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**MEMORANDUM**

To: The Governor; The Superintendent of Public Instruction; The General Assembly;  
The State Board of Education

From: Office of Fiscal and Management Analysis, Legislative Services Agency

Re: Fiscal Impact Statement - Assessment System Changes Relating to Indiana College  
and Career Readiness Educational Standards

Date: July 7, 2014

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**I. STATUTORY DIRECTIVE**

Under IC 20-19-4-8, the Legislative Services Agency (LSA) is to prepare an analysis of the total estimated fiscal impact on all affected entities after the Indiana College and Career Readiness Educational Standards (ICCRES) are fully implemented, based on the recommendation of the Education Roundtable to the State Board of Education (SBOE).

**II. FINDINGS**

**State Impact**

**ICCRES Assessment Cost:** Tables 1, 2 and 3 show a summary of the net impact to the state for the ICCRES implementation. Table 1 shows a summary of the cost estimates of the initial analysis of the ICCRES published by LSA on April 14, 2014. This analysis assumed that the ICCRES assessment system would be developed as a stand-alone system. Table 2 shows the estimated net fiscal impact to the state based on updated cost figures and a relaxation of that assumption. This substantially reduced the estimated total cost. Table 3 shows the additional cost of implementing the recommendations proposed by the Education Roundtable. These recommendations include adding a summative and formative assessment for students in Grade 9, administering an optional college- and career-ready assessment in Grades 11 and 12, and administering a college- and career-ready exam in order to determine the remediation needs of students.

As Table 1 shows, under the initial analysis, the net fiscal impact to the state in the 2014-15 school year was estimated to be an increase in the testing expenditure of approximately \$10.5 M. This represents the

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cost to modify the ISTEP+ test so that the U.S. Department of Education (US DOE) would approve it as a college- and career-ready test. The expenditure in the 2014-15 school year was estimated to increase by up to approximately \$8 M if the development cost for the ICCRES assessments was funded in this school year. In the 2015-16 school year, when the assessments are scheduled to be implemented, the net fiscal impact was estimated to be an increase in testing expenditure of between \$23 M and \$32 M; beginning in the 2017-18 school year, the net fiscal impact was estimated to be an increase in the testing expenditure of between \$17 M and \$26 M annually. Under the initial analysis, the cost per student for the ICCRES English/language arts (ELA) and mathematics tests was estimated to be between \$44 and \$54.

Table 1. Net Fiscal Impact - Initial Analysis (April 14, 2014)

<b>2014-15</b>	<b>2015 -16</b>	<b>2016 -17</b>	<b>2017 -18</b>	<b>2018 -19</b>
\$10.5 M - \$18 M	\$23 M - \$32 M	\$17 M - \$25 M	\$17 M - \$26 M	\$17 M - \$26 M

Table 2 shows the estimated net fiscal impact to the state based on the updated cost estimates and modeling assumptions. In the 2014-15 school year, the ECA test also has to be modified so that the US DOE would approve it as a college- and career-ready test. This increases the expenditure from \$10.5 M to \$12.5 M. The additional \$8 M in development cost for the ICCRES assessments is included in the total cost of the assessments and is no longer a separate line item. In the 2015-16 school year, when the assessments are scheduled to be implemented, the net fiscal impact is estimated to be an increase in testing expenditure of between \$1.0 M and \$6.2 M. In the 2017-18 school year, the state will experience an estimated savings of between \$200,000 and \$5.4 M. Beginning in the 2018-19 school year, the estimated savings will be between \$200,000 and \$5.3 M. Under the updated analysis, the cost per student for the ICCRES ELA and mathematics tests is estimated to be between \$24 and \$32.

