The Quality Education Commission and the Quality Education Model

Presentation to the
Oregon Education Investment Board
January 3, 2012

Quality Education Commission

The Commission's responsibilities are to:

1. Determine the amount of monies sufficient to ensure that the state system of kindergarten through grade 12 public education meets the quality goals established in statute.
2. Identify best practices based on education research, data, professional judgment, and public values, and estimate the cost of implementing those best practices in Oregon's K-12 schools.
3. Issue a report to the Governor and Legislature in even-numbered years that identifies:

   - Current practices, their costs, and expected student performance
   - Best practices, their costs, and expected student performance
   - Two alternatives for meeting the quality goals

Quality Education Commission

The Commission carries out these responsibilities using the following tools:

- Education research related to best practices and school funding
- Data—primarily from the Database Initiative Project (DBI) datasets maintained by the Department of Education
- The professional judgment of educators and public finance experts
- The Quality Education Model

The Quality Education Model

The Quality Education Model (QEM) was first developed in 1997 as a way to estimate the funding required to meet Oregon's educational goals. It has been enhanced over the years to make it a more useful tool for policy analysis.

- It is a "professional judgment" type of costing model
- It has a link between resources and student performance based primarily on professional judgment, but supplemented with statistical relationships
- It uses prototype schools as the unit of analysis to estimate costs
- It scales up school level costs to the state level based on statewide enrollment
- It contains sufficient detail to allow it to model a broad range of policy options

The Quality Education Model

Using the QEM for Policy Analysis

- Estimate the "Baseline" scenario to describe the current level of resources and student achievement—**where we are today**
- Estimate the cost and level of student achievement, relative to the baseline, of implementing all of the components of the model—**where we want to be**
- Estimate the relative costs of implementing different components in order to evaluate tradeoffs—**given limited resources, how we can best use them?**
- Using the QEM supplemented with other statistical models, evaluate the relative costs and impact on student achievement of different policy proposals

