



STATE OF WASHINGTON
OFFICE OF THE GOVERNOR



WASHINGTON STUDENT
ACHIEVEMENT COUNCIL
EDUCATION · OPPORTUNITY · RESULTS

Governor's STEM Education Innovation Alliance Meeting

September 17, 2015

8:30 am – 12:00 pm

Washington State Capitol

Insurance Building, Governor's Policy Office

Meeting Overview

Marcie Maxwell

- Welcome
- Update from the Governor's Office
- Important timing for our meeting today as the budget planning process begins
- Today's focus
 - develop recommendations for the Governor and Legislature
 - brainstorming session to develop some recommendations that will be further crystalized over the next several weeks and sent to the Governor.
- These recommendations will also be submitted as part of the annual Report Card to the Legislature in January – i.e., policy and investments to improve STEM in the State of Washington.
- More work to be done after this meeting to continue to get your input on recommendations – today is the first step.

Today's Agenda

Marcie Maxwell

8:30-9:00 am	Meeting Overview
9:00-9:20 am	Governor Inslee
9:20-10:00 am	STEM Education Report Card: Background and Results
10:00-10:15 am	Break
10:15-11:30 am	Brainstorm Recommendations to the Governor and the Legislature (Breakout Group Discussion and report out)
11:30-11:40 am	Identify Volunteers for the Report Card – Help solidify recommendations
11:40-11:50 am	Future of Governor's STEM Alliance
11:50-12:00 pm	Wrap up and Next Steps

STEM Report Card and Background

Patrick D'Amelio

Prior to our discussion on recommendations for the Governor and for the Report Card, I want to provide some background:

- Report Card purpose and draft outline
- Summary of reporting requirements including the Report Card and status of measures
- Policy questions and results of measures to date

STEM Report Card Purpose

Patrick D'Amelio

- Washington State House Bill 1872

The Alliance must develop a STEM Benchmark Report Card (Report Card) based on the Framework. The purpose of the Report Card is to monitor progress in aligning strategic plans and activities in order to prepare students for STEM-related jobs and careers, with the longer-term goal of improving educational, workforce, and economic outcomes.

The Report Card must be posted online and contain:

- The most recent data for the measures and indicators of the Framework (including data on job openings);
- Information from state education agencies on how activities and resources are aligned with the Framework; and,
- Recommendations.

STEM Report Card Draft Outline

Patrick D'Amelio

Letter from the Alliance

- I. Executive Summary
- II. Introduction – Purpose and Organization of Report Card
- III. Data and Findings on STEM in Washington State
 - Policy Question (example: Do we have an adequate supply of STEM trained workers in Washington State to meet the demand of employers?)
 - Data to support the policy question (Skills gap information from ESD and WSAC)
 - Information on how we are investing in this policy question/issue (from the budget)

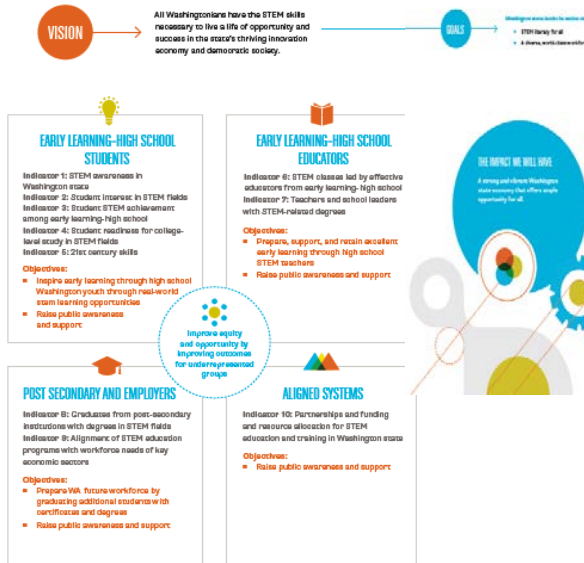
IV. Alliance Recommendations

We will collect your initial recommendations for this section today. You will have an opportunity to review the report and add recommendations.

Tracking Washington STEM Progress

Patrick D'Amelio

FRAMEWORK



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Developed
8 measures to
date linked to
policy questions
and the
Framework
Indicators to
measure our
progress in
meeting goals

Summary of Reporting Requirements

Patrick D'Amelio



Annual Report Card due in January to the Legislature with a summary of the state of STEM and recommendations from you

8
measures
+ other
sources
of data
shall
inform:

D A S H B O A R D



On-going development with deployment in the Spring of 2016 intended to display results of STEM metrics

Results Patrick D'Amelio

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
1. STEM Awareness in Washington State	Are Washington State citizens aware of the meaning of STEM?	In 2015 approximately 50% of Washington voters have heard of the term “STEM”; up from 32% in 2013.
2. Student Interest in STEM Fields	Are Washington elementary, middle- and high school students interested in pursuing STEM majors that lead to STEM careers?	In 2014 approximately 28% of Washington SAT-takers indicate an intention to pursue a STEM major; up from 25% in 2010.
3. Student STEM Achievement Among PreK-12	<p>Since success in education, particularly in STEM subjects, is affected by preparedness, including in early stages, what percentage of beginning elementary students are kindergarten ready?</p> <p>How many and what percentage of K-12 students are passing 5th grade math assessments?</p> <p>How are traditionally under-represented student populations faring?</p>	<p>In 2014-15 about half (52%) of Washington’s kindergartners met the math standard (from WAKIDs).</p> <p>In 2013-2014 about 64% of 5th graders met standard on the MSP math test; up from about 54% in 2009-10.</p> <p>Underrepresented populations:</p> <p>A lower percentage of low-income children meet standard on kindergarten math readiness compared all children (43% vs. 52% in 2014-2015).</p> <p>By 5th grade, the gap in math achievement increases for low-income children compared to children who are not low income (50% vs. 76% meet standard in 2013-2014).</p> <p>Females slightly lead males in math achievement at 5th grade and equal percentages of females and males meet the math standard for kindergarten readiness (from WA Kids)</p>

Results Patrick D'Amelio

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>4. Student Readiness for post-high school study/training in STEM</p>	<p>Do students have real world/project learning and internship opportunities to experience career pathways?</p> <p>How well are we preparing Washington students academically to pursue STEM careers?</p> <p>How are traditionally under-represented student populations faring?</p>	<p>In 2015 about 11% (27) of Washington School Districts have a high school that offers AP Computer science. Less than 1% of students in the high schools where AP computer science is offered take the AP course and receive credit. Among those who students who take the AP test in 2014 (1,048 students), about 66% scored 3 or above.</p> <p>Underrepresented populations:</p> <p>Of students participating in AP computer science state-wide, less than 20% are low income (2015).</p> <p>Females are underrepresented in STEM - computer science. Of all students enrolled in AP Computer Science, only 22% are female (2015). Yet, equal percentages of females and males who take the AP test score 3 or better on it (66% in 2014).</p> <p>There is limited access to AP Computer Science in Washington's rural areas: AP Computer Science, which aligns very strongly with employer demand, is very heavily focused in the Seattle urban area, with limited availability elsewhere in the state.</p>

Results Patrick D/Amelio

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
5. 21 st century skills	Change in STEM fields is rapid. What skills and knowledge best prepare students to adapt to changes and opportunities in a STEM workplace?	Not Available.
6. Pre-K-12 STEM classes led by effective educators	How well are we preparing our pre-service teachers? What professional development opportunities do current classroom teachers (non-class room educators) have to advance STEM preparation?	Not Available.
7. Teachers and school leaders with STEM-related degrees	How many STEM teachers are gaining certification each year? Where are they coming from? Who is a STEM teacher?	Not Available.

