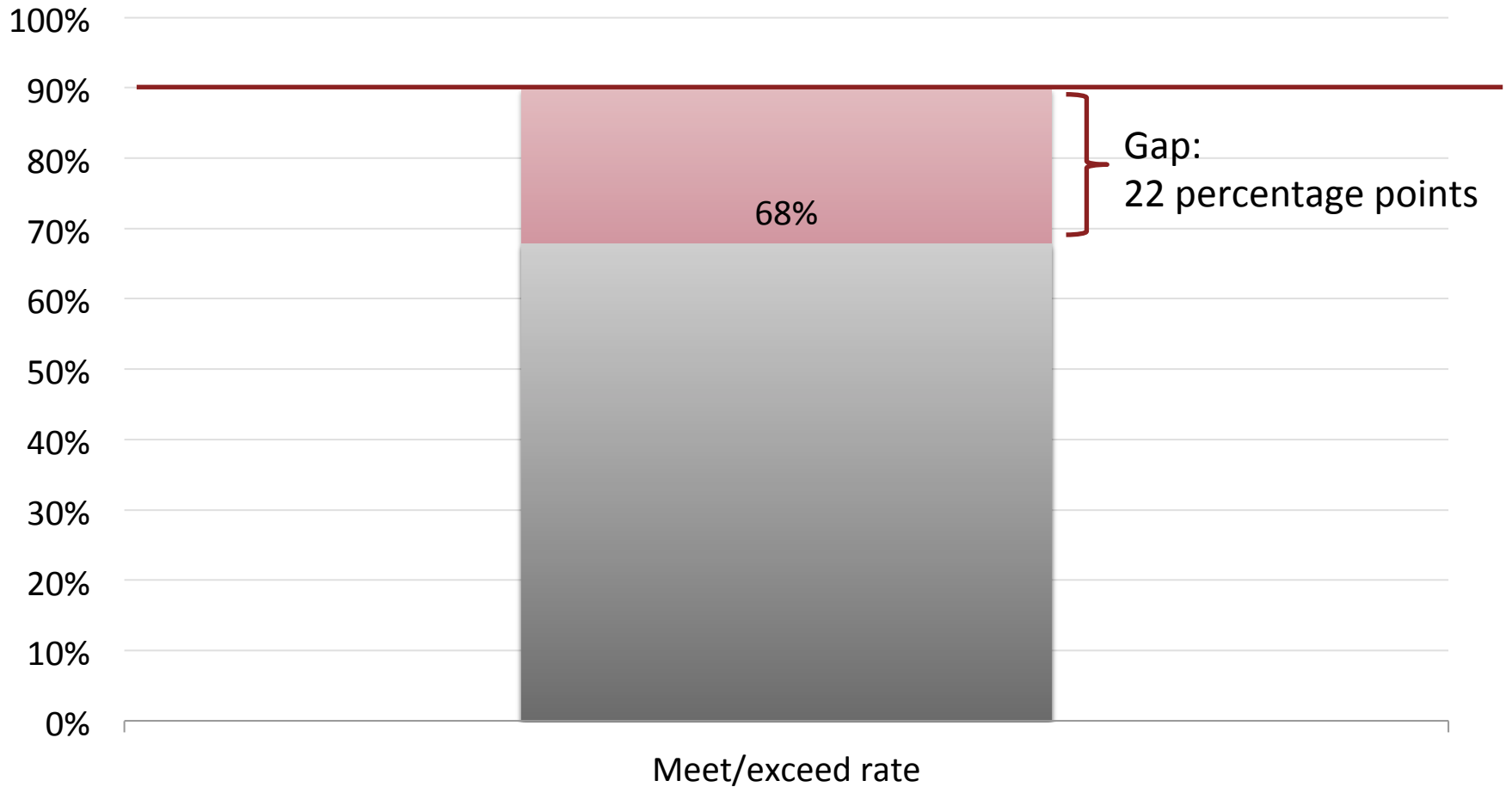


Projected Benefits of 90% Benchmark Attainment in 3rd Grade Reading

Grade progression

High school graduation

Earnings through age 28

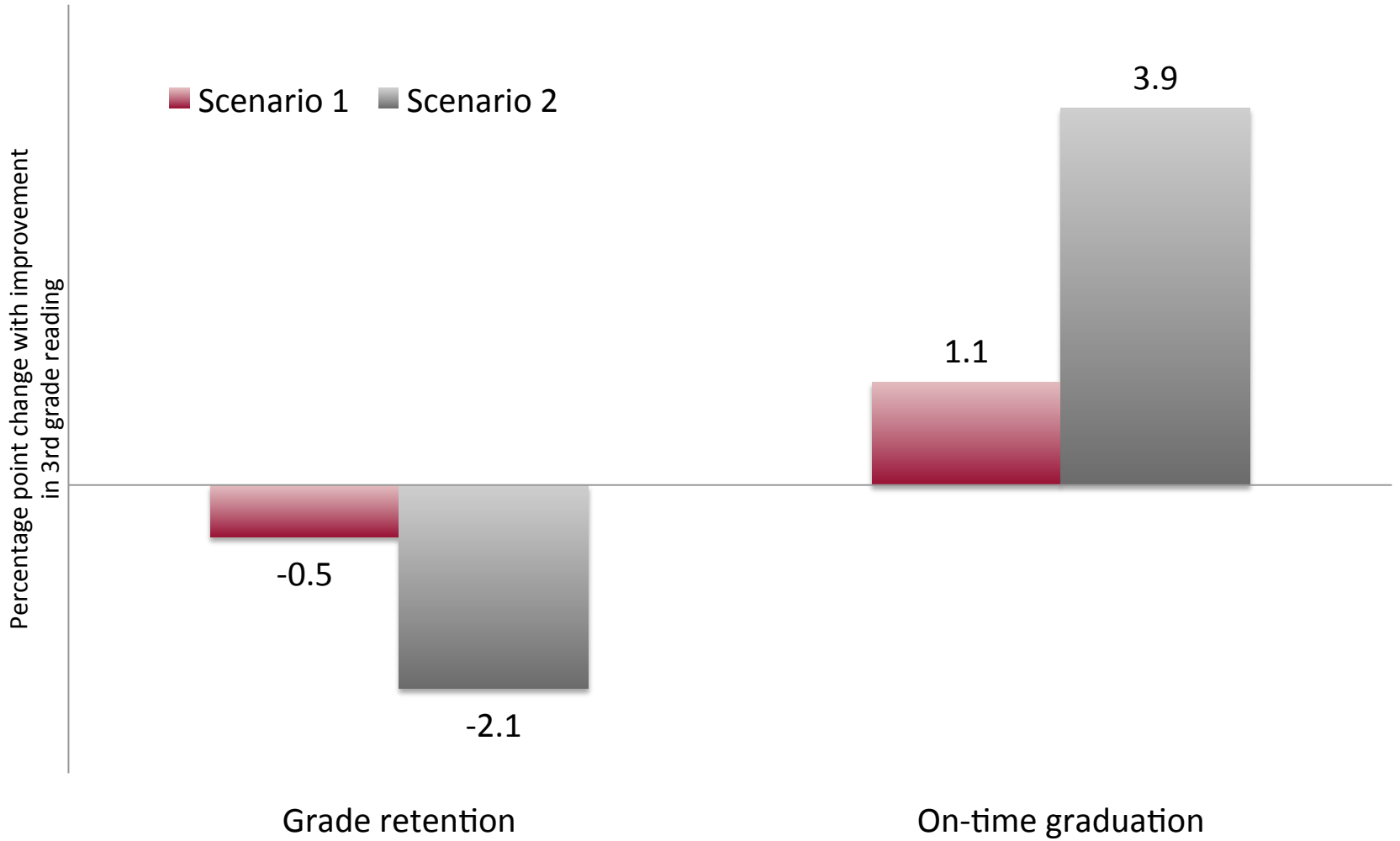


Source: ECONorthwest analysis/ODE data

- If 90 percent of Oregon's 2013-14 class of 3rd graders had met the OAKS reading benchmark:
 - Lower grade retention: 0.5 to 2.1 percentage points (6 to 18 percent reduction by 12th grade)
 - Increase on-time graduation: 1.1 to 3.9 percentage points
 - Increase cohort earnings through age 28: \$34 million to \$163 million (present value)