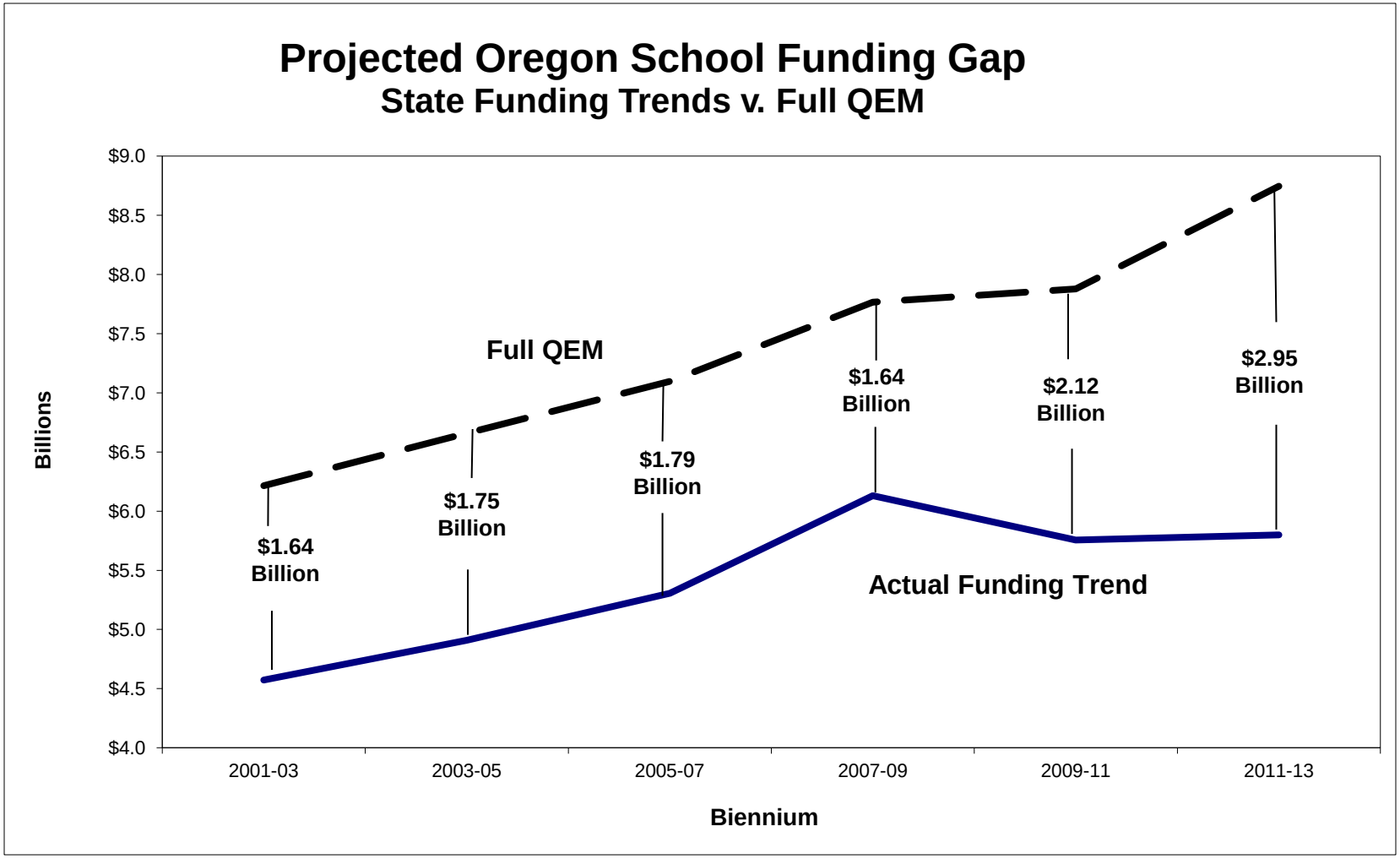
The Quality Education Model

The QEM contains three Prototype Schools:

- Elementary School of 340 Students
  - Smaller class sizes in the early grades
  - More specialized staff: ESL, special ed., counselors
  - More professional development and teacher collaboration time
- Middle School of 500 Students
  - Smaller classes in core subjects
  - More specialized staff: ESL, special ed., counselors
  - Additional instruction time for students falling behind
  - More professional development and teacher collaboration time
- High School of 1,000 Students
  - Smaller classes in core subjects
  - More specialized staff: ESL, special ed., counselors
  - Additional instruction time for students falling behind
  - Restoration of electives and extra-curricular activities
  - More professional development and teacher collaboration time

The Quality Education Model

A History of Full Funding of the QEM and Actual Funding:

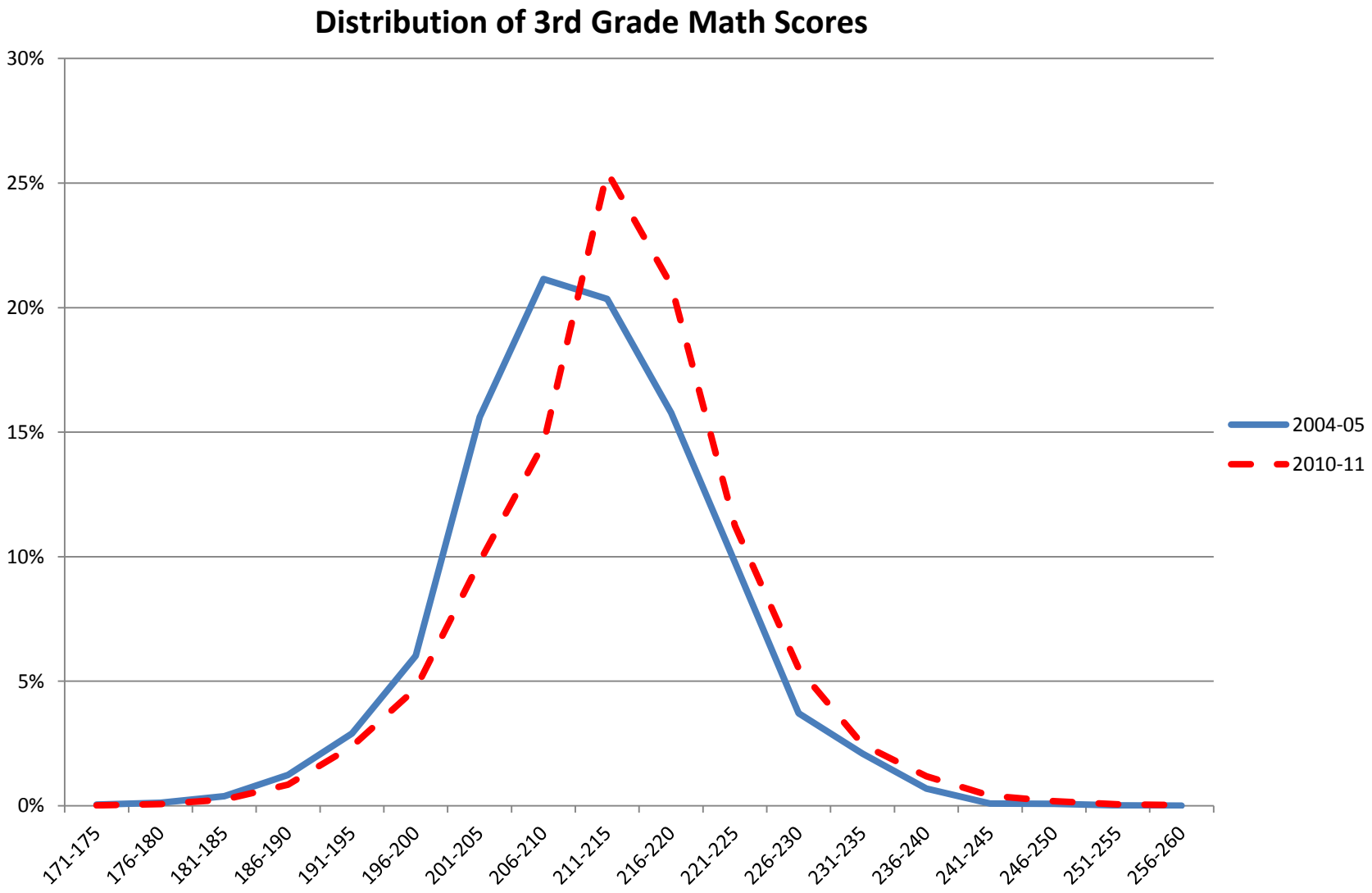


The Quality Education Model

