RESEARCH BRIEF

Who is Homeless in School? Evaluating Overlap and Outcomes of Student Homelessness

PURPOSE OF THE STUDY

Federal housing and education agencies use incompatible methodologies and definitions to count student homelessness. Differences in these counts present fundamental issues for how the public evaluates the scope, trends, and impacts of student homelessness. This brief examines differences in the student homelessness counts and describes the demographics and academic outcomes of students who are identified in these counts.

BACKGROUND & PURPOSE

The federal departments of Housing and Urban Development (HUD) and Education (ED) report incompatible counts of homelessness each year. While HUD's point-in-time (PIT) count is a record of the number of individuals using temporary shelter or living in a place not meant for human habitation on a single night in January, ED's count reflects the number of students who lack a "fixed, regular and adequate nighttime residence" (U.S. Interagency Council on Homelessness, 2018), which includes individuals living in doubled-up or highly mobile housing arrangements. Researchers and advocates alike have concluded that inconsistencies between HUD and ED counts of homelessness represent a "data dilemma" which may contribute to public misunderstanding and underfunding of essential services (Boone, 2019; Brush et al., 2017; National Center on Homelessness and Poverty, 2017).

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Further, a growing body of research demonstrates negative associations between homelessness and school outcomes (Deck, 2017; Fantuzzo et al., 2012; Herbers et al., 2012; Lowe et al., 2017; Obradović et al., 2009). These studies have documented that students face a "continuum of risk" (Masten et al., 2014) for school outcomes, based on accumulated disadvantage throughout childhood. The current study builds on these findings by examining variation in the experiences of homelessness across the HUD and ED counts. Using linked administrative data on a large representative sample of Minnesotan children, the current study attempts to answer the following questions:

1. How do the counts of student homelessness used by HUD and ED compare, and what is the overlap?

2. How do the demographic characteristics of students in each group compare, and what types of characteristics are associated with inclusion in the overlap?

3. How do school outcomes like achievement and attendance compare between the two groups, and where do these students fall on the "continuum of risk" in reference to other economically disadvantaged students?

METHODS

We used administrative data from the Homelessness Management Information System (HMIS) and Minnesota Department of Education (MDE)—linked via Minn-LInK—to identify students aged 5-16 who were homeless at least once during either the 2015 or 2016 school years in Hennepin County, Ramsey County, or west central Minnesota. We tested overlap in HUD and ED homelessness counts, demographic differences, and student outcomes.

FINDINGS

We found that the group of ED-homeless students comprised a larger proportion of all students experiencing homelessness. Geographic location, type of service used, and length of stay in HUD services had large impacts on whether or not HUD-homeless students were included in ED-homeless counts. Students experiencing homelessness faced greater risk of negative academic outcomes than their peers who received free lunch.

We used academic records from the Department of Education's Minnesota Automated Reporting Student System (MARSS) linked with Homelessness Management Information System (HMIS) records to identify an analytic sample. Students in this study included children aged 5-16 who attended school in Ramsey County, Hennepin County, or west central Minnesota during the 2015 or 2016 school years.

The sample was composed of three subgroups. The "HUD-Homeless" subgroup included students who met HUD's annual point-in-time (PIT) count criteria. Students in this group received emergency shelter, transitional housing, or street outreach services in either the 2015 or 2016 school year (N = 3,712). The "ED-homeless" subgroup included students who were ever identified as homeless by their school-district according to the McKinney-Vento Homeless Assistance Act (N = 16,356). By leveraging the data linkage, we also identified a third subgroup of students who were both HUD and ED-homeless in a given year. Finally, we created a comparison group consisting of students who received free lunch within the same geographic areas and school years (N = 194,394).

We drew demographic information about students from MARSS data, and key outcome measures from MARSS and Minnesota Comprehensive Assessment II (MCA II) data. We also accounted for shelters missing from the HMIS database by creating a weighting scheme using HUD's Housing Inventory Count (HIC).

THE VENN DIAGRAM OF STUDENT HOMELESSNESS

As shown in the Venn diagram (Figure 1), the group of HUD-homeless students was a much smaller proportion of all students experiencing homelessness in comparison to the ED-homeless group. Of all ED-homeless students, only 13.7% were also HUD-homeless, meaning that few students identified as homeless by their schools were actually in HUD shelters or street homeless. Conversely, 60.6% of HUD-homeless students were also ED-homeless, meaning that despite the fact that HUD-homeless students fit a strict definition of

Figure 1:
Venn Diagram of Student Homelessness

2015 and 2016

14,105   2,251   1,461

2015

6,919   1,359   531

2016

7,195   892   930

■ ED Homeless   ■ HUD Homeless

homelessness, this homelessness was undetected by their school districts. Though we have no plausible explanation, we also reported that the rates of overlap vary moderately between the 2015 and 2016 school years, as depicted by the embedded Venn diagrams on the right-hand side of Figure 1.

