
Testimony for Committee on Education of the
Texas Senate

Improving Teacher Quality

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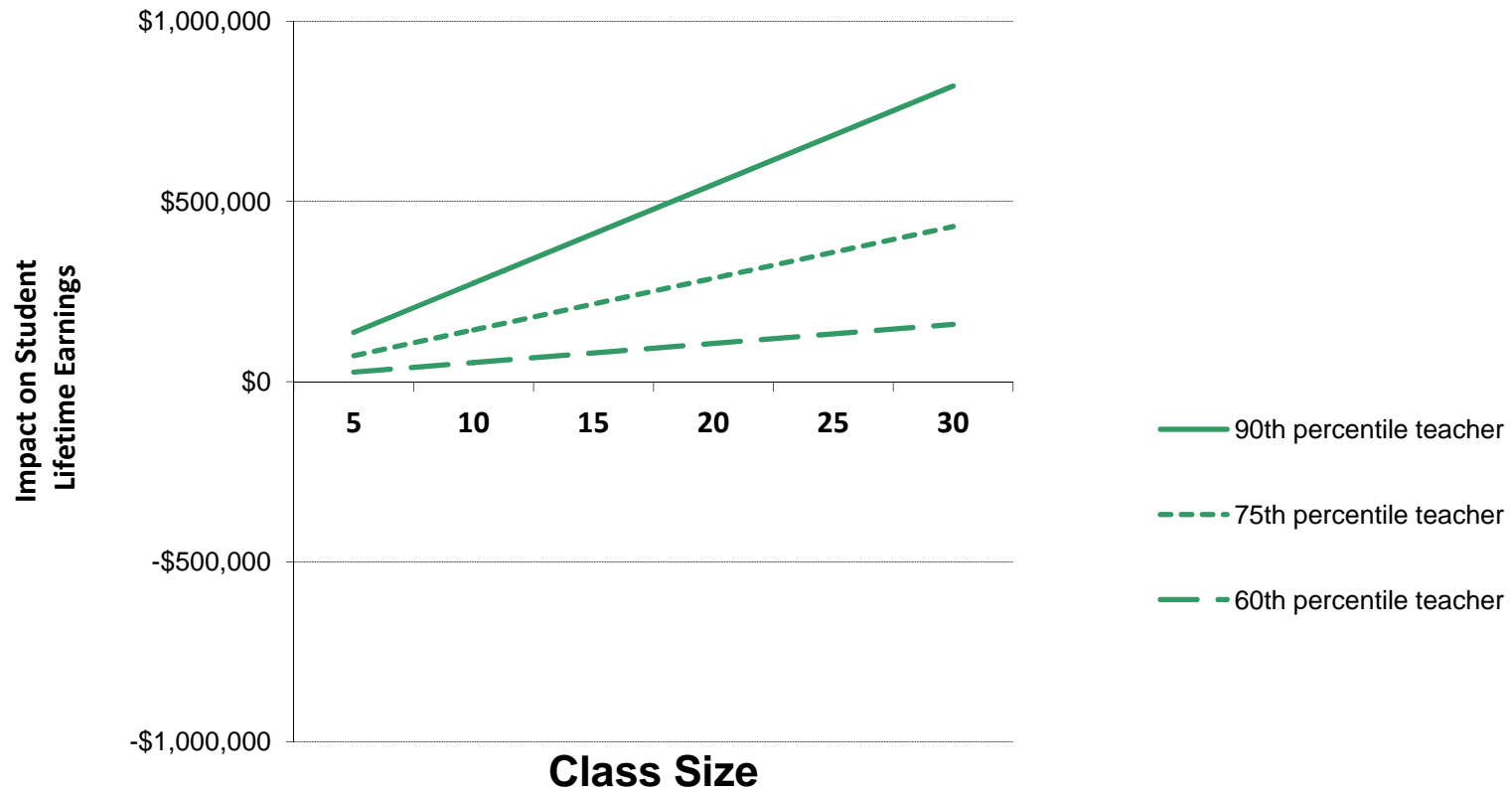
July 20, 2010