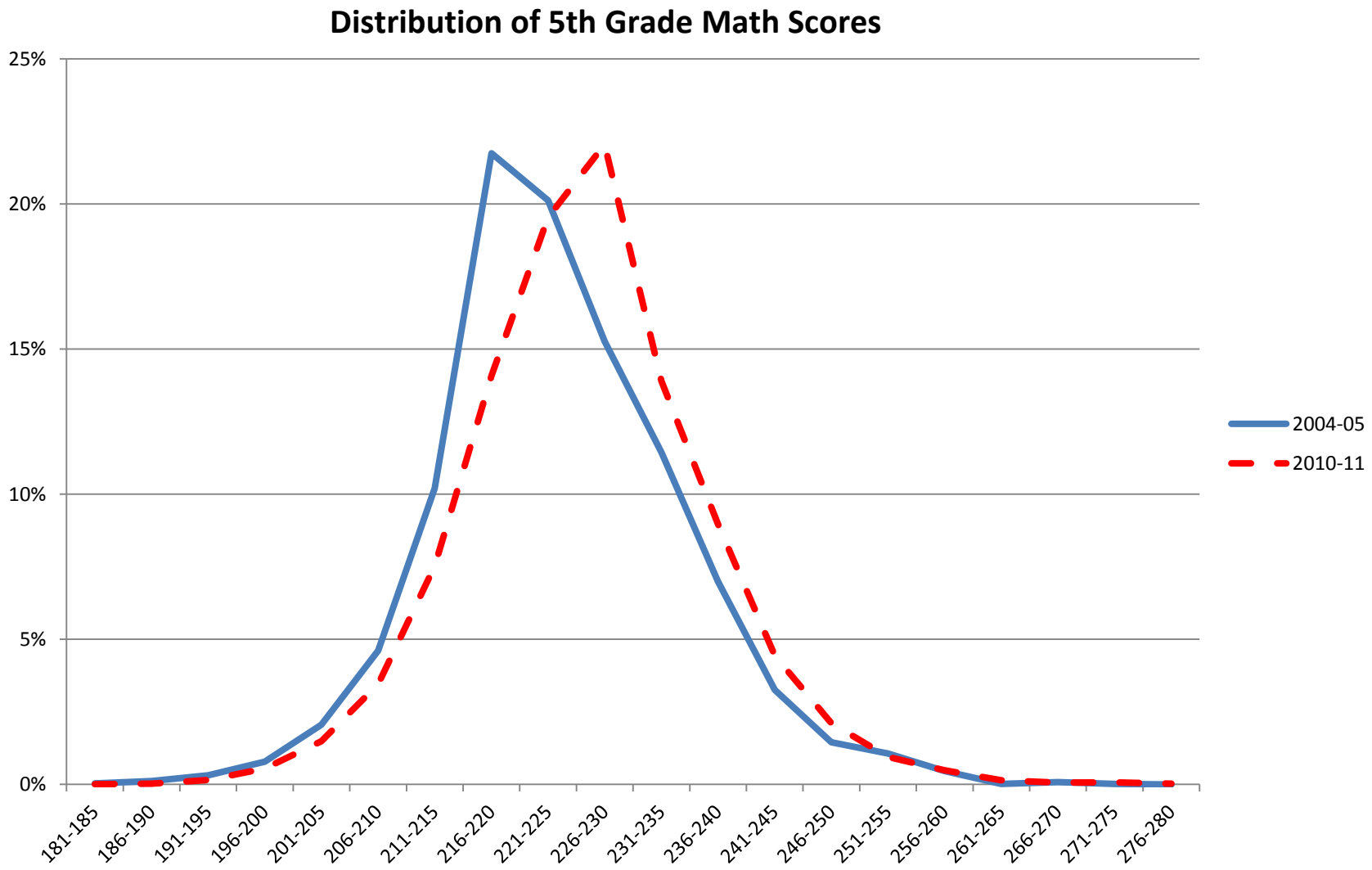
"Costing Out" Policy Options—Some Examples

