Data + Partnerships
WORKING TOGETHER TO CHANGE LIVES
NHSDC SPRING 2022 CONFERENCE

Integrating Data to Drive Progress: Ending Student Homelessness

Presented by: The Homework Starts with Home Research Partnership in collaboration with the HMIS Director at the Institute of Community Alliance

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MINNEAPOLIS, MN | MARCH 28-30, 2022

Session Overview

Origin and Goals of Minnesota's HSWH Research Partnership

- Ann S. Masten, Regents Professor, University of Minnesota

Minnesota Linking Information for Kids (Minn-LInk)

- Kristine Piescher, Director of Research and Evaluation, Center for Advanced Studies in Child Welfare, University of Minnesota

HMIS Contributions to the HSWH Research Partnership

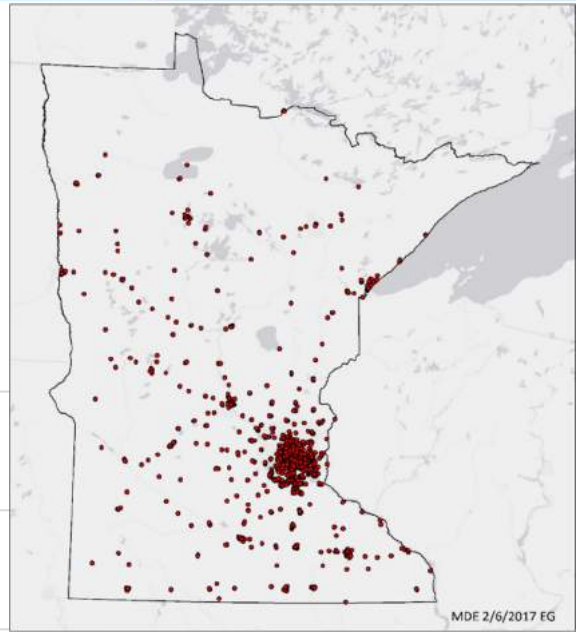
- Britt Heinz-Amborn, HMIS Director, Institute for Community Alliances

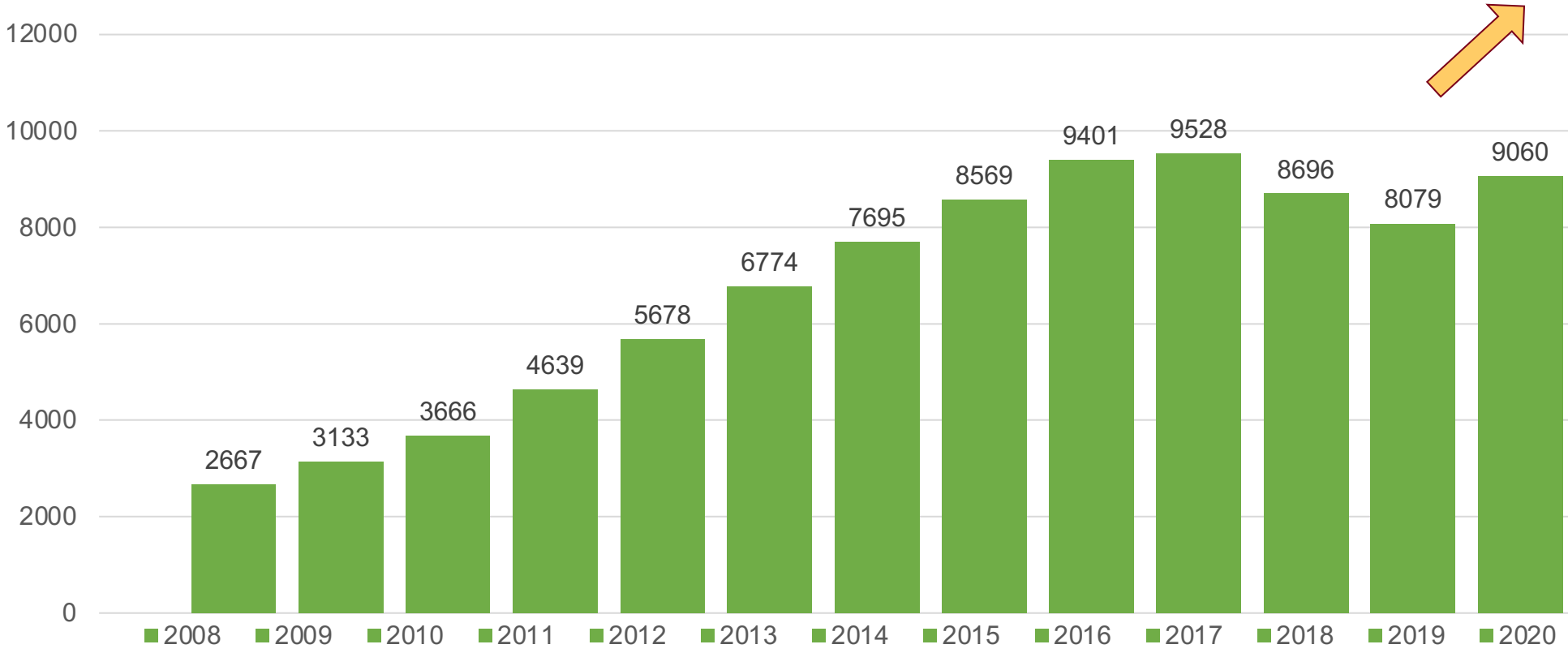
Research Findings to Date

- Alyssa R. Palmer, Doctoral Candidate in the Institute of Child Development, University of Minnesota

Discussion and Questions

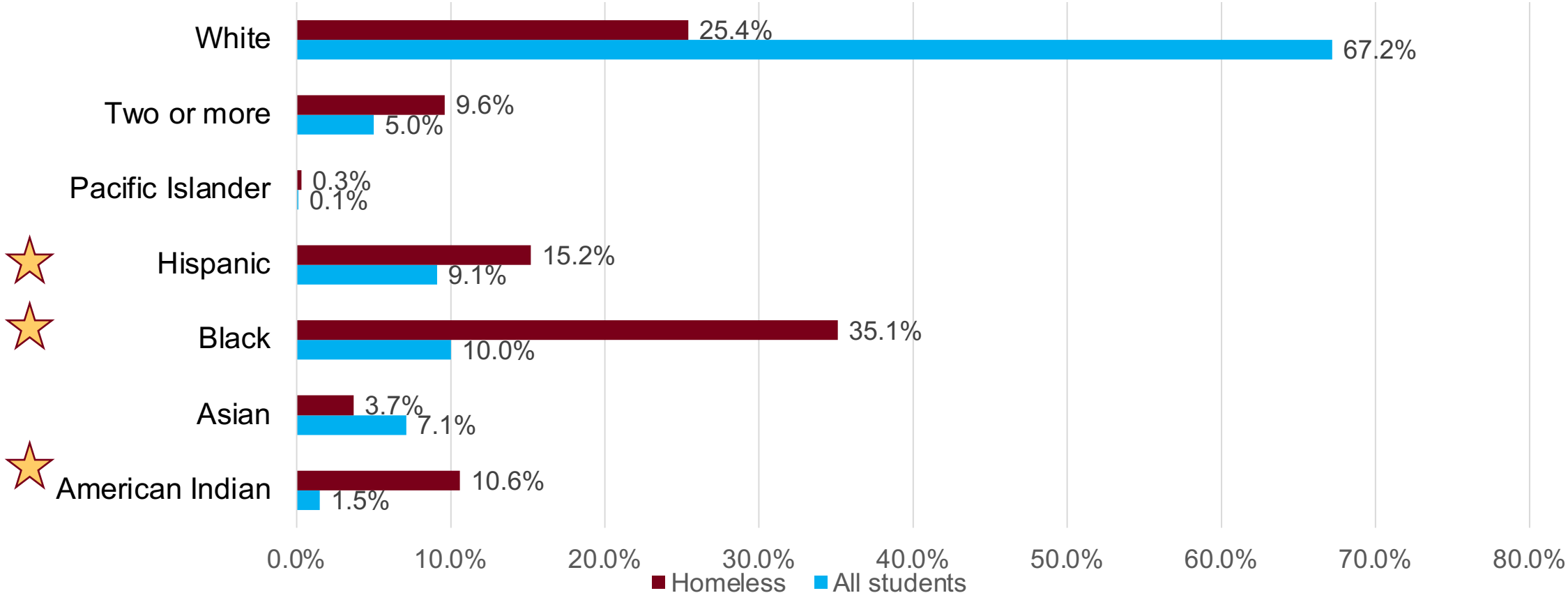
MN Students Identified as Homeless by Minnesota Schools as of October 1