Results Patrick D/Amelio

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>8. Graduates from post-secondary institutions with degrees and credentials in STEM fields</p>	<p>Are students graduating with certificates/degrees that employers' value?</p> <p>Where (geographically) are the highest rates of STEM graduates coming from?</p> <p>How are traditionally under-represented student populations faring?</p>	<p>In 2013-14 about 18% of graduates from post-secondary institutions graduate in a STEM field. Among those graduating in a STEM field, most are male (61%) and not low income (83%).</p> <p>Underrepresented populations:</p> <p>Only 17% of all STEM degrees awarded are to low income (2013-2014) compared to 83% not low income.</p> <p>Only 39% of STEM degrees awarded are to females (2013-2014) compared to 61% of males.</p>

Results Patrick D'Amelio

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>9. Alignment of STEM education program with workforce needs of key economic sectors</p>	<p>Do we have an adequate supply of STEM trained workers in Washington State to meet the demand of employers? If not, how large is the gap now and what is it projected to be in the future?</p> <p>How many people are “imported” into Washington State each year to meet the demand for STEM degrees?</p> <p>What STEM occupations/fields are in highest demand? Lowest demand? Are these STEM occupations/fields in low demand as a result of a highly skilled workforce in those areas, a lack of need from employers, or other reasons?</p> <p>Who are the largest STEM employers in the state?</p> <p>What are the average STEM salaries by industry sector and how does that compare to non-STEM salaries?</p> <p>Geographically, STEM fields are in every region of our state. Where and what are the STEM job opportunities in the state?</p> <p>What industry sectors should be targeted in order to meet the demand for STEM workers?</p>	<p>There isn’t enough supply of STEM workers to fill employer demand for these skills; and, the gap is especially acute for employers seeking individuals with computer science degrees/skills:</p> <ul style="list-style-type: none"> In 2015, there was a shortage of over 20,000 employees that are needed to fill Washington STEM jobs. The vast majority of these unfilled jobs were in Seattle/King County. The biggest gaps were in computer and mathematical occupations and health care (Employment Security Department). At the baccalaureate level, degree production in the health, computer science, engineering, and other STEM fields has increased steadily over the last several years. Health sciences degree completions grew consistently, increasing by nearly 35% from 2007 to 2012. Degree production in the fields of engineering and related technology (27.4%), science and mathematics (28.4%), and computer science and information technology (13%) also grew substantially during this same time period. <p>Despite progress in recent years, the largest gaps between degree production and employer demand at the baccalaureate and graduate levels are in the fields of <u>computer science and engineering</u>. In computer science, demand exceeds the current rate of degree production by 146%.</p>

Results

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>9. Alignment of STEM education program with workforce needs of key economic sectors</p>	<p>Do we have an adequate supply of STEM trained workers in Washington State to meet the demand of employers? If not, how large is the gap now and what is it projected to be in the future?</p> <p>How many people are “imported” into Washington State each year to meet the demand for STEM degrees?</p> <p>What STEM occupations/fields are in highest demand? Lowest demand? Are these STEM occupations/fields in low demand as a result of a highly skilled workforce in those areas, a lack of need from employers, or other reasons?</p> <p>Who are the largest STEM employers in the state?</p> <p>What are the average STEM salaries by industry sector and how does that compare to non-STEM salaries?</p> <p>Geographically, STEM fields are in every region of our state. Where and what are the STEM job opportunities in the state?</p> <p>What industry sectors should be targeted in order to meet the demand for STEM workers?</p>	<p>There isn’t enough supply of STEM workers to fill employer demand for these skills; and, the gap is especially acute for employers seeking individuals with computer science degrees/skills:</p> <ul style="list-style-type: none"> In 2015, there was a shortage of over 20,000 employees that are needed to fill Washington STEM jobs. The vast majority of these unfilled jobs were in Seattle/King County. The biggest gaps were in computer and mathematical occupations and health care (Employment Security Department). At the baccalaureate level, degree production in the health, computer science, engineering, and other STEM fields has increased steadily over the last several years. Health sciences degree completions grew consistently, increasing by nearly 35% from 2007 to 2012. Degree production in the fields of engineering and related technology (27.4%), science and mathematics (28.4%), and computer science and information technology (13%) also grew substantially during this same time period. <p>Despite progress in recent years, the largest gaps between degree production and employer demand at the baccalaureate and graduate levels are in the fields of <u>computer science and engineering</u>. In computer science, demand exceeds the current rate of degree production by 146%.</p>

Results

Patrick D'Amelio

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
10. State and Local Systems to Support STEM Success	How well are our systems and resources aligned to ensure sustained success of STEM?	Not Available.

Recommendations to the Governor and Legislature

Patrick D'Amelio

Group Discussion – Kick off/brainstorming:

- Divide up into 3 groups and provide recommendations
- One person to report out for the group – top 1-3 recommendations

