1. **TITLE**

Review and Approval of Career and Technical Education 2019 Annual Report Per Policy No. 2170

2. **PURPOSE**

This Board Action Report presents the Career and Technical Education 2019 Annual Report for review and approval.

3. **RECOMMENDED MOTION**

I move that the Board approve the 2019 Career and Technical Education Annual Report, as attached to this Board Action Report.

4. **BACKGROUND INFORMATION**

   a. **Background** Prior to 2017, the Career and Technical Education (CTE) Annual Report has been presented to the School Board in January of each calendar year. At the December 2, 2015 Regular Board meeting, outdated Policy Nos. C48.00, C49.00, C52.00 were repealed and replaced by the current Policy No. 2170. With these changes, the Career and Technical Education Policy was revised to include Board approval of the District’s plan, not just receipt of the annual report. The current Career and Technical Education Policy, No. 2170, states that the “Board will annually review and approve the district’s plan for the design and delivery of its career and technical education program.” As a result of this policy change, the date for presentation of the 2017 report, including this plan, was changed to May for the 2016-17 school year. For this year’s report, an outline of the plan was shared with the C&I Policy Committee in January of 2019 to solicit input before the final submission to the Curriculum and Instruction Policy Committee meeting in April. Similar to the last two years, this report was developed to address required Career and Technical Education components. In addition to reporting measures, this report includes strategies to improve the quality of the design and delivery of the District’s Career and Technical Education program.

   b. **Alternatives** Do not approve the 2019 Career and Technical Education Annual Report. This is not recommended because a plan will guide responsible use of resources to serve students. Furthermore, lacking a Board-approved Career and Technical Education Annual Report for the 2018-19 school year would violate RCW 28A.700.010 and Board Policy No. 2170.
c. **Research** The report includes analysis of enrollment in high school, middle school, and Skills Center CTE courses, participation by demographic subgroups, performance target attainment, college credits earned, and academic cross-crediting provided.

5. **FISCAL IMPACT/REVENUE SOURCE**

The district anticipates receiving more than $13.5 million in state and federal funding for Career and Technical Education. The majority of this funding pays for CTE instructors at building sites. It is anticipated that less than $3 million is discretionary funding to support the implementation of initiatives related to the CTE report’s 7 strategies which are described in the report. For example, the largest single expenditure is anticipated to be for the Career Connected Learning Coordinator positions at the district’s high schools.

The revenue source for this motion is state CTE funding and federal Perkins funding. There is no fiscal impact to district’s general funds and this CTE-related funding must be utilized each year to support Career and Technical Education.

Expenditure:  
- [ ] One-time  
- [x] Annual  
- [ ] Multi-Year  
- [ ] N/A

Revenue:  
- [ ] One-time  
- [x] Annual  
- [ ] Multi-Year  
- [ ] N/A

6. **COMMUNITY ENGAGEMENT**

With guidance from the District’s Community Engagement tool, this action was determined to merit the following tier of community engagement:

- [ ] Not applicable
- [x] Tier 1: Inform
- [ ] Tier 2: Consult/Involve
- [ ] Tier 3: Collaborate

Internal and External Expectations for engagement were deemed to be at inform based on the Community Engagement tool. The report includes input gathered over the past year from community partners and stakeholders. The most recent draft of the report has been discussed with the CTE General Advisory Council members, staff from the City’s Department of Education and Early Learning and Office of Economic Development, and staff from Seattle Colleges on multiple occasions. Other engagement is described in the Equity Analysis below. Upon approval by the School Board, the 2019 Career and Technical Education Annual Report will be posted to the District website and the CTE team will work with the Communications team to determine the best way to share the information in this report.

7. **EQUITY ANALYSIS**

The following is a summary of the analysis we did in developing this year’s version of the district CTE report using the four steps of the district’s Racial Equity Analysis Tool as part of School Board Policy #0030.
STEP 1: Set Outcomes, Identify and Engage Stakeholders

The CTE Team defines racially equitable outcomes as ensuring proportional participation across our CTE programs, including a range of opportunities across the city’s geographic regions and our middle and high schools.

To engage stakeholders, particularly those impacted by the proposed report and its goals of promoting racial equity, the CTE team has engaged a diverse set of partners, including the district’s CTE General Advisory Council, CTE Pathway Advisory Groups, staff from the City’s Department of Education and Early Learning (DEEL), and staff from SPS’ Department of Race and Equity Advancement (DREA) among other groups. When putting together pathway advisory groups, the district’s CTE team makes particular efforts to recruit a wide range of members so there is representation across racial and cultural groups. This team also led presentations and discussions with parents and students on CTE at the district’s College Bound Scholars’ Conference in March held at the University of Washington. The Skills Center staff also received feedback from parents at the majority 8th grade family nights held across the district’s middle schools.

In addition, there was special outreach to the subcommittee of the African-American Male Advisory Committee focused on college and career readiness to solicit input that would help ensure that the CTE report is truly aligned to its goal of improving racial equity and per our district strategic plan, serving students furthest from educational justice. Finally, to get a range of teacher and student perspectives, the SPS Research and Evaluation team plans to convene focus groups with SPS educators and students and ask for their input on the district’s efforts to promote career connected learning.

STEP 2: Engage Stakeholders in Analyzing Data

The Career and Technical Education Annual Report includes a report with analysis of equitable access to programs, including based on race/ethnicity. Demographic subgroup participation, including participation of African American students, does not differ significantly between CTE and general education programs.

STEP 3: Ensuring educational and racial equity /Determine Benefit or Burden

The goal of the CTE report is for all students, particularly those furthest from educational justice, to have full access to a range of career exploration and preparation activities and courses. To that end, our strategies describe how we are working to ensure there are robust CTE offerings across the district and improved participation of students across race and cultural groups.

STEP 4: Evaluate Success Indicators and/or Mitigation Plans

This report is part of a multi-year effort that requires regular review on whether we are meeting our goals in improving CTE programming for all students, particularly those furthest from educational justice. This regular review will ensure that we reflect and discuss the lessons learned each year and allocate resources needed to make changes to ensure our CTE efforts to better serve students furthest from educational justice.
8. **STUDENT BENEFIT**

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 employability skills for internships, apprenticeships, preparation for industry certification, and pursuing career options in college.

9. **WHY BOARD ACTION IS NECESSARY**

☐ Amount of contract initial value or contract amendment exceeds $250,000 (Policy No. 6220)

☐ Amount of grant exceeds $250,000 in a single fiscal year (Policy No. 6114)

☐ Adopting, amending, or repealing a Board policy

☐ Formally accepting the completion of a public works project and closing out the contract

☒ Legal requirement for the School Board to take action on this matter. Per RCW 28A.700.010, annual local school board approval of the District’s career and technical education report is required.

☒ Board Policy No. 2170, Career and Technical Education, provides the Board shall approve this item

☐ Other: _____________________________________________________________________

10. **POLICY IMPLICATION**

According to Seattle Public Schools Policy No. 2170, Career and Technical Education, “The Board will annually review and approve the district’s plan for the design and delivery of its career and technical education program.”

11. **BOARD COMMITTEE RECOMMENDATION**

This motion was discussed at the May 21, 2019 Curriculum & Instruction Policy meeting. The Committee reviewed the motion and moved it forward with a recommendation for approval by the full Board.

12. **TIMELINE FOR IMPLEMENTATION**

Upon approval of this motion, progress towards improving instructional programs will continue in alignment with the 2019 Career and Technical Education Annual Report, and the Report will be posted to the District website.

13. **ATTACHMENTS**

  • Career and Technical Education Annual Report, 2019 (for approval)
  • Policy No. 2170, Career and Technical Education (for reference)
CTE Report to
SPS School Board
April 2019

Submitted by Jane Hendrickson, Dan Golosman, and Caleb Perkins
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Preface - Career & Technical Education/Career-Connected Learning – From Interest to Action

As we shared in last year’s report, there is a strong interest in Seattle and across the state and nation to have K-12 schools provide students with more opportunities to explore and prepare for careers. This interest seems to have only grown in the past year and we continue to believe Seattle Public Schools (SPS) is well poised to take advantage of this focus to improve K-12 career connected experiences for our students. This past year we have sought to convert this interest and energy into actions that will result in improved outcomes for students.

We see interest becoming action with the City. One of the best examples is the recently-passed Families Education Preschool to Promise (FEPP) levy which has made helping students become ready for college and careers a central goal of its projected investments. As it indicates in the FEPP Implementation and Evaluation Plan, the City seeks to promote career connection and exploration experiences which will provide students, teachers, and families with a deep knowledge of the workforce and connections to current and future industry opportunities. SPS is excited to partner with staff from the Department of Education and Early Learning (DEEL) and the Office of Economic Development (OED) so that this funding effectively supplements the career connected learning work described in this report.

We also see interest becoming action at the state level. The Governor launched Career Connect Washington last year noting that while Washington has many excellent career connected learning programs in districts across the state, it lacks systemic supports to achieve the scale needed to have a transformative impact. To that end, the Governor’s team is seeking up to $110 million to develop a statewide career connected learning system that builds off the 11 regional pilots launched in 2017 and in which SPS was a participant. The ultimate goal is for every young adult in Washington to “have multiple pathways toward economic self-sufficiency and fulfillment, strengthened by a comprehensive state-wide system for career connected learning”. We also continue to see promising examples of educational and industry leaders already taking action to improve career connected learning across the region and state. In regular conversations with our colleagues in Everett, Tacoma, West Valley, and other districts, SPS is learning and borrowing from these models. Building off these models, we look forward to SPS participating in Career Connect Washington’s efforts to build a statewide system of strong regional networks from these many strong, but disconnected programs.

The district’s new strategic plan makes it clear that the Superintendent and the School Board also want this interest in career learning to become action as career readiness will be a key focus in our efforts to improve student outcomes over the next five years. The plan’s vision statement is that every Seattle Public Schools’ student receives a high-quality, world-class education and graduates prepared for college, career, and community. In addition, the Key Performance Indicators for the priority on High-Quality Instruction and Learning Experiences include “CTE course pathway completion” as one way for students of color who are furthest from educational justice to demonstrate that they are ready for college and career. These statements build off the work from the Board’s SMART Goal 3 focused on college and career readiness this past year. Going forward, we are eager to ensure that our plans for CTE will help meet the strategic plan’s main goal of serving students furthest from educational justice and we will regularly conduct race and equity analyses of our efforts to ensure we are on track with these efforts. Moreover, the ideas in this CTE report seek not only to improve student outcomes but also to use CTE programs to diversify Seattle’s growing economic sectors.
Some have recently noted that while this interest in Career and Technical Education could be “one more fad... it seems a good bet that career and technical education’s gradual build will give it more staying power than other contested, high-profile 21st-century reforms”. Similarly, we at Seattle Public Schools are resolved to make sure this additional energy results in improved outcomes and opportunities for the students in our city in the long run. The 2018 Road Map Project’s Annual Report shows that we are still struggling as a city and a region to ensure that most students are on a path to postsecondary success. Improved career connected learning is one important way to improve these outcomes. To this end, we believe the best course of action in this area is to stay on our current course. Specifically, we plan to continue to pursue the strategies we launched two years ago and refine initiatives and ideas within each strategy in response to the latest data and ideas we have gathered in the past several months.

