

**MISSOURI STATE AUDITOR'S OFFICE
FISCAL NOTE (12-09)**

Subject

Initiative petition from Marc Ellinger regarding a proposed constitutional amendment to Article IX. (Received January 18, 2012)

Date

February 6, 2012

Description

This proposal would amend Article IX of the Missouri Constitution.

The amendment is to be voted on in November, 2012.

Public comments and other input

The State Auditor's office requested input from the **Attorney General's office**, the **Department of Agriculture**, the **Department of Economic Development**, the **Department of Elementary and Secondary Education**, the **Department of Higher Education**, the **Department of Health and Senior Services**, the **Department of Insurance**, **Financial Institutions and Professional Registration**, the **Department of Mental Health**, the **Department of Natural Resources**, the **Department of Corrections**, the **Department of Labor and Industrial Relations**, the **Department of Revenue**, the **Department of Public Safety**, the **Department of Social Services**, the **Governor's office**, the **Missouri House of Representatives**, the **Department of Conservation**, the **Department of Transportation**, the **Office of Administration**, the **Office of State Courts Administrator**, the **Missouri Senate**, the **Secretary of State's office**, the **Office of the State Public Defender**, the **State Treasurer's office**, **Cass County**, **Jackson County Legislators**, **St. Louis County**, the **City of Cape Girardeau**, the **City of Kansas City**, the **City of Kirksville**, the **City of Springfield**, **Cape Girardeau 63 School District**, **Hannibal 60 School District**, **Rockwood R-VI School District**, **Linn State Technical College**, **Metropolitan Community College**, **University of Missouri**, **St. Louis Community College**, **University of Central Missouri**, **Harris-Stowe State University**, **Lincoln University**, **Missouri State University**, **Missouri Southern State University**, **Missouri Western State University**, **Northwest Missouri State University**, **Southeast Missouri State University**, **Truman State University**, and **University of Missouri**.

The **Missouri Association of School Administrators** (submitted by **Roger Kurtz, Executive Director**) provided information as a opponent of the proposal to the State Auditor's office.

Assumptions

Officials from the **Department of Agriculture** indicated there will be no fiscal impact on their department.

Officials from the **Department of Economic Development** anticipate no fiscal impact as a result of the proposed legislation.

Officials from the **Department of Elementary and Secondary Education** indicated:

Sections 3(d) and (f)

These provisions carry eventual unknown costs that could be significant to the Department of Elementary and Secondary Education and to local county governments. While the language is declarative, no mention is made to enforcement of the provision. When the language indicates "No school district receiving any state funding or local tax revenue funding shall....," it implies enforcement of the provision. The department cannot withhold funding without substantiated cause. In order for the department to show substantiated cause, it must have a method to collect and review pertinent data that would support its actions. This would require additional staffing and/or data system development and maintenance (a number not yet determined) to collect and analyze contracts for each teacher in the state to verify duration of contracts on an annual basis.

Further, it would be necessary for the department to report districts determined to be in violation to one hundred-fourteen counties and one city in Missouri. Most counties have multiple school districts and many school districts are in multiple counties. It would be incumbent upon the counties then to put mechanisms into place to suspend payments to the respective violators of this provision. The cost to the counties and one city to put this system into place would be significant statewide. Additionally, counties would also face the possibility of a significant increase in litigation exposure relative to the withholding of funds.

While it is impossible to determine the exact amount of cost, the potential cost to the state, counties and one city driven by the need to assure that funds are not distributed in violation of this section would be in the millions of dollars.

Section 3(g)

If it is determined that the state shall develop and implement evaluation technical assistance, then costs could be similar to those incurred by the state of Florida's public school system model totaling \$4.5 million. If state assessments are required to provide student performance data for all teachers, additional state costs could be incurred.

The exact cost of this provision is also difficult to calculate. This provision calls for each district to develop its own local performance standards for teachers "to retain, remove, promote, demote and set compensation." In effect this would establish 520 accountability systems and thereby set aside the Missouri Accountability Standards established by the State Board of Education. Local districts would incur significant cost

in the aggregate for establishing customized accountability systems which counter the concept of statewide educational goals. Such systems would have difficulty meeting validity tests which could increase the likelihood of litigation cost.

For the department to establish assessments that could be used statewide, a significant increase in test development and ongoing administrative expenses would be required. Funds have not been available to allow for expanded assessment capabilities that would allow districts to move to a more thorough collection of student performance data. The requirement that all staff be assessed based upon student performance would demand that assessment instruments be in place to measure student success in all cases where “teachers” are employed. While the department has not done research to determine the cost and scope of assessments that would be required to address this provision, it can be documented that the annual cost of assessments for the limited testing now done is in excess of \$10 million. This number would grow exponentially if the department was to assure all content areas, grade levels, and instructional support areas were assured valid assessments of student performance.

Officials from the **Department of Higher Education** indicated the proposal contained in this initiative petition would have no direct, foreseeable fiscal impact on their department.

Officials from the **Department of Health and Senior Services** indicated this initiative petition is a no impact note for their department.

Officials from the **Department of Insurance, Financial Institutions and Professional Registration** indicated this petition, if passed, will have no cost or savings to their department.

Officials from the **Department of Mental Health** indicated this proposal places no direct requirements on their department that would result in a fiscal impact.

Officials from the **Department of Natural Resources** indicated they would not anticipate a direct fiscal impact from this initiative petition.

Officials from the **Department of Corrections** indicated there will be no impact for their department.

Officials from the **Department of Labor and Industrial Relations** indicated this initiative petition has no fiscal impact on their department.

Officials from the **Department of Revenue** indicated this initiative petition will have no fiscal impact on their department.

Officials from the **Department of Social Services (DSS)** indicated this initiative petition has some relevance to their department as the Division of Youth Services (DYS) employs teachers in schools operated in its facilities. Also, for at least some purposes, including the school foundation formula, DYS is considered a school district. Teachers employed

by DYS are merit system employees. Therefore, we are trying to work out any conflict that may exist between being an "at will" employee of a school district and a merit system employee.

Section 3(d) - Currently, teachers and other educational staff are employed by the Department of Social Services in the DYS as employees of the Missouri Merit System under Chapter 36 State Personnel Law (Merit System). To make these staff "at will" employees, the incumbents in these positions would be required to resign or be terminated from (if they did not voluntarily resign) their merit positions and be placed in unclassified positions not covered under the Merit System. This could affect as many as 150 DSS employees in our Academic Teacher, Special Education Teacher and Vocational Teacher job classifications.

A change in the law (Chapter 36) and state personnel regulations by the Office of Administration would have to be completed to allow DSS to change these merit positions to unclassified positions. Only 1% of a division's positions can be filled as unclassified appointments. Changing 150 employees from merit to unclassified would cause the division to exceed the maximum and they would be unable to fill all the necessary positions creating a negative impact upon the division, clients, and provision of critical services to the youth in DYS custody. To allow all impacted positions to be filled as unclassified, there would also have to be a change in the state personnel regulations 1CSR 20-1.040(2) to allow these DYS job titles to be established and filled without regard to provisions of the State Personnel Law. In other words, these positions would be exempt from the department's one percent restriction of unclassified job titles.

This legislation is unclear which job titles would be included in "certificated staff." Based on discussions with the Department of Elementary and Secondary Education (DESE) Certification Unit, the assumption is being made that "certificated staff" refers to teachers that hold tenure in the classroom per Department of Education definitions. However, other staff in the DYS program holds certifications (e.g., nurses, psychologists, counselors). The definition of "certificated staff" needs to be clearly defined and the fiscal impact could change depending on that.

Section 3(e) – This implies that these staff would be contracted; however, the agency believes it could meet the requirements of "at will" by using the unclassified service.

Section 3(f) - The job titles used in DYS are bargaining unit eligible classifications for the Department of Social Services under the Communication Workers of America (CWA) Local 6355, AFL-CIO. According to the CWA agreement, seniority, as defined in Article 17 of the Agreement, is used as the determining factor in all requests for promotions when all other work related factors are equal. There is a savings clause that states that if a federal or state law or regulation passes that invalidates a portion of the agreement, the remaining agreement would remain in place. However, the agency would also need to address whether the job classifications, if they would become unclassified, are still appropriate for the DSS/CWA bargaining unit.

Section 3(g) – To set performance standards for teachers for promotions and pay raises based on quantifiable student performance data would put the DYS teachers at a disadvantage as their students stay in the facilities for a short time, not necessarily a normal school year. This could cause an unreasonable timeframe for the student's performance to be measured resulting in inaccurate performance data.

There is no known fiscal impact from a human resource perspective for this petition.

Officials from the **Governor's office** indicated there should be no added costs to the their office if this amendment is approved by the voters.

Officials from the **Missouri House of Representatives** indicated there will be no fiscal impact to their agency.

Officials from the **Department of Conservation** indicated no adverse fiscal impact to their department would be expected as a result of this proposal.

Officials from the **Office of Administration** indicated there should be no added costs or savings to their office if this petition is passed by the voters.

Officials from the **Office of State Courts Administrator** indicated there is no fiscal impact on the courts.

Officials from the **Secretary of State's office** indicated their office is required to pay for publishing in local newspapers the full text of each statewide ballot measure as directed by Article XII, Section 2(b) of the Missouri Constitution and Section 116.230-116.290, RSMo. Their office is provided with core funding to handle a certain amount of normal activity resulting from each year's legislative session. Funding for this item is adjusted each year depending upon the election cycle with \$1.3 million historically appropriated in odd numbered fiscal years and \$100,000 appropriated in even numbered fiscal years to meet these requirements. The appropriation has historically been an estimated appropriation because the final cost is dependent upon the number of ballot measures approved by the General Assembly and the initiative petitions certified for the ballot. In FY 2011, at the August and November elections, there were 6 statewide Constitutional Amendments or ballot propositions that cost \$1.02 million to publish (an average of \$170,000 per issue). Therefore, their office assumes, for the purposes of this fiscal note, that it should have the full appropriation authority it needs to meet the publishing requirements.

Officials from the **Office of the State Public Defender** indicated this initiative petition will not have any significant impact on their office.

Officials from the **State Treasurer's office** indicated there is no fiscal impact to their office.

Officials from the **City of Kansas City** indicated this proposal does not address the activities of the city and therefore, has no fiscal impact on the city.

Officials from the **Cape Girardeau 63 School District** indicated:

Overview:

This document describes the anticipated fiscal impact of the proposed amendment to Article IX of the Missouri Constitution to the Cape Girardeau School District. While our analysis focuses on the impacts to our district - we share the same concerns voiced by Mr. Roger Kurtz in his submission to your office regarding the impact of the proposed amendment.

We believe this Amendment has wide ranging financial impacts for Local Government entities who would be required constitutionally to develop expertise on school district evaluation policies before releasing local funds, our analysis will focus the specific costs of the impact of developing student assessment tools for all grades across all subject areas, implementing a testing regime, and applying those tools to develop and execute an evaluation model as prescribed in sections 3(f) and 3(g) of the amendment using data from Missouri and similar proposals from Colorado as a basis for analysis.

In general the proposed amendment's costs are driven by the need to create quantifiable and objective data on each Missouri student, in every subject, to be used as a basis for evaluation of educators.

To acquire the incredible amount of data necessary to fulfill this goal is a herculean task - a proven and statistically reliable test for every subject must be created and administered for every grade level to every student. Missouri has developed test for a handful of core subjects and administers them periodically in a student's progression from kindergarten to the 12th grade. This allows a real and accurate basis for the costing of testing for every child in every subject.

The Cape Girardeau School District:

The Cape Girardeau School District is an accredited district located in Cape Girardeau County, Missouri. The district serves a diverse population.

Our district contains six elementary schools, one junior high-school and one high-school, a total enrolment of 4,122 and 425 teachers.