2020 Data ~ courtesy of MDE

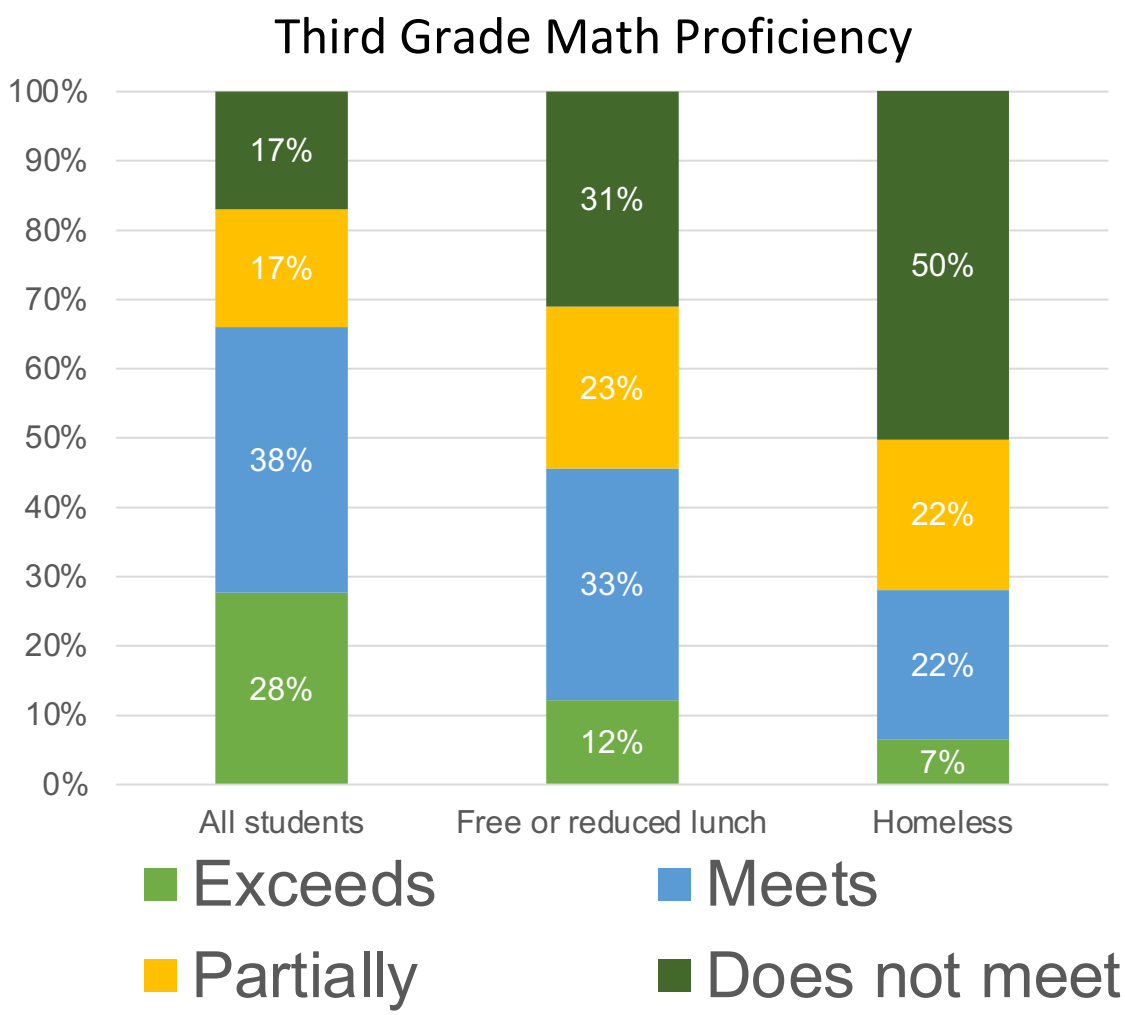
Homelessness Disproportionately Effects Black, Indigenous, Hispanic Students in MN



High Risks of Homelessness

Research documents risks of homelessness for children in:

- Language and literacy.
- Health and access to health care and services
- Likelihood of child welfare involvement
- Cognitive, social-emotional, and physical development and attainment of early developmental milestones.
- Reading and school readiness



State Response

MINNESOTA INTERAGENCY COUNCIL ON HOMELESSNESS

UNIVERSITY OF MINNESOTA Driven to Discover℠

Homework Starts with Home Research Partnership

Grand Challenge

A researcher-practitioner partnership to inform solutions for student homelessness through integrated data and collaborative research

Goals

- Form a research-practice-policy partnership to provide evidence for improving success of students at risk of homelessness
- Evaluate the outcomes of community programs designed to address student homelessness through rental assistance and related support
- Train a new generation of scholars to partner and utilize integrated data for evidence-based practice and policy
- Disseminate high quality evidence for researchers and practitioners
- **First Project: Integrate data to evaluate and guide the State HSWH initiative**

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Data Integration

Presented by: Kristine N. Piescher, Ph.D.
Director of Research and Evaluation
Center for Advanced Studies in Child Welfare

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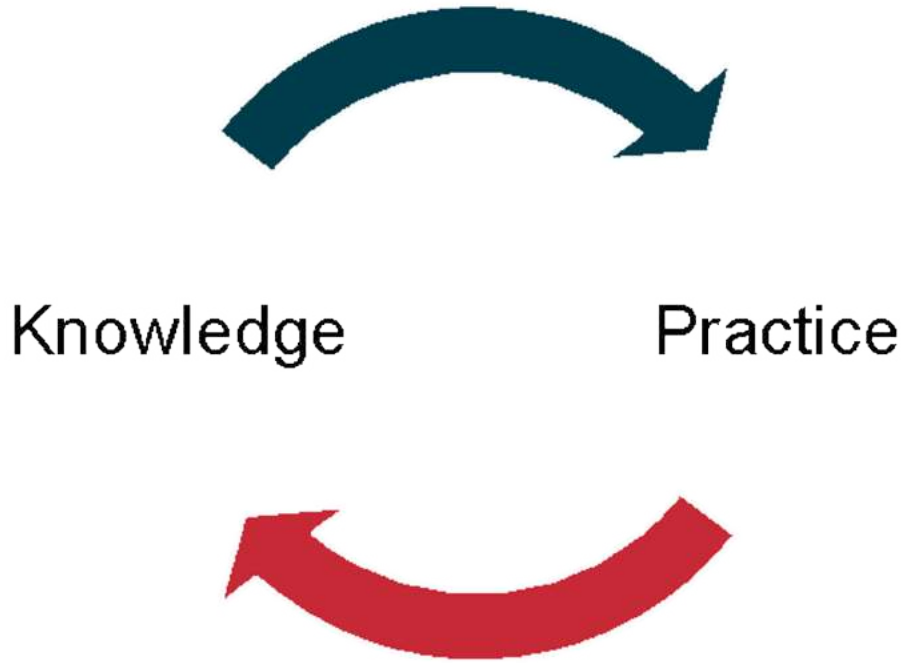
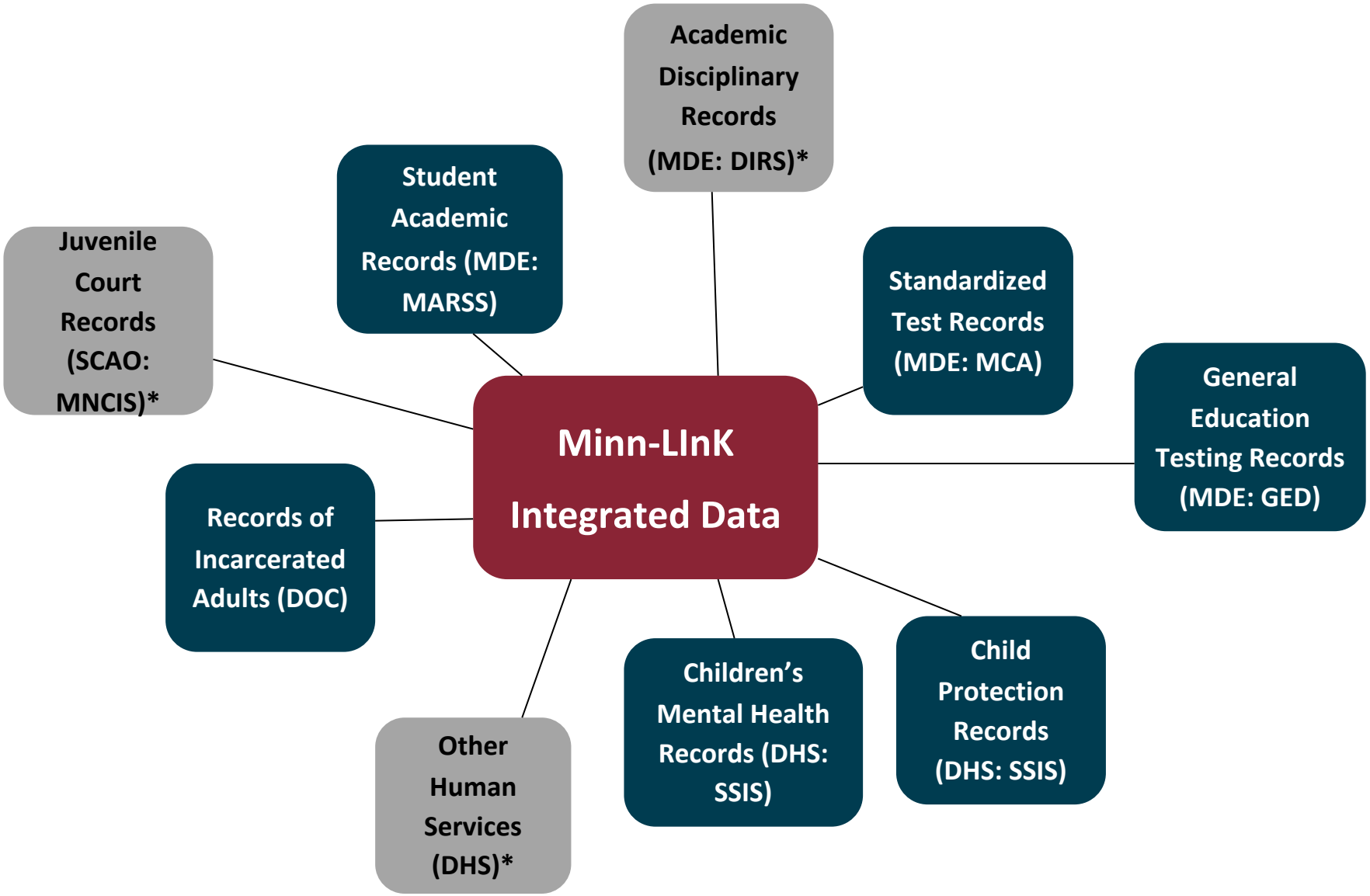
Integrated Data Systems



Link administrative data across multiple agencies to ***monitor*** and ***track*** how services are being used and to what effect

