REPORT OF THE
ACCOUNTABILITY SYSTEM REVIEW PANEL

Indiana Legislative Services Agency
200 W. Washington Street, Suite 301
Indianapolis, Indiana 46204

October, 2013
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Fort Wayne

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Vice-Chairperson  
Indianapolis

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George T. Angelone  
Executive Director  
Legislative Services Agency
# ACCOUNTABILITY SYSTEM REVIEW PANEL

## Membership Roster

<table>
<thead>
<tr>
<th>Superintendent Glenda Ritz, Co-Chairperson</th>
<th>Dr. Steve Yager, Co-Chairperson (Pro Tempore Long)</th>
</tr>
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<tbody>
<tr>
<td>Steve Baker (Pro Tempore Long)</td>
<td>Melanie Park (Pro Tempore Long)</td>
</tr>
<tr>
<td>Derek Redelman (Pro Tempore Long)</td>
<td>Dr. Jim Snapp (Governor)</td>
</tr>
<tr>
<td>Robert Lugo (Governor)</td>
<td>Casandra McLeod (Governor)</td>
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<tr>
<td>Claire Fiddian-Green (Governor)</td>
<td>Dr. Shane Robbins (Speaker Bosma)</td>
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<tr>
<td>Sheila Seedhouse (Speaker Bosma)</td>
<td>Jessica Dunn Feeser (Speaker Bosma)</td>
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<tr>
<td>Scott Bess (Speaker Bosma)</td>
<td>Keith Gambill (DOE)</td>
</tr>
<tr>
<td>Cheryl Ramsey (DOE)</td>
<td>Dr. E. Ric Frataccia (DOE)</td>
</tr>
<tr>
<td>Michele Walker (DOE)</td>
<td></td>
</tr>
</tbody>
</table>

## Staff

- Irma Reinumagi
  Attorney for the Panel

- Allen Morford
  Attorney for the Panel

- Chuck Mayfield
  Fiscal Analyst for the Panel

- David Lusan
  Fiscal Analyst for the Panel

A copy of this report is available on the Internet. Reports, minutes, and notices are organized by committee. This report and other documents for this Committee can be accessed from the General Assembly Homepage at [http://www.in.gov/legislative/](http://www.in.gov/legislative/).
I. INTRODUCTION

The Accountability System Review Panel (Panel) was created by a Memorandum of Understanding (MOU) entered into by the Governor, the Speaker of the House, the President Pro Tempore of the Senate, and the State Superintendent of Public Instruction.

The MOU established the Panel to carry out the following duties:

1. Make recommendations regarding the A-F accountability system, including recommendations regarding measurements based on individual academic performance and growth to proficiency and avoiding recommendations based on measurement of student performance or growth compared with peers.

2. Consider a wide range of data in making its recommendations.

3. Examine other states' accountability systems to look for innovative solutions.

4. Ensure the fairness of any recommended accountability system.


6. Exist until after the deadline for such report until December 31, 2013, for the purpose of receiving and investigating any clarifying questions posed by the State Board of Education, the Indiana Department of Education, the Governor, the House, or the Senate, unless otherwise extended or disbanded by the terms of the MOU.

Each signatory to the MOU appointed four members: one teacher, one principal, one superintendent, and one technical advisor. In addition, the State Superintendent of Public Instruction, Glenda Ritz, served as a member and Co-Chairperson. Dr. Steve Yager, Superintendent of Southwest Allen County Schools, served as the other Co-Chairperson.

Under Indiana’s current school accountability system, schools are assessed for performance under two standard models - an elementary and middle school model and
a high school model. (There is an allowance made for schools that do not conform to a traditional model, such as a combined school.) The elementary and middle school model measures student passage rates on state-wide English/language arts and math tests; it also rewards schools for student growth. The high school model includes four measures:

1. Passage rates on 10th grade end of course assessments (ECA) in English 10 and Algebra 1, as well as student growth in these subjects.
2. Passage rates on both ECA tests by students who initially did not pass these tests in 10th grade, but pass before graduation.
3. High school graduation rates.
4. College and career readiness (CCR) based on student achievement of the following indicators: (1) A passing score on at least one Advanced Placement (AP) examination. (2) A passing score on at least one International Baccalaureate (IB) examination. (3) The completion of at least three college credit hours through a dual credit course. (4) The receipt of an industry certification.

(Note: A brief explanation of the how school scores are determined under the current school accountability model is included as Appendix B.)

In developing a new or revised school accountability system, the Panel followed IC 20-31-8-3, as amended by HEA 1427-2013, which requires the State Board of Education (State Board) to "establish a number of categories, using an "A" through "F" grading scale, to designate performance based on the individual student academic performance and growth to proficiency in each school.". In addition, IC 20-31-8-1(a) provides that "The performance of a school's students on the ISTEP program test and other assessments recommended by the education roundtable and approved by the state board are the primary and majority means of assessing a school's improvement."

Indiana has a waiver from the requirements of the federal "No Child Left Behind" statutes that requires certain elements in the state's school accountability system, including the following:

- The system must look at student achievement for all defined subgroups of students in at least reading/language arts and math, graduation rates, and school performance and progress over time.

- Once the state has adopted a high-quality assessment, it must take into
account student growth for all subgroups. A state must report both its pass rate and participation rate on the assessment.

