

Alliance for Excellent Education

It's Simple Math:

Recruiting Highly Effective Teachers + Right Supports =
Increased Student Achievement

December 10, 2008
Washington, DC

Every Child a Graduate



ALLIANCE FOR
EXCELLENT EDUCATION

The Cumulative Effect

Raising Teacher Quality in High School Math Classrooms



Guilford County Schools



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Overview



- Mission Possible
- Cumulative Effect Program Components
- Student Impact
- Teacher Impact
- School Impact

Guilford County Schools



- Urban and rural populations
- Loss of major industry
- Rapidly increasing poverty level
- 72,000 students
- 10,000 employees
- 120 schools
- 84 ethnicities
- 109 languages



Our Challenge



- In 2005-2006, GCS had 7 applications on file for teachers wanting math positions
- One of our high schools went an entire year without a single certified math teacher
- Others went the entire year with math vacancies that were never filled
- Our schools most impacted by poverty were staffed by teachers with little experience

Our Solution



- Organize community groups to take action
 - State Assembly
 - Local Universities
 - Local Foundations
- Identify intervention goals
 - Recruit highly qualified teachers
 - Retain teachers
 - Raise student achievement
- Identify schools for interventions

Funding the Solution



- Local funds
- Foundation funds
 - Action Greensboro
 - Bryan Foundation
 - Cemala Foundation
 - Toleo Foundation
- Federal funds from the Teacher Incentive Fund grant

Mission Possible



Program Component 1

Summer Math Institute



- Content Alignment to EOC's and Benchmarks
 - Algebra I
 - Algebra II
 - Geometry
- Format
 - 10 days
 - 40 hours
 - Co-taught by classroom practitioners and university math professors

Program Component 2

Cumulative Effect Seminar Series



- Content
 - Pedagogy
 - Technology
- Format
 - Host Schools, “Each one teach one”
 - Developing site-based experts and capacity
 - District-wide Professional Learning Community

Program Component 3

Technology



- Promethean Board
- Laptop computer
- LCD Projector
- TI 84+ Graphing Calculators (class set)
- Document Camera
- ActiVote Response System
- Bluetooth Slate



Program Component 4

Math Mentors



- Selection
 - Math content expertise
 - Technology expertise
 - Leadership expertise
 - Coaching/mentoring expertise
- Training
 - NC A&T Mentor Training
 - Bi-weekly meetings
- Assessment
 - Annual teacher surveys

Program Component 5

Reduced Class Sizes



- Algebra I classes have a 20:1 ratio
- All Cumulative Effect schools receive additional faculty allocations based upon high needs

Program Component 6

Recruitment Incentives



Position	Incentive
9-12 Math without a degree or 24 hours	\$2,500
9-12 Math with a degree or 24 hours (>C)	\$9,000
Algebra I without a degree or 24 hours	\$2,500
Algebra I with a degree or 24 hours (>C)	\$10,000

Program Component 7

Performance Incentives



PERFORMANCE INCENTIVES		
Position	Level I (>1 SE above district mean growth)	Level II (>1.5 SE above district mean growth)
9-12 Math	\$2,500	\$4,00
Algebra I		

Results

Teacher Quality



Indicator	Success
Increase in math teachers with high VAD	+25%
Increase in Algebra I teachers with high VAD	+20%
Increase in Geometry teachers with high VAD	+78%
Percentage of eligible math teachers receiving performance incentives	74%
Total high school math performance incentives paid in year 1	\$123,500

Results

Teacher Retention



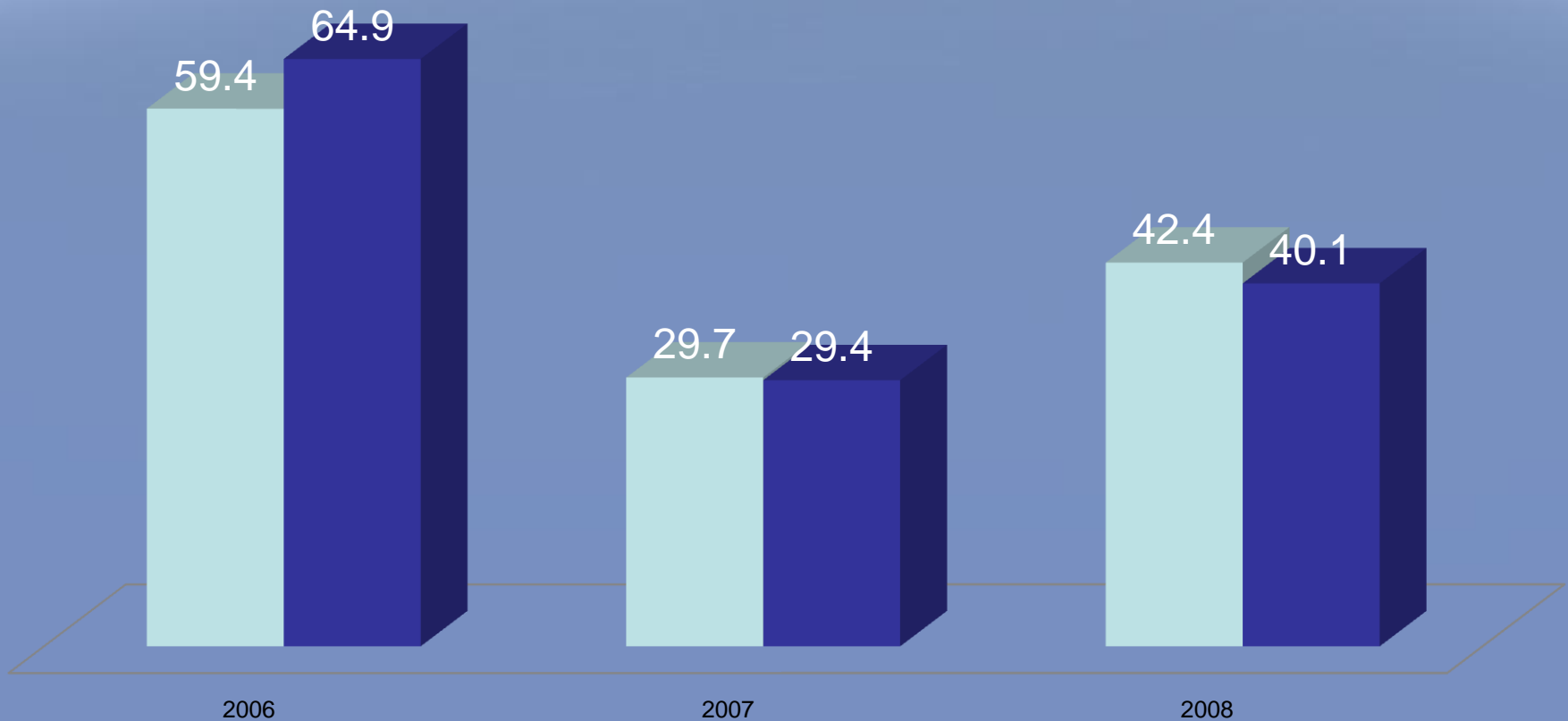
Indicator	Success
Teacher attrition rate	-23%
MP* transferring to Non-MP Schools	-23%
MP transferring to Non-MP Positions	-39%
MP faculty transferring to another district	-57%
Non-MP faculty transferring into MP positions	+15%

*Mission Possible, the umbrella program for The Cumulative Effect

Algebra I



■ Misson Possible Schools ■ Non-Misson Possible Schools

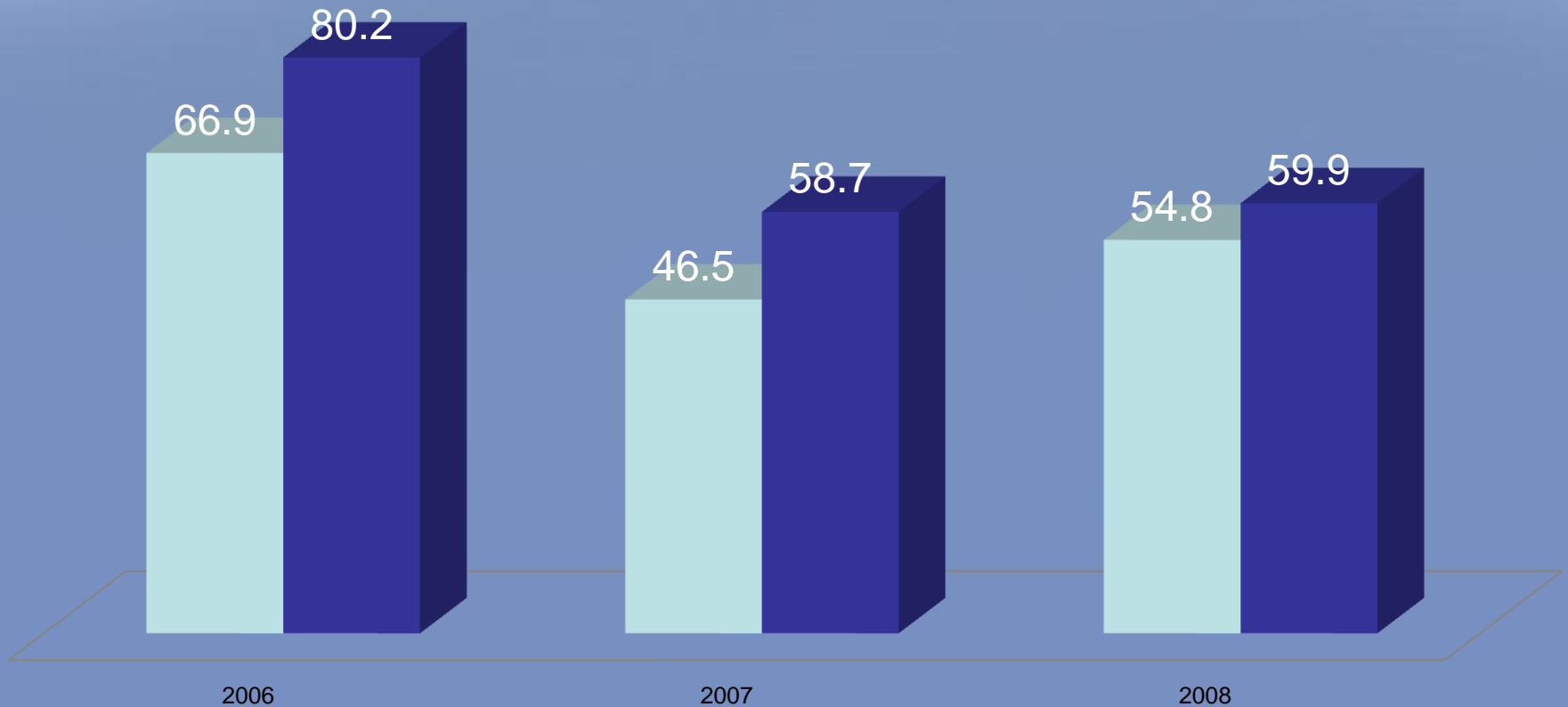


Algebra II



■ Misson Possible Schools

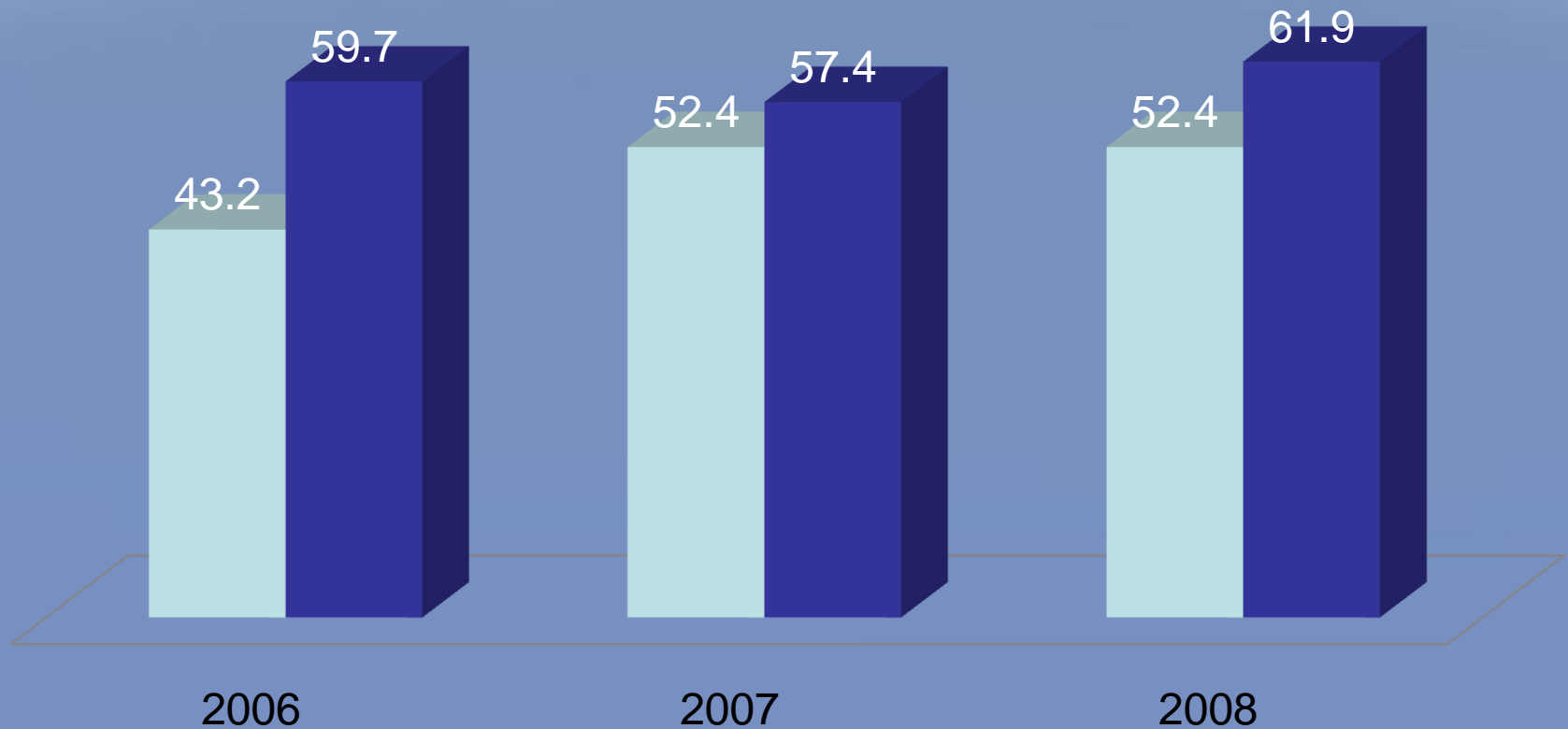
■ Non-Misson Possible Schools



Geometry



■ Mission Possible Schools ■ Non-Mission Possible Schools



Results

Student Achievement



	2006 School Year			2008 School Year			
Subject	CE	Non-CE	Gap	CE	Non-CE	Gap	Total Gap Reduction
Algebra I	59.4	64.9	-5.5	42.4	40.1	2.3	7.8
Algebra II	66.9	80.2	-13.3	54.8	59.9	-5.1	8.2
Geometry	43.2	59.7	-16.5	52.4	61.9	-9.4	7.1

20/20



- Develop a robust pay scale that includes experience, professional development, observation, teacher leadership and other effectiveness indicators beyond Value Added Data
- Widen our lens to include principal development structures that would lead to significant culture change

Policy Reform Issues



- Differentiated Compensation
- Pay for Performance
- Equity vs Equality
- Distribution of teachers to low performing schools

Teacher Impacts



Cindy Cobia
Math Department Chair
Middle College at Bennett
Former Curriculum Facilitator

School Impact



Dr. Noah Rogers
Principal
Smith High School

Questions?



Thank You for Attending

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