Individual State Agency Fiscal Note

Revised

Bill Number: 6553 SB	Title: Math & science/graduation	Agency: 350-Supt of Public Instruction

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

ACCOUNT					
Total $					

Estimated Expenditures from:

	FY 2010	FY 2011	2009-11	2011-13	2013-15
Account					
General Fund-State 001-1	0	0	0	4,514,000	13,378,500
Total $	0	0	0	4,514,000	13,378,500

Estimated Capital Budget Impact:

Total $						

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

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Request # EXPREVISIO-6

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

PLEASE SEE ATTACHMENT

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

PLEASE SEE ATTACHMENT

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2010	FY 2011	2009-11	2011-13	2013-15
FTE Staff Years					
A-Salaries and Wages					
B-Employee Benefits					
C-Personal Service Contracts				4,514,000	13,378,500
E-Goods and Services					
G-Travel					
J-Capital Outlays					
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements					
9-					
Total:	$0	$0	$0	$4,514,000	$13,378,500

Part IV: Capital Budget Impact

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

SUMMARY

2915 - 6553

Mathematics Graduation Requirement

In order to graduate from high school, students must meet local and state graduation requirements. Meeting standard on the high school mathematics assessment is one of the graduation requirements. Meeting standard on the high school mathematics assessment is phased in, and additional credits are required at the state level. A student does not need to meet standard on the high school mathematics assessment through the graduating class of 2014, but must successfully earn two high school mathematics credits.

1) **Postpones requirement two years:** Postpones the mathematics assessment graduation requirement from the class of 2013 (current 9th graders) to the class of 2015.

2) **Extends current credit requirement:** Extends the *current* mathematics graduation requirement for the classes of 2009-12 to also include students in the classes of 2013 and 2014. In order to be eligible to graduate, these students must:

a. Meet standard on the two new high school end-of-course math assessments, a comprehensive exam, or state-approved alternatives; or
b. Earn two math credits after 10th grade.

3) **Reinstates assessment requirement for 2015 class with basic level addition**: For students in the classes of 2015 and beyond, in order to be eligible to graduate, students must:

a. Meet the proficiency level on both end-of-course assessments; or
b. Meet at least the ***basic level*** on both end-of-course exams and earn ***four math credits***.

The State Board of Education shall establish basic levels of performance on the mathematics end of course assessments.

Science Graduation Requirement

In order to graduate from high school, students must meet local and state graduation requirements. Meeting standard on the high school science assessment is one of the graduation requirements. Meeting standard on the high school science assessment is phased in.

1.) **Postpones requirements for four years:** Postpones the science assessment graduation requirement from the class of 2013 until the class of 2017. For the class of 2017 and beyond, students must meet the basic-level on at least two of the science end of course assessments to graduate.

2.) **Creates end of course science assessments**: Replaces the current comprehensive high school science assessment with the end of course assessments in biology, physical sciences, and earth sciences, two of these assessments will be administered beginning in spring 2012. The third shall be administered beginning in spring 2013.

The State Board of Education shall establish basic levels of performance on the science end of course assessments.

The opportunity to retake the assessment is required to be made available twice per year.

In addition a score of three on the AP exam in biology, chemistry, physics, or environmental sciences may be used as an alternate assessment.

The statewide science assessment becomes three end of course assessments. The end of course assessments will be developed for biology, physical sciences, and earth sciences. The first two of these assessments shall be implemented statewide in the 2012-2013 school year.

By December 1, 2013 the Superintendent of Public Instruction (OSPI) in consultation with the State board of Education shall report to the governor and the education committees on the implementation of science standards.

EXPENDITURE DESCRIPTION

A combination of any or all of the following cost centers may be affected by changing the high school graduation requirements:

The cost of developing the assessment;

The number of students taking the assessment;

The number of students retaking the assessment during the spring;

The number of students retaking the assessment in the late summer;

The cost of developing the collection of evidence guidelines;

The number of collections of evidence submitted and scored.

MATHEMATICS

<u>The cost of developing the assessment</u>

Current funding levels support the development of the end of course mathematics assessments which are currently required to be implemented statewide in FY 2011. No additional funds are required.

<u>The number of students taking the Assessment</u>

N-Count –Background

n typically denotes a count of objects, or, in statistics, the number of individuals

For purposes of this fiscal note N is the population/booklet count equal to 80,000. As an example, if all 7th grade students participated in an end of course assessment, 100% is applied to 80,000.

It is assumed that 100% of students in a graduating class will participate in end of course assessments. In any given fiscal year, 7th[nd] graders through seniors will be enrolled in one of the two sequences of end of course (EOC) assessment classes.