Enrollment (Prior Year)	Schools	Cert. Staff	Residents	Non-Res.	Total
Elementary Schools	5	163	1,646	122	1,768
Middle Schools	1	55	583	0	583
Jr. High Schools	1	60	575	1	576
High Schools	1	147	1,153	42	1,195
Total	8	425	3,957	165	4,122

Test Development and Implementation Costs and Considerations

Mr. Ellinger's submission requires that every school district develop a set of locally based performance standards a majority of which is based on "quantifiable data":

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

Our assumption is the state would develop a series of "template" standards of evaluation and guide the development of testing tools that could be utilized by our district.

Development:

Test development is a prohibitively expensive undertaking for any school district we would be unable to fund the development of tests to meet the reliability, validity and scope required by this proposal.

Any school district will require defensible research-based measures provided by the state, given the results of these assessments would be the major factor in employment decisions and likely policy makers will later use the data to make funding or accreditation decisions.

Currently, the state of Missouri provides assessments in only two subjects, math and communication arts, for students in grades 3-8 and one year in high school. Science tests are available for one elementary, one middle school grade, and high school biology.

The state paid for the development of the tests, including item and task specification, item authoring, bias and sensitivity checks, psychometric work, piloting, lay out and printing for the paper based 3-8 tests, and computer adaptive work for the high school tests.

The state pays for the scoring of these tests, at .06 per test. Until the recent budget crisis, the cost to score was higher, as Missouri's assessments were not limited to multiple-choice questions as they are now. Previous assessments included constructed response questions where students wrote in short answers, as well as performance

events where students wrote an essay or did multi-step problem solving, such as figuring the cost of installing a chain link fence for a yard of a given dimension.

In addition, tests need ongoing revisions through the use of parallel questions, so the questions are not the same from year to year, but the knowledge and skill tested remains the same.

In recent years, this annual revision has been limited due to budget restraints. Constructed response items and performance events have been removed from the assessments. In addition, budget cuts have forced DESE to pay the cost of current year assessments out of the next years' funding.

In order to evaluate teachers based on student assessments, you must first have baseline achievement data on each student for that subject. Current growth models can only provide data for 4th - 8th grade students in math and communication arts, because there is not baseline data for third graders. High school courses each consist of distinct content and scores on one course cannot be considered a starting point for another with the possible exception of Algebra I and II.

Massachusetts began to use student growth measured by state assessments in teacher evaluations, and found current assessments only produced data for 17% of teachers. The language in 3 (g) would require annual assessments of pre-K to 8th grade students in every subject. High school courses would require pre-tests at the beginning of the course as well as end of course tests to measure student achievement growth in each course offering.

The following list of courses was taken from the Missouri School Improvement Program 4 Resource Standards, found at www.dese.mo.gov.

Table 1 School Improvement Courses

	Elementary Courses	Middle School Courses
1	Math by grade	Math by grade
2	Reading by grade	Reading by grade
3	Language Arts by grade	Language Arts by grade
4	Social Studies/History by grade	Social Studies/History by grade
5	Science by grade	Science by grade
6	Music by grade	Vocal Music
7	Art by grade	Instrumental Music
8	Physical Education by grade	Art
9	Foreign Language by grade	Physical Education by grade
10	Health by grade	Health
11	Career Awareness by grade	Foreign Language
12	Instrumental Music I and II	Speech
13	Library Skills by grade	Algebra 1
14		Agriculture
15		Family and Consumer Science
16		Industrial Technology
17		Computer Literacy
18		Career Education

Middle school students are required to take the four core subjects, physical education, health, art and music. Some students will also have a stand-alone reading course. This totals nine subjects for one year. Seventh and eighth graders must in addition have access to four exploratory classes, bringing the total courses for them to 13. Some of these courses would only last for 6 weeks, others may last a semester.

Development Costs:

Table 2 illustrates the costs associated with developing new testing regimes from previous RFPs on Smarter Balanced Assessment Consortium website. **We would expect the state to bear the cost of developing these testing mechanisms. Indeed no testing regime can be considered viable without significant state resources.**

Table 2: RFP for Smarter Balanced Assessment

PROJECT	DETAILS	BID COST Estimate
SBAC RFP No. 14	SBAC Pilot Item/Task/Stimulus Research Development and Reviews	\$19,000,000
SBAC RFP No. 07	Item Authoring and Item Pool Application	\$1,988,000
SBAC RFP No. 09	Test Blueprint and Computer Adaptive Test Specifications	\$1,457,721
SBAC RFP No. 08 1-2012 to 10-2013	Participation and Training Materials	\$739,392
SBAC RFP No. 05	Psychometric Services	\$3,500,000
SBAC RFP No. 06	Development of Accessibility and Accommodations Policies and Materials	\$930,000
SBAC RFP No. 04	SMARTER Balanced Assessment Consortium Request for Proposals to Develop Item and Task Specifications, Style Guide, Bias and Sensitivity Guidelines, and Accessibility and Accommodations Guidelines	\$1,500,000
SBAC RFP No. 03	SMARTER Balanced Assessment Consortium II Systems Architecture (word)	\$2,000,000
SBAC RFP No. 02	IT Readiness Tool for SBAC and PARCC (word)	\$500,000 (2011-14)
SBAC RFP No. 01	Smarter Balanced Assessment Communications RFP	\$2.2 million (2011-14)
RFP 2010-07 (SBAC RFP)	Comprehensive Assessment Systems Grant - Project Management Partner	Not included

Total for Math and CA		\$33,815,113 for 14 tests
<i>Cost per test to develop</i>		<u>\$2,415,365</u>
Total FY 2013 Cost for 481 new tests		\$1,161,790,565

Administration Costs:

Administering assessments for pre-K through 2nd grade students is significantly more costly for school districts, as much of this testing must be administered one-on-one. This means the district hires a substitute for the several days it takes the classroom teacher to complete individual student assessments.

On average, Missouri high school students take seven classes a day, one to three of which are semester courses. Older students take more semester courses.

Cost to districts: Cost estimates are based on current charge districts for MAP tests, and testing every student in every subject.

Table 3: Average cost of MAP testing to the Cape Girardeau School District from the State of Missouri

Grade	Total students	Cost per test	Cost to test one subject	Number of subjects	Statewide total
K-6	2,351	\$1.80	\$4,231.80	9	\$38,086.20
7-8	576	\$1.80	\$1,036.80	7 x 2 tests	\$14,515.20
9-12	1,195	\$1.80	\$2,151.00	8 x 2 tests	\$34,416.00
	FY 2013 New costs and reoccurring FY2014				\$87,017.40

Teacher Evaluation Assumptions and Data:

In developing the cost estimates contained we relied on the experiences other states have had in creating a similar evaluation model prescribed in the proposed amendment. Specifically, the removal of teacher experience as part of compensation 3(f) and the development of new evaluation systems for educators on the district level (3g):

3(f) Notwithstanding any provisions of this constitution, no school district which uses seniority or duration of employment as a basis, in whole or in part, to retain, remove, promote or demote teachers shall receive any state funding or local tax revenue.

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

While our analysis will cite information from multiple states - the recent experience of Colorado in developing a remarkably similar system of teacher evaluation and estimating the implementation costs serves as a good exemplar of what Missouri policy makers and budget analysts should expect as they are required to implement sweeping changes to teacher evaluation and compensation. Additionally CO and MO have similarly sized public education systems - and when

ranked nationally are very close in size and scope (See table 4 below).

Table 4: Similarities in the size of public education systems in MO and CO*

	Missouri	National Rank (MO)	Colorado	National Rank (CO)
Average Daily Attendance (2010)	835,780	19	771,938	21
Number of Public High School Graduates '09-'10	62,342	20	46,811	22
Number of Public School Teachers K-12	67,882	14	48,960	23

*NEA Research. (2010). Rankings & Estimates Rankings of the States 2010 and Estimates of School Statistics 2011.

http://www.nea.org/assets/docs/HE/NEA_Rankings_and_Estimates010711.pdf

Salary data used in this analysis will assume average pay for a Missouri teacher at \$45,317 or 48th in the nation and 81.5% of the national average.

The Colorado Experience:

In May of 2010, Colorado passed Senate Bill 191 which completely changed how public-school educators were evaluated in Colorado. **At the core of the proposal were two policy objectives similar to those in 3(f) and 3(g)** of the current proposal: 1) the removal of duration of employment as a basis of evaluation in whole or in part and 2) replaced with a model where quantifiable student growth/achievement represents at least 50% of the total performance by quantifiable and objective standards. Table 7 below places the proposals for quantifiable measurement side-by-side for comparison:

Table 5: Comparison of Measurement Standard of Ellinger
Proposal v. SB 191 Colorado

	<u>Ellinger Missouri Proposal</u>	<u>Senate Bill 191 Colorado</u>
Side-by-side comparison of measurement standards from MO and CO	"3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria. "	"Procedures for prioritizing or weighting measures of performance that ensure that measures of student growth represent at least 50 percent of total performance and are prioritized by technical quality, and that measures of professional practice are prioritized by local objectives. "
Source	*Ellinger Submission. (January 17, 2012). Pg 3	* Colorado State Board of Education. Report & recommendations; submitted to the Colorado State Board of Education pursuant to SB 10-191. (April 13, 2011). Pg 18 Available online: http://www.cde.state.co.us/EducatorEffectiveness/downloads/Report%20&%20appendices/SCEE_Final_Report.pdf

We believe the process of estimating costs to local school districts used by the Colorado State Board of Education will shed light on the Ellinger proposal and permit an estimate of the fiscal impact to the Cape Girardeau School District.

Translating the Colorado Experience to Missouri:

For purpose of analysis we will assume the following role for the state:

- 1) Create an exemplar template and evaluation system with a resource bank of evaluation tools.

- 2) Provide student, teacher, and parent survey instruments and analysis of results to districts.
- 3) Provide a definition of what constitutes a qualified educator for every subject area and grade level.
- 4) Develop materials to support professional development.
- 5) Collect and report evaluation data for the state.

NOTE: None of this is guaranteed or funded under the Ellinger proposal - nor do we attempt in this analysis to associate costs - but it is worth noting that the state would likely need to develop a whole host of example evaluation tools that districts could adopt and such development is likely to be a costly process.

In addition to the items above the state will likely have to develop and provide:

- 1) Assessment tools from the state need to be available to districts in all subjects, at no cost, and resulting data must be reliable and valid. Districts will recognize that they are allowed to create their own unique assessments, but districts will likely want to use defensible research-based measures provided by the state given the implications the data can have on educators and students.
- 2) A valid individual teacher and student tracking system needs to be developed and in place provided by the state. Much of the ability for districts to evaluate teacher performance based on at least "50% quantifiable data" will rely on the ability to correctly identify the teacher of record for each student in each subject area and assign attributable changes in performance to the appropriate teacher.

The state-level responsibilities listed above are essential to any successful implementation of the Ellinger proposal.

Startup Costs:

Certain initial costs are likely to be required at the district level prior to the implementation of the new evaluation system. We assume the burden for implementing the state mandates would fall to the **individual school district**. For example we would have to spend time selecting evaluation tools and measurements from the state templates, set up first time data systems, develop an appeals process, and provide comprehensive training for evaluators and educators. Colorado estimate the effort needed to accomplish these tasks is as follows:

Table 6: One Time Costs for each district:

	Selecting Evaluation Tools and Measurements	One time Data Set Up	Developing Appeals Process	Professional Development for all Staff	Professional Development for Evaluators
<u>District Personnel*</u>					
Superintendent				2 days	30 hours
Assistant Superintendent					30 hours
Director		5 days			30 hours
Trainer				3 days	60 hours
Clerical Staff					
IT Technician		5 days			
<u>School Personnel*</u>					
Teachers	5% of all teachers, \$100 a day for 5 days			2 days for every teacher	
Committee Teacher Leader	1% of all teachers, \$200 a day for 5 days				
Instructional Coach				2 days for every coach	
Principal				2 days for every principal	30 hours for every principal
<u>District/School Costs*</u>					
Logo			\$10,000		

Augenblick, Paslaich, and Associates INC. Costing Out the Resources Implications of SB 10-191 in Colorado School Districts: Prepared for State Council for Educator

Effectiveness. March 2011. Pg 35

Augenblick, Paslaich, and Associates and the Colorado State Board of Education estimate that the initial one-time costs

on average are \$53 per student. Given the comparability of Missouri and Colorado (see table 4) we believe that this estimate is applicable to our school system and may be conservative given our average teacher pay and experience level is higher than Colorado's by about 20%.