- Set new ambitious but achievable measurable objectives for all subgroups in at least reading/language arts and math.

- Provide incentives and recognition for success, including, if possible, rewarding Title I schools making the most progress and identifying the schools as Title I "reward schools".

- Effect dramatic, systematic change in the lowest-performing schools, identifying the schools as Title I "priority schools" and ensuring meaningful interventions.

- Work to close achievement gaps by identifying schools with the greatest achievement gaps as Title I "focus schools" and ensuring interventions based on reviews of the specific academic needs of the school and its students.

- Provide incentives and supports to ensure continuous improvement in Title I schools that are not making progress in improving student achievement and narrowing achievement gaps.

- Build capacity to improve student learning in all schools.

Under the current federal waiver, for accountability purposes, Indiana reports data for two "super" subgroups of students - the top 75% and the bottom 25% - instead of data for ten subgroups of students that would be required in the absence of the waiver. The data for the ten subgroups are reported for monitoring purposes. Indiana's waiver expires in 2014; it is likely that Indiana will apply for a new waiver.

II. SUMMARY OF WORK PROGRAM

The Panel met seven times before November 1, 2013.

September 19, 2013: The Panel received information on the Indiana Open Door Law and the MOU. A historical perspective on Indiana's accountability system was presented, as well as information concerning federal and state legal requirements for accountability systems and Indiana's waiver from certain federal accountability requirements. The Panel began discussion concerning what elements the members would like to see included in a system as well as elements that the members would not
like to include in a system, taking into account policy needs, development needs, and implementation.

**September 24, 2013:** The Panel began ranking the elements to be included in an accountability system. The Panel received information concerning the role of assessments in accountability systems, particularly in models that focus on growth to proficiency, which is required under Indiana statute. The Panel began examining three existing growth models of accountability: the gain, the categorical, and the trajectory, and discussed the components of each model, as well as components Indiana’s model should include.

**October 4, 2013:** The Panel considered transition options for going from Indiana’s current accountability system to a new system, and held considerable discussion of the gain, trajectory, categorical, and student growth percentile models, including considering other states’ accountability systems. There was agreement that Indiana’s model should look at a student’s growth or lack of growth over the course of a year. A hybrid growth model, combining elements of the trajectory model and a criterion-referenced categorical model, was discussed.

**October 8, 2013:** The Panel received and discussed information concerning the current high school achievement model, and information on multiple measures of achievement. Several members of the Panel expressed concerns with the penalty aspects of the current high school model, and considered student data currently collected in Indiana that could be used as measures of achievement, as well as data could potentially be collected. The Panel received worksheets for developing an accountability framework to determine performance indicators and the weight to be given to specific indicators, and looked at models developed by Panel members based upon discussions held at the previous meetings.

**October 18, 2013:** The Panel received information on reading assessments for determining growth. The Panel reviewed options for frameworks and components for accountability system models, and discussed whether existing student data can be analyzed in a timely fashion to test the feasibility of the Panel's recommendations. The members reached a consensus to have the accountability grading system based on a 100 point scale instead of the current four point scale, and to have different frameworks for elementary/middle grades and high school grades.

**October 24, 2013:** The Panel worked through a number of questions concerning elements to be included in the accountability system model, and came to a consensus
concerning the following:

- To include a trajectory component in the growth domain of the model to satisfy the statutory requirement of determining "growth to proficiency".
- A categorical element should not be included in the performance domain of the model.
- Categorical improvement in growth in high school should be a part of the final model, but the current use of improvement for grades 8 through 10 should be continued until new assessments that support the final system are in place.
- The current method of determining improvement for grades 10 through 12 should be used until new assessments are adopted, after which improvement between the grade in which the assessment is administered and grade 12 should be rewarded.
- As a performance indicator, the current system of awarding points should be transitioned through the use of a multiplier over the course of several years to a system in which the percentage of students who have attained a CCR indicator is used. For growth in CCR indicators, the increase in the number of students who have CCR indicators in grade 10 to the number of students who have CCR indicators in grade 12 should be used.
- To continue to use categorical scores as measures of growth for the two super subgroups, rather than using the ten subgroups.
- Weights for the domains of performance and growth: in the high school portion of the accountability system, the weights should be 70% performance and 30% growth.

The Panel discussed, but did not reach a consensus concerning, the use of the terms "commendable" and "proficient" for Title 1 schools that receive B and C grades, respectively.

**October 28, 2013:** The Panel considered and took action on the following issues:

- For super subgroups under the federal NCLB waiver, for which Indiana's current waiver uses top 75% - bottom 25% subgroups, Utah and Louisiana use proficient and nonproficient students as their subgroups instead of set percentages. No action was taken on the issue of changing the subgroups for the next waiver application.
- Charts of school report cards, with weights arbitrarily determined for demonstration purposes, calculated using student data from 2012, were distributed to show how the new model will impact existing A, C, and F graded schools. The Panel decided that for participation rate factor, if the percentage of participation is 95% or higher, the school will receive a full credit; if the
percentage is 94.9% or lower, the school will receive a partial credit equal to the percentage. Schools will not be penalized for less than 95% participation, and the elementary and high school models will treat participation in the same manner.