In sum, we continue to have the following theory of change for Seattle Public Schools around career-connected learning: if students have access to rigorous, relevant, authentic learning in career-connected courses, then they will more effectively navigate high school and post-high school opportunities including living wage jobs and post-secondary education leading to viable careers. Seattle Public Schools plans to continue with the seven strategies to strengthen Career and Technical Education identified in last year’s report and deepen this work in 2019-20 so that our plans will start revealing results in terms of student participation and outcomes. This report provides more detail on what we have accomplished in these areas and what our refined plans are for the coming years. We invite all interested stakeholders to join with us in these multi-year efforts to help students explore and prepare for careers in Seattle and the world.
Introduction

This Career and Technical Education (CTE) Annual Board Report provides:

- An overall description of the CTE programming in Seattle Public Schools;
- A report on indicators for enrollment trends, equitable access to courses, and credit-earning opportunities; and
- Current and projected program improvement strategies aligned with CTE state standards supported and approved by the CTE and Seattle Skills Center Pathway Advisories and General Advisory Council in compliance with State OSPI and national Carl Perkins funding requirements.

The 2019-20 school year will represent year three of five of this strategic focus. A description of these strategies, current state of program, and projected work to improve the CTE program make up this report. It is the policy of the Seattle School Board to annually review and approve the district’s plan for the design and delivery of its Career and Technical Education program (SPS Board Policy No. 2170).

Program Description

Program Design

Career and Technical Education 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 employability skills for internships, apprenticeships, preparation for industry certification, and the pursuit of ongoing career options in college.

Through Career and Technical Education, students explore and prepare for career opportunities and learn how other education disciplines are applied in real-life. Students gain leadership skills through embedded activities in their classrooms and extended learning through participation in Career and Technical Student Organizations (CTSOs) such as DECA (Marketing), Future Business Leaders of America (FBLA), Skills USA, Family Career and Community Leaders of America (FCCLA), HOSA-Future Health Professionals, Technology Student Association (TSA), and First Robotics or a planned leadership equivalency. CTE prepares students to succeed in high-demand occupations in the 21st Century competitive global economy by promoting partnerships with business, industry, and the post-secondary organizations. Courses are formally revised and submitted to the Office of the Superintendent of Public Instruction for re-approval every four years to remain current with industry standards.

Nationally, CTE is organized around the 16 Career Clusters. In Seattle Public Schools, these are organized and consolidated into the following seven pathways listed below that align closely with our post-secondary partners and provide students an easier transition beyond high school. Currently there are multiple programs offered at each of the high schools. Central office certificated specialists support current program pathways, research new programs and initiatives, remain OSPI compliant, and work with industry partners for recommendations to keep programs aligned with industry standards.
<table>
<thead>
<tr>
<th>CTE Career Pathways</th>
<th>High Schools with Program Courses SY2018-2019</th>
<th>*Includes Advanced Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts, Design, and Graphics</td>
<td>Chief Sealth High School</td>
<td></td>
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<tr>
<td></td>
<td>*Cleveland High School</td>
<td></td>
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<tr>
<td></td>
<td>*West Seattle High School</td>
<td></td>
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<tr>
<td></td>
<td>*Roosevelt High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Franklin High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Garfield High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Ballard High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Ingraham High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Nathan Hale High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nova</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Seattle Center School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skills Center—Seattle World School</td>
<td></td>
</tr>
<tr>
<td>Culinary &amp; Hospitality</td>
<td>*Ballard High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chief Sealth High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*West Seattle High School</td>
<td></td>
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<tr>
<td></td>
<td>Rainier Beach High School</td>
<td></td>
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<tr>
<td></td>
<td>*Franklin High School</td>
<td></td>
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<tr>
<td></td>
<td>Garfield High School</td>
<td></td>
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<tr>
<td></td>
<td>Nathan Hale High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Ingraham High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roosevelt High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Skills Center--Rainier Beach High School</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| **Business & Marketing** | *Chief Sealth High School  
*Rainier Beach High School  
*Roosevelt High School  
*Franklin High School  
*Garfield High School  
*Ballard High School  
Nathan Hale High School  
*Ingraham High School  
Seattle World School |
| **Skilled Trades** | Chief Sealth High School  
*West Seattle High School  
Roosevelt High School  
*Franklin High School  
Ingraham High School  
*Skills Center-Washington Middle School  
*Skills Center-Rainier Beach High School |
| **Health & Medical** | *Cleveland High School  
West Seattle High School  
Ballard High School  
Franklin High School  
Roosevelt High School |
|                      | *Chief Sealth High School  
|----------------------|-----------------------------  
|                      | Garfield High School  
|                      | Ingraham High School  
|                      | Nathan Hale High School  
|                      | Skills Center-West Seattle  
|                      | Skills Center- John Marshall  

| STEM-Science, Technology, Engineering, Math | Chief Sealth High School  
|--------------------------------------------|-----------------------------  
|                                            | *Franklin High School  
|                                            | *Ingraham High School  
|                                            | *Garfield High School  
|                                            | *Ballard High School  
|                                            | *West Seattle High School  
|                                            | Rainier Beach High School  
|                                            | *Cleveland High School  
|                                            | *Roosevelt High School  
|                                            | *Nathan Hale High School  
|                                            | Nova  
|                                            | Middle College  
|                                            | *Skills Center-John Marshall  

| Education and Human Services | *Roosevelt High School  
|-------------------------------|-----------------------------  
|                               | Ballard High School  
|                               | *Chief Sealth High School  


STEM (Science, Technology, Engineering, and Math)

STEM education is a priority area in CTE with courses in a variety of program pathways. In 2018, CTE partnered with Science, Math and Technology departments in SPS to develop a vision for STEM K12 education. This vision provided the foundation to support industry-engaged science classrooms, expanded career connected learning activities, and enhanced STEM programming options that will provide middle school students a comprehensive career pathway exploratory option to align with our high school pathways. This middle school programming option is referred to as an Innovation Lab.

Other STEM courses include KNHC – Radio/Multimedia Broadcasting at Nathan Hale High School; Woods at Ballard, Franklin, and West Seattle High Schools; Biotechnology Academy at Ballard High School, and Computer Science at all comprehensive high schools and seven middle schools. Computer Science courses have expanded in part due to support from the Microsoft-sponsored TEALS (Technology Education and Literacy in Schools) program, which provides teacher mentoring and co-instruction from qualified industry professionals.

Academy Model

The Academy Model is structured as a small, career-focused learning community that fits within and enhances a student’s experience in our comprehensive high schools. These focused learning communities become an integral part of a plan for higher achievement and maximize a student’s chance at a successful future. The structure encourages teacher, student, and industry collaboration and fosters an environment for succeeding in the workplace.

Examples in SPS include Seattle Academy Foundation support for the National Academy Foundation (NAF) Academy of Finance at Chief Sealth, Franklin, and Ballard High Schools and the NAF Academy of Hospitality and Tourism at Chief Sealth High School. Ballard High School also provides access to Maritime and Biotechnology Academies. Cleveland High School supports a similar STEM model for a Biomedical Academy through its School of Life Sciences and Engineering and Computer Science in its School of Engineering and Design.

Seattle Skills Center

Skills Center programs are half-day programs open to all SPS students aged 16-20. Students attend their
Comprehensive high school and are provided transportation to Skills Center sites co-located on SPS campuses for 2½ hour sessions of their school day. For the 2019-20 school year, the Seattle Skills Center will offer 14 distinct courses available at nine sites. For the list of courses and locations, including summer courses, please go to the Skills Center website: https://skillscenter.seattleschools.org/.

Community Partners

Career and Technical Education programs are supported by many strong community partners, including the Port of Seattle (King County), WASTEM, the City of Seattle’s Mayor’s Office, Office of Economic Development (OED), and Department of Education and Early Learning (DEEL), the Seattle Academy Foundation, Washington Hospitality Association, Regional Pre-Apprentice Cooperative (RPAC), Architecture Construction and Engineering (ACE) Mentors, the Manufacturing Industrial Council (MIC), and Seattle Colleges. Additionally, the General Advisory Council (GAC) comprised of industry, labor, post-secondary, community, non-profit organizations, and government members provide support and guidance for the overall CTE program and the Seattle Skills Center, and specific programs have advisory committees. The following are the Program and Pathway Advisories:

- Ballard Biotech Advisory Board
- Health & Human Services Advisory including Health Sciences, Family and Consumer Science and Culinary Advisory Boards
- STEM and Computer Science Advisory Board
- Engineering & Industry Advisory
- Aerospace and Welding Advisory
- Academy of Finance Board
- Media Arts and Communications Board
- Academy of Hospitality and Tourism Board
- KNHC Radio Advisory Board
- Horticulture Advisory Board
- Careers in Education Advisory Board
- Media Arts and Communications Advisory Board
CTE Enrollment Trends

Career and Technical Education enrollment this school year began lower in comparison with the close of the 17-18 school year. The decrease in number of students enrolling in CTE was due in part to district-wide teacher layoffs. After the first quarter, however, CTE FTE has stabilized showing a relative increase as compared to last year’s average. This is in part to an increase in middle school STEM and opportunities for high school students to enroll in courses for cross credit in science and art. However, high school CTE enrollment has continued to remain between 11-12% of the total general education enrollment, and middle school CTE enrollment has grown to nearly 3% of the total general education enrollment. Overall, Seattle Public Schools has lower CTE enrollment than the 18.52% high school and 6.0% middle school statewide averages.