Ongoing Costs:

For ongoing costs the computation of new expenses that are above and beyond the current requirement set out by regulation or Missouri statute are considered in this section. As such what follows in this section are:

- 1) Likely tools and measures to be used;
- 2) The new effort and resources needed; and
- 3) The ongoing cost for three categories of teachers, (novice, effective, and ineffective).

When considering such a broad and sweeping change of the Missouri education system the usual disclaimers apply - 1) we are anticipating standards based on our experience with DESE and local school boards - **nothing in this document should be viewed as an endorsement of any system of evaluation,** 2) additionally our estimations are based on our best understanding of the initiative and its implementation in our district, and 3) the cost estimate only the amount to evaluate teachers.

Evaluating Teachers:

To evaluate teachers numerous measurers and tools will need to be developed as well as the standards for apply those tools (including but not limited to):

- Observation with pre/post interview

- Examination of lessons, unit plans, assignments and assessments
- Student and Parent feedback
- Peer observation and feedback.
- Teacher self review and interviews
- Analysis of student data and growth.

While these tools can be used with teachers at all levels of experience and ability - allotments must be made for more time and effort to be spent with teachers based on their experience (or lack thereof) and abilities.

The consulting firm of Augenblick, Paslaich, and Associates concluded that teachers are likely to fall into one of the three categories below and require a differing amount of ongoing supervision and evaluation costs. (SEE APPENDIX A - TABLES I-III for breakdown of evaluation and resources for each population of teachers).

Performance Standard	Per Teacher
Novice*	\$343 (increased training and data analysis)
Effective	\$531 (increased data analysis and frequency of evaluation)
Need Improvement	\$3,783 (increased number of teachers identified that require supervision and remediation)

*Boulder Valley School District. SB 191 and you. April 2011

The Cape Girardeau School Districts commitment to quality has allowed us to recruit a corps of 343 highly qualified.

As such we have adjusted our assumptions as follows:

97% (334 teachers) will fit into the "Effective" category.

2.75% (9 teachers) will qualify as "novice"

Only .25% (1 teachers) will fit into the "need improvement" category.

Fiscal Impacts of 3(f) and 3(g) implementation of proposed evaluation model:

Fiscal Year 2013 - 1st year of implementation: Assumes average costs of \$53 per student and an even population of 4,122 students. Also assumes 1st year evaluation costs (see Table 9).*

Fiscal Year 2014 - 2nd year of evaluation and increased MAP costs.*

*Assumes state development of template systems of evaluation and testing mechanisms.

Table 7: Estimated Cost to Cape Girardeau Public School District for Evaluation

FY 2013		\$ Estimate
Startup Cost assume average of \$53 per student	One time Cost Student K-12 Population of Missouri 22,201 (2012)	4,122 x \$53 = \$218,466.00
FY 2013	Increased MAP Costs (Re-occurring)	\$87,017.40
FY 2013	First Yearly Evaluation: NOVICE evaluation costs	12 x \$343 = \$ 4,116.00

	\$343 *	
	First Yearly Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	1 x \$3,783 = \$3,783.00
	First Yearly Evaluation: Effective \$531	412 x \$531 = \$218,772
Total FY 2013		\$ 452,154.40
FY 2014	Yearly Reoccurring Evaluation: NOVICE evaluation costs \$343 *	12 x \$343 = \$ 4,116.00
	Yearly Reoccurring Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	1 x \$3,783 = \$3,783.00
	Yearly Reoccurring Evaluation: Effective \$531	412 x \$531 = \$218,772
FY 2014	Increased MAP Costs (Re-occurring)	\$ 87,017.40
Total FY 2014		\$ 313,688.40
Total Costs of evaluation program to School District FY 2013-2014		\$765,842.80

*The National Commission on Teaching and America's Future (NCTAF). Report of Teacher Age and Experience by State (2007-2008). Available via: <http://nctaf.org/wp-content/uploads/2012/01/WebAgeandExpbyState07-08.pdf>

Officials from the **Hannibal 60 School District** indicated:

Overview:

This document describes the anticipated fiscal impact of the proposed amendment to Article IX of the Missouri Constitution to the Hannibal School District. While our analysis focuses on the impacts to our district – we share the same concerns voiced by Mr. Roger Kurtz in his submission to your office regarding the impact of the proposed amendment.

We believe this Amendment has wide ranging financial impacts for Local Government entities who would be required constitutionally to develop expertise on school district evaluation policies before releasing local funds, our analysis will focus the specific costs of the impact of **developing student assessment tools for all grades across all subject areas, implementing a testing regime, and applying those tools to develop and execute an evaluation model as prescribed in sections 3(f) and 3(g)** of the amendment using data from Missouri and similar proposals from Colorado as a basis for analysis.

In general the proposed amendment's costs are driven by the need to create quantifiable and objective data on each Missouri student, in every subject, to be used as a basis for evaluation of educators.

To acquire the incredible amount of data necessary to fulfill this goal is a herculean task – **a proven and statistically reliable test for every subject must be created and administered for every grade level to every student**. Missouri has developed test for a handful of core subjects and administers them periodically in a student's progression from kindergarten to the 12th grade. This allows a real and accurate basis for the cost of testing for every child in every subject.

The Hannibal School District:

The Hannibal School District #60 is rated "accredited with distinction in performance" by the Missouri Department of Elementary and Secondary Education. Additional accreditation comes from the North Central Association of Colleges and Schools at the career center.

The district features a grade configuration of pre-kindergarten, kindergarten and grades one through five in its elementary schools, grades six through eight in its middle school, and grades nine through twelve in its high school. The area career and technical center is also located on school district property. The district is comprised of five elementary attendance centers including Eugene Field, Mark Twain, Oakwood, Stowell, and Veterans. All elementary schools are organized as pre-kindergarten through fifth grade.

Staff members in the district number 564 including 326 certificated and 238 noncertificated members. Of the 326 certificated staff members, 59.4 percent are at or

above the master's degree level. The average teaching experience level in the district is 12.7 years.

Special programs in early childhood education and parenting, guidance and counseling services, health programs, and special education programs are a vital part of the total program of the Hannibal School District. Also provided are remedial services, both during the school term and during a summer school program. A summer enrichment program is also offered to all students. In addition to these programs, a strong well-rounded, extracurricular program including athletics, performing and visual arts, and publications is offered by the district.

There is a strong relationship between the school and community as evidenced by strong parental involvement, support, and partnership with community organizations. Each elementary and the middle school have active parent-teacher organizations and strong booster organizations exist for band, chorus, and athletics. Success in the activity programs and competitions is a source of community pride.

ENROLLMENT TRENDS

The school district enrollment has been steady the past ten years. Enrollment projects indicate a slight but steady increase for the next ten years. There is a possibility of a greater increase in population of school age children if rapid economic growth in the Hannibal area occurs.

OTHER DISTRICT INFORMATION AND FACTS:

- budget for 2011-2012 school year is \$32,466,314
- sources of revenues are local and county (45.3%), state (34.9%), and federal (19.8%).
- assessed valuation for 2011 is \$283,310,605 and the current tax levy is \$3.4199
- enrollment is 3,621 for the 2011-2012 school year.
- teacher salary range for 2011-2012 is \$30,900 to \$55,130 and the average teacher salary is \$39,483

Test Development and Implementation Costs and Considerations

Mr. Ellinger's submission requires that every school district develop a set of locally based performance standards a majority of which is based on "quantifiable data":

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

Our assumption is the state would develop a series of “template” standards of evaluation and guide the development of testing tools that could be utilized by our district.

Development:

Test development is a prohibitively expensive undertaking for any school district we would be unable to fund the development of tests to meet the reliability, validity and scope required by this proposal.

Any school district will require defensible research-based measures provided by the state, given the results of these assessments would be the major factor in employment decisions and likely policy makers will later use the data to make funding or accreditation decisions.

Currently, the state of Missouri provides assessments in only two subjects, math and communication arts, for students in grades 3-8 and one year in high school. Science tests are available for one elementary, one middle school grade, and high school biology.

The state paid for the development of the tests, including item and task specification, item authoring, bias and sensitivity checks, psychometric work, piloting, lay out and printing for the paper based 3-8 tests, and computer adaptive work for the high school tests.

The state pays for the scoring of these tests, at .06 per test. Until the recent budget crisis, the cost to score was higher, as Missouri’s assessments were not limited to multiple-choice questions as they are now. Previous assessments included constructed response questions where students wrote in short answers, as well as performance events where students wrote an essay or did multi-step problem solving, such as figuring the cost of installing a chain link fence for a yard of a given dimension.

In addition, tests need ongoing revisions through the use of parallel questions, so the questions are not the same from year to year, but the knowledge and skill tested remains the same.

In recent years, this annual revision has been limited due to budget restraints. Constructed response items and performance events have been removed from the assessments. In addition, budget cuts have forced DESE to pay the cost of current year assessments out of the next years’ funding.

In order to evaluate teachers based on student assessments, you must first have baseline achievement data on each student for that subject. Current growth models can only provide data for 4th – 8th grade students in math and communication arts, because there is not baseline data for third graders. High school courses each consist of distinct content and scores on one course cannot be considered a starting point for another with the possible exception of Algebra I and II.

Massachusetts began to use student growth measured by state assessments in teacher evaluations, and found current assessments only produced data for 17% of teachers. The language in 3 (g) would require annual assessments of pre-K to 8th grade students in every subject. High school courses would require pre-tests at the beginning of the course as well as end of course tests to measure student achievement growth in each course offering.

The following list of courses was taken from the Missouri School Improvement Program 4 Resource Standards, found at www.dese.mo.gov.

Table 1 School Improvement Courses

	Elementary Courses	Middle School Courses
1	Math by grade	Math by grade
2	Reading by grade	Reading by grade
3	Language Arts by grade	Language Arts by grade
4	Social Studies/History by grade	Social Studies/History by grade
5	Science by grade	Science by grade
6	Music by grade	Vocal Music
7	Art by grade	Instrumental Music
8	Physical Education by grade	Art
9	Foreign Language by grade	Physical Education by grade
10	Health by grade	Health
11	Career Awareness by grade	Foreign Language
12	Instrumental Music I and II	Speech
13	Library Skills by grade	Algebra 1
14		Agriculture
15		Family and Consumer Science
16		Industrial Technology
17		Computer Literacy
18		Career Education

Middle school students are required to take the four core subjects, physical education, health, art and music. Some students will also have a stand-alone reading course. This totals nine subjects for one year. Seventh and eighth graders must in addition have access to four exploratory classes, bringing the total courses for them to 13. Some of these courses would only last for 6 weeks, others may last a semester.

Development Costs:

Table 2 illustrates the costs associated with developing new testing regimes from previous RFPs on Smarter Balanced Assessment Consortium website. *We would expect*

the state to bear the cost of developing these testing mechanisms. Indeed no testing regime can be considered viable without significant state resources.