Backdrop of Teacher Quality Discussions

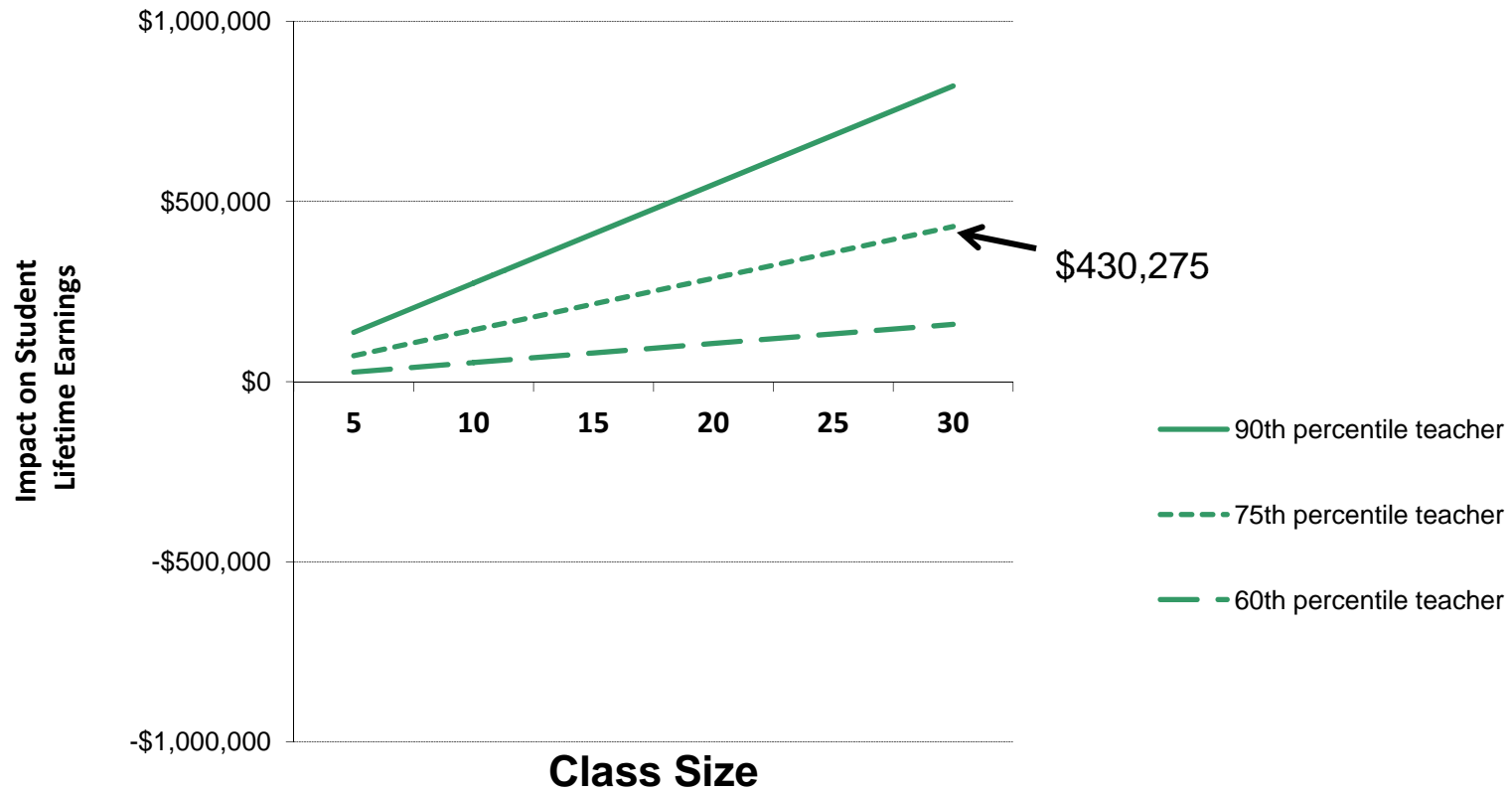
- Teachers most important input
 - No identifiable characteristics
 - Master's degrees
 - Experience*
 - Certification
 - Preparation
 - Professional development
 - Cannot regulate and pay on characteristics
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Demand for Quality: Teacher Impact through Individual Earnings

