

Teacher Effectiveness Initiative Background



December 2009



Teacher Effectiveness Initiative Background

1

Teacher Effectiveness

- Studies that take into account all of the available evidence on teacher effectiveness suggest that students placed with highly effective teachers will progress three times as fast as those placed with less effective teachers¹

2

Teacher Recruitment

- There are ~70,000 teachers in MN, ND and SD²
- Over the next decade, ~30,000 new teachers will be needed in MN, ND and SD³
- Partner institutions plan to produce ~3,500 graduates per year⁴

3

Teacher Retention

- Approximately 15% of teachers in MN leave teaching after 1 year⁶
- Approximately 30% of teachers in MN leave teaching after 5 years

4

Cost to Bring on New Teachers

- Despite the training they receive before being hired, new teachers require significant upfront costs, including additional training⁷

1 Source: Hanushek, Eric; Rivkin, Steven; Kain, John, "Teachers, Schools and Academic Achievement," *Econometrica*, 2005

2 Source: Minnesota Department of Education 2006-2007 FTE Data, North Dakota Department of Public Instruction 2006-2007 FTE Data, South Dakota Department of Education 2006 – 2007 FTE Data

3 Expected new teachers is estimated based on the number of new teachers hired annually in MN, ND, and SD, projected over 10 years. Source: Minnesota Department of Education 2006-2007 FTE Data, North Dakota Department of Public Instruction 2006-2007 FTE Data, South Dakota Department of Education 2006 – 2007 FTE Data

4 Planned annual graduates reflects the annual, steady-state number of graduates expected by 2020

5 Source: US Department of Education, "To Teach or Not to Teach?" 2007

6 Source: MN Department of Education, 2009, "Teacher Supply and Demand"

7 Source: National Commission on Teaching and America's Future, "The cost of teacher turnover in five school districts," 2007

1 Teacher Effectiveness Matters

Tennessee example

Student performance

Percentile

100

50

0

Age 8

Age 11

School year

Student with **high-performing**¹ teacher

90

Student with **low-performing**² teacher

37

53
percentile
points

1 Among the top 20% of teachers
2 Among the bottom 20% of teachers

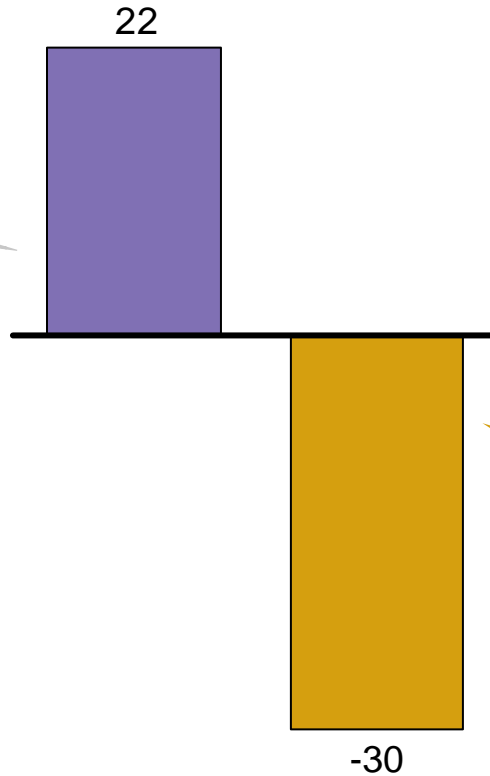
1 Teacher Effectiveness Matters

Dallas example

Math assessment percentile rank – Change from 3rd grade through 5th grade

Percentage points

Dallas students assigned to three **highly effective** teachers in a row¹



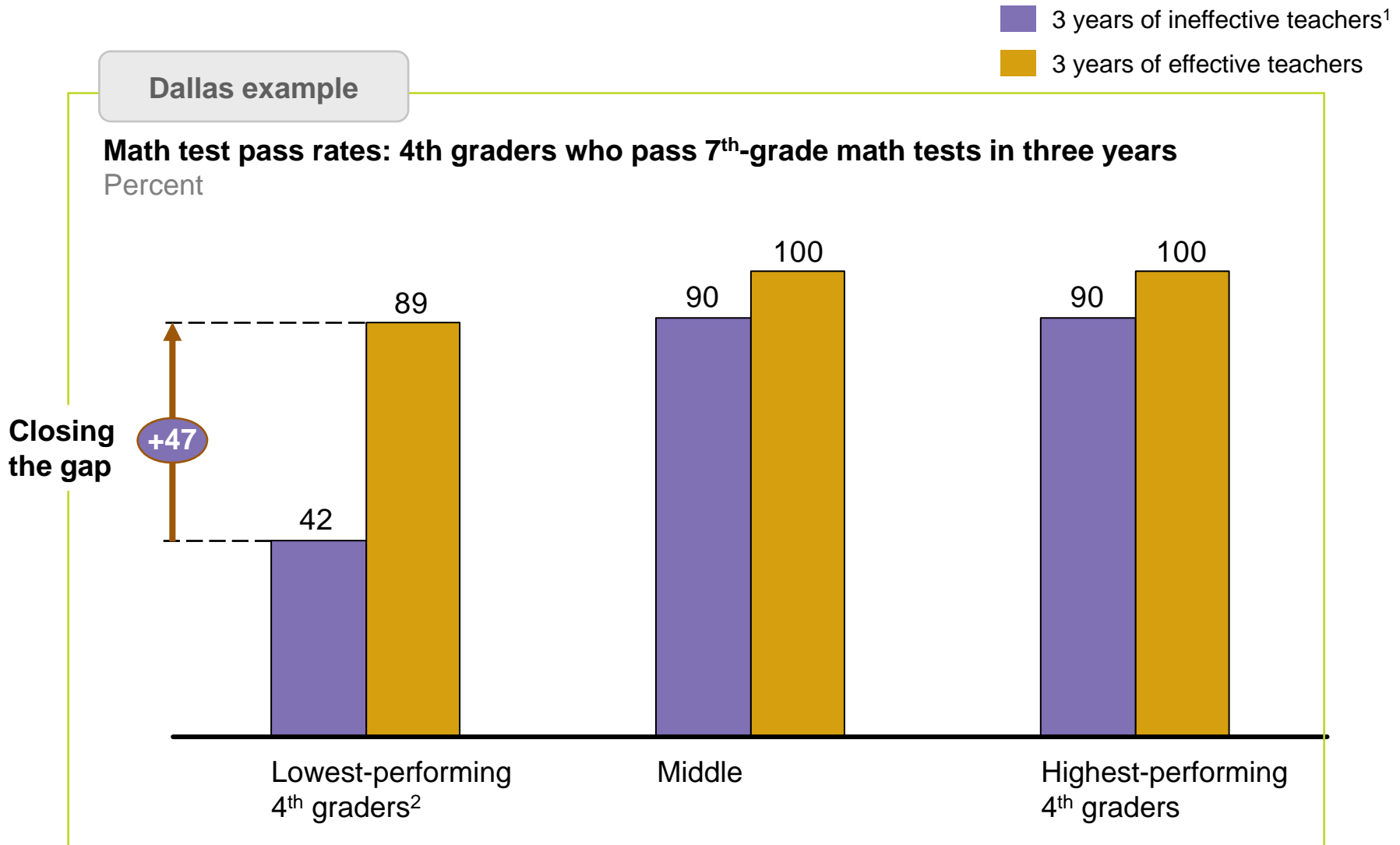
Dallas students assigned to three **highly ineffective** teachers in a row²

1 Students in this cohort had a teacher in the top two quintiles the first year and a teacher in the top quintile in the second and third years

2 Students in this cohort had a teacher in the bottom quintile each of the three years

SOURCE: Heather Jordan, Robert Mendro, and Dash Weerasinghe, *The Effects of Teachers on Longitudinal Student Achievement*, 1997.

1 Teacher Effectiveness Closes the Gap



¹ Effective teachers are defined as those who rank in the top two quintiles of all teachers in terms of effectiveness; source: value-added data from Dallas

² Low-, medium-, and high-performing students are identified by sorting all students into equal thirds based on past performance

SOURCE: The Education Trust, "Thinking K-16," 2004; Dallas Independent School District, 1997

1 Teacher Effectiveness Sources

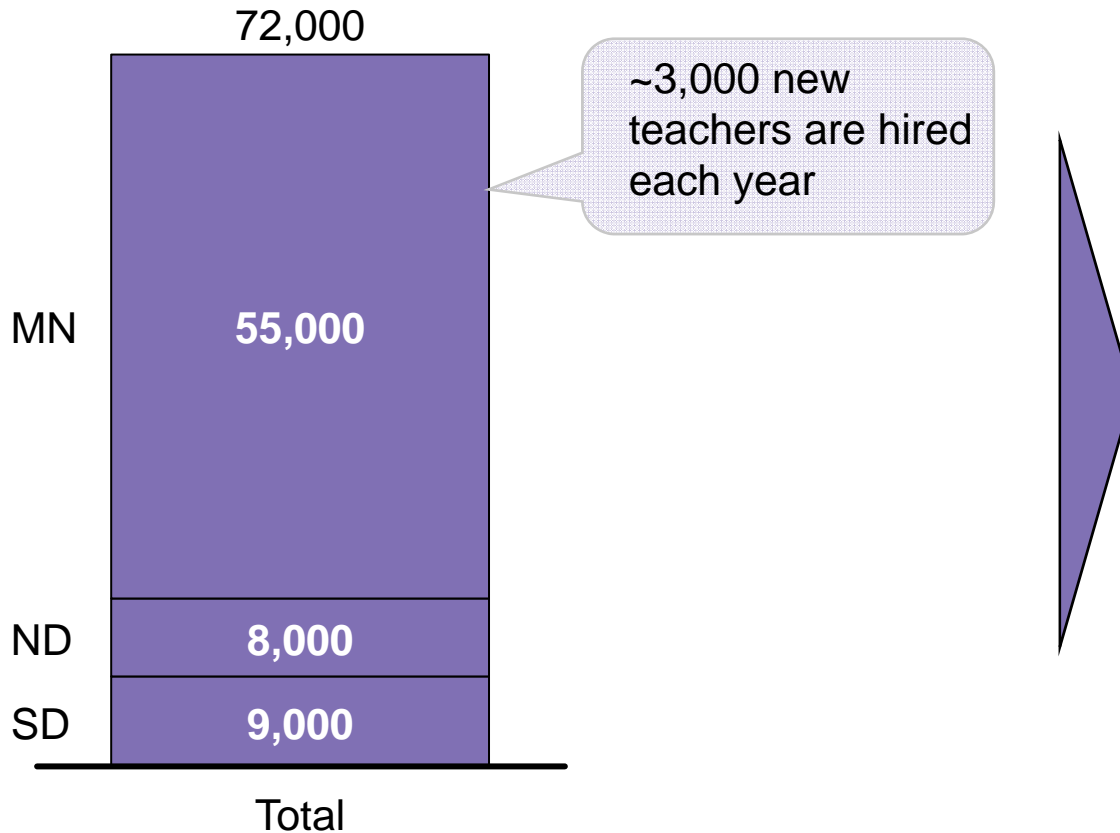
Additional research examples on the importance of teacher effectiveness

- Hanushek, Eric; Rivkin, Steven; Kain, John, “Teachers, Schools and Academic Achievement,” *Econometrica*, 2005
- William L. Sanders and June C. Rivers, “Cumulative and Residual Effects of Teachers on Future Student Academic Achievement,” 1996
- Gordon, Robert; Kane, Thomas; Staiger, Douglas, “Identifying Effective Teachers Using Performance on the Job,” The Hamilton Project; The Brookings Institution, 2006
- Jordan, Heather; Mendro, Robert; Weerasingine, Dash, “Teacher Effects on Longitudinal Student Achievement,” 1997
- “High School Restructuring,” Boston Public Schools, 1998

2 Teacher Recruitment – New effective teachers are needed

Teachers in MN, ND and SD¹

Number of Teachers



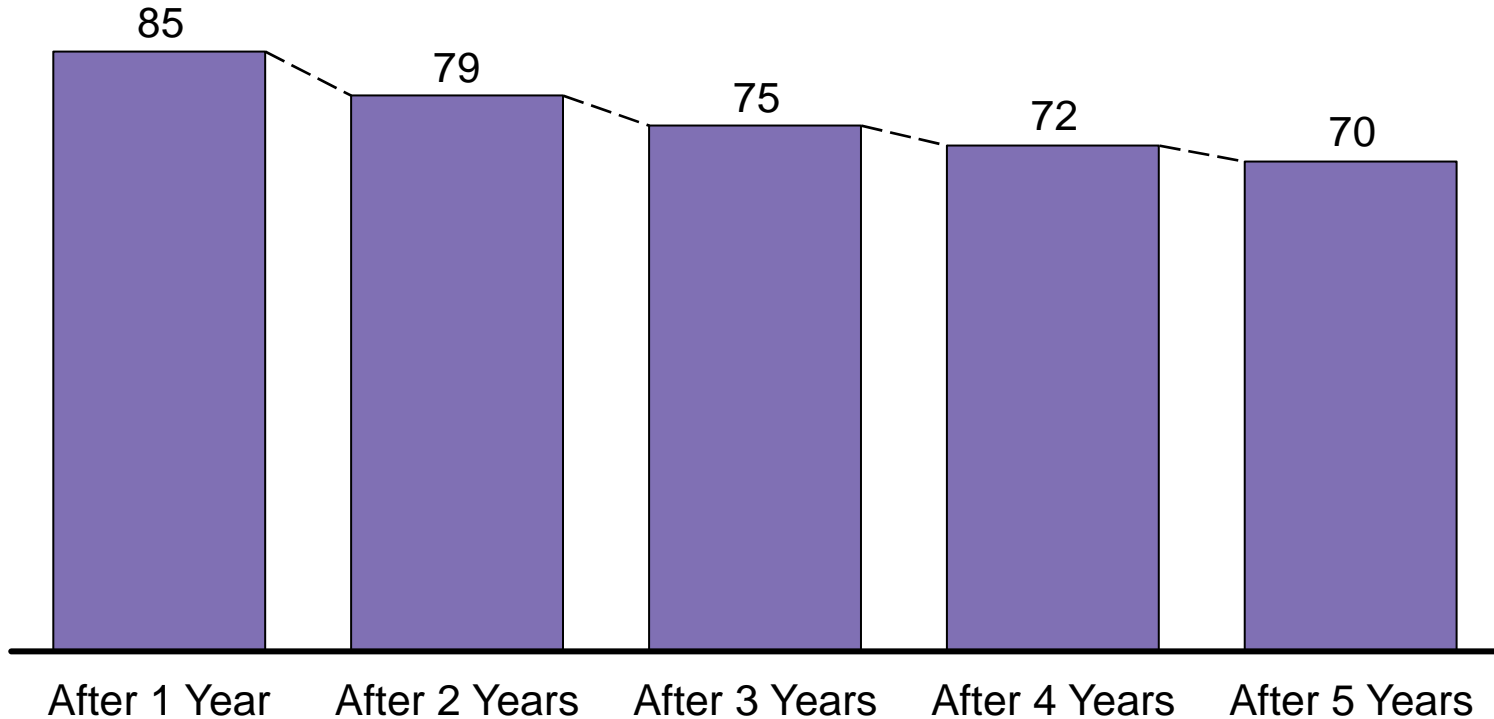
- **MN, ND, and SD will need ~30,000 new teachers over the next 10 years¹**
- **Partner institutions plan to produce ~3,500 graduates per year²**

¹ Expected new teachers is estimated based on the number of new teachers hired annually in MN, ND, and SD, projected over 10 years

² Planned annual graduates reflects the annual, steady state number of graduates expected by 2018

3 Retention of Teachers – ~30% of new teachers in MN leave within 5 years

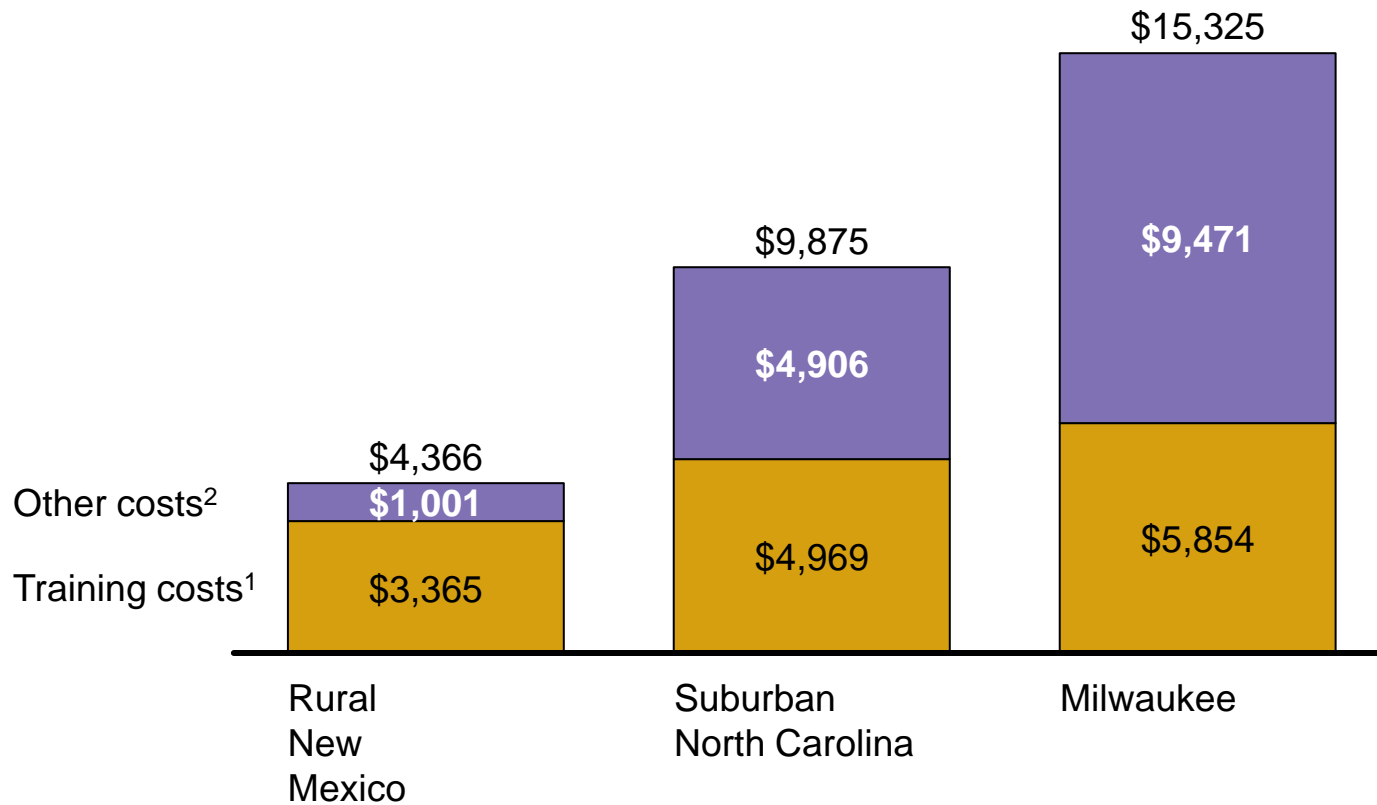
Percent of MN teachers that remain in teaching
Percent



4 Average costs to bring on a new teacher

Average costs to bring on a new teacher

\$



1 Includes new teacher training, new hire training, and general teacher training

2 Includes recruitment, hiring, and administrative processing costs