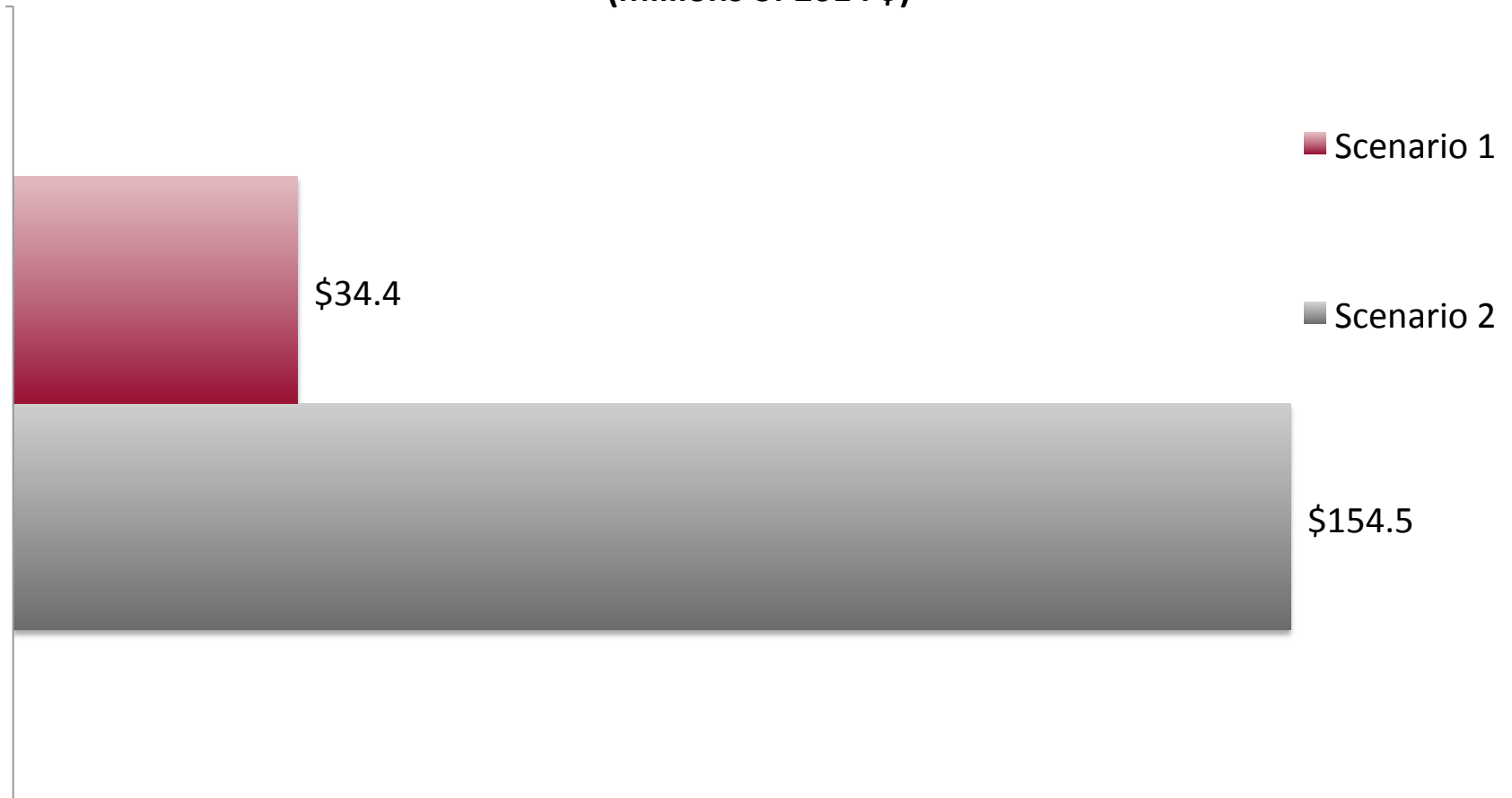
1. Estimate the relationship between 3rd grade OAKS reading performance and outcomes, controlling for FRL status:
 - Grade retention in 3rd-12th grade
 - On-time graduation
2. Predict improvements under two scenarios assuming 90% of 2013-14 3rd grade students had met the benchmark:
 - Scenario 1: Assumes reading scores improve just enough to move an additional 22 percent of the cohort to the benchmark.
 - Scenario 2: Assumes an additional 22 percent meet the benchmark *and* that all students improve by an amount at least equal to the average improvement in Scenario 1.
3. Predict the present value of additional lifetime earnings resulting from improved graduation rate^{*}

