manufacturing Industrial Council, the City of Seattle Economic Development Council and others
- Monitoring of teaching/learning and professional development provided
- IGNITE – Inspiring Girls Now in Technology Evolution offers girls and now boys, opportunities to job shadow, find mentors, and connect with companies that represent STEM fields
- Students qualifying and winning state and national Career and Technical Student Organizations (CTSO) awards and state and national awards in particular fields such as computer science, family and consumer sciences, marketing, health sciences, robotics, and video
- Non-traditional fields especially in the science, technology, engineering, and math (STEM) areas that CTE students can access across the district
- Students hired directly from the Aerospace Manufacturing Skills Center program to Boeing last spring

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<sup>8</sup> See Appendix #3- Academies – Page 23

<sup>9</sup> See Appendix #4 – Advisory Boards – Pages 24-28

- One of first school programs in the state to partner with Core + with the Aerospace/Maritime Skills Center programs

## **Community Engagement**

Advisory boards are required for all program areas in CTE through our standards and by OSPI. We are very fortunate to have community and industry partners participating on our strong advisory boards for each of our program areas.<sup>10</sup> Advisory boards, CTE Manager, and pathway specialists meet between three and nine times each school year to review, evaluate, and discuss current and planned programs. The advisory board members and other volunteers serve roles as speakers, judges for Career and Technical Education Student Organizations (CTSOs), field trips, career conferences, approval of programs and other OSPI requirements and also as informal advisors. These community partners allow us to keep our programs current with industry requirements and standards; fulfill our OSPI requirements; and also, partner to take advantage of numerous opportunities for our students and staff including mentorships and internships and employment after high school. Three of our Core + Aerospace students were hired directly by Boeing on graduation in 2015.

## **CHALLENGES**

Our challenges focus on three main areas: access for all students, sustainability of programs, and funding. These challenges represent areas that need to be negotiated with high school and middle school administration especially around sustainability and new program placement, as well as with central office staff around priorities. Among those items needing focused attention are:

- Scheduling conflicts – each high school has different schedules which make it very difficult to enroll Skills Center students. As we look at reinventing the high school schedule for 24 credits consistent times across the district will be addressed
- New college and career readiness standards
- Impact of additional math and reading support classes on elective programs making it difficult for students to enroll in Skills Center programs and additional CTE courses
- Exploring north end and south end Skills Center campus facilities for access and equity of programs
- Perception challenge to see CTE as a core part of program of study for all students
- Equity and accessibility of course offerings across district
- Sustainability of programs that are expensive to operate such as auto, woods, and video
- Locating space for Skills Center programs in the North End
- Finding funding for certification exams for students to earn industry certifications
- Funding for College in the High School (CIHS) courses

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<sup>10</sup> See Appendix #4 – Advisory Boards – Pages 24-28

- Funding for Tech Prep initiative – the Carl Perkins federal grant still requires college credit articulations with community colleges as a requirement but funding dissolved at end of 2010-2011 school year
- Students may fulfill the Occupational Education (Oc Ed) graduation requirement with non-CTE courses and there are a large percentage of students that do not take any CTE course in their high school program and fulfill the graduation requirement through non-CTE Occupational Education (Oc Ed). This impacts our CTE revenue, our teachers and students overall long-term career plans.
- Principals decide what is offered in their schools for CTE for K-8, middle, and high schools and so it is sometimes a hard sell to get new programs and initiatives up and running or to keep programs that there's a perception they are legacy such as Accounting, Business Law, Nutrition and Wellness, and Woods.

## **OPPORTUNITIES**

### **Expanding and Strengthening CTE Programs**

There are many initiatives and programs we are researching and examining to expand and strengthen our offerings especially in the Green Technology, and Science, Technology, and Engineering (STEM) fields. Our Skills Center Aerospace Engineering Core + program was initiated and developed by our advisory boards because of industry need for qualified employees and advisory board interest. We were named as one of 19 programs in the state for our Aerospace Engineering Skills Center program using the Core + model. Maritime Science and Engineering Skills Center program that began with this school year, have also adopted the Core + model. We are always looking at all program areas for opportunities and meeting with other CTE Directors in King County and the state to find best practices for our students. Middle School offerings are still a challenge especially in the K-8 schools.

### **Career Clusters**

[Career Clusters](#)<sup>™</sup> are an organizing tool for curriculum design and instruction. They provide students with relevant contexts for studying and learning and are organized nationally into 16 areas that support over 79 distinct career pathways. In Seattle Public Schools (SPS), we have organized and consolidated these 16 areas into 15 pathways (everything but transportation) with 3 Specialists that link coursework with the knowledge and skills required for success in the workplace, career exploration, and for preparation for college and careers. They also function as a guide in developing programs of study (POS) bridging secondary and postsecondary curriculum, and for aiding students in development of their high school and beyond plans. CTE helps students discover their interests, their passions, and empowers them to choose a pathway that will aid their success in high school, college, and a career.