- Growth to proficiency: how it will be determined, whether a better way of stating "growth to proficiency" for a school is "students meeting targeted proficiency", the necessity of having a statistical analysis to determine appropriate time frames for students to move to proficiency, and whether a categorical model is sufficient to determine growth to proficiency. The Panel decided that the term "targeted proficiency" would be used.

- Unique school situations: Under the current model, small schools (with classes below the size required for the model) are graded by going back up to three years to establish a cohort of a sufficient size. The Panel recommended that practice be continued. For new schools, the Panel had no recommendations, as the model will accommodate new schools. For dropout recovery schools, the changes made to the high school model should also be made for dropout recovery schools during the transition period. For school configurations with no tested grades (for example, a K-2 school or a grade 9 only school): while eventually grades 1 - 11 will be tested in at least some areas, allowing specific grades to be assigned, during the transition, the "feeder" school model, in which the school receives the grade of the school into which it sends students, will be continued.

- Anomalies in grades assigned: DOE will develop flags to identify anomalies in the accountability system's assignation of grades to schools.

The Panel reviewed the draft final report (Exhibit C), and made changes, including a change to the weights given performance and growth in the high school model, and corrections to the report. On the final report, Mr. Redelman raised concerns about the lack of data in evaluating recommendations for a model and the lack of agreement on a matrix for the categorical model, as well as questioning the definition of "targeted growth" added to the report. The final report was adopted on a voice vote of 16-1.
III. MATERIALS CONSIDERED

The Panel developed the following framework of values for an accountability system:

1. Growth for all students is highly valued and schools should be rewarded for individual student growth.
2. The model should be clear, understandable, fair, and transparent. Schools should be able to understand the statistical calculations and be able to use the data to inform instruction.
3. Multiple data points should inform both growth and performance.
4. The model should allow for flexibility for changes in assessments, allow for all configurations of schools, and align with federal Title I category requirements.

The Panel had access to the Council of Chief School Officers report of accountability system comparisons across 38 states that have a No Child Left Behind flexibility waiver. Among these states, the elements of the following states’ systems were adopted by the Panel:

- Colorado (the addition of a trajectory model within Indiana's current growth component to indicate "catch up, keep up, move up" once a baseline model has been created to calculate growth scores).
- Alaska & Illinois (expand Indiana's current categorical model from 3 categories to a minimum of 5 categories and to allow for school points for individual student growth progression from category to category)
- Alaska and other states (use easy to understand 100-point scale)

_A Practitioner’s Guide to Growth Models_ by Andrew D. Ho, Harvard Graduate School of Education and Katherine E. Castellano, University of California, was used to expand the Panel's knowledge base and determine effective yet simple means to measuring growth. The Panel determined that Indiana should show student growth using both categorical and trajectory approaches. While Indiana's current system shows minimal student growth across 3 levels (Do Not Pass, Pass, and Pass +), the Panel decided to fully develop the categorical portion by delineating at least 5 categories within the 3 levels for the purpose of awarding growth points for individual student growth crossing categories. In addition, in order to meet the requirements of HEA 1427-2013 to show growth to proficiency, the Panel decided that the trajectory approach already established within Indiana's current growth model should be revised to reflect a criterion approach as opposed to the current percentile approach, which does not comply with the requirement of IC 20-31-8-3 to be based on individual student performance.
Recommendations from the report "The Examination of Indiana's A to F School Accountability Model", September 6, 2013, by John Grew and William Sheldrake, also served as a catalyst for considering multiple data points for accountability in addition to ISTEP testing.

The Panel reviewed the following data points for consideration within the two domains of performance and growth:

<table>
<thead>
<tr>
<th>Data Points</th>
<th>Accepted by Panel?</th>
<th>Performance or Growth?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math Performance (1-10)</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>Math Growth (2-12)</td>
<td>YES</td>
<td>G</td>
</tr>
<tr>
<td>Math Participation</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>ELA Performance (1-10)</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>ELA Growth (2-12)</td>
<td>YES</td>
<td>G</td>
</tr>
<tr>
<td>ELA Participation</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>Science Performance</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Science Participation</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Reading Performance (1-11)</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>Reading Growth (2-12)</td>
<td>YES</td>
<td>G</td>
</tr>
<tr>
<td>CCR Performance</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>CCR Growth</td>
<td>YES</td>
<td>G</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>YES</td>
<td>P</td>
</tr>
<tr>
<td>Graduation Growth</td>
<td>YES</td>
<td>G</td>
</tr>
<tr>
<td>Attendance</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Suspension/Expulsion Rate</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Classroom size, bullying rate, student engagement, principal and teacher effectiveness, parent engagement, student, career employment &quot;soft skills&quot;</td>
<td>NO</td>
<td></td>
</tr>
</tbody>
</table>
The Panel recommends the following framework for the school accountability model, subject to validation by statistical analysis as data becomes available. The Panel recognizes that it may be asked to conduct follow-up recommendations in addition to the work included in this report. The Panel recognizes that work conducted for additional recommendations will include more extensive use of subject matter experts as the statistical aspect of the accountability system is realized.

IV. SCHOOL ACCOUNTABILITY SYSTEM RECOMMENDATIONS

The Panel recommends the following interdependent components for the Indiana school accountability system:

(1) The grading scale for the A - F system, currently a 4-point scale, will be changed to a 100-point scale.

