Introductions and Acknowledgements

• About the presenters:
  • Angela K. Henneberger, Ph.D., is director of the Research Branch at the MLDS Center and Research Assistant Professor at the University of Maryland School of Social Work (SSW).
  • Bess A. Rose, Ed.D., is a member of the Research Branch at the MLDS Center and statistician at the SSW.

• Acknowledgements:
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Overview

• Recap of July 13 presentation and questions/requests
• New findings
  1. Threshold analyses
  2. Variation in role of school poverty across local school systems
• Q & A
Recap of July 13 presentation
How does the MLDS Center measure poverty?

- **School poverty**
- **Student poverty**

**Timing**
(6th – 12th grade)

**Concentration**
(school average duration)

**Duration**
(proportion of time)

Source: Chaudry & Wimer, 2016.
Summary of previous findings

- Students who experienced poverty for longer periods of time have worse educational outcomes
- School concentration of poverty, regardless of individual experience, usually predicts worse educational outcomes
- Racial and ethnic gaps in standardized test scores persist regardless of poverty
- Racial and ethnic gaps in dropout, graduation, and postsecondary enrollment disappear or are reversed when controlling for poverty and school composition
Questions and requests

• Thresholds for school poverty
  • At what level of school poverty does school poverty begin to make a difference for student outcomes?

• Variation by local school system
  • How do student and school poverty vary across local school systems?
  • How do the roles of student and school poverty in long-term educational outcomes vary across local school systems?
1. Threshold analyses

At what level of school poverty does school poverty begin to make a difference for student outcomes?
How do results differ from the results we previously presented?

- Previous results showed a linear relationship between school poverty and outcomes
- New results show a more nuanced relationship between school poverty and outcomes that allow us to analyze where the outcomes get better or worse at each level of school poverty
The overall dropout rate in the lowest poverty schools is low (2%). These are mostly students who have never been in poverty.

The overall dropout rate in the highest poverty schools is high (29%). These are mostly students who have experienced poverty.

Based on the 2007-08 6th grade cohort (N = 54,465).
Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 54,465).

- Statistically significant decrease from the preceding decile.
- Statistically significant increase from the preceding decile.

What outcomes would look like if students were equitably distributed among schools.
Actual mean HSA Algebra scores, by school and student poverty

Based on the 2007-08 6th grade cohort (N = 52,261 of 54,465). Highest score.
Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 52,261 of 54,465). Highest score.

**Statistically significant decrease from the preceding decile.**
Actual rates of enrolling in postsecondary within 1 year of on-time HS graduation, by school and student poverty

Based on the 2007-08 6th grade cohort (N = 46,581 of 54,465).
Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N=46,581 of 54,465).

* Statistically significant decrease from the preceding decile.
Summary of findings from threshold analyses

- Actual outcomes worsen at higher levels of school poverty.
  - Actual outcomes reflect combined effects of school membership, student poverty, school average poverty, student race/ethnicity, and school racial/ethnic composition.
- Model-based predictions disentangle the role of school poverty from these other factors.
  - Predictions show steepest declines at Deciles 2-3 for dropout and Deciles 2-4 for postsecondary enrollment.
  - For HSA, significant thresholds across the spectrum of school poverty (Deciles 2, 4, 6, 9-10).
- Students who are usually, but not always, in poverty often experience worst outcomes.
2. Role of school poverty varies across local school systems

How do student and school poverty vary across local school systems?
How do the roles of student and school poverty in long-term educational outcomes vary across local school systems?
How does school poverty vary across local school systems?

- **Average** school poverty varies
  - Carroll County has lowest average (0.15)
  - Baltimore City has highest average (0.74)

- **The range** of school poverty varies
  - Montgomery County has largest range (from 0.02 to 0.85)
  - Somerset County has smallest range (from 0.33 to 0.66)
Based on the 2007-08 6th grade cohort (N = 54,465).
Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 54,465).

Role of school poverty in likelihood of dropping out of school, by LEA

- School poverty is statistically significant (p < .05)
- School poverty is not statistically significant (p > .05)

Better outcome

Unstandardized coefficient

Worse outcome

-1.50  -1.00  -0.50  0.00  0.50  1.00  1.50
Role of school poverty in predicted HSA Algebra score, by LEA

Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 52,261 of 54,465). Highest score.
Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N=46,581 of 54,465).
Summary of local school system results

- There is extensive variation across local school systems in the roles of student and school poverty
- For HSA Algebra and postsecondary enrollment, school poverty is associated with worse outcomes in most, but not all, local school systems
- In some local school systems, school poverty is associated with some improved outcomes
Summary
Summary

• All concentrations of poverty above the lowest decile have statistically significant negative relationships with student outcomes (dropout, graduation, HSA scores, postsecondary enrollment) compared to the lowest-poverty schools.

• The steepest declines occur most consistently at Deciles 2-4 of school poverty.

• Students who are usually, but not always, in poverty often experience worst outcomes.

• The role of school poverty varies extensively across local school systems.
Questions?

- Contact us: MLDS.Center@Maryland.gov
Appendix
20% of students who were never in poverty attended schools in the lowest poverty decile.

1% of students who were always in poverty attended schools in the lowest poverty decile.

Based on the 2007-08 6th grade cohort (N = 54,465).
Based on the 2007-08 6th grade cohort (N = 54,465).

The lowest-poverty schools are mostly, but not entirely, comprised of students who were never in poverty.

In the highest-poverty schools, about half of the students have always been in poverty.

Students experiencing occasional poverty attend schools at all levels of poverty.
Actual rates of graduating from high school on time, by school and student poverty

Never 98%
Always 85%
Usually 78%

School poverty level

Based on the 2007-08 6th grade cohort (N = 54,465).
Statistically significant decrease from the preceding decile.

Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 54,465).
Actual rates of ever graduating from high school, by school and student poverty

<table>
<thead>
<tr>
<th>School poverty level</th>
<th>Never</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
<th>Overall</th>
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<tbody>
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<td>Decile 1</td>
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<td>Decile 9-10</td>
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</table>

Based on the 2007-08 6th grade cohort (N = 54,465).
Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 54,465).

* Statistically significant increase from the preceding decile.
* Statistically significant decrease from the preceding decile.
Based on the 2007-08 6th grade cohort (N = 50,681 of 54,465). Highest score.
Predicted HSA English score, by school poverty level and student poverty history

Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 50,681 of 54,465). Highest score.

* Statistically significant decrease from the preceding decile.
Role of school poverty in likelihood of graduating from high school on time, by LEA

Controlling for school membership, student poverty, student race/ethnicity, and school racial/ethnic composition, for the 2007-08 6th grade cohort (N = 54,465).
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