In Seattle Public Schools, as previously mentioned, we consolidate these 15 pathways into 5 areas:

- **Arts, Communications, and Media**
- **Business, Marketing, Information Technology and Computer Science**
- **Environmental Science and Agriculture**
- **Health & Human Services, and Family & Consumer Science**
- **Science, Engineering, and Industry<sup>11</sup>**

These 5 areas are overseen by three Specialists and give us a focus for how to organize new initiatives and assess our strengths and gaps.

### **STEM – CTE Programs**

We have many strong course and program offerings in the STEM areas including our offerings at the Skills Center: Aerospace Science and Engineering, Construction/Pre-Apprenticeship, Medical Careers, and Medical Assisting, Animation and Gaming, and Maritime Science and Engineering. The Project Lead the Way (PLTW) Biomedical at Cleveland, and PLTW Engineering at Cleveland, Ballard, Franklin, Garfield, and Roosevelt High Schools and Gateways to Technology (part of PLTW) at Denny, Madison, McClure, South Shore, Washington, and Whitman Middle Schools. Other STEM courses include: KNHC – Radio/Multimedia Broadcasting at Hale, Woods at Ballard, Franklin, and West Seattle, Biotech at Ballard, Computer Science at all ten comprehensive high schools, and Middle-School STEM courses in computer science, technology, and video. [ACE](#) (Architecture, Construction, and Engineering) Mentors is an additional STEM after school program open to all Seattle Public School high school students. The mission of ACE is to engage, excite and enlighten high school students to pursue careers in architecture, engineering and construction through mentoring. We currently have 90 students taking advantage of this opportunity. CTE teachers are also the mentors for most of the First Robotics teams in the schools as after school activities. IGNITE is our program for inspiring young women to be involved in Technology Industries by participating in activities to encourage that career pathway. Started in 1999, to promote equal access to CTE for underrepresented populations in Seattle Public Schools, IGNITE has increased girls interest in STEM programs. It does so by breaking down barriers for young women by providing them with role models and exposing them to high technology industries and STEM careers.

We are continually investigating new programs and integrated models of delivery in the STEM areas and consider this an area for CTE growth.

### **CROSS-CREDIT, DUAL CREDIT, and INDUSTRY CERTIFICATION OPPORTUNITIES**

The CTE Department participates in extensive interdisciplinary collaboration, in particular with science, math, and visual performing arts. Cross-crediting of CTE courses with core academics continues, and there is a rigorous application process between CTE and visual performing arts

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<sup>11</sup> See Appendix #1 – Career Clusters Pathways – Course Offerings, Pages 19-21

to authenticate courses. Most Skills Center courses are cross-credited with third-year math, lab science, or visual arts. We continue to pursue Advanced Placement (AP) and International Baccalaureate (IB) CTE courses and currently have courses in Computer Science, Psychology, Arts Portfolio, IB and AP Economics, and IB Business Management. CTE has supported Chief Sealth in the application for the IB Career Concentration (IBCC) diploma option and this program will launch completely in the 2016-2017 school year.

### **Math Options and Lab Science Options**

Financial Algebra, Applied Algebra, and Applied Geometry options are approved to fulfill the third-year math graduation requirement if they are part of a student's high-school and beyond plan. Advanced Placement (AP) and International Baccalaureate (IB) Computer Science are approved for fourth-year math or third-year lab science. Other lab science options for graduation that are cross-credited are: Sports Medicine/ Athletic Training, Nutrition & Wellness, Food Science, Nutrition & Dietetics, Principles of Biomedical Science (PLTW), Human Body Systems (PLTW), Medical Intervention (PLTW), Medical Assisting SKC, Nurse Assisting SKC, Horticulture, Environmental Science, and Biotech Biology and Biotech Chemistry.