(2) The accountability system model will have different frameworks for grades 1-8 and grades 9-12.

(3) The accountability system will have two domains: performance and growth.

(4) The model will allow for changes in assessments, including any new assessments that may be selected once CCR standards are adopted as required under HEA 1427-2013.

(5) As required under IC 20-31-8-1, the performance of a school's students on the ISTEP program test and other assessments recommended by the Education Roundtable and approved by the State Board are the primary and majority means of assessing a school's improvement.

(6) The model will include the data points to measure reading growth and performance in grades 1-10 (possibly to grade 11), when data becomes available.

(7) The model will measure CCR indicators in both domains of performance and growth.

(8) The CCR indicators will include the PSAT as a data point.

(9) The model will measure targeted growth.
(10) The targeted growth for each student will be determined annually.

(11) The model will measure categorical growth improvement.

(12) The model will allow targeted growth to be measured for high school when data becomes available following the adoption by the State Board of new assessments that enable the development of a vertical scale.

(13) The model will use improvement rates as data points for growth in the 10th to 12th grade.

(14) The model will retain the CCR goal at 25% student attainment (the current level) and the data will be multiplied by 4 to create points. The model will allow for an increase in the significance of the CCR goal.

(15) The model will use a categorical improvement indicator for the super subgroups in the growth domain.

(16) Title I category descriptors will be aligned with the model by identifying terms that align with A - F categories of the accountability system; however, the Panel makes no recommendation concerning what the terms should be.

(17) The model will be developed to have vertical scale alignment with assessments in grades 1-10 (possibly grade 11).

(18) The model will expand to at least 5 performance categories that are delineated within the current 3 performance levels to show improvement in growth.
The Panel recommends the following implementation framework for the school accountability model, subject to validation by statistical analysis as data becomes available. The Panel recognizes that it may be asked to conduct follow-up recommendations in addition to the work included in this report. The Panel recognizes that work conducted for additional recommendations will include more extensive use of subject matter experts as the statistical aspect of the accountability system is realized.

V. ACCOUNTABILITY MODEL - IMPLEMENTATION RECOMMENDATIONS

1. The complete recommended accountability model should be used to assess all schools with tested grades starting in school year 2014-15.

2. Point scale.
   a. The model should use a 0.0 to 100.0 scale.
   b. Category placements are established based on total points (weighted average of domain points) assigned to a school using the following scale:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.0 to 100.0</td>
<td>A</td>
</tr>
<tr>
<td>80.0 to 89.9</td>
<td>B</td>
</tr>
<tr>
<td>70.0 to 79.9</td>
<td>C</td>
</tr>
<tr>
<td>60.0 to 69.9</td>
<td>D</td>
</tr>
<tr>
<td>0.0 to 59.9</td>
<td>F</td>
</tr>
</tbody>
</table>

3. Total points assigned to a school should be a weighted average of the designated domains within the accountability framework.

A. Performance

   i. The performance domain will be assigned a weight in the overall framework.
   ii. Total performance points will be the sum of the domain indicators final points.
   iii. Domain placements are established based on domain points (weighted average of indicator points) assigned using the following scale:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.0 to 100.0</td>
<td>A</td>
</tr>
<tr>
<td>80.0 to 89.9</td>
<td>B</td>
</tr>
</tbody>
</table>
iv. Indicators to be included are:

1. English/Language Arts
   a. Points are to be assigned for grades 1-10 (or possibly grade 11) where test data are available.
   b. Points are not awarded for grade 12.
   c. Points awarded in each grade span should equal the product of the state assessment pass rate and the participation rate factor.
      i. If participation rate is greater than or equal to 95%, then the participation rate factor should be 1.
      ii. If participation rate is less than 95%, then the participation rate factors should equal the participation rate in decimal form.
   d. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.
   e. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

2. Math
   a. Points are to be assigned for grades 1-10 (or possibly grade 11) where test data are available.
   b. Points are not awarded for grade 12
   c. Points awarded in each grade span should equal the product of the state assessment pass rate and the participation rate factor.
      i. If participation rate is greater than or equal to 95%, then the participation rate factor should be 1.
      ii. If participation rate is less than 95%, then the participation rate factors should equal the participation rate in decimal form.
   d. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.
   e. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.
3. Reading
   a. Points are to be assigned for grades 1-10 (or possibly
      grade 11) where test data are available.
   b. Points are not awarded for grade 12.
   c. Points awarded in each grade span should equal the
      product of the state assessment pass rate and the
      participation rate factor.
      i. If participation rate is greater than or equal to 95%,
         then the participation rate factor should be 1.
      ii. If participation rate is less than 95%, then the
         participation rate factors should equal the
         participation rate in decimal form.
   d. Overall points should be the sum all applicable grade
      span points weighted to reflect enrollment in each span.
   e. Overall final points for the indicator should be the product
      of the indicator points and the indicator weighting.