Table 2. Net Fiscal Impact - Updated Cost Estimates

<b>2014-15</b>	<b>2015 -16</b>	<b>2016 -17</b>	<b>2017 -18</b>	<b>2018 -19</b>
\$12.5 M	\$1.0 M - \$6.2 M	\$0.9 M - \$6.0 M	(\$5.4 M) - (\$0.2 M)	(\$5.3 M) - (\$0.2 M)

Table 3 shows the additional fiscal impact because of the recommendations proposed by the Education Roundtable. The total cost for these initiatives is estimated to be between \$11.6 M and \$14.4 M in 2015-16, between \$11.7 M and \$14.4 M in 2016-17, and between \$11.7 M and \$14.5 M thereafter.

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Table 3. Net Fiscal Impact - Education Roundtable Recommendations

2014-15	2015 -16	2016 -17	2017 -18	2018 -19
0.0	\$11.6 M - \$14.4M	\$11.7 M - \$14.4 M	\$11.7 M - \$14.5 M	\$11.7 M - \$14.5 M

Table 4 shows the summation of Tables 2 and 3. This is the estimated net impact to the state for the ICCRES implementation. The net total expenditure to the state is estimated to be between \$12.6 M and \$20.6 M in 2015-16, between \$12.6 M and \$20.4 M in 2016-17, and between \$6.4 M and \$14.3 M beginning in the 2018-19 school year.

Table 4. Net Fiscal Impact - ICCRES Assessment

2014-15	2015 -16	2016 -17	2017 -18	2018 -19
\$12.5 M	\$12.6 M - \$20.6 M	\$12.6 M - \$20.4 M	\$6.3 M - \$14.3 M	\$6.4 M - \$14.3 M

**Professional/Curriculum Development:** Professional development teaches educators the new standards; curriculum development transforms those standards to lesson plans and practical classroom exercises. Developing a curriculum has been and continues to be an ongoing process; it is assumed that administrators and staff would be constantly evaluating, updating, and aligning the curriculum and instructional resources in order to improve teaching and learning.

According to officials from the Indiana Department of Education (IDOE), the IDOE plans on following a two-track approach in developing professional development resources to support the ICCRES. The first would be to perform a comprehensive needs assessment to determine the specific requirements of the local school districts. Simultaneously, the IDOE intends to leverage already-existing programs and resources to create an environment where local school officials can share information and ideas. For example, the IDOE has developed correlation guides and resources to support the transition to the ICCRES. The correlation guides outline the previous standards and the ICCRES, and the differences between them. The resources include links to sample problems and a reading list that educators may reference. Educators can also access additional resources by joining online communities that will connect them with fellow educators from around the state. The IDOE is also sponsoring professional development conferences through eLearning. The additional cost of these initiatives is currently estimated by the IDOE to be between \$75,000 and \$100,000. This expenditure is being borne by the IDOE and is not included in the cost estimates above.

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**Local Impact**

**Professional/Curriculum Development:** The scope of professional development activities to support the implementation of the ICCRES would depend on local action. According to a survey of school corporations, corporations have varied capacities and may have different approaches to supporting their educators. Relatively larger school corporations may have curriculum development committees that facilitate these activities, while other districts may only be capable of allowing individual teachers or a small group of educators to determine curriculum. Some corporations may have the financial resources to provide professional development over multiple days, either after the school day or during the summer. With fewer resources available, other corporations may be able to offer only a limited amount of formal professional development initiatives. In some corporations, professional development is included in the collective bargaining agreement. School districts may also cover hiring dedicated district-level instructional coaches to work with educators during the school year and identifying and assigning designated teacher leaders to work with educators during the year. In some cases corporations may have to hire substitute staff to teach classes when teachers attend professional development training.

Professional development costs would depend on how much training is required for staff to successfully implement the ICCRES. Using the correlation guides developed by the IDOE, schools will have to determine the number of professional development hours needed to train staff in the implementation of the new standards. As a result, the options for the delivery of professional development may vary in terms of the delivery method, program intensity, and number of participating teachers. Computing an accurate direct cost figure cannot be estimated at this time. An alternative metric would be to consider cost in terms of opportunity cost, as there would be activities the staff may have to forgo in order to complete the required training.