### **Double Credit – Dual Credit – Tech Prep**

[WAC 180-51-067](#) provides for students' ability to check off two graduation requirements, so called – **double credit** – for CTE courses starting with the graduating class of 2015 – 2016. The language is as follows:

- a) *Students who earn a graduation requirement credit through a CTE course locally determined to be equivalent to a non-CTE course will not be required to earn a second credit in the non-CTE course subject; the single CTE course meets two graduation requirements.*

Students can now earn **dual credit** with the Seattle Colleges through Tech Prep. This is dual credit for a college and a high school course much like Running Start but students and the FTE stays in the schools. Because the funding for Tech Prep was eliminated from the 2010-2011 Carl Perkins Grant, we made a decision to partner with the Seattle Colleges and CTE pays for half the funding for the Seattle College work-force liaison to continue this initiative.<sup>12</sup> There were 1,164 students in CTE programs in Seattle Public Schools earning a total of 4032.5 credits through the three Seattle Colleges (they have taken Community out of their names) for the 2014-2015 school year. This translates to a savings for families of \$430,832.30 at the current cost of \$106.84 a credit at the Seattle Colleges. A list of our current Tech Prep courses can be found with a link from the SPS CTE page or at: <http://www.techprepseattle.org/><sup>12</sup>. We are currently working on additional courses for second semester and next year and will have those articulated sometime in March with the Colleges and SPS CTE teachers.

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<sup>12</sup> <http://www.techprepseattle.org/downloads/Master%20list%20articulations%202012.pdf> – Tech Prep



## TECH PREP DATA 2011-2015

YEAR	REGISTERED STUDENTS	TRANSCRIBED STUDENTS	PERCENT COMPLETED	CREDITS EARNED	SAVINGS TO FAMILIES
2014-2015	1,461	1,164	79.67%	4032.50	\$430,832.30
2013-2014	1,121	890	79.39%	3170.50	\$338,767.90
2012-2013	1,190	857	72.02%	2462.00	\$263,040.08
2011-2012	1,074	854	79.52%	3,459.50	\$300,976.50

Our numbers have been pretty stable given the reduction of funding and the re-articulation requirements of all classes. We have renewed our articulation process and expect an increase for this school year in number of students served and credits offered.

We have also been able to initiate the University of Washington College in the High School (UW in CIHS) model for computer science at Cleveland, Garfield, and Roosevelt. Students at these schools can choose to pay for credit through the University of Washington's partnership with the high school teachers. Nathan Hale and Ballard should join this group in next year. We are also starting the College in the High School model with the Seattle Colleges in their baccalaureate (4-year) programs that should start next school year.

### Industry Certification

Students have the option to earn industry certifications in many of our programs and pathways. Testing is now available in most areas because of the new OSPI agreement with Precision Testing. Precision is working towards aligning all of the CTE curriculum frameworks with their testing. Teachers and students taking advantage of the Precision Exam certifications has increased across all program areas. A complete list of Precision Exams can be found on their website: <http://www.precisionexams.com/washington/exams.html>. Besides Precision Exams, we have testing available now in the following classes:

Courses	Certification/State/National Recognition
Aerospace Engineering	Core + - Direct employment with Boeing
AIE Animation & Gaming	Direct entry into AIE Technical College
American Sign Language (ASL)	Transfer credit with Seattle (Community) Colleges
AP Art	AP 2-D and AP 3-D
AP Economics	AP Economics at Ballard and Garfield
AP Psychology	AP Psychology at Chief Sealth, Ingraham, and Roosevelt
Automotive	Automotive YES –ASE exit exam
Cisco 1-4	CCNA
Computer Science	AP Computer Science and UW in the High School
Construction/Pre-Apprenticeship	Direct entry in Apprenticeships

Family Health, Nursing Assistant, Medical Assisting, Family Relations	CPR and First Aid, HIV/AIDS
Human Development; Child/Parenting	Merit Certification for Learning and direct entry in Seattle Central College's program
IB Psychology	IB Psychology
IT Essentials	A+ and Net+
Marketing	National Professional Certification in Customer Service
Medical Careers in Skills Center	NAC – Certified Nurse Assistant, HIPPA, First Aid/CPR
Microsoft Office Specialist	MOS Core; MOS Expert
NAF Academies	Nationally Recognized End of Course Exams
Project Lead the Way	Nationally Recognized End of Course Exams
Pro Start Food Production	Certificate of Recognition and Achievement
Precision Testing	Certifications for most of the CTE courses

## SKILLS CENTER

Along with schools, industry partners, and advisors, CTE has been working with our Skills Center instructors and programs to ensure high quality programs. Stable facilities have been a major concern and locating facilities north of the ship canal has been our major challenge. Our goal is to determine offerings that afford access and equity across the district for all interested students. Planning for future expansion includes program quality, industry projection needs now and in the future, and facility availability. Our vision also includes facilities with campuses in the north end and south end of the city beside our regular satellite sites.