Table 2: RFP for Smarter Balanced Assessment

PROJECT	DETAILS	BID COST Estimate
SBAC RFP No. 14	SBAC Pilot Item/Task/Stimulus Research Development and Reviews	\$19,000,000
SBAC RFP No. 07	Item Authoring and Item Pool Application	\$1,988,000
SBAC RFP No. 09	Test Blueprint and Computer Adaptive Test Specifications	\$1,457,721
SBAC RFP No. 08 1- 2012 to 10-2013	Participation and Training Materials	\$739,392
SBAC RFP No. 05	Psychometric Services	\$3,500,000
SBAC RFP No. 06	Development of Accessibility and Accommodations Policies and Materials	\$930,000
SBAC RFP No. 04	SMARTER Balanced Assessment Consortium Request for Proposals to Develop Item and Task Specifications, Style Guide, Bias and Sensitivity Guidelines, and Accessibility and Accommodations Guidelines	\$1,500,000
SBAC RFP No. 03	SMARTER Balanced Assessment Consortium II Systems Architecture (word)	\$2,000,000
SBAC RFP No. 02	IT Readiness Tool for SBAC and PARCC	\$500,000 (2011-14)

	(word)	
SBAC RFP No. 01	Smarter Balanced Assessment Communications RFP	\$2.2 million (2011-14)
RFP 2010-07 (SBAC RFP)	Comprehensive Assessment Systems Grant - Project Management Partner	Not included
Total for Math and CA		\$33,815,113 for 14 tests
<u>Cost per test to develop</u>		<u>\$2,415,365</u>
Total FY 2013 Cost for 481 new tests		\$1,161,790,565

Administration Costs:

Administering assessments for pre-K through 2nd grade students is significantly more costly for school districts, as much of this testing must be administered one-on-one. This means the district hires a substitute for the several days it takes the classroom teacher to complete individual student assessments.

On average, Missouri high school students take seven classes a day, one to three of which are semester courses. Older students take more semester courses.

Cost to districts: Cost estimates are based on current charge districts for MAP tests, and testing every student in every subject.

Table 3: Average cost of MAP testing to districts from state

Grade	Total students	Cost per test	Cost to test one subject	Number of subjects	Statewide total
K-8	2,616	\$.90 est.	\$2,354.40	9	\$21,189.60
9-12	1,005	\$.90	\$904.50	8 x 2 tests	\$14,472.00
	FY 2013 New costs and reoccurring FY2014				\$35,661.60

Teacher Evaluation Assumptions and Data:

In developing the cost estimates contained we relied on the experiences other states have had in creating a similar evaluation model prescribed in the proposed amendment. Specifically, the removal of teacher experience as part of compensation 3(f) and the development of new evaluation systems for educators on the district level (3g):

3(f) Notwithstanding any provisions of this constitution, no school district which uses seniority or duration of employment as a basis, in whole or in part, to retain, remove, promote or demote teachers shall receive any state funding or local tax revenue.

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

While our analysis will cite information from multiple states - the recent experience of Colorado in developing a remarkably similar system of teacher evaluation and estimating the implementation costs serves as a good exemplar of what Missouri policy makers and budget analysts should expect as they are required to implement sweeping changes to teacher evaluation and compensation. Additionally CO and MO have similarly sized public education systems – and when ranked nationally are very close in size and scope (See table 4 below).

Table 4: Similarities in the size of public education systems in MO and CO*

	Missouri	National Rank (MO)	Colorado	National Rank (CO)
Average Daily Attendance (2010)	835,780	19	771,938	21
Number of Public High School Graduates '09-'10	62,342	20	46,811	22
Number of Public School Teachers K-12	67,882	14	48,960	23

*NEA Research. (2010). Rankings & Estimates Rankings of the States 2010 and Estimates of School Statistics 2011.

http://www.nea.org/assets/docs/HE/NEA_Rankings_and_Estimates010711.pdf

Salary data used in this analysis will assume average pay for a Missouri teacher at \$45,317 or 48th in the nation and 81.5% of the national average.

The Colorado Experience:

In May of 2010, Colorado passed Senate Bill 191 which completely changed how public-school educators were evaluated in Colorado. **At the core of the proposal were two policy objectives similar to those in 3(f) and 3(g)** of the current proposal: 1) the removal of duration of employment as a basis of evaluation in whole or in part and 2)

replaced with a model where quantifiable student growth/achievement represents at least 50% of the total performance by quantifiable and objective standards. Table 7 below places the proposals for quantifiable measurement side-by-side for comparison:

Table 5: Comparison of Measurement Standard of Ellinger Proposal v. SB 191 Colorado

	<u>Ellinger Missouri Proposal</u>	<u>Senate Bill 191 Colorado</u>
Side-by-side comparison of measurement standards from MO and CO	"3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria. "	"Procedures for prioritizing or weighting measures of performance that ensure that measures of student growth represent at least 50 percent of total performance and are prioritized by technical quality, and that measures of professional practice are prioritized by local objectives."
Source	*Ellinger Submission. (January 17, 2012). Pg 3	* Colorado State Board of Education. Report & recommendations; submitted to the Colorado State Board of Education pursuant to SB 10-191. (April 13, 2011). Pg 18 Available online: http://www.cde.state.co.us/EducatorEffectiveness/downloads/Report%20&%20appendices/SCEE_Final_Report.pdf

We believe the process of estimating costs to local school districts used by the Colorado State Board of Education will shed light on the Ellinger proposal and permit an estimate of the fiscal impact to the Hannibal School District.

Translating the Colorado Experience to Missouri:

For purpose of analysis we will assume the following role for the state:

- 1) Create an exemplar template and evaluation system with a resource bank of evaluation tools.
- 2) Provide student, teacher, and parent survey instruments and analysis of results to districts.

- 3) Provide a definition of what constitutes a qualified educator for every subject area and grade level.
- 4) Develop materials to support professional development.
- 5) Collect and report evaluation data for the state.

NOTE: None of this is guaranteed or funded under the Ellinger proposal – nor do we attempt in this analysis to associate costs – but it is worth noting that the state would likely need to develop a whole host of example evaluation tools that districts could adopt and such development is likely to be a costly process.

In addition to the items above the state will likely have to develop and provide:

- 1) Assessment tools from the state need to be available to districts in all subjects, at no cost, and resulting data must be reliable and valid. Districts will recognize that they are allowed to create their own unique assessments, but districts will likely want to use defensible research-based measures provided by the state given the implications the data can have on educators and students.
- 2) A valid individual teacher and student tracking system needs to be developed and in place provided by the state. Much of the ability for districts to evaluate teacher performance based on at least “50% quantifiable data” will rely on the ability to correctly identify the teacher of record for each student in each subject area and assign attributable changes in performance to the appropriate teacher.

The state-level responsibilities listed above are essential to any successful implementation of the Ellinger proposal.

Startup Costs:

Certain initial costs are likely to be required at the district level prior to the implementation of the new evaluation system. We assume the burden for implementing the state mandates would fall to the **individual school district**. For example we would have to spend time selecting evaluation tools and measurements from the state templates, set up first time data systems, develop an appeals process, and provide comprehensive training for evaluators and educators. Colorado estimate the effort needed to accomplish these tasks is as follows:

Table 6: One Time Costs for each district:

	Selecting Evaluation Tools and Measurements	One time Data Set Up	Developing Appeals Process	Professional Development for all Staff	Professional Development for Evaluators
<u>District Personnel*</u>					
Superintendent				2 days	30 hours
Assistant Superintendent					30 hours
Director		5 days			30 hours
Trainer				3 days	60 hours
Clerical Staff					
IT Technician		5 days			
<u>School Personnel*</u>					
Teachers	5% of all teachers, \$100 a day for 5 days			2 days for every teacher	
Committee Teacher Leader	1% of all teachers, \$200 a day for 5 days				
Instructional Coach				2 days for every coach	
Principal				2 days for every principal	30 hours for every principal
<u>District/School Costs*</u>					
Legal			\$10,000		

Augenblick,
Paslaich, and
Associates INC.
Costing Out the
Resources
Implications of
SB 10-191 in
Colorado School
Districts:
Prepared for
State Council for
Educator
Effectiveness.
March 2011. Pg 35

Augenblick,
Paslaich, and

Associates and the Colorado State Board of Education estimate that the initial one-time costs on average are \$53 per student. Given the comparability of Missouri and Colorado (see table 4) we believe that this estimate is applicable to our school system and may be conservative given our average teacher pay and experience level is higher than Colorado's by about 20%.

Ongoing Costs:

For ongoing costs the computation of new expenses that are above and beyond the current requirement set out by regulation or Missouri statute are considered in this section. As such what follows in this section are:

- 1) Likely tools and measures to be used;
- 2) The new effort and resources needed; and
- 3) The ongoing cost for three categories of teachers, (novice, effective, and ineffective).

When considering such a broad and sweeping change of the Missouri education system the usual disclaimers apply – 1) we are anticipating standards based on our experience with DESE and local school boards – **nothing in this document should be viewed as an endorsement of any system of evaluation**, 2) additionally our estimations are based on our best understanding of the initiative and its implementation in our district, and 3) the cost estimate only the amount to evaluate teachers.

Evaluating Teachers:

To evaluate teachers numerous measurers and tools will need to be developed as well as the standards for apply those tools (including but not limited to):

- Observation with pre/post interview
- Examination of lessons, unit plans, assignments and assessments
- Student and Parent feedback
- Peer observation and feedback.
- Teacher self review and interviews
- Analysis of student data and growth.

While these tools can be used with teachers at all levels of experience and ability – allotments must be made for more time and effort to be spent with teachers based on their experience (or lack thereof) and abilities.

The consulting firm of Augenblick, Paslaich, and Associates concluded that teachers are likely to fall into one of the three categories below and require a differing amount of ongoing supervision and evaluation costs. (SEE APPENDIX A - TABLES I-III for breakdown of evaluation and resources for each population of teachers).

Performance Standard	Per Teacher
Novice*	\$343 (increased training and data analysis)
Effective	\$531 (increased data analysis and frequency of evaluation)
Need Improvement	\$3,783 (increased number of teachers identified that require supervision and remediation)

*Boulder Valley School District. SB 191 and you. April 2011

The Hannibal School Districts commitment to quality has allowed us to recruit a corps of 326 highly qualified teachers with an average of 12.7 years of experience.

As such we have adjusted our assumptions as follows:

97% (316 teachers) will fit into the “Effective” category.

2.75% (9 teachers) will qualify as “novice”

Only .25% (1 teachers) will fit into the “need improvement” category.

Fiscal Impacts of 3(f) and 3(g) implementation of proposed evaluation model:

Fiscal Year 2013 – 1st year of implementation: Assumes average costs of \$53 per student and an even population of 3,585 students. Also assumes 1st year evaluation costs (see Table 9).*

Fiscal Year 2014 – 2nd year of evaluation and increased MAP costs.*

*Assumes state development of template systems of evaluation and testing mechanisms.