Volunteers for Report Card

Patrick D'Amelio

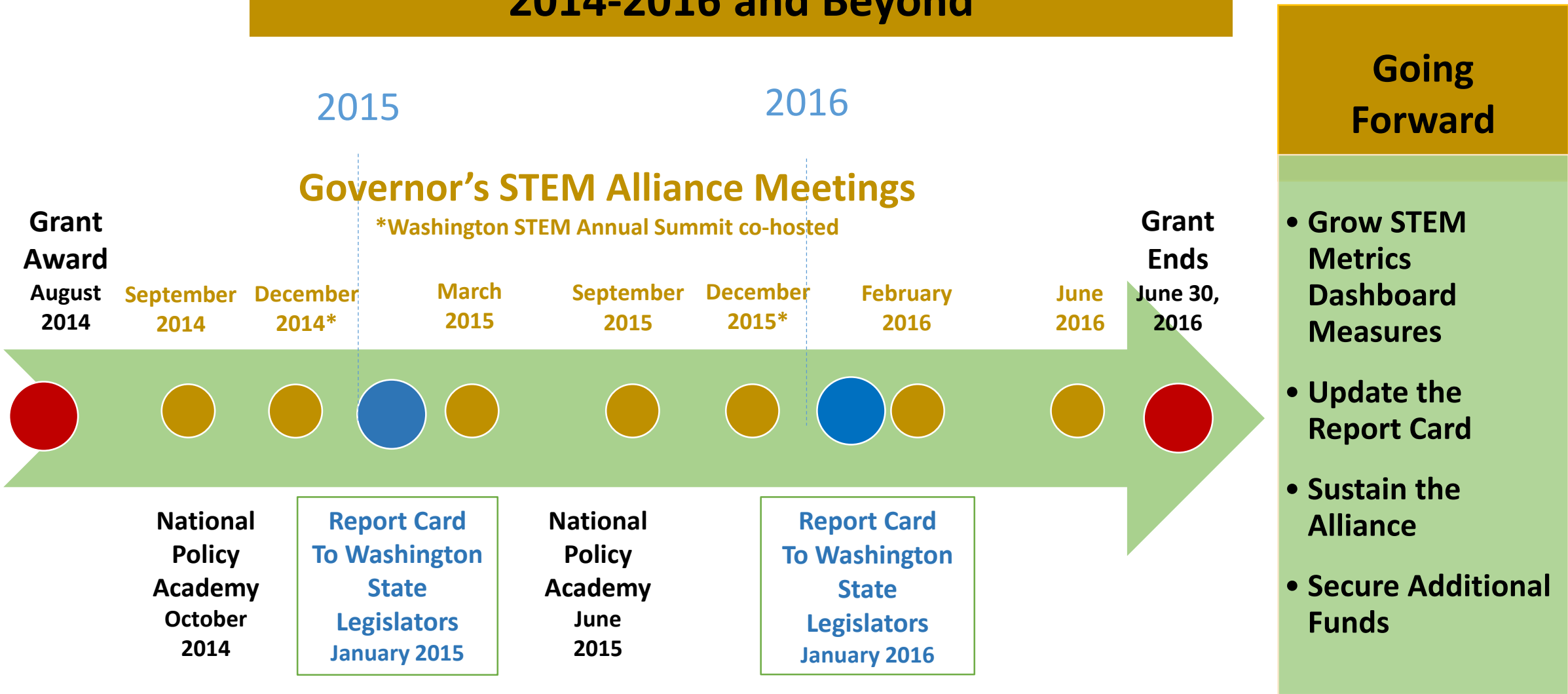
- Volunteers?
- Help develop the initial recommendations from today's meeting further
- Help with drafting the Report Card in October and November time frame. Focus on helping to craft the recommendations section and needed investments.
- Time needed over the next several weeks and then again in the October/November timeframe for the Report Card.

Wrap up and Next Steps

Patrick D'Amelio

- September: Begin programming and development of data Dashboard and drafting Report Card
- Finalize the recommendations for the Governor
- Late October (by email): Review draft Report Card
- December 1 STEM Summit Meeting: Review progress on the measures, the Dashboard and draft Report Card
- January: Deliver Report Card and continue development/user testing of the Dashboard

National Governors Association Grant Timeline 2014-2016 and Beyond



2015

2016

Governor's STEM Alliance Meetings

*Washington STEM Annual Summit co-hosted

Grant Award

Grant Ends

August 2014

September 2014

December 2014*

March 2015

September 2015

December 2015*

February 2016

June 2016

June 30, 2016

National Policy Academy
October 2014

Report Card To Washington State Legislators
January 2015

National Policy Academy
June 2015

Report Card To Washington State Legislators
January 2016

Going Forward

- Grow STEM Metrics Dashboard Measures
- Update the Report Card
- Sustain the Alliance
- Secure Additional Funds



Supplemental Budget Request

For Continuation of WSAC Support of the STEM Alliance

Purpose of the Supplemental Funding Request

The Washington Student Achievement Council plans to submit a supplemental decision package to the Office of the Governor for supplemental funding to ensure that the STEM Alliance continues to receive the support it needs to be effective after the National Governors Association (NGA) grant ends on June 30, 2016.

Background: With the Washington State Legislature's passage of Engrossed Second Substitute House Bill 1872 in 2013, the Governor's STEM Education Innovation Alliance was created in statute. However, no funding for its operation was provided, and the work of the Alliance did not begin until funding became available in August 2014, when a successful grant proposal - primarily written by WSAC staff - was submitted to the NGA in collaboration with the Office of the Governor.

With this two-year grant of \$170,000 - and the addition of a substantial amount of staff time from WSAC, Washington STEM, and the Office of Financial Management - the STEM Alliance began meeting in September 2014. With the support of the grant, the STEM Alliance has developed substantial momentum, with excellent prospects for a sustained positive impact on the State's efforts to align STEM education with the needs of our dynamic technology-based economy.

The Need for Additional Funding: It is vital that we maintain this hard-won momentum. The NGA grant funds will run out in June 2016. Without supplemental funding, the WSAC will not have the capacity to continue supporting work of the STEM Alliance. Supplemental funds would allow WSAC and our partners to continue providing leadership and staff support to maintain the crucial momentum that has been generated for the work of the STEM Alliance. Aligning STEM education with the workforce needs of Washington's technology-based economy is a high priority for the Governor and a key issue for the Legislature. For this work to continue, and for the STEM Alliance to remain an effective vehicle for making progress in STEM education and workforce alignment, it is critical that consistent and reliable funding be available to support WSAC's role in coordinating and facilitating this work.

To this end, WSAC will propose supplemental funds to support its effort in the following areas:

- Managing STEM Alliance activities.
- Planning and facilitating meetings of the Alliance members.
- Coordinating work associated with the development of a dashboard, in collaboration with Washington STEM and the Education Research and Data Center, to track progress in aligning the state's STEM education system with employer workforce needs.
- Organizing outreach activities to foster robust and sustainable industry-education partnerships dedicated to advancing STEM education.
- Coordinating service contracts with key partners, such as Washington STEM.

WASHINGTON STATE STEM TALENT SUPPLY AND DEMAND DASHBOARD PROGRESS UPDATE

In 2015, the Governor's STEM Education Innovation Alliance formed a metrics workgroup to identify an initial set of measures to create a new Washington State STEM Talent Supply and Demand Dashboard. The Dashboard's measures directly align to the Washington STEM Framework for Action and Accountability created by Washington STEM and adopted by the STEM Alliance last December.

The Dashboard's purpose is to provide consistent and reliable information to the Governor, the STEM Alliance and other decision makers about the supply of STEM talent moving through the state's education and workforce training systems in relation to the STEM workforce needs of the state's employers.

The Governor's STEM Alliance articulated the following policy questions to help guide the Dashboard's creation to help ensure the information gathered is both critical and actionable.