Additionally, Skills Center enrollment is 1.1% of overall SPS 11th and 12th enrollment; while the statewide average Skills Center enrollment is 3.5% of overall 11th and 12th grade enrollment.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>HIGH SCHOOL</th>
<th>MIDDLE SCHOOL</th>
<th>SKILLS CENTER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FTE (Headcount) 10-month reporting average</td>
<td>SCHOOL YEAR</td>
<td>SUMMER</td>
<td></td>
</tr>
<tr>
<td>2014-2015</td>
<td>1517.23</td>
<td>143.97</td>
<td>72.07 (123) +20</td>
<td>27.52 (279) +16</td>
</tr>
<tr>
<td>2015-2016</td>
<td>1539.71</td>
<td>196.71</td>
<td>67.55 (117) -6</td>
<td>37.73 (345) +66</td>
</tr>
<tr>
<td>2016-2017</td>
<td>1486.21</td>
<td>212.96</td>
<td>69.25 (116) -1</td>
<td>44.70 (447) +102</td>
</tr>
<tr>
<td>2017-2018</td>
<td>1523.10 (7764)</td>
<td>207.70 (848)</td>
<td>80.02 (133) +17</td>
<td>43.12 (434) -13</td>
</tr>
<tr>
<td>2018-2019 (*Sept-March)</td>
<td>1371.31 (7786) +22</td>
<td>171.79 (1074) +248</td>
<td>70.12 (130) -2</td>
<td>TBD</td>
</tr>
</tbody>
</table>
## CTE Enrollment as a % of Total High School & Middle School Enrollment

<table>
<thead>
<tr>
<th>Year</th>
<th>HIGH SCHOOL FTE</th>
<th>MIDDLE SCHOOL FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SPS</td>
</tr>
<tr>
<td>2014-2015</td>
<td>12.02%</td>
<td>18.3%</td>
</tr>
<tr>
<td>2015-2016</td>
<td>11.67%</td>
<td>18.4%</td>
</tr>
<tr>
<td>2016-2017</td>
<td>11.08%</td>
<td>18.4%</td>
</tr>
<tr>
<td>2017-2018</td>
<td>11.3%</td>
<td>18.52%</td>
</tr>
<tr>
<td>2018-2019</td>
<td>10.2%</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

## High School CTE Enrollment as a Percentage of Total High School Enrollment, Compared with Benchmark Districts

(OSPI Data Posted August 2018)

<table>
<thead>
<tr>
<th>District</th>
<th>HIGH SCHOOL CTE FTE/ HIGH SCHOOL FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016-17</td>
</tr>
<tr>
<td>Seattle</td>
<td>11%</td>
</tr>
<tr>
<td>Spokane</td>
<td>17%</td>
</tr>
<tr>
<td>Everett</td>
<td>19%</td>
</tr>
<tr>
<td>Bellevue</td>
<td>12%</td>
</tr>
<tr>
<td>Highline</td>
<td>14%</td>
</tr>
<tr>
<td>Kent</td>
<td>20%</td>
</tr>
<tr>
<td>Tacoma</td>
<td>23%</td>
</tr>
<tr>
<td>Federal Way</td>
<td>19%</td>
</tr>
</tbody>
</table>

Access to CTE programs and enrollment based on demographics - In 2017-18 reporting, participation in CTE coursework by demographic subgroups was similar to the proportion of these subgroups in the overall school district. In the table below, CTE Participants are students who enrolled in one or more CTE courses at any level (total = 12,450 students). CTE Concentrators are students who enrolled in two or more CTE courses beyond the exploratory level (total = 4,672 students).

### Participation in CTE and Skills Center Coursework by Demographic Groups

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>% of CTE Participants</th>
<th>% of CTE Concentrators</th>
<th>% of Overall District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>52%</td>
<td>56%</td>
<td>51%</td>
</tr>
<tr>
<td>Female</td>
<td>48%</td>
<td>44%</td>
<td>49%</td>
</tr>
<tr>
<td>American Indian / Alaskan Native</td>
<td>1%</td>
<td>&gt;1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
CTE Student Performance Indicators

Performance of CTE Concentrators (students who enrolled in two or more years of CTE courses beyond the exploratory level) is assessed by the secondary performance measures set by the Carl D. Perkins Career and Technical Education Act of 2006. The Reading/Language Arts and Mathematics measures are the percentage of CTE Concentrators who passed the respective Smarter Balanced Assessment. The Technical Skill Attainment measure is the percentage of CTE Concentrators who took and passed an industry-designed assessment specific to the course program area. The Secondary School Completion measure is the percentage of CTE Concentrators who attained a high school diploma or GED in 2017-18, and the Graduation Rate measure is the percentage of CTE Concentrators who were included as graduated in the State's computation of its graduation rate.

### CARL D. PERKINS PERFORMANCE MEASURES AND LEVELS OF ATTAINMENT

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>2016-17 Level of Performance</th>
<th>Met Target Performance Level?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading/Language Arts</td>
<td>80%</td>
<td>Yes</td>
</tr>
<tr>
<td>Mathematics</td>
<td>27%</td>
<td>No</td>
</tr>
<tr>
<td>Technical Skill Attainment</td>
<td>63%</td>
<td>Exceeded</td>
</tr>
<tr>
<td>Secondary School Completion</td>
<td>88%</td>
<td>Yes</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>89%</td>
<td>Yes</td>
</tr>
<tr>
<td>Non-Traditional Participation/Placement</td>
<td>48%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

While most performance targets of CTE Concentrators were met in 2017-18 the target for Mathematics (27%) was not met. Carl D. Perkins performance measures are based on the previous year's student reporting data. For the CTE year ending report submitted August 2018, measurement was calculated from state posted data from SY2016-17. The Federal Government changed the calculation method for mathematics attainment inclusive of the standardized state test scores from 11th grade year. Students who chose to opt out and use their end of year course assessment for graduation are not measured in to the formula, thus reflected in a lower than normal percentage than previous years. This performance data will be released from OSPI later this Spring.
Industry-recognized credentials, dual credit, and cross-credit

**Industry-recognized certificates (IRCs)**

Below is a partial list of industry-recognized certificates and related nationally-recognized assessments current to the 2018-2019 school year. Each year Carl D. Perkins school districts report number of IRCs as a measurement for success. Preparatory courses are required to provide assessment, skill attainment certification, or equivalent.

<table>
<thead>
<tr>
<th>Course</th>
<th>Certification/State/National Recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>Core +, Forklift Cert, OSHA10</td>
</tr>
<tr>
<td>AIE Animation &amp; Gaming</td>
<td>AIE Technical College</td>
</tr>
<tr>
<td>American Sign Language (ASL)</td>
<td>Transfer credit with Seattle (Community) Colleges</td>
</tr>
<tr>
<td>AP Art</td>
<td>AP 2-D and AP 3-D</td>
</tr>
<tr>
<td>AP Economics</td>
<td>AP Economics at Ballard and Garfield</td>
</tr>
<tr>
<td>AP Psychology</td>
<td>AP Psychology at Roosevelt</td>
</tr>
<tr>
<td>Automotive</td>
<td>Automotive YES –ASE exit exam</td>
</tr>
<tr>
<td>Computer Science</td>
<td>AP Computer Science, AP</td>
</tr>
<tr>
<td>Family Health, Nursing Assistant, Medical Assisting, Family Relations</td>
<td>CPR and First Aid, HIV/AIDS</td>
</tr>
<tr>
<td>Human Development; Child/Parenting</td>
<td>Merit Certification for Learning and Transfer credit to Seattle Central College</td>
</tr>
<tr>
<td>IB Psychology</td>
<td>IB Psychology at Ingraham</td>
</tr>
<tr>
<td>Marketing</td>
<td>National Professional Certification in Customer Service</td>
</tr>
<tr>
<td>Medical Careers @ Seattle Skills Center</td>
<td>NAC – Certified Nurse Assistant, HIPPA, First</td>
</tr>
<tr>
<td>Career Essentials, Computer Applications- Microsoft Office Specialist</td>
<td>MOS Core; MOS Expert</td>
</tr>
<tr>
<td>NAF Academies</td>
<td>Nationally Recognized End of Course Exams</td>
</tr>
<tr>
<td>Project Lead the Way</td>
<td>Nationally Recognized End of Course Exams</td>
</tr>
<tr>
<td>Precision Testing</td>
<td>Industry recognized Assessment for various CTE courses</td>
</tr>
</tbody>
</table>

The following sections detail each of our seven strategies for program growth and improvement in Career and Technical Education in Seattle Public Schools for the 2019-20 school year and projections through 2021-22 school years. Each strategic goal statement begins with a summary of what we have accomplished to date and the initiatives we are projecting to do in future years. These initiatives have been developed in conjunction with our program 5-year goal plans and end of year program evaluations. Each section tries to define the metrics by which we will determine whether we are successful in implementing this strategy and how the initiatives and programs are helpful in realizing this strategy.
Plans for Improving Design and Delivery of CTE Programs

**Strategy 1: Evaluate CTE program offerings to provide viable career pathways for future and current workforce demands.**

<table>
<thead>
<tr>
<th>2018-19</th>
<th>Projected for 2019-20 and Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Actions</td>
<td>Key Actions</td>
</tr>
<tr>
<td>• Evaluated programs, developed new course sequences, and launched pilots</td>
<td>• Conduct program review for Business, Marketing, STEM, Skilled Trades, Visual and Media Arts,</td>
</tr>
<tr>
<td>• Created CTE Innovation Lab course at the 7th and 8th grade to enhance</td>
<td>and Agriculture.</td>
</tr>
<tr>
<td>• Designed and executed recruitment strategy for new program pathway</td>
<td>• Collaborate with Seattle Colleges to develop Informational Tech Pathway as part of the</td>
</tr>
<tr>
<td>• Developed plan for out-of-classroom experiences with industry partners</td>
<td>emerging “High School+3” initiative.</td>
</tr>
<tr>
<td>for Health and Medical and Skilled Trades, Information Technology,</td>
<td>• Continue with the evaluation of programs and development of new course sequences in</td>
</tr>
<tr>
<td></td>
<td>• Develop plan for out-of-classroom experiences with industry partners for Art, Design, and</td>
</tr>
<tr>
<td></td>
<td>Graphics.</td>
</tr>
</tbody>
</table>

We set an ambitious vision last year for building out career connected learning pathways tied to high-wage, high-demand jobs across high schools in the district. In a short period, we are already making progress in the efforts to provide more students with the opportunity to engage deeply in promising career fields and prepare for post-secondary success.