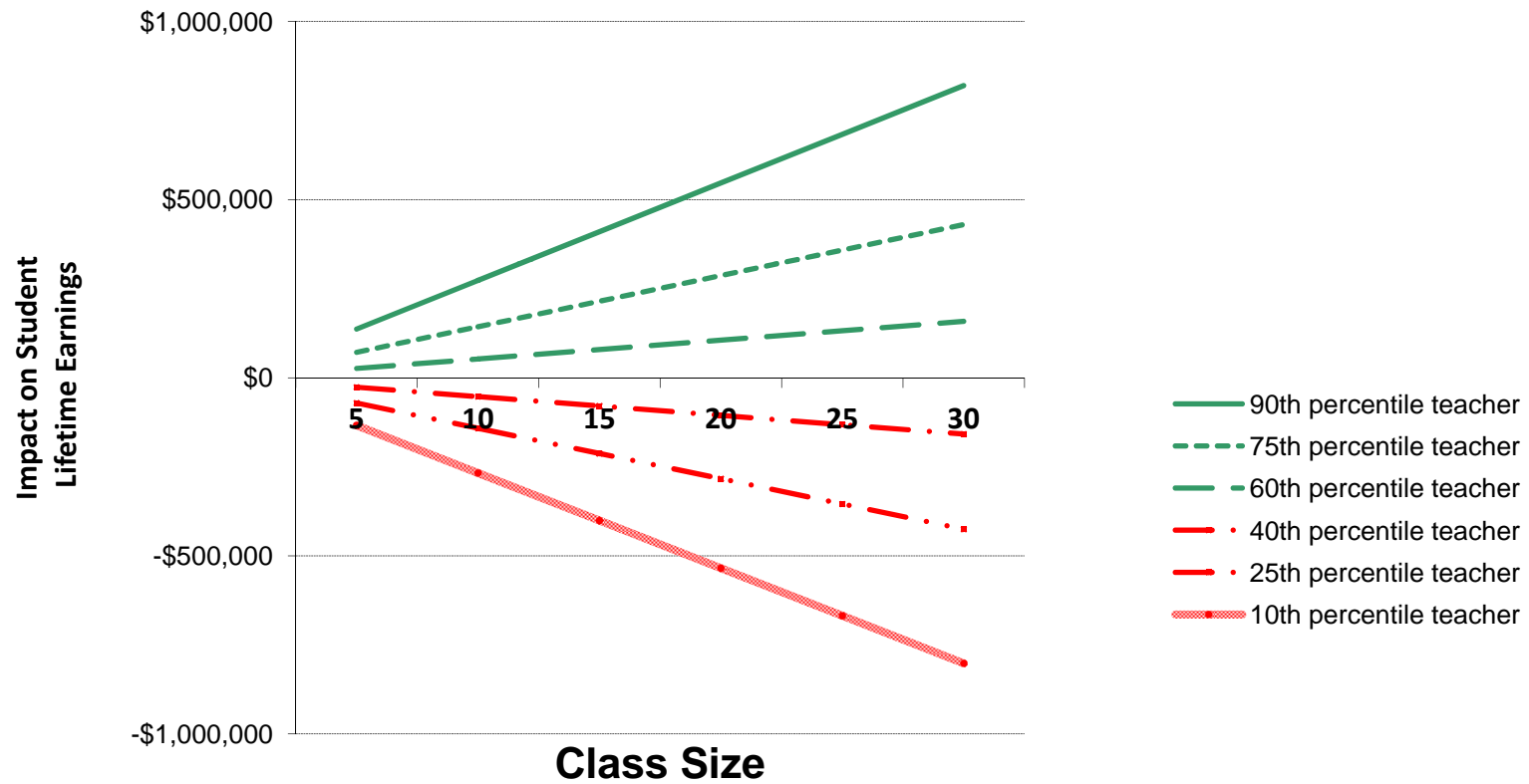
Impact on Student Lifetime Incomes by Class Size and Teacher Effectiveness (compared to average teacher)



