Approaches to Adequately and Equitably Funding Our Schools

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Jay G. Chambers, Ph.D.

Senior Research Fellow

and

Jesse D. Levin, Ph.D.

Senior Research Economist

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Part I – Frameworks for State and Local School Finance

My career has focused on federal, state, and local funding of schools

Studies include the following analyses of:

❑ Geographic Costs of Education

❑ Variations in spending across LEAs and SEAs.

❑ Variations in spending on special need populations

❑ Federal role resource allocation (e.g., ESEA)

❑ Approaches to state school funding (adequacy & equity)

❑ Allocating resources within LEAs.

Importance of cost-based funding

❑ Equal educational opportunity by funding schools based on the cost of doing business in local communities.

❑ Understanding cost requires:

- identification of the educational goals you are trying to achieve;

- the needs of the students you intend to serve; and

- the prices of the inputs you need to use

Cost-based funding: *easier said than done*

- **Limitations of educational production functions (input/output analysis)**
  - Difficult to identify all of the outcomes
  - Difficult to measure them outcomes
  - Difficult to understand the technology
  - Studies focused on a limited set of outcomes.

- **Education is more than a collection of test scores.**
  - We need recognize a broader sets of goals.

- **What works can't be adequately capture by multivariate models**.
  - It requires engagement with practitioners, parents, and other members of the local community including business owners and students.
  - Moreover, it was complicated enough that it was not going to be possible to develop a one-size fits all model.

- **We need easy to understand models for determining**
  - How many dollars you need – adequacy -- and
  - Simple ways of equitably distributing dollars – Federal → States → LEAs → Schools

States as the *center of gravity* for school finance: *Part I – Set Goals for funding models*

❑ Adequacy: *sufficient to achieve a goal*

❑ Equity: *differences based on pupil-need and cost*

❑ Transparency: *easy to understand & engages stakeholder input*

❑ Accountability: *identifying who is responsible for results*

States as the *center of gravity* for School Funding: *Part II – Create Process for Assessing Costs*

❑ Organize stakeholders to specify the outcome goals for students

❑ Select Panels of highly qualified educators for cost modeling exercise to:

- Design programs
  - that meet the needs of students
  - that account for differences in needs across various communities
- Specify quantities and qualities of staff and materials necessary to deliver the program
- Apply average compensation levels to cost out the PJP specifications
- Vary the program specifications for intensity of needs or other factors that impact costs

❑ Use labor market analysis to address geographic costs differences

❑ Bring together the GCEI with the cost modeling exercises to develop a formula

- Ensures adequate resources
- Distributes them equitably to local communities
- Increases transparency
- Avoids perverse incentives

Goals

Establish goals with a broad panel of stakeholders representing policy makers, parents, students, members of the business community and the community at large, political representatives.

❑ Academic achievement
- ▪ Targets
- ▪ Growth

❑ Specific job & family skills
- ▪ Career
- ▪ Personal finance

❑ Social and emotional skills as reflected in student behaviors and attitudes –
- ▪ Attendance,
- ▪ Participation in student life
- ▪ Citizenship
- ▪ Respect for others

The Professional Judgment Panels (PJPs):

Engaging professional educators in cost modeling:
includes superintendents, business officials, principals, teachers, program specialists.

COSTING OUT

❑ Program Design:

- a narrative description that answers a series of questions around the general character and educational practices that educators believe should be a part of an instructional program.

- Not a one-sized fits all – we have used multiple committees within and across various type of communities – urban, suburban, rural.

❑ Cost modeling:

- provides a structure/ a model for organizing information to design instructional programs and specify the resources necessary to deliver those programs.

PJP Guiding Questions for Cost Modeling:

THINK G.E.E.R.

- **G**oals:
  - How will your program design help you achieve your goals?

- **E**fficiency:
  - How does your design minimize cost?

- **E**vidence:
  - In what ways is your design supported by research evidence or your own experience?

- **R**ealities:
  - How does your program design fit the realities in your state, and does it have a reasonable chance for implementation?

FORMULA BASED ON COST FACTORS

Determine what are the factors that affect costs – start with understanding the factors that affect variations in all spending across districts.

❑ Variations in spending are based on:

- Cost -- minimum expenditure to achieve the goal

- Choice -- how much to spend and on what

❑ Cost factors include:

- Price – unit price of an input

- Need – additional inputs necessary to achieve a goal

- Scale – size/density of the operation

Desirable Properties of Funding Mechanisms I

- **Adequate and Equitable**
  - *Adequate.* Funding is sufficient for all districts to provide appropriate programs for the unique population of students served.
  - *Student equity.* Funding is distributed to ensure comparable program quality regardless of where the student attends school.
  - *Wealth equity.* The availability of overall funding is not correlated with local wealth.
  - *District-to-district fairness.* All districts receive comparable resources for students who are comparable with respect to their needs.

- **Transparent, Understandable and Accessible**
  - The funding system and its underlying policy objectives should be transparent and understandable by all concerned parties.
  - The concepts underlying the formula and the procedures to implement it are straightforward and "avoid unnecessary complexity."
  - Allocations stemming from the formula should be replicable using publicly available data, calculation tools, and associated documentation.

- **Cost-Based** – Funding received by districts for the provision of specific programs tailored to their unique population needs should be linked to the costs they face in providing these programs.

- **Minimizes Incentives** – The funding formula should minimize incentives to increase funding through over-identification or misclassification of students with respect to special needs, manipulation of enrollment size, or both.

Desirable Properties of Funding Mechanisms II

- **Reasonable Administration Costs**
  - Costs to maintain and update the funding system are minimized at both the local and state levels.
  - The data requirements, recordkeeping, and reporting are all kept at reasonable levels.

- **Predictable, Stable and Timely**
  - The funding system allows policymakers to predict future demands for funding accurately.
  - State and local education agencies can count on stable funding across years.
  - Local education agencies (LEAs) are provided expected funding sufficiently in advance to allow them to develop a plan to allocate resources properly.

- **Flexible** – To address their specific circumstances and unique local conditions, LEAs are given maximum latitude in how resources are used, in conjunction with a strong outcome accountability system that includes review of resource allocation planning.

- **Outcome and Spending Accountability**
  - State monitoring of local agencies is based on various measures of student outcomes.
  - A statewide system for demonstrating satisfactory progress for all students in all schools is developed.
  - Schools showing positive results for students are given maximum program and fiscal latitude to continue producing favorable results.

- **Political Acceptability** – Implementation avoids any major short-term loss of funding and no major disruption of existing services.

Focus of Our State Model

❑ *Adequacy of the dollars?*

- The amount of dollars required at the state level that will be required to ensure all students have access to an adequate educational program, given the expected flow of federal dollars and the differential access of LEAs to local dollars.

❑ *Federal, state, and local share of support?*

- The share of dollars coming from these three sources to ensure equity in the provision of services and an equitable tax system (an area we will not address much in this presentation).

LINKING THE STATE TO THE LOCAL MODEL:
STRATEGIC SCHOOL FUNDING FOR RESULTS (SSFR)

MISSION STATEMENT:

The purpose of the SSFR project is to implement and evaluate the impact of a comprehensive approach to local school finance and governance reform with the goal of creating the conditions for improved human resource management and a more equitable distribution of both resources and student learning opportunities.

SSFR is funded by the Institute of Education Sciences (IES), Hewlett Foundation, and Ford Foundation.

Five elements of SSFR as a core reform strategy:

- *Equity*
- *Autonomy*
- *Accountability*
- *Transparency*
- *Choice.*

Theory of Action behind SSFR

❑ ***SSFR achieves equity by implementing student need-based funding model.***
  ▪ *The Targeted Revenue Model or TRM supports allocating dollars, rather than staff, to schools based on student need.*

❑ ***SSFR links school autonomy to accountability.*** *This component builds on the need-based funding model by*
  ▪ *providing increased autonomy for schools over how dollars are used and*
  ▪ *holding them accountable for the results (i.e., student outcomes).*
  ▪ *Autonomy is granted based on performance evaluation and demonstration of success (hence the term "strategic")*
    ○ *SSFR creates demand from school leaders for more discretion over the means to success.*
    ○ *To support school autonomy, SSFR includes a site budgeting tool: needs assessment, goal setting, program design, and allocation of dollars to inputs using various revenue sources*

❑ ***SSFR promotes increased transparency*** *by*
  ▪ *simplifying and clarifying the processes by which resources are allocated to schools,*
  ▪ *increasing the participation of a wide range of stakeholders in the design of these processes,*
  ▪ *improving the access by stakeholders to information on resource allocation, and*
  ▪ *simplifying the structures that support resource allocation decisions.*

❑ ***SSFR encourages expanded educational choices*** *offered to families and children*
  ▪ *to create an element of competition among schools for clientele– provides them a way to express preferences*
  ▪ *By linking school autonomy, accountability, transparency, and choice, SSFR encourages a culture of school innovation to attract students and families, and*
  ▪ *By providing structured site-based budgeting tools in the context of a fixed revenue constraint, SSFR fosters school leaders to operate efficiently to produce the best possible results.*

What differentiates the SSFR from the State level model?

- *It works within the limits of the available revenue from federal, state and local sources*

- *It focuses on the development of tools that support resource allocation and improved decision making at the central office and school site.*
  - *The TRM – for allocating central office resources to schools and provides them with discretion over how the sites use their dollars*
  - *The SITE Based budgeting tool creates a structure that permits each school site to do something like what the State level PJPs do with the exception that they are operating with a limited budget.*
    - *It asks the central office to specify the parameters of the goals for the sites.*
    - *It asks the sites to add goals relevant to the community they serve.*
    - *It asks them to develop a program designs*
    - *And finally it asks them to specify the resources to deliver on that design, and to figure out how to staff it.*

Part II - Selected Examples from State and District Studies

Examples from State-Level Studies

- State Funding Formula Developed for New Mexico

- Geographic Cost of Education Index (GCEI) Developed for New York State

- Relationship between Funding Need and Student Achievement from New York Study

New Mexico State Funding Formula

Overview of New Mexico Formula

- Formula calculation based on results of Professional Judgment Panel deliberations and simple statistical analysis.

- Determined the impact of district-level student need and scale factors on cost of delivering a sufficient educational program.

- Formula for distributing state funds to local districts and charter schools based on the following cost factors
  - Percent poverty
  - Percent English learners
  - Percent special education students
  - Percent student mobility
  - District/charter school size
  - Enrollment composition by grade level (K-5, 6-8, 9-12)

Merits of New Mexico Formula

- **Simple** – Avoids unnecessary complexity focusing on pupil need and scale of operation.

- **Fair** – Promotes horizontal and vertical equity.

- **Minimizes Incentives** – Adjustment factors are largely beyond a district's control.

- **Comprehensive** – Accounts for all critical factors in their current funding formula.

Application of New Mexico Formula

- **Formula**
  Per-Pupil Cost = Base Per-Pupil Cost x
  Poverty Adjustment x English Learner Adjustment x
  Special Education Adjustment x Mobility Adjustment x
  Grade 6-8 Enrollment Share Adjustment x
  Grade 9-12 Enrollment Share Adjustment x
  Total Enrollment Adjustment

- **Hypothetical district with the following characteristics**:

 | | | | | |
  |---|---|---|---|---|
  | Poverty | = 40.3% | → | Poverty Adjustment | = 1.135 |
  | English learners (EL) | = 20.1% | → | EL Adjustment | = 1.017 |
  | Special education (SE) | = 16.0% | → | SE Adjustment | = 1.291 |
  | Mobility | = 17.9% | → | Mobility Adjustment | = 1.032 |
  | Enrollment share in grades 6-8 | = 21.3% | → | ENR 6-8 Adjustment | = 0.995 |
  | Enrollment share in grades 9-12 | = 37.0% | → | ENR 9-12 Adjustment | = 1.020 |
  | Total enrollment | = 13,423 | → | Enrollment Adjustment | = 0.913 |

  Per-Pupil Cost = Base x POV x EL x SE x MOB x EN68 x EN912 x ENR
  $5,106 x 1.135 x 1.017 x 1.291 x 1.032 x 0.995 x 1.020 x 0.913 = *$7,286*

- **Hypothetical district after doubling poverty and English learner rates:**

Poverty	= 80.6%	→	Poverty Adjustment	= 1.248
English learners (EL)	= 40.3%	→	EL Adjustment	= 1.032

  Per-Pupil Cost = Base x POV x EL x SE x MOB x EN68 x EN912 x ENR
  $5,106 x *1.248* x *1.032* x 1.291 x 1.032 x 0.995 x 1.020 x 0.913 = *$8,128*

Relationship between District/Charter School Poverty and New Mexico Poverty Formula Adjustment Factor


Percentage of poverty

■ Districts   △ Charter schools
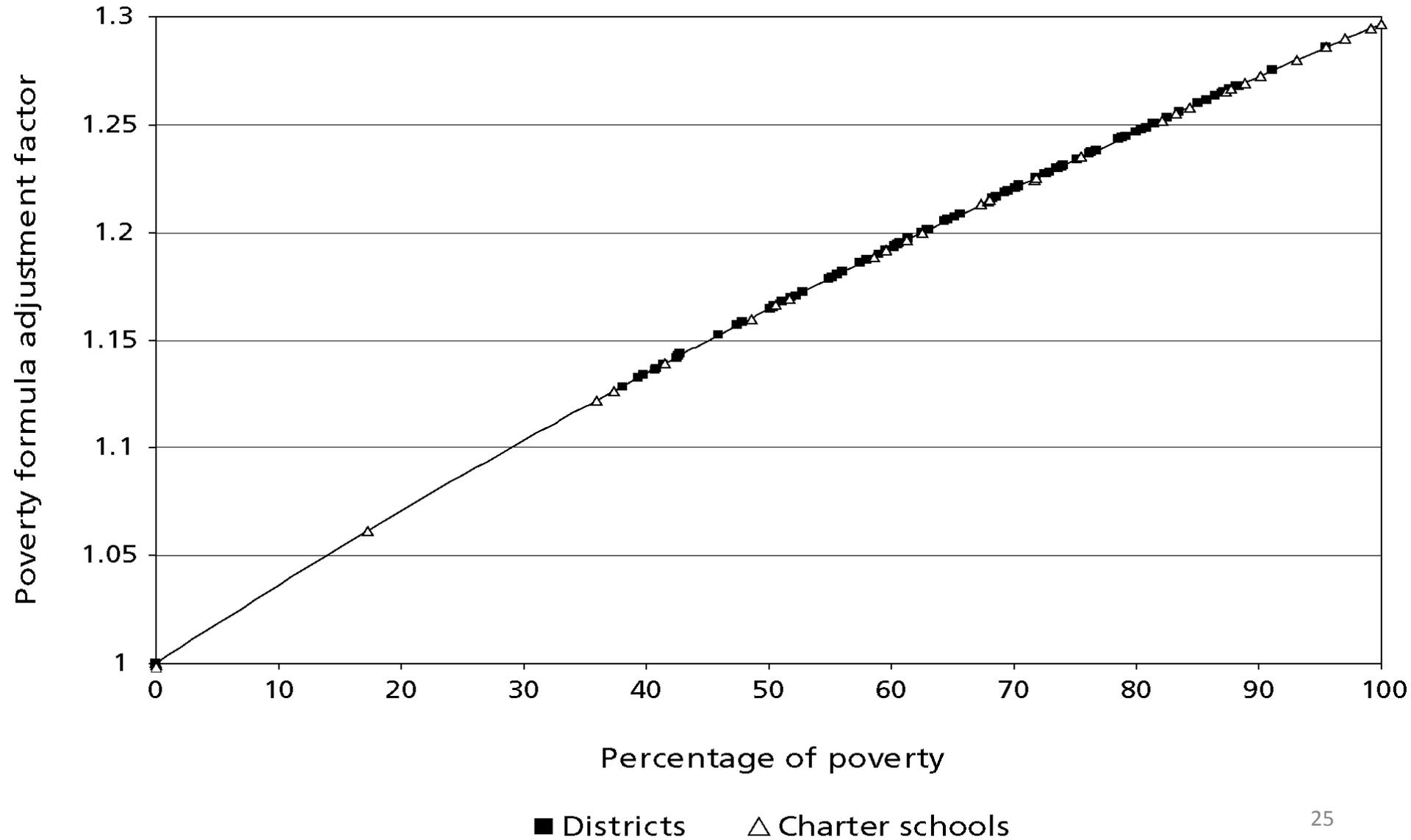
Funding Formula Cost Calculator

NEW MEXICO FUNDING FORMULA DISTRICT CALCULATOR								
1 – User-Input Projection Year (Use Pull-Down Menu)	2007-08							
	User Input Cost Factors							
	Percent Free/Reduced Lunch	Percent English Learners	Percent Special Education	Percent Mobility	Enrollment Share in Grades 6-8	Enrollment Share in Grades 9-12	Total District Enrollment	
2 – User-Input Cost Factor Values	73.9%	31.1%	16.0%	16.0%	22.4%	31.0%	1,434	

	Cost Factors							
	Student Needs				**Grade Composition**		**Scale**	
3 – Projected Per-Pupil Cost	Percent Free/Reduced Lunch	Percent English Learners	Percent Special Education	Percent Mobility	Enrollment Share in Grades 6-8	Enrollment Share in Grades 9-12	Enrollment -Linear	Enrollment -Quadratic
Individual Formula Adjustment Factors	1.231	1.026	1.291	1.029	0.998	0.993	1.127	
Student Needs Adjustment	1.677							
Grade Composition Adjustment					0.990			
Scale Adjustment							1.127	
Overall Adjusment (Student Need/Scale)	1.871							
Base Per-Pupil Cost	$5,106							
Projected Sufficient Per-Pupil Cost	$9,554							

New York State Geographic Cost of Education Index (GCEI)

Geographic Cost of Education Index (GCEI) for New York State

- Index derived from analysis of wage variations across labor markets throughout nation.

- Values interpreted as how much more or less it costs to recruit and hire comparable educational staff in different labor markets.

- Results
  - GCEI values are highest around New York City and tend to decline as one moves further away.
  - Relatively high values also along the southern shore of Lake Ontario around Syracuse, Rochester, and Buffalo.

Map of GCEI in New York Districts
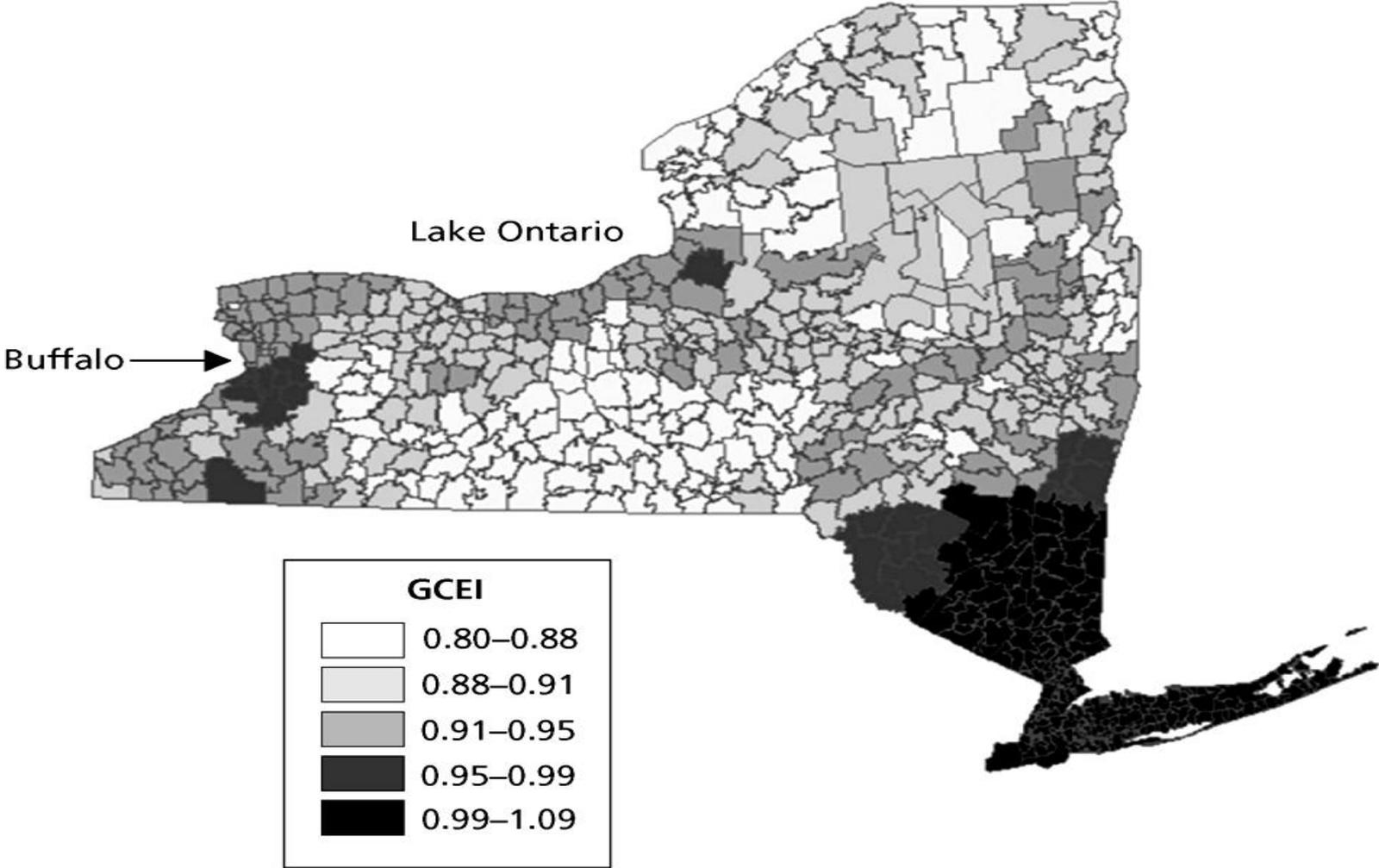
Relationship between Funding Need and Achievement in New York

Relating Gaps in Adequate Funding to Student Achievement

- **Adequacy Gap** – Defined as ratio of projected expenditure necessary to provide an adequate education to actual expenditure. Provides measure of relative need across districts.

- **Achievement Measures** – 4th, 8th and 12th grade pass rates on New York standardized (CTB) ELA and math tests used for accountability.

- **Analysis** – Look for patterns in average district achievement across levels of district need.

- **Results** – There is a clear pattern of declining student achievement as district need increases.

Average 4th Grade Attendance/Pass Rates by Adequacy Gap Quantile in New York Districts
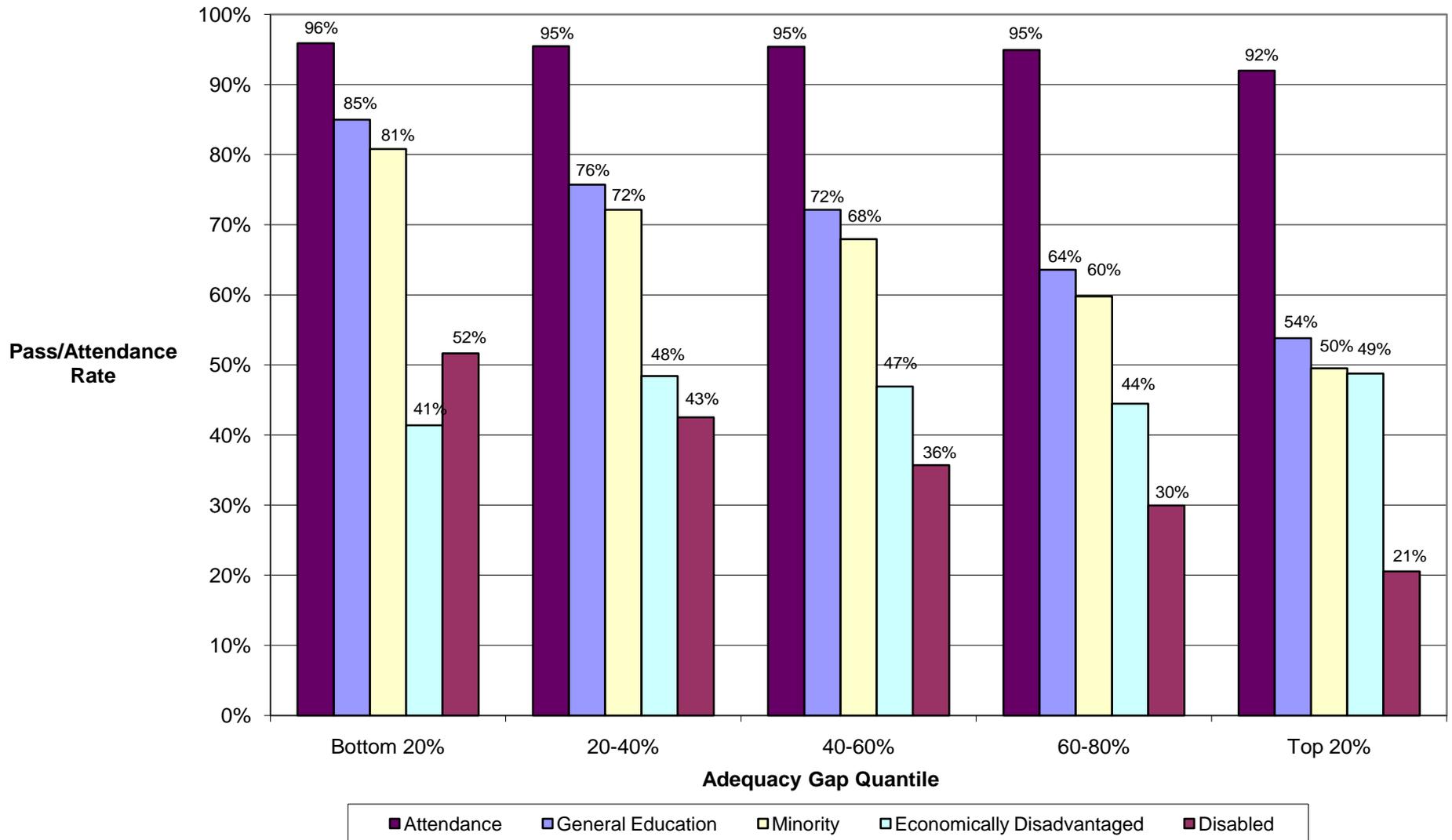
* Pass rate is defined as the lower of the percentages of test takers scoring at level 3 or above on the English and mathematics CTB tests.

Examples from District-Level Studies

- Implicit Weight Analysis in San Francisco Unified School District

- District Versus School Spending Discretion in Oakland Unified School District

- Strategic School Funding for Results (SSFR) Tool Suite

Implicit Weight Analysis

# Changes in the Relationship Between Spending and Student Poverty

- **Question:** Did relationship between per-pupil spending and student poverty become stronger after implementation of Weighted Student Funding?

- **Methodology:** Estimated spending/poverty relationship for pre- and post-implementation years:

 *Per-Pupil Spending = f(Student Poverty, School Size)*

  Analysis performed separately for:
  – Elementary versus middle/high schools
  – Spending made with unrestricted (general purpose) versus restricted (categorical) dollars

- **Interpretation:** Implicit poverty weight profiles show how much more was spent per-pupil across school poverty levels relative to similarly sized school with no students in poverty.

Graphic Example of Relationship Between Spending and Poverty

Index of Relative Per-Pupil Spending (PPS)

Stronger Relationship

Weaker Relationship

$PPS_{Stronger}$

PPS_{Weaker}

POV_1

Poverty (POV)
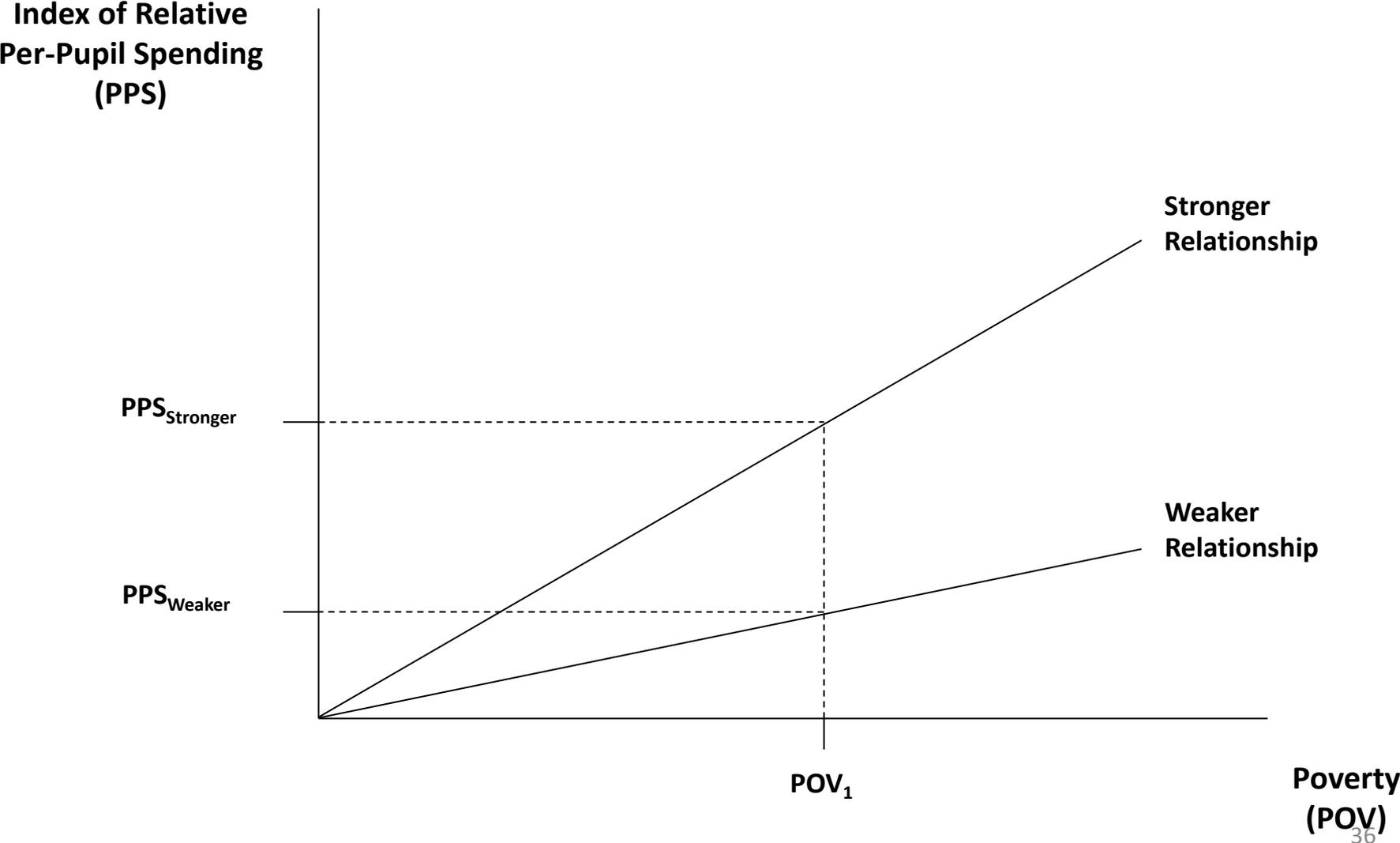
Stronger Relationship Between Middle/High Per-Pupil Spending and Poverty After Implementing WSF in SFUSD
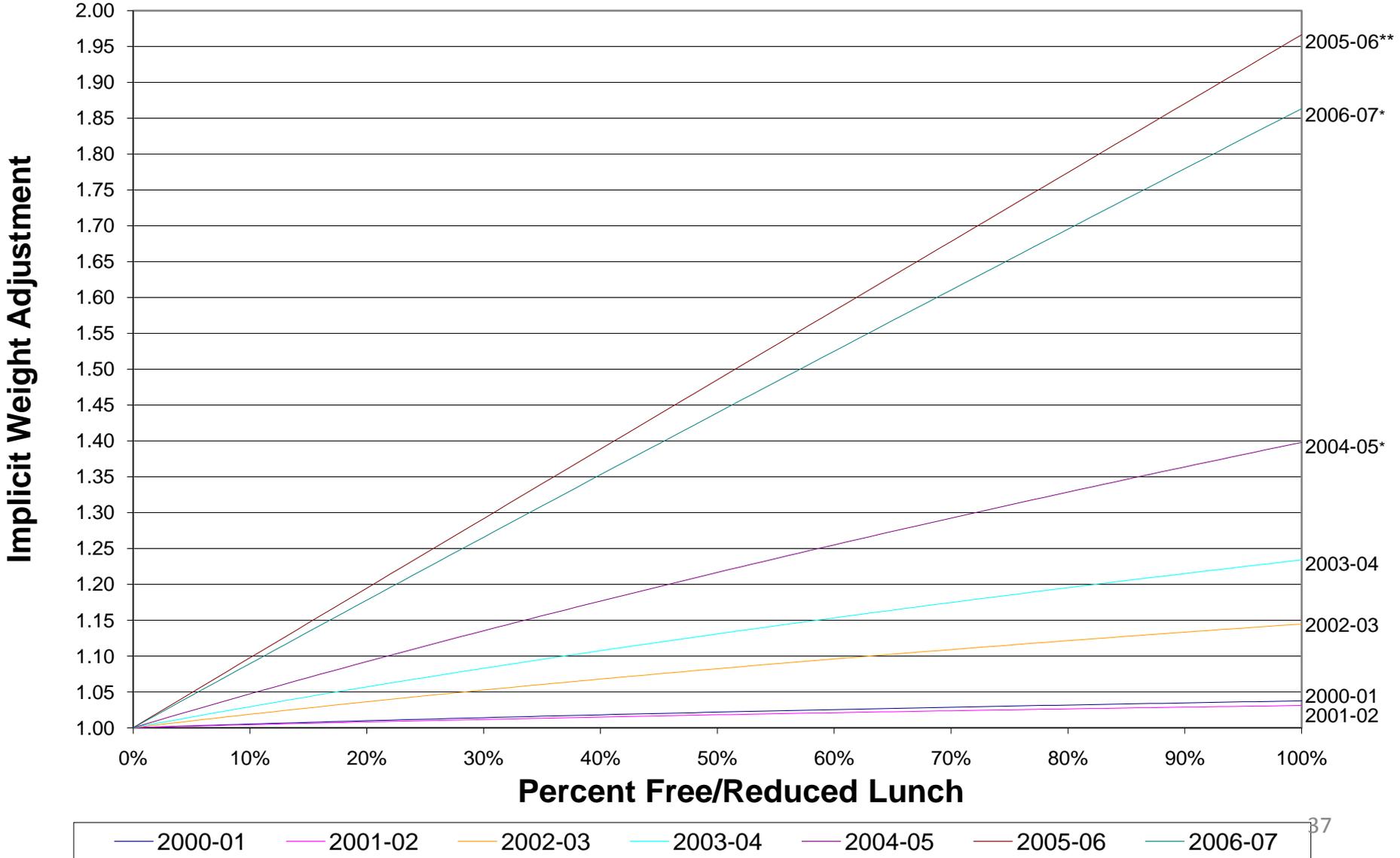
Stronger Spending/Poverty Relationship After Implementing WSF in SFUSD Driven by Unrestricted Dollars
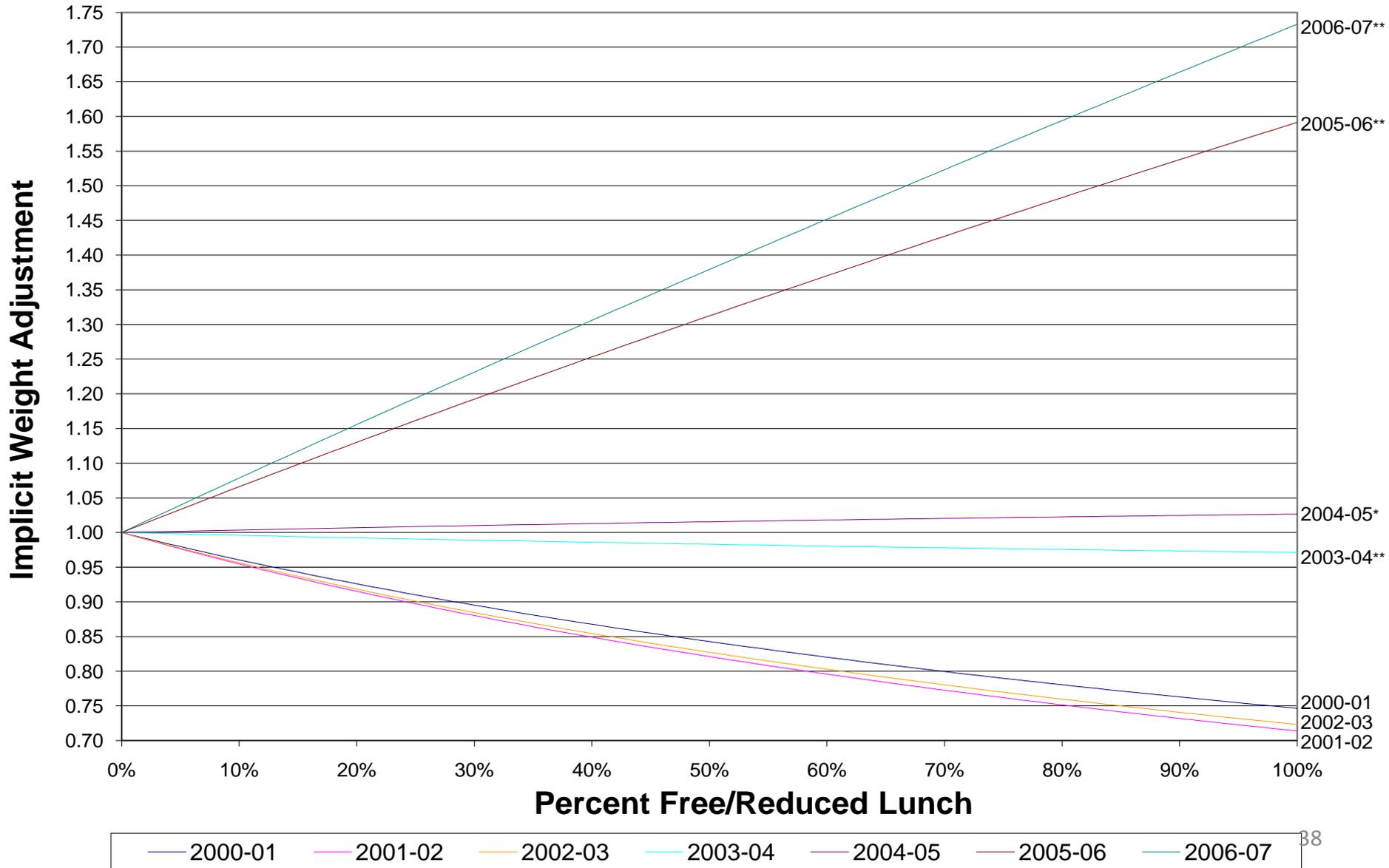
Analysis of Spending Discretion at the Central District Office Versus Schools

Share of Per-Pupil Expenditure* at Central District Office and Schools in Oakland (2002-03 and 2004-05 to 2006-07)

Pre-WSF

Post-WSF

	2002-03	2004-05	2005-06	2006-07
District-Level	17%	15%	13%	13%
School-Level	83%	85%	87%	87%

Percent of Expenditure

Year

☐ School-Level   ■ District-Level
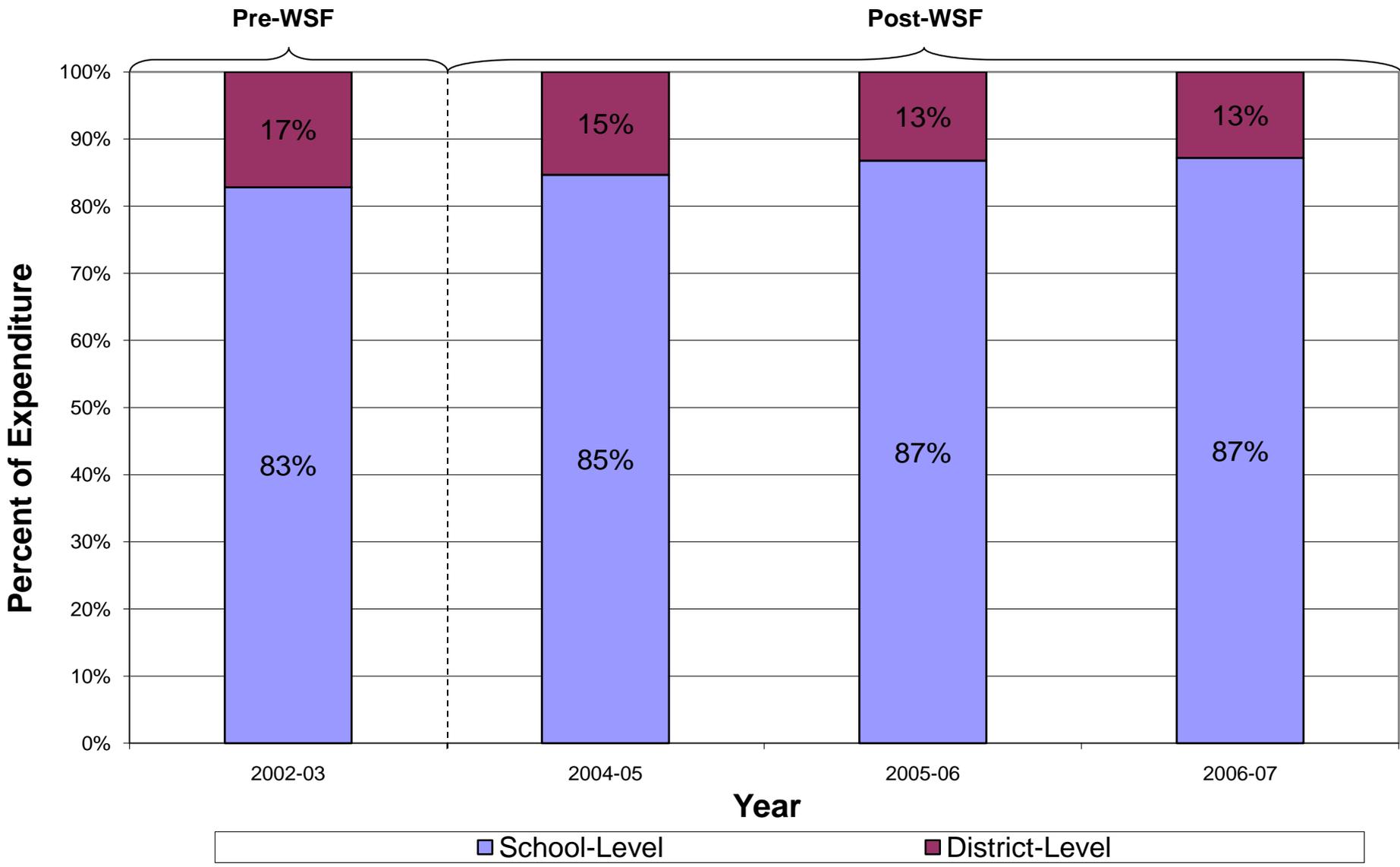
* Note: Expenditure does not include the following object categories: Capital Outlay, Other Financing Uses or Other Outgoing Expenditures.

Share of (Un)restricted Per-Pupil Expenditure* at Central District Office and Schools in Oakland (2002-03 and 2004-05 to 2006-07)

Pre-WSF

Post-WSF

Year	2002-03	2004-05	2005-06	2006-07
District-Level Unrestricted	9%	8%	6%	6%
District-Level Restricted	8%	7%	7%	7%
District total	17%	15%	13%	13%
School-Level Unrestricted	52%	47%	51%	49%
School-Level Restricted	31%	37%	35%	38%
School total	83%	85%	87%	87%

Percent of Expenditure (y-axis)
Year (x-axis)

Legend:
- ■ School-Level Restricted
- ■ School-Level Unrestricted
- □ District-Level Restricted
- □ District-Level Unrestricted
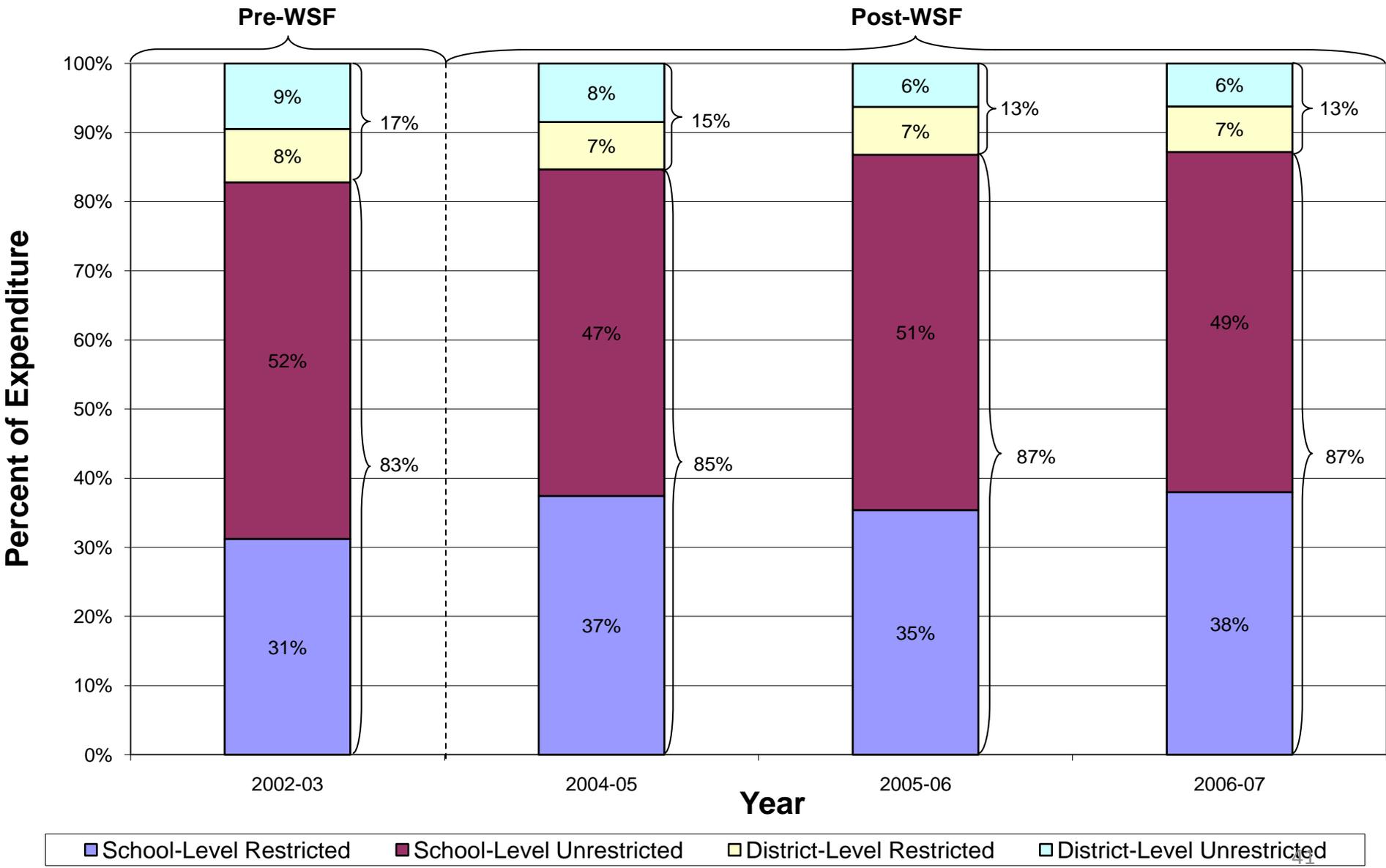
* Note: Expenditure does not include the following object categories: Capital Outlay, Other Financing Uses or Other Outgoing Expenditures.

Strategic School Funding for Success Tool Suite

Goals for Building a Suite of Resource Allocation Tools

- **Alignment of Goals**
  - State
  - District
  - School

- **Connect Goals, Strategies and Resources in Transparent System**
  - Link to Accountability
  - Increase District and School Capacity
  - Improve Efficiency
  - Promote Equity

- **Increase Engagement of Key Stakeholders by Providing More Control Over Means to Success**
  - Central Office Leaders
  - School Leaders
  - Community Leaders

Overview of SSFR Tool Suite

1- Targeted Revenue Model (TRM)

District determines services and dollars to place under school discretion and equitably distributes these resources to schools based on pupil needs.

District modifies TRM based on review of DBOM reports

Projected school-level budget caps forwarded to PBAR

District establishes districtwide goals and provides accountability oversight and capacity building to schools

3 - District Budget and Outcomes Management (DBOM)

Reporting and monitoring based on current school spending and goal /budget data coupled with information on school outcomes

2 - Planning, Budgeting and Resource Allocation (PBAR)

Schools set goals, develop strategies and specify staff/materials to achieve goals, and link budgeted dollars to revenue sources.

Finalized school-level goals, strategies and budgets forwarded to DBOM

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Targeted Revenue Model (TRM)

- **Purpose** – to facilitate increased **equity**, **efficiency** and **transparency** in the distribution of resources.

- **Description** – TRM is a mechanism for allocating dollars to schools that promotes the following:
  - *Equity* by distributing *dollars* to schools based on student needs.
  - *Efficiency* by giving schools more direct control over the means to success (dollars).
  - *Transparency* through simple-to-use model to calculate dollars available to each school.

Planning, Budgeting and Resource Allocation Tool (PBAR)

- Engages and includes both school leaders and community stakeholders in decision-making process.

- Explicitly connects district/school goals, strategies and resources:
  - Fosters more thoughtful and innovative school planning.
  - Provides transparent information for district to monitor progress and provide planning/capacity building support if needed.
  - Feeds into a knowledge base of school plans/budgets and outcomes.

- Provides school leadership with greater control over the means to success.
  - Represents a shift from traditional staffing model by providing dollars instead of positions to schools.

District Budget Management and Outcomes (DBOM)

- **Purpose** – To provide centralized inputs into TRM and PBAR, and report output to facilitate central office monitoring of site planning and budgeting for student achievement to assess short-term and long-term goals.

- **Description** – Provides district input data for decision-making and tools:
  - Goals and Accountability
  - Student Demographics
  - Student Performance
  - Payroll
  - Fiscal

- **Value added for the district**
  - *Improves alignment of targeted resources*. Helps align student needs, program designs and strategies, and resource allocation to evaluate where resources need to be targeted.
  - *Provides a knowledge base.* Provides an accessible knowledge base in the form of a program design library that can be shared with other principals/school leadership teams.
  - *Provides comparative benchmarks.* Creates outcome benchmarks against which progress of individual schools can be compared.

Information on the Internet

- Determining the Cost of an Adequate Education (NEA Report):
  - http://keysonline.org/about/education_funding.attachment/cost_of_adequate_education/Cost_of_Adequate_Education.pdf
- New Mexico Study website:
  - http://www.nmschoolfunding.org
- Weighted Student Funding in Oakland and San Francisco:
  - http://publicportal.ousd.k12.ca.us/199410811181125850/lib/199410811181125850/A_Tale_of_Two_Districts_Final.pdf
- Strategic School Funding for Results website:
  - http://www.schoolfundingforresults.org

Contact Information

- Jay Chambers – jchambers@air.org
- Jesse Levin – jlevin@air.org

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