The Pioneer Institute for Public Policy Research estimated professional development costs for implementing standards similar to the ICCRES to be approximately \$1,931 per educator, or \$125 M total for all educators. This is a “one-time” cost for experienced educators. The amount was estimated by first determining the typical cost for professional development in states that had previously implemented academic standards, weighted by the relative size of the states. It is assumed that the cost would be the same for the ICCRES. The initial impact would be reduced if phased in over several years or if limited at first to only ELA and mathematics instructors.

On the other hand, the Fordham Institute estimated that the total cost for transitioning to standards similar to the ICCRES would be about \$2,000 per educator if professional development was delivered in person, and between \$200 to \$600 if the delivery was through online instruction, or a combination of online and in-person instruction. Online instruction can also reduce the costs associated with in-person, onsite delivery (including the expense of paying for substitutes, and missed instructional time). The

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institute estimated the net costs at approximately \$500 per teacher for a total cost of approximately \$32.5 M statewide.

**Textbooks/Instructional Materials:** The fiscal impact on local districts would depend on the extent to which existing instructional materials are aligned with the ICCRES. This would dictate whether new instructional materials should be purchased, or if existing materials can be supplemented, and the extent to which supplementary materials will be available online at low or minimal costs. Instructional materials are generally updated every six years to reflect changes in standards and curriculum, though new standards do not necessarily require new textbooks. In 2011, the General Assembly permitted the use of computer software and digital content as a “textbook”, meaning that Indiana has flexibility in its choice of instructional materials and has the option to supplement materials to bridge any gaps between the old and new standards. The majority of the corporations surveyed indicated that either they did not plan on purchasing new textbooks because of the ICCRES or that they would replace textbooks according to the normal replacement schedule. Schools currently spend between \$80 M and \$135 M on textbooks.

**Technology:** According to the study by the Indiana Office of Management and Budget, schools would be technology-proficient by 2016. The Education Roundtable has recommended that the SBOE approve a fixed-form assessment and explore the possibility of having adaptive optional formative assessments. An adaptive test may require a wider bandwidth and more memory than are currently available. Hardware and bandwidth are the most significant cost drivers in a technology upgrade. According to IDOE officials, memory may have to be increased to at least 2 GB at each work station. Hardware costs range widely. Technology changes at an astonishing speed, with more capable machines introduced at lower prices on a regular basis. One significant constraint is whether the computers used by students would be compatible with the testing environment and the cost to upgrade to such an environment.

In terms of bandwidth, requirements hinge on the number of users and the density of applications. Costs vary depending on the number of users. For example, a standard connection serving about 20 to 50 users may cost between \$350 and \$1,200 monthly. A more advanced connection serving 50 or more users may cost between \$3,000 and \$12,000 monthly.

According to a survey of school corporations, about 30% of the computers statewide may need to be upgraded to 2 GB. The upgrade cost for some corporations could be significant. One school corporation indicated that it could cost between \$900,000 and \$1.3 M to upgrade or replace its computers, and the cost could be as high as \$3 M or more.

Total costs are shaped not just by the price of the technology, but also by policy choices. For example, mandating a relatively short window in which schools must administer the test will put considerable

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strain on their technology capacities. However, allowing schools a longer block of time may mean that some students would take the test significantly later than others, which raises serious questions of fairness relative to accountability and teacher evaluation, as well as test security issues.

**III. ANALYSIS**

**Background:** In August 2010, the SBOE adopted the Common Core State Standards for ELA and mathematics. These standards became known as the Indiana Common Core Standards (ICCS), and they replaced the Indiana Academic Standards (IAS). Adopting the ICCS enabled the state to fulfill the federal mandate of having college- and career-ready academic standards in place, and also to meet its No Child Left Behind (NCLB) waiver requirement under which the state must implement a college- and career-ready assessment by the 2014-15 school year.