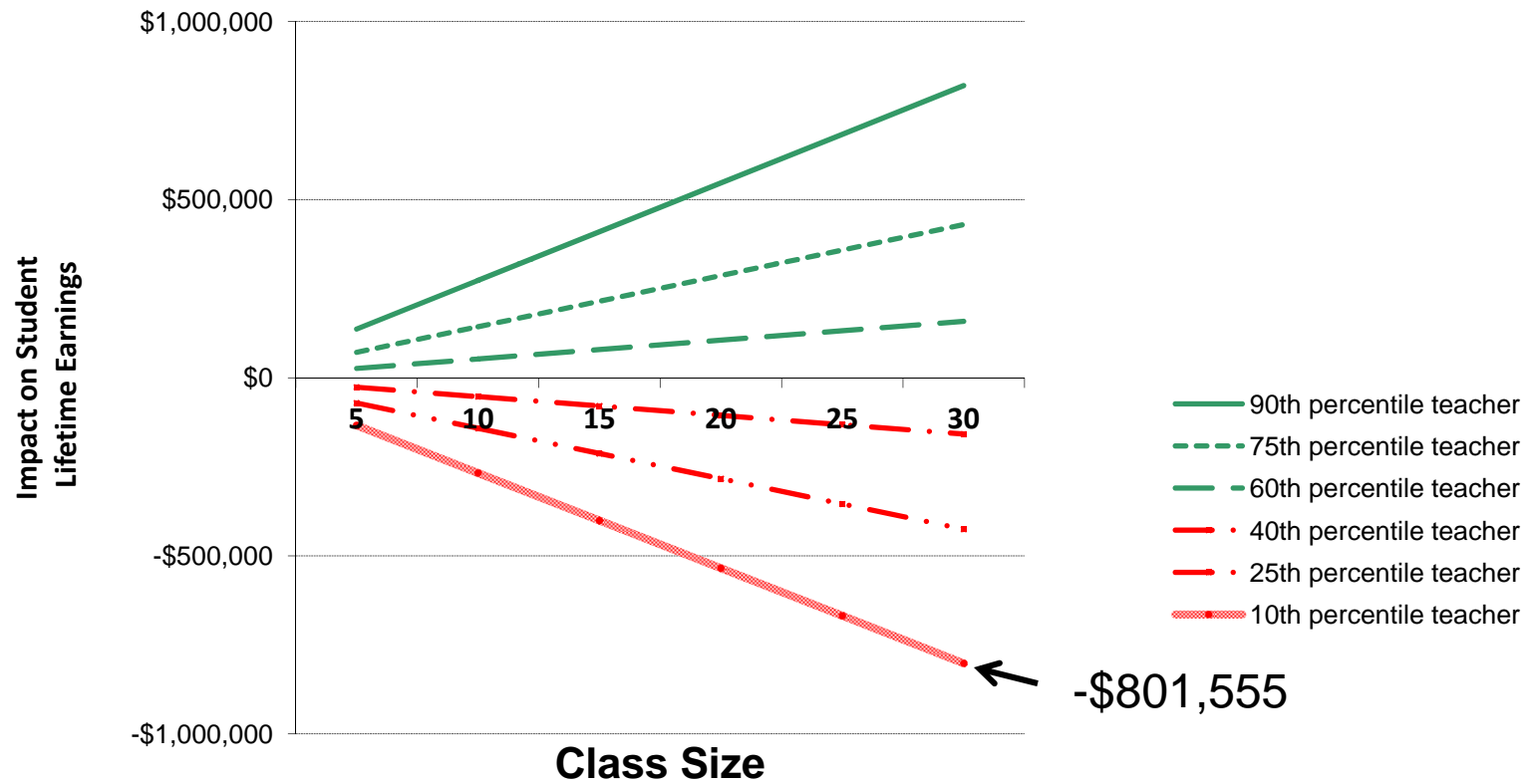
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