- Do we have an adequate supply of STEM trained workers in Washington State to meet the demand of employers? If not, how large is the gap now and what is it projected to be in the future?
- How many people are "imported" into Washington State each year to meet the demand for STEM degrees?
- What STEM occupations/fields are in highest demand? Lowest demand? Are these STEM occupations/fields in low demand as a result of a highly skilled workforce in those areas, a lack of need from employers, or other reasons?
- Who are the largest STEM employers in the state?
- What are the average STEM salaries by industry sector and how does that compare to non-STEM salaries?
- Geographically, STEM fields are in every region of our state. Where and what are the STEM job opportunities in the state?
- What industry sectors should be targeted in order to meet the demand for STEM workers?
- Change in STEM fields is rapid. What skills and knowledge best prepare students to adapt to changes and opportunities in a STEM workplace?
- Since success in education, particularly in STEM subjects, is affected by preparedness, including in early stages, what percentage of beginning elementary students are kindergarten ready?
- How many and what percentage of K-12 students are passing 5th grade math and science assessments?
- Do students have real world/project learning and internship opportunities to experience career pathways?
- Are students graduating with certificates/degrees that employers' value?
- Where (geographically) are the highest rates of STEM graduates coming from?
- How are traditionally under-represented student populations faring?
- Are Washington elementary, middle- and high school students interested in pursuing STEM majors that lead to STEM careers?
- How well are we preparing Washington students academically to pursue STEM careers?
- How well are we preparing our pre-service teachers? What professional development opportunities do current classroom teachers have to advance STEM preparation? How many STEM teachers are gaining certification each year? Where are they coming from? Who is a STEM teacher?
- What is the status of STEM awareness among Washington state residents?

At its last meeting in late August, the metrics work group reviewed and agreed upon the following list of measures for the first Dashboard, which is expected to be released at the December 2015 STEM Summit:

- Kindergarten readiness

- Pass 5th grade math assessment
- AP Computer Science score 3 or higher
- Postsecondary degree completion in STEM majors
- STEM job openings/growth in STEM occupations and supply and demand gaps
- Student interest in STEM majors among high school students
- Awareness of STEM among Washington state citizens

Please see page two for additional information about each measure.

The Dashboard is expected to be released at the December 2015 STEM Summit. Other measures may be added in future iterations of the dashboard. Data for each Dashboard component will be supplied by the Education Research and Data Center and the Washington Student Achievement Council (WSAC). WSAC has contracted with Washington STEM to develop Dashboard; Washington STEM has subcontracted the work to our longstanding partner, Mary Kay Dugan, who is now with the research and evaluation firm IMPAQ International.

FRAMEWORK INDICATORS AND MEASURES

1 STEM awareness in Washington State

Policy Question: Are Washington State citizens aware of the term and meaning of “STEM?”

Measure 1: STEM Awareness

Definition: Percentage of people indicating “yes” they have heard of the acronym STEM at the time of the survey, out of a random telephone sample of voters in Washington.

Source: WA STEM Survey

2 Student interest in STEM fields

Policy Question: Are Washington high school students interested in pursuing majors that lead to STEM careers?

Measure 2: Student Interest in STEM

Definition: SAT test-takers indicating intended college major in a STEM field out of all SAT test-takers that indicated an intended college major.

Source: College Board

3 Student STEM achievement among PreK-12

Policy Question: How well are we preparing Washington students academically to pursue STEM-related careers? (Early Learning? K-12?)

Measure 3: Early Learning: Kindergarten Readiness [a] and Measure 4: K-12: Passing Grade 5 Math [b]

[a] Number of students meeting standard for readiness in math on WaKIDS out of the number of students assessed for readiness in math on WaKIDS.

[b] Number of students meeting standard on the Measurements of Student Progress (MSP) for math in grade 5, out of the total number of students taking the MSP for math in grade 5, including those with “No Score.” We will be adding SBSC measures as they become available.

Source: OSPI

4

Student readiness for college-level study in STEM

Policy Question: How well are we preparing Washington HS students academically to pursue STEM at the post-secondary-level?

Measure 5: AP Computer Science: Availability in Washington Districts [c]; Availability in Washington High Schools [d]; Completion [e]; Score 3 or Above [f]. NOTE: We are currently adding additional AP course information in other subjects such as calculus.

[c] Number of school districts containing a high school with students receiving credit from an AP Computer Science program, based on having at least one student receiving credit in AP Computer Science in a given year, out of the number of school districts in the state with high schools.

[d] Number of high schools with an AP Computer Science Program, based on having at least one student receiving credit in AP Computer Science in a given year, out of the number of high schools in the state.

[e] Number of students receiving credit for AP Computer Science from OSPI Grade History.

[f] Number of students passing with a score of 3 or higher in AP Computer Science out of the total number of students taking the AP Computer Science exam.

Source: OSPI and College Board

5

21st century skills

Policy Question: TBD

Measure: No measures yet

6

PreK-12 STEM classes led by effective educators

Policy Question: TBD

Measure: No measures yet

7

Teachers and school leaders with STEM-related degrees

Policy Question: TBD

Measure: No measures yet

8

Graduates from postsecondary institutions with degrees in STEM fields

Policy Question: What is the supply of STEM graduates from post-secondary institutions?

Measure 6: Post-secondary: Degree Completion [g]

[g] STEM Degree completions by completion year, out of the total degree completions of all kinds by completion year.

Source: PCHEES – OFM

9

Alignment of STEM education programs with workforce needs of key economic sectors

Policy Questions: Do we have an adequate supply of STEM trained workers in Washington State to meet the demand of employers? If not, how large is the gap now and what is it projected to be in the future? What STEM occupations/fields are in highest demand?

Measure 7: Skills Gap

Definition: Demand for workers in STEM occupations (growth and replacement openings) minus the supply of students expected to enter STEM selected occupations.

Source: WSAC (IPEDS?ESD)

Policy Question: Geographically, where are the STEM job opportunities in the State?

Measure 8: ESD Jobs, “Gap”

Definition: Difference between demand for STEM workers, given by average (across months) Conference Board online job postings, and average (across months) supply of STEM workers, given by WA Employment Security Department unemployment claimants plus Worksource customers.

Source: WA ESD

Policy Question: What industry sectors should be targeted in order to meet the demand for STEM workers?

Measure 7: Skills Gap [a] and Measure 8: ESD Jobs [b]

Definition: same as above.

10

State and local systems to support STEM success

Policy Question: TBD

Measure: No measures yet

Beyond McCleary (HB 2261 – 2009 / HB 2776 - 2010) ...

Additional K-12 Reforms and Accountability in Implementation

- TPEP – Teacher & Principal Evaluation Program (SB 6696 -2010 / SB 5895 - 2012)
- Common Core State Standards (English / Language Arts and Math)
- Smarter Balanced Assessments (Technology-based system) (HB 1450 - 2013)
- Next Generation Science Standards (science standards at all grade levels)
- School Accountability for Struggling Schools (SB 6696 - 2010 / HB 2799 – 2012 / SB 5329 - 2013)
- Expanded Supports for English Language Learners (SB 2051 – 2013)
- Online Learning Programs Accreditation (SB 5410 - 2009 / HB 2065 - 2011)
- WaKids Kindergarten Readiness Inventory (SB 5427 - 2011 / HB 2586 - 2012)
- Career & Technical Education (CTE) Strategic Plan (HB 1710 – 2011)
- Encouraging AP and IB Advanced Programs (HB 1642 – 2013)
- Computer Science as Math or Science Credit (HB 1472 – 2013)
- Education Health Indicators (SB 5491 – 2013)
- Strengthening Outcomes / Early Literacy / Evidence-Based Strategies (SB 5946 - 2013)
- Open Doors Dropout Reengagement Statewide Framework (HB 1418 – 2010)
- ERDC – P-20 Education Data Links (Achievement, Transitions, Attainment, Effectiveness - 2007)
- Career and College Ready Graduation; CTE Math and Science Equivalencies (SB 6552-2014)
- Computer Science Standards and expanding CS Education (HB 1813 – 2015)
- College in High School / Advanced Academic or CTE courses with Dual Credits (HB 1546 – 2015)

Reinvesting in Washington

2015–17 Operating Budget Highlights

EDUCATION

The budget invests \$2.3 billion in the education continuum. Details are explained below.