- Reduce class sizes to 20 in grades K-3 to improve early reading and math proficiency: **$60 million/year**
- Two additional days of focused professional development for teachers: **$10 million/year**
- One hour of collaboration time each week for all teachers: **$22 million/year**
- Tutoring for elementary students at risk of falling behind: **$10 million/year**
- Counseling and other assistance for high school students at risk of dropping out: **$16 million**

Trends in Student achievement



Trends in Student achievement



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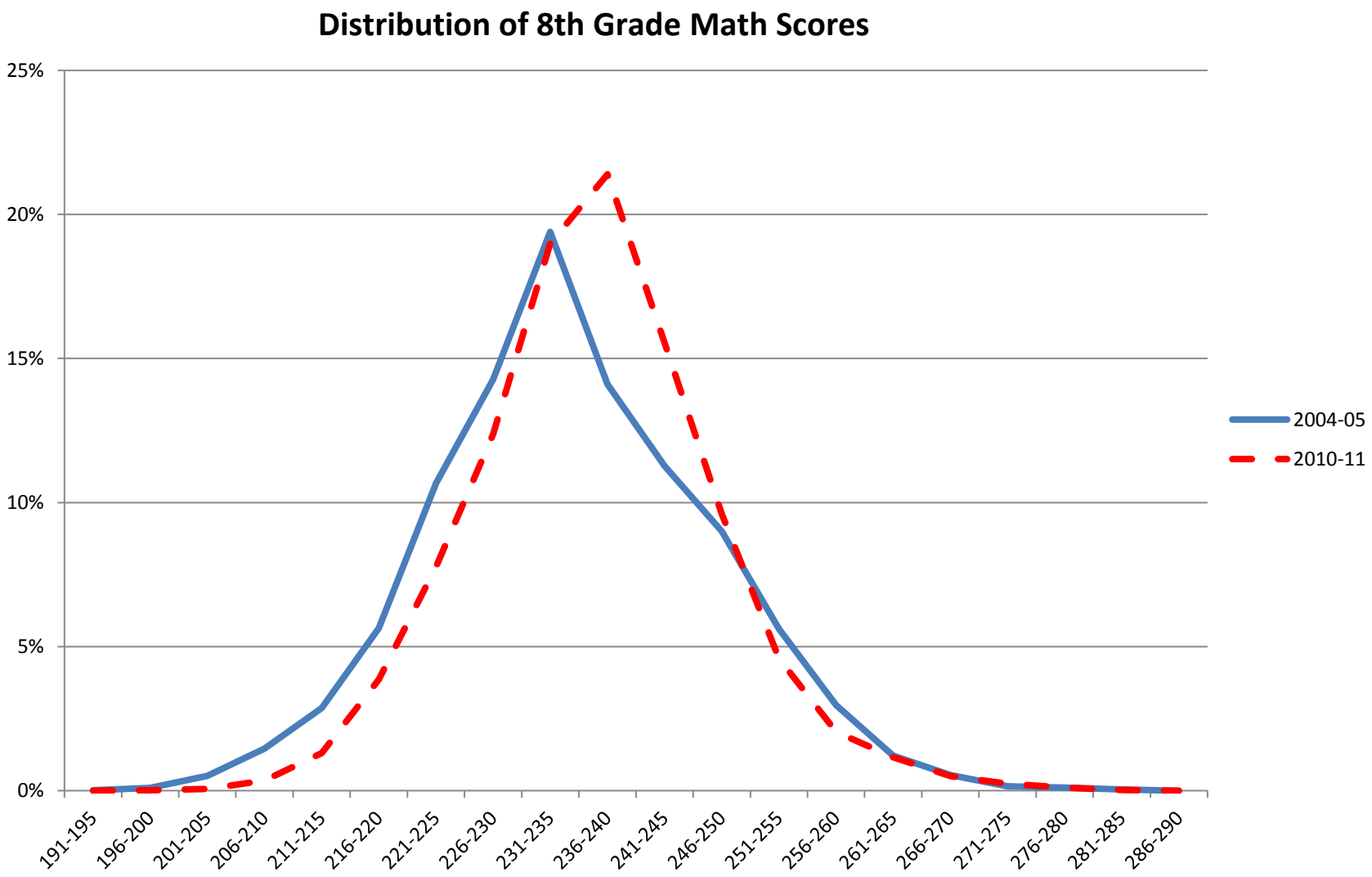