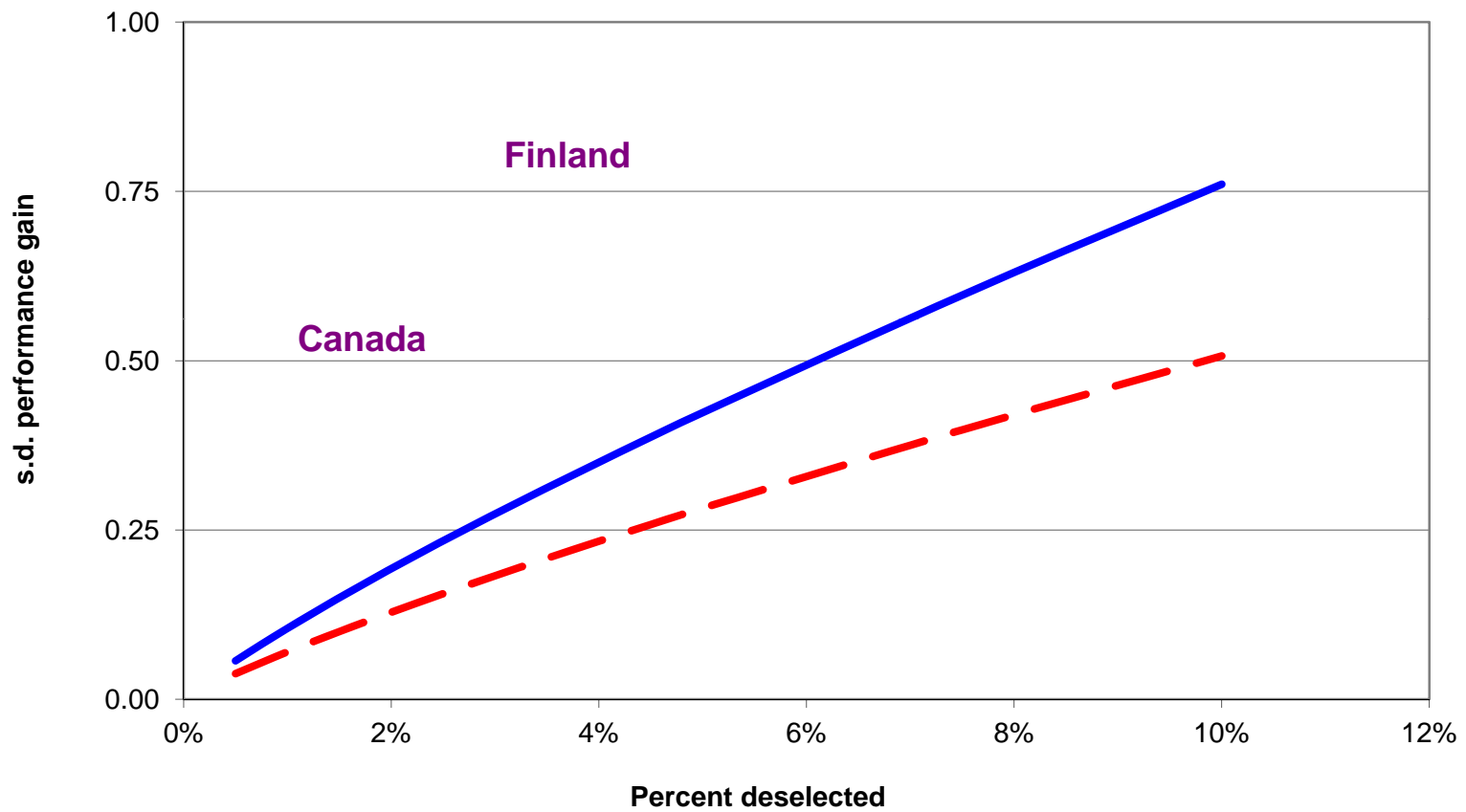