	Percent of a cohort taking Yr1 and Yr2 Math in given grade levels						
	7	8	9	10	11	12	TOTAL
Yr 1 (Alg1/Int1) taken in...	2%	8%	74%	13%	4%	0%	100%
Yr2 (Geom/Int20 taken in...	0%	2%	8%	74%	13%	4%	100%

These projections are based on grade history information for currently enrolled HS students in seven districts of various sizes. Grade history information is being collected in CEDARS for the first time in 2009-10, so we used data from the sample of districts that are most successful with supplying these data. As time progresses we will be able to use CEDARS to track actual course enrollments and the related need for EOC tests.

N is assumed to be 80,000. N for 7th graders is 1,600 (80,000 x 2%), 8th graders N are 6,400 (80,000 x 8%) and so on. For costing purposes, in one fiscal year, N is a combination of 7th graders through seniors participating in the assessment. For each end of course sequence N = 80,000, for two end of course sequences, N = 160,000. The N count drives costs and is a good proxy for determining total costs (fixed and variable). Contractual agreements are based on N for each grade, and one N is approximately $15.00 in FY 2010. In FY 2011 one N is $17, and in FY 2012 1 N is $19.

Under current law there will be a onetime increase in assessment costs in FY 2012 because the graduating class of 2013 will take make-up assessments in FY 2011. The cost increase is associated with the fact that any student who is currently enrolled in a class that has the associated EOC assessment and any student who has previously taken a class for which there would have been an EOC assessment will take the end of course assessment if they are in the graduation class for which meeting standard is a graduation requirement. N is based on 305% of a population of 80,000 and is 244,000 and in FY 2012, instead of 160,000.

Under new law, delaying the mathematics graduation requirements means there will be no makeup assessments, and N will equal 200% or 160,000 in any given fiscal year. Therefore the cost avoidance is $1,596,000 in FY 2012 (for the difference between an N of 305and an N of 200 assessments) and no cost or savings in FY 2013 and beyond.

The number of students retaking the assessment during the spring

It is expected that there will be savings associated with spring retakes beginning in FY 2011 through FY 2013. Participation in spring retakes will begin in FY 2014 when the graduating class of 2016 is sophomores and have taken an end of course sequence as high school freshmen in 2013. The savings is realized in FY 2012 through FY 2014 since the majority of the cost is associated with scoring, which occurs after July 1. (Approximately 80,000 at $7.75) Savings are $620,000 in FY 2012, FY 2013, and in FY 2014.

The Number of Students Retaking the Assessment in late Summer

It is assumed that the very few students (25%) will retake the mathematics assessment in the fall until FY 2015 when the graduating class of 2016, as sophomores will have taken a spring retake in FY 2014. In FY 2015 participation in late summer assessments for mathematics will increase to 100%. The savings in FY 2012 is $125,400 per year through FY 2014.

The cost of developing the collection of evidence guidelines

Additional resources will not be required to develop end of course collections of evidence for mathematics.

The number of collections of evidence submitted and scored

The collection of evidence retake option is not available until meeting standard on mathematics is a graduation requirement. The policy has been implemented as a cost savings measure. The option will again become available for the class of 2016. At that time, additional resources will be required.

Districts receive $300 per collections of evidence (COE) that are submitted and are considered sufficient. For FY 2011 through FY 2014 this cost is avoided. Anticipated cost avoidance for FY 2011. The term cost avoidance is deliberately used because the policy decision was made due to FY 2011 the higher than expected use of the math collection of evidence for which no budget was anticipated.

Reducing the graduation requirement to the "basic" standard may reduce the cost of retakes in both the spring and fall retake opportunities. Until "basic" is defined, the magnitude of savings cannot be calculated.

SCIENCE

The cost of developing the assessment and the number of students taking the assessment

Changing the assessment design to the end of course format will require additional resources for developing and administering three assessments.. The estimated cost of one science end of course assessment is based on the per "N" cost of an assessment. In FY 2012 N is equal to $19.00. N is assumed to be 80,000 per EOC or $1,520,000. N increases to 160,000 from the current 80,000, beginning FY 2012 because two EOC are to be available. It is possible that an increase of $1,520,000 could occur as early as FY 2011, however, it is assumed that contract savings will be negotiated to keep the current biennium costs covered. A third EOC is available in FY 2013 for which development costs will occur in FY 2012. The estimated cost of the compliment of 3 EOC science assessments is $4,560,000 per year.

The number of students retaking the assessment during the spring and late summer.

No students are assumed to be retaking the high school science assessment(s) in the spring until FY 2015 and late summer FY 2016. Savings is assumed to be $659,600 per year, beginning with retakes in FY 2011 (savings occurring after July 1, 2011 because scoring occurs in FY 2012), in FY 2012 and through FY 2014. In FY 2015, if the passage rate is assumed to be 50%, spring and late summer retake participants is assumed to be 120,000. If you assume 75% of the retakes occur in the spring and 25% occur in the late summer retake option, the retake cost in FY 2015 is $687,500 and the late summer retake (FY 2016) is assumed to be $570,000.