Using regular data analyses, we prioritized growth and development of specific career pathways based on reported projections of future and current labor and workforce demands, particularly in the areas of Health and Medical and Skilled Trades. This work has also started in the STEM pathway and Art, Design, and Graphics pathway and will continue into the 2019-2020 school year in collaboration with industry, post-secondary, and community partners who serve on steering committees for this work. We have received commitments from Rainier Beach, Nathan Hale, and Garfield High Schools to launch these pathways in Fall of 2019-20 with incoming 9th graders supporting high demand, family wage careers including in Health and Medical, and in 2020-21 in Skilled Trades and Information Technology (part of STEM). In addition, to continue to grow sustainable programs, we are piloting a new CTE Innovation Lab course at the 7th and 8th grade middle school level to provide students career awareness/exploration in multiple career pathways and problem and design thinking in a STEM learning environment.

CTE team visits with principals resulted in increased collaboration in providing students access to career pathway choices, course planning, and commitment to develop sustainable CTE programs in our schools. This team has also designed and begun executing a recruitment strategy for enrollment connected to these new program pathways and is working with our industry and post-secondary partners to develop plans for out-of-classroom career engagement experiences for Health and Medical, Information Technology, Skilled Trades, and Art, Design, and Graphics.

As we continue to explore how students engage in these pathways and develop successful programs, we
are also looking to replicate exemplary models (e.g., NAF Academy). And now with the recently approved district strategic plan, we will connect this work to our overall, district-wide efforts to provide students with the option of completing career pathways as a way to demonstrate post-secondary career readiness. For example, CTE is working with Seattle Colleges and industry partners to design the course of study and curricular components that students will need to have the most up-to-date information and be ready for entry into post-secondary education or viable careers in these targeted areas.

During the next three years, we plan to improve the breadth as well as depth of pathways across the SPS system. We are working to provide an equitable career pathway structure at each of our high schools which will provide students depth and breathe across CTE at each of our high school sites. We will continue to expand middle school CTE offerings and programs that will compliment with feeder high school program offerings, providing students an easier hand-off and continued skill attainment opportunity at their neighboring high school. Finally, we look to leveraging the data on student interest we will have from Naviance to better guide students towards engaging career area courses and experiences. As noted above, the current focus of this work has been centered around Health and Medical and Skilled Trades, with initial development of an IT Pathway in collaboration Seattle Colleges and the City of Seattle. The following provides additional detail on our focus pathways.

**Health & Medical Pathway:**

Working with support from the Seattle Region Partnership and Washington STEM, we have devoted the most energy and resources to offer students access to a more rigorous and robust Health and Medical Pathway. This includes development of a four-year sequence of courses with dual credit articulations with 9th and 10th grade exploratory courses and 11th and 12th grade preparatory courses and including career connected internship and embedded career focused learning experiences. We started this work with the hope of piloting new course sequences in two schools, but three schools will commit to launching this pathway in 2019-2020, including Rainier Beach, Nathan Hale, and Garfield High Schools. This work is described in greater detail in Appendix B of this report.

**IT and STEM Pathway:**

In collaboration with Seattle Colleges, this academy-like model will include a pathway of courses that will focus on potential career paths in Information Technology, Computer Science, Virtual Reality, and Cloud-based careers. Similar to the Health and Medical pathway model, the IT pathway will provide students a 4-year experience inclusive of exploratory and preparatory coursework aligned with college credit, embedded industry aligned experiences, and an introductory summer onboarding course to help transition our middle school students to high school in this academy successfully. Students who successfully complete this program pathway will be prepared to transition to an Applied Bachelor of Science at Seattle Colleges with up to one year of college credits earned in high school.

Through a shared interest in developing a districtwide K-12 STEM vision, Seattle Public Schools convened a group of leaders from Curriculum, Assessment and Instruction and the Department of Technology Services to take part in the Smithsonian Symposium on STEM Education in July of 2018. This provided the ground work and commitment for providing SPS students with equitable opportunities to engage with deep content knowledge of science, technology, engineering, and math that is authentic, culturally relevant and rigorous in the service of preparation for global citizenship in a constantly changing digital world.
In addition, the CTE team hired a STEM and Middle School Curriculum Specialist to lead this work with other district partners. The focus of this role included a number of new initiatives and projected work, including the development of a STEM Innovation course, intentional career connected learning opportunities for CTE and non-CTE students, and internal and external partnerships to support teacher professional development, curriculum and equipment, and classroom industry mentors described in Appendix C.

**Skilled Trades Pathway:**

We continue to consolidate programs in Construction, Manufacturing, and Engineering to provide students with a vertical program of study that allows for multi-year experiences that can lead to industry-recognized certifications and post-secondary career outcomes. As part of the strategy of deepening the pathways available to students, this Skilled Trades pathway will take advantage of Career Connected Learning Coordinators (CCLCs) at the site level to offer internships and avenues into career aligned opportunities to support student success. To ensure that the courses in this cluster are industry- and trade-aligned, we are rebuilding the membership of advisory groups and adding new partners to develop authentic learning opportunities that provide students with relevant and applicable skills. Additionally, those leading the Skilled Trades pathway are evaluating articulation agreements and working with Seattle College partners to build out pathways that allow students to matriculate from Seattle Public Schools with earned college credit into Seattle Colleges and take advantage of the Seattle Promise to continue their career connected learning.

**Business/Marketing Pathway:**

Business and Marketing pathway courses are distributed in all but one comprehensive high school in our district. In 2019-2020 we are projected to have all comprehensive high schools on board offering courses in one or more business and marketing pathways areas. Additionally, this pathway will be undergoing a comprehensive program review, which will include review of all courses, development of programs of study, and alignment of courses offerings, curriculum, resources, and equipment across all district high school sites. One example of this work this year includes working with the Business Law and Ethics curriculum. Through this collaborative work, Business instructors engage in the development of standards and common performance assessments and evaluate and select appropriate curricular resources. In addition, we are partnering with Seattle University to provide students the opportunity to take Introduction to Business on the Seattle University campus and earn high school/college credit.
Strategy 2: Increase rigor through industry-recognized credentials, dual credit, and cross-credit opportunities.

<table>
<thead>
<tr>
<th>2018-19</th>
<th>Projected for 2019-20 &amp; Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Actions</strong></td>
<td></td>
</tr>
<tr>
<td>• Aligned SPS career pathway structure to Seattle Colleges.</td>
<td>• Increase number of students participating in dual credit courses.</td>
</tr>
<tr>
<td>• Engaged all pathways in an annual program evaluation process and development of 5-year program goals.</td>
<td>• Formally evaluate all CTE programs.</td>
</tr>
<tr>
<td>• Refined approach to cross-crediting in Fine and Visual Arts.</td>
<td>• Articulate dual credit opportunities for students to new colleges and seek new college partnerships for alignment of career pathways and college articulations.</td>
</tr>
<tr>
<td>• Increased opportunities for students to participate in dual credit options through Seattle Colleges for both CTE and non-CTE courses and articulation of courses for Culinary, Education &amp; Human Services, Skilled Trades, Engineering, and Welding.</td>
<td>• Develop marketing materials to better communicate new opportunities to families about dual credit and programs of study through Seattle Colleges.</td>
</tr>
</tbody>
</table>

This year, our CTE team has been working on initiatives to promote quality CTE programming across our school sites. Each school program and teacher completed a comprehensive annual CTE program evaluation and 5-year goal plan. These documents have been used this year to guide program improvement and support state and national compliance. Program and pathway advisory committees annually support and approve the annual evaluations and improvements are recommended and are turned in to goals on their school’s 5-year goal plan. These plans will be developed collaboratively among program teachers and updated annually.

In addition, our National Academy Foundation (NAF) model programs at Chief Sealth, Franklin, and Ballard High Schools went through an assessment and review of their programs based on the NAF standards which have revealed areas of growth for their respective academies. This assessment is aligned to national industry standards in each of those career pathway areas, conducted by the local academy industry advisory boards, and reviewed and approved by NAF officials to continue district membership status.

Dual Credit – We also seek to raise the quality of CTE programming by providing students access to college preparatory courses. We provide this through access to college-level credits for students through completion of high school CTE courses articulated with our local colleges. College-level credit in CTE is earned through Dual Credit, College in the High School, Advanced Placement, or International Baccalaureate programs.

Through a Dual Credit (formerly Tech Prep) articulation agreement with Seattle Colleges, students are eligible to earn college transfer credit that can be used if students enter Seattle Colleges any time after graduating high school. These college credits are transferable and can be utilized for credit at both in-state and out-of-state colleges provided they are accepted. Students must earn a “B” grade or better during the course and register for the course prior to completing the high school course. During the 2017-18 school year 551 CTE students earned a total of 2826 college credits. While we note the drop in the number of participating students in the last two years, we believe that we will be able to increase offerings in the coming year given improved planning and coordination with Seattle Colleges staff this year.
Cross Credit - We also continue to offer additional academic credit provided by CTE courses. Cross-credit is earning an academic credit that meets two subject-specific graduation requirements. With the change in graduation requirements, reduction in required CTE credits to graduate, opportunities for students to obtain cross-credits is crucial. Multiple CTE courses are cross-credited to other academic subject areas. See the table below. The CTE team began the collaborative process with other departments in CAI to refine how students would earn Cross-credit and Occupational Education credits. For example, we established a process for providing quality instruction in both Arts and CTE standards in each of the disciplines for each course cross-credited in these two areas. This process will align with professional development practice for CTE program reapproval beginning next year with the goal of replicating this process with other departments in CAI in the future.

### NUMBER OF CTE COURSES CROSS-CREDITED, BY SUBJECT AREA

<table>
<thead>
<tr>
<th></th>
<th>Number of Cross-Credited Courses Available in SPS</th>
<th>Number of Cross-Credited Courses Provided in 2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CTE-established cross-credited courses</td>
<td>123</td>
<td>67</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>28</td>
<td>18</td>
</tr>
<tr>
<td>Math</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>Science</td>
<td>48</td>
<td>20</td>
</tr>
<tr>
<td>Social Studies</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>World Languages</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Language Arts</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Overall, with the new district strategic plan calling out the need for students to complete a CTE pathway as one way to demonstrate postsecondary readiness, we will need to get more precise on how we define pathway completion to ensure that it is actually helping students prepare for postsecondary success. As an example, based on our development of the Health and Medical Pathway, our working definition of an Industry Career Pathway has been an intentional and coherent series of courses and supplemental learning experiences (in-school, after school, and out-of-school /summer) that are aligned with a variety of careers in a particular industry, providing students with the opportunity to explore careers and learn academic and technical skills that will truly prepare them for a postsecondary credential or degree leading to success in the early steps of an industry specific career.
### Strategy 3: Expand internships and Work-site learning opportunities.