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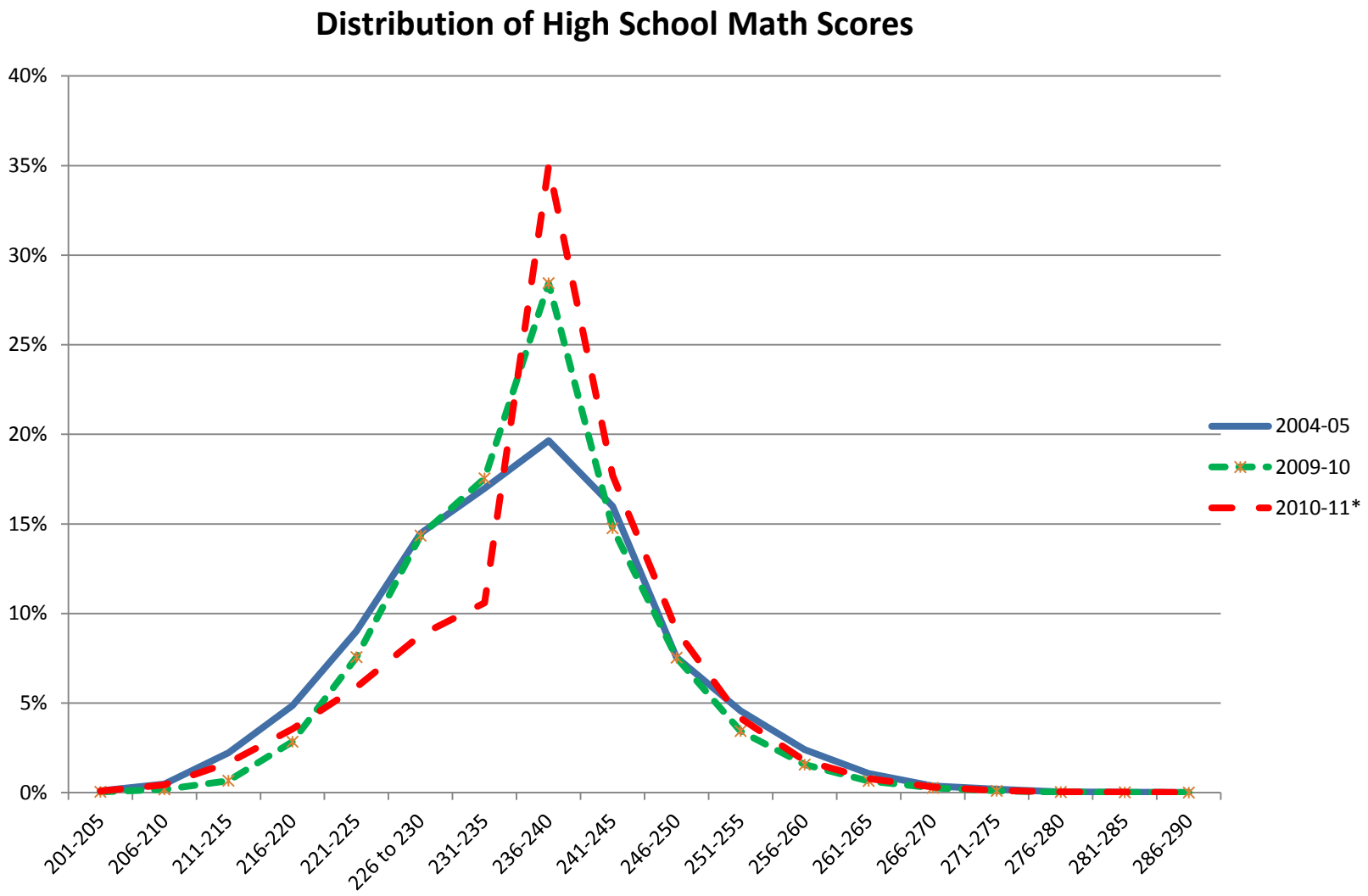
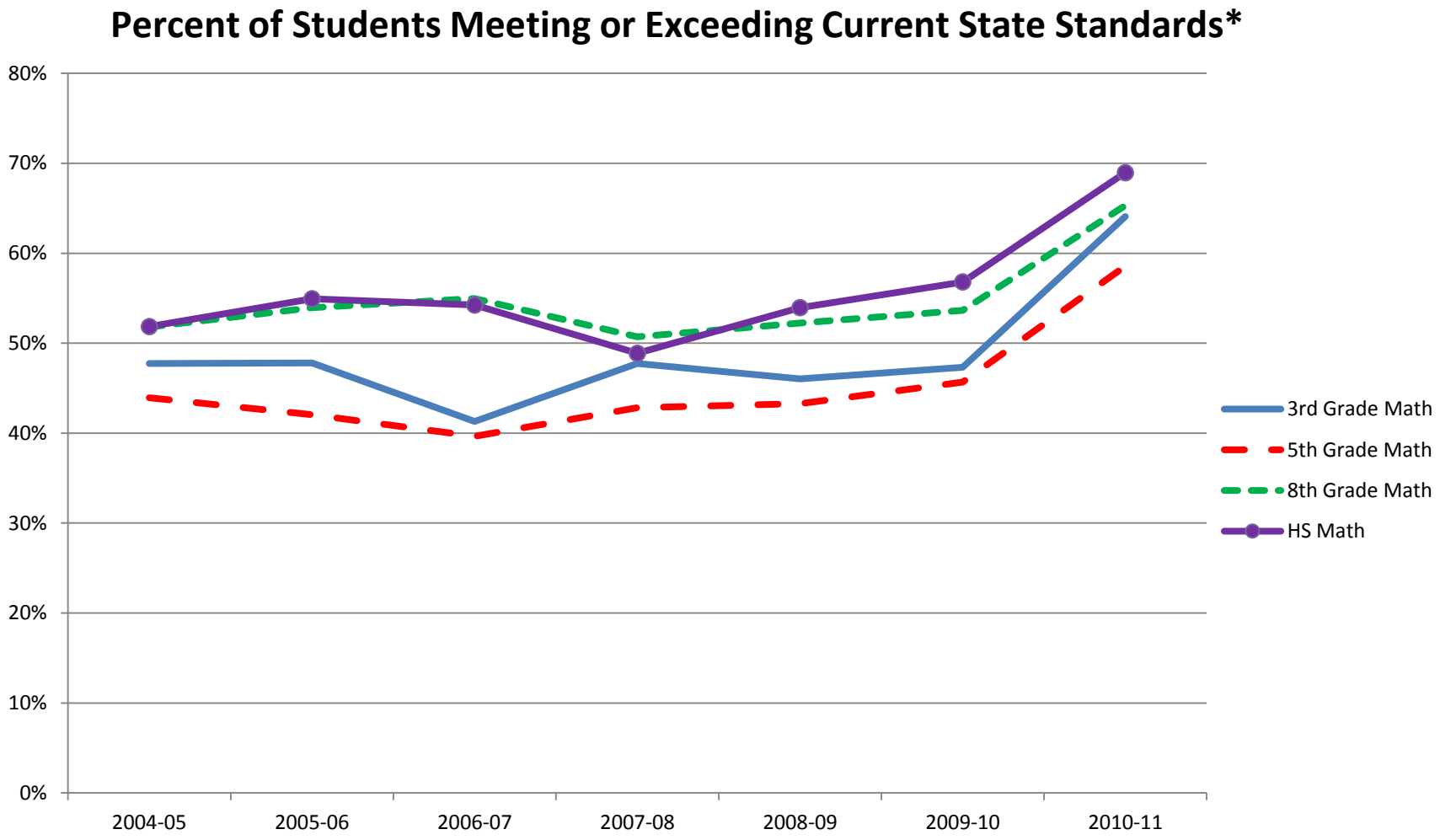


