School Finance Adequacy: An Evidence-Based Approach to Doubling Student Performance

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Adequacy

What it costs to educate children to world class performance standards
Why ‘Adequacy’?

• Odd word for an ambitious goal
• We mean doubling performance in five years
• Without doubling costs
Evidence-Based Approach

• Not just a funding model
• Core academics
• Electives including art and music
• Teacher professional Development
It Covers All Aspects of School

- Staffing schools with high quality teachers and leaders
- Students’ personal and social skills
- Pressure from NCLB and state accountability systems
Three Bases of Knowledge

• How students learn complex materials: *How People Learn*
• Resource dimension of programs that work
• How schools that double student performance use resources
Strengths of the Evidence Based Model

• Provides detailed references to make our claims transparent
• Uses research from randomized trials, quasi-experimental designs, and meta-analyses
• Uses results from schools that have doubled performance
• Findings offer a solid place to start
What We Do

We link state policy with what works in schools.

We know what works from studying schools that have doubled performance, reviewing existing research on individual programs, assessing the most effective use of resources in schools, and turning that into a new school funding model.
Key Elements of School Improvement

• Recruiting and supporting high quality teachers
• High Quality Instruction
• Classroom resources
• Additional support for struggling students
Study of Districts that have Aligned Resources with School Effectiveness

• Arkansas
• Washington
• Wisconsin
• Wyoming
Ten Steps to Double Performance

1. Conduct needs assessment
2. Set higher goals
3. Adopt a new curriculum
4. Commit to data-based decision making
5. Invest in on-going professional development
Ten Steps to Double Performance

6. Focus class time more efficiently
7. Provide multiple interventions for struggling students
8. Create professional learning communities
9. Empower leaders to support instructional improvement
10. Take advantage of external expertise
The Challenge

Scale up these strategies in all districts by using resources provided by the state’s funding model effectively and efficiently
Our Process

• We look at all aspects of schools
• We work with the broad spectrum of education officials
• We develop state specific evidence-based models
• We help states design funding formulas that offer equity and adequacy
The Evidence Based Model:
A Research Driven Approach to Linking Resources to Student Performance

Core
K-3: 15 to 1
4-12: 25 to 1
The Evidence Based Model:
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The Evidence Based Model:
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Core
- K-3: 15 to 1
- 4-12: 25 to 1

Specialists
- Elem 20%
- Middle 20%
- High School 33%

Extended Support
- ELL 1 per 100
- Tutors and pupil support: 1 per 100 at risk

Summer School
- Extended Day
The Evidence Based Model:
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K-3: 15 to 1
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Specialized Education
Extended Support
Specialists
Core
Gifted
Summer School
Career & Technical Education
Extended Day
Special Education
The Evidence Based Model:
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- Elem: 20%
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The Evidence Based Model:
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- 4-12: 25 to 1
- ELL: 1 per 100
- High School: 33%
- Tutors and pupil support: 1 per 100 at risk

The Evidence Based Model:
A Research Driven Approach to Linking Resources to Student Performance

- Core
- Extended Support
- Specialized Education
- Professional Development

- Summer School
- Gifted
- Trainers
- Career & Technical Education
- Instructional Coaches
- Special Education
- Extended Day

The Evidence Based Model:
A Research Driven Approach to Linking Resources to Student Performance

- 10 Extra Days of PD
- Allan R. Odden

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The Evidence Based Model:
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- **Pupil Support:**
  - Parent/Community Outreach/Involvement

- **Teacher Compensation**

- **Instructional Materials**

- **Technology**

- **Specialized Education**

- **Extended Support**

- **Professional Development**

- **Summer School**

- **Gifted**

- **Trainers**

- **Career & Technical Education**

- **Instructional Coaches**

**Core**

- **K-3:** 15 to 1
- **4-12:** 25 to 1
- **High School:** 33%

**Specialists**

- **ELL:** 1 per 100
- **Core:**
  - **Elem:** 20%
  - **Middle:** 20%

**Tutors and pupil support:**
- 1 per 100 at risk

**Extended Days of PD:**
- 10 Extra Days of PD
The Evidence Based Model: A Research Driven Approach to Linking Resources to Student Performance

- Pupil Support: Parent/Community Outreach/Involvement
- Teacher Compensation
- District Admin
- Site-based Leadership
- Instructional Materials
- Technology
- Career & Technical Education
- Instructional Coaches
- Special Education
- Extended Day
- Extended Support
- Specialized Education
- Professional Development
- Core
- K-3: 15 to 1
- 4-12: 25 to 1
- High School 33%
- Tutors and pupil support: 1 per 100 at risk
- ELL 1 per 100
- Summer School
- Gifted 1 per 100
- Elementary 20%
- Middle 20%
- State and CESAs
What Does the Evidence-Based Model Cost?

- Compared to current expenditures
  - Model costs are 2-9 percent above national average
  - Full NCLB and IDEA would enable full model funding in the states
- Exceeds current costs in low spending states
- Less than current costs in high spending states
Considerations for building a state school finance model

- School based cost estimation
- Distribution based on districts (Arkansas) or schools (Wyoming)
- Relative distribution of block and categorical grants
Questions

• How proscriptive should a funding formula be?
  • Block v. categorical grants

• What will schools do with unrestricted funds?

• What can we learn from existing evidence?
Do Districts and Schools Spend New Dollars on These Key Resources?

- There is little existing evidence
- Inadequate fiscal reporting systems
- Use of new dollars
  - Higher teacher salaries
  - Smaller class size
  - Additional electives
  - Enhanced pupil support services (social workers, etc.)
  - Instructional aides
Initial Findings from Arkansas and Wyoming

- We studied 107 Arkansas Schools
- We studied 187 Wyoming schools
- We will study all remaining schools in Wyoming in the Fall
Few Schools Use Total Resources for Evidence-Based Reforms

- Less focus on core subjects – more electives than in the model
- Limited professional development, under use of school-based instructional coaches
- Few tutors or other strategies to help struggling students
- Numerous instructional aides
# Resource Use in the Average State School (sample)

<table>
<thead>
<tr>
<th>Staffing</th>
<th>Funding Model</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>0.90</td>
<td>0.97</td>
</tr>
<tr>
<td>Instr. Facilitator</td>
<td>2.25</td>
<td>0.45</td>
</tr>
<tr>
<td>Secretary</td>
<td>1.80</td>
<td>1.51</td>
</tr>
<tr>
<td>Core Teachers</td>
<td>18.66</td>
<td>18.55</td>
</tr>
<tr>
<td>Spec. Teachers</td>
<td>3.73</td>
<td>7.62</td>
</tr>
<tr>
<td>Tutors</td>
<td>2.69</td>
<td>0.31</td>
</tr>
<tr>
<td>Librarian</td>
<td>0.63</td>
<td>0.93</td>
</tr>
<tr>
<td>Pupil Support</td>
<td>2.25</td>
<td>3.51</td>
</tr>
</tbody>
</table>
### Average School-Level Resources in High Schools with More than 105 Students

<table>
<thead>
<tr>
<th>Staffing</th>
<th>Funding Model</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>0.90</td>
<td>0.96</td>
</tr>
<tr>
<td>Assistant Principals</td>
<td>0.77</td>
<td>1.04</td>
</tr>
<tr>
<td>Core Teachers</td>
<td>24.80</td>
<td>22.20</td>
</tr>
<tr>
<td>Specialist Teachers</td>
<td>7.44</td>
<td>13.02</td>
</tr>
<tr>
<td>Instructional Aides</td>
<td>0.00</td>
<td>2.10</td>
</tr>
<tr>
<td>Certified Tutors</td>
<td>1.02</td>
<td>0.42</td>
</tr>
<tr>
<td>Librarians</td>
<td>1.06</td>
<td>0.87</td>
</tr>
<tr>
<td>Pupil Support Staff</td>
<td>3.11</td>
<td>3.19</td>
</tr>
<tr>
<td>Secretaries</td>
<td>1.06</td>
<td>2.53</td>
</tr>
</tbody>
</table>
## School Resource Use: Tutors

<table>
<thead>
<tr>
<th>Poverty Concentration</th>
<th>State Funding Model</th>
<th>Actual in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 70%</td>
<td>1 Tutor for Every 100 Students = 177</td>
<td>17</td>
</tr>
<tr>
<td>70-89%</td>
<td>2 Tutors for Every 100 Students = 93</td>
<td>15</td>
</tr>
<tr>
<td>≥90%</td>
<td>3 Tutors for Every 100 Students = 18</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>288</td>
<td>34</td>
</tr>
</tbody>
</table>
## Number of Instructional Aides

<table>
<thead>
<tr>
<th>Type of Inst. Aide</th>
<th># of Elementary Inst. Aides</th>
<th># of Middle School Inst. Aides</th>
<th># of High School Inst. Aides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>65</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Title I</td>
<td>88</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Other Extra Help</td>
<td>62</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Special Education Inclusion &amp; Resource Room</td>
<td>262</td>
<td>93</td>
<td>49</td>
</tr>
<tr>
<td>Other Instructional</td>
<td>150</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>TOTAL</td>
<td>627</td>
<td>155</td>
<td>121</td>
</tr>
</tbody>
</table>

Model does not fund instructional aides
Bottom Line

• Know much about how to improve schools – double performance in 4-7 years
• Costs of funding those strategies are reasonable
• Most states and districts can do this now
Key Implementation Challenges

- Willingness to focus on “core” subjects not electives?
- Sufficient sense of urgency
- Educator knowledge and belief in approaches
- Leadership to launch, support and fund these efforts?
What is Needed

We need a funding model that:

• includes positions that research and best practice identify as linked to increased student learning
• provides incentives for schools to use such resources strategically
• allows school officials some flexibility in meeting local needs
Resources

• *How People Learn* (Bransford, Brown and Cocking)
• *How Students Learn*: (Donovan & Bransford)
  • *Mathematics in the Classroom*
  • *Science in the Classroom*
  • *History in the Classroom*
  • Reading
• *What Teachers Should Learn and Be Able to Do*
  • Darling-Hammond and Bransford
Allan R. Odden

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