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>2018-19</th>
<th>Projected for 2019-20 &amp; Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Launched Career-Connected Learning Coordinator work at high schools.</td>
<td>• Developed long-term plan for access to paid and non-paid internships and credit retrieval work-site learning opportunities.</td>
<td></td>
</tr>
<tr>
<td>• Increased access for CTE and non-CTE students to career-connected learning experiences.</td>
<td>• Attain specific target goals for internships, apprenticeships, and enrollment in Career Essentials/Career Choices classes.</td>
<td></td>
</tr>
<tr>
<td>• Designed the “Youth Career Experience” initiative.</td>
<td>• Conduct a districtwide Career Fair</td>
<td></td>
</tr>
<tr>
<td>• Provided all high schools with access to multiple pathway field trip experiences.</td>
<td>• Develop and launch TEAMS206 Collaborative Internship initiative Summer 2020.</td>
<td></td>
</tr>
<tr>
<td>• Developed plan for 2019-2020 career-connected learning experiences for middle school.</td>
<td>• Increase access to Teacher Externship Experiences.</td>
<td></td>
</tr>
<tr>
<td>• Developed long-term plan for access to paid and non-paid internships and credit retrieval work-site learning opportunities.</td>
<td>• Pilot work-site learning online database in SharePoint for CCLC access to industry partners interested in working with schools.</td>
<td></td>
</tr>
</tbody>
</table>

This past year, we took the bold step of adding certificated Career Connected Learning Coordinators (CCLCs) to all high schools and began providing more career connected learning exploratory opportunities to all high school students. High schools with limited CTE choices were provided some flexibility to provide Career Essentials classes so that 9th and 10th graders were oriented to career pathway options or providing Worksit learning opportunities for advanced CTE students. Taking this step enabled us to increase access for non-CTE students to career-connected learning experiences and increase access to career pathway exploratory courses and work-site learning internship opportunities. Moreover, in adding these positions, we learned a great deal about how best to integrate these new staff members into the schools’ overall efforts to improve counseling, career guidance, and access for students to work-based learning outreach activities.

This spring we will continue to increase access to districtwide work-based learning for all school sites so that students can explore interest in career pathways. Additionally, the summer internship program will continue to help us meet our goal of a 10% increase in work-site learning experiences when compared to prior years. To that end, the CCLCs at each of the sites are vetting students to apply for internships for Summer 2019. As of Spring, our regular school year work site learning internships have reached over 300 students by Spring, with career exploration outreach activities reaching 2700 students including youth career experiences and job shadows.

Next year, we plan to launch additional new initiatives and tools to increase access to quality work-site learning experiences. We will create a work-site learning online database to provide access to work-based learning activities aligned with Strategy 6. This database will help us connect with external
partners to expand work-site learning internship opportunities. For example, we are participating in an all-district medical career fair in connection with Swedish Hospital and the Health Industries Leadership Team committee. In addition, we plan to fully develop a “Youth Career Experience” initiative which allows students to participate in short career-connected learning job shadow opportunities, particularly for middle school students and programs run by the City’s Office of Economic Development (OED). This will result in SPS students participating in more work-site learning experiences during Spring Break 2020 with the goal of dramatically expanding these opportunities across pathways during Spring Break 2021.

In connection with Strategy 7 in this plan, we are also developing a marketing campaign for our work-site learning programs to help onboard students and partner with local businesses. We will work with SPS communication team to update materials and develop more exciting marketing materials for students and parents on these opportunities.

In the coming year, we will plan to provide significantly more central guidance to schools and their CCLCs on how best to leverage this position to increase quality work-site learning opportunities for their students. This guidance will be developed based on our learning from the great work that our high schools did this past year. We will develop a work-ready bootcamp for Fall 2019 and Spring 2020, create manuals, common metrics, and presentations, and provide tools for students, principals, CCLCs and business supervisors. We will also flesh out a long-term plan for access to paid and non-paid internships and credit retrieval worksite learning opportunities. We have started this effort by working with Seattle Colleges and Seattle Academies Foundation (SAF) to expand “Try-A-Trade” conferences for the Business and Hospitality career area. We also continue to work with Price Water House Cooper to offer auditing experience for SAF students. And we are making STEM industry connections to generate a pool of STEM professionals who would visit classrooms to provide students with a career-connected learning experiences.

A centerpiece of this long-term plan will be the launching of the “LAUNCH206” Summer Internship Program. This will be 6-week group internship program for high school-aged students connected to a CTE pathway. This is built on a national model of having students engage in a collaborative team internship at an industry worksite while spending 6 weeks learning about the industry through industry assigned mentors. The Collaborative internship model is an innovative, hands-on concept designed to increase the quantity and quality of meaningful paid internship experiences available for students to participate and prepare for future careers. The collaborative focus supports a growth mindset for both student interns and industry leaders. Businesses host a team of interns and provide mentorship and guidance in a group setting. Students are exposed to business operations and additionally are learning the company culture, expectations and values, and business practices through a team environment. During this experience, students will learn principles of Design Thinking, apply these principles to specific projects, and present their ideas to company leaders at the conclusion of the six weeks. Students will also learn what post-secondary education they would need to obtain higher-level positions in a particular career area and gain other valuable insights important to success in a specific industry.

We plan to pilot LAUNCH206 in the Summer of 2020 with the starting goal of 24-36 students placed in teams of 6 in 4-6 local businesses. This, in addition, will connect with the Mayor’s new Opportunity Promise program which seeks to provide Seattle Promise students with summer internship opportunities. We look forward to coordinating with staff from Seattle Colleges, DEEL, and OED to conduct outreach to interested industry partners and development of this program this year. To that end, we are also looking to link the work for the Colleges’ Student Success Specialists, who will support
the implementation of Seattle Promise, with that of the CCLCs. And we will look for funding sources, such as OED grant funds, to support funding small stipends in conjunction with high school CTE credit. Ensuring that these work-site learning experiences provide value-added incentives will be critical for boosting participation.

We will also strengthen the work of the site based CCLCs by improving curriculum alignment and research and adopting common frameworks and curriculum for scope of Career Choices courses. We will leverage information gathered through Naviance on what career interests SPS students have to guide their planning of these courses and work-site learning experiences. These efforts could be beneficial to connecting internships and other work-based learning activities to stackable certifications. In addition, a key goal will be to identify sustainable funding for CCLC positions and develop a long-term plan for common metrics for each CCLC.

Ultimately, all of this work will connect to specific goals within our long-term plan for CTE. This includes career-connected learning middle school experiences beginning in 2019-20, attaining specific target goals for internships, apprenticeships, and enrollment in Career Essentials/Career Choices classes. We ultimately want to have full Career Connections/Career Launch course available in all high schools supporting students’ high school and beyond planning and providing access to career specific internships per year. We look forward to working with the many partners interested in this work to help reach these lofty goals (see Strategy 6 on expanding partners).
Strategy 4: Improve facilities and viability of the Seattle Skills Center

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>2018-19</th>
<th>Projected for 2019-20 &amp; Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improved systems for students to learn about and access Skills Center school year and summer courses.</td>
<td>• Continue to work towards offering a majority of courses in a more central location.</td>
<td></td>
</tr>
<tr>
<td>• Decreased the cost of the Skills Center to SPS.</td>
<td>• Increase enrollment and decrease subsidy needed from SPS, with goal of being cost-neutral for SPS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Improve systems for transportation of students to Skills Center courses.</td>
<td></td>
</tr>
</tbody>
</table>

As outlined in the past two year’s CTE Annual Reports, we continue to work to improve the Skills Center and align efforts with those of the CTE Department.

Background:

Presently, the Seattle Skills Center is the only single-district Skills Center site in Washington State. Throughout the state, Skills Center courses serve multiple purposes: 1) as a certificate-earning capstone experience for specific CTE pathways, 2) as an opportunity to help students continue to focus their college and career goals, and 3) to help students gain relevant skills and knowledge that can result in higher wages and increased likelihood of employment, whether they attend a four-year university, a certificate program, or go straight into a career following high school. In Washington State, all Skills Centers offer credit-earning, advanced, “preparatory” CTE courses for 16 to 20-year old students during the school year, and introductory, or “exploratory”, credit-earning courses in the summer. School year courses are normally 2.5 hours per day, every day, and summer courses are usually 4.5 hours per day for the month of July.

For the past two school years, the Seattle Skills Center has provided career-connected learning opportunities to more than 550 students each year and has steadily decreased the cost of a subsidy from the district and is getting closer to becoming cost-neutral.

Pathways:

The Seattle Skills center is aligned with the SPS CTE department in our primary focus on three career pathways:

1. Health and Medical
2. Information Technology
3. Skilled Trades (aerospace, maritime, construction).

The Skills Center is moving towards cost neutrality:

The need for a subsidy from the district to run Seattle Skills Center has decreased significantly for the past three consecutive years. This positive trend is due to factors including:

• Increased enrollment in school year and summer through marketing and increased quality of courses.
• Improved systems (e.g., online application process).
• Decreasing expenditures in each course.
• The fact that while the FTE we can claim has decreased (from .6 to .54 FTE), the state apportionment per FTE has increased slightly.
• Ongoing efforts to gain grants to offset cost of supplies and equipment. Partnerships with industry, labor, and community organizations.

Our goal is to be cost neutral by August 31, 2020. While we have steadily increased and stabilized enrollment in school year and summer, some barriers continue to offer challenges.

• Locations of courses: While some courses are located near the center of the district, others are located less centrally, making it difficult for students from other parts of the city to attend these classes. As outlined in last year’s CTE Annual Report in Strategy 4, to increase equity of access to Skills Center classes, we are working to place a majority of Skills Center courses in a central location in the district, ideally, close to major bus routes and light rail.
• Instructor continuity: As we build our team of teachers, we are working to hire experienced and effective instructors who will stay for multiple years and add value to our program. We are also partnering with Human Resources to provide professional development to support our teachers as they grow in this profession.
• School schedules: As the district considers narrowing the options for high school schedules, it will be important to ensure that schedules allow students to engage in opportunities like the Skills Center.
• Transportation: We are working with the Operations and Transportation team to improve how we transport students next year, including the use of vans instead of taxis to decrease costs. Additionally, the eventual concentration of Skills Center courses more centrally will decrease the cost of transportation with fewer van or bus routes and increased use of public transportation.