Table 7: Estimated Cost to District for Evaluation

FY 2013		\$ Estimate
Startup Cost assume average of \$53 per student	One time Cost Student K-12 Population of Missouri 22,201 (2012)	3,621 x \$53 = \$191,913.00
FY 2013	Increased MAP Costs (Re-occurring)	\$35,661.60
FY 2013	First Yearly Evaluation: NOVICE evaluation costs \$343 *	9 x \$343 = \$ 3,087.00
	First Yearly Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	1 x \$3,783 = \$3,783.00
	First Yearly Evaluation: Effective \$531	316 x \$531 = \$167,796.00
Total FY 2013		\$ 402,240.60

FY 2014	Yearly Reoccurring Evaluation: NOVICE evaluation costs \$343 *	9 x \$343 = \$ 3,087.00
	Yearly Reoccurring Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	1 x \$3,783 = \$3,783.00
	Yearly Reoccurring Evaluation: Effective \$531	316 x \$531 = \$167,796.00
FY 2014	Increased MAP Costs (Re-occurring)	\$ 35,661.60
Total FY 2014		\$ 210,327.60
Total Costs of evaluation program to School District FY 2013-2014		\$612,568.20

*The National Commission on Teaching and America's Future (NCTAF). Report of Teacher Age and Experience by State (2007-2008). Available via: <http://nctaf.org/wp-content/uploads/2012/01/WebAgeandExpbyState07-08.pdf>

APPENDIX A

NEW RESOURCES NEEDED BY TEACHER BASED ON DESIGNATION
TABLES PREPARED BY:

Augenblick, Paslaich, and Associates March 2011

TABLE II
New Resources Needed to Evaluate a Novice Teacher Each Year

	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Rating, Review of Results	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standards VI		
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration	Student Growth Assessments		
<u>District Personnel</u>									
Administrator									1.5 hr
Clerical Staff								0.5 hr	1 hr
<u>School Personnel</u>									
Teachers	.25 day								
Instructional Coach	.05 day*								
Principal	.05 day*								
Data Manager							3 hrs		
Substitute									
<u>District/School Costs</u>									
Supplies and Materials	\$5								
Other				Cost at State Level					

* Working with 5 teachers at a time for .25 day, so .05 is attributable to each of those teachers

TABLE III
New Resources Needed to Evaluate a Newly Identified Ineffective Teacher Each Year

	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Instructional Improvement	Review of Results/ Rating	Reporting/ Reviewing Evaluation Results
		Standards IV					Standards VI			
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration	Student Growth Assessments			
District Personnel										
Administrator										2
Clerical Staff									0.5 hr	1 hr
School Personnel										
Teachers										
Instructional Coach								40 hours		
Principal		30 hrs								
Data Manager							3 hrs			
Substitute						1 day at \$100				
District/School Costs										
Course/Workshop Fee								\$500		
Supplies and Materials										
Other				Cost at State Level						

Officials from **Rockwood R-VI School District** indicated:

Overview:

This document describes the anticipated fiscal impact of the proposed amendment to Article IX of the Missouri Constitution to the Rockwood R-VI school district. While our analysis focuses on the impacts to our district - we share the same concerns voiced by Mr. Roger Kurtz in his submission to your office regarding the impact of the proposed amendment.

We believe this Amendment has wide ranging financial impacts for Local Government entities who would be required constitutionally to develop expertise on school district evaluation policies before releasing local funds. Our analysis will focus the specific costs of the impact of developing student assessment tools for all grades across all subject areas, implementing a testing regime, and applying those tools to develop and execute an evaluation model as prescribed in sections 3(f) and 3(g) of the amendment using data from Missouri and similar proposals from Colorado as a basis for analysis.

In general the proposed amendments costs are driven by the need to create quantifiable and objective data on each Missouri student, in every subject, to be used as a basis for evaluation of educators.

To acquire the incredible amount of data necessary to fulfill this goal is a herculean task - a proven and statistically reliable test for every subject must be created and administered for every grade level to every student. Missouri has developed tests for a handful of core subjects and administers them periodically in a students progression from kindergarten to the 12th grade. This allows a real and accurate basis for the costing of testing for every child in every subject.

The Rockwood School District:

There is an advantage to being a part of the Rockwood School District. This premier school district located in West St. Louis County has high student achievement, outstanding teachers and staff, and great community support.

Our mission of doing whatever it takes to ensure all students realize their potential is at the center of our work. In Rockwood, we want every child to succeed. The Rockwood R-VI school district is one of the top performing school districts in Missouri and the nation. With a graduation rate of 94.9% the Department of Elementary and Secondary Education notes our district as Distinction in Performance with High Achievement , additionally we are one of the best financially managed districts in the United States receiving a Moodys bond rating of AA2 and a Standard & Poors rating o f AAA.

We service a large and diverse population with:

- 19 Elementary Schools
- 6 Middle Schools
- 4 High Schools
- 10 National Blue Ribbon Schools
- 14 Missouri Gold Star Schools of Excellence
- 8 National Schools of Character
- 9 Missouri Schools of Character

With: Separate Campuses for Gifted, Early Childhood and Alternative High School Education

The district educates and serves over 22,500 students (Pre-k - 12) .

Test Development and Implementation Costs and Considerations

Mr. Ellingers submission requires that every school district develop a set of locally based performance standards a majority of which is based on quantifiable data :

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

Our assumption is the state would develop a series of template standards of evaluation and guide the development of testing tools that could be utilized by our district.

Development:

Test development is a prohibitively expensive undertaking for any school district. We would be unable to fund the development of tests to meet the reliability, validity and scope required by this proposal.

Any school district will require defensible research-based measures provided by the state. Given that the results of these assessments would be the major factor in employment decisions, it is likely policy makers will later use the data to make funding or accreditation decisions.

Currently, the state of Missouri provides assessments in only two subjects, math and communication arts, for students in grades 3-8 and one year in high school. Science tests are available for one elementary, one middle school grade, and high school biology.

The state paid for the development of the tests, including item and task specification, item authoring, bias and sensitivity checks, psychometric work, piloting, lay out and printing for the paper based 3-8 tests, and computer adaptive work for the high school tests.

The state pays for the scoring of these tests at \$.06 per test. Until the recent budget crisis, the cost to score was higher as Missouri's assessments were not limited to multiple-choice questions as they are now. Previous assessments included constructed response questions where students wrote in short answers, as well as performance events where students wrote an essay or did multi-step problem solving.

In addition, tests need ongoing revisions through the use of parallel questions, so the questions are not the same from year to year, but the knowledge and skill tested remains the same.

In recent years, this annual revision has been limited due to budget restraints. Constructed response items and performance events have been removed from the assessments. In addition, budget cuts have forced DESE to pay the cost of current year assessments out of the next years funding.

In order to evaluate teachers based on student assessments, you must first have baseline achievement data on each student for that subject. Current growth models can only provide data for 4th - 8th grade students in math and communication

arts, because there is not baseline data for third graders. High school courses each consist of distinct content, therefore scores on one course cannot be considered a starting point for another with the possible exception of Algebra I and II.

Massachusetts began to use student growth measured by state assessments in teacher evaluations and found current assessments only produced data for 17% of teachers. The language in 3 (g) would require annual assessments of pre-K to 8th grade students in every subject. High school courses would require pre-tests at the beginning of the course as well as end of course tests to measure student achievement growth in each course offering.

The following list of courses was taken from the Missouri School Improvement Program 4 Resource Standards, found at www.dese.mo.gov.

Table 1 School Improvement Courses

	Elementary Courses	Middle School Courses
1	Math by grade	Math by grade
2	Reading by grade	Reading by grade
3	Language Arts by grade	Language Arts by grade
4	Social Studies/History by grade	Social Studies/History by grade
5	Science by grade	Science by grade
6	Music by grade	Vocal Music
7	Art by grade	Instrumental Music
8	Physical Education by grade	Art
9	Foreign Language by grade	Physical Education by grade
10	Health by grade	Health
11	Career Awareness by grade	Foreign Language
12	Instrumental Music I and II	Speech
13	Library Skills by grade	Algebra 1
14		Agriculture
15		Family and Consumer Science
16		Industrial Technology
17		Computer Literacy
18		Career Education

Middle school students are required to take the four core subjects, physical education, health, art and music. Some students will also have a stand-alone reading course. This totals nine subjects for one year. Seventh and eighth graders must, in addition, have access to four exploratory classes, bringing the total courses for them to 13. Some of these courses would only last for 6 weeks, others may last a semester.

Development Costs:

Table 2 illustrates the costs associated with developing new testing regimes from previous RFPs on Smarter Balanced Assessment Consortium website. *We would expect the state to bear the cost of developing these testing mechanisms. Indeed no testing regime can be considered viable without significant state resources.*

Table 2: RFP for Smarter Balanced Assessment

PROJECT	DETAILS	BID COST Estimate
SBAC RFP No. 14	SBAC Pilot Item/Task/Stimulus Research Development and Reviews	\$19,000,000
SBAC RFP No. 07	Item Authoring and Item Pool Application	\$1,988,000
SBAC RFP No. 09	Test Blueprint and Computer Adaptive Test Specifications	\$1,457,721
SBAC RFP No. 08 1-2012 to 10-2013	Participation and Training Materials	\$739,392
SBAC RFP No. 05	Psychometric Services	\$3,500,000
SBAC RFP No. 06	Development of Accessibility and Accommodations Policies and Materials	\$930,000

SBAC RFP No. 04	SMARTER Balanced Assessment Consortium Request for Proposals to Develop Item and Task Specifications, Style Guide, Bias and Sensitivity Guidelines, and Accessibility and Accommodations Guidelines	\$1,500,000
SBAC RFP No. 03	SMARTER Balanced Assessment Consortium II Systems Architecture (word)	\$2,000,000
SBAC RFP No. 02	IT Readiness Tool for SBAC and PARCC (word)	\$500,000 (2011-14)
SBAC RFP No. 01	Smarter Balanced Assessment Communications RFP	\$2.2 million (2011-14)
RFP 2010-07 (SBAC RFP)	Comprehensive Assessment Systems Grant - Project Management Partner	Not included
Total for Math and CA		\$33,815,113 for 14 tests
<u>Cost per test to develop</u>		<u>\$2,415,365</u>
Total FY 2013 Cost for 481 new tests		\$1,161,790,668

Administration Costs:

Administering assessments for pre-K through 2nd grade students is significantly more costly for school districts, as much of this testing must be administered one-on-one. This means the district hires a substitute for the several days it takes the classroom teacher to complete individual student assessments.

On average, Missouri high school students take seven classes a day, one to three of which are semester courses. Older students take more semester courses.

Cost to districts: Cost estimates are based on current charges to districts for MAP tests, and testing every student in every subject.

Table 3: Average cost of MAP testing to Rockwood School District

Grade	Total students*	Cost per test	Cost to test one subject	Number of subjects	Total
K-8	15,054	\$.90 est.	\$13,548.60	9	\$121,937.40
9-12	7,514	\$.90	\$6,762.60	8 x 2 tests	\$ 108,201.60
	FY 2013 New costs and reoccurring FY2014				\$230,139.00

*Source: DESE - District Report Card 2011, 096091 District Code

Teacher Evaluation Assumptions and Data:

In developing the cost estimates contained, we relied on the experiences other states have had in creating a similar evaluation model prescribed in the proposed amendment. Specifically, the removal of teacher experience as part of compensation 3(f) and the development of new evaluation systems for educators on the district level (3g):

3(f) Notwithstanding any provisions of this constitution, no school district which uses seniority or duration of employment as a basis, in whole or in part, to retain, remove, promote or

demote teachers shall receive any state funding or local tax revenue.

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

While our analysis will cite information from multiple states - the recent experience of Colorado (CO) in developing a remarkably similar system of teacher evaluation and estimating the implementation costs serves as a good exemplar of what Missouri (MO) policy makers and budget analysts should expect as they are required to implement sweeping changes to teacher evaluation and compensation. Additionally CO and MO have similarly sized public education systems - and when ranked nationally are very close in size and scope (See table 4 below).

Table 4: Similarities in the size of public education systems in MO and CO*

	Missouri	National Rank (MO)	Colorado	National Rank (CO)
Average Daily Attendance (2010)	835,780	19	771,938	21
Number of Public High School Graduates '09-'10	62,342	20	46,811	22
Number of Public School Teachers K-12	67,882	14	48,960	23

*NEA Research. (2010). Rankings & Estimates Rankings of the States 2010 and Estimates of School Statistics 2011.

http://www.nea.org/assets/docs/HE/NEA_Rankings_and_Estimates010711.pdf

Salary data used in this analysis will assume average pay for a Rockwood R-VI teacher of \$55,965 plus 34% to included benefits and other employer obligations. The current average salary for a Missouri teacher is \$45,317 or 48th in the nation and 81.5% of the national average.