Early Learning

Offer opportunities for our youngest learners with high-quality early learning – \$95.3 million total

Makes significant state investments in proven early learning programs to ensure more students start kindergarten ready to learn.

Early Childhood Education and Assistance Program – \$24.2 million

Funds 1,600 new spaces in the Early Childhood Education and Assistance Program, the state's preschool program for children from low-income families. With the additional spaces, a total of 11,691 children from low-income families will have access to preschool.

Early Start Act (Early Achievers) – \$65.1 million

Improves child care quality by providing \$65.1 million for the state's Early Achievers child care rating program that trains child care providers in effective early learning strategies. This investment will reach all children participating in the state's preschool program and subsidized child care.

Early support for infants and toddlers – \$4.0 million

Meets rising demand for intervention services provided through the Early Support for Infants and Toddlers program, funding 1,500 more young children with special needs.

Home visiting – \$2.0 million

Increases the number of families receiving home-visiting services.

Kindergarten through 12th Grade

Increase basic education funding to reduce class sizes, increase class time for kindergartners and cover school operation costs – \$1.3 billion total

Elementary school class-size reduction – \$350.0 million

Proposes substantial investment in elementary schools, including nearly 5,000 additional teachers by the end of the 2016–17 school year. Reduces class sizes in kindergarten through third grade for both the 2015–16 and 2016–17 school years, making progress on the commitments provided in HB 2776. Washington's K-3 class sizes will be funded at levels of 17 to 22, depending on the grade and poverty level of the school.

Statewide full-day kindergarten – \$179.8 million

Funds full-day kindergarten for all students, offering 1,000 hours of instruction a year, one year ahead of schedule. Today, fewer than half the state's kindergartners participate in a state-funded, full-day program. While some districts provide funding with federal or local funds, most students not in state-funded programs either attend for a half day or their families pay nearly \$3,000 a year in tuition. This budget will offer full-day programming to 72 percent of kindergartners in the 2015–16 school year and 100 percent of kindergartners in the 2016–17 school year.

Materials, supplies, curricula and operating costs – \$741.0 million

HB 2776 and the McCleary decision require full funding of an enhanced formula for materials, supplies, curricula and operating costs by the 2015–16 school year. Fully funds this obligation, increasing the funding allocation to \$1,210 per student in the 2015–16 school year, up from \$848 per student in the 2014–15 school year.

Special education

Funding of \$151.0 million for special education services is embedded in the previous three items. Districts will dedicate a portion of these amounts for approximately 1,800 principals to receive professional development on best practices for special education instruction and strategies for implementation in schools.

Promote student success and high-quality instruction – \$21.9 million total**Mentoring for new teachers – \$5.0 million**

Expands the state's Beginning Educator Support Team program to provide training and support to the nearly 5,000 new teachers entering the system in the 2015–17 biennium.

Project-based math and science – \$1.0 million

Expands project-based and work-based math and science learning. Students from all grade levels will be connected through age-appropriate curricula to the environmental, natural resource and agricultural sectors to experience new learning opportunities and explore possible careers in these areas.

College in the High School – \$6.6 million

Increases low-income student participation in College in the High School, which offers 11th and 12th grade students the opportunity to complete college-level academic courses. Students may earn college credit if they pay a fee to the partnering higher education institution. This funding will cover the cost of the fee for up to 10 college credits a year for an estimated 8,179 rural and low-income students.

Running Start – (\$6.6) million

Clarifies that the Running Start program for 11th and 12th graders pertains only to those students taking their courses at the college or online.

Turnaround programs – \$3.2 million

Funds turnaround programs for schools identified for the state's persistently lowest-achieving schools program. Under guidance by the Office of Superintendent of Public Instruction, identified schools use evidence-based models for school improvement, including principal and instructional coaching. Under the law, further state intervention can occur for schools and districts, if necessary, after three years.

Expand pre-service classroom experience – \$4.2 million

Integrates more K-12 classroom experience in pre-service training programs through funding of innovation grants and restoring funding for the Alternative Routes to Teaching program.

Math and science training – \$3.6 million

Provides more instructional training for math and science teachers; develops environmental science curricula for career and technical education course equivalencies; and increases the number of teachers endorsed in secondary-level computer science. More than 350 teachers will be trained each year.

Washington Achievers Scholars – \$2.9 million

Expands the Washington Achievers Scholars program in King and Pierce counties. The program provides mentorship to selected low-income high school juniors and seniors through their freshman year of college.

Microsoft IT Academy – \$2.0 million

Expands the Microsoft IT Academy in middle schools.

Invest in educator compensation – \$617.5 million total

Initiative 732 salary increase – \$230.9 million

Fully funds the Initiative 732 salary increase of 1.8 percent in the 2015–16 school year and 1.2 percent in the 2016–17 school year.

Additional educator compensation – \$152.3 million

Provides one-time funding to bring the general wage increase up to 3 percent for the 2015–16 school year, followed by a 1.8 percent in the 2016–17 school year. These rates are in alignment with increases recommended for state employees.

Pension rates – \$210.0 million

Provides maintenance-level funding for the state’s share of higher employer pension rate contributions for K-12 employees.

Health care rates – \$24.3 million

Increases the state’s monthly health benefit rate for state-funded K-12 employees from \$768 to \$780 per month. The rate for state-funded classified employees will increase from \$884 to \$899 per month.

Higher Education

Maintain higher education access and affordability – \$225.0 million total

Tuition – \$169.0 million

Rates for the public colleges and universities have steadily risen since the early 1990s, and then spiked sharply from 2009 to 2013, the result of the state’s effort to balance the budget during the Great Recession.

The budget reduces tuition for resident undergraduate students at the public baccalaureate colleges and the community and technical colleges by 5 percent in the first year of the biennium. In the

second year, tuition is reduced by an additional 10 percent at the research institutions; 15 percent at the regional universities; and frozen at the community and technical colleges.

Separate legislation will address residency requirements for our state's veterans and dependents to conform to federal law changes passed in August 2014. The legislation will allow the public colleges and universities to continue participation in the Post-9/11 GI Bill and Montgomery GI Bill programs.

Opportunity Scholarship – \$41.0 million

Matches private contributions to the Washington State Opportunity Scholarship, a public-private partnership established in 2011 to address rising tuition and promote career opportunities. Students from families earning up to 125 percent of the state's median family income are eligible if they commit to earn a bachelor's degree in high-demand fields in STEM or health care. With the state's investment, an estimated 4,000 more students are expected to benefit in the 2016–17 academic year, compared to current levels.