Skills Center Planning for future years:

As the Skills Center continues to explore how best to serve students and prepare them for viable college and career pathways, while at the same time making the Seattle Skills Center financially self-sufficient, staff will continue to utilize these criteria to determine courses and locations for future years:

• Historical enrollment data from previous years of school year programs.
• Survey data from families and students.
• Registration and “interest forms” for our summer courses (one predictor of school year course popularity).
• Reports from Washington Roundtable/Boston Consulting Group report, 2016, and ongoing job forecasting from partners at UW, WASTEM, and others.
• Community support (e.g., opportunities for grants, internships and other work-based learning, and collaboration with partners).
Strategy 5: Improve central office program administration and support to schools

<table>
<thead>
<tr>
<th>2018-19</th>
<th>Projected for 2019-20 &amp; Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Actions</td>
<td></td>
</tr>
<tr>
<td>• Launched a new Budget Needs Assessment (BNA) process.</td>
<td>• Update CTE funding guidance within the district’s Weighted Student Funding Formula and Gold Book.</td>
</tr>
<tr>
<td>• Created online modules to provide CTE specific information for onboarding of new instructors.</td>
<td>• Develop detailed plans to support new hires to CTE.</td>
</tr>
</tbody>
</table>

In last year’s report, we committed to continuing our efforts to organize central staffing and operations in a way that efficiently supports our overarching plan and strategies. We conducted a reorganization of the central office CTE team last year to improve efficiency and quality of service and to shift more resources to schools where possible and appropriate. This year, we have continued to re-organize the CTE team to ensure that schools receive tailored, personalized support, their work is strategically aligned, and our initiatives are connected to specific measures of success. Specialists have transitioned to a generalist role to provide strong site-based support and content teacher leaders will be assigned from program areas to support specific content needs of teachers for Professional Learning Community (PLC) work. We have also hired new staff to support the implementation of Strategies 1-7. Please see Appendix A for more details on CTE staffing.

We improved the efficiency of our CTE operations and support for schools this year most notably, through implementing a new Budget Needs Assessment (BNA) process, developed focus on priority spending based on needs assessments, and refined our overall budgeting and data tracking across our CTE programs. We have also created online modules to provide CTE specific information for onboarding of new instructors. In the coming year, we plan to build on these efforts by updating CTE funding guidance within the district’s Weighted Student Funding Formula and Gold Book and developing more detailed plans to support new hires to CTE.
Strategy 6: Expand Partnerships and Community Outreach

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>2018-19</th>
<th>Projected for 2019-20 &amp; Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hired central staff member to lead growth of career connected learning partnerships.</td>
<td>• Develop strategic plan for adding additional partnerships including consistent communications and outreach plan.</td>
<td></td>
</tr>
<tr>
<td>• Created new partnerships (e.g., Seattle Maritime Academy, Pine Street Group LLC, Clarke Construction, Silver Cloud Hotel, Charlie’s Produce).</td>
<td>• Attain specific targets for developing partnerships.</td>
<td></td>
</tr>
<tr>
<td>• Finalized draft CTE partnership framework.</td>
<td>• Develop Career Connect Webpage.</td>
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</tr>
<tr>
<td>• Developed accessible online tool for connecting to outside business and industry.</td>
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</table>

This year, the district’s CTE team wanted to ensure that outside organizations and employers interested in partnering with our district can easily connect with our schools and programs. As a part of this work, we worked with the school-level CCLCs and a district-level Internship and Career Pathways Coordinator to build new partnerships (see example of this from Franklin High School in Appendix E). As a result, many new employers and businesses have worked with us this year to align with our prioritized pathways. Examples include Redfin in STEM, Seattle Maritime Academy and the Manufacturing Industrial Council in Maritime Operations, Pine Street Group LLC and Clarke Construction in Construction Trades, Swedish Medical, Kaiser Permanente, and Symbiosis Lab in Health and Medical, and Silver Cloud Hotel, Washington Hospitality Association, and the Sound Hotel in Hospitality Management, Charlie’s Produce in Culinary & Hospitality and Education and Human Services. Also, Price Waterhouse Cooper partnered with SPS’ NAF Finance Academy students to foster interest in the auditing profession. We are currently working with Kaiser Permanente and Swedish in Health and Medical, the Port of Seattle in Maritime and Skilled Trades, and Amazon in STEM on new initiatives for 2019-2020.

Modeled after Denver’s partnership continuum and CareerConnect Washington, we also refined the partnership continuum we drafted last year to reference how partners can become involved with CTE (see draft in Appendix D). These areas include Career Awareness/Exploration, Career Launch, Career Preparation, and Career Support. This framework will directly support K12 career connect in SPS. In the Fall of 2019, we will launch a more user-friendly online tool for interested businesses and employers to submit information to a database supported through the CTE district office and accessible by the CCLCs at their sites. Next steps include the development of a webpage dedicated to career connected learning and the expansion of an online tool to include student access to match with internships and other student-centered activities. Moreover, we will work to make sure these tools and resources align closely with the goals of the district’s new strategic plan to ensure any future partnerships prepare students furthest from educational justice for postsecondary success.
Strategy 7: Engage in recruitment and marketing to increase enrollment.

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<thead>
<tr>
<th>2018-19</th>
<th>Projected for 2019-20 &amp; Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Actions</td>
<td>• Refined communications materials with a partnership with the Puget Sound Educational Service District.</td>
</tr>
<tr>
<td></td>
<td>• Launch a citywide advertising and marketing campaign for career connected learning.</td>
</tr>
</tbody>
</table>

In last year’s report, we added a seventh strategy on how we can strategically and systematically improve our recruitment and marketing efforts to increase participation in CTE. We have begun this effort to better market and rebrand traditional CTE programs as Career Connected Learning (CCL) in two ways. First, we are working with the Puget Sound ESD to create better communications documents starting with our prioritized pathways. In Appendix F, you can see a draft example of this work for Health and Medical pathway. This document illustrates our efforts to make this work clearer and more compelling and is designed to help families see what exciting CCL opportunities there are for their children in SPS, school leaders understand how to connect their teachers and programs to the district’s larger vision for support of this work, and industry partners to understand how they can get involved.

Second, we have started to engage with experts in advertising and branding to help us develop a multi-year strategy for changing the mindset and conversation about CCL and CTE in this city that will continue in the coming year. Initial ideas from those conversations include conducting formal research on the perceptions and attitudes towards CTE among Seattle residents. This broader effort will also help us take the proposed sequence of career connected learning activities to which all SPS students should access and connect it to a compelling branding effort that will result in increased participation in the district’s CCL programs and opportunities (see draft vision of K-14 of Career-Connected Learning Continuum from last year’s report below).

Draft Vision of K-14 Career-Connected Learning Continuum:

Elementary:

- 4th and 5th grade students:
  - Introduction to a range of career pathways through field trips, guest speakers, and hands-on activities (example, Living Computer Museum, Boeing, Port of Seattle, Swedish Medical center)
- Middle School 6th, 7th and 8th graders:
  - Participate in field trips, hand-on activities, and meet and hear from people who work in a range of industries.
- Summer between 8th grade to 9th grade:
  - Students take a summer Skills Center course for a .5 HS CTE credit. Focus is on learning high school study skills, employability skills, working on their High School and Beyond plan, and identifying other CTE or Skills Center courses they might be interested in.
- 9th Grade:
  - Students take a CTE and/or STEM-focused course that is related to a possible career pathway of their interest and participate in field trips, hand-on activities, and meet and hear from people who work in a range of industries. Ideally, students also take a Career Essentials class.
- Summer between 9th and 10th grade:
- **10th Grade:**
  - Students take a CTE and/or STEM-focused course that is related to a possible career pathway of their interest, and participate in field trips, hand-on activities, and meet and hear from people who work in a range of industries. Ideally, students also take a Career Essentials class. Students participate in job shadows, site visits, and learn how internships work. Students consider a Skills Center course they may want to take during 11th grade. (e.g., “Youth Career Experience” initiative)

- **Summer between 10th and 11th grade:**
  - Students take a summer Skills Center course for a .5 HS CTE credit. Focus is on learning high school study skills, employability skills, working on their High School and Beyond plan, and identifying other CTE or Skills Center courses they might be interested in. Students consider a Skills Center course they may want to take.

- **11th Grade:**
  - Students take an advanced/preparatory CTE or Skills Center course.
  - Students earn dual credit through Seattle Colleges for their coursework.

- **Summer between 11th and 12th grade:**
  - Students have paid, high school and college credit earning, internship in a job closest to the career pathway of their choice (e.g., “TEAMS206 Initiative”).

- **12th Grade:**
  - Students take an advanced CTE or Skills Center course.
  - Students earn dual credit through Seattle Colleges for their coursework.

- **Summer after 12th**
  - Paid, dual credit internship (Skills Center).

- **Year one, Seattle Colleges:**
  - Continue credit earning classes and internships towards a Applied Bachelor of Science

- **Year two, Seattle Colleges:**
  - Continue credit earning classes and internships towards a Applied Bachelor of Science

- **Year Three, Seattle Colleges**
  - Graduate from Seattle Colleges with a Applied Bachelor of Science in one of the available fields.
Appendix A: Central CTE Staffing

Central Office CTE Staff for 2018-19

Administrators
Director, Career and College Readiness ................................................................................... Caleb Perkins  
CTE Program Manager ...............................................................................................................Jane Hendrickson

Support Staff
CCR Operations Lead ............................................................................................................. Debra Knickerbocker  
Business Analyst II Joy Turner  
Fiscal Analyst .........................................................................................................................Wendy Durham  
Administrative Assistant .........................................................................................................Robyn Redfield  
Office Specialist .....................................................................................................................Hilary Gray

Certificated Curriculum Specialists
Career Pathways and Internship Coordinator .........................................................................Kathryn Searle  
STEM, Computer Science, and Information Technology .........................................................John Parker  
Skilled Trades, Media Arts and Communications .....................................................................Harvey Wright  
Business, Marketing, & Academies .........................................................................................Maria Herrera-Lofton  
Health & Human Services, Family & Consumer Sciences, and Agriculture ......................Susan Grant

Seattle Skills Center
Skills Center Principal ..............................................................................................................Dan Golosman  
Administrative Secretary/Registrar .........................................................................................Jennifer Toth  
Administrative Project Assistant .............................................................................................Angel Menchaca
Appendix B: Health & Medical Pathway Project Overview

The Health Services Pathway Project (HSPP) is a collaborative effort between Seattle Public Schools, Seattle Colleges, and Washington STEM, with regular advising from Swedish Health Services, Kaiser Permanente, King County Public Health, and the Health Industry Leadership Table. We are working to build a career-connected learning pathway focused on health & medical careers in Seattle Public Schools to dramatically increase the number of students interested in and pursuing postsecondary credentials in health careers at Seattle Colleges and other institutions of higher education. We propose to build a Health & Medical Careers Pathway at two or more Seattle Public High Schools starting in the fall of 2019 that includes:

- 4-year sequence of courses
- Real-world, problem-based, and hands-on Career Connected learning opportunities
- Intensive career awareness and exploration beginning in 9th grade so young people learn about the wide range of career options in healthcare, and the commensurate range of degree and credential requirements for those careers
- Career preparation and training through work-based internships for every student in the pathway
- Teacher externships to ensure teachers have the most up-to-date skills and experiences to draw from in their curriculum design and instructional approach

This is a new pathway program for Seattle Public Schools that is modeled on successful well-established long-running programs in Denver, CO, Vancouver, WA, and National Academy Foundation Health Science Academies located across the United States.