DEMOGRAPHIC DIFFERENCES AMONG STUDENTS IN HOMELESS COUNTS

We also evaluated similarities and differences in demographic and contextual characteristics for the HUD-homeless, ED-homeless, and overlapping groups of students (Table 1). We included students who received free lunch (but did not experience homelessness) as an economically disadvantaged comparison group.

Using the measures described in Table 1, we then conducted two sets of multivariate regressions to uncover more information about the student and school characteristics that were associated with inclusion in the overlap group of ED and HUD-homeless students (see Supplemental Table A). We found that, among HUD-homeless students, the length of stay in family shelter was strongly positively associated with the probability that a student was identified as homeless by their school district and that HUD-homeless students staying in transitional housing projects were more likely, and students contacted through street outreach were less likely, to be identified as homeless by their schools than those staying
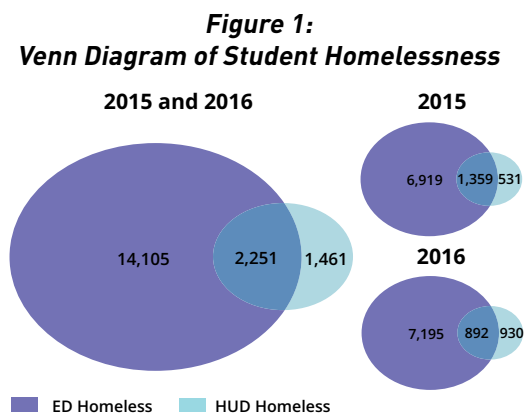
Table 1: Demographic Characteristics of Homeless Students and Overlap

	ED-Homeless (N=14,105)	HUD-Homeless (N=3,712)	Overlap (N=2,251)	Free Lunch (N=194,314)
Average Age	10.0	10.6	10.0	10.3
Race/Ethnicity				
White	18.2	11.6	7.0	25.1
Hispanic	10.8	6.4	6.4	18.5
Black	58.8	71.1	76.5	37.1
Asian/Pacific Islander	4.2	0.9	0.7	15.8
Native American	8.0	9.0	9.4	3.5
Grade Level				
Kindergarten	8.4	8.9	10.4	8.1
Elementary	48.7	40.8	46.8	44.9
Middle	22.9	21.0	21.2	23.6
High School	19.9	29.3	21.7	23.4
School District				
Hennepin	64.5	64.0	62.8	57.2
Ramsey	28.9	18.1	23.4	33.9
West Central	6.2	3.8	33	8.9
Disability Status				
No Disability	73.9	72.4	74.3	81.8
Learning	7.5	8.1	8.1	5.7
Emotional/Behavioral	7.1	8.7	7.5	2.8
Free/Reduced Lunch Status				
No	4.7	7.2	2.7	-
Reduced	0.5	1.2	0.1	-
Free	94.8	91.6	97.2	-

Note: All values, with the exception of age, represent column percentages. Additionally, total percentages for the "School District" category may not sum to 100, because some students could not be uniquely identified to one of the three school districts in this study.

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...THE LENGTH OF STAY IN FAMILY SHELTER WAS STRONGLY POSITIVELY ASSOCIATED WITH THE PROBABILITY THAT A STUDENT WAS IDENTIFIED AS HOMELESS BY THEIR SCHOOL DISTRICT.

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in emergency shelter. We also found that HUD-homeless students from Ramsey County were more likely to be in the overlap group in comparison to students in Hennepin County or west central Minnesota. Among ED-homeless students, we found similar trends along racial and geographic lines with regards to inclusion in the overlap group. We also found that ED-homeless kindergarten students were significantly more likely to be in the HUD-homeless count in comparison to elementary, middle, and high schoolers.