4. College and Career Readiness Achievement
   a. Points are to be assigned for grade 12.
   b. Points are not awarded for grades 1-11.
   c. Points awarded in each grade span should equal the
      product of the CCR rate and the state readiness factor. The
      state readiness factor should be determined through the
      following:
      i. The readiness factor should be the quotient of the
         total achievable and the annual goal. Currently, the
         formula would be 100/25=4.
      ii. The current goal presented to Indiana schools is
          25%. The accountability panel recommends review of
          the current goal including recommendations from the
          Department of Workforce Development and the
          Commission for Higher Education as to an attainable
          goal and additional accurate measures of CCR.
   d. Overall points should be the sum all applicable grade
      span points weighted to reflect enrollment in each span.
   e. Overall final points for the indicator should be the product
      of the indicator points and the indicator weighting.

5. Graduation
a. Points are to be assigned for grade 12.
b. Points are not awarded for grades 1-11.
c. Points awarded in each grade span should equal the graduation rate.
   i. If graduation rate is greater than or equal to 90%, then the score should be 100.
   ii. If graduation rate is less than 90%, then the score should equal the graduation rate in percent form.
d. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.
e. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

B. Growth

i. The growth domain will be assigned a weight in the overall framework.
ii. Total growth points will be the sum of the domain indicators final points.
iii. Domain placements are established based on domain points (weighted average of indicator points) assigned using the following scale:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.0 to 100.0</td>
<td>A</td>
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<td>D</td>
</tr>
<tr>
<td>0.0 to 59.9</td>
<td>F</td>
</tr>
</tbody>
</table>

iv. Indicators to be included are:

1. English/Language Arts
   a. Points are to be assigned for grades 2-12 where test data is available.
   b. Points awarded in each grade span should be assigned as follows:
      i. Grades 2-11 points should be the average of three growth indicators:
         1. For students meeting targeted growth, schools should be awarded points equal to the percent of students achieving the expected annual growth.
a. Currently data is only available for grades 3-8.
b. In absence of continuous data on a vertical scale, growth for the indicator should be measured as improvement from grade 8 to grade 10 using a simplified category status improvement calculation (3 x 3 improvement scale).

2. Higher performing categorical growth improvement points should be awarded equal to the average categorical score for students within the top 75% of prior year performance.
3. Lower performing categorical growth Improvement points should be awarded equal to the average categorical score for students within the bottom 25% of prior year performance.

t. Grade 12 points should be the awarded equal to the rate of improvement of students on graduation qualifying exams between the primary administration year and graduation.

c. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.
d. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

2. Math

a. Points are to be assigned for grades 2-12 where test data is available.
b. Points awarded in each grade span should be assigned as follows:
   i. Grades 2-11 points should be the average of three growth indicators:
      1. For students meeting targeted growth, schools should be awarded points equal to the percent of students achieving the expected
annual growth.
   a. Currently data is only available for grades 3-8.
   b. In absence of continuous data on a vertical scale, growth for the indicator should be measured as improvement from grade 8 to grade 10 using a simplified category status improvement calculation (3 x 3 improvement scale).

2. Higher performing categorical growth improvement points should be awarded equal to the average categorical score for students within the top 75% of prior year performance.

3. Lower performing categorical growth Improvement points should be awarded equal to the average categorical score for students within the bottom 25% of prior year performance.
   ii. Grade 12 points should be the awarded equal to the rate of improvement of students on graduation qualifying exams between the primary administration year and graduation.

c. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.

d. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

3. Reading
   a. Points are to be assigned for grades 2-11 where test data is available.
   b. Points awarded in each grade span should be assigned as follows:
      i. Grades 2-11 points should be the average of three growth indicators:
         1. For students meeting targeted growth, schools should be awarded points equal to the percent of students achieving the expected
annual growth using a simplified category status improvement calculation (3 x 3 improvement scale).

2. Higher performing categorical growth improvement points should be awarded equal to the average categorical score for students within the top 75% of prior year performance.

3. Lower performing categorical growth improvement points should be awarded equal to the average categorical score for students within the bottom 25% of prior year performance.

ii. Grade 12, no points are awarded.

c. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.

d. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

4. College and Career Readiness Achievement

a. Points are to be assigned for grade 12.

b. Points are not awarded for grades 1-11.

c. Points awarded in each grade span should equal the rate in which graduates improved CCR status from non-achievement by the end of the 10th grade year to achievement by graduation.

d. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.

e. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

5. Graduation

a. Points are to be assigned for grade 12.

b. Points are not awarded for grades 1-11.

c. Points awarded in each grade span should be assigned as follows:

i. The improvement rate should equal the quotient of the current cohort graduates plus additional out of cohort graduates for the accountable year and the total cohort.
ii. The Panel recommends statistical analysis concerning graduation improvement to ensure out of cohort graduates are captured in the improvement rate calculation.

d. Overall points should be the sum all applicable grade span points weighted to reflect enrollment in each span.

e. Overall final points for the indicator should be the product of the indicator points and the indicator weighting.