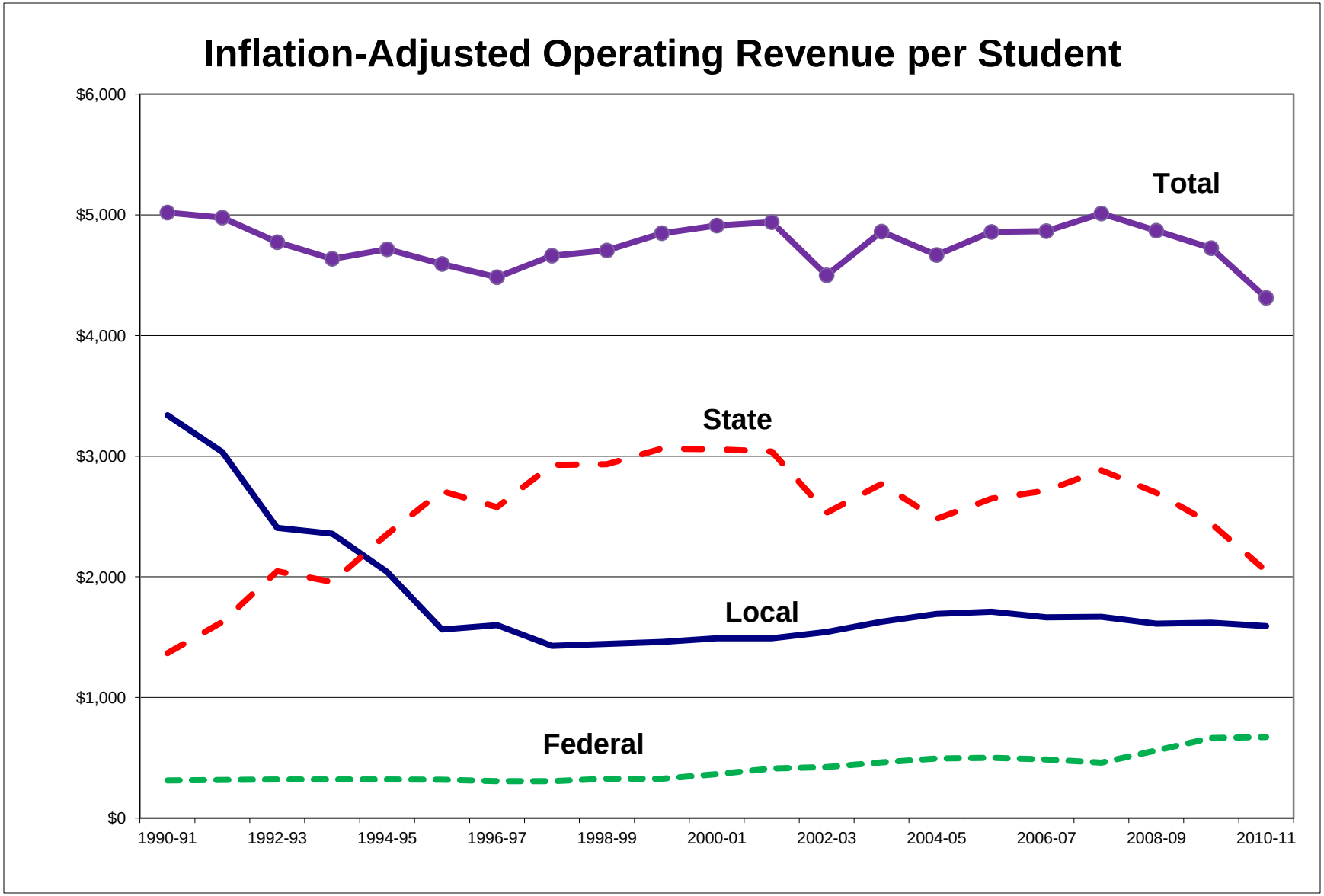
* Starting in 2010-11 the high school test is taken by most students in the 11th grade rather than the 10th grade