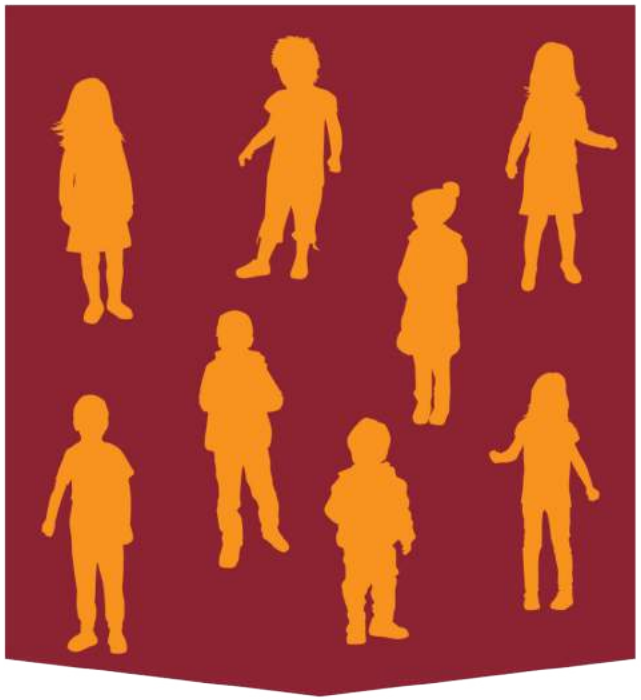
Provide a ***more complete account*** of how policies and programs affect individuals they're intended to serve

Allow agency decision-makers to ***better address inter-connected needs*** of individuals and families more efficiently and effectively


Academic Disciplinary Records (MDE: DIRS)*
Student Academic Records (MDE: MARSS)
Juvenile Court Records (SCAO: MNCIS)*
Standardized Test Records (MDE: MCA)
General Education Testing Records (MDE: GED)
Minn-LInK Integrated Data
Records of Incarcerated Adults (DOC)
Other Human Services (DHS)*
Children's Mental Health Records (DHS: SSIS)
Child Protection Records (DHS: SSIS)

