# Balancing Accountability and Improvement 

The Use of Value-Added Models in Local School Systems

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## Where We Live

- Montgomery County Public Schools
- $18^{\text {th }}$ largest and $12^{\text {th }}$ fastest growing district in U.S.
- 192 schools
- Nearly 140,000 students
- 12,000 English Language Learners from 163 countries
- 17,000 special education students
- 32,000 low-income students


## How We Are Changing



## How Our Schools Are I mpacted



# What Challenges the 60 Focus Schools Face 

- 80\% of Total Elementary LowIncome Population
- 75\% of Total Elementary English Language Learners Population
- 78\% of Total Elementary Hispanic Population
- 70\% of Total Elementary African American Population


## Where We Started: System of Shared Accountability

W2


## Why We Started There

- Improve on the state's system
- Account for varying challenges schools faced
- Include more than test scores


## What Issues We Faced

- Philosophical
- Model decisions
- Teacher evaluation protocols
- Consequences
- Community Pressure
- Practical
- Accountability from NCLB took precedence


## Where We Evolved

- System of Shared Accountability
- Accountability Components
- Align with NCLB
- Maintain high school component for academic attainment
- Improvement Components
- Designed to guide school improvement efforts
- Comfortable fit for value-added models


## a conceptual model of the

 System of Shared AccountabilityMontgomery County Public Schools

## Opportunity Indicators

- SAT
- Career Licensing Exams
- Integrated Employment
- ACT

SCHOOL ENVIRONMENT

- Parent engagement
- Suspension
- Staff turmover
- Highly qualified teachers and paraeducators
- Staff, parent, and student surveys

STANDARDIZED
ASSESSMENTS

- CTBS
- HSA
- PSAT - AP exams
- IPT

Early Success Performance Plan

Birth to Grade 2

STUDENT ACHIEVEMENT

- MCPS Assessment Program Pre-K to Grade 2
- MCPS Assessment Program Grades 3 to 8
- MCPS Final Exams
- Report Card Grades
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STUDENT ENGAGEMENT
- Drop out rates
- Internships
- Attendance
- Learning Skills
- Special Education students receiving services in general education
- Enrollment in Honors/AP/ IB/Cambridge courses
- Enrollment in Grade 5 Math A and Grade 8 Algebra or above
- Participation in extra curricular activities

A Foundation of Continuous Improvement
The Improvement Component guides efforts to increase performance on the Accountability Component

# What We've Done 

- Program Level Analyses
- School Level Analyses


## What About Programs

- HLM Model for Title 1
- Examine effects of programming in Title 1 schools compared to non-focus schools
- Needed to control for demographic variables at the student and school level
- Wanted to examine trends


## What Trends Are Evident



## What Trends Are Evident



## What About Schools

- Support school improvement efforts
- Provide more meaningful context for interpreting test scores
- Need model to be easily understood by administrators
- Examine relative performance by each subgroup
- Examine relative performance using multiple variables


## School-to-County Comparisons 2004 Grade 3 MSA Reading Performance

| School | ALL | FARMS | SP ED | LEP |
| :--- | :---: | :---: | :---: | :---: |
| County \% Prof. / Adv. | 78.5 | 58.5 | 53.6 | 56.4 |
| County \% Advanced | 17.7 | 3.5 | 4.2 | 4.4 |
| County Mean Scale Score | 419 | 394 | 391 | 394 |
| SCHOOL 1 | +++ |  | +++ | ++ |
| SCHOOL 2 |  | +- | ++ |  |
| SCHOOL 3 | + | + |  |  |
| SCHOOL 4 |  |  |  |  |

Note: +/-denotes that school group performed above / below county group ( $\mathrm{p}<.05$ ).

## School-to-County Comparisons

## 2004 Grade 3 MSA Reading Relative Performance*

| School | ALL | FARMS | SP ED | LEP |
| :--- | :---: | :---: | :---: | :---: |
| County Mean Residual | 0.0 | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |
| SCHOOL 1 | + | + |  | + |
| SCHOOL 2 |  | + | - |  |
| SCHOOL 3 | - | - |  | - |
| SCHOOL 4 | + |  |  |  |

* Relative Performance is how a student performed on an assessment compared to other students who had similar prior scores (Grade 2 CTBS Reading and Language).

Note: +/ - denotes that the average relative performance of the school group is above / below the relative performance of the county group ( $p<.05$ ).


Comparison of unadjusted and value-added SAT verbal scores for the Class of 2004 by High School (1-10)


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# Where We Want to Go 

- Teacher Level Analyses
- Relative Performance at the Classroom Level


# What About Teachers 

- Just treading lightly....
- Identifying high performers to investigate effective practices
- Linking teacher training to student achievement


## What About Classrooms

- Mapping student's relative performance for each teacher
- Guiding teachers in analysis and interpretation
- The true heart of improvement efforts!
- The ultimate vision of "value-added"


## Where Teachers Need to Go



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