College Bound – \$14.5 million

Increases enrollment in the College Bound Scholarship program by nearly 4,000 students. The program provides an early commitment of financial aid to low-income 7th and 8th graders who pledge to attend college. Students who meet eligibility requirements while in high school and attend a college in Washington are eligible for an award covering tuition and fees at public institution rates and a \$500 annual book allowance. The Caseload Forecast Council expects the program to grow from 11,896 students in the 2014–15 academic year to 15,690 students in the 2016–17 academic year.

Medical education and training – \$27.7 million total

School of Medicine, Washington State University – \$2.5 million

Provides funding for Washington State University to pursue accreditation and establishment of a new medical school in Spokane.

Continuation and expansion of WWAMI, University of Washington – \$9.0 million

Provides funding to expand medical education offered by the University of Washington's Washington, Wyoming, Alaska, Montana and Idaho (WWAMI) medical school program in Spokane. Funds will support 60 first-year medical school students in 2015–16 and 60 second-year medical students in 2016–17, up from the current cohorts of 20 students per year.

Medical residencies, University of Washington – \$8.0 million

Expands the number of residency slots available at the University of Washington through its Family Practice Medicine Residency Network.

Targeted health professions funding – \$7.7 million

Addresses shortages of trained medical and mental health providers. Makes loan repayments for primary care providers working in health professional shortage areas or mental health providers working with adolescents.

Latino Center for Health, University of Washington – \$500,000

Supports leadership and education to promote the health and well-being of Latinos in Washington and the region.

Boost higher education attainment and training – \$18.5 million total

Computer science and engineering programs – \$12.4 million

Expands advanced computer science and engineering programs at the University of Washington, Washington State University and Western Washington University to keep up with job demands in these competitive fields. Approximately 350 high-demand slots will be added. Also includes funding for the development of a baccalaureate of science degree in computer science at Bellevue College starting in the fall of 2016.

Increase degree completions – \$4.5 million

Increases resources for student advising programs to support student success and degree completion at Central and Eastern Washington universities and The Evergreen State College.

Training programs – \$1.6 million

Targets industry investments to maintain economic competitiveness for the operation of a fabrication composite wing incumbent-worker training program at the Washington Aerospace Training and Research Center in Everett.

Higher education — other programs

Ocean acidification – \$1.6 million

Supports the Washington Ocean Acidification Center at the University of Washington to continue coordination and research to understand, monitor and adapt to increasingly acidic waters. One-time funding was provided in the 2013–15 biennium. This will establish permanent funding of \$1.4 million for the program. In addition, one-time funding of \$200,000 is provided to study the biological response of selected commercial and managed species, such as rockfish and salmon, to ocean acidification.

Climate Impacts Group – \$400,000

Adds funding for the Climate Impacts Group at the University of Washington to conduct data modeling and provide technical assistance on climate impact analysis to Washington communities, businesses and governments.

Monitoring private vocational schools – \$106,000

Expands consumer protection and oversight at the Workforce Training and Education Coordinating Board of private vocational school students.

HUMAN SERVICES AND PUBLIC SAFETY

Single bed certification, Department of Social and Health Services – \$31.4 million General Fund-State; \$18.3 million General Fund-Federal

Prevents inappropriate boarding of patients at medical hospitals by funding 145 more psychiatric community beds for individuals in need of mental health services. Improves public safety by ensuring that individuals determined to be a danger to themselves or others receive necessary mental health services.

T.R. implementation, DSHS – \$16.6 million GF-S; \$16.6 million GF-F

Expands intensive mental health services for high-needs youth. DSHS is expected to accomplish the year 3 and 4 commitments set forth in the so-called T.R. settlement agreement.

Trueblood implementation, DSHS – \$26.9 million GF-S

Opens a new 30-bed forensic ward at Western State Hospital, adds 15 beds at Western State Hospital, adds 30 beds at Eastern State Hospital and hires 174 staff to address the rising demand for inpatient, court-ordered competency restoration and forensic services. Cuts wait times for people in jail for inpatient competency evaluation and restoration services, pursuant to the court decision in Trueblood v. DSHS.

Civil admission ward, DSHS – \$7.6 million GF-S

Prevents inappropriate boarding of patients at medical hospitals by funding a new, 30-bed civil admission ward at Western State Hospital. Increases the availability of mental health inpatient services for individuals determined to be a danger to themselves or others, or who are seriously mentally ill.

Competency evaluation staff, DSHS – \$4.7 million GF-S

Funds 18 new positions to perform and support competency evaluation work and to improve the state mental health hospitals' ability to keep up with demand for competency evaluations. Helps the state hospitals meet statutory targets, reduce waiting lists and avoid contempt of court rulings by developing adequate data, a service delivery approach and a staffing model to address the demand for competency evaluations.

Psychiatric intensive care unit, DSHS – \$3.8 million GF-S

Creates a psychiatric intensive care unit (PICU) to serve violent and assaultive patients at Eastern State Hospital and hires 22.8 more staff. To increase patient safety, the PICU will house high-acuity patients for short-term stays, then transition them back to a standard ward after stabilization. PICU patients will be provided specialized care and treatment.

Psychiatric emergency response team, DSHS – \$3.5 million GF-S

Hires 23 staff and expands the psychiatric emergency response team at the Center for Forensic Services in Western State Hospital. This enhances the safety of both staff and patients at the state hospitals through the addition of a team for day and evening shifts to support the civil wards of both facilities.

Safety and security at facilities, DSHS – \$1.2 million GF-S

Improves the safety and security of staff and youth by adding nine new graveyard staff for each of the eight juvenile rehabilitation community facilities. Also funds additional safety equipment such as partitioned vehicles, safety harnesses for maintenance staff and eyewash stations.

Prison swift and certain sanctioning, Department of Corrections – (\$1.7) million GF-S

Achieves savings by reducing offenders' time spent on supervision based on good behavior and compliance with supervision terms.

Juvenile Offender Basic Training Camp, DSHS – (\$1.7) million GF-S

Closes the 15-bed, 120-day program known as the Juvenile Offender Basic Training Camp (JOBTC) in Connell. JOBTC-eligible youth are low-risk, non-violent, non-sex offenders with a commitment of less than a year. This population is one-third the size it was at peak levels in 1997.

Central office funding reduction, Department of Veterans Affairs – (\$553,000) GF-S

Achieves savings related to cost containment and efficiencies in administrative functions in the DVA central office.

Enterprise Veterans Case Management System, DVA – \$600,000 GF-S

One-time funding is provided for the first phase of an information technology project to create an automated exchange of information among the federal Department of Defense, federal Veterans Administration and DVA.

Contracted forensic psychologists, DSHS – \$90,000 GF-S

Funds additional contracted capacity for annual reviews of sexually violent predators, as directed by Chapter 71.09 RCW. Without timely annual reviews, there is a potential risk of residents being released because they cannot be legally placed at the Special Commitment Center.