4. The accountability model may use the following weights to determine final points assigned to a school, pending statistical analysis:

A. For grades 1 to 8:

i. The Performance domain should receive less weight than the Growth domain.
   1. Assessment indicators should be weighted as available to equal 100%:
      a. English/Language arts.
      b. Math.
      c. Reading.
   2. Other indicators.

ii. The Growth domain should receive more weight than the Performance domain.
   1. Content area growth indicators should be weighted as available to equal 100%:
      a. English/Language arts.
      b. Math.
      c. Reading.
   2. Other indicators.
   3. Growth points:
      a. For students meeting targeted growth, weighting should be 10%.
      b. For students achieving above targeted growth, weighting should be 45%.
      c. For students achieving below targeted growth, weighting should be 45%.
B. For grades 9 to 12:

i. The Performance domain should receive more weight than the Growth domain.
   1. Assessment indicators should be weighted as available to equal 40%:
      a. English/Language arts.
      b. Math.
      c. Reading.
   2. CCR should be weighted 30%.
   3. Graduation rate should be weighted 30%.

ii. The Growth domain should receive less weight than the Performance domain.
   1. Content area growth indicators should be weighted as available to equal 40%:
      a. English/Language arts.
      b. Math.
      c. Reading.
   2. CCR should be weighted 30%.
   3. Graduation rate should be weighted 30%.
   4. Growth points:
      a. For students meeting targeted growth, weighting should be 10%.
      b. For students achieving above targeted growth, weighting should be 45%.
      c. For students achieving below targeted growth, weighting should be 45%.

5. For unique school situations, the accountability model should use the following recommendations:
   
   A. Small schools (with classes below the size required for the model): The current practice of going back up to three years to establish a cohort of a sufficient size to determine a grade should be continued.
   B. New schools: The Panel has no recommendation, as the model will
accommodate new schools.

C. Dropout recovery schools: The changes made to the high school model during the transition period should also be made for dropout recovery schools during the transition period. In January, 2013, the State Board initiated rulemaking to adopt alternative metrics for these schools.

D. School configurations with no tested grades (for example, a K-2 school or a grade 9 only school): Until test scores are available for these grades, the "feeder" school model should be continued.

6. Perceived anomalies in grades assigned to schools: DOE will develop flags to identify anomalies in the accountability system’s assignment of grades to schools.
The Panel recommends the following transitional elements for the school accountability model, subject to validation by statistical analysis as data becomes available. The Panel recognizes that it may be asked to conduct follow-up recommendations in addition to the work included in this report. The Panel recognizes that work conducted for additional recommendations will include more extensive use of subject matter experts as the statistical aspect of the accountability system is realized.

VI. RECOMMENDATIONS FOR TRANSITION BETWEEN THE CURRENT SCHOOL ACCOUNTABILITY SYSTEM AND THE NEW SCHOOL ACCOUNTABILITY SYSTEM

The Panel recommends full implementation of the new school accountability system in 2014-15. This assumes a transitional period as the system will need to be adjusted, assuming a new assessment is adopted that allows for a vertical scale through grade 10 or grade 11.

The Panel recommends that the model should be validated by various methods, including beta testing, during the rules development process to insure accuracy of the accountability system. Validation should use actual data from past years.

The Panel recommends that procedures be developed in rule that automatically place a school in a review process if the overall grade changes by two or more grades in one year. One of the concerns of transitioning to a new accountability system is to buffer schools from significant changes in category placement until the accountability model is mature. Although schools may be experiencing large changes in their performance or growth, or both, due to their own actions, safeguards should be in put in place to protect schools from unforeseen deficiencies in the model.

The Panel recommends that protocols and procedures should be developed for addressing any grade configurations issues when not adequately addressed by rule. Although the model presented in the Panel's recommendation factors in different current configurations, past experience shows that it is difficult to insure rules for the accountability system will address all configuration complexities.

The Panel recommends a web-based "calculator" be developed for local school administrator use. School administrators should be able to replicate and explain how their schools' grades were calculated.

The Panel recommends that the model developed, and proposed changes to the
model, be communicated to schools and school corporations as quickly as possible.

The Panel recognizes that the model developed will be subject to federal peer review processes, and that new annual measurable objectives must be written.

The Panel recommends that steps for an appeal process for the overall category placement be simple and clear. The Panel recommends that schools receive a written notice of appeal findings. The written notice should include the reason for the findings and whether the remedy affects the overall category placement.

**Grew/Sheldrake Report Transition Recommendations**

The Panel is in agreement with the following recommendations from the Grew/Sheldrake report, "Examination of Indiana's A to F School Accountability Model", September 6, 2013, relevant to the Panel's scope of duties:

**Developing a Revised Accountability System Under HEA 1427-2013:** The authors observe and recommend:

The authors observe that the recently announced memorandum of understanding between the Governor, the General Assembly, and the Superintendent for establishing a collaborative process for development of a new accountability rule is an excellent step towards increasing support by the educational community and the public.

The process of development of a new system should:

1. Provide for extensive involvement by experts and practitioners from the education community.
2. Provide for transparency in all decision-making.
3. Result in development of a new system that is as simple as possible, more easily understood, and equitable.

In compliance with HEA 1427 - 2013, the new accountability system should incorporate measures that involve less reliance on standardized tests passage rates and more reliance on individual student growth based on criterion-referenced measures.

**Further Recommendations regarding the Revised Accountability System:**
Additional measures for the elementary/middle school model should be included, besides the two student test measures, which provide additional indicators of school performance.

Because of the complexity involved in implementing any new accountability system, the system should be piloted prior to implementation, if possible, permitting the Department of Education to solicit and receive extensive feedback from schools, adequately perform programming tests, and evaluate policy components incorporated into the system.