The Colorado Experience:

In May of 2010, Colorado passed Senate Bill 191, which completely changed how public-school educators were evaluated in Colorado. At the core of the proposal were two policy objectives similar to those in 3(f) and 3(g) of the current proposal: 1) the removal of duration of employment as a basis of evaluation in whole or in part and 2) replaced with a model where quantifiable student growth/achievement represents at least 50% of the total performance by quantifiable and objective standards. Table 7 below places the proposals for quantifiable measurement side-by-side for comparison:

Table 5: Comparison of Measurement Standard of Ellinger Proposal v. SB 191 Colorado

	<u>Ellinger Missouri Proposal</u>	<u>Senate Bill 191 Colorado</u>
Side-by-side comparison of measurement standards from MO and CO	3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria. ``	Procedures for prioritizing or weighting measures of performance that ensure that measures of student growth represent at least 50 percent of total performance and are prioritized by technical quality, and that measures of professional practice are prioritized by local objectives.

Source	*Ellinger Submission. (January 17, 2012). Pg 3	* Colorado State Board of Education. Report & recommendations; submitted to the Colorado State Board of Education pursuant to SB 10-191. (April 13, 2011). Pg 18 Available online: http://www.cde.state.co.us/EducatorEffectiveness/downloads/Report%20&%20appendices/SCEE_Final_Report.pdf
--------	---	--

We believe the process of estimating costs to local school districts used by the Colorado State Board of Education will shed light on the Ellinger proposal and permit an estimate of the fiscal impact to the Rockwood School District.

Translating the Colorado Experience to Missouri:

For purpose of analysis we will assume the following role for the state:

- 1) Create an exemplar template and evaluation system with a resource bank of evaluation tools.
- 2) Provide student, teacher, and parent survey instruments and analysis of results to districts.
- 3) Provide a definition of what constitutes a qualified educator for every subject area and grade level.
- 4) Develop materials to support professional development.
- 5) Collect and report evaluation data for the state.

NOTE: None of this is guaranteed or funded under the Ellinger proposal - nor do we attempt in this analysis to associate costs - but it is worth noting that the state would likely need to develop a whole host of example evaluation tools that districts could adopt and such development is likely to be a costly process.

In addition to the items above the state will likely have to develop and provide:

- 1) Assessment tools from the state need to be available to districts in all subjects, at no cost, and resulting data must be reliable and valid. Districts will recognize that they are allowed to create their own unique assessments, but districts will likely want to use defensible research-based measures provided by the state given the implications the data can have on educators and students.
- 2) A valid individual teacher and student tracking system needs to be developed and in place provided by the state. Much of the ability for districts to evaluate teacher performance based on at least 50% quantifiable data will rely on the ability to correctly identify the teacher of record for each student in each subject area and assign attributable changes in performance to the appropriate teacher.

The state-level responsibilities listed above are essential to any successful implementation of the Ellinger proposal.

Startup Costs:

Certain initial costs are likely to be required at the district level prior to the implementation of the new evaluation system. We assume the burden for implementing the state mandates would fall to the **individual school district**. For example, we would have to spend time selecting evaluation tools and measurements from the state templates, set up first time data systems, develop an appeals process, and provide comprehensive training for evaluators and educators. Colorado estimate the effort needed to accomplish these tasks is as follows:

Table 6: One Time Costs for each district:

	Selecting Evaluation Tools and Measurements	One time Data Set Up	Developing Approval Process	Professional Development for all staff	Professional Development for Evaluators
District Personnel*					
Superintendent				2 days	20 hours
Assistant Superintendent					20 hours
Director		5 days			20 hours
Trainer				3 days	20 hours
Other Staff					
IT Technology		3 days			
School Personnel*					
Teachers	2% of all teachers, \$160 a day for 3 days			2 days for every teacher	
Committee representatives	1% of all teachers, \$280 a day for 3 days				
Instructional Coords				2 days for every school	
Principal				2 days for every principal	50 hours for every principal
District/School Costs*					
Total			\$10,000		

Augenblick, Paslaich, and Associates INC. Costing Out the Resources Implications of SB 10-191 in Colorado School Districts: Prepared for State Council for Educator

Effectiveness. March 2011. Pg 35

Augenblick, Paslaich, and Associates and the Colorado State Board of Education estimate that the initial one-time costs on average are \$53 per student. Given the comparability of Missouri and Colorado (see table 4) we believe that this estimate is applicable to our school system and may be conservative given our average teacher pay and experience level is higher than Colorado's by about 20%.

Ongoing Costs:

For ongoing costs the computation of new expenses that are above and beyond the current requirement set out by

regulation or Missouri statute are considered in this section. As such what follows in this section are:

- 1) Likely tools and measures to be used;
- 2) The new effort and resources needed; and
- 3) The ongoing cost for three categories of teachers, (novice, effective, and ineffective).

When considering such a broad and sweeping change of the Missouri education system the usual disclaimers apply - 1) we are anticipating standards based on our experience with DESE and local school boards - **nothing in this document should be viewed as an endorsement of any system of evaluation,** 2) additionally our estimations are based on our best understanding of the initiative and its implementation in our district, and 3) the cost estimate is only for the amount to evaluate teachers.

Evaluating Teachers:

To evaluate teachers numerous measures and tools will need to be developed as well as the standards for applying those tools (including but not limited to):

- Observation with pre/post interview
- Examination of lessons, unit plans, assignments and assessments
- Student and Parent feedback
- Peer observation and feedback
- Teacher self review and interviews
- Analysis of student data and growth

While these tools can be used with teachers at all levels of experience and ability - allotments must be made for more time and effort to be spent with teachers based on their experience (or lack thereof) and abilities.

The consulting firm of Augenblick, Paslaich, and Associates concluded that teachers are likely to fall into one of the three categories below and require a differing amount of ongoing supervision and evaluation costs. (SEE APPENDIX A - TABLES I-III for breakdown of evaluation and resources for each population of teachers).

Performance Standard	Per Teacher
Novice*	\$343 (increased training and data analysis)
Effective	\$531 (increased data analysis and frequency of evaluation)
Need Improvement	\$3,783 (increased number of teachers identified that require supervision and remediation)

*Boulder Valley School District. SB 191 and you. April 2011

Rockwood R-VIs exceptional commitment to quality has allowed us to recruit a corps of 1,480 highly qualified and experienced teachers. Teachers designated as Highly Qualified Teachers under the No Child Left Behind Act teach 100% of our classes. As such we have adjusted our assumptions as follows:

97% (1,435 teachers) will fit into the Effective category.
 2.75% (41 teachers) will qualify as novice
 Only .25% (4 teachers) will fit into the need improvement category.

Fiscal Impacts of 3(f) and 3(g) implementation of proposed evaluation model:

Fiscal Year 2013 - 1st year of implementation: Assumes average costs of \$53 per student and a population of 22,201 students. Also assumes 1st year evaluation costs (see Table 9).*

Fiscal Year 2014 - 2nd year of evaluation and increased MAP costs.*

*Assumes state development of template systems of evaluation and testing mechanisms.

Table 7: Estimated Cost to District for Evaluation

FY 2013		\$ Estimate
Startup Costs assume average of \$53 per student	One time Cost for Student K-12 Population of 22,201	22,201 x \$53 = \$1,176,653.00
FY 2013	Increased MAP Costs (Re-occurring)	\$222,667.00
FY 2013	First Yearly Evaluation: NOVICE evaluation costs \$343 *	41 x \$343 = \$ 14,063.00
	First Yearly Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	4 x \$3,783 = \$15,132.00
	First Yearly Evaluation: EFFECTIVE \$531	1,436 x \$531 = \$762,516.00
Total FY 2013		\$ 2,191,031.00

FY 2014	Reoccurring Yearly Evaluation: NOVICE evaluation costs \$343 *	41 x \$343 = \$ 14,063.00
	Reoccurring Yearly Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	4 x \$3,783 = \$15,132.00
	Reoccurring Yearly Evaluation: EFFECTIVE \$531	1,436 x \$531 = \$762,516.00
FY 2014	Increased MAP Costs (Re-occurring)	\$222,667.00
Total FY 2014		\$1,014,378.00
Total Costs of evaluation program to School District FY 2013-2014		\$3,205,409.00

*The National Commission on Teaching and America's Future (NCTAF). Report of Teacher Age and Experience by State (2007-2008). Available via: <http://nctaf.org/wp-content/uploads/2012/01/WebAgeandExpbyState07-08.pdf>

APPENDIX A

NEW RESOURCES NEEDED BY TEACHER BASED ON DESIGNATION

TABLES PREPARED BY:

Augenblick, Paslaich, and Associates March 2011

TABLE I New Resources Needed to Evaluate an Effective Teacher Each Year									
	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Rating/ Review of Results	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standards VI		
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration	Student Growth Assessments		
<u>District Personnel</u>									
Administrator									1 hr
Curriculum Specialist								0.5 hr	1 hr
<u>School Personnel</u>									
Teachers									
Instructional Coach									
Paraprofessional									
Instructional Manager							3 hrs		
Student Intern						1 day at \$5.00			
<u>District/School Costs</u>									
Supplies and Materials									
Other						Cost at State Level			

Note: * or resources highlighted in green or yellow think of the cost of that resource is new.

TABLE II New Resources Needed to Evaluate a Novice Teacher Each Year									
	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Rating/ Review of Results	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standard VI		
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Teacher Observation/ Collaboration	Student Growth Assessments		
District Personnel									
Administrator									1 hr
District Staff								0.5 hr	1 hr
School Personnel									
Teacher	.25 day								
Instructional Coach	.05 day*								
Principal	.05 day*								
Data Manager							3 hrs		
Substitute									
District/School Costs									
Supplies and Materials	\$5								
Other						Cost at State Level			
* Working with 5 teachers a time for .25 day, so .05 is attributable to each of those teachers									

TABLE III New Resources Needed to Evaluate a Newly Identified Ineffective Teacher Each Year										
	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Instructional Improvement	Review of Results/ Rating	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standard VI Student Growth Assessments			
		Observations Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration				
District Personnel										
Administrator										2 hrs
District Staff									2.5 Hrs	1 Hrs
School Personnel										
Teachers										
Instructional Coach								20 hours		
Principal						30 hrs				
Data Manager							3 hrs			
Substitute						1 day at \$1000				
District/School Costs										
Course/Workshop For Supplies and Materials								\$500		
Other						Cost at State Level				

Officials from **Linn State Technical College** indicated based on the information presented, there appears to be no fiscal impact to their college.

Officials from the **Harris-Stowe State University** indicated the language included in the petition has no fiscal impact on their university as it only makes reference to school districts not public higher education institutions.

Officials from the **Missouri Western State University** indicated there is no fiscal impact.

The **Missouri Association of School Administrators (submitted by Roger Kurtz, Executive Director)** provided information as an opponent of this initiative petition.

Overview:

This document describes the anticipated fiscal impact of the proposed amendment to Article IX of the Missouri Constitution. While we believe this Amendment has wide ranging financial impacts for Missouri State Government, a chronically underfunded Department of Elementary and Secondary Education (DESE), and local government entities who would be required constitutionally to develop expertise on school district evaluation policies before releasing funds, our analysis will focus the specific costs of **developing student assessment tools for all grades across all subject areas, implementing a testing regime, and applying those tools to develop and execute an evaluation model as prescribed in sections 3(f) and 3(g)** of the amendment using data from Missouri and similar proposals from Colorado as a basis for analysis.

In general, the proposed amendment's costs are driven by the need to create quantifiable and objective data on each Missouri student, in every subject, to be used as a basis for evaluation of educators. To acquire the incredible amount of data necessary to fulfill this goal is a herculean task – **a proven and scientifically reliable test for every subject must be created and administered for every grade level to every student**. Missouri has developed test for a handful of core subjects and administers them periodically in a student's progression from kindergarten to the 12th grade. This allows a real and accurate basis for the costing of testing for every child in every subject.