Foster Parent Association of Washington litigation, DSHS – \$12.5 million GF-S; \$4.2 million GF-F

Settles the Foster Parent Association of Washington lawsuit and increases reimbursement to foster parents to fully cover the cost of care when a foster child is placed in their home. Allows for adequate reimbursement and supports foster parent recruitment and retention.

Braam compliance and Child Protective Services staffing, DSHS – \$6.4 million GF-S; \$800,000 GF-F

Hires 43 more staff in child protective services, child and family welfare services, and family assessment response. Helps the department improve the conditions and treatment of children in the state foster care system to comply with measures required under the Braam settlement, effective November 2011, and enables investigations and assessments of child abuse and neglect allegations to be completed within 90 days.

Assisted living rate increase, DSHS – \$3.7 million GF-S; \$4.6 million GF-F

Increases reimbursement rates for assisted living facilities residential services. These facilities include assisted living, adult residential care and enhanced adult residential care. Assisted living was the only setting to receive two rate reductions in the past five years. This setting is a crucial Medicaid service that allows people in need of a residential placement to be served in the community instead of a more expensive nursing home.

Residential habilitation centers Medicaid compliance, DSHS – \$6.0 million GF-S; \$6.0 million GF-F

Hires 82 staff to ensure compliance with Centers for Medicare & Medicaid Services requirements for habilitation, nursing care, staff safety and client safety at the residential habilitation centers.

Community residential rate adjustment, DSHS – \$19.8 million GF-S; \$19.9 million GF-F

Increases by \$0.60 the hourly rate in fiscal year 2016 and by \$1.20 in fiscal year 2017. These rates are paid to supported-living providers who deliver in-home care services such as coordinating care and teaching skills to increase client independence. These services help keep people living in community settings.

Infectious disease response, Department of Health – \$6.0 million GF-F

Prevents new and emerging communicable disease threats from taking hold in Washington by increasing the resources necessary to recognize, identify and effectively combat communicable disease outbreaks. Resources include implementation of evidence-based practices to improve immunization coverage rates; standardizing and prioritizing communicable disease tracking, monitoring and response; and increasing capacity to receive electronic laboratory reporting of diseases through a health information exchange.

Marijuana and tobacco prevention, DOH – \$14.5 million GF-F

Supports investments in youth substance abuse prevention and education that include media-based education campaigns for youth and adults; a marijuana-use public health hotline; grants to prevent youth marijuana use; assessment and evaluation; e-cigarette prevention related to marijuana use; and tobacco prevention activities aimed at youth populations with high incidence of tobacco use.

Office of Youth Homelessness, Department of Commerce – \$900,000

Funds the creation of the Office of Youth Homelessness in Commerce to coordinate and improve services to reduce the number of homeless youth in our state.

12 months of subsidized child care, DSHS – \$22.2 million GF-S

Promotes continuity of care for children receiving Working Connections Child Care, allowing low-income children to bond and build trusting relationships with caregivers for 12 months before eligibility is re-determined. This change in state law reflects recommendations of Public Law 113-186.

TANF grant increase, DSHS – \$30.6 million GF-S

Increases the Temporary Assistance for Needy Families grant and income standard by 9 percent for 61,042 low-income families.

State food assistance grant increase, DSHS – \$9.6 million GF-S

Increases the state Food Assistance Program benefit from 75 percent to 100 percent of the federal food benefit level, providing 11,253 families with more food assistance.

NATURAL RESOURCES

Enhance State Parks operations and maintenance

Provides an additional \$20.6 million in ongoing GF-S support to stabilize and maintain State Park operations. Additional funding and staff are provided to improve park services, including more facilities and trail maintenance, and security at campgrounds.

Oil transportation safety, Department of Ecology, Utilities and Transportation Commission, Military Department, Washington Department of Fish and Wildlife – \$8.7 million

Implements HB 1449 and other measures to prevent and respond to oil spills. Funds will be used to increase the safety of oil transportation by rail and marine waters in the state. This includes developing oil spill contingency plans for oil transported by rail, completing a vessel traffic risk assessments for the Columbia River and providing grants to local communities for oil spill response equipment.

Identify geologic hazards, Department of Natural Resources – \$4.6 million

Prevents and prepares for natural disasters by providing funding on an ongoing basis for LiDAR technology to identify and map geologic hazards from landslides, earthquakes and tsunamis.

Increase wildland fire response, DNR – \$1.8 million

Provides additional resources to protect the public and property in fighting wildland fires, including \$1.2 million for additional fire engine crews and Helitack support. A total of \$648,000 is provided to implement HB 2093 to improve the use of local fire suppression contractors and coordinate with local governments on fire response.

Prevent toxics in our environment, Ecology – \$2.0 million

Provides funding to expand local source control of toxics and conduct studies of sources of toxics in stormwater.

Ocean acidification – Marine Resource Advisory Committee, DNR – \$150,000

Provides on-the-ground implementation of the comprehensive strategy to reduce the impacts of ocean acidification. Funding is provided from the Aquatic Lands Enhancement Account to continue the committee's work.

GENERAL GOVERNMENT

New central IT agency will better position state government for the future

The Legislature approved Governor Inslee's proposed legislation to align central information technology services in a single new agency. This alignment will optimize coordination among IT policy, infrastructure, services and applications groups now housed in the Office of the Chief Information Officer (OCIO), Consolidated Technology Services (CTS) and Department of Enterprise Services (DES). The state CIO will serve as director of the new agency.

The new agency will build on the consolidation efforts of 2011 to provide more value and faster service to citizens and agencies, all for less cost. This move is not expected to result in significant cost savings beyond those realized through the IT consolidation efforts in 2011. However, the budget assumes savings of about \$2.4 million through lower administrative costs by combining OCIO, CTS and parts of DES.

STATE EMPLOYEES

Budget includes modest pay raises for state employees

The 2015–17 budget includes funding for the first general wage increase for state employees in seven years. Last fall, the state reached agreements with unions representing nearly 50,000 employees in general government and higher education. The state also reached agreements with unions representing about 40,000 non-state employees who are paid by the state, including home-care workers, child care providers, adult family home workers and language access providers.

Under most of the agreements bargained by the state, employees will receive a 3 percent wage increase July 1, 2015. In the second year, employees would receive a 1.8 percent increase or 1

percent plus \$20 per month, whichever is greater. Some employees in targeted job classifications would get additional increases to help agencies address recruitment and retention issues. And a number of other employees would get larger wage increases under agreements reached through interest arbitration. The agreements with non-state employees include varying annual increases. The budget also funds a new employee health care agreement that continues the current premium split under which the state pays an average of 85 percent and the employee pays an average of 15 percent.

Altogether, compensation changes for state employees are projected to cost about \$271 million GF-S over two years. The Legislature's funding for employee health insurance during the next biennium is less than expected, reducing the overall cost of the compensation packages.

Recommendations Form

Please fill in the table below with your recommendations for each Framework indicator as applicable. For each area, consider recommendations that target underrepresented STEM populations. This is an initial list, you will be given an opportunity to expand upon these recommendations.