In 2013, HEA 1427 required the state to adopt college- and career-ready standards no later than July 1, 2014. The legislation also mandated that after May 15, 2013, no further action could be taken to implement the ICCS, though any standards adopted before that date would remain in effect until new standards were adopted. It also prohibited the state from entering into or renewing an agreement with any organization that required the state to cede any autonomy of education standards and assessments. In July 2013, Governor Mike Pence and State Superintendent Glenda Ritz announced their intent to withdraw from participation in the Partnership for Assessment of Readiness for College and Careers (PARCC), one of the two consortia developing assessments aligned with the ICCS.

In 2014, SEA 91 mandated that the SBOE adopt the ICCRES, voiding the previously adopted ICCS. It also reaffirmed that Indiana would not cede any autonomy or control of education standards and assessments to any organization. In April 2014, the SBOE voted to adopt the ICCRES. In June 2014, the Education Roundtable proposed that the state consider funding several modifications to the assessment system. These recommendations include adding a summative and formative assessment for students in Grade 9, administering an optional college- and career-ready assessment in Grades 11 and 12, and administering a college- and career-ready exam in order to determine the remediation needs of students.

In addition to implementing college- and career-ready standards, federal requirements mandate the development and implementation of a high-quality assessment to measure student comprehension of the standards. Several states opted to join one of two consortia of states working to develop such high-quality assessments: (1) PARCC, in which Indiana participated until its withdrawal, and (2) Smarter Balanced Assessment Consortium (SBAC).

**Results:** Indiana currently spends approximately \$47.1 M on student testing and remediation. Of this total, approximately \$19.7 M is earmarked for ISTEP+ testing and \$2.5 M is for ISTEP+ ECA testing,

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for a total of \$22.2 M. The ISTEP+ estimate includes the cost of testing students in ELA and mathematics in Grades 3-8, science in Grades 4 and 6, and social studies in Grades 5 and 7. The ISTEP+ ECAs in Algebra 1 and English 10 are graduation requirements taken in Grade 10 (the Algebra 1 test is usually taken upon course completion), with opportunities for retest upon failure in either subject. Students also take a Biology 1 course in Grade 10.

The complete ICCRES assessment system would replace the ELA and mathematics exams in Grades 3-8, Algebra 1, and English 10. Students would be required to take the ELA and mathematics exams in Grade 10 rather than upon completion of English 10 or Algebra 1. The science, social studies, and Biology 1 exams would still be administered under ISTEP+ as they are currently.

Under HEA 1427, the ISTEP+ test has to be administered for the 2014-15 school year. However, Indiana must also give a college- and career-ready test in this school year. As a result, in addition to its current expenditures, the IDOE estimates that it will cost an additional \$12.5 M to modify the ISTEP+ and ECA tests so that the federal government would approve them as college- and career-ready tests. As official cost figures for the ICCRES assessments are not yet completed, an estimate was computed based on the cost of the assessments developed by PARCC and SBAC, the cost estimates presented to the IDOE in response to a request for information from selected vendors, and estimates from a cost model developed by the Assessment Solutions Group (ASG), a research organization that does consulting work for states and local districts on assessment procurement and implementation issues.

The current per-student cost of the PARCC and SBAC assessments is approximately \$29.95 and \$22.50, respectively. The ASG model is based on 125,000 students per grade in Grades 3-8 and Grade 10 (Indiana has on average 86,000 students per grade). The assessments are for ELA and mathematics to be taken online; the questions are a combination of multiple choice, short-answer, and essay type. The model is based on a four-year cycle with the first year devoted to content development and the next three years for testing and validation. The cost estimates were adjusted to account for the prior development of test items, online delivery of tests to reduce production and shipping costs, and computer scoring of other items.

Several vendors provided cost estimates to the IDOE in response to a request for information. Some of the cost data were incorporated into the final estimates used in this analysis. The per-student cost of the ELA and mathematics assessments is assumed to be between \$24 and \$32. This estimate includes the development cost of the system.

For the 2014-15 school year, the total number of ISTEP+ tests (ELA, mathematics, social studies, science) to be administered is estimated to be about 1.4 million. ELA and mathematics make up

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approximately 1 million tests, with social studies and science being the remainder. The estimated number of tests for the next four school years is increased slightly to reflect growth in the student population.