## City Campus

Our City Campus programs were originally designed before Seattle Public Schools was approved for a Skills Center. City Campus programs are based on a Skills Center model of delivery in that students attend for half of their school day and they lead to industry certifications, apprenticeships, or direct to industry positions as well as college. The SPS City Campus programs have always had strong support from our community partners and as of this year all but the special education programs have been moved to Skills Center programs to reflect their outcomes and take advantage of enhanced funding. The Exploratory Internship Program (eXIP) that we operate cooperatively with Special Education is the only City Campus program and we are investigating Special Education moving these programs into their Bridges program which reflects the management now after next school year.

## CONCLUSION

A strong JSCEE CTE staff and our advisory boards work to ensure quality instruction occurs in CTE courses across the District. The CTE program is committed to keeping course offerings and programs up-to-date with cutting edge practices, approaches and content. The successful launch of our SPS Skills Center and our work to engage our communities is second to none. These commitments highlight CTE's strengths in Seattle Public Schools. Equitable access for all students, sustainability of program offerings, and funding for current and future programs are

challenges that we are addressing. Other challenges for the Skills Center are the disparate schedules of each high school, facilities with room in the north end of the city, and the demands for increased graduation requirements. By working with the opportunities we are creating and the new partnerships we are forging, some of these challenges can be addressed with the support of college and career readiness requirements. Growth areas are in middle school STEM offerings, cross-crediting initiatives, and a renewed focus on CTE in the district. As in the [Pathways to Prosperity](http://www.sawdc.com/media/5959/pathways_to_prosperity_feb2011.pdf) report from the Harvard School of Education, and United States Secretary of Education, Arne Duncan affirming CTE as a delivery model for college and career readiness, we are feeling renewed energy for CTE initiatives, courses, and programs in Seattle Public Schools. [http://www.sawdc.com/media/5959/pathways\\_to\\_prosperity\\_feb2011.pdf](http://www.sawdc.com/media/5959/pathways_to_prosperity_feb2011.pdf)



## CTE STUDENTS IN ACTION

Clockwise from top left

Skills Center Medical Services students and Nursing Assistant students; Nathan Hale Horticulture; IGNITE field trip to Microsoft; and Garfield award winning computer science team



## Appendix #1 – Career Clusters™- Pathways – Course Offerings

Each Career Cluster™ represents a distinct grouping of occupations and industries based on the knowledge and skills they require. The 16 Career Clusters™ and related Career Pathways provide an important organizing tool for schools to develop more effective programs of study (POS) and curriculum. You may click on Career Cluster logo for more information.

- **Agriculture, Food & Natural Resources**



The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

**Offerings in SPS: Horticulture, Food Science, Nutrition and Wellness, Environmental Science**

- **Architecture & Construction**



Careers in designing, planning, managing, building and maintaining the built environment.

**Courses in SPS: Woods, C-West and opportunity for an ACE Mentor**

- **Arts, A/V Technology & Communications**



Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

**Courses in SPS: Video, Radio, Multimedia, Graphic Design, Yearbook, Animation, Photography, Technical Theatre**

- **Business Management & Administration**



Careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.


**Courses in SPS: Introduction to Business, Project Management, IB Business Management, AP Economics**

- **Education & Training**



Planning, managing and providing education and training services, and related learning support services such as administration, teaching/training, administrative support, and professional support services.

**Courses in SPS: American Sign Language**

- 
**Finance**  
 Planning and related services for financial and investment planning, banking, insurance, and business financial management.

**Courses in SPS: Academy of Finance Program, Accounting**

- 
**Government & Public Administration**  
 Planning and executing government functions at the local, state and federal levels, including governance, national security, foreign service, planning, revenue and taxation, and regulations.

**Courses in SPS: Family Career & Community Connections**

- 
**Health Science**  
 Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.


**PLTW Bio Medical, Medical Assisting, Medical Careers, Family Health, Sports Medicine, Nutrition and Wellness**

- 
**Hospitality & Tourism**  
 Preparing individuals for employment in career pathways that relate to families and human needs such as restaurant and food/beverage services, lodging, travel and tourism, recreation, amusement and attractions.


**Courses in SPS: Academy of Hospitality and Tourism Program**

- 
**Human Services**  
 Preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care, and consumer services.

**Courses in SPS: IB Psychology, AP Psychology, Teen Grads Program, Human Development, Child Development, Culinary, and Interpersonal Relationships**

- 
**Information Technology**  
 Building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

**Courses in SPS: Cisco Networking, Microsoft IT Academy, Computer Applications, Web Design, Computer Science, Phone Application Programming, AP Computer Science, UW in the High School Computer Science, Middle School Computer Science, Skills Center Animation & Game Programming**

- **Law, Public Safety, Corrections & Security**  Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.