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
1. STEM Awareness in Washington State	Are Washington State citizens aware of the meaning of STEM?	In 2015 approximately 50% of Washington voters have heard of the term "STEM"; up from 32% in 2013.
RECOMMENDATION: <i>(Increasing Awareness)</i>		
2. Student Interest in STEM Fields	Are Washington elementary, middle- and high school students interested in pursuing STEM majors that lead to STEM careers?	In 2014 approximately 28% of Washington SAT-takers indicate an intention to pursue a STEM major; up from 25% in 2010.
RECOMMENDATION: <i>(Increasing Interest in STEM at all levels)</i>		

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>3. Student STEM Achievement Among PreK-12</p>	<p>Since success in education, particularly in STEM subjects, is affected by preparedness, including in early stages, what percentage of beginning elementary students are kindergarten ready?</p> <p>How many and what percentage of K-12 students are passing 5th grade math assessments?</p> <p>How are traditionally under-represented student populations faring?</p>	<p>In 2014-15 about half (52%) of Washington’s kindergartners met the math standard (from WAKIDs).</p> <p>In 2013-2014 about 64% of 5th graders met standard on the MSP math test; up from about 54% in 2009-10.</p> <p><i>Underrepresented populations:</i></p> <p>A lower percentage of low-income children meet standard on kindergarten math readiness compared all children (43% vs. 52% in 2014-2015).</p> <p>By 5th grade, the gap in math achievement increases for low-income children compared to children who are not low income (50% vs. 76% meet standard in 2013-2014).</p> <p>Females slightly lead males in math achievement at 5th grade and equal percentages of females and males meet the math standard for kindergarten readiness (from WA Kids)</p>
<p>RECOMMENDATION: (<i>Improving Student Achievement in STEM</i>)</p>		

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>4. Student Readiness for post-high school study/training in STEM</p>	<p>Do students have real world/project learning and internship opportunities to experience career pathways?</p> <p>How well are we preparing Washington students academically to pursue STEM careers?</p> <p>How are traditionally under-represented student populations faring?</p>	<p>In 2015 about 11% (27) of Washington School Districts have a high school that offers AP Computer science. Less than 1% of students in the high schools where AP computer science is offered take the AP course and receive credit. Among those who students who take the AP test in 2014 (1,048 students), about 66% scored 3 or above.</p> <p><i>Underrepresented populations:</i></p> <p>Of students participating in AP computer science state-wide, less than 20% are low income (2015).</p> <p>Females are underrepresented in STEM - computer science. Of all students enrolled in AP Computer Science, only 22% are female (2015). Yet, equal percentages of females and males who take the AP test score 3 or better on it (66% in 2014).</p> <p>There is limited access to AP Computer Science in Washington’s rural areas: AP Computer Science, which aligns very strongly with employer demand, is very heavily focused in the Seattle urban area, with limited availability elsewhere in the state.</p>
<p>RECOMMENDATION: <i>(Improving student readiness to pursue post-secondary training in STEM)</i></p>		

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
5. 21 st century skills	Change in STEM fields is rapid. What skills and knowledge best prepare students to adapt to changes and opportunities in a STEM workplace?	Not Available.
RECOMMENDATION: (<i>Improving students skills to better prepare them for STEM opportunities</i>)		
6. Pre-K-12 STEM classes led by effective educators	How well are we preparing our pre-service teachers? What professional development opportunities do current classroom teachers (non-class room educators) have to advance STEM preparation?	Not Available.
RECOMMENDATION: (<i>Improving STEM pedagogy and opportunities for professional development for STEM educators, teachers and leaders</i>)		

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
7. Teachers and school leaders with STEM-related degrees	How many STEM teachers are gaining certification each year? Where are they coming from? Who is a STEM teacher?	Not Available.
RECOMMENDATION: (Increasing the number of teachers and educators at all levels with STEM-degrees and credentials)		
8. Graduates from post-secondary institutions with degrees and credentials in STEM fields	Are students graduating with certificates/degrees that employers' value? Where (geographically) are the highest rates of STEM graduates coming from? How are traditionally under-represented student populations faring?	In 2013-14 about 18% of graduates from post-secondary institutions graduate in a STEM field. Among those graduating in a STEM field, most are male (61%) and not low income (83%). <i>Underrepresented populations:</i> Only 17% of all STEM degrees awarded are to low income (2013-2014) compared to 83% not low income. Only 39% of STEM degrees awarded are to females (2013-2014) compared to 61% of males.
RECOMMENDATION: (Increasing the number of students that graduate with degrees and credentials in STEM fields that in demand by Washington employers)		

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
<p>9. Alignment of STEM education program with workforce needs of key economic sectors</p>	<p>Do we have an adequate supply of STEM trained workers in Washington State to meet the demand of employers? If not, how large is the gap now and what is it projected to be in the future?</p> <p>How many people are “imported” into Washington State each year to meet the demand for STEM degrees?</p> <p>What STEM occupations/fields are in highest demand? Lowest demand? Are these STEM occupations/fields in low demand as a result of a highly skilled workforce in those areas, a lack of need from employers, or other reasons?</p> <p>Who are the largest STEM employers in the state?</p> <p>What are the average STEM salaries by industry sector and how does that compare to non-STEM salaries?</p> <p>Geographically, STEM fields are in every region of our state. Where and what are the STEM job opportunities in the state?</p> <p>What industry sectors should be targeted in order to meet the demand for STEM workers?</p>	<p>There isn’t enough supply of STEM workers to fill employer demand for these skills; and, the gap is especially acute for employers seeking individuals with computer science degrees/skills:</p> <ul style="list-style-type: none"> In 2015, there was a shortage of over 20,000 employees that are needed to fill Washington STEM jobs. The vast majority of these unfilled jobs were in Seattle/King County. The biggest gaps were in computer and mathematical occupations and health care (Employment Security Department). At the baccalaureate level, degree production in the health, computer science, engineering, and other STEM fields has increased steadily over the last several years. Health sciences degree completions grew consistently, increasing by nearly 35% from 2007 to 2012. Degree production in the fields of engineering and related technology (27.4%), science and mathematics (28.4%), and computer science and information technology (13%) also grew substantially during this same time period. <p>Despite progress in recent years, the largest gaps between degree production and employer demand at the baccalaureate and graduate levels are in the fields of <u>computer science and engineering</u>. In computer</p>

Framework Indicator	Policy Questions	Data (AS AVAILABLE)
		science, demand exceeds the current rate of degree production by 146%.
<p>RECOMMENDATION: <i>(Increasing the number of workers with STEM training to meet employer needs)</i></p>		
<p>10. State and Local Systems to Support STEM Success</p>	<p>How well are our systems and resources aligned to ensure sustained success of STEM?</p>	<p>Not Available.</p>
<p>RECOMMENDATION: <i>(What are ways to improve the alignment, partnerships and funding of STEM activates in our state?)</i></p>		

Governor Inslee's STEM Education Innovation Alliance - September 17, 2015 Meeting - Washington State Capitol, Insurance Building

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