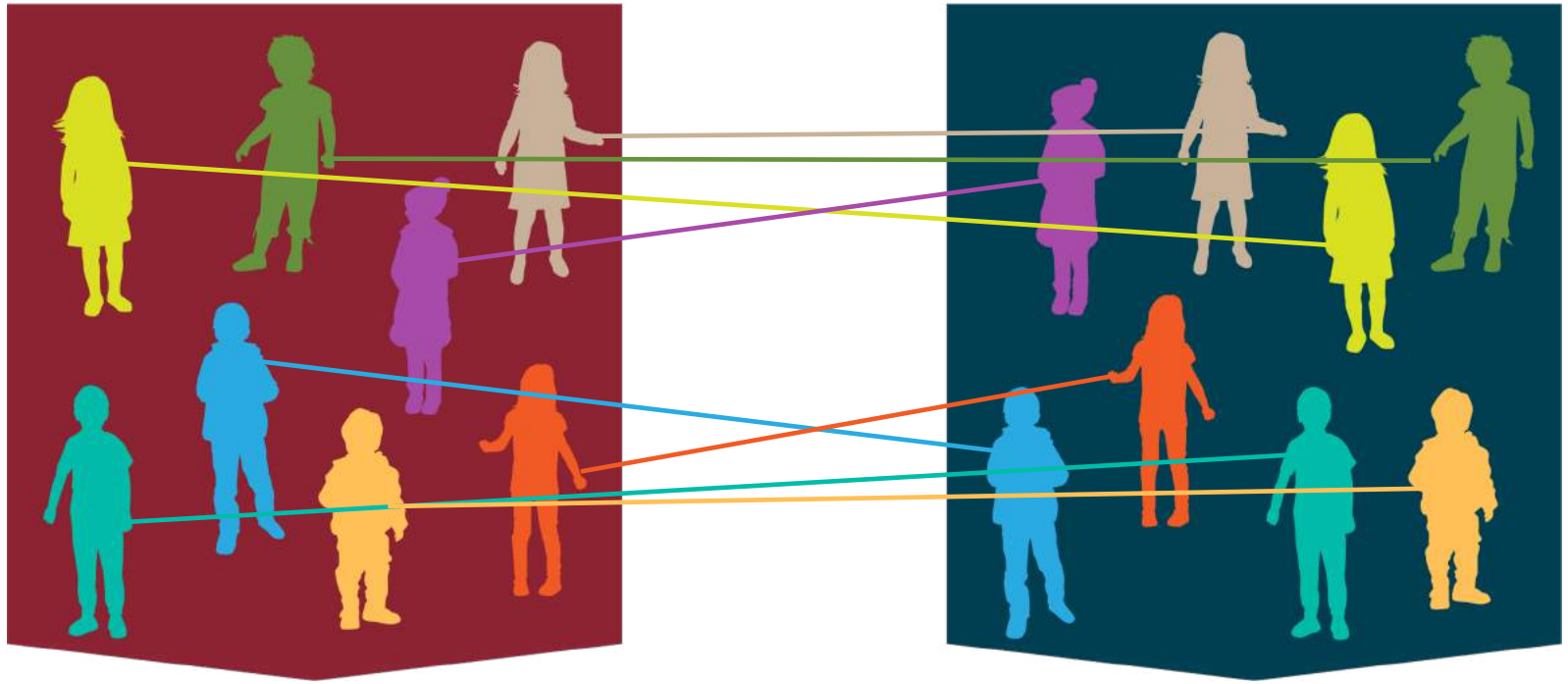
MINN-LInK LINKING PROCESS

Data Set 1

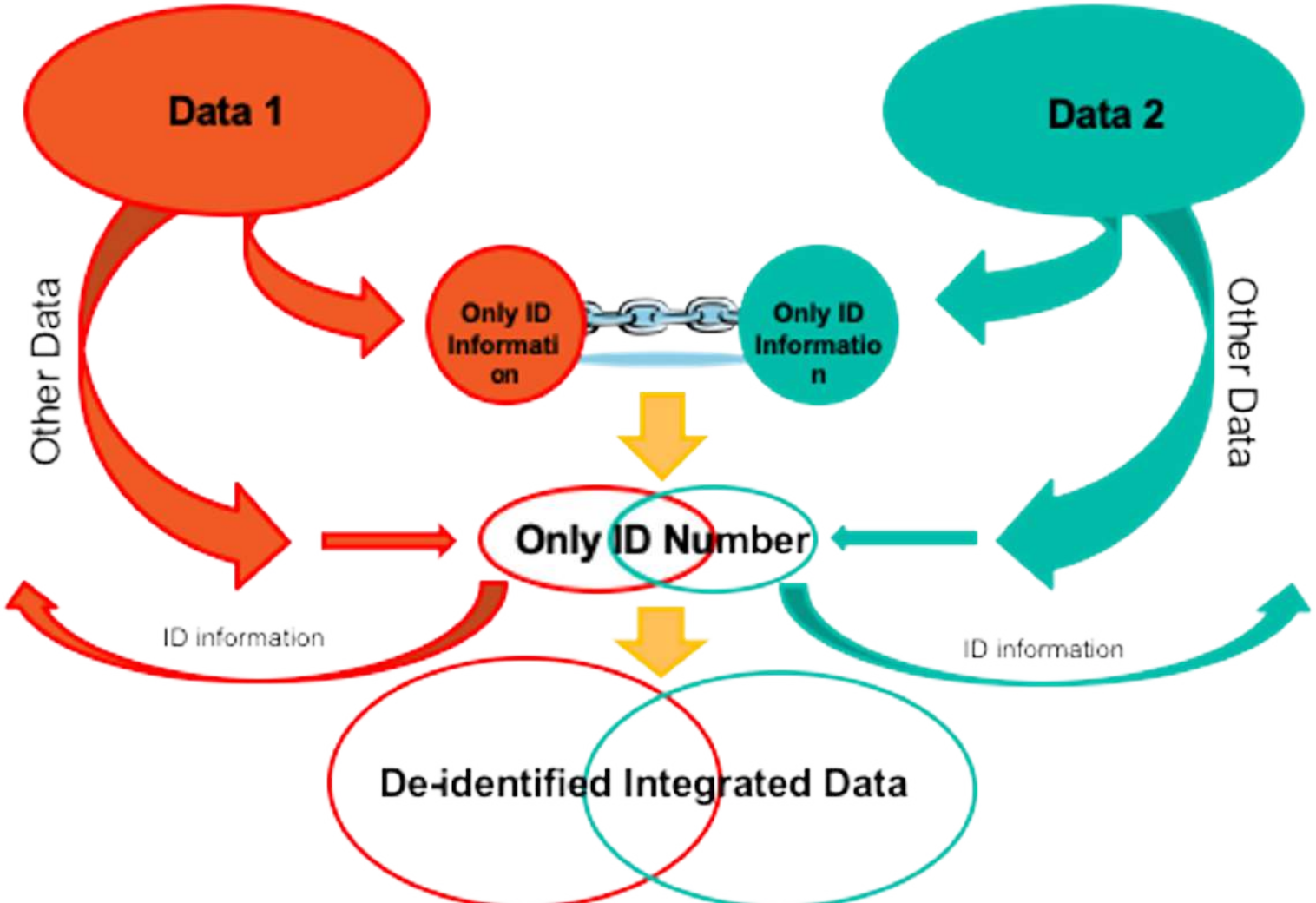


Data Set 2

ID Information



Detailed Linking Process



Statewide, population-level research

Systematic data protection

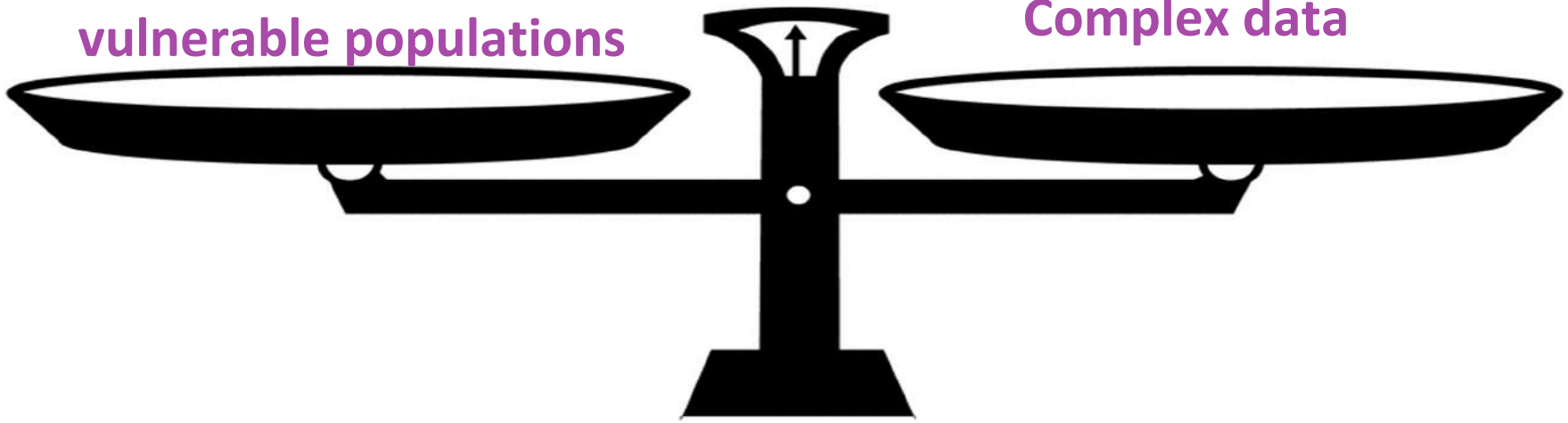
Cost-effective research

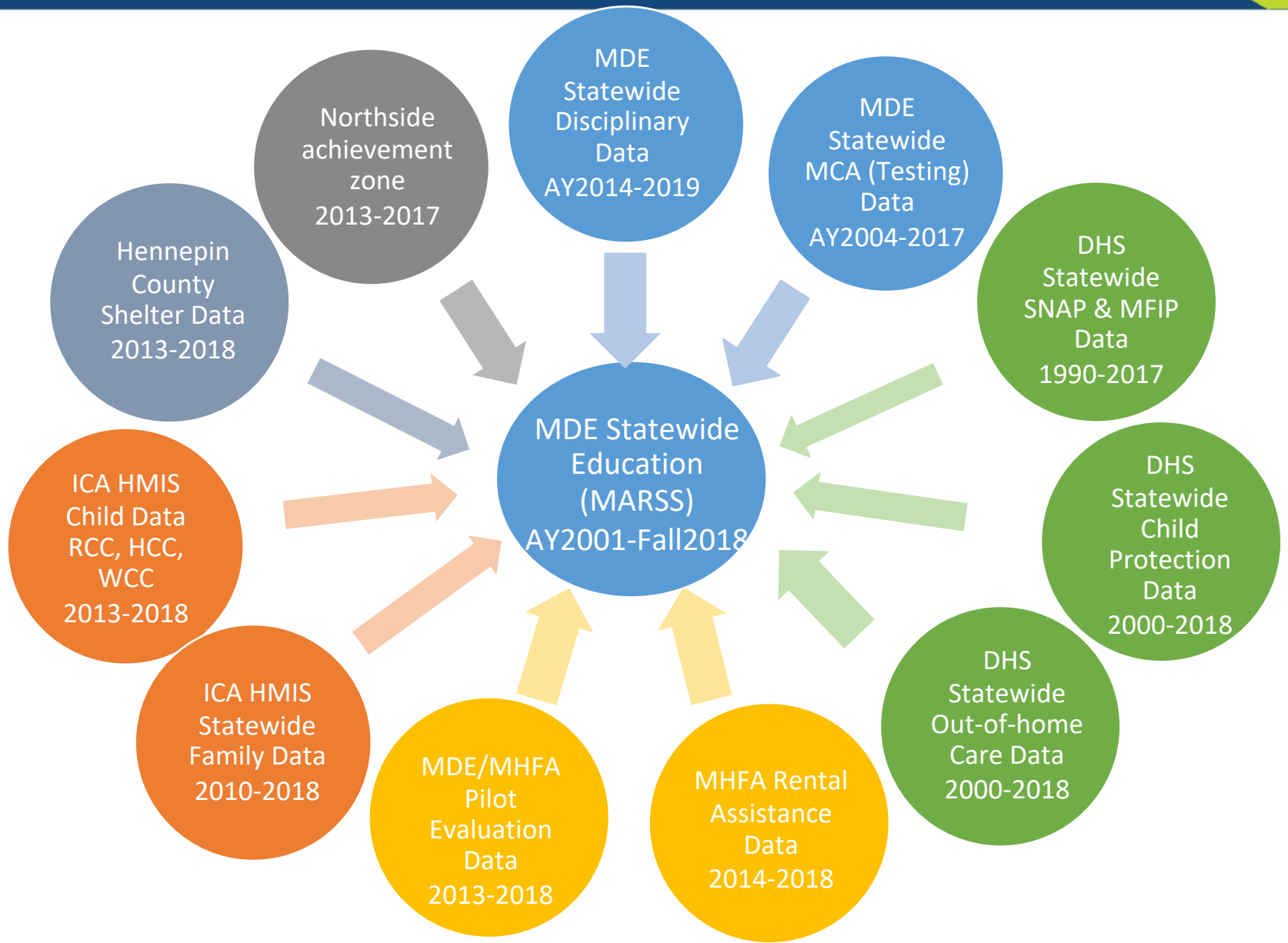
Research affecting vulnerable populations

Administrative effort – integration, funding, relationships, interpretation

Secondary data

Complex data




MDE Statewide Education (MARSS) AY2001-Fall2018
Northside achievement zone 2013-2017
MDE Statewide Disciplinary Data AY2014-2019
MDE Statewide MCA (Testing) Data AY2004-2017
Hennepin County Shelter Data 2013-2018
DHS Statewide SNAP & MFIP Data 1990-2017
ICA HMIS Child Data RCC, HCC, WCC 2013-2018
DHS Statewide Child Protection Data 2000-2018
ICA HMIS Statewide Family Data 2010-2018
DHS Statewide Out-of-home Care Data 2000-2018
MDE/MHFA Pilot Evaluation Data 2013-2018
MHFA Rental Assistance Data 2014-2018

Data Integration by Numbers

2,588,147 unique individuals in the MARSS files

- Each unique individual was given a study ID

71 individual data files then integrated

- Merged or matched via identifying information

Hats off to the Minn-LInK team!

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HMIS data delivery and partnership

Presented by: Britt Heinz-Amborn
HMIS Director
Institute for Community Alliance

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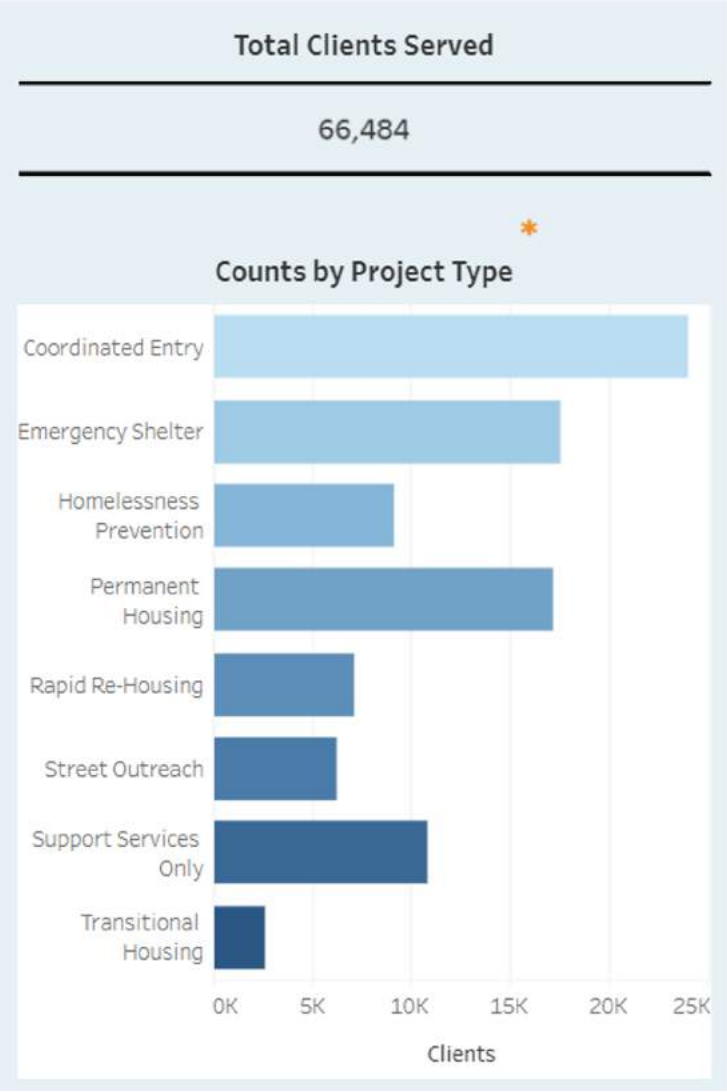
Minnesota's HMIS