The cost of developing the collection of evidence guidelines

If collections of evidence are used as a science retake opportunity, existing staff will develop some of the guidelines, but 1.0 additional staff (plus.3 administrative assistance) will be required due to the breadth of the science EOCs. The cost is $151,000 beginning in FY 2014.

The number of collections of evidence submitted and scored

Once collections of evidence are used as a retake opportunity, additional resources will be needed. The class of 2017 will be freshman in FY 2014, and could submit a collection of evidence the FY 2015. The general per cost of a collection is $417 per content area. In addition, districts are paid $300 per collection submitted. For example, if it is assumed that 2000 science collections are received, $1,434,000 additional resources would be required. To more accurately predict the cost of the collections, passage rates of the science assessments need to be factored in once they are known.

Other Retake Options

The bill adds of Advance Placement exams as an alternative for meeting standard on science – though possible increased access to additional AP tests. It is assumed that 30,000 students per year would access this alternative. The current cost to take an AP exam is $86. Therefore the cost could be $2,580,000 beginning in FY 2015.

State Board of Education

No additional resources will be required by the State Board of Education to establish performance level standards for mathematics or science.

Fiscal Year and Second half of a school year	2011	2012	2013	2014	2015	2016	2017
Mathematics							
The cost of developing the assessment		$ -	$ -	$ -	$ -		
The number of students taking the assessment		$ (1,596,000)	$ -	$ -	$ -	$ -	
The number of students retaking the assessment in the spring		$ (620,000)	$ (620,000)	$ (620,000)	$ -	$ -	
The number of students retaking in the late summer		$ (125,000)	$ (125,000)	$ (125,000)	$ -	$ -	
The cost of developing the collection of evidence guidelines		$ -	$ -	$ -	$ -	$ -	
The number of collections submitted and scored		$ -	$ -	$ -	$ -	$ -	
Science							
The cost of developing the assessment and the number of students taking the assessment	$ -	$ 3,040,000	$ 4,560,000	$ 4,560,000	$ 4,560,000	$ 4,560,000	$ 4,560,000
The number of students retakin ghe high school assessments during the summer and late spring					$ 687,500	$ 570,000	$ 1,257,500
The cost of developing the collection of evidence guidelines				$ 151,000	$ 151,000	$ 151,000	$ 151,000
The number of collections of evidence submitted and scored.					$ 1,434,000	$ 1,434,000	$ 1,434,000
Other Retake Options (AP Exams)					$ 2,580,000	$ 2,580,000	$ 2,580,000
TOTAL	$ -	$ 699,000	$ 3,815,000	$ 3,966,000	$ 9,412,500	$ 9,295,000	$ 9,982,500

Fiscal Year and Second half of a school year	2008	2009	2010	2011	2012
Current Law - Mathematics					
OSPI Required to offer EOC (RCW 28A.655.066)					
Class of 2012	Class of 2013 Eighth	Class of 2013 Freshmen	Class of 2012 Sophomore	Class of 2012 Juniors	Class of 2012 Seniors
N count Comprehensive			100%	0%	0%
EOC Algebra/Integrated	8%	74%	13%	4%	0%
EOC Geometry/Integrated	2%	8%	74%	13%	4%
Class of 2013	Class of 2013 Seventh	Class of 2013 Eighth	Class of 2013 Freshmen	Class of 2013 sophomores	Class of 2013 Juniors
EOC Algebra/Integrated	2%	8%	74%	13%	4%
EOC Algebra/Integrated				74%	0%
EOC Algebra/Integrated				8%	0%
EOC Algebra/Integrated				2%	0%
EOC Geometry/Integrated	0%	2%	8%	74%	13%
EOC Geometry/Integrated				8%	0%
EOC Geometry/Integrated				2%	0%
Class of 2014		**Class of 2014 Seventh Grade**	**Class of 2014 Eighth Grade**	**Class of 2014 Freshman**	**Class of 2014 Sophomore**
EOC Algebra/Integrated	0%	2%	8%	74%	13%
EOC Algebra/Integrated				8%	0%
EOC Algebra/Integrated				2%	0%
EOC Geometry/Integrated	0%	0%	*2%*	*8%*	*74%*
EOC Geometry/Integrated				2%	0%
Class of 2015			**Class of 2015 Seventh**	**Class of 2015 Eighth Grade**	**Class of 2015 Freshmen**
EOC Algebra/Integrated			2%	8%	74%
EOC Algebra/Integrated				2%	0%
EOC Geometry/Integrated			0%	2%	8%
Class of 2016				**Class of 2016 Seventh Grade**	**Class of 2016 Eighth Grade**
EOC Algebra/Integrated				2%	8%
EOC Geometry/Integrated				0%	2%
Class of 2017					**Class of 2017 Seventh**
EOC Algebra/Integrated					2%
TOTAL EOC			**0%**	**305%**	**200%**