School Outcome Comparisons

Lastly, we compared differences in outcomes between ED and HUD-homeless students, using data from students receiving free lunch as a reference group. The five outcomes used in this analysis were attendance rate (days of school attended in the academic year divided by the total number of school days in the year), school mobility (number of unique schools attended in the school year), and proficiency rates in three academic subjects (measured as the probability that a student met or exceeded the standard in math, reading, and science on the Minnesota

Table 2: School Outcomes among Homeless Students

	ED	HUD	Observations
Attendance Rate	-0.042*** (0.001)	-0.060*** (0.003)	211,188
School Mobility	0.347*** (0.008)	0.414*** (0.022)	212,131
Math	-0.096*** (0.005)	-0.113*** (0.010)	108,224
Reading	-0.087*** (0.005)	-0.110*** (0.010)	110,634
Science	-0.096*** (0.013)	-0.146*** (0.025)	91,527

Note: Comparison group is students who receive free lunch. All regressions run using OLS with a cohort of demographic controls including age, gender, race/ethnicity, free or reduced lunch status, limited English proficiency status, and disability. Regressions also include school and year fixed-effects and standard errors are robust. School mobility indicates the number of unique schools a student attends in a given school year. Math, Reading, and Science are the probability that a student scores proficiently or better on the given standardized test. Point estimates include significance indicators and standard errors are in parentheses.

$* = p<0.05; ** = p<0.01; *** = p<0.001.$

Comprehensive Assessment). For each estimate we used ordinary least squares regression with school and year fixed-effects and controlled for race, gender, age, free or reduced lunch status, and disability status. These results are reported in Table 2.

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...STUDENTS STAYING IN TRANSITIONAL HOUSING PROJECTS WERE MORE LIKELY, AND STUDENTS CONTACTED THROUGH STREET OUTREACH WERE LESS LIKELY, TO BE IDENTIFIED AS HOMELESS BY THEIR SCHOOLS THAN THOSE STAYING IN EMERGENCY SHELTER.

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We found that, in comparison to students receiving free lunch, students in either the HUD-homeless or ED-homeless groups were at an additional risk for lower attendance, higher school mobility, and lower rates of math, reading, and science proficiency. More specifically, ED-homeless students had 4% lower attendance rates, made 0.3 more school changes per year, and were 8-10% less likely to score proficiently on standardized tests, on average. HUD-homeless students had 6% lower attendance rates, made 0.4 more school changes per year, and were 11-15% less likely to score proficiently on standardized tests, on average. In subsample analyses, we also found that HUD-homelessness presented a higher level of risk for negative school outcomes in comparison to ED-homelessness. However, the differences in outcomes between the HUD-homeless and ED-homeless groups were much smaller than those in comparison with economically disadvantaged students who did not experience homelessness.

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IN COMPARISON TO STUDENTS RECEIVING FREE LUNCH, STUDENTS IN EITHER THE HUD-HOMELESS OR ED-HOMELESS GROUPS WERE AT AN ADDITIONAL RISK FOR LOWER ATTENDANCE, HIGHER SCHOOL MOBILITY, AND LOWER RATES OF MATH, READING, AND SCIENCE PROFICIENCY.

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Conclusion

The purpose of this study was to provide researchers, policymakers, and practitioners whose work addresses homelessness with a deeper understanding of two incompatible federal counts of homelessness. Our analysis provides evidence supporting the notion that the Department of Education's homelessness count is more inclusive, and thus may capture students experiencing less severe disadvantage than their HUD-homeless peers. We also find evidence that, though all students in HUD's counts should qualify as homeless under ED's definition, there is a significant portion of students who are not included in ED's counts.

LIMITATIONS

There are several limitations to this study, primarily regarding issues of HMIS coverage and external validity. First, HMIS data does not include a full-bed count of all individuals receiving homelessness services. Secondly, our analysis only covers three geographic areas in Minnesota, making it difficult to generalize our findings to the entire United States.

The implies that despite ongoing implementation of the McKinney-Vento Act—in which school districts are charged with identifying homeless students and providing them with free lunch and transportation accommodations—some students are still not receiving these services because they are not being identified. Additionally, because students in emergency shelters (especially those with short stays) or those identified through street outreach are less likely to be identified as homeless by their school district in comparison to those in transitional housing, students in these housing situations may benefit from more concerted coordination between local homelessness service providers and public schools. Finally, we find that students who experience homelessness (regardless of definition used) are at higher risk of negative academic outcomes including lower attendance, higher school mobility, and lower rates of proficiency in math, English, and science in comparison to stably housed, economically-disadvantaged peers. We find evidence that HUD-homeless students are at even higher risk than ED-homeless students of negative school outcomes, which further supports the "continuum of risk" theory of housing insecurity (Masten et al 2014). However, we also find that outcomes for these groups are more similar to one another than they are to the stably housed comparison group. This finding suggests that more robust and better coordinated housing supports are necessary for improving outcomes for all students experiencing homelessness, regardless of how students are initially identified.

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