Test Development and Implementation Costs and Considerations

Mr. Ellinger's submission requires that every school district develop a set of locally based performance standards a majority of which is based on "quantifiable data":

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

Our assumption is the state would develop a series of "template" standards of evaluation and guide the development of testing tools that could be utilized by individual districts.

Development:

Districts will recognize that the language allows them to create their own unique assessments, but no district would be able to fund the development of tests to meet the reliability, validity and scope required by this proposal. Districts will require defensible research-based measures provided by the state, given the results of these assessments would be the major factor in employment decisions. (Notably, the validity of state assessments for use in teacher evaluations has not been studied.)

Currently, the state of Missouri provides assessments in only two subjects, math and communication arts, for students in grades 3-8 and one year in high school. Science tests are available for one elementary, one middle school grade, and high school biology. **The state paid for the development of the tests, including item and task specification, item authoring, bias and sensitivity checks, psychometric work, piloting, lay out and printing for the paper based 3-8 tests, and computer adaptive work for the high school tests.** The state pays for the scoring of these tests, at .06 per test. Until the recent budget crisis, the

cost to score was higher, as Missouri's assessments were not limited to multiple-choice questions as they are now. Previous assessments included constructed response questions where students wrote in short answers, as well as performance events where students wrote an essay or did multi-step problem solving, such as figuring the cost of installing a chain link fence for a yard of a given dimension.

In addition, tests need ongoing revisions through the use of parallel questions, so the questions are not the same from year to year, but the knowledge and skill tested remains the same.

In recent years, this annual revision has been limited due to budget restraints. Constructed response items and performance events have been removed from the assessments. In addition, budget cuts have forced DESE to pay the cost of current year assessments out of the next year's funding.

In order to evaluate teachers based on student assessments, you must first have baseline achievement data on each student for that subject. **Current growth models can only provide data for 4th – 8th grade students in math and communication arts, because there is no baseline data for third graders. High school courses each consist of distinct content and scores on one course cannot be considered a starting point for another with the possible exception of Algebra I and II.**

Massachusetts began to use student growth measured by state assessments in teacher evaluations, and found current assessments only produced data for 17% of teachers. **The language in 3 (g) would require annual assessments of pre-K to 8th grade students in every subject. High school courses would require pre-tests at the beginning of the course as well as end of course tests to measure student achievement growth in each course offering.**

The following list of courses was taken from the Missouri School Improvement Program 4 Resource Standards, found at www.dese.mo.gov.

Table 1 School Improvement Courses

	Elementary Courses	Middle School Courses
1	Math by grade	Math by grade
2	Reading by grade	Reading by grade
3	Language Arts by grade	Language Arts by grade
4	Social Studies/History by grade	Social Studies/History by grade
5	Science by grade	Science by grade
6	Music by grade	Vocal Music
7	Art by grade	Instrumental Music
8	Physical Education by grade	Art
9	Foreign Language by grade	Physical Education by grade
10	Health by grade	Health
11	Career Awareness by grade	Foreign Language
12	Instrumental Music I and II	Speech
13	Library Skills by grade	Algebra 1
14		Agriculture
15		Family and Consumer Science
16		Industrial Technology
17		Computer Literacy
18		Career Education

Middle school students are required to take the four core subjects, physical education, health, art and music. Some students will also have a stand-alone reading course. This totals nine subjects for one year. Seventh and eighth graders must in addition have access to four exploratory classes, bringing the total courses for them to 13. Some of these courses would only last for 6 weeks, others may last a semester.

High school courses would require a pre-test and an end-of-course test for each subject offered. Jefferson City High School offers 236 unique courses. That would require the development and administration of 472 tests, only 8 of which are currently available.

Development Costs:

Table 2 illustrates the costs associated with developing new testing regimes from previous RFPs on Smarter Balanced Assessment Consortium website.

Table 2: RFP for Smarter Balanced Assessment

PROJECT	DETAILS	BID COST Estimate
SBAC RFP No. 14	SBAC Pilot Item/Task/Stimulus Research Development and Reviews	\$19,000,000
SBAC RFP No. 07	Item Authoring and Item Pool Application	\$1,988,000
SBAC RFP No. 09	Test Blueprint and Computer Adaptive Test Specifications	\$1,457,721
SBAC RFP No. 08 1-2012 to 10-2013	Participation and Training Materials	\$739,392
SBAC RFP No. 05	Psychometric Services	\$3,500,000
SBAC RFP No. 06	Development of Accessibility and Accommodations Policies and Materials	\$930,000
SBAC RFP No. 04	SMARTER Balanced Assessment Consortium Request for Proposals to Develop Item and Task Specifications, Style Guide, Bias and Sensitivity Guidelines, and Accessibility and Accommodations Guidelines	\$1,500,000
SBAC RFP No. 03	SMARTER Balanced Assessment Consortium II Systems Architecture (word)	\$2,000,000
SBAC RFP No. 02	IT Readiness Tool for SBAC and PARCC (word)	\$500,000 (2011-14)
SBAC RFP No. 01	Smarter Balanced Assessment Communications RFP	\$2.2 million (2011-14)

RFP 2010-07 (SBAC RFP)	Comprehensive Assessment Systems Grant – Project Management Partner	Not included
Total for Math and CA		\$33,815,113 for 14 tests
<u>Cost per test to develop</u>		<u>\$2,415,365</u>
Total FY 2013 Cost for 481 new tests		\$1,161,790,565

Administration Costs:

Administering assessments for pre-K through 2nd grade students is significantly more costly for school districts, as much of this testing must be administered one-on-one. This means the district hires a substitute for the several days it takes the classroom teacher to complete individual student assessments.

Cost to districts: Cost estimates are based on current charge districts for MAP tests, and testing every student in every subject.

Table 3: Average cost of MAP testing to districts from state

Grade	Total students	Cost per test	Statewide total one subject	Number of subjects	Statewide total
Pre-K	29,141 (2011)	\$.90 est.	\$26,227	6	\$157,362
K	66,000	\$.90 est.	\$59,400	9	\$534,600
1	66,000	\$.90 est.	\$59,400	9	\$534,600
2	66,000	\$.90 est.	\$59,400	9	\$534,600
3	66,000	\$0.90	\$59,400	9	\$534,600
4	66,000	\$0.90	\$59,400	9	\$534,600
5	66,000	\$0.90	\$59,400	9	\$534,600
6	66,000	Free for math and CA	\$59,400 for additional subjects	9	\$534,600
7	66,000	\$0.90	\$59,400	13	\$772,200

8	66,000	\$1.80	\$118,800	13	\$1,544,400
TOTAL # of subject tests that will be required by Ellinger petition in K-8				95	\$6,216,162
Current policies only require the administration of 12 tests in the K-8 grade level.				12	\$712,800
83 new test administrations for K-8 grade levels FY 2013 New costs and reoccurring FY 2014				83 new tests	\$5,503,362

On average, Missouri high school students take seven classes a day, one to four of which are semester courses. Older students take more semester courses.

Table 4: Average Cost per Test Applied to New Subject Areas (Statewide)

Grade	Students	Cost per test	Statewide one test	Number of subjects	Statewide total
9	66,000	\$.90	\$59,400	8 x 2 tests	\$950,400
10	66,000	\$.90	\$59,400	8 x 2 tests	\$950,400
11	66,000	\$.90	\$59,400	9 x 2 tests	\$1,069,200
12	66,000	\$.90	\$59,400	9 x 2 tests	\$1,069,200
Total	Total all costs if Ellinger Petition becomes law.				\$4,039,200
Current total: Schools only pay for 3 administered test in current system: \$1.80 @ for 3 subjects					\$178,200
<u>Total new cost</u>					<u>\$3,861,000</u>

State expenditures on MAP and EOC tests in FY 2012 are 10.5 million, covering 22 tests: 3rd to 8th grade math, 3rd to 8th grade communication arts, 5th and 8th grade science, and eight high school end-of-course tests. This averages to \$477,273 per test.

Table 5: Cost of Expanded State Expenditures on MAP and EOC tests using FY 2012 costs

Number of assessments	Cost per assessment	Total cost to state
22 current	\$477,273 currently	\$10.5 million
95 (pre-K to 8 th grade)	\$477,273	\$45,340,935
236 x 2 (one large high school)	\$477,273	\$225,272,856
Total new assessments 545	\$477,273	\$260,113,785

Teacher Evaluation Assumptions and Data:

In developing the cost estimates contained, we relied on the experiences other states have had in creating a similar evaluation model prescribed in the proposed amendment. Specifically, the removal of teacher experience as part of compensation 3(f) and the development of new evaluation systems for educators on the district level (3g):

3(f) Notwithstanding any provisions of this constitution, no school district which uses seniority or duration of employment as a basis, in whole or in part, to retain, remove, promote or demote teachers shall receive any state funding or local tax revenue.

3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria.

While our analysis will cite information from multiple states - the recent experience of Colorado in developing a remarkably similar system of teacher evaluation and estimating

the implementation costs serves as a good exemplar of what Missouri policy makers and budget analysts should expect as they are required to implement sweeping changes to teacher evaluation and compensation. Additionally CO and MO have similarly sized public education systems – and when ranked nationally are very close in size and scope (See table 6 below).

Table 6: Similarities in the size of public education systems in MO and CO*

	Missouri	National Rank (MO)	Colorado	National Rank (CO)
Average Daily Attendance (2010)	835,780	19	771,938	21
Number of Public High School Graduates '09-'10	62,342	20	46,811	22
Number of Public School Teachers K-12	67,882	14	48,960	23

*NEA Research. (2010). Rankings & Estimates Rankings of the States 2010 and Estimates of School Statistics 2011. http://www.nea.org/assets/docs/HE/NEA_Rankings_and_Estimates010711.pdf

Salary data used in this analysis will assume average pay for a Missouri teacher plus 34% to included benefits and other employer obligations. The current average salary for a Missouri teacher is \$45,317 or 48th in the nation and 81.5% of the national average.

The Colorado Experience:

In May of 2010, Colorado passed Senate Bill 191 which completely changed how public-school educators were evaluated in Colorado. **At the core of the proposal were two policy objectives similar to those in 3(f) and 3(g)** of the current proposal: 1) the removal of duration of employment as a basis of evaluation in whole or in part and 2) replaced with a model where quantifiable student growth/achievement represents at least 50% of the total performance by quantifiable and objective standards. Table 7 places the proposals for quantifiable measurement side-by-side for comparison:

Table 7: Comparison of Measurement Standard of Ellinger Proposal v. SB 191 Colorado

	<u>Ellinger Missouri Proposal</u>	<u>Senate Bill 191 Colorado</u>
Side-by-side comparison of measurement standards from MO and CO	“3(g) Notwithstanding any other section of this constitution, every school district shall develop and use local performance standards to retain, remove, promote, demote, and set compensation for teachers in such school district, the majority of such standards shall be based on quantifiable student performance data as measured by objective criteria. “	“Procedures for prioritizing or weighting measures of performance that ensure that measures of student growth represent at least 50 percent of total performance and are prioritized by technical quality, and that measures of professional practice are prioritized by local objectives. “
Source	*Ellinger Submission. (January 17, 2012). Pg 3	* Colorado State Board of Education. Report & recommendations; submitted to the Colorado State Board of Education pursuant to SB 10-191. (April 13, 2011). Pg 18 Available online: http://www.cde.state.co.us/EducatorEffectiveness/downloads/Report%20&%20appendices/SC EE_Final_Report.pdf

We believe the process of estimating costs to local school districts used by the Colorado State Board of Education will shed light on the Ellinger proposal and permit an estimate of the fiscal impact to school districts in Missouri.