The complete ICCRES assessment system is scheduled to be implemented in the 2015-16 school year. This analysis assumes that high school students would be given a three-year notice before they would be required to take the ICCRES exam as their graduation exam. The three-year notice would cover the 2014-15, 2015-16, and 2016-17 school years. In both the 2015-16 and 2016-17 school years, the Algebra 1 and English 10 tests would be offered under the ISTEP+, and the ELA and mathematics tests would be offered under the ICCRES. Students would be required to take the ELA and mathematics tests under the ICCRES, and could opt to take English 10 and Algebra 1 ECAs under the ISTEP+. Beginning in the 2017-18 school year, however, only the ICCRES tests would be offered. The phaseout does not apply to Biology 1.

Table 5 shows the results for the ICCRES assessments. For 2015-16, the total cost is estimated to be between \$23.2 M and \$28.4 M; in 2016-17 the total cost is estimated to be between \$23.1 M and \$28.2 M. It decreases to between \$16.8 M and \$22 M in the 2017-18 school year. The expenditure for the 2015-16 and 2016-17 school years is higher because both the ECA tests under the ISTEP+, and the ELA and mathematics tests under the ICCRES, would be administered. In 2015-16, the additional state expenditure, above the current cost of the ISTEP+ and ECA tests, is estimated to be between \$1.0 M and \$6.2 M. Beginning in the 2018-19 school year, the impact will be an estimated savings of between \$200,000 and \$5.3 M. The estimate for Test Development is the ongoing replacement cost of test questions that cannot be reused after they have been made public. The cost per student for the ICCRES ELA and mathematics tests is estimated to be between \$24 and \$32.

Table 5. Cost Estimate - Updated ICCRES Cost Estimates

	<b>2015 -16</b>	<b>2016 -17</b>	<b>2017 -18</b>	<b>2018 -19</b>
Current Baseline Expenditure	\$22.2 M	\$22.2 M	\$22.2 M	\$22.2 M
Cost of ICCRES Assessment	\$22.2 - \$27.4 M	\$22.3 - \$27.4 M	\$16.0 - \$21.2 M	\$16.1 - 21.2 M
Test Development	\$1.0 M	\$0.8 M	\$0.8 M	\$0.8 M
Total State Expenditure	\$23.2 - \$28.4 M	\$23.1 - \$28.2 M	\$16.8 - \$22.0 M	\$16.9 - \$22.0 M
<b>Net State Expenditure</b>	<b>\$1.0 M - \$6.2 M</b>	<b>\$0.9 M - \$6.0 M</b>	<b>(\$5.4 M) - (\$0.2 M)</b>	<b>(\$5.3 M) - (\$0.2 M)</b>



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In June 2014, the Education Roundtable voted to recommend to the State Board of Education the following proposals:

- a. Administer the ELA and mathematics exams to students in Grade 9.
- b. Administer one optional college- and career-ready (CCR) assessment in Grades 11 and 12. This analysis considers four such assessments: SAT, ACT, WorkKeys, and the Armed Services Vocational Aptitude Battery (ASVAB).
- c. Administer a college- and career-ready exam in order to determine the remediation needs of students.
- d. Offer an optional formative assessment for Grades K - 10.

Table 6 shows the cost estimates for these recommendations beginning in 2015-16:

- a. Testing students in Grade 9 would cost between approximately \$2.1 M and \$2.9 M annually. The estimates for this recommendation are in the row labeled “Grade 9 Assessment”.
- b. Administering a college- and career-ready assessment in Grades 11 and 12 would, except for the ASVAB assessment, increase costs; the amount of the increase would depend on the assessment chosen. The cost for an SAT exam is between \$46 and \$56 per student; for ACT, the cost per student is \$34 (without writing) and \$49 (with writing); for WorkKeys, the cost is approximately \$20 per student; for ASVAB, there is no cost. It is assumed that funding would be available to enable each student to take the test once in Grade 11 and once in Grade 12.