**Courses in SPS: Skills Center Fire Science**

- **Manufacturing**  Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

**Courses in SPS: Skills Center Aerospace, Auto, Auto Body, C-West, Metals**

- **Marketing**  Planning, managing, and performing marketing activities to reach organizational objectives such as brand management, professional sales, merchandising, marketing communications and market research.

**Courses in SPS: Marketing 1-4, Store, Advertising**

- **Science, Technology, Engineering & Mathematics**  Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

**Courses in SPS: PLTW Engineering, Applied Math, CAD, Computer Science, Aerospace Engineering, Marine Science, Financial Algebra**

- **Transportation, Distribution & Logistics**  The planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

**Courses in SPS: Maritime Academy Program, Auto**

## **Appendix #2 – Exemplars in Each Pathway**

### **Arts, Communications, and Media**

**Video Program at Ballard**

**KNHC Radio Station at Hale**

**Animation and Game Programming in Skills Center at AIE**

**Technical Theatre at Roosevelt**

### **Business, Marketing, Information Technology and Computer Science**

**Academy of Finance Programs at Chief Sealth, Franklin, and Ballard**

**Academy of Hospitality and Tourism at Chief Sealth**

**AP Computer Science at Ballard, Rainier Beach, Cleveland, Hale, Roosevelt, & Garfield**

**Marketing at Ballard, Hale, Garfield, Roosevelt, and West Seattle**

**Skills Center Cisco Networking Academy at Rainier Beach**

### **Environmental Science and Agriculture**

**Biotech at Ballard**

### **Health & Human Services, and Family & Consumer Science**

**GRADS Program at South Lake**

**IB Psychology at Ingraham**

**AP Psychology at Roosevelt and Chief Sealth**

**Award winning Family & Consumer Sciences Programs across district**

**PLTW Biomedical at Cleveland**

**Skills Center Health Sciences/Medical Assisting located now at Lincoln**

**Skills Center Nursing Assistant at West Seattle**

**Skills Center Culinary at Rainier Beach**

### **Science, Engineering, and Industry**

**PLTW Engineering across district**

**Auto Tech at West Seattle, Ingraham, and Skills Center**

**Woods at Ballard, Franklin, and West Seattle**

**Skills Center Aerospace and Maritime Science and Engineering located at Rainier Beach**

## SEATTLE PUBLIC SCHOOLS ACADEMIES

### National Academy Foundation (NAF)

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NAF Academies are in 490 schools, 41 states and the District of Columbia plus the US Virgin Islands. The NAF Academies established in 1982; have been a part of Seattle Public Schools since 1987.

- [Academy of Finance](#)
- [Academy of Hospitality & Tourism](#)

### Career Academies

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- [Ballard Maritime Academy](#)
- [Biotechnology Academy at Ballard](#)
- [CREATE Academy at Franklin](#)
- [John Stanford Public Service Academy at Franklin](#)

### Cleveland High School STEM Career Academies

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[Cleveland STEM](#) stands for Science, Technology, Engineering and Mathematics, fields that are the underpinnings of modern life. The STEM Program at Cleveland High School will give students the opportunity for rigorous and advanced study in these subjects. The two academies that students can choose from are:

- [School of Life Sciences](#) which includes PLTW Biomedical
- [Engineering and Design](#) which includes Computer Science and PLTW Engineering

### Seattle Academies Foundation

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The Mission ~

The Seattle Academies Foundation ~ Academy of Finance, Academy of Hospitality and Tourism, and Academy of Information Technology promotes academic excellence and provides real-world experiences in a Finance, Hospitality and Tourism, and Information Technology environment and provides personal involvement with local business and industry leaders for qualified high school students.

The SAF Focus Statement ~

Our children are worthy of our Investment!



## Appendix #4 – CTE Advisory Boards

### Career and Technical Education Advisory Committees

Career and Technical Education (CTE) advisory committees advise, assist and provide support and advocacy for quality CTE programs. Advisory committee volunteers have the opportunity to learn more about the CTE program, and the instructor's are able to increase their understanding of the job market, employers' needs and community opportunities. Advisory boards are required for all CTE programs in the CTE standards through OSPI.