Translating the Colorado Experience to Missouri:

In preparation for the transition to the proposed evaluation system for teachers, the Colorado State Board of Education spent over a year building consensus with education stakeholders about how the evaluation system would develop and preparing districts for its implementation – part of that process was a thorough analysis by the state to develop a teacher evaluation system school districts could use as a template and for preparing administrators for the transition. None of which is guaranteed by the Ellinger proposal to occur – however for purpose of analysis we will assume the following role for the state:

- 1) Create an exemplar template and evaluation system with a resource bank of evaluation tools.
- 2) Provide student, teacher, and parent survey instruments and analysis of results to districts.
- 3) Provide a definition of what constitutes a qualified educator for every subject area and grade level.
- 4) Develop materials to support professional development.
- 5) Collect and report evaluation data for the state.

NOTE: None of this is guaranteed or funded under the Ellinger proposal – nor do we attempt in this analysis to associate costs – but it is worth noting that the state would likely need to develop a whole host of example evaluation tools that districts could adopt and such development is likely to be a costly process.

In addition to the items above the state will likely have to develop and provide:

- 1) Assessment tools from the state need to be available to districts in all subjects, at no cost, and resulting data must be reliable and valid. Districts will recognize that they are allowed to create their own unique assessments, but districts will likely want to use defensible research-based measures provided by the state given the implications the data can have on educators and students.
- 2) A valid individual teacher and student tracking system needs to be developed and in place provided by the state. Much of the ability for districts to evaluate teacher performance based on at least “50% quantifiable data” will rely on the ability to correctly identify the teacher of record for each student in each subject area and assign attributable changes in performance to the appropriate teacher.

Startup Costs:

Certain initial costs are likely to be required at the district level prior to the implementation of the new evaluation system. We assume the burden for implementing the state mandates would fall to **individual school districts**. For example, districts would have to spend time selecting evaluation tools and measurements from the state templates, set up first time data systems, develop an appeals process, and provide comprehensive training for evaluators and educators. Colorado estimates the effort needed to accomplish these tasks is as follows:

Table 8: One Time Costs for each district:

	Selecting Evaluation Tools and Measurements	One time Data Set Up	Developing Appeals Process	Professional Development for all Staff	Professional Development for Evaluators
<u>District Personnel*</u>					
Superintendent				2 days	30 hours
Assistant Superintendent					30 hours
Director		5 days			30 hours
Trainer				3 days	60 hours
Clerical Staff					
IT Technician		5 days			
<u>School Personnel*</u>					
Teachers	5% of all teachers, \$100 a day for 5 days			2 days for every teacher	
Committee Teacher Leader	1% of all teachers, \$200 a day for 5 days				
Instructional Coach				2 days for every coach	
Principal				2 days for every principal	30 hours for every principal
<u>District/School Costs*</u>					
Legal			\$10,000		

Augenblick, Paslaich, and Associates INC.
Costing Out the Resources
Implications of SB 10-191 in Colorado School Districts: Prepared for State Council for Educator Effectiveness.
March 2011. Pg 35

Augenblick, Paslaich, and Associates and the Colorado State Board of Education estimate that the initial one-time costs on average are \$53 per student. Given the comparability of Missouri and Colorado (see table 1) we believe that this estimate is applicable to our

school system and may be conservative given Missouri has a full 350 more school districts than CO.

Ongoing Costs:

For ongoing costs the computation of new expenses that are above and beyond the current requirement set out by regulation or Missouri statute are considered in this section. As such what follows in this section are:

- 1) Likely tools and measures to be used;
- 2) The new effort and resources needed; and
- 3) The ongoing cost for three categories of teachers, (novice, effective, and ineffective).

When considering such a broad and sweeping change of the Missouri education system the usual disclaimers apply – 1) we are anticipating standards based on our experience with DESE and local school boards – **nothing in this document should be viewed as an endorsement of any system of evaluation**, 2) additionally our estimations are based on an average school district in an average resource environment, and 3) the cost estimate only the amount to evaluate teachers (not administrators or any other group).

Evaluating Teachers:

To evaluate teachers numerous measurers and tools will need to be developed as well as the standards for apply those tools (including but not limited to):

- Observation with pre/post interview
- Examination of lessons, unit plans, assignments and assessments
- Student and Parent feedback

- Peer observation and feedback.
- Teacher self review and interviews
- Analysis of student data and growth.

While these tools can be used with teachers at all levels of experience and ability – allotments must be made for more time and effort to be spent with teachers based on their experience (or lack thereof) and abilities.

The consulting firm of Augenblick, Paslaich, and Associates concluded that teachers are likely to fall into one of the three categories below and require a differing amount of ongoing supervision and evaluation costs. (SEE APPENDIX A - TABLES I-III for breakdown of evaluation and resources for each population of teachers).

Performance Standard	Per Teacher
Novice*	\$343 (increased training and data analysis)
Effective	\$531 (increased data analysis and frequency of evaluation)
Need Improvement	\$3,783 (increased number of teachers identified that require supervision and remediation)

*Boulder Valley School District. SB 191 and you. April 2011

Fiscal Impacts of 3(f) and 3(g) implementation of proposed evaluation model:

Fiscal Year 2013 – 1st year of implementation: Assumes average costs of \$53 per student and an even Missouri Public School Population of 903,423 students.

Fiscal Year 2014 – 1st year of evaluation. Assumes A novice teacher has less than 3 years experience (approximately 14.5% of 67,882) and assumes that only .5% of 62,342 need improvement (See Table 9 for overall costs).

Table 9: Estimated Cost to District for Evaluation

FY 2013		\$ Estimate
Startup Cost assume average of \$53 per student (Pg 9)	One time Cost Student K-12 Population of Missouri 903,423 (2010)	$903,423 \times \$53 =$ \$47,881,419
FY 2014	First Round of Evaluation: NOVICE evaluation costs \$343 *	$14.5\% \times 67,882 \times \$343 =$ \$ 3,376,111
	First Round of Evaluation: NEED IMPROVEMENT evaluation costs \$3,783	$0.5\% \times 67,882 \times \$3,783 =$ \$12,839,880
	First Round of Evaluation: Effective \$531	$80\% \times 67,882 \times \$531 =$ \$28,836,274
Total Costs of evaluation program to School Districts	One Time Expenses Plus + First time evaluation	\$ 92,933,684

*The National Commission on Teaching and America's Future (NCTAF). Report of Teacher Age and Experience by State (2007-2008). Available via: <http://nctaf.org/wp-content/uploads/2012/01/WebAgeandExpbyState07-08.pdf>

Cost Summary:

Mr. Ellinger's proposal is a blunt instrument wielded with broad and far-reaching language. The proposed amendment imposes a requirement to evaluate students and teachers based on quantifiable data creating a chain of unintended consequences. The state and districts will have to develop a series of new tests for every subject from math and reading

to home economics and wood shop. Tests used to evaluate student progress are expensive and scientifically rigorous instruments that must bear heavy scrutiny from a number of stakeholders. Should the state and school districts be mandated, the costs quickly explode. Table 10 below summarizes our estimate of costs in the next two fiscal years.

Table 10 Costs FY2013-2014

FY2013 (First Year)

State:

FY 2013 (First Year Costs)		\$ Estimate
Test Development all subjects and all grades:	Based on Previous RFP's Smarter Balanced Assessment (See Table 2)	\$1,161,790,565
FY 2013		\$ Estimate
Startup Cost assume average of \$53 per student (Pg 9)	One time Cost Student K-12 Population of Missouri 903,423 (2010) (See Table 9)	903,423 x \$53 = \$47,881,419
FY 2013		\$ Estimate
Cost to State for 545 new assessments. (Reoccurring)	See table 5 State Costs for MAP / EOC Admin	\$260,113,785
<u>Total</u>		<u>\$1,469,785,769</u>

School Districts:

FY 2013		\$ Estimate
Additional MAP Testing (reoccurring)	Based on previous costs to districts (Table 3 +4)	\$5,503,362 + \$3,861,000 = \$9,364,362
FY 2013		\$ Estimate
Startup Cost assume average of	One time Cost Student K-12	903,423 x \$53 =

\$53 per student	Population of Missouri 903,423 (2010)	\$47,881,419
FY 2013		\$ Estimate
Teacher Evaluations First Round (Re-occurring expense)	See Table 9 sum of all evaluations	\$45,052,265
<u>Total</u>		\$102,298,046

FY 2014 (Second Year)

State:

FY 2014		\$ Estimate
Cost to State for 545 new assessments. (Reoccurring)	See table 5 State Costs for MAP / EOC Admin	\$260,113,785
<u>Total</u>		<u>\$260,113,785</u>

School Districts:

FY 2014		\$ Estimate
Additional MAP Testing (reoccurring)	Based on previous costs to districts (Table 3 +4)	$\$5,503,362 + \$3,861,000 =$ \$9,364,362
FY 2014		\$ Estimate
Teacher Evaluations Re-occurring expense	See Table 9 sum of all evaluations	\$45,052,265
<u>Total</u>		<u>\$54,416,627</u>

Total Costs State And Districts FY 2013 = **\$ 1,572,083,815**

Total Costs State And Districts FY 2014 = **\$ 314,530,412**

APPENDIX A

NEW RESOURCES NEEDED BY TEACHER BASED ON DESIGNATION

TABLES PREPARED BY:

Augenblick, Paslaich, and Associates March 2011

TABLE I
New Resources Needed to Evaluate an Effective Teacher Each Year

	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Rating, Review of Results	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standards VI		
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration	Student Growth Assessments		
<u>District Personnel</u>									
Administrator									1 hr
Clerical Staff								0.5 hr	1 hr
<u>School Personnel</u>									
Teachers									
Instructional Coach									
Principal						7.5 hrs			
Data Manager							3 hrs		
Substitute						1 day at \$100			
<u>District/School Costs</u>									
Supplies and Materials									
Other				Cost at State Level					
Notes: For resources highlighted in green only two thirds of the cost of that resource is new									

TABLE II
New Resources Needed to Evaluate a Novice Teacher Each Year

	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Rating, Review of Results	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standards VI		
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration	Student Growth Assessments		
<u>District Personnel</u>									
Administrator									1.5 hr
Clerical Staff								0.5 hr	1 hr
<u>School Personnel</u>									
Teachers	.25 day								
Instructional Coach	.05 day*								
Principal	.05 day*								
Data Manager							3 hrs		
Substitute									
<u>District/School Costs</u>									
Supplies and Materials	\$5								
Other				Cost at State Level					

* Working with 5 teachers at a time for .25 day, so .05 is attributable to each of those teachers

TABLE III
New Resources Needed to Evaluate a Newly Identified Ineffective Teacher Each Year

	Training on Evaluation System/Tools	Evaluation (Formal and Informal)						Instructional Improvement	Review of Results/ Rating	Reporting/ Reviewing Evaluation Results
		Standards I-V					Standards VI			
		Observations, Pre/Post Interviews	Examination of Artifacts	Student Surveys	Parent Surveys	Peer Observation/ Collaboration	Student Growth Assessments			
District Personnel										
Administrator										2
Clerical Staff									0.5 hr	1 hr
School Personnel										
Teachers										
Instructional Coach								40 hours		
Principal		30 hrs								
Data Manager							3 hrs			
Substitute						1 day at \$100				
District/School Costs										
Course/Workshop Fee								\$500		
Supplies and Materials										
Other				Cost at State Level						

The State Auditor's office did not receive a response from the **Attorney General's office**, the **Department of Public Safety**, the **Department of Transportation**, the **Missouri Senate**, **Cass County**, **Jackson County Legislators**, **St. Louis County**, the **City of Cape Girardeau**, the **City of Kirksville**, the **City of Springfield**, **Metropolitan Community College**, **University of Missouri**, **St. Louis Community College**, **University of Central Missouri**, **Lincoln University**, **Missouri State University**, **Missouri Southern State University**, **Northwest Missouri State University**, **Southeast Missouri State University**, and **Truman State University**.

Fiscal Note Summary

Estimated costs for state and local governmental entities are unknown, but the initial and annual costs could be significant (millions of dollars) depending on decisions made at the state and local level to comply with required provisions in this proposal.