10 CoCs	1300+ users
Statewide data sharing since 2016	24K beds (88% coverage)

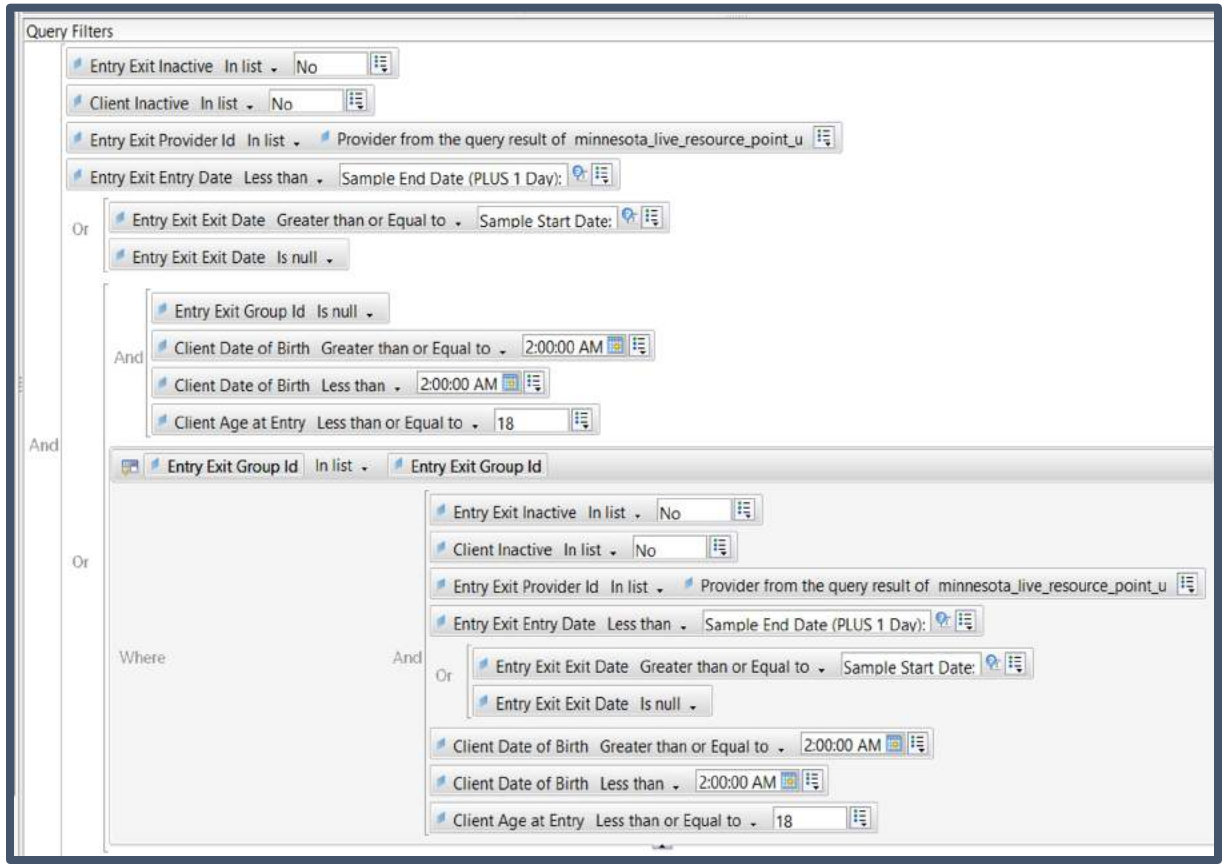


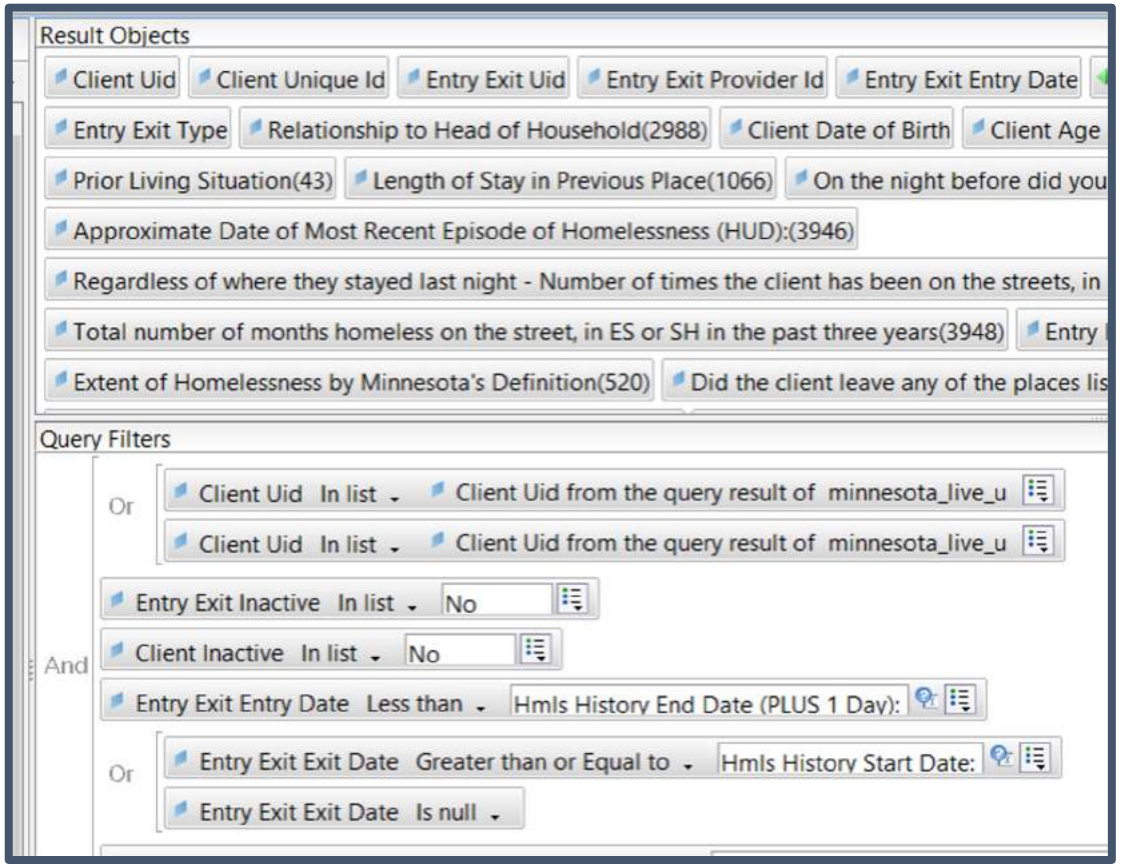
Data request

ACCEPTANCE CRITERIA AND ASSUMPTIONS

Criteria	Parameters	Geographic Scope
1. Qualifying Sample Group: Children & Family who had qualifying event in 8/1/13-8/1/18	• List children who were 0-18 at any point between 8/1/2013 - 7/31/2018 in HCC, RCC, WCC, including identifying and demographic characteristics. • Date of Birth between 8/1/1994-8/1/2016 AND • Child was less than 18 at time of entry AND • That entry fell between the date range 8/1/2013-8/1/2018	Hennepin CoC Ramsey CoC West Central CoC
2. Show household members	• List household/group present with child at time of qualifying transaction, including identifying and demographic characteristics.	Hennepin CoC Ramsey CoC West Central CoC
3. Show all other HMIS transactions of those children in a larger date range (8/1/10-8/1/18)	• Show all other homeless episodes for the child between 8/1/10-8/1/18, including household/groups present at the time of transaction	Statewide
4. Show the HMIS history of household members a larger date range (8/1/10-8/1/18)	• Of the adults present with children in the qualifying time period, show the homeless history in the expanded time period, 8/1/2010-8/1/2018, regardless of whether child was present.	Statewide

In other words





Custom data request
HMIS Governing Board committee approval
Book project team
Build & quality assurance
Delivery & interpretation

Our partnership:
how it worked and why it mattered

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HSWH-RP: Fellow Projects and Primary Analyses

Presented by: Alyssa R. Palmer, M.A.
PhD Candidate, University of Minnesota
palme719@umn.edu; Twitter: @A_R_Palmer

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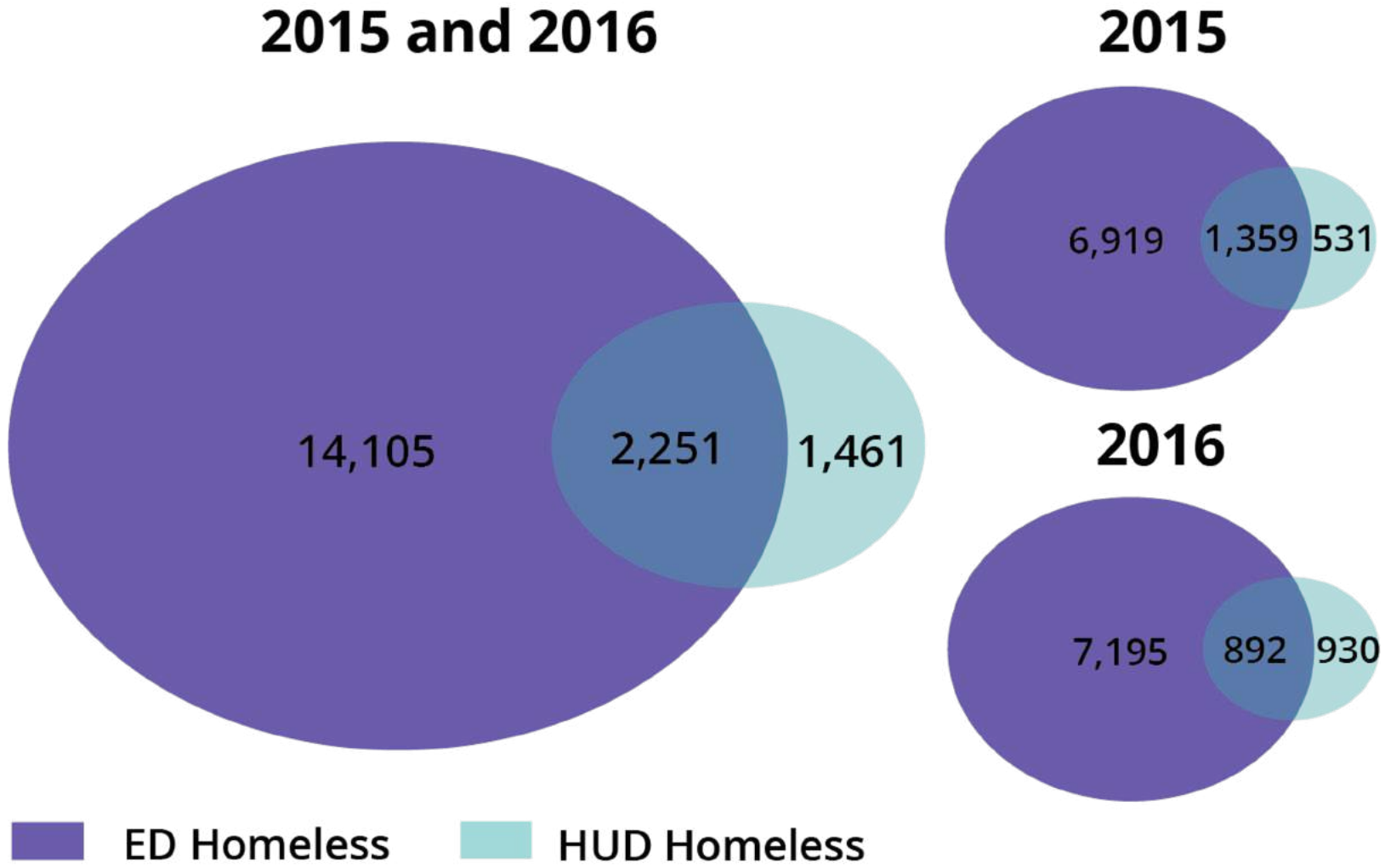
Who is Homeless in School? Evaluating Overlap and Outcomes of Student Homelessness