<http://www.k12.wa.us/CareerTechEd/Forms/AdvisoryBrochure.pdf>

#### GENERAL ADVISORY COUNCIL AND SKILLS CENTER ADVISORY BOARD

SKILLS CENTER & GAC MEMBERS LIST		
First	Last	Company
Jay	Abram	Professional Solutions for Personal Computers
Bridgett	Bascomb	Seattle City Light
Tim	Bond	Boeing
Justin	Borland	Foss
Chris	Brandmeir	Professor Hospitality and Tourism
John	Lederer	North Seattle Community College
Mary	Davison	CTE Program Manager
Renée	Florio	SSCC, CTE Teacher Cert Prep Program
Taylor	Gaussoin	Media Design & Production
David	Gering	Manufacturing Industrial Council (MIC)
Melda	Hickman	King County Sound Transit
Donna	Horn	Seattle University
Matthew	Houghton	City of Seattle Office of Economic Development
Diane	Lashinsky	Project Lead the Way
Darren	Linker	Dept of Environmental Health and Safety, UW
Diane	Kocer	Associated General Contractors
Gary	Fasso	PNW Regional Council of Carpenters
Karen	Mattson	WSECU Community Relations
Mike	McBee	IUOE Local 609
Annika	Mertz	Seattle Central College
Kathleen	Moriarty	Port of Seattle
Jim	Nicholson	Openheimer & Co Inc.
Lindsay	Pulsifer	Port of Seattle
Will	Rance	WSECU
Willie	Rogers	Seattle Parks and Recreation
Andrea	Samuels	Seattle Community Colleges
Shepherd	Siegel	Consultant
Gary	Stauffer	Maritime Consultant, Retired NOAA
Neal	Storme	Music Production
Michael	Tolley	Seattle Public Schools

Dana	Twight	Twight Financial Education, LLC
Jerry	Walton	J. R. Walton & Associates
Debra	Zawada	DO-IT, University of Washington

### **BALLARD BIOTECH ADVISORY**

Members 2014-2015

Reitha Weeks, PhD-Biotechnology Consultant/Shoreline Community College  
 Randy Howard, PhD-IDRI (Infectious Disease Research Institute)  
 David Warren, PhD-University of Washington, Atmospheric Sciences  
 Jason Zacker-ZymoGenetics/Bristol Meyer Squibb  
 Robert Vizenor- SABArchitects  
 Jenny Tenlen-SPU, Department of Biological Sciences  
 Robert Barren-University of Washington  
 Jenny Thomson-Ballard Community Member  
 Robert Austin-CTE, Seattle Public Schools

### **BALLARD MARITIME ADVISORY BOARD**

Active participation – meetings monthly – can provide names if requested

### **BUSINESS/MARKETING/IT Advisory Board**

Reconstituting members – can provide names and company affiliations if requested

### **FAMILY & CONSUMER SCIENCE and HEALTH & HUMAN SERVICES ADVISORY BOARD**

Meet five times per year

**Linda Bothell**, SPS Substitute

**Trez Buckland**, Program Manager, Clinical Assistant Prof. UW School of Nursing

**Joanne Card**, Executive Chef  
Hearthstone

**Aileen Gagny**, Environment Manager Lung Health  
American Lung Association

**Beth Layton**, Humanities for Teaching  
Seattle University

**Darren Linker**, Workforce Employment  
Edmonds and Pierce Colleges

**Gail Longo**  
Maria Montessori Program, LLC

**Robert Tidwell**, Retired  
Electrical Contractor

**Adriana Tossini**, Transitions  
WA Div. of Vocational Rehabilitation

**Victoria Wentz**, Senior Instructional Designer  
King County Emergency Medical Services

### **SCIENCE, ENGINEERING, & INDUSTRY ADVISORY**

Project Lead the Way Advisory – names provide on request

## Auto Collision Advisory

Austin	Bob	Seattle Public Schools
Carlsen	Peter	Total Sale & Marketing
Chapman	Jack	SJI & Pac Assoc.
Hendricks	Brad	Puget Sound Skills Center
Huddleson	Darren	Huddleson's Auto Color World
Ing	Chuck	J&J Collision
Jamison	Jason	Carlyle
Jones	Mark	Britsport of Seattle
Leddy	John	LDC Equipment Co.
MacKinnon	Michael D.	Wesco Auto Body
Meaker	Scott	Boeing
Muto	Myrna	Seattle Public Schools
Nakashima	Tom	Aki's Body Shop, Inc.
Nguyen	Kiet	Kiet Auto Body
Oldfin	Steve A.	PEMCO, Insurance Companies
Burgess	Duncan	SSC
Dillard	Daniel	SSC
Dimartino	Michael	SSC
Ford	Steve	SSC
Martin	Vanessa	SSC
Smock	Erik	SSC
White	Debbie	SSC Worksource

