




**Buechner Institute
for Governance**


Lead. Solve. Change.

 School of Public Affairs
SCHOOL OF PUBLIC AFFAIRS
UNIVERSITY OF COLORADO DENVER

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Mission:

Our mission is to enhance the understanding and achievement of efficient, effective and just governance in Colorado and the nation. We accomplish this by serving as a community resource, providing objective policy research and program evaluation, expert technical assistance, leadership and professional development training, and forums for the civil discussion of public issues.

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**EFFICIENCY IN COLORADO STATE GOVERNMENT:
INTRODUCING THE EFFICIENCY SERIES**

What does “efficiency” mean in the public sector?

What other values affect public sector operations? How should these values be balanced with efficiency concerns?

What measurements should be used to assess efficiency in the public sector?



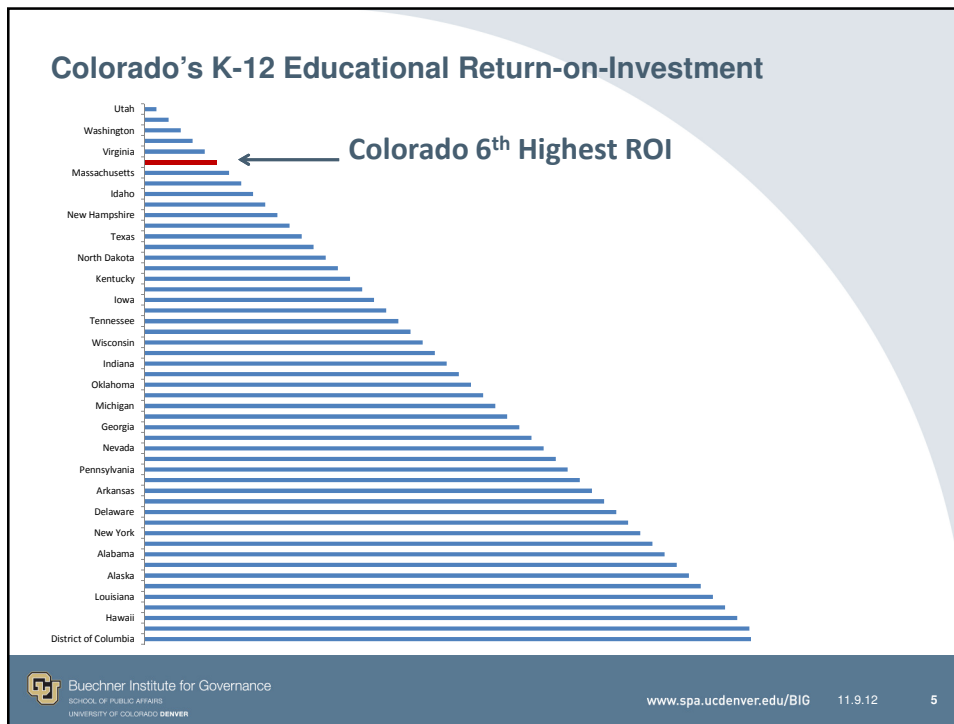
**Evaluating the *Efficiency* of our Educational Investment
Return-on-Investment (ROI)**

$$\text{Basic ROI} = \frac{(\text{Gain from Investment} - \text{Cost of Investment})}{\text{Cost of Investment}}$$

$$\text{Education ROI} = \frac{(\text{Academic Achievement} - \text{Educational Expenditures})}{\text{Educational Expenditures}}$$

Academic achievement = index of the percentage of students scoring at or above the proficient level on the 2003 NAEP in 4th and 8th grade reading and in 4th and 8th grade math

Expenditure data = 2003-2004 NCES per pupil expenditure data, from all revenue sources, after controlling for student poverty, percentage of students with special needs, and cost of living