In order to ensure that the General Assembly has the capability to perform analyses on the new accountability system, Legislative Services Agency staff should be provided with ongoing access to all data and computer programming necessary for the Agency to replicate results and respond to various inquiries from legislators about the system.*

* The relationship between DOE and the Legislative Services Agency will be determined through an MOU.
WITNESS LIST

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APPENDICES

(1) Appendix A: Definitions

(2) Appendix B: Simple Explanation of Indiana A-F Accountability System

(3) Appendix C: Sample Categorical Chart

(4) Appendix D: Sample Trajectory Chart

(5) Appendix E: Sample Calculation Chart
APPENDIX A

DEFINITIONS (AS USED IN THIS REPORT)

Categorical model: Evaluates students moving from one performance category to another. Requires the use of cut scores.

College and Career Readiness (CCR): For a high school, measures of student college and career readiness include the number of students attaining International Baccalaureate degrees, successfully completing Advanced Placement courses, successfully completing dual credit courses, receiving industry certifications, or attaining satisfactory scores on PSAT exams. For a student, successfully achieving one or more of the CCR components.

Criterion referenced: A test in which an individual's performance is compared to a performance standard and not to the performance of other individuals in a peer group.

Cut score: A score used to determine the minimum competency level needed to pass a test.

Graduation rate: The percentage of students within a cohort who graduate during their expected graduation year. (The cohort is the class of students who are considered to have entered grade 9 in the same year and expected to graduate three years after entering grade 9.)

Growth to proficiency: A student’s progress to meet and pass established proficiency levels, as demonstrated by at least two data points.

Improvement: For a school, positive change in: (1) the percentage of students passing an assessment; and (2) the number of students achieving CCR.

Indicators: Measures of performance that are not student test scores.

Norm referenced: A test in which an individual's performance is compared to the performances of other individuals in a peer group.

Multiple measures: Multiple indicators and sources of evidence of student learning, of various kinds, gathered at multiple points in time.

Performance: For a student, primarily determined by the student's score on one or more assessments. For a school, determined by the performance of all students, in
addition to other established indicators (such as attendance, graduation rate, etc.).

**Targeted growth**: the minimum growth expected for an individual student, as measured by performance on two consecutive assessments.

**Title I**: A federal program that provides additional funding for schools with high poverty levels among students. Title I schools are subject to additional regulation and requirements by the federal government.

**Trajectory model**: A model in which a student's growth towards a goal and future achievement of the goal is determined using at least two data points.
APPENDIX B

Simple Explanation of Indiana A-F Accountability System

(From the "Examination of Indiana's A to F School Accountability Model", September 6, 2013, prepared by John R. Grew and William J. Sheldrake, Appendix D)

Elementary & Middle School (EMS) Model

A School's grade is based on English/Language arts and math test results and various adjustments according to the following steps:

1. Preliminary scores for both English/Language Arts (ELA) math tests are based on the percentage of a school's students that passed ISTEP+, IMAST and ISTAR. The preliminary score is determined using a proficiency grading scale awarding a grade for a given passage rate:

   - 90.0 – 100% = 4.00 points
   - 85.0 – 89.9% = 3.50
   - 80.0 – 84.9% = 3.00
   - 75.0 – 79.9% = 2.50
   - 70.0 – 74.9% - 2.00 points
   - 65.0 – 69.9% = 1.50
   - 60.0 – 64.9% = 1.00
   - 0.00 – 59.9% = 0.00

2. A school's preliminary score for both ELA and math may be raised or lowered based on student academic growth:

   a. The preliminary score is raised by 1.00 if at least 42.5% of the school's lowest performing students on ISTEP+ (the bottom 25%) score high growth on the ELA test and for the math test, at least 44.9% of students score high growth.
   b. The preliminary score is raised by 1.00 if at least 36.2% of the school's remaining students on ISTEP+ (the top 75%) score high growth on the ELA test and for the math test, at least 36.2% of students score high growth.
   c. The preliminary score may be lowered by 1.00 if 39.8% or more of all students taking ISTEP+ score low growth on the ELA test and for math test, less than 42.4% of students score low growth.

3. A school's score will also be lowered by 1.00 if student participation in testing is:

   a. Less than 95% of their lowest performing students (bottom 25%) take ISTEP+.
   b. Less than 95% of their remaining students (top 75%) take ISTEP+, ISTAR, and IMAST.
4. To determine the final grade for an EMS, sum the ELA and Math grades and divide by two.

High School (HS) "A-F" Model

The high school grade is determined by calculating scores on four weighted measures:

1. English 10 End of Course Assessment (ECA) – weighted at 30%
2. Algebra I ECA – weighted at 30%
3. Graduation Rate – weighted at 30%
4. College & Career Readiness – weighted at 10%

The steps in determining the high school score are as follows:

1 & 2. Determining English10 and Algebra I ECA Scores:

   a. Schools receive a preliminary score based on the percentage of their students in the 10th grade cohort that passed the ECA or ISTAR. The same proficiency grading scale (above) for EMS ELA and math is used to determine the preliminary score (e.g. a 90% passage rate = 4.00 points).

   b. The preliminary score is raised by 0.50 if there is at least a 10.3 percentage point improvement in the English passage rate and by 0.50 if there is at least a 17.1% percentage point improvement in the math passage rate (from the 8th grade passage rates for ISTEP+, IMAST or ISTAR to the 10th grade ECA or ISTAR).

   c. The preliminary score is lowered by 0.50 if there is -0.1 percentage point or greater decline in the English or math passage rate (from the 8th grade ISTEP+, IMAST or ISTAR to the 10th grade ECA or ISTAR).

   d. The preliminary score shall be raised by 0.50 if at least 59.3% of students taking English or 62.8% of students taking math tests that did not pass the ECA or ISTAR in 10th grade do so by graduation.