## Aerospace and Welding Advisory

Austin	Bob	Seattle Public Schools
Amero	Rick	Madden Industrial Craftsman
Bhende	Mohit	
Bridge	Lyle	Iron Worker Local 86
Creamer	Andy	Exotic Metals
Eaton	Mark	Boilermakers Local 104
Henderson	Don	Carnitech US Inc./Marel
Jacobsen	Chris	PACCAR
Janson	Jeff	Nucor
Johnson	Kenneth	Vigor Shipyards
Larson	Jan	Covering for David Kirk
Mather	Doug	Vigor Industrial
McKenney	David	Airgas, Inc.
Parker	Dan	Boeing Company
Parker	Ronnie	Central Welding Supply
Pollard	Steve	Machinist Inc.
Reinhardt	James	Forward Fabrication
Rider	Linda	Seattle Jobs Initiative
Stedman	Troy	Capital Industries
Walsh	Jerry	Kvichak Marine Inc
Spector	Jeff	
Baker	Rick	SSCC
Brown	Ocie	SSCC
Burgess	Duncan	SSCC
Dillard	Daniel	SSCC
Dimartino	Michael	SSC

Johnson	Ken	SSCC/Vigor
Lee	Joanne	SSCC
Lockman	Mary	SSCC
Martin	Vanessa	SSCC
Weber	David	SSCC
White	Debbie	SSCC Worksource

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**ACADEMY OF FINANCE BOARD 2015-2016**

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Meetings are held monthly

**Ms. Robin E. Aronson**  
Risk Services Manager  
WA Cities Insurance Authority

**Mr. David Bowerman**  
Director of Client Development  
K & L Gates

**Mr. Sergey Dunayev**  
Manager  
Dunay Holdings LLC

**Mr. Dwight Fontilla**  
**Co-Chair**  
Assistant Vice President –  
Corporate Development  
Integration, Cognizant

**Ms. Kris Gulbran**  
Eagle Strategies, LLC  
NYL – Financial Advisor

**Ms. Barbara Hauke**  
Director of Marketing &  
Communications  
Albers School of Business &  
Economics, Seattle University