- Federal housing and education agencies measure and define student homelessness differently
  - This could pose issues for how to evaluate the scope, trend, and impacts of student homelessness
- Student's experiencing homelessness face a continuum of risk for school outcomes.

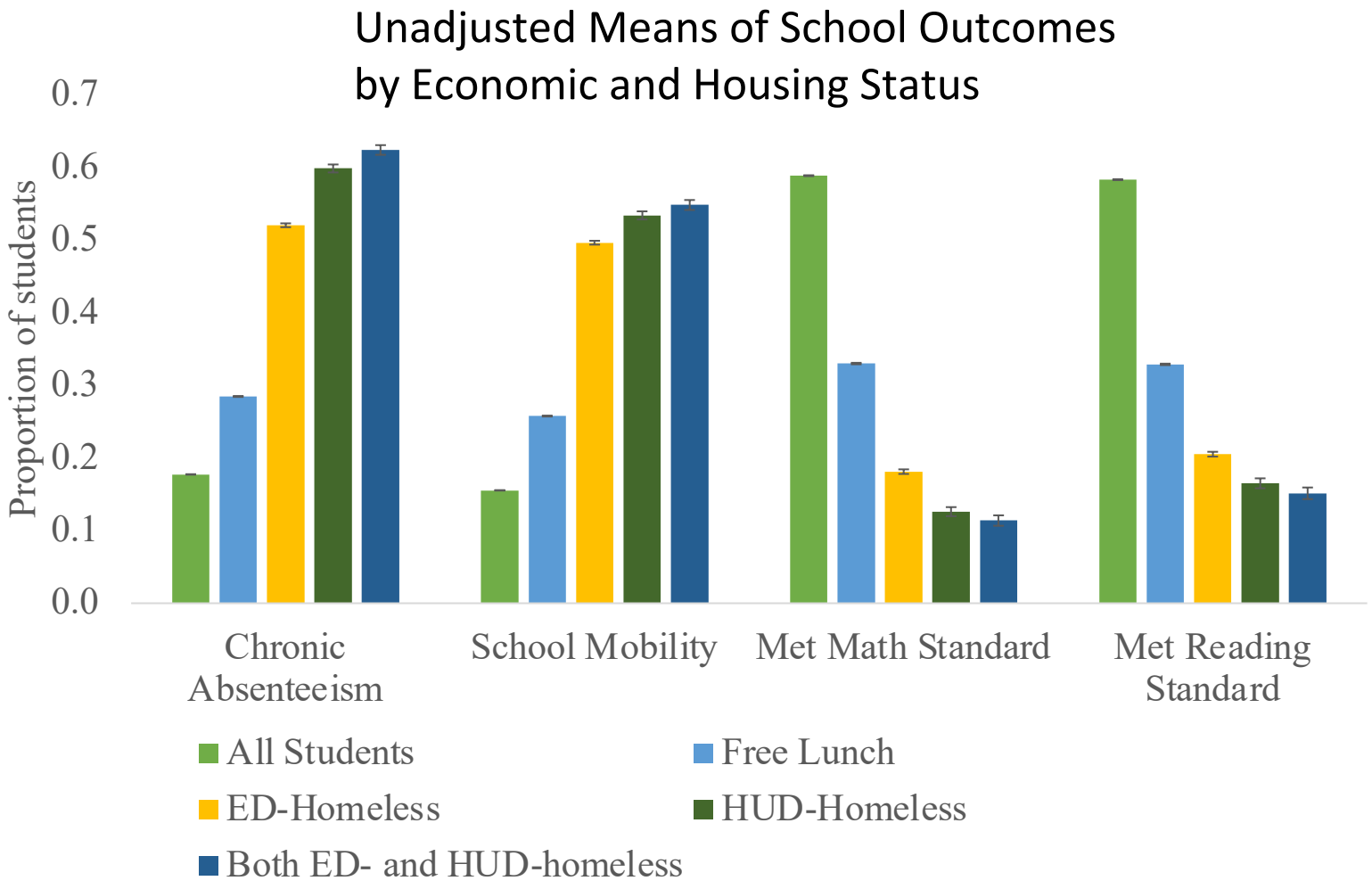
Study Goal: Identify how student populations that are identified in HMIS or in education data overlap, and how does that affect where children fall on the continuum of risk?

WARREN LOWELL
HSWH-RP Fellow

The Venn Diagram of Student Homelessness



School Outcome Comparisons



	ED Only	HUD Only	ED & HUD
Chronic Absenteeism	0.200***	0.184***	0.311***
	(0.003)	(0.008)	(0.006)
School Mobility	0.191***	0.153***	0.225***
	(0.002)	(0.006)	(0.005)
Met Math Standard	-0.101***	-0.081***	-0.138***
	(0.004)	(0.014)	(0.010)
Met Reading Standard	-0.077***	-0.068***	-0.093***
	(0.004)	(0.014)	(0.010)
Year FE	X	X	X
Student + School RE	X	X	X
Demographic Controls			
Student FE			

Notes. This table reports the results from three different models estimating the asso
received free lunch. Demographic controls include race-ethnicity, grade level, disab
parentheses.

* p<0.05, ** p<0.01, *** p<0.001

HSWH Pilot Program Evaluation

Four Stages of Work

1) Data integration
2) Understanding, cleaning, and manipulating data
3) Propensity score modeling and matching to create a comparison group
4) Outcome analyses

DANIELLE DUPUIS
Lead Quantitative Analyst, Director, Research Methodology Consulting Center

Processing HMIS Data

- Received records for all children (aged 0-19) in three Continuum of Care regions from August 2013 to August 2018.
- Historical records for the above children (and their families) statewide.
- Designed to capture as much data as possible.

Processing MARSS (Education) Data

- Statewide MARSS records for 2001 through 2020
- Each file contains millions of rows and hundreds of columns
- File size was slowing things down
- Filtered data to students in the same schools as the treatment kids.

Two Cohorts

- Analysis of subsidy start dates lead to the creation of cohorts
- Cohort 1 subsidy start dates in 2014 or 2015
  - N = 316
- Cohort 2 subsidy start dates in 2016 or 2017 (plus 2018 straggler)
  - N = 150