Percent Meeting Standards



* Prior year scores were applied to the 2010-11 standard to make the measures comparable over time

Trends in Funding



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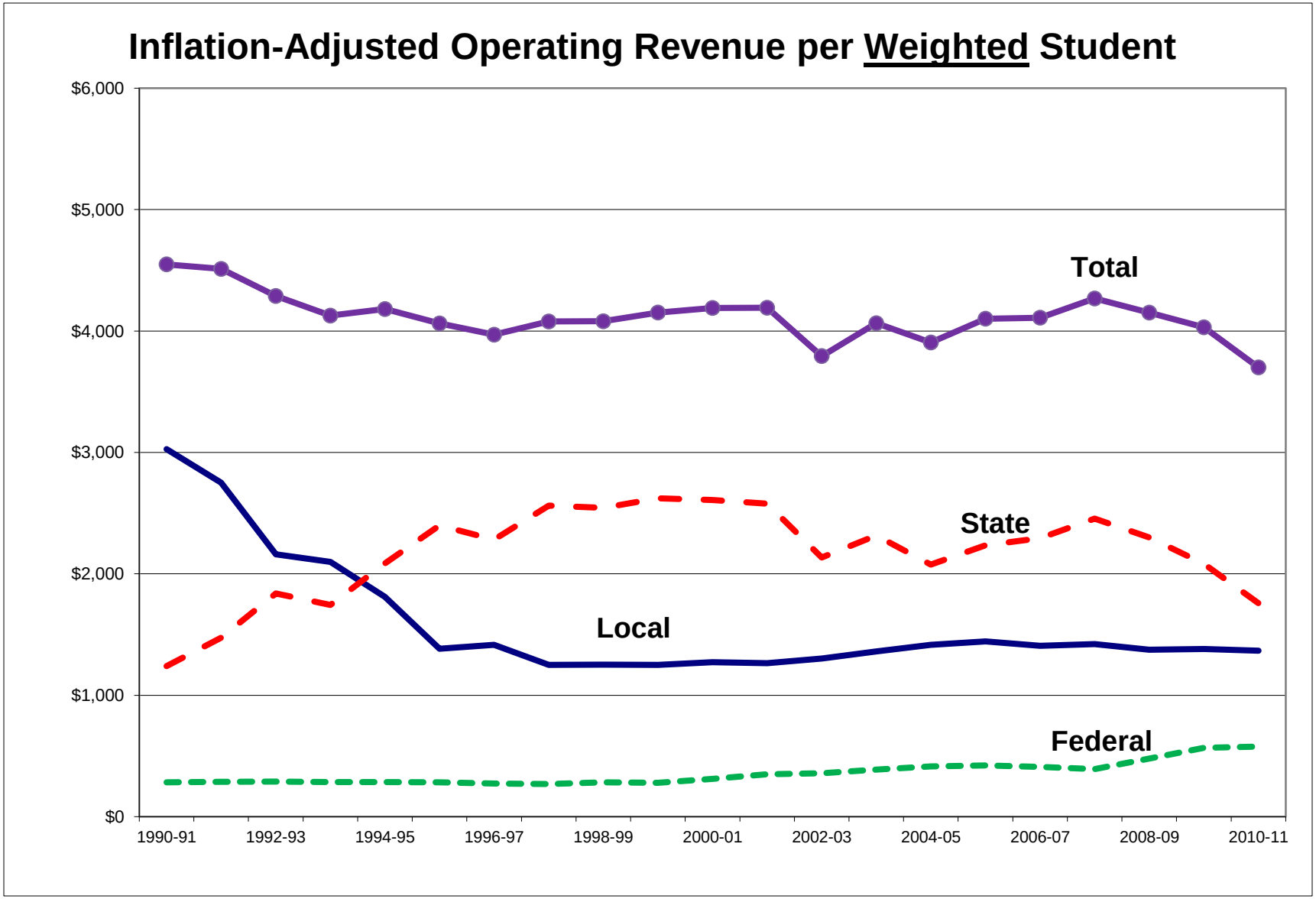

Recent Findings on Best Practices

A Focus on Math Instruction:

- Continuity of instruction, staff, and relationships matter
- Early rigor in algebra at the middle school level leads to later success on high school math assessments
- Smaller class sizes in core math courses lead to higher achievement
- Extra attention to math, with additional instructional help for students falling behind, has been effective a raising student achievement
- Focused professional development is present in schools with the highest level of achievement
- Well-articulated priorities at the school building level make a difference
- Effective teachers demonstrate perseverance and a commitment to their students, not just the subject matter

Current QEC Work

- Conducting research into Oregon school district practices related to professional development and teacher collaboration
- Enhancing the model to reflect the five Learning Stages described in the OEIB's **Oregon Learns** report
- Evaluating spending patterns and student achievement across schools and grade levels to better understand how the allocation of resources over the learning stages affects achievement
- Updating the model with the most current financial, demographic, and student achievement data available