Using the cost for the SAT exam, the total expenditure is estimated to be between \$7.9 M and \$9.8 M in 2015-16, between \$8.0 M and \$9.8 M in 2016-17, and between \$8.0 M and \$9.9 M thereafter.

Using the cost for the ACT exam, the total expenditure is estimated to be a little less than \$6 M per year for the exam without writing, and approximately \$8.7 M a year for the exam with writing.

The total expenditure for the WorkKeys exam is estimated to be about \$3.6 M per year. There is no expenditure for the ASVAB assessment.

The expenditure for the SAT exam is included in Table 6 in the row labeled “CCR Assessment - Grades 11/12. This represents the maximum cost for this proposal.

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c. The ACCUPLACER assessment is currently used to determine the remediation needs of students. The budget for 2014-15 is approximately \$400,000. The IDOE expects the cost to be between \$400,000 and \$500,000 in subsequent years. The estimates for this recommendation are in the row labeled “CCR Assessment - Remediation”.

d. Currently, the state administers a formative assessment to students in Grades K - 8 and Grade 10. The additional cost to including students in Grade 9 is estimated at approximately \$1.2 M annually. The estimates for this recommendation are in the row labeled “Formative Assessment - Grade 9”.

The total cost for these initiatives is estimated to be between \$11.6 M and \$14.4 M in 2015-16, between \$11.7 M and \$14.4 M in 2016-17, and between \$11.7 M and \$14.5 M thereafter.

Table 6. Cost Estimate - Education Roundtable Recommendations

	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Grade 9 Assessment	\$2.1 M - \$2.9 M	\$2.1 M - \$2.9 M	\$2.1 M - \$2.9 M	\$2.1 M - \$2.9 M
CCR Assessment - Grades 11/12	\$7.9 M - \$9.8 M	\$8.0 M - \$9.8 M	\$8.0 M - \$9.9 M	\$8.0 M - \$9.9 M
CCR Assessment - Remediation	\$0.4 M - \$0.5 M	\$0.4 M - \$0.5 M	\$0.4 M - \$0.5 M	\$0.4 M - \$0.5 M
Formative Assessment - Grade 9	\$1.2 M	\$1.2 M	\$1.2 M	\$1.2 M
<b>Net State Expenditure</b>	<b>\$11.6 - \$14.4 M</b>	<b>\$11.7 - \$14.4 M</b>	<b>\$11.7 - \$14.5 M</b>	<b>\$11.7 - \$14.5 M</b>

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**References:**

Topol, B., Olson, J., & Roeber, E. (2010). *The Cost of New Higher Quality Assessments: A Comprehensive Analysis of the Potential Cost for Future State Assessments*. Stanford, CA: Stanford University, Stanford Center for Opportunity Policy in Education.

[http://www.assessmentgroup.org/uploads/Cost\\_of\\_New\\_Higher\\_Quality\\_Assessments\\_FINAL\\_4-2-10.pdf](http://www.assessmentgroup.org/uploads/Cost_of_New_Higher_Quality_Assessments_FINAL_4-2-10.pdf)

Accountability Works. (2012). *National Cost of Aligning States and Localities to the Common Core Standards*. Pioneer Institute.

Patrick Murphy and Elliot Regenstein (2012). *Putting a Price Tag on the Common Core: How Much Will Smart Implementation Cost?* Thomas B. Fordham Institute.

The Partnership for Assessment of Readiness for College and Careers (PARCC). Assessment Cost Estimates. July 2013. <http://www.parcconline.org/parcc-assessment>

Smarter Balanced Assessment Consortium. Frequently Asked Questions, 2014.  
<http://www.smarterbalanced.org/resources-events/faqs/>

Indiana Department of Education website: <http://www.doe.in.gov/accountability/data-center>

Indiana Department of Education, Office of Student Assessment <http://www.doe.in.gov/assessment>

Local school corporation surveys.