Impact on Student Lifetime Incomes by Class Size and Teacher Effectiveness (compared to average teacher)



Demand for Quality: Teacher Impact through Aggregate Improvement

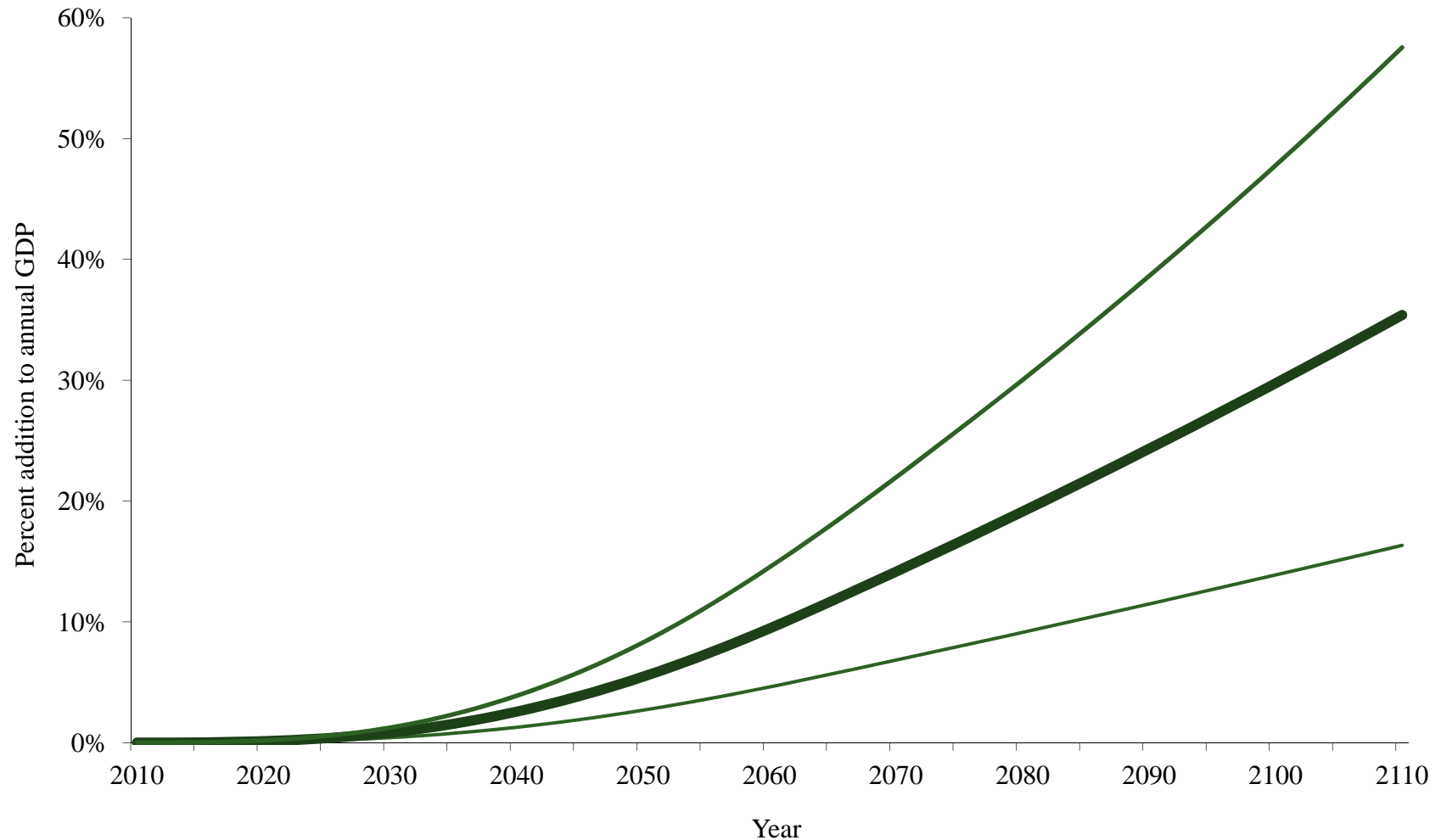
Alternative Estimates of Least Effective Teachers on Student Achievement



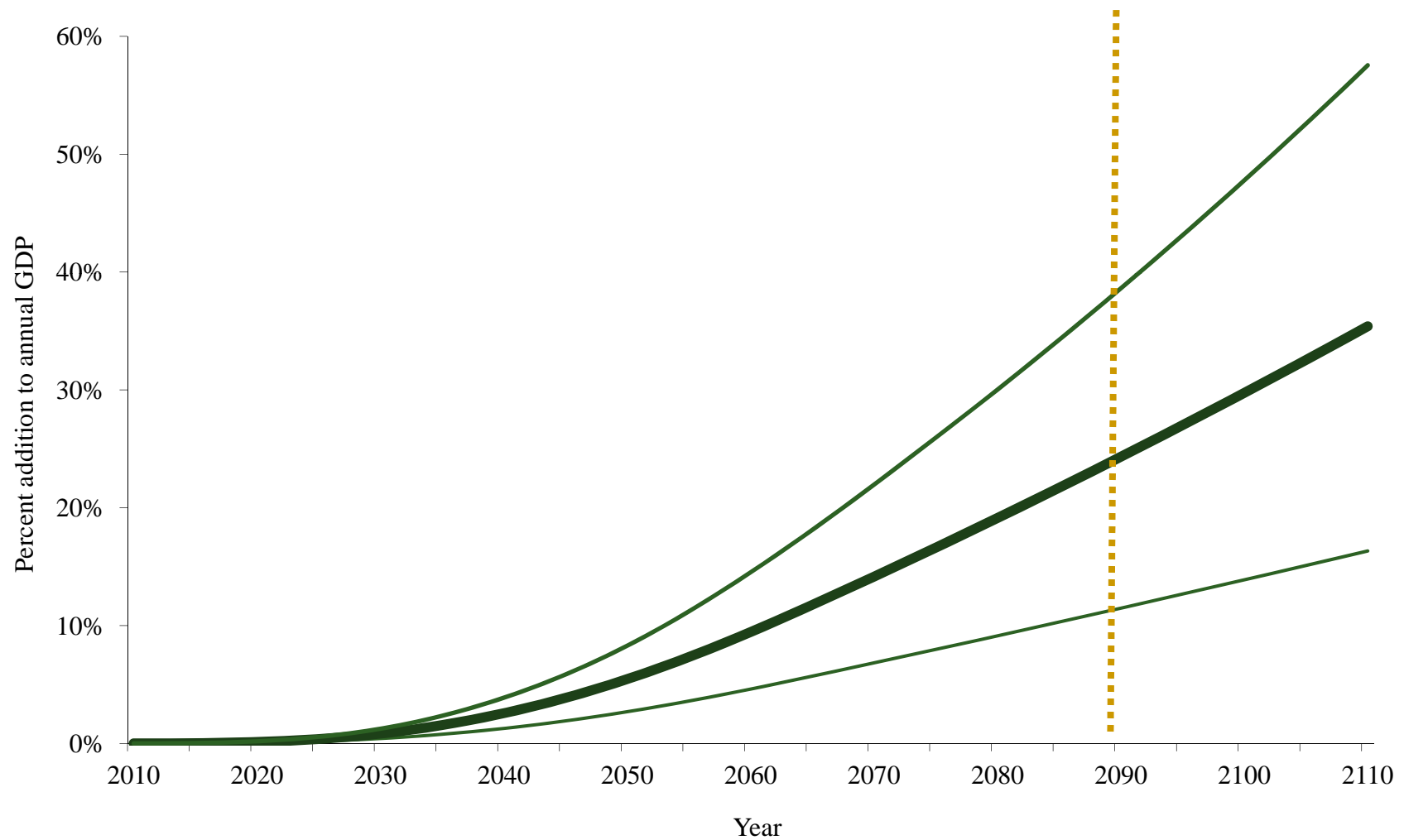
— high estimate of teacher effectiveness

- - - low estimate of teacher effectiveness

Annual Gains from 25 PISA-Points Improvement (1/4 std. dev.)



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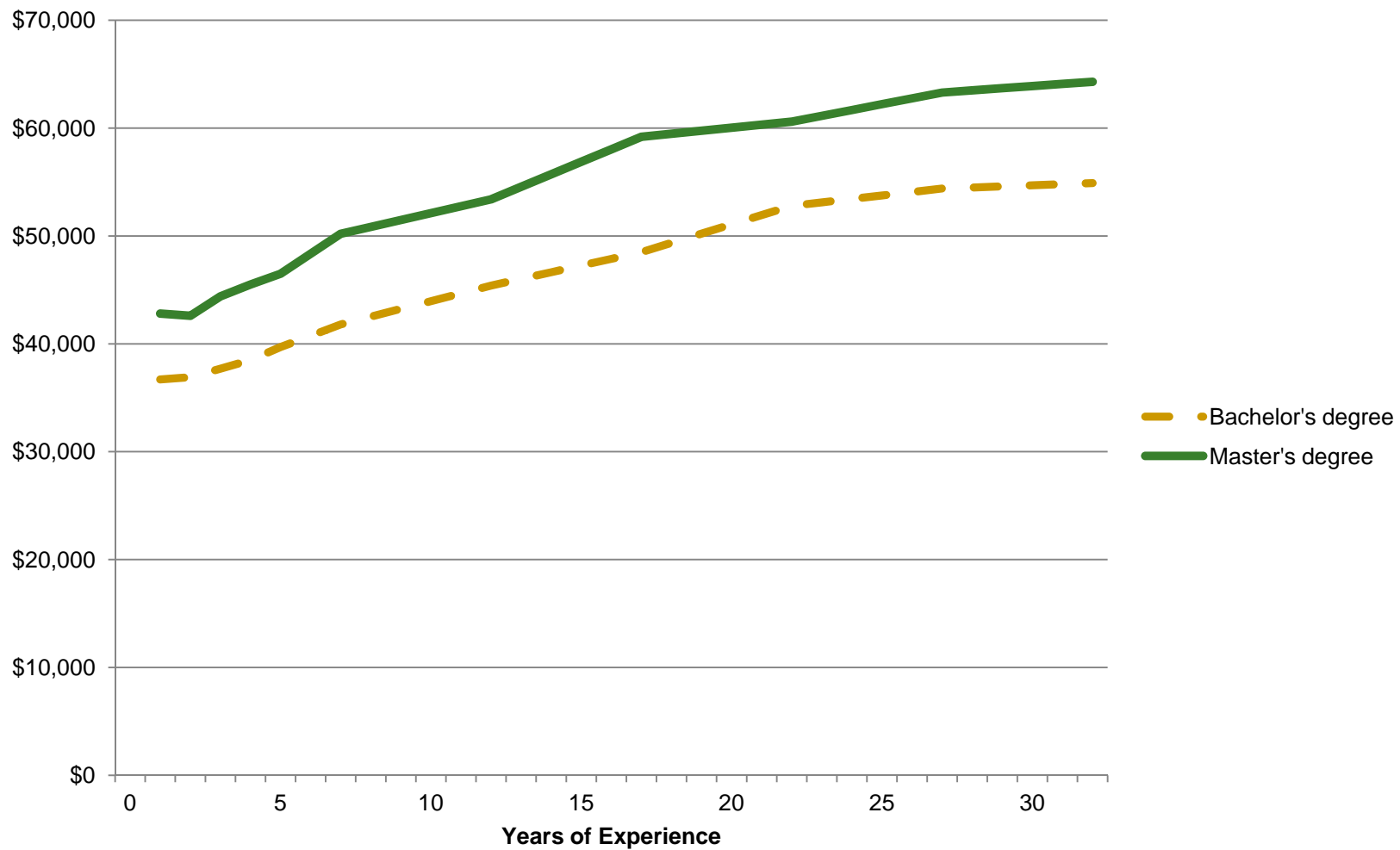


Present Value of Achievement Gains

Achievement change	Present value (\$billion)	% GDP
Plus ¼ standard deviation (to UK, Germany; ½ way to Canada)	\$40,647	268%
Achievement = Finland	\$103,073	678%
Eliminate “below level 1” (< 400 PISA)	\$72,101	475%

Inefficiencies in Current Salaries

Average Teacher Salary by Degree and Experience, 2007



Experience and Advanced Degrees

	% of Teachers	% of Salaries
MA or more	53	9.5
Experience > 2 years	85	27

Conclusions

- Gains very large from better teachers
- Difference between effective and ineffective enormous
- Gains justify substantial structural change

Cautions

- Gains only with achievement
 - Gains take long time
 - “too hard” → willing to accept large loss
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Benchmark Economic Data (2008)

- GDP = \$14.5 trillion
 - K-12 = 4.6% GDP
 - Aggregate K-12 spending = \$661 billion
 - Average teacher salary = \$53,230
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