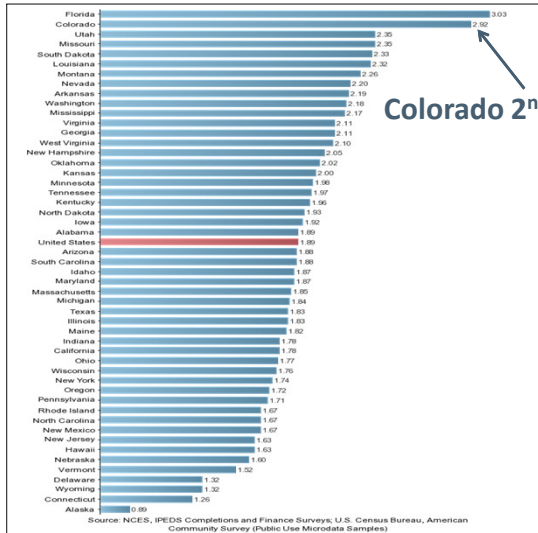
Pre – K Educational Return-on-Investment

Colorado's early childhood education investment, the Colorado Preschool Program, appears to yield a relatively high return-on-investment in terms of raising school achievement levels and reducing the need for children to repeat grades.

Early education investments can yield a return-on-investment of up to 16 percent, with 80 percent of the benefits going to the general public



Higher Education: Degrees per \$100,000 Spent (2010)



Colorado 2nd Most Efficient

Evaluating the *Effectiveness* of our Educational Investment – A Different Outcome

Pre – K

- The Colorado Preschool Program is capped at 20,160, a level set by the State Legislature.
- Nearly 8,000 eligible at-risk children could not be served in 2012.

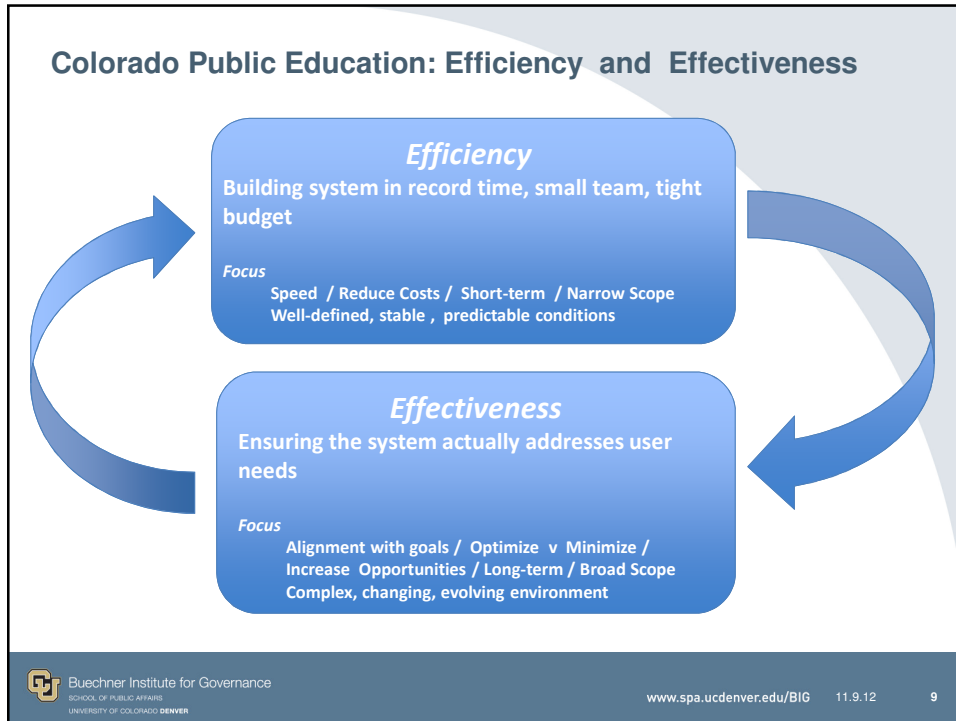
K-12

- Colorado has one of the largest achievement gaps in the nation
- The estimated lifetime earnings loss from Colorado's 2010 dropouts totaled nearly \$4.5 billion.

Higher Ed

- Individual earnings are related to educational attainment and the differential in earnings is increasing.
- A more educated and skilled workforce is associated with higher output and incomes for the economy as a whole.





Thank you!

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