3. Determining the Graduation Rate Score:

Schools receive a preliminary score based on their four-year graduation cohort rate. A proficiency grading scale (same as that used for EMS ELA and math) is used to determine the preliminary score (e.g. a 90% or higher passage rate = 4.00 points). For school years prior to 2014-15, the preliminary score is the final graduation rate score.
Note: Beginning with the 2014-15 school year, the preliminary score will be adjusted as follows:

a. The preliminary score is raised if 34.4% or more students receive non-waiver Honors Diplomas.

b. The preliminary score is lowered if 32.8% or more students receive general or waiver diplomas.

c. The preliminary score is raised if 13.2% of students that did not graduate within four years do so in five years.

4. Determining the College & Career Readiness Score:

Schools receive a score based on the percentage of graduates who receive at least one of the following:

   a. a passing score (3, 4, or 5) on an AP exam; or
   b. a passing score (4, 5, 6, or 7) on an IB exam; or
   c. three (3) verifiable college credits from the Priority Liberal Arts or CTE course lists; or
   d. a IDOE approved industry certification.

The college and career readiness score is based on the percentage of students achieving one of the above activities using a different proficiency scale than above:

\[
\begin{align*}
25.0 – 100\% & : 4.00 \text{ points} \\
18.4 – 24.9\% & : 3.00 \\
11.7 – 18.3\% & : 2.00 \\
5.0 – 11.6\% & : 1.00 \text{ points} \\
0.0 – 4.9\% & : 0.00
\end{align*}
\]

**Determining a Final Grade for a High School**

The school's final grade is determined by summing the weighted scores from steps 1-4 above.

**Determining a School Corporation Combined Score**

1. Determine the % of total school corporation students enrolled in EMS (grades 3-8) and H.S. (grades 9-12).
2. Multiply the % of EMS students by the average grade for all EMS schools.
3. Multiply the % of H.S. students by the average grade for all HS schools.
4. Sum steps 2 and 3 to determine the combined score.
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<th>Previous Year Level</th>
<th>Did Not Pass-1</th>
<th>Did Not Pass-2</th>
<th>Did Not Pass-3</th>
<th>Pass-1</th>
<th>Pass-2</th>
<th>Pass Plus-1</th>
<th>Pass Plus-2</th>
<th>Pass Plus-3</th>
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</thead>
<tbody>
<tr>
<td>Pass Plus-3</td>
<td>15</td>
<td>30</td>
<td>45</td>
<td>60</td>
<td>75</td>
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<td>105</td>
<td>120</td>
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<tr>
<td>Pass Plus-2</td>
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<td>85</td>
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<td>115</td>
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</tr>
<tr>
<td>Pass-2</td>
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<td>75</td>
<td>90</td>
<td>105</td>
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<tr>
<td>Pass-1</td>
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<td>70</td>
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<td>100</td>
<td>115</td>
<td>130</td>
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<tr>
<td>Did Not Pass-3</td>
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<tr>
<td>Did Not Pass-2</td>
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<tr>
<td>Did Not Pass-1</td>
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<td>100</td>
<td>115</td>
<td>130</td>
<td>145</td>
<td>160</td>
<td>175</td>
<td>190</td>
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</table>
Sample Growth:
Students Meeting Targeted Growth

Growth to Proficiency =

Students meeting minimum requirement slope

All students with 2 data points
## Performance

<table>
<thead>
<tr>
<th>Component</th>
<th>Grades 01-08</th>
<th>Grades 09 - 11</th>
<th>Grade 12</th>
<th>Overall</th>
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<tbody>
<tr>
<td>Pass Rate</td>
<td>Participation Rate</td>
<td>Enrollment Points</td>
<td>Participation Rate</td>
<td>Enrollment Ratio</td>
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<td>English/Language Arts</td>
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</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CCR Achievement (IC, IB, DC, AP, PSAT)*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduation</td>
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</tbody>
</table>

## Growth

<table>
<thead>
<tr>
<th>Component</th>
<th>Grades 01-08</th>
<th>Grades 09 - 11</th>
<th>Grade 12</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Students Meeting Targeted Growth</td>
<td>Higher Performing (Categorical)</td>
<td>Lower Performing (Categorical)</td>
<td>Enrollment Points</td>
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<td>English/Language Arts</td>
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<td></td>
</tr>
<tr>
<td>Math</td>
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<tr>
<td>Reading</td>
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<tr>
<td>CCR Achievement (IC, IB, DC, AP, PSAT)</td>
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<tr>
<td>Graduation</td>
<td></td>
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</tr>
</tbody>
</table>

*Retain Improvement 08 to 10 during transition

## Total Performance Points:

Total Performance Points: 0.000 0.000

## Total Growth Points:

Total Growth Points: 0.000 0.000

## Overall

Overall Points: 0.000

Overall Grade: