Inequality/Inequity at the School Door
Addressing the Achievement Gap in a Different Way

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Discussion Points

• Inequality in school facilities
• Unsatisfactory school buildings affect learning
• Inequality of facilities and resources contribute to the achievement gap
• Equalize facilities and resources and equalize achievement
School Facility Conditions

• The average school building is over 40 years old (NCES, 2014)
  • Not always a problem
  • Maintenance
  • Retrofits
School Facility Conditions

• The American Society of Civil Engineers (ASCE) gave school facilities a “D” (ASCE, 2013).
  • “Below standard”
  • “Significantly deteriorated”
  • “Strong risk of failure”

• Only 60 percent of schools have a plan for improvements/repairs (NCES, 2014).
Deferred Maintenance (Council of Great City Schools, 2014)

• Estimated to be between $271 billion and $542 billion
• Depending on life cycle of 50 or 25 years.
School Facility Conditions

- National Center for Educational Statistics (NCES, 2014)
  - 53% of public schools need repairs, renovations, and modernizations to be in good condition
  - 29% need improvements to meet minimal safety standards
Facility Conditions Affect Achievement

• **Affects occupants’ attitudes, motivations, and performance** (Bowers & Urick, 2011; Cleveland & Fisher, 2014; Earthman & Lemasters, 2011; Mompremier, 2012; Uline, et al., 2010).

• **Directly affects achievement**

• Virginia - students scored 2.2 – 3.9 percent higher when in satisfactory buildings (Bullock, 2007).

• Texas - academic achievement was 4-9 percent higher in schools in the best conditions (Blincoe, 2008).
Elements that Affect Achievement

- Lighting
- Acoustics
- Climate Control
- Building Age
- Overcrowding & school size
- Indoor Air Quality
- Color/Aesthetics
Achievement gap

- Standardized testing
- Drop-out rates
- College readiness
- General academic achievement (Wright, 2012).

- Cycle – poor achievement = poor funding (Wright, 2012).
Achievement gap

- Lower socio-economic students
- English language learners
- Students with disabilities
- Minorities
- Homeless students
- Students in foster care (NEA, 2015)
Achievement gap *(NEA, 2015)*

Socio-Economic Factors

<table>
<thead>
<tr>
<th></th>
<th>Free Lunch</th>
<th>Reduced Lunch</th>
<th>Not Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013 NAEP % Proficient</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th Grade Math</td>
<td>16%</td>
<td>23%</td>
<td>35%</td>
</tr>
<tr>
<td>8th Grade Reading</td>
<td>18%</td>
<td>28%</td>
<td>42%</td>
</tr>
</tbody>
</table>
Achievement gap (NEA, 2015)

English Language Learners

• 2013
• ELL students averaged 23% to 30% below their counterparts in proficiency levels.
• Only 3 to 4% of ELL eighth graders were proficient in math and reading.
Equality Doesn’t Mean Equity

Equality

Equity
Effective Classroom Design

• Flexible/Adaptable
• Individual work areas
• Layout for whole class discussions/interactions
• Spaces for small group work
• Spaces for concurrent differentiated learning
• Integrated technology
Facility Conditions

- Facility Conditions
- Opportunity Gap
- Achievement Gap
California Facility Funding (Vincent & Jain, 2015)

• Most school districts underspend
• Wealthy districts spend more on facilities/capital improvements
• Poor districts spend more on maintenance and operations for facilities
District Spending in California (Vincent & Jain, 2015)

• Under half met maintenance and operations spending benchmark (3% CRV)
• Under half met capital renewal benchmark (2% CRV)
• 40% fall short on both benchmarks, leaving them with lower assessed value
• Higher valued districts spend more on facilities
• Facility needs are higher and more burdensome where more low income students attend
Figure 2: Average Annual School District Expenditures on M&O and Capital Outlay by Family Income Quintiles, 2008-2012 (2014$)

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Average Annual Maintenance &amp; Operations per Student</th>
<th>Average Annual Local Capital Outlay per Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Poverty (0-31% FRPM)</td>
<td>$1,082</td>
<td>$1,251</td>
</tr>
<tr>
<td>Second Lowest (31-51% FRPM)</td>
<td>$959</td>
<td>$1,153</td>
</tr>
<tr>
<td>In the Middle (51-66% FRPM)</td>
<td>$1,078</td>
<td>$980</td>
</tr>
<tr>
<td>Second Highest (66-81% FRPM)</td>
<td>$1,161</td>
<td>$761</td>
</tr>
<tr>
<td>Highest Poverty (81-100% FRPM)</td>
<td>$1,246</td>
<td>$848</td>
</tr>
</tbody>
</table>
Recommendations (Vincent & Jain, 2015)

- Establish set funds for facilities
- Distribute funds equitably
- Improve planning and budgeting standards
- Establish statewide facility database as a guide
What can be done?

• Policy changes
• Disseminate information about learning environment impacts
• Construction of new schools
• Renovations of older buildings
• Engagement of the community
• Professional development on classroom design and layout
Future research

• Replicate studies, qualitative, quantitative and mixed methods
• Establish programs to create the best physical environments and study the effects.
• Study effects of school conditions on teacher retention.
• Data Mining
• Combining/Linking NCES datasets
References

References


• Council of Great City Schools. (2014). Reversing the cycle of deterioration in the nations public school buildings.


References


QUESTIONS?