The Need and The Opportunity

The Seattle region is currently experiencing a shortage of employees trained at all levels in health and medical careers, and the region’s healthcare industry is projected to grow 23% in the next decade. Health careers can appeal to many different types of young people, such as those who like science, those who want to help others, those who like active jobs, and more. Additionally, our workforce lacks the racial, linguistic, and socioeconomic diversity that our region needs to best serve all of our residents.

Yet students are interested in health & medical careers: as of the October count, 2,057 students are enrolled in one of the myriad health-related courses that are currently offered in Seattle Public Schools, and this does not include basic science courses. 80 of those students are enrolled in one of two career preparation programs offered via the Seattle Skills Center - Nursing Certified Assistant and Medical Assisting. Almost 300 students are enrolled in the School of Life Sciences at Cleveland High School which is a biological science program which attracts many healthcare- interested students and provides them a critical academic foundation but does not include any career training in healthcare skills, knowledge, or dispositions. Finally, the remainder of the students are taking a one-off health-related elective that is not part of a pathway, only loosely educates students about career options, and does not do any explicit career exploration or training.

We know from intentional course visits and focus groups conducted in the fall of 2018 that students are interested in health careers.

- One student in a biotechnology class told us she was taking the course because “I want to be a nurse but I can't get to the nursing program from where I live.”
• In another section of biotechnology, fully half of the students are planning on postsecondary study in the healthcare field.
• After a short, 30-min panel featuring two health practitioners with a group of approximately 50 8th grade students in the fall of 2018, two-thirds of the group expressed interest in learning more and possibly pursuing a career in health services.

Career pathway programs are especially useful for students who’ve not historically found success in the traditional school environment. According to one report:

Many students drop out of high school and college programs in part because they are unable to see any connection between what they are learning and what they may one day be doing professionally. They ask, “Why do I have to learn this?” By linking student learning to career pathways, work-based learning programs can lower the dropout rate (NAF, 2011). Indeed, research has found that students in work-based learning programs complete related coursework at high rates and have higher attendance and graduation rates than those not enrolled in such programs (Colley & Jamison, 1998).

Project Information
The Health Services Pathway has been under development for the past 9 months and will launch in the fall of 2019 with the debut of a 1-semester “Intro to Medical Careers” course. Currently the course is on the registration forms for four Seattle high schools - Chief Sealth, Rainier Beach, Garfield, and Nathan Hale. Student demand will drive the ultimate selection of the schools, and we are in the middle of an active student recruitment campaign to educate students and families - especially low-income students and students of color - about both the course and broader career opportunities in health and medicine. Our current outreach campaign includes:
• Direct outreach to middle- and high school counselors and administrators via e-mail and webinar
• Career panels in feeder middle schools
• Distributing information to families via community-based organizations supporting low-income or historically underserved families

The goal of the Intro to Medical Careers course is to build awareness of health careers beyond becoming a doctor, dentist, or nurse. We are particularly interested in building awareness of family-wage pathways that require only a Bachelor’s degree or less to gain an entry-level position, and which immerse workers in true clinical settings where they can build their skills and earn money while deciding whether or not to pursue longer-term training in medicine, nursing or research. We also want to support pathways that include intermediate wage-earning opportunities for students waiting for a spot in a nursing program as those programs are especially hard to get into due to a shortage of available slots in our local region. Some of the in-demand, family-wage careers we are trying to encourage include:

<table>
<thead>
<tr>
<th>Job</th>
<th>Average salary in the Seattle region</th>
<th>Degree required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Assistant</td>
<td>$43,710</td>
<td>Certificate</td>
</tr>
<tr>
<td>Surgical or Radiologic Technician</td>
<td>$76,160</td>
<td>Associate’s degree</td>
</tr>
</tbody>
</table>
The Intro to Medical Careers course will include several opportunities for students to visit workplaces and interact with healthcare professionals, building their awareness of a range of medical careers and connections to local professionals. These may be clinical settings such as PacMed, a training and clinical facility operated by our partner Seattle Colleges, as well as the hospitals and administration buildings operated by Swedish and Kaiser, and the community health clinics supported by King County Public Health.

### A Note on Employer Partnerships

Since its inception in April of 2018, the HSPP has had a close relationship with representatives from the healthcare industry, a practice that continues today. Our Steering Committee originally included the founding program manager of the Health Industry Leadership Table (HILT), a coalition of industry representatives who share a goal of expanding training and development opportunities to ensure a thriving healthcare workforce in the Seattle region. We collaborate at least monthly with dedicated representatives from Swedish Health Services, Kaiser Permanente, and King County Public Health, and have recently become a top priority for the Talent Pipeline Subcommittee of the HILT, a committee of 6-10 businesses committed to supporting career awareness and preparation for young people across the region. These representatives helped to staff our career panel in the fall of 2018, have given input on high-demand careers and the training and preparation they look for when hiring for those jobs, and are on deck to help advise on curriculum and student career awareness activities when our students are ready for them.

After students successfully complete the Intro to Medical Careers Course, there will be a pathway course available to them for each subsequent year of high school. We are actively working with our employer partners and steering committee members to determine what those courses will be. Anatomy & Physiology will definitely be one of the courses, either in the 10th or 11th grade year. Other possible courses that we are actively assessing include: Psychology (behavioral health), Sports Medicine, Nutrition, and/or Global Health. In order to make a determination about the sequence of courses, we are working with our industry partners and considering the skills acquired, labor market demand, and student interest.

Other key pathway development considerations include:

- When and how to build a work-based internship into the pathway. We know that work-based experiences are critically important for students to develop job readiness skills, a professional identity, and social connections that can help young people - especially youth of color - access opportunities in the field. We are mindful of state regulations that an inhibit young people from working in heavily-licensed fields, as well as traditional state requirements for hours rather than competency required to grant credit, yet we believe that carefully planned experiences can adhere to these requirements and provide students meaningful job-embedded experiences at the same time.
Additional student support to help previously low-performing students succeed in the pathway. Our project charter and steering committee values are explicit that we see this pathway as a way to promote equity, to diversify our local healthcare workforce, and to improve educational outcomes for historically underserved students. Knowing that, we hope to encourage many previously low-performing students to take the Intro to Medical Careers course. If they are “hooked” on a health career after the course, as we hope will happen, we expect they will need additional support to stay on track, especially as we encourage them to continue taking challenging math and science courses in support of their pathway courses. We are requesting funds for additional teacher & counselor time from this grant knowing that those adults will be the ones to provide and/or organize additional support opportunities for struggling students.

Intentional course connection through placement and dual-credit opportunities between Seattle Public Schools and Seattle Colleges. We know that there is nothing more demoralizing than having to repeat a course due to the fact that systems do not talk to each other. Further demoralizing is when that course costs money or takes away from other potentially paid opportunities. As such, we have begun exploring potential redundancies between our intended high school pathway courses and the prerequisites for most Allied Health degrees at Seattle Colleges. Our goal is to help students earn college credit while still in high school for as many of the “gateway” prerequisite courses as possible so they can move directly into career-aligned postsecondary coursework after high school. Our steering committee includes key members of the Workforce and Navigation teams at Seattle Colleges who are ready to welcome, through a warm handoff to open arms, students who successfully complete the health services pathway in Seattle Public Schools.

Building job readiness competencies into CTE course frameworks. CTE courses across the state are already required to include work-readiness skills in their frameworks, and SPS has a long history of success with this. As we build or revise frameworks for pathway courses in conjunction with teachers and industry professionals, we will be seeking to incorporate the following skills:

- A team work ethic and problem-solving, as evidenced through project-based learning. One common activity in an Intro to Health Careers Course is for a small group of students to deeply study a disease, to work together to diagnose it based on common symptoms, and to develop a healthcare plan to help the patient manage or recover from the disease.
- Verbal communication. Healthcare professionals need to be able to speak clearly and respectfully with their patients and other colleagues. Many health courses including Sports Medicine, Nursing Certified Assistant, and Medical Assisting include learning to take vital signs and provide basic patient care.
- Career-specific skills and certifications, such as HIV/AIDS, First Aid/AED, and CPR.
Appendix C: STEM Pathway Overview

A robust CTE pathway begins intentionally with experiences in the middle school grades, if not before, and continues through to multiple post-secondary options. Given this, the STEM pathway begins in middle school with a STEM Innovation Lab course which will offer students a wide variety of experiences in computing, design, and engineering or the middle school computer science course. Students can also engage in multiple career exploration experiences to expose students to a variety of careers using STEM career panels and participation in individual and collaborative STEM design experiences and showcase their work (e.g., STEM EXPO). The development of this pathway then continues into high school and beyond with exploratory and preparatory courses and career-connected internships.

The following efforts and initiatives support our development of this STEM pathway:

- **Embed industry engagement in middle school science courses** - In partnership, the district-level CTE and science teams collaborated to plan a STEM career-connected learning experience for students in middle school science classes. SPS science teachers agreed to have STEM professionals visit their classrooms to talk about their pathway into their career pathway. CTE and Science will continue to collaborate to expand the program to more science classrooms with an emphasis on bringing professionals of color, especially African-American males, to classrooms to inspire our students. In addition, this program will grow to mentor teams of students to solve problems and present to industry panels in a districtwide STEM expo to showcase science student work.

- **Increase access to computer science and create consistency in instructional resources for middle school computer science courses** - The CTE department is working to help middle school computer science teachers attend Code.org Discoveries training over the summer and into the school year. This initiative will begin to provide high quality middle school resources in computer science across the district. Code.org Discoveries was chosen because of recommendation by the City and SPS Computer Science Advisory Committee. The purpose is to provide all students an experience with computer science and create awareness of career opportunities in computer science fields.