**Mr. Chris Kaloper**  
**Alumni - Ballard**  
Senior Project Engineer  
Sellen Construction

**Ms. Eileen Lee**  
Chief Sealth Alumni 2014/  
UW Student

**Mr. Erik Lew**  
Microsoft

**Ms. Kelly McKay**  
McKay Wealth Management

**Mr. Eric Nicholson**  
Deloitte & Touche LLP

**Mr. James H. Nicholson**  
Senior Director - Investments  
Oppenheimer & Co. Inc.

**Ms. Joanne Patrick**  
**Academy Coordinator**  
Seattle Public Schools, CTE

**Ms. Arin Ricchiuti**  
Senior Accounting Analyst  
YMCA of Greater Seattle

**Mr. John E. Roehm**  
Senior Vice President  
Regional Retail Sales Leader  
Key Bank

Ms. Maria Sauri  
**Staff Accountant**  
**YMCA of Greater Seattle**

**Ms. Risha Schildkraut**  
**Alumni – Ballard AOF**  
Financial Advisor  
Morgan Stanley Wealth Mgmt.

**Ms. Rafika Shibly**  
**Alumni – Franklin AOF**  
Parametric

**Ms. Libby Stevenson**  
Vice President – Risk  
Management  
Bentall Kennedy (U.S.) Limited  
Partnership

**John F. Swiney, Ph.D.**  
Associate VP for Enrollment  
Central Washington University

**Mr. Randy Tran**  
Motiga

**Ms. Van H. Vong, ARM**  
Marsh  
Risk & Insurance Management  
Society of WA

**Mr. Craig Watkins**  
**Co-Chair**  
Director of Institutional Clients  
Conover Capital Management

**Ms. Jessica Young**  
**Alumni – Franklin AOF**

**Ms. Pamela Mushen**  
Seattle Public Schools, Retired

**ACADEMY of HOSPITALITY and TOURISM BOARD 2015-2016**

Members meet monthly -

**Madan Allumada**, Manager  
Marine Hotel Operations  
Holland America Line

**Elizabeth A. Day**, Chair  
AAA Washington  
Highline Community College

**Suzanne Dennison**  
Guest Services Manager  
Argosy Cruises

**Maureen Devery**  
Outreach Education Manager  
Pacific Science Center

**Danielle Dorland**  
Food and Beverage Manager  
Courtyard by Marriott

**Hana Kabeloeova Gala**  
Faculty – BAS Program  
South Seattle College

**Mark Hewitt**  
Absolutely Northwest LLC

**Janice M. Monti**  
Principal  
The Janus Group LLC

**Sean O'Rourke**  
General Manager  
Courtyard Marriott Seattle

**Joanne Patrick**  
Academy Coordinator  
Career & Technical Education

**Mary Pauly**  
Human Resources Manager  
WA State Convention & Trade

**Bruce & Lina Richert**, Retired

**David Stockert**, Vice Chair  
Retired

Holland America Line

**David Stockert**, Vice Chair  
Retired

Holland America Line

**Della Tall**  
Business Manager

Clipper

**David Watkins**  
General Manager

Inn at the Market

**Ed Wortman**

**KNHC – WRPA RADIO ADVISORY BOARD**

Name	Representing
<b>Charlie Nordstrom</b>	<b>Owner, Bad Animals Recording Studio</b>
<b>Dan Magden *</b>	<b>Remote Engineer, KOMO</b>
<b>David Shield *</b>	<b>Engineer, Solar Energy Systems</b>
<b>Don Iverson *</b>	<b>Principal Engineer, Coffman Engineering</b>
<b>Eric Fraser *</b>	<b>Program Director, KUBE</b>
<b>June Fox</b>	<b>General Manager, KNHC</b>
<b>Jai Jaisimha</b>	<b>Owner, Open Mobile Solutions</b>
<b>Jamie Hammond</b>	<b>Television Executive Producer</b>
<b>Jill Hudson</b>	<b>Principal, Nathan Hale</b>
<b>Jim McKenna *</b>	<b>Owner, McKenna Gottlieb</b>
<b>Mary Davison</b>	<b>CTE Director, SPS</b>
<b>Michael Dever *</b>	<b>Supply Analyst, Boeing</b>
<b>Myron Partman *</b>	<b>TV/Film freelance producer</b>
<b>Shellie Hart</b>	<b>KRWM 106.9</b>
<b>Shepherd Siegel</b>	<b>Director School Engagement Project Lead The Way</b>
<b>Simon Thwaites *</b>	<b>Broadcast teacher, KNHC</b>
<b>Stacy Walters</b>	<b>Vandeberg, Johnson &amp; Gandara</b>
<b>Susan Harmon</b>	<b>Public Radio Capital, Emeritus</b>
<b>Vince Lerner *</b>	<b>Radio Voicework Personality</b>
<b>*Alumni of the program</b>	

## HORTICULTURE ADVISORY BOARD

Cyle Eldred	O'Laughlin Shows, NW Flower and Garden Show
Terri Benson	Little Creek Nursery
India Carlson	Ballard CTE
Jessica Torvik	Hale CTE
Leif Herald	XIP Landscaping/Horticulture
Robert Austin	SPS CTE

## IGNITE – Inspiring Girls Now in Technology Evolution Advisory Board

Manisha Patel – Microsoft  
Aparna Vishawanathan – Microsoft  
Karl Ruff, Teacher PLTW Roosevelt HS  
Lisa Sandoval – Director of Information Technology at Seattle Central  
Cristina Cionvica – Product Manager, Security Roots  
Aren Kaser – Igor Institute  
Bernadette Murphy – Nordstrom  
Rupi Sureshkumar - Microsoft

## TERMS and LINKS

<a href="#">ACE Mentors</a>	Architecture, Construction, and Engineering Mentors – Open district wide
<a href="#">AOF</a>	Academy of Finance – Franklin, Ballard, and Chief Sealth part of the NAF Academies
<a href="#">AOHT</a>	Academy of Hospitality and Tourism – Chief Sealth
<a href="#">CPR</a>	Consolidated Program Review – Audits that OSPI conducts
<a href="#">CREATE</a>	Construction Related, Engineering, Architectural, Technical Experience - Franklin
<a href="#">CTE</a>	Career and Technical Education
<a href="#">CTSO</a>	Career and Technical Student Organizations. These include DECA, FBLA, TSA, Skills USA, HOSA, and FCCLA. Please refer to CTE SPS website for explanations of each.
<a href="#">FTE</a>	Full-time Equivalent – can be used for explanation of teacher workload or student enrollment
<a href="#">GRADS</a>	Graduation, Reality And Dual-Role Skills (GRADS) are programs for pregnant teens and/or young parents that focus on work and family foundation skills of significance to these students. GRADS programs include student demonstration of skills leading to high school graduation and economic independence.
<a href="#">IGNITE</a>	Inspiring Girls Now in Technology Evolution – one of our Nontraditional programs
<a href="#">NAF</a>	National Academy Foundation
<a href="#">Non-Trad</a>	Nontraditional occupations – occupations that employ 25% or less of one sex
<a href="#">OSPI</a>	Office of Superintendent of Public Instruction
<a href="#">PLTW</a>	Project Lead the Way
<a href="#">POS</a>	Programs of Study are detailed guides for students, mapping out specific course options for a chosen career path from high school through postsecondary education.
<a href="#">STEM</a>	Science, Technology, Engineering, and Math

Respectfully submitted: Mary Davison, January 2016