^{*}Earnings predictions based on results in Chetty, Friedman, and Rockoff (2014), "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood," *American Economic Review*



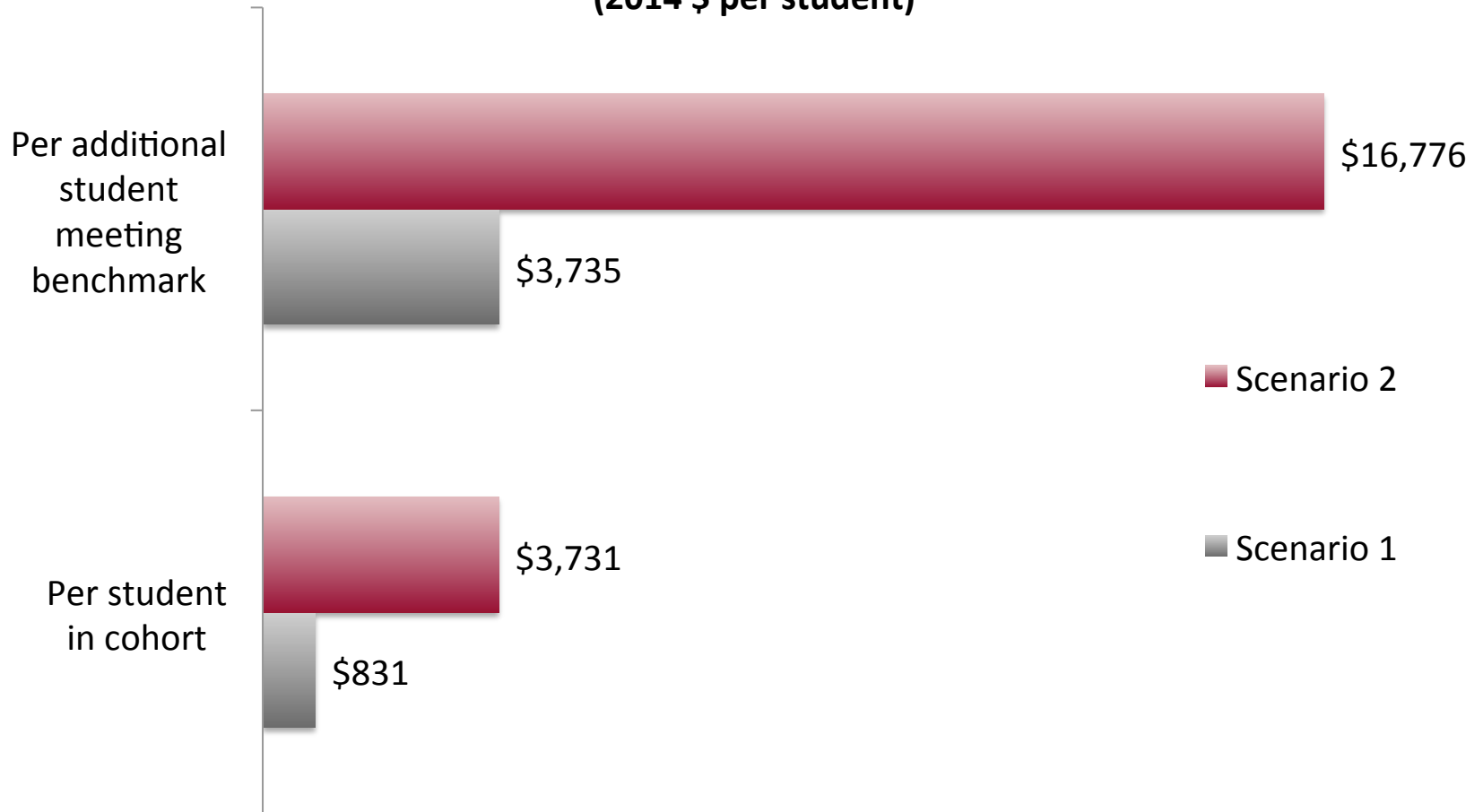
Source: ECONorthwest analysis/ODE data

Present value of increase in cohort earnings through age 28 (millions of 2014 \$)



Source: ECONorthwest analysis/ODE data/Chetty, et al

Present value of increase in cohort earnings through age 28 (2014 \$ per student)



Source: ECONorthwest analysis/ODE data/Chetty, et al



Portland



Eugene



Seattle



Boise