

National Science Resources Center

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The State of Science Education in Indiana

Presented by

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***at the 2009 Indiana Building Awareness
of Science Education Symposium***

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The State of Science Education in Indiana

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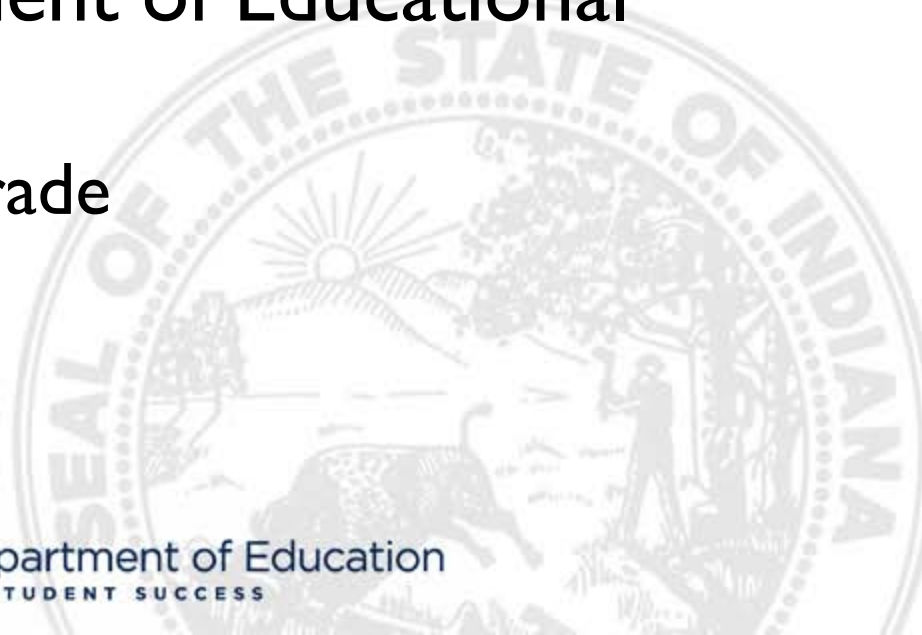


Indiana Department of Education
SUPPORTING STUDENT SUCCESS

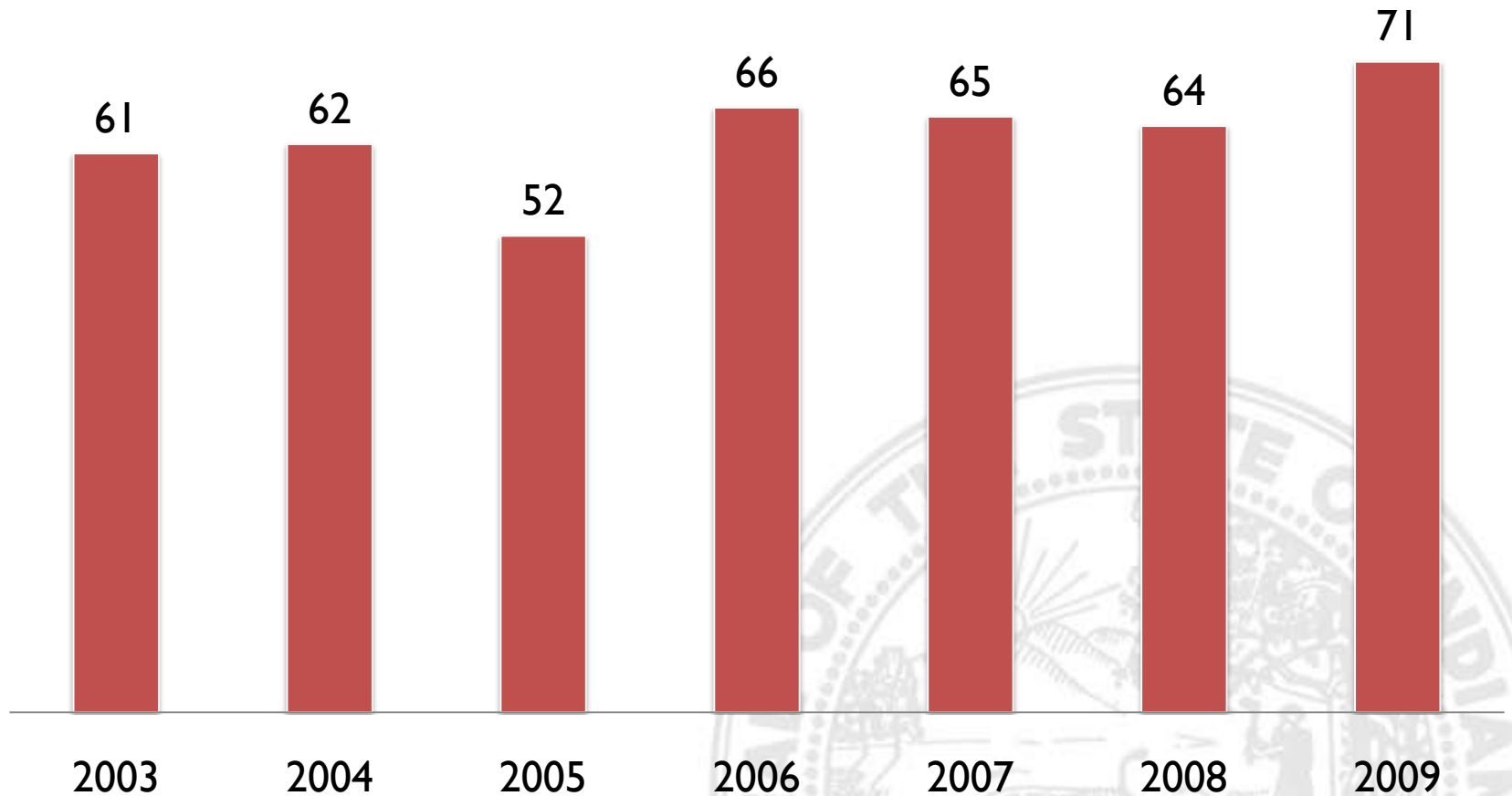


Measuring Science Learning in Indiana

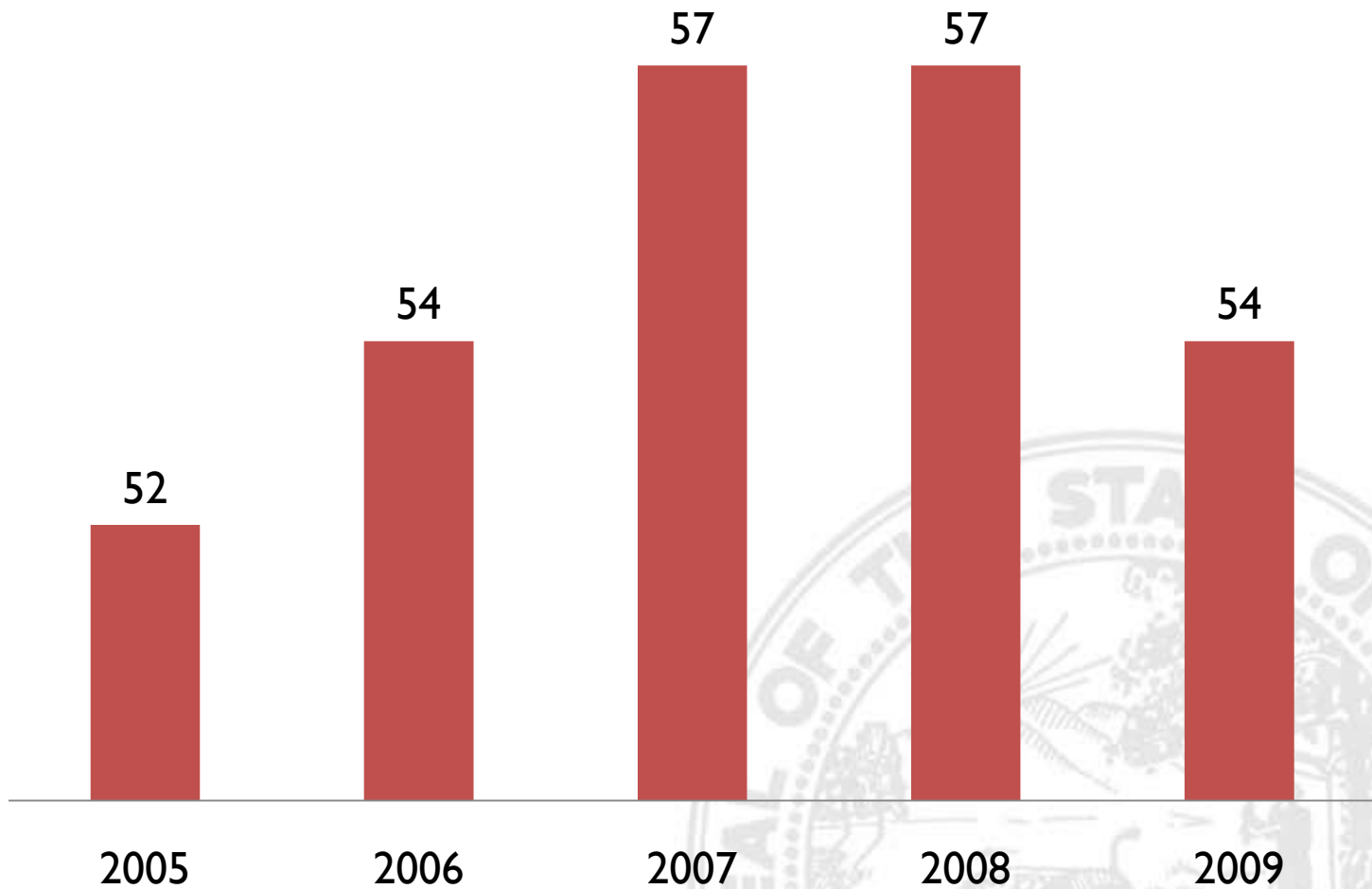
- ISTEP + Science Assessment
 - End of 4th grade and 6th grade
 - Biology I End of Course Assessment
- NAEP (National Assessment of Educational Progress)
 - End of 4th grade and 8th grade
 - Hands-on component



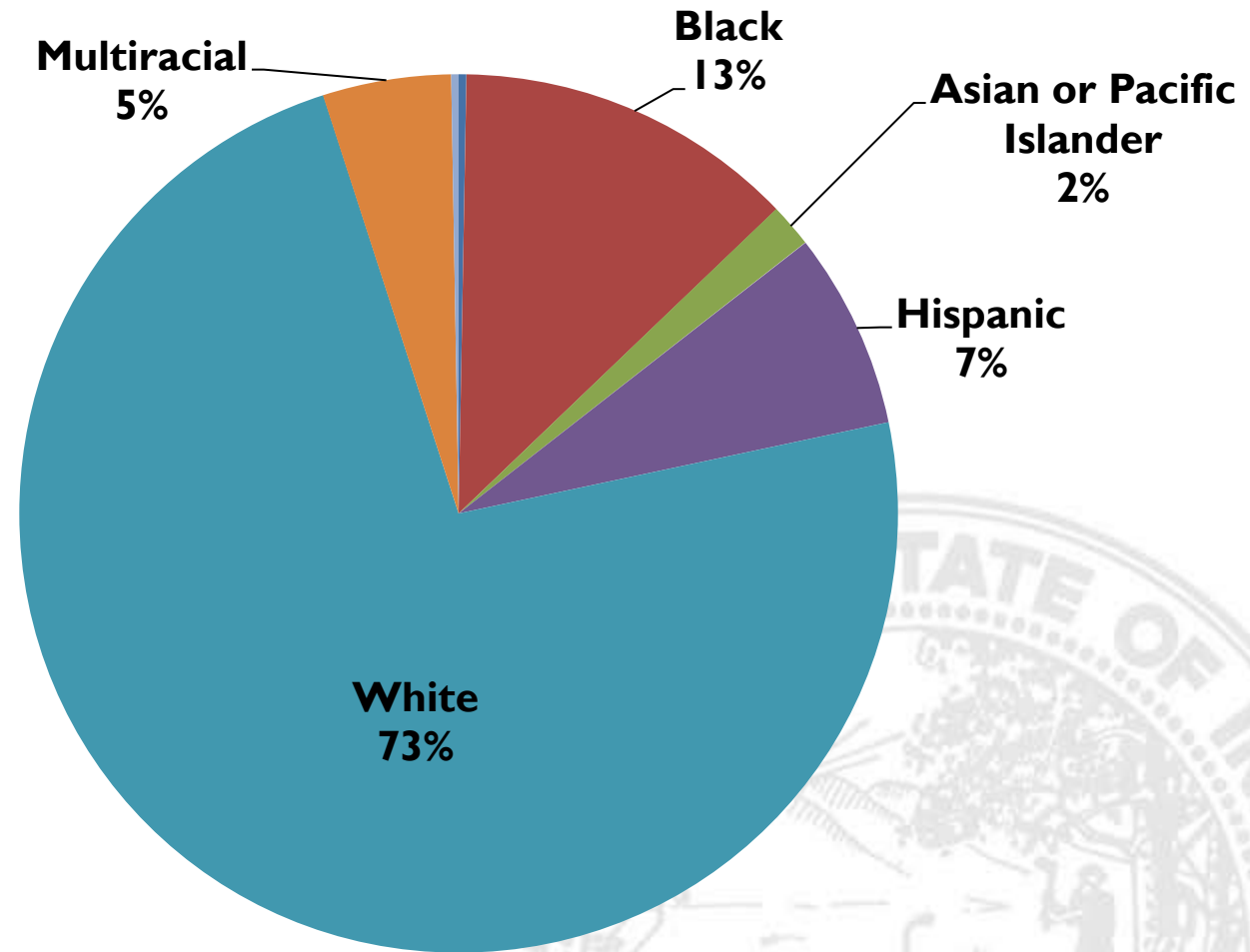
Total Percent Passing ISTEP+ Science 4th/5th grade



Total Percent Passing ISTEP+ Science 6th/7th grade

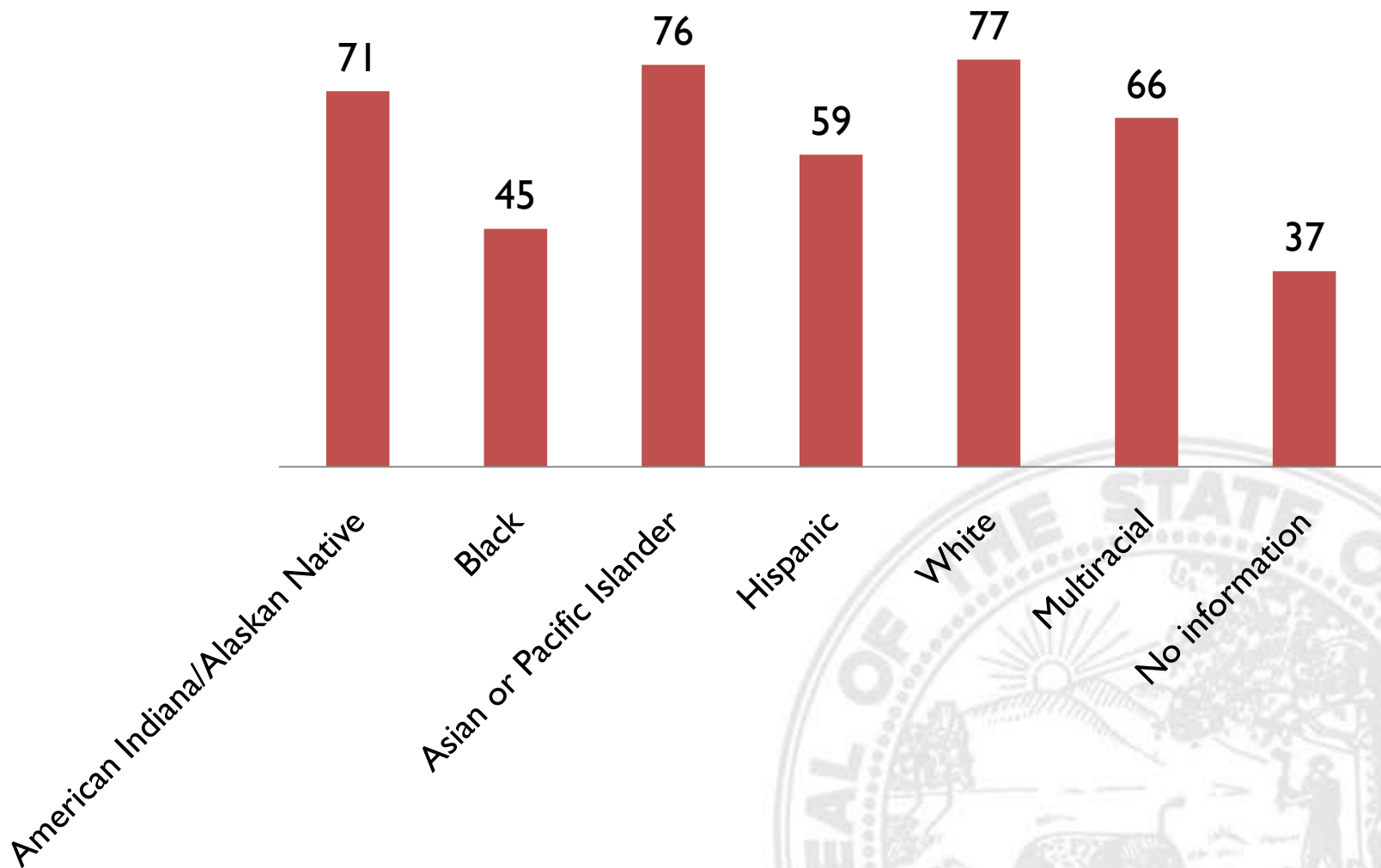


4th grade student population

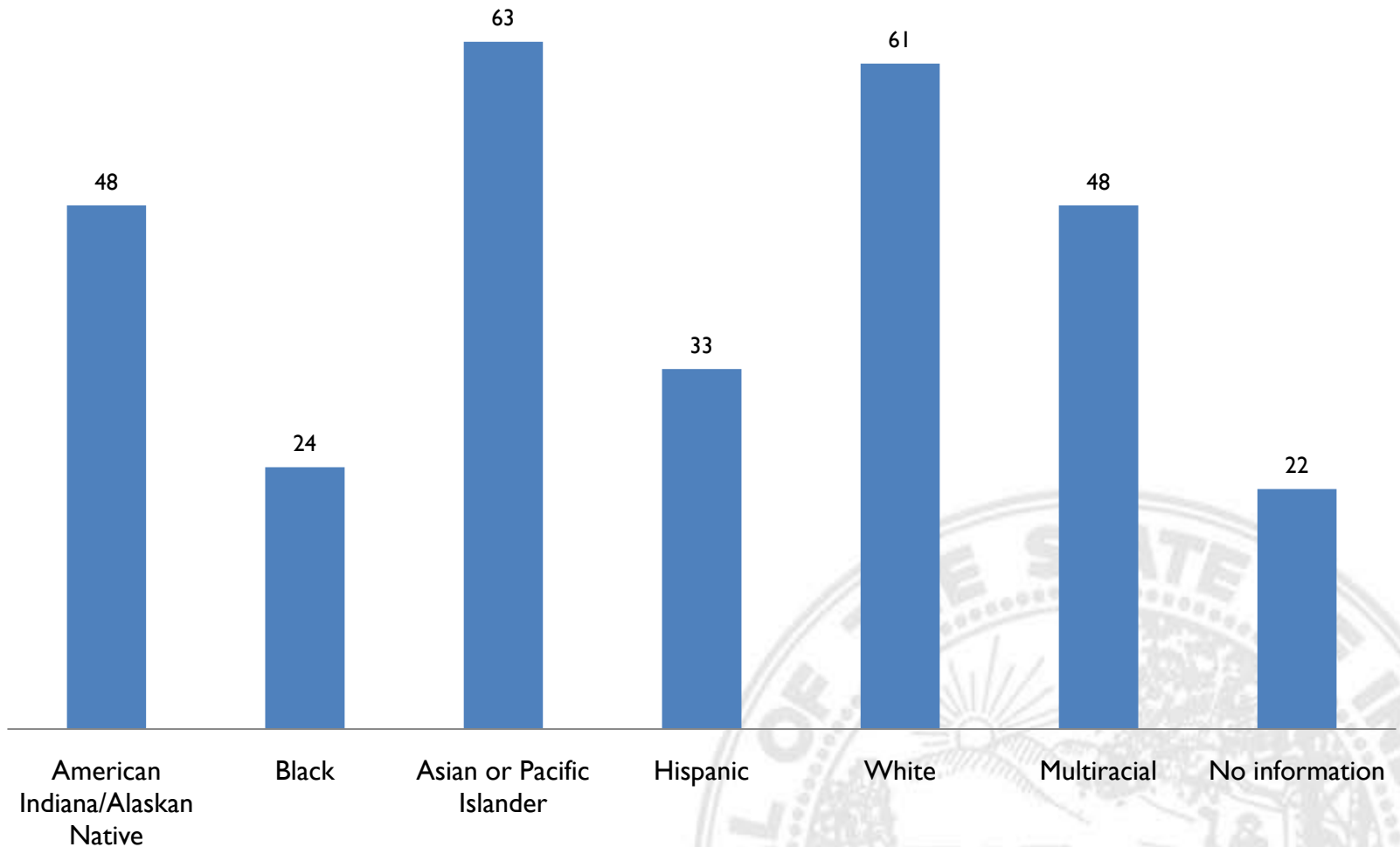


Total Percent Passing ISTEP+ Science 2009

4th Grade by Ethnic Group

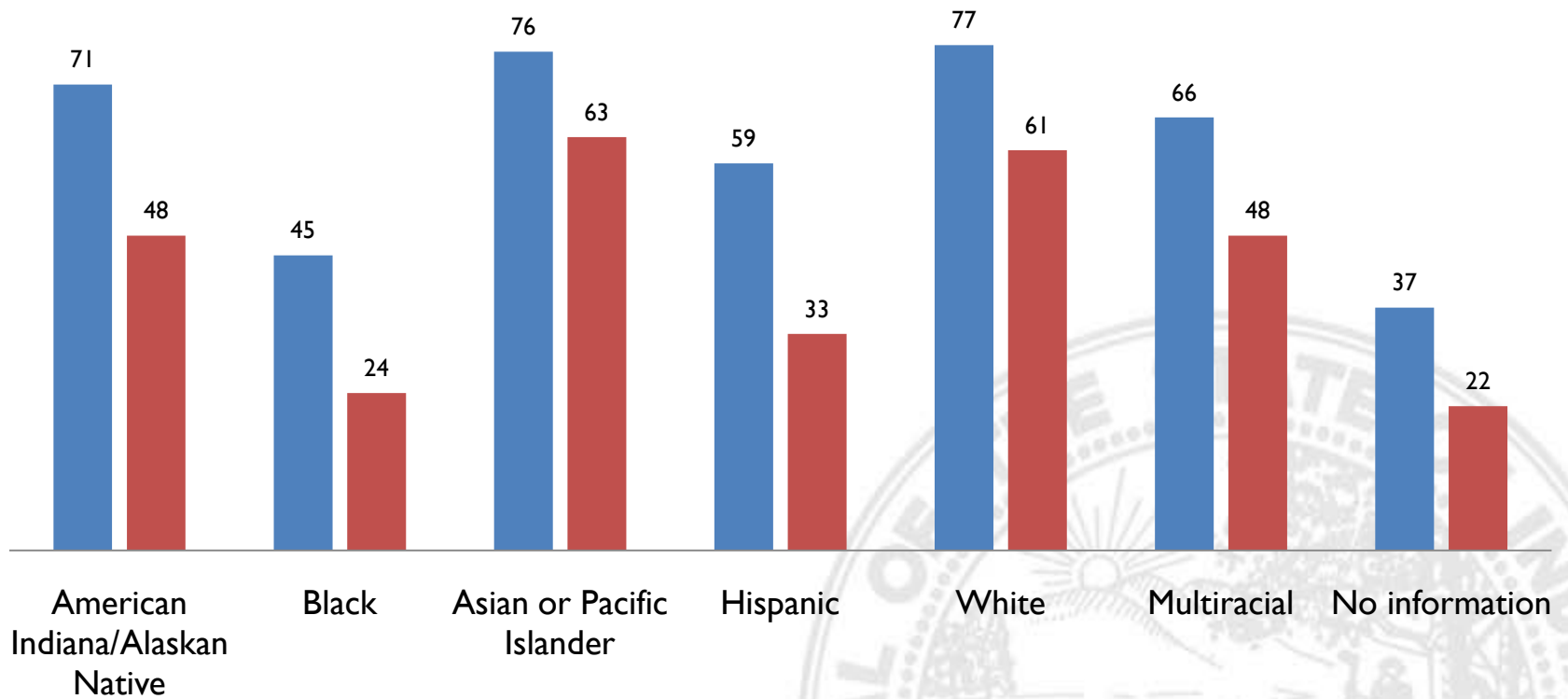


Total Percent Passing 2009 ISTEP+ Science 6th Grade

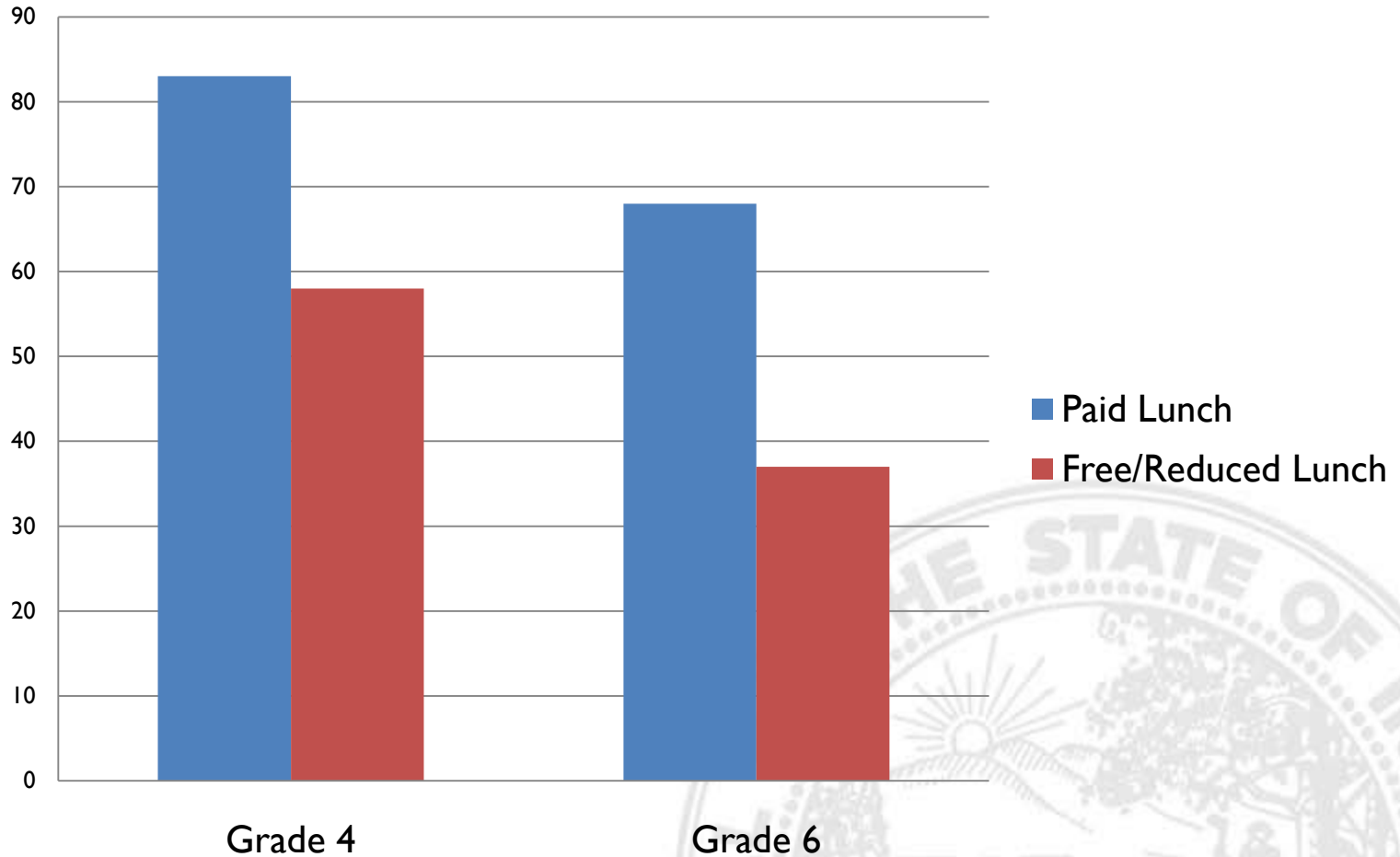


Comparison of 4th grade to 6th grade ISTEP+ Science

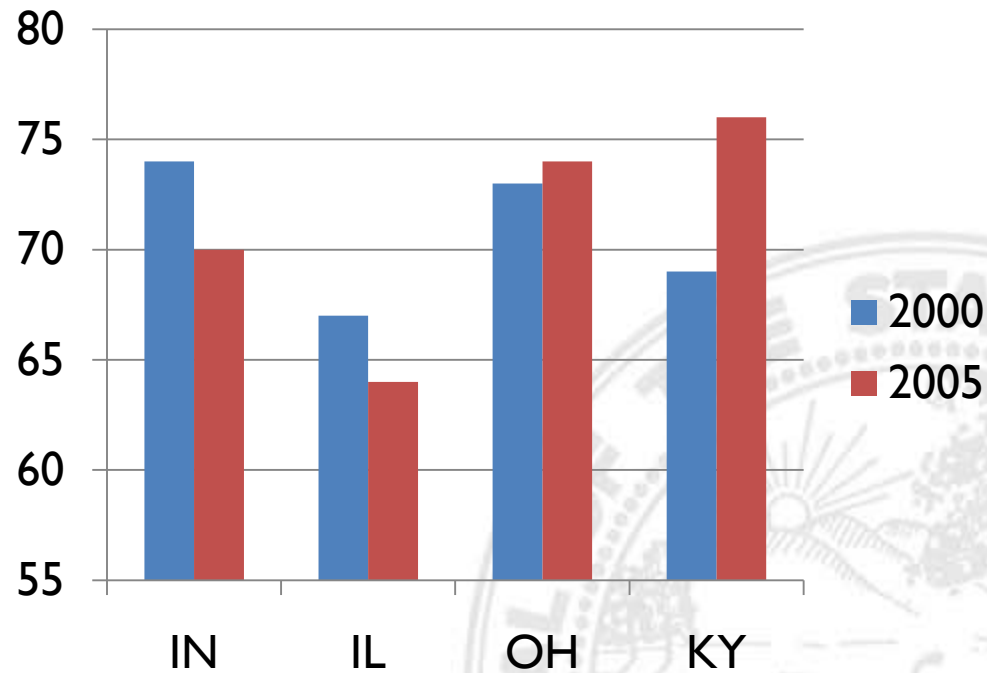
■ 4th grade passing ■ 6th grade passing



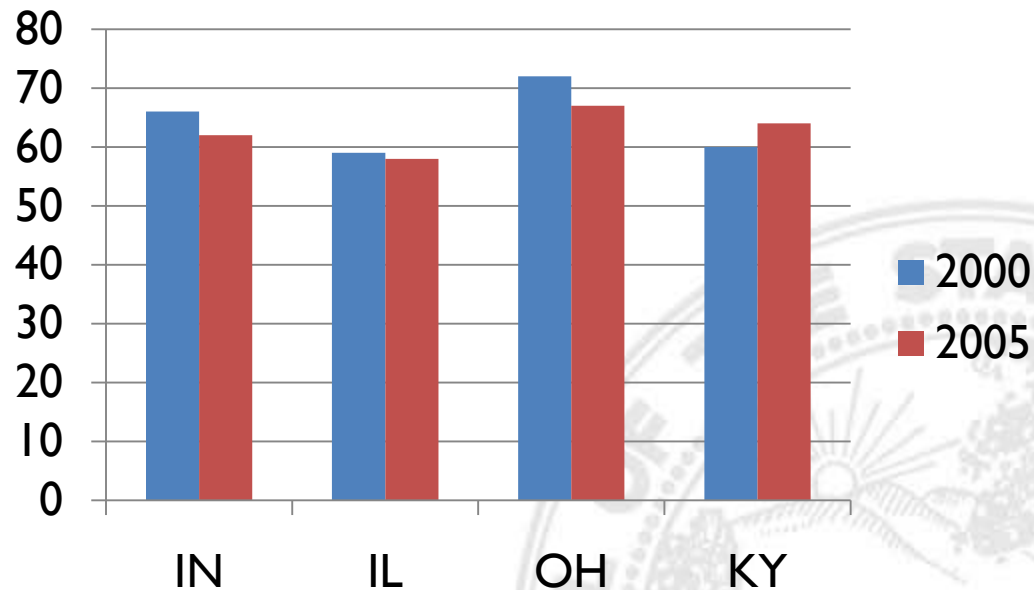
Total Percent Passing Paid vs. Free Lunch



NAEP 4th Grade Science



NAEP 8th Grade Science



What we know from assessing science

- Students perform better in 4th grade
- Minority students perform much worse regardless of grade level
- Students of low SES score significantly lower.
- On NAEP, performance at both grades 4 and 8 declined.



What we learned about science education

- Indiana has pockets of excellence with regard to science education.
- In most classroom throughout the state inquiry-based methods are not widely used.
- Science learning is compromised by lack of time for science instruction and lack of effective instructional materials.
- Lack of a strong culture of support for scientific thinking and learning.
- Developing network of critical stakeholders
- Growing statewide alignment between a unified vision for science education and reality that as a state we need systemic reform.