- **Increase career connected learning activities for students at the middle schools** - The middle school Adopt-a-Classroom Project will pair a software developer with a middle school computer science class to demystify for students the process of becoming a software engineer. The program will feature small groups of students visiting the engineer’s worksite to share back with the other students what it is like to work in in a in a professional team. In addition to scheduling classroom visits and worksite visits, the planning team will structure and script short, weekly skype sessions between the professional and the class so that the software engineer can build and maintain the relationship with the students, introduce new class projects, talk about 21st century skills and share team-building messages with the students. The planning team is working to provide professionals of color for our schools in this partnership. Students of color, particularly Africa-American males, will get priority for these work-site visits in alignment with our district vision of targeted universalism. The planning team is working to pilot this program in the 2019-2020 school year.

- **Introduce Innovation Lab Course for Middle Schools that currently offer very little CTE programming in 2019-20** - Although our enrollment in MS CTE has increased this year, we have declined in the number of school sites decreasing by one from 15 to 14 school sites. To provide schools that have challenges with staffing or enrollment, the district CTE team developed a course which will allow students to explore STEM opportunities in all career pathways through exploring STEM design. CTE is working with two middle schools to create and pilot an Innovation Lab (ILab) a course in the 2019-2020 school year. The course will consist of STEM projects dealing with digital citizenship, lab and tool safety, basic computer science and programming concepts, basic computer hardware and
software knowledge, use of digital tools, image and video editing applications, simple circuits, circuits with microcontrollers, 3-D modeling and printing, and emerging careers in technology. Students will also gain knowledge and skills in problem solving, teamwork collaboration and innovation. Moreover, they will brainstorm, research, develop ideas, create models, test and evaluate design ideas and communicate solutions. This exploratory course will provide students with introductions to all the CTE pathways in high school which we hope will lead to increased student demand for high school CTE courses.

- Increase access to STEM training opportunities for teachers - CTE is working with the WABS STEM Access program to create STEM teams of teachers to collaborate with industry partners over the summer to develop an authentic and engaging problem-based learning lesson or unit. The experience will provide teachers with industry connections and a real-world career-connected experience for students that can be embedded into their curriculum.
## Appendix D: Draft SPS Career-Connected Learning Partnership Continuum aligned with CareerConnect Washington

<table>
<thead>
<tr>
<th>CareerConnect Levels of Industry Partnerships</th>
<th>Description of Industry Engagement</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Awareness/Exploration</td>
<td>Classroom guest speaker or Career Panel</td>
<td>TEALS volunteers in Computer Science, Manufacturing Industrial Council, and Army Corp of Engineers host job shadow experiences; Hot Stove Society, Pine Street LLC, and Creative Advantage with City of Seattle’s Office of Arts and Culture provide industry site tours and career panels to promote course enrollment</td>
</tr>
<tr>
<td></td>
<td>Sponsor industry site tours</td>
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<tr>
<td></td>
<td>Sponsor job shadow experiences</td>
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<td></td>
<td>Participate in Career Fair</td>
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<td></td>
<td>Participate on Industry Advisory Board for CTE</td>
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<tr>
<td></td>
<td><em>These outreach activities can provide early exposure to new jobs and industries.</em></td>
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<tr>
<td>Career Preparation</td>
<td>Industry Expert Guest Teacher</td>
<td>TEALs, City of Seattle, OED, and Seattle Colleges Culinary provide teacher training; WABS STEM Externships; Molly Moon Ice Cream Industry Challenge; Seattle Academies Foundation industry internships; Tom Douglas Restaurants embedded internships; Seattle University College Ready Course</td>
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<td></td>
<td>Mentorship</td>
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<td>Internships</td>
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<td></td>
<td>Pre-Apprenticeships</td>
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<tr>
<td></td>
<td>Externships</td>
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<td></td>
<td><em>These programs give students hands-on skills and knowledge experience with a specific business, career track or industry, and help them be more prepared for being hired in a professional setting.</em></td>
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</tr>
<tr>
<td>Career Launch</td>
<td>Formal Registered Apprenticeships</td>
<td>RPAC; SKC Clinicals at Hospital sites prepare students for credentials</td>
</tr>
<tr>
<td></td>
<td>Embedded WSL experiences into curriculum</td>
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<td></td>
<td>The most intensive type of career connected learning program. Career Launch programs combine paid, meaningful work experiences with aligned classroom learning so students can receive a credential and become a competitive job candidate. Students earn academic credit and gain real-world skills.</td>
<td></td>
</tr>
<tr>
<td>Career Support</td>
<td>Industry Engagement:</td>
<td>TEALs, Keybank, TectStart from Facebook, Seattle Academy Foundation, College Occulus, x Microsoft/Recording Arts Program, Boeing/Manufacturing Industrial Council Core+, Washington Hotel Association, Washington Restaurant Association, Foundry10, City of Seattle OED, Tom Douglas Restaurants, Youth Maritime Collaborative, Port of Seattle</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td></td>
<td>Provide Funding to support launching a new high demand program</td>
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<tr>
<td></td>
<td>Develop Curriculum</td>
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<tr>
<td></td>
<td>Provide industry-level equipment</td>
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</tr>
<tr>
<td></td>
<td>Provide funding to specifically to support student leadership</td>
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</tr>
<tr>
<td></td>
<td>Provide program specific college scholarships</td>
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<tr>
<td></td>
<td>This support provides funding, services, or equipment to support CTE program.</td>
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</tr>
</tbody>
</table>
Franklin High School's

**Career Connected Learning**

*Industry partners*

### Business & Finance
- Academy of Finance Board
- Bank of America Student Leaders
- City of Seattle
- Eagle Strategies, LLC
- Keiro NW
- Nordstrom
- Rainier Chamber of Commerce
- REI
- Starbucks
- Target
- Washington Business Week
- Windermere Real Estate

### Computer Science
- 98point6
- Google
- Microsoft
- TEALS
- Year Up

### Woodshop
- ANEW
- Go Green Design
- King County Construction Day
- Maritime Academy
- PACT & PACE apprenticeships
- Seattle MADE
- Slab Art
- South Seattle College-Georgetown
- Subsonic Skateboards
- Women in Trades

### Culinary Arts
- Café '19
- Chipotle
- Japonessa Cucina
- Mioposto Pizzeria
- Pike Place Chowder
- Seattle Central College Culinary Arts
- Tutta Bella

### STEM & Engineering
- ACE Mentoring
- Boeing
- Franklin Robotics
- IGNITE
- Museum of Flight
- Office of Economic Development

### Media Arts
- KUOW Radioactive
- NFFTY
- Seattle International Film Festival
- Ted Talk Youth Seattle
- Untangled Spaces
- Youth in Focus

### Interested in an internship for credit?
See Ms. Linda Filley Bentler, 205A
Appendix F: Draft Marketing Materials from the Puget Sound ESD

Overview

The Health & Medical pathway ranges from career opportunities such as sports medicine, nursing, physician assistant, etc. Students will get the opportunity to take medical courses with available internship and or partnership with leading industries in the health and medical sector of Seattle.

Career Opportunities

- Physician Assistant: $95,000
- Nurse: $80,000
- Certified Nursing Assistant: $60,000
- Sports Medicine: $65,000
- Researcher: $65,000
- Health Technician: $85,000

Courses

Health Science I (CCL111)

Location: RBHS, WSHS
Grade Levels: 9-12
Credit: 0.5 CTE
Length: Semester
Prerequisites:

Health Science I is the introductory class focused on basic healthcare education, health issues, and family medicine treatments.

Sports Medicine I (CCL113)

Location: FHS, GHS, CHS
Grade Levels: 9-12
Credit: 0.5 CTE
Length: Semester
Prerequisites:

Sports Medicine I applies anatomy, physiology, an kinesiology in injury prevention, assessment, treatment, and rehabilitation.

Sports Medicine II (CCL114)

Location: FHS, GHS, CHS
Grade Levels: 9-12
Credit: 0.5 CTE
Length: Semester
Prerequisites: Sports Medicine I

Sports Medicine II continues the study of musculoskeletal anatomy and physiology and applies it to modern day sports.

Enrollment Information

To enroll please visit your school counselor and complete online registration at:

www.seattleschools.org/CCL/Health
It is the policy of the Seattle School Board that the district will provide a program of Career and Technical Education to assist students in making informed and meaningful educational and career choices, and to prepare students for a wide range of post-secondary options. The district’s Career and Technical Education program is a planned program of courses and learning experiences that begins with the exploration of career options. Additionally, the district’s Career and Technical Education program supports basic academic and life skills, enables achievement of high academic standards, incorporates leadership training, provides options for high skill development and high-wage employment preparation and includes advanced and continuing education courses. The program and its courses are included as part of the regular curriculum of the district.

The district will establish local Career and Technical Advisory Committees to assist in the design and delivery of the district’s Career and Technical Education program. Committees will advise the district on current labor market needs and the programs necessary to meet those needs. The district’s Career and Technical Education program will be related to employment demands, current and future, and to the needs and interests of students.

The Board will annually review and approve the district’s plan for the design and delivery of its career and technical education program. Equitable access to all programs in middle schools, high schools, and the Seattle Skills Center will be reviewed. The plan will ensure academic rigor, establish program performance targets, address the skill gaps of Washington’s economy and provide opportunities for dual credit.

The Superintendent or his or her designee is granted the authority to develop procedures which will ensure all programs and courses are operated in conformity with the district’s plan for Career and Technical Education and with all Federal and State laws prohibiting discrimination based on federal protected classes. Additionally, the district will seek and utilize state and federal sources of revenue for the financial support of Career and Technical Education in the district.
The superintendent or his or her designee is granted the authority to develop procedures in order to implement this policy.

Adopted: December, 2015
Revised:
Cross Reference: Policy Nos. 2413, 2415, 2200, 3210, 4110; and related Superintendent Procedures 2170SP and 4110 SP
Previous Policies: C48.00, C49.00, C52.00, and Procedure C52.01
Legal References: RCW 28A.150.500 Education agencies offering vocational education programs – local advisory committees – advice on current job needs; RCW28A.230.130 Program to help students meet minimum entrance requirements at baccalaureate – granting institutions or to pursue career or other opportunities – high school course offerings for postsecondary credit; Chapter 28A.700 RCW Secondary career and technical education; 20 U.S.C. 2301 et. Seq. Carl D. Perkins Career and Technical Education Ace of 2006
Management Resources: