

Center for Advanced Studies  
in **Child Welfare**

# **Education and Child Welfare Outcomes of Homeless and Highly Mobile Students in Minnesota**

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**Minn-LInK Project**

Tuesday October 28, 2008  
The Visible Child Conference  
Minneapolis, MN

# Presentation Goals

- We want to share with you
  - The reasons for our study
  - Our approach
  - How the study is evolving
  - Our initial discoveries
  - What our next steps will be
- More “Working Session” than traditional workshop

# Presentation Goals

- We hope you will help us by
  - Providing us with feedback
  - Reflecting on our initial findings
  - Thinking about ways our findings might be useful
  - Considering other important sub-study possibilities

# In the News (national)

- *Foreclosures' financial strains take toll on kids; Moving and changing schools add to stress, USA Today, July 9, 2008*
- *Capitol Strives to Define 'Homeless', New York Times, September 8, 2008*
- *Homeless put strain on schools Influx of students a surprise to town, Boston Globe, September 21, 2008*
- *Hard Times Hitting Students And Schools in Double Blow, New York Times, September 1, 2008*
- *Economy creates surge in homeless Mass. families , YahooNews, October 6, 2008*

# In the News (local)

- *The Invisible Student, Minneapolis St. Paul Magazine, May, 2008*
- *School Success in Motion: Protective Factors for Academic Achievement in Homeless and Highly Mobile Children in Minneapolis, CURA Reporter, Summer, 2008 (Masten et al.)*
- *Catholic Charities will Use RNC to Propel Platform to end homelessness, Pioneer Press, August 13, 2008.*
- *A Place to Learn, No Place to Live, Minneapolis Star Tribune, September 8, 2008.*
- *St. Paul Public Schools, especially on the East Side, report a jump in the number of homeless kids, Pioneer Press, October 18, 2008*

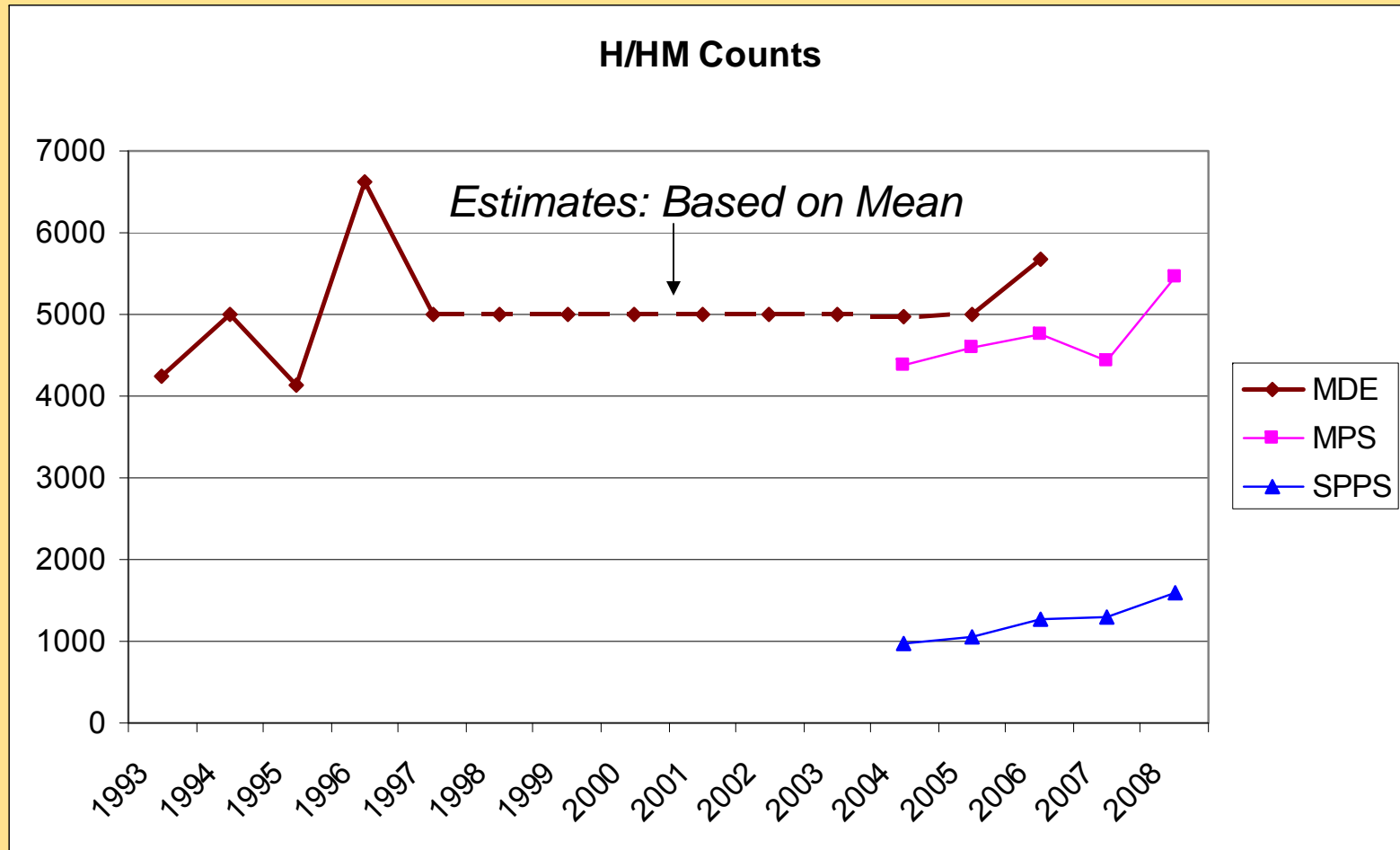
# National Homeless Estimates

- Of the estimated 2.3 million individuals experiencing homelessness each year, 1 million are children (Urban Institute, 2000)
- 30% of population consists of families with children (National Coalition for the Homeless, 2007)

# Homeless Youth in Minnesota

- Wilder Research (2007)
  - 35% of homeless are families with children
  - 84% of children under 12 years old
  - From 1991-2006, parent reported school enrollment rose from 52% to 89%
- Minnesota Department of Education
- Individual School Districts

# Homeless Students in MN



# Poor Outcomes Represent Human and Social Costs

- Homelessness represents a significant deterioration of family functioning and economic collapse
- Homeless children face particular challenges:
  - Poor educational outcomes
  - Poor social/emotional/behavioral outcomes
  - Poor child welfare outcomes

# Educational Outcomes

- **Lower achievement** (Rafferty, Shinn, & Weitzman, 2004; Masten, Sesma, Si-Asar, Lawrence, Miliotis, & Dionne, 1997; Rubin, Erickson, San Agustin, Cleary, Allen, & Cohen, 1996; Rafferty & Rollins, 1989)
- **Attendance** (Rubin et al., 1996; Zima et al., 1994; Rafferty et al., 1989)
- **Higher rates of retention** (Rubin et al., 1996; Rafferty et al., 2004; Buckner, Bassuk, & Weinreb, 2001; Masten et al., 1997)
- **School mobility** (Buckner et al., 2001; Masten et al., 1993; General Accounting Office, 1994)

# Social Outcomes

- **Experience more negative life events** (Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993)
- **Have lower self-worth** (Masten et al., 1993)
- **Higher rates of depressive symptoms** (Zima et al., 1994)
- **Problems with friendships** (Masten et al, 1993)
- **Increased behavior issues** (Ziesemer, Marcoux & Marwell, 1994; Masten et al., 1997, Zima et al, 1994)

# Child Welfare Outcomes

- **High rates of child welfare services** (Park, Metraux, Brodbar, & Culhane 2004; Culhane, Webb, Grim, Metraux, & Culhane, 2003)
- **High rates of out-of-home placement** (Wilder, 2007; Fantuzzo & Perlman, 2007; Masten et al., 1993)

# Previous Research

- Often difficult to generalize results due to:
  - Samples from one region or community
  - Studies in urban areas
  - Participants recruited from shelters or welfare rolls
  - Small sample sizes
- Perspective is often through one system “window”

# In Addition, Population Difficult to Study

- Those serving this population are continually challenged by:
  - Identification
    - Not all students in the situation come forward
  - Crisis management nature of supports
    - Valuable work occurs at point of crisis – is not preventative
  - Uncertainty about the extent of the problem
    - It feels like there are “many more out there”

# Project Goals

1. Describe what we are learning
2. Attempt to estimate the total number of Homeless and Highly Mobile Students in the State (2005-2006).
3. Discuss the use of early “identifiers”

# Minn-LInK

- About the project
  - Situated within the School of Social Work at the University of Minnesota
  - Has been in place since 2003
  - Is a unique research resource
    - Holds large, statewide datasets from public systems
    - Used for the purpose of creating linkages (the “bigger picture”) to study child and family outcomes in Minnesota
  - Each study uses a study-specific advisory group

# Homeless and Mobile Student Project & Minn-Link

- Statewide data provides an opportunity, with the assistance of McKinney-Vento Districts, to examine student mobility and homelessness
  - Over time, and
  - Across multiple systems

# 1. Describing Homeless Students

Describe education and child welfare outcomes for these students (before and after becoming identified as homeless).

- Studies usually have single orientation
- We want to create a bigger picture that includes multiple perspectives

## 2. Attempt to Estimate Total Homeless Student Population

Having a better sense of just how many students are affected by homelessness would:

- Help with budget projections, staffing and resource allocation, and operational/procedural changes to improve service delivery (*County perspective*).
- Help raise awareness and funding for pilot interventions or make more informed funding requests for services (*Advocate perspective*)

### 3. Attempt to Find Predictive/Early Identification Measures

Related to creating an estimate, we hope to create models that

- May allow us to identify students who are already homeless but whom we have not identified (school systems, county systems).
- May allow us to approach students earlier whose family economics are in danger of deteriorating to the point of homelessness.
- May point the way to utilize resources that are already in place, *differently* and *earlier*.

# Designing the Study: State Education Data

- Education dataset contains:
  - All students enrolled in public schools in Minnesota over the course of the year (an annual longitudinal file)
  - Variables related to reporting and funding
  - Target variables
    - Note: Early Childhood population excluded

# Education Data: Began with Creating Two Groups

- Students who were not mobile
- Students who were mobile

# Began work with 2005-2006 Education Data

- McKinney-Vento Districts felt this was a good year to use because of the maturity of coding practices in districts
- Minn-LInK had this statewide data at the Center

# Identifying Mobile Students

1. Quantified the number of school changes, district changes, and residential district changes over the year, for each student.
  - Flagged students who had status codes indicating movement or change such as:
    - 04 – moved outside district
    - 05 – moved outside state/country
    - 32 – left for financial reasons
    - 33 – left school for family environment reasons

# Identifying Mobile Students

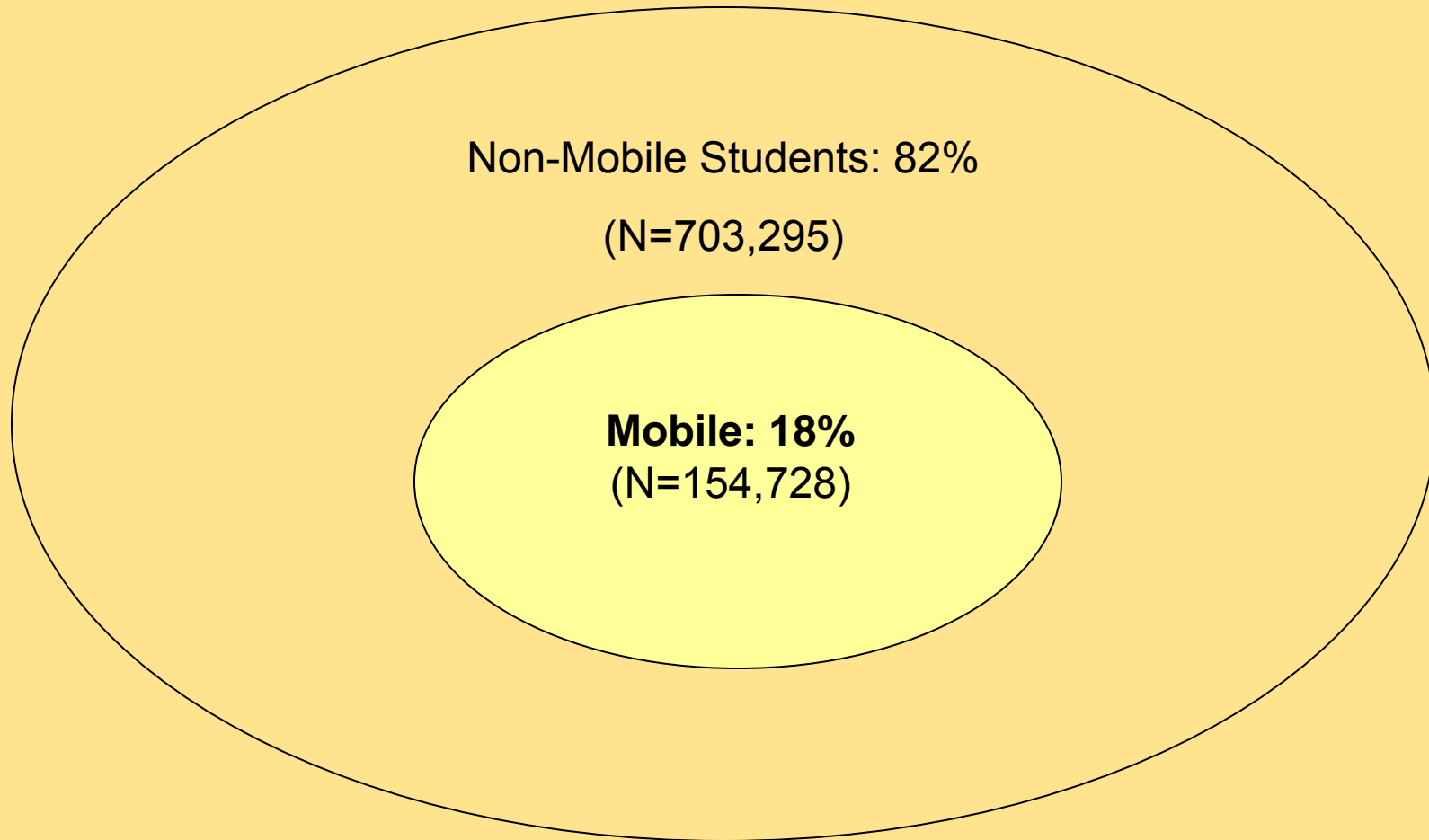
2. These data formed the basis for a Mobility flag.
3. If there was no clear indication of moves using these codes together, the student was considered not mobile.

# Identifying Mobile Students

4. Separated students who had experienced movement from those who did not
5. Some students experienced considerable disruptions, but we could only speculate as to whether or not they might actually be homeless.

# Statewide, N=858,023

Statewide MARSS Data 2005-2006



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# What “Mobile” Student Means

- It does NOT mean homeless
  - However, homeless students are likely a subset of these students

# Help from Districts

- We were able to work with three Minnesota districts
  - Saint Paul
  - Minneapolis
  - Duluth
- Districts helped us by providing their homeless student data (H/HM) for 2005-2006. This allowed us to
  - Describe outcomes for a known/identified homeless student population, and
  - Explore estimation models for potentially homeless students

# McKinney-Vento Homeless Education Assistance Improvements Act (2002)

- Originally Stewart B. McKinney Homeless Assistance Act of 1987
- Intent
  - Homeless youth receive the same free, appropriate education as non-homeless youth
- Homeless defined as “lacking a fixed, regular, and adequate nighttime residence”

# McKinney-Vento Homeless Education Assistance Improvements Act (2002)

- Provisions
  - Immediate enrollment
  - Transportation
  - Supports: tutoring, parent education, etc.
  - State Coordinator's Office

# How McKinney-Vento Districts Identify Students

- Notification from local shelters
- Information from families at enrollment
- Information gathered from students in school
- Variations:
  - Minneapolis Public Schools include highly mobile students as well as homeless students
  - Duluth and Saint Paul identify by McKinney-Vento guidelines and via referrals and knowledge of homeless status of students

# Joining the Data

1. Reduced statewide data to these three districts (N=104,680 students).

# Minneapolis, St. Paul, and Duluth Districts Provided Data

Minneapolis, St. Paul, and Duluth Only

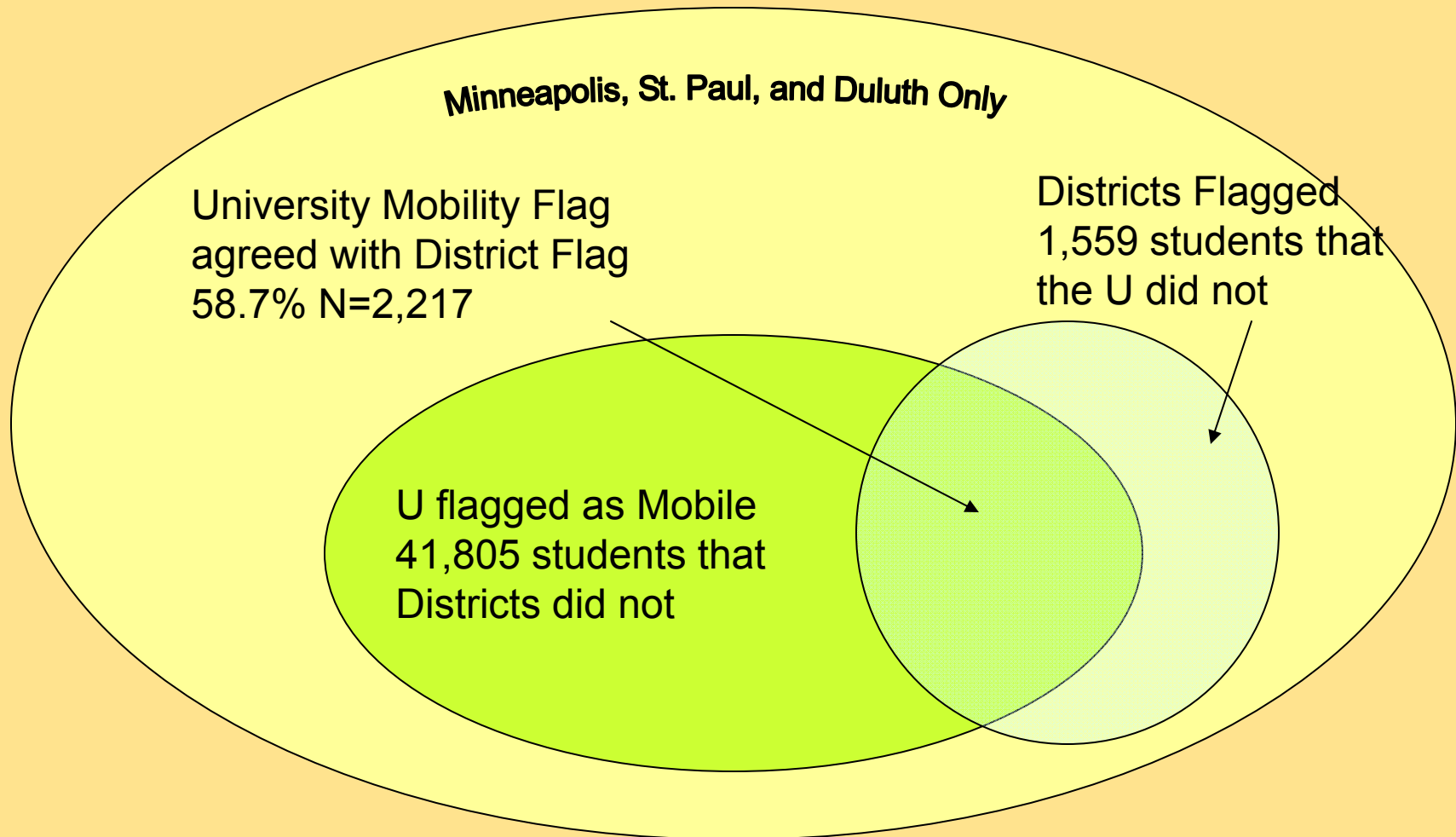
N=104,680

For only these Districts, the University Flagged 42.1% (N=44,022) of students as Mobile

# Joining the Data

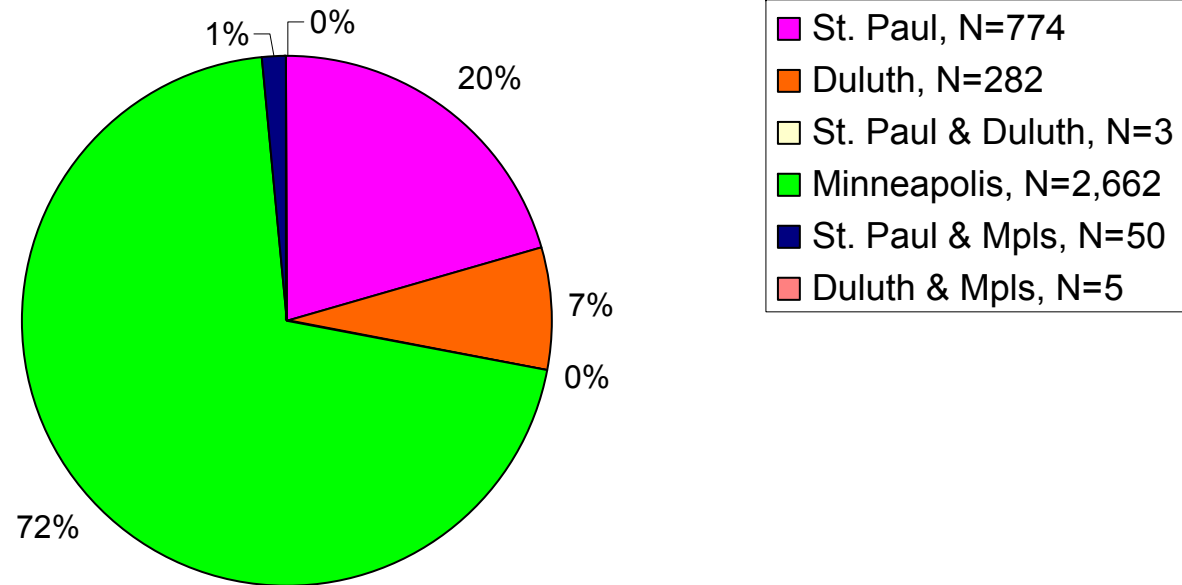
2. Next, identified H/HM students joined to student file.

# When District Data Was Joined



# Districts of Identified H/HM Students

Percent of All H/HM Flagged Students 2005-2006



# Homeless (Identified) and Flag Alignment

- The U Mobile flag agreed with H/HM flags (59%)
- The 1,559 students identified by the districts, but not the University represent a potential study population
  - They may represent a population for whom McKinney-Vento has had a stabilizing effect.

# Describing Homeless Students

Goal: Examine child welfare and education outcomes for students

- **BEFORE** and
- **AFTER** their identification as homeless

# To Best Describe Homeless Students

We focused on two of our three groups:

1. **Homeless** (H/HM district identified)
2. **Non-Mobile**
3. **Mobile**

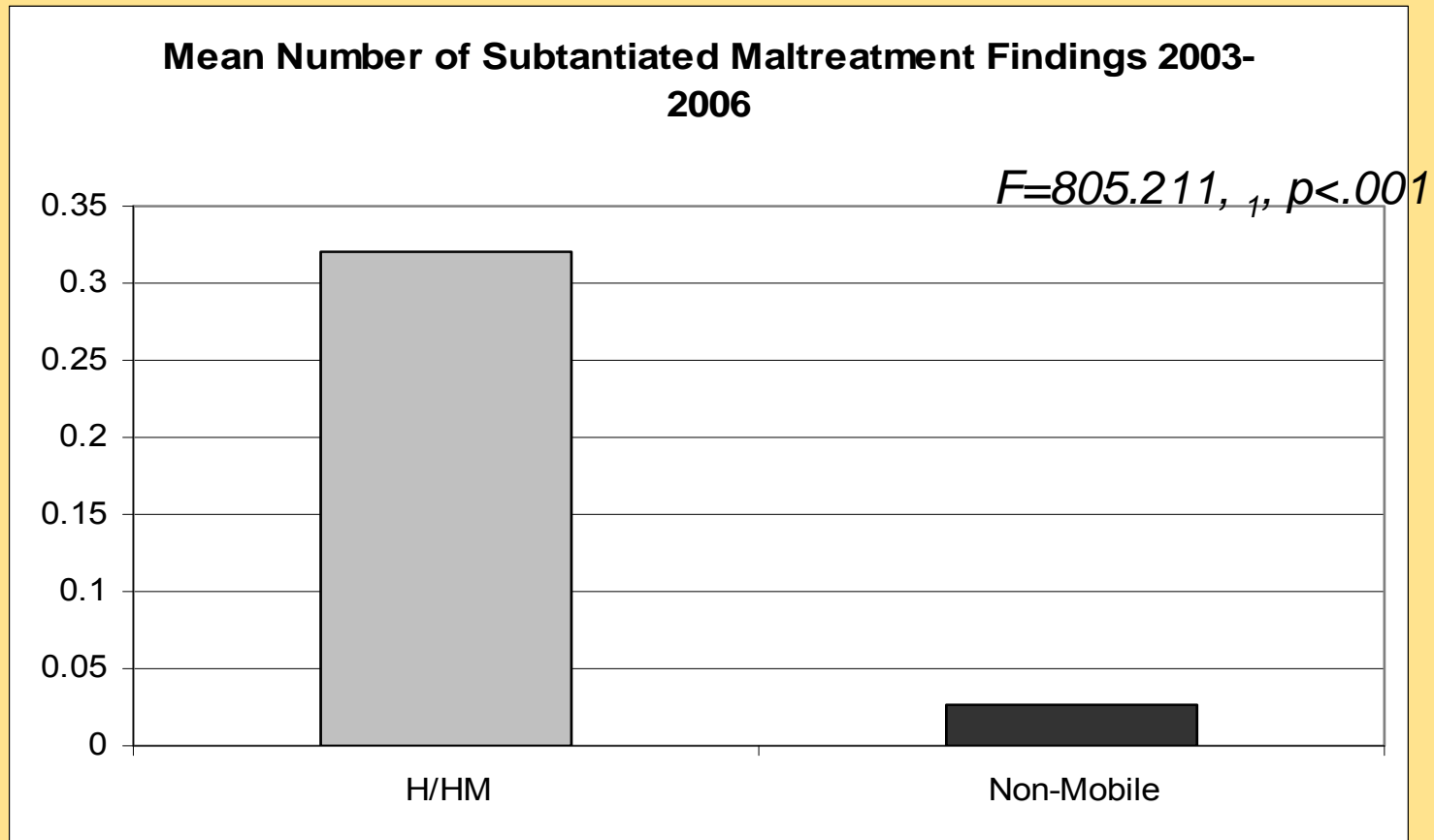
# Child Welfare Histories

## (Child Welfare System Data)

- Chose a sub-set of the student population
  - Young children (grades kindergarten and first)
  - Students in grades 7, 8, and 9 (Wulczyn, 2002)

# CW - Maltreatment Findings

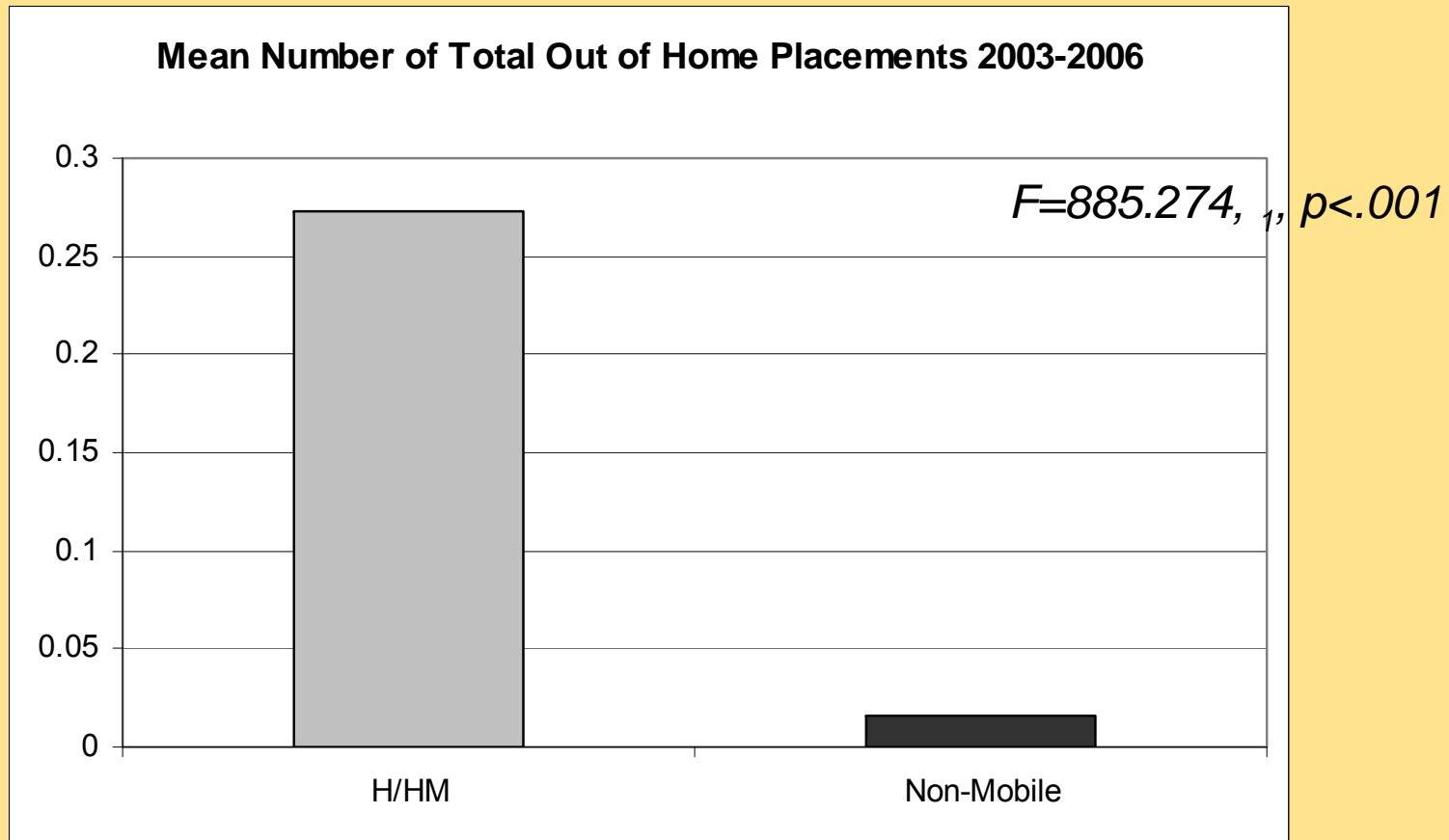
(Only Young Children and Adolescents)



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# CW - Out of Home Placements

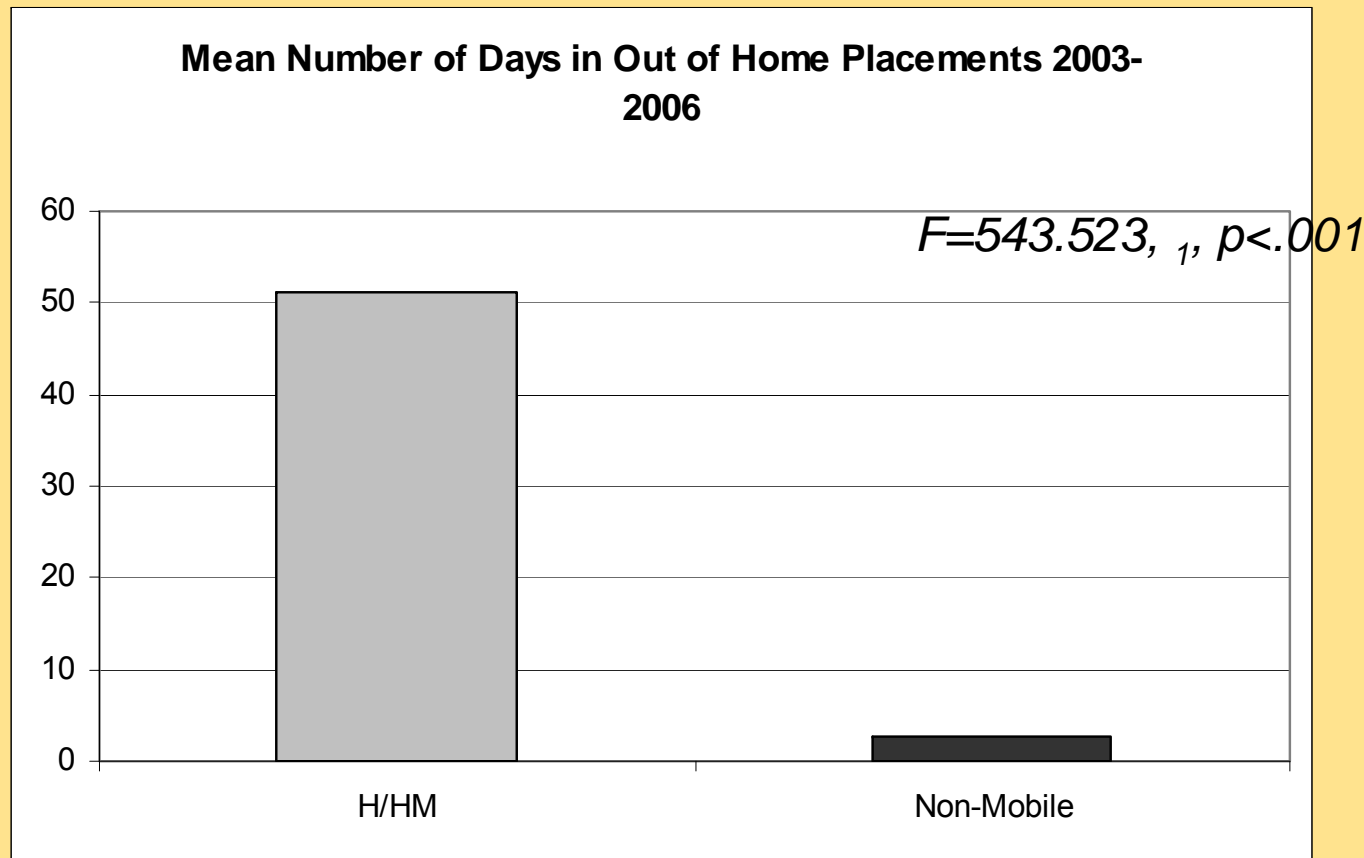
(Only Young Children and Adolescents)



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# CW - Total Days in Placement 2003-2006

(Only Young Children and Adolescents)

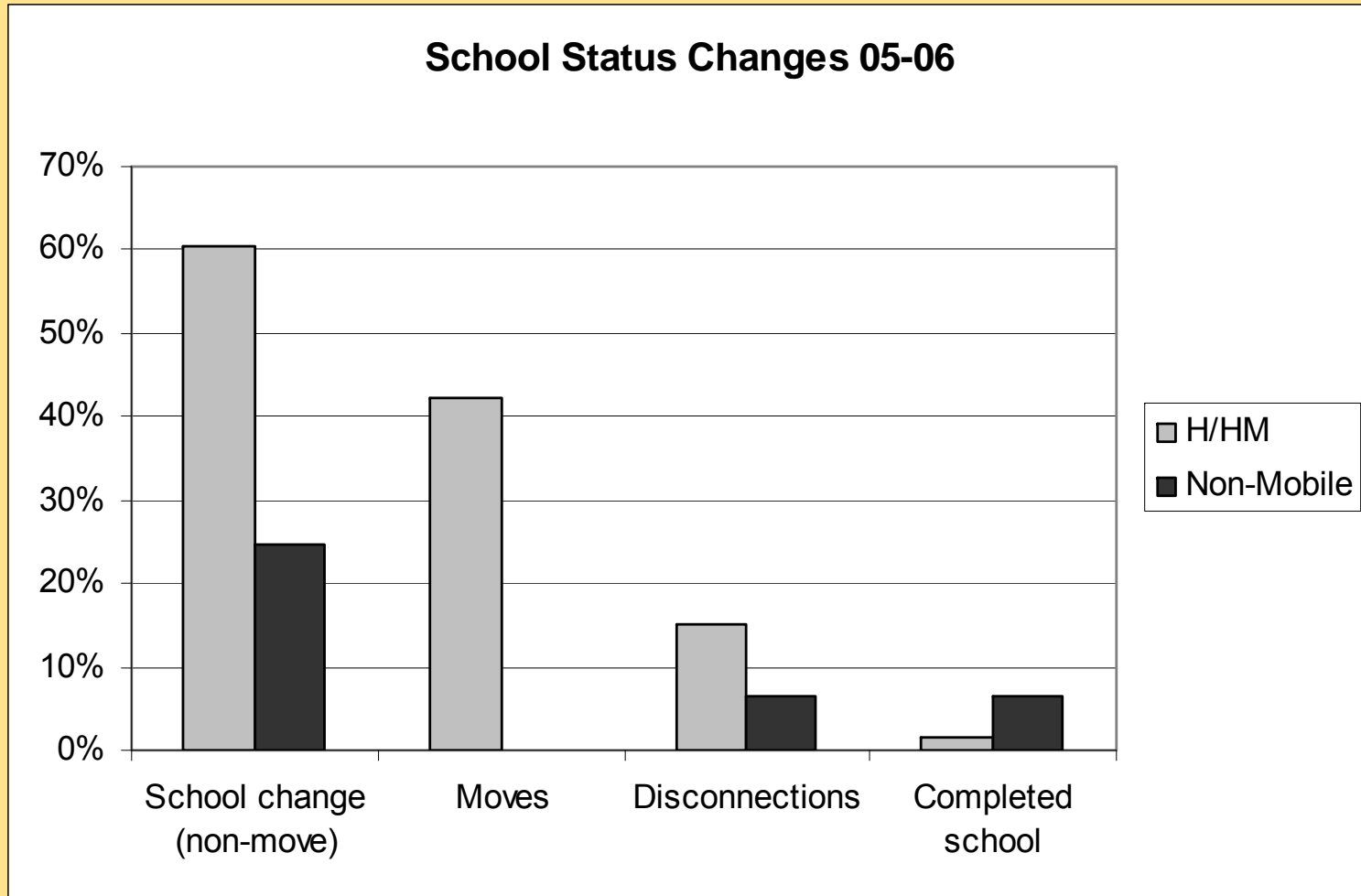


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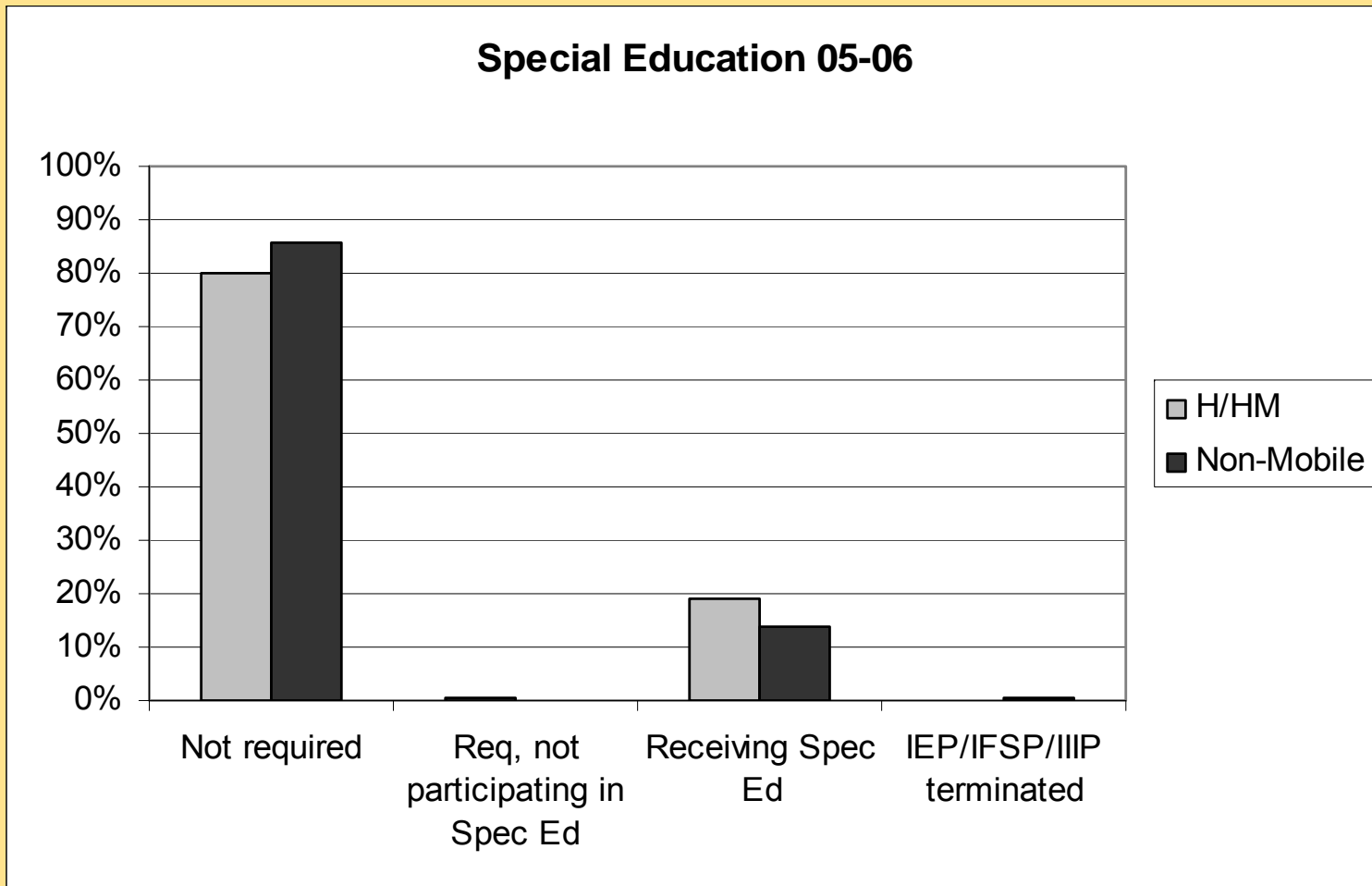
# ED- Status Changes – For All Age Groups

- School change, but no residential move:
  - Transf to pub schl, same dist
  - Tranf to approved non pub schl
  - W/drew to non approved nonpub schl
  - Tranf to another dist/state: did not move
  - Kg withdrawal - expected back
  - W/drew to homebound
- Moves\*
  - Moved out of district
  - Moved out of state or country
- Completed
  - Graduated
  - Graduated (IEP/IIIP)
- Disconnections:
  - Left after reaching compuls age
  - Excused due to phys or mental disab
  - Committed to correct fac
  - W/drawn after 15 days - expected back
  - Left, marriage
  - Left, pregnancy
  - W/drew to enter care or treatmt prog
  - Left, financial reasons
  - Left, unknown
  - Left, family environment
  - Left, social reasons
  - Expelled: did not return
  - Met dist req to grad, but failed to pass test
  - Left to attend GED program
  - Dropped out, reenrolled elsewhere
  - Died

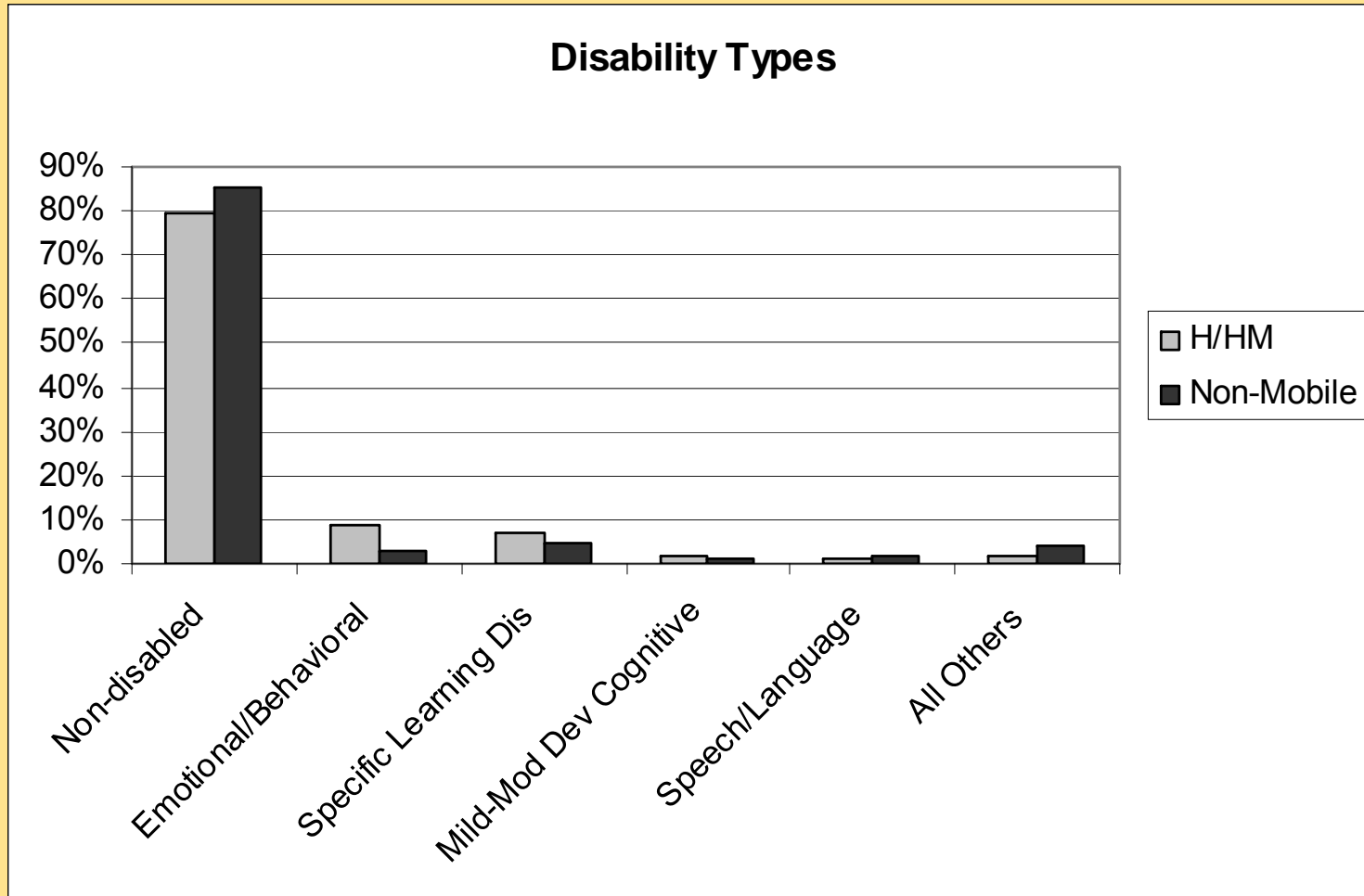
# ED - Status End Codes



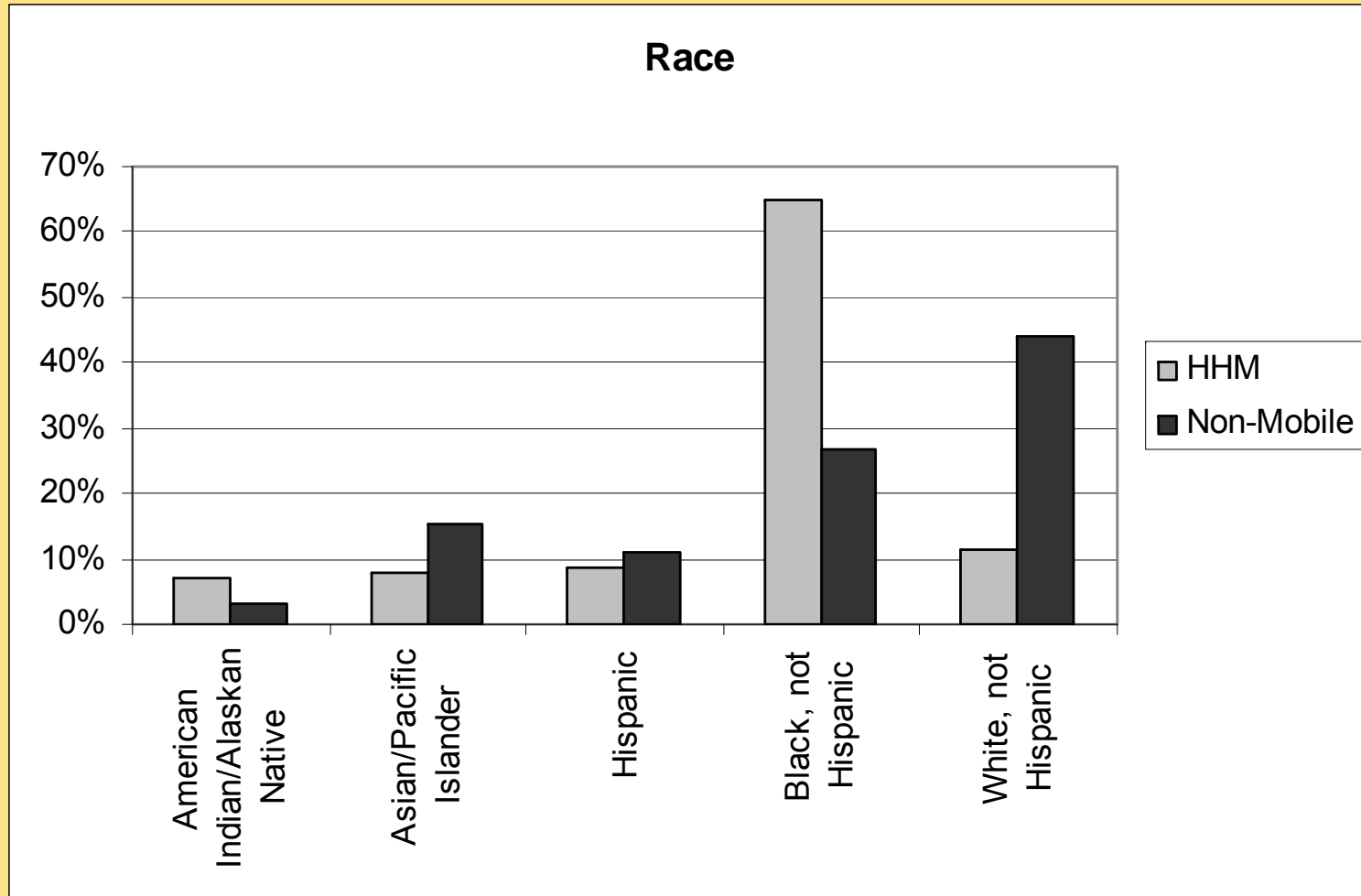
# ED- Special Education



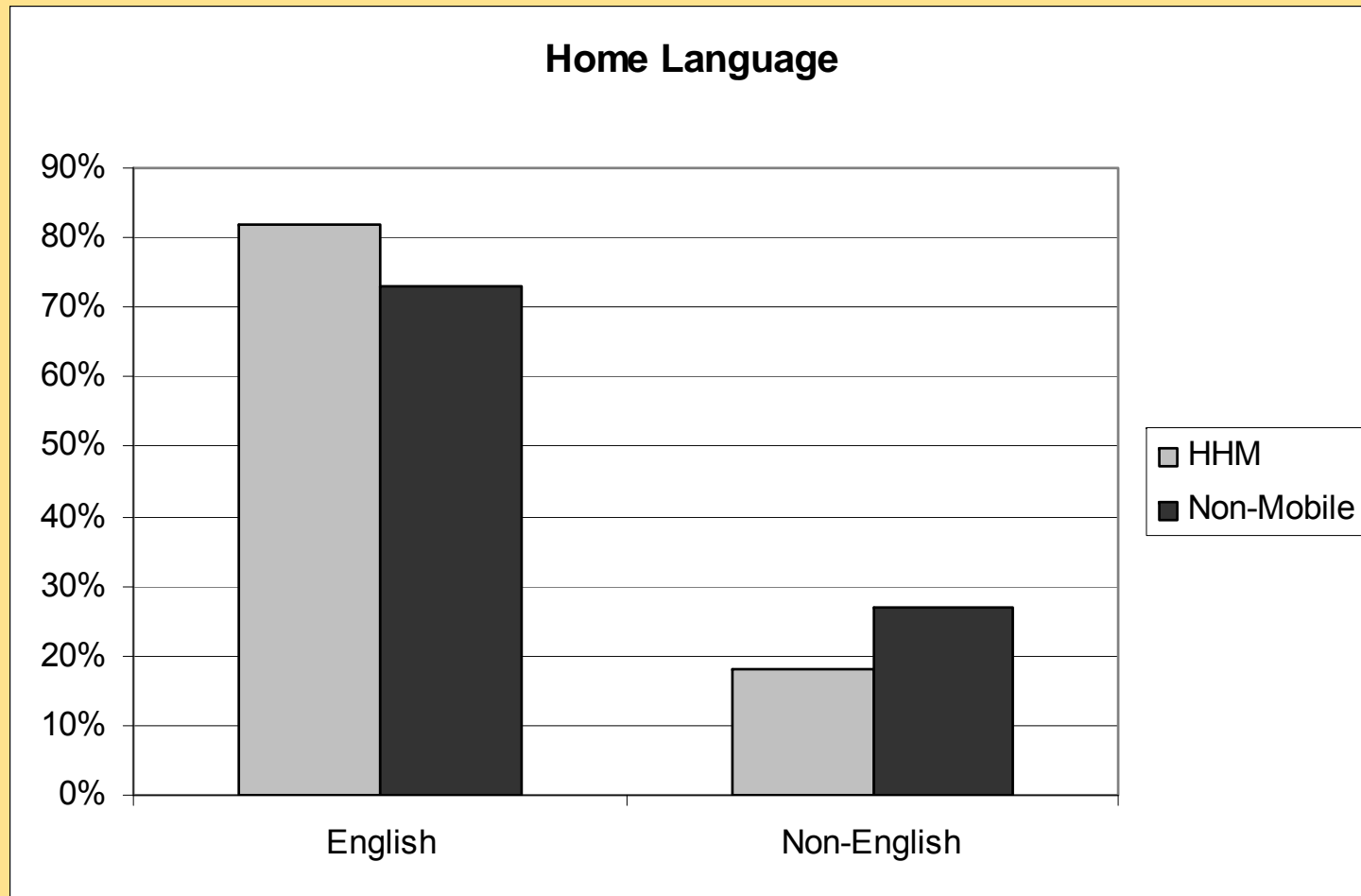
# ED - Disability



# ED - Race

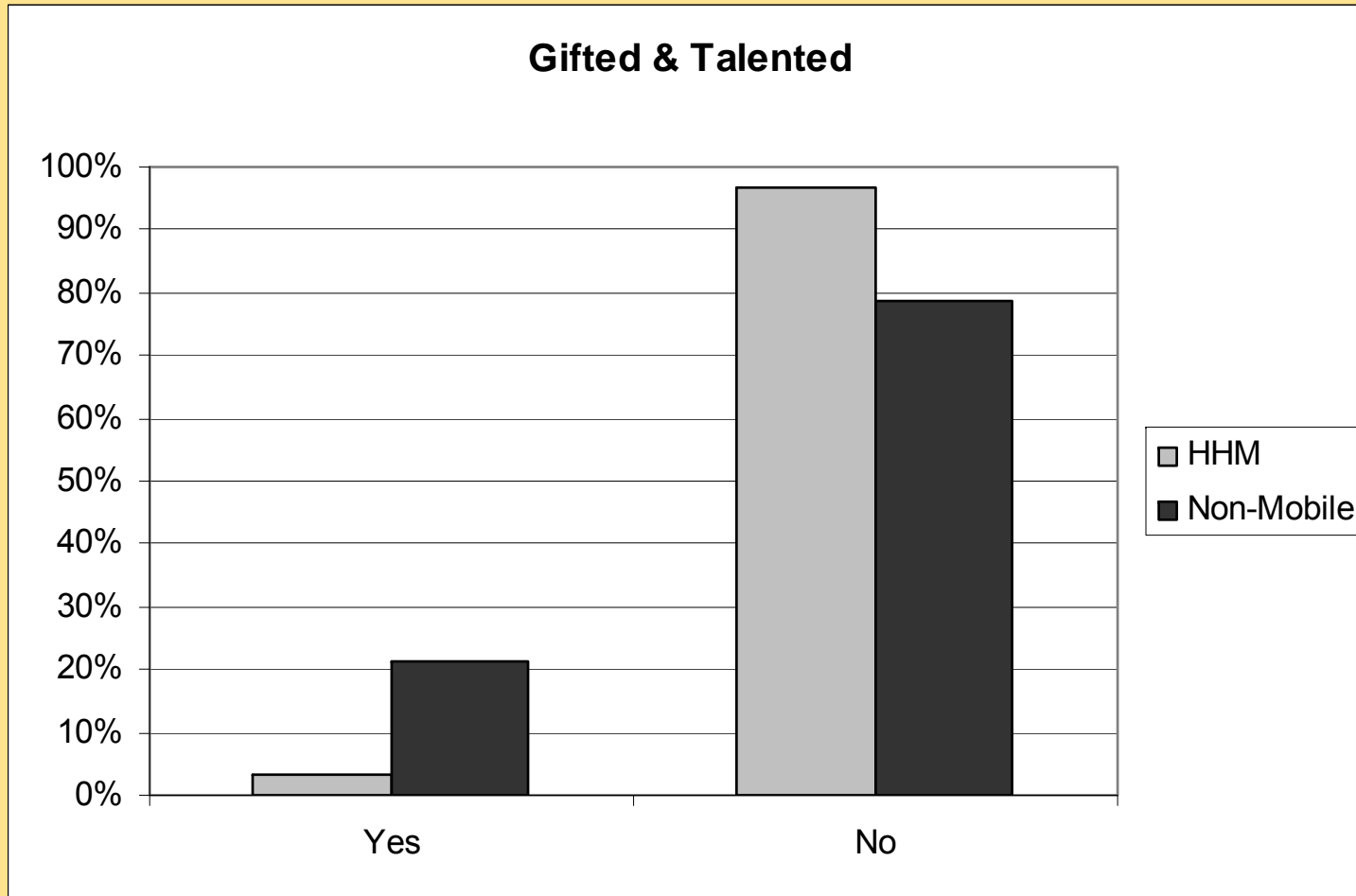


# ED - Home Language



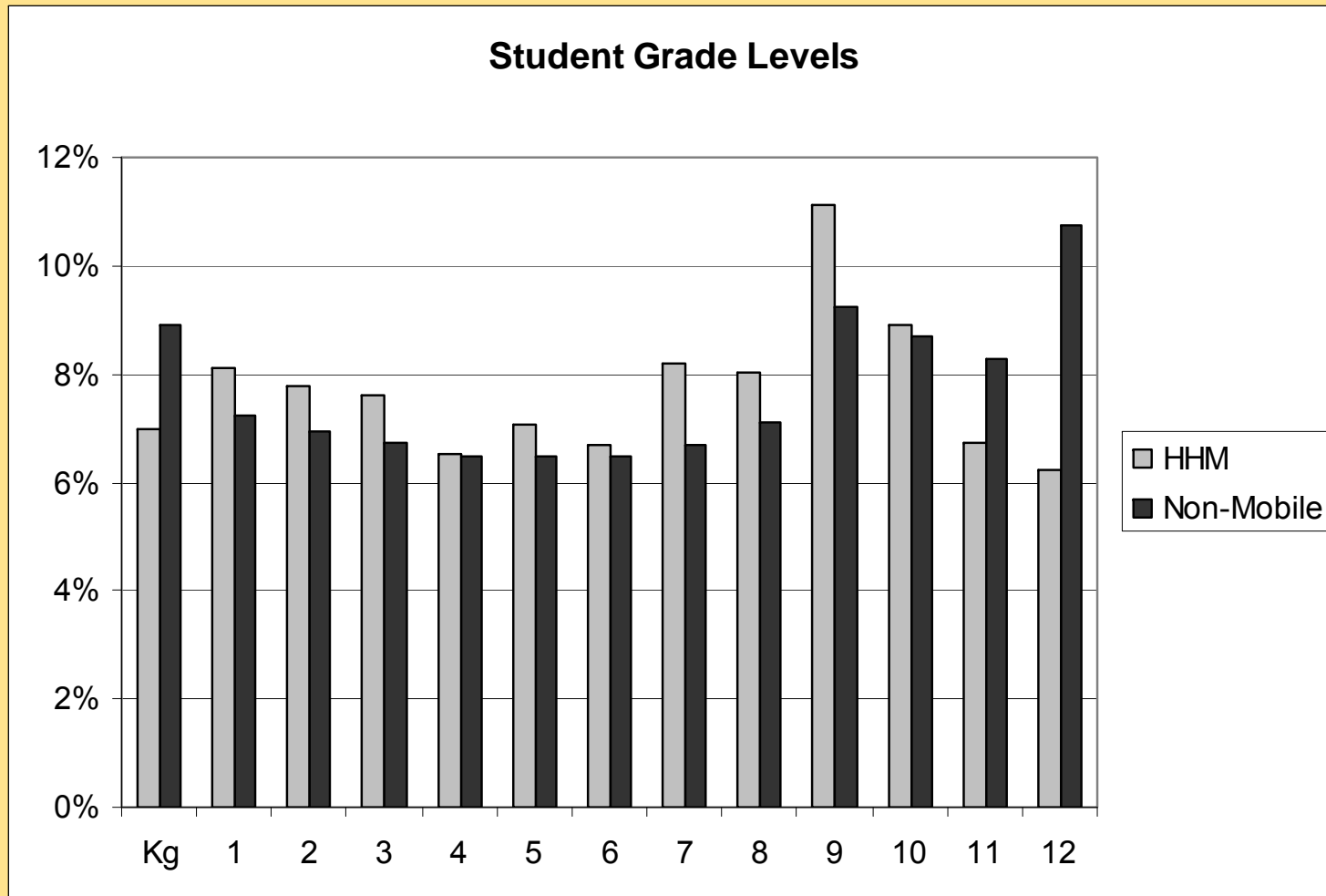
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# ED -Gifted & Talented



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# ED -Grade Levels

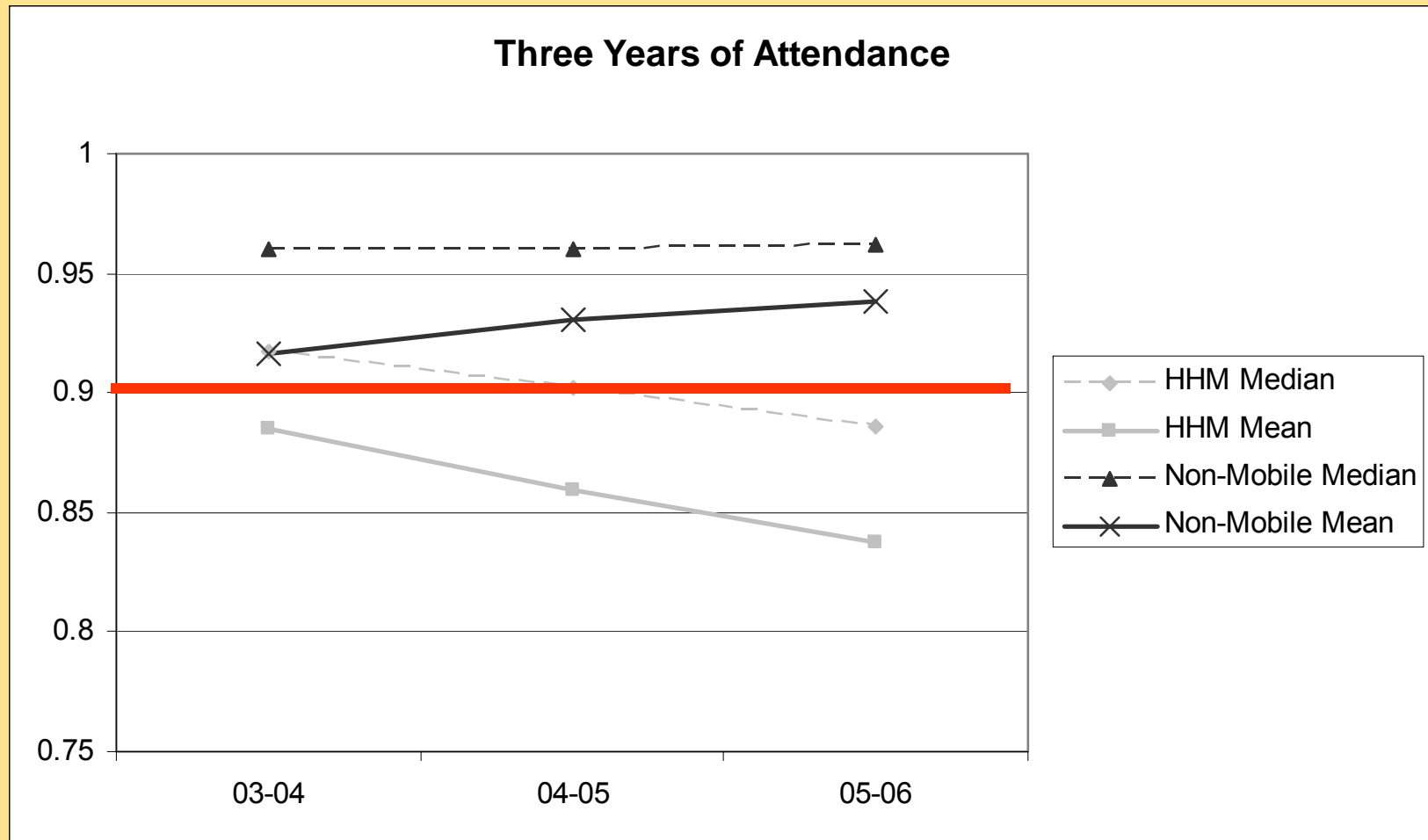


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# Free Meal Eligibility Anytime During 05-06



# ED -Attendance History