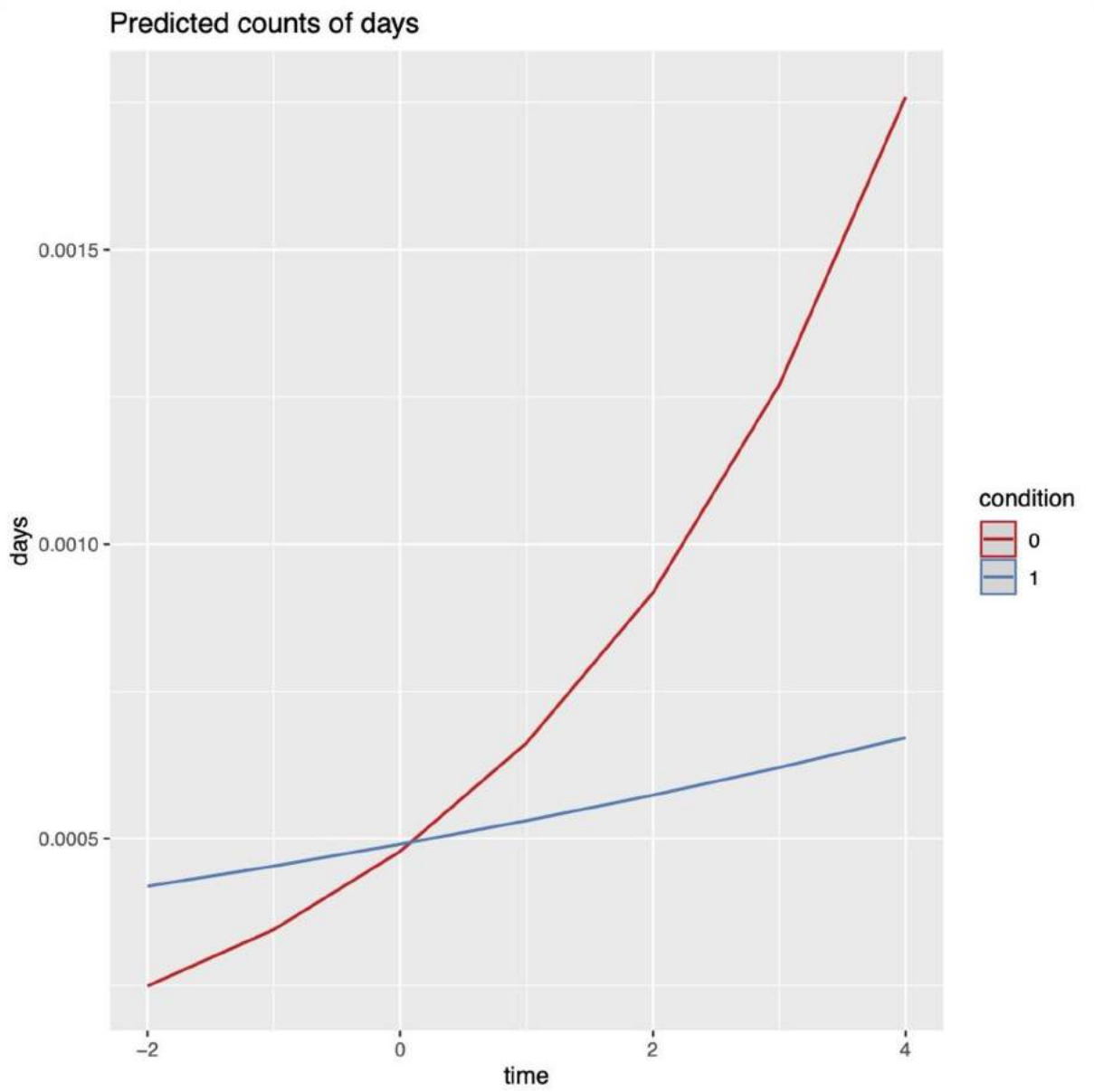
Matching Variables

- Housing variables
  - Counts of 5 modified HUD project type codes
  - HHM flag
- Income variables
  - FRL flag
  - MFIP flag
- Race and grade leve

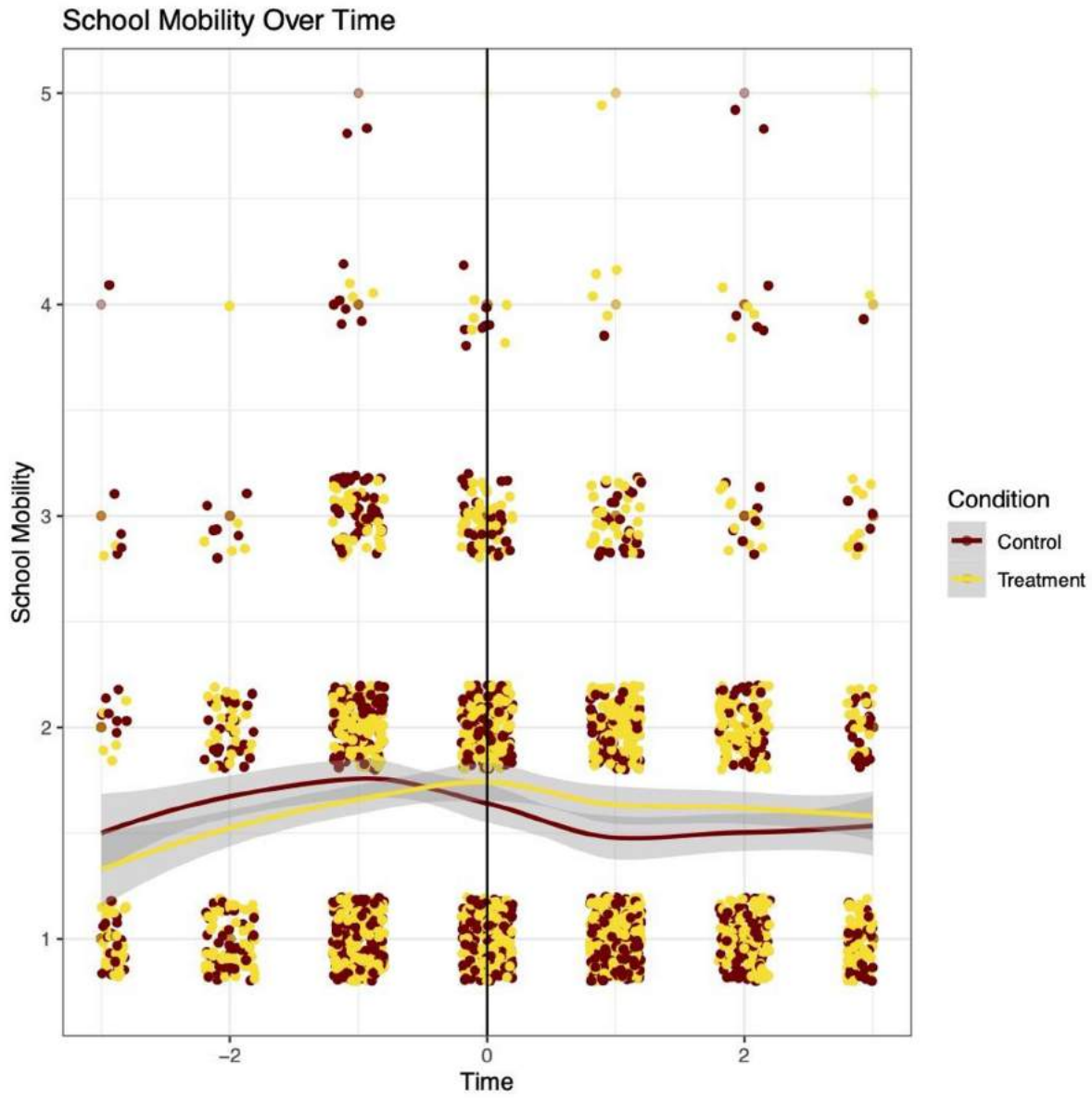
Final Sample

	Treatment	Comparison	Total
Cohort 1	201	205	406
Cohort 2	107	111	218
Total	308	316	624

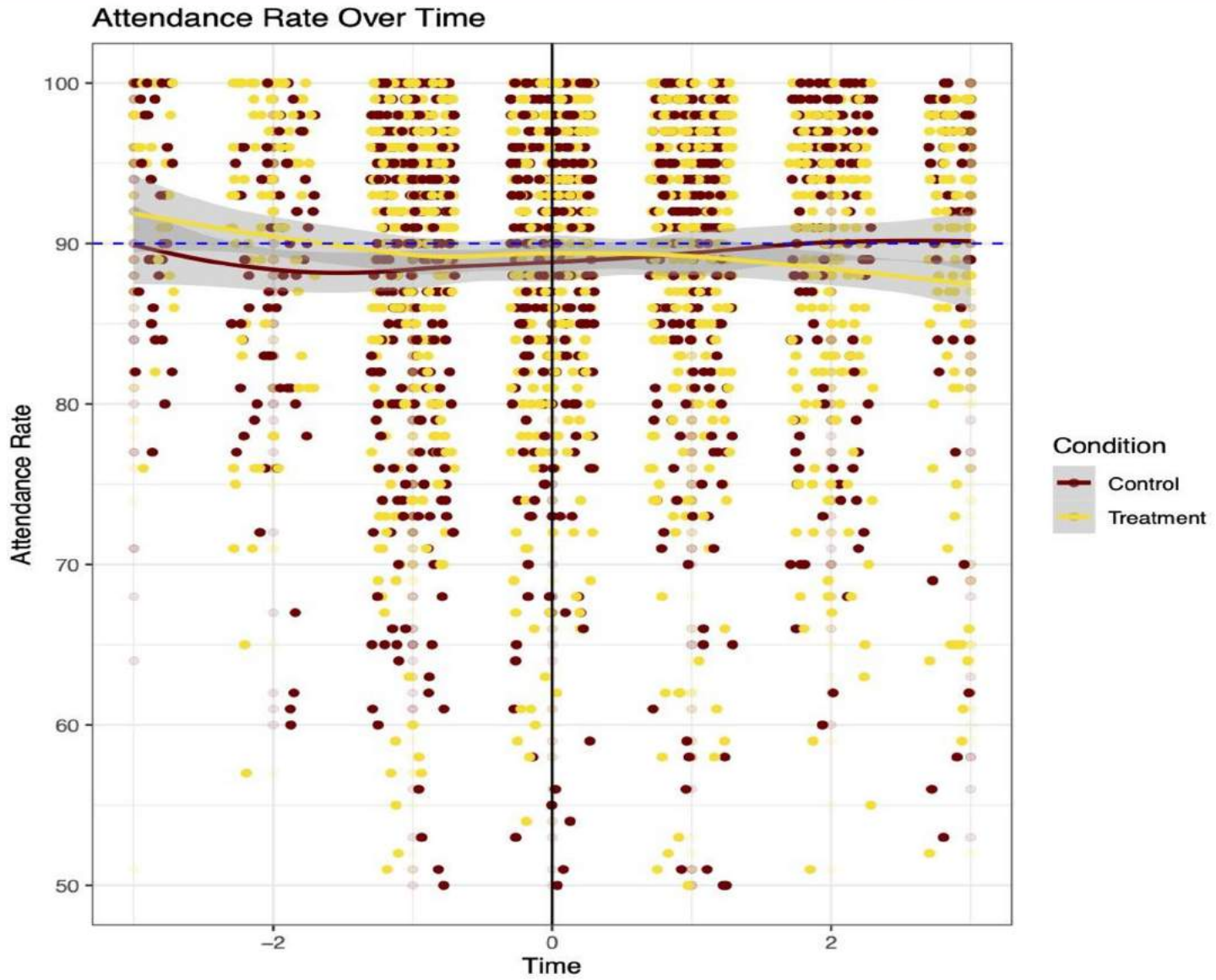
Did the rental subsidy reduce the number of nights spent in shelters?



Did the rental subsidy reduce the number of school moves?



Did the rental subsidy increase attendance rates?



Homelessness and Child Protection Involvement: Temporal Links and Risks to Student Attendance and School Mobility

- Child maltreatment and neglect have been related to student's attendance and school mobility
- Homelessness has been related to increased rates of Child Protective Services (CPS) Involvement
- Research with sheltered families suggested most families experience CPS involvement while in shelter or soon after exiting
    - Contradictory information about temporal relationships between homeless and CPS

Study Goal: Identify how Homelessness and CPS are related to each other in time, and how those experiences are related to student's attendance and school mobility.

Children apart of the Minnesota Public School Records System between the ages of 4 and 15 (e.g. school aged, Mean = 9.6 years).

Used HMIS Emergency and Transitional Housing Services: Children stayed in emergency or transitional housing between August 1, 2013 and July 31, 2015.

- 3,278 Children (49% male, 73% Black)

Matched Control Group - Did not use HMIS Services: Matched group of children who have a similar demographic breakdown but no experiences of homelessness in the study time frame

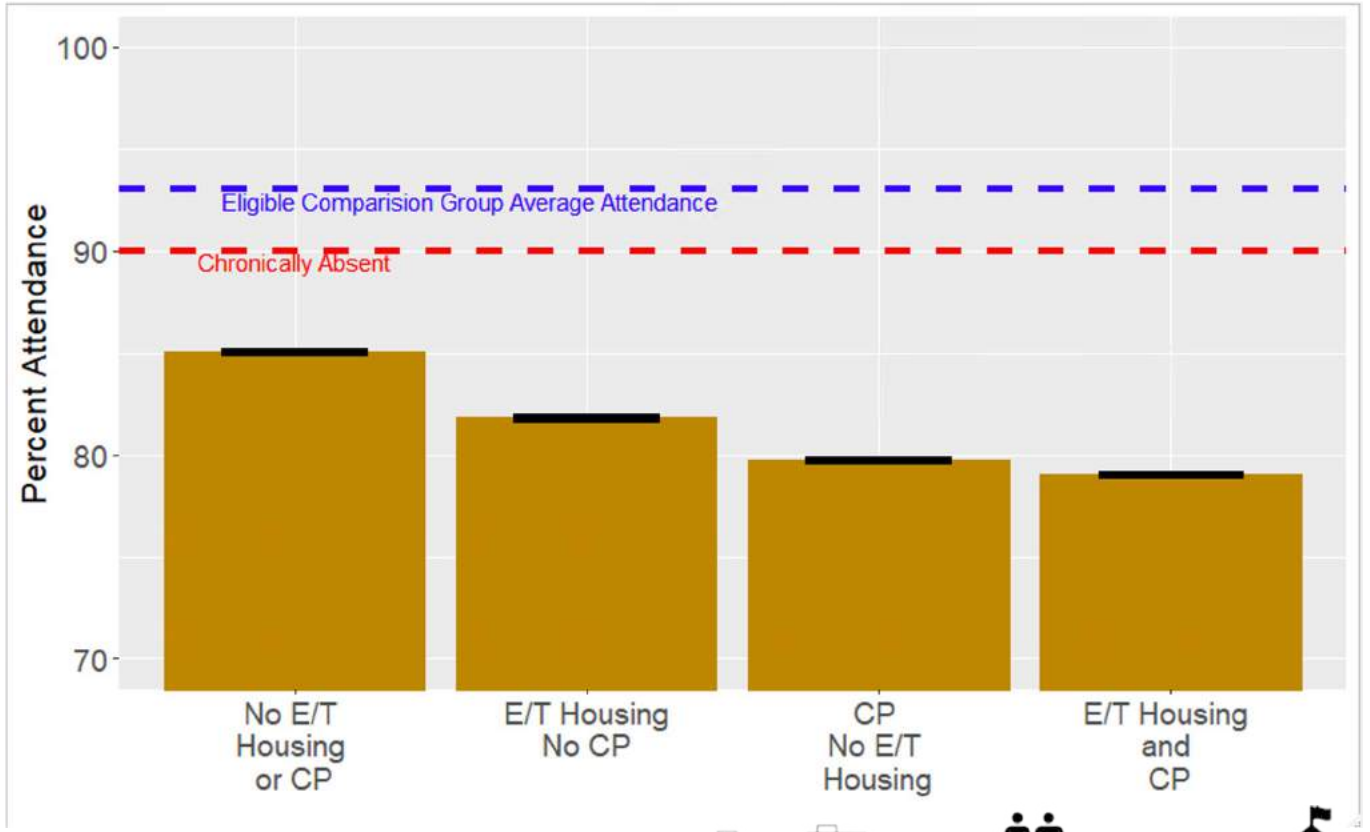
- 2,615 Children (50% male, 76% Black)

Eligible Comparison Group:
N = 712, 363 (51% male; 12% Black)

Aim One: Relation between experiences of CPS and HMIS Emergency/Transitional Housing with school engagement.

School Mobility

- E/T Housing Only OR CP Only: **1.3 times more likely** to move schools in a year compared to no adverse experiences.
- Experience BOTH E/T Housing and CP: **1.5 times more likely** to move schools in a year compared to no adverse experiences



Aim Two: How are CPS Involvement and Experiences of HMIS Emergency and/or Transitional Housing Related in Time?

Children were **1.9 times more likely** to be referred to CPS with in the same month of experiencing HMIS emergency/transitional Housing

Children were **0.3 times less likely** to experience HMIS emergency/transitional Housing if they were referred to CPS the month prior

Children were **1.6 times more likely** to experience CPS in the month after exiting HMIS emergency/transitional housing

Conclusions:

- Emergency/transitional housing use among children is related to an increased likelihood of CPS involvement concurrently and afterwards.
- Both experiences are risk for child school attendance and school stability
- Integrated data is powerful in understanding systems that have been impacted by systematic inequality
    - Important to consider how to incentivize accurate data entry!
- It is important for Providers to be aware of and advocate for stable housing supports/resources
    - Family Unification Program and Housing choice vouchers
    - Child welfare agencies to provide modest cash assistance for housing related services
    - Title IV-E waiver to allow use for some federal child welfare dollars to provide families with time limited rental or utility assistance
    - Cash assistance for security deposit, first month rent, other essentials to get a home for children to be returned

NHSDC Spring 2022 Conference

Homework Starts with Home Research Partnership

Data + Partnerships

Summer 2018

- Research Fellow
- Learn Generally About Administrative Data/ Minn-LInK
- Presentations From Community Partners

2018 - 2019

- HSWH Community Partner and Advisory Board Presentations
- Continue to Consult with Data Owners About Intricacies of Data

2020

- Present at the Minnesota Social Service Association
- Create and Publish Policy Brief
- HSWH-RP Conference

2021

- Finish Title IVE Training Module
- Submit Manuscript for Publication

2022

- NHSDC Presentation
- Give Talk for American Educational Research Association

New Collaboration Through Minn-LInK: Integrating School, Early Childhood Screening, HMIS, and CPS Data

Skills Gained / Lessons Learned

Program Evaluation	Collaboration with State Data Owners	Science Dissemination and Communication	Built Capacity to Work With Very Large and Diverse Administrative Data	Doing Science that Impacts Direct Change and Education in my Community

Accomplishments and Work in Progress

Successful Partnership

- Administrative structure and enduring commitment
- Collaborative problem-solving
- Data integration methods and procedures

Website: Ending Student Homelessness

- Partners and Fellows
- Recording of our Nov 2020 conference
- Links to research briefs
- Links to podcasts and other resources

Dissemination in diverse forms

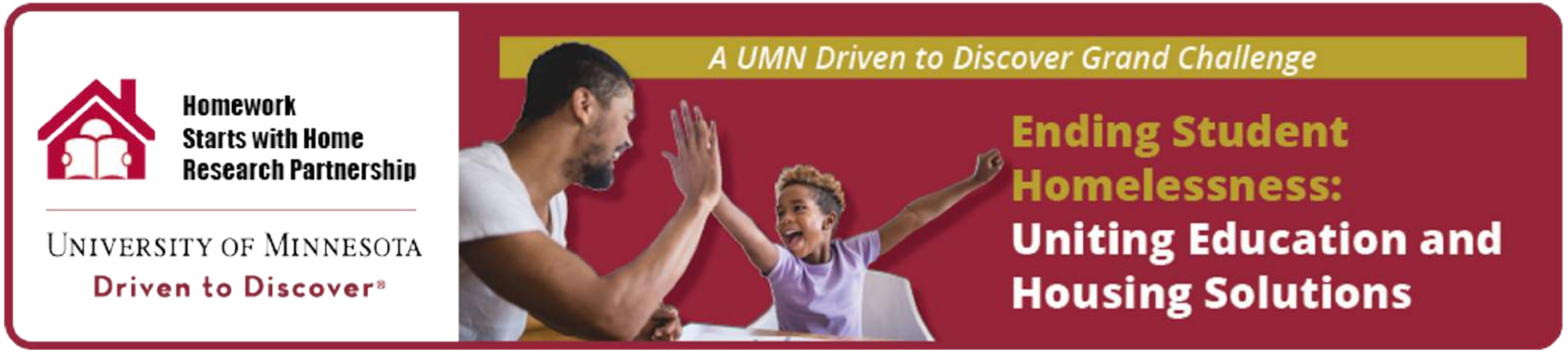
- Presentation for researchers, service providers, government professionals, and university classes
- Testimony for policymakers
- Research briefs and training videos
- Journal articles

In progress

- Extended data analyses and additional projects by fellows
- Research briefs and relate journal articles

Innovation.umn.edu/ending-student-homelessness/

Discussion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A UMN Driven to Discover Grand Challenge
Ending Student Homelessness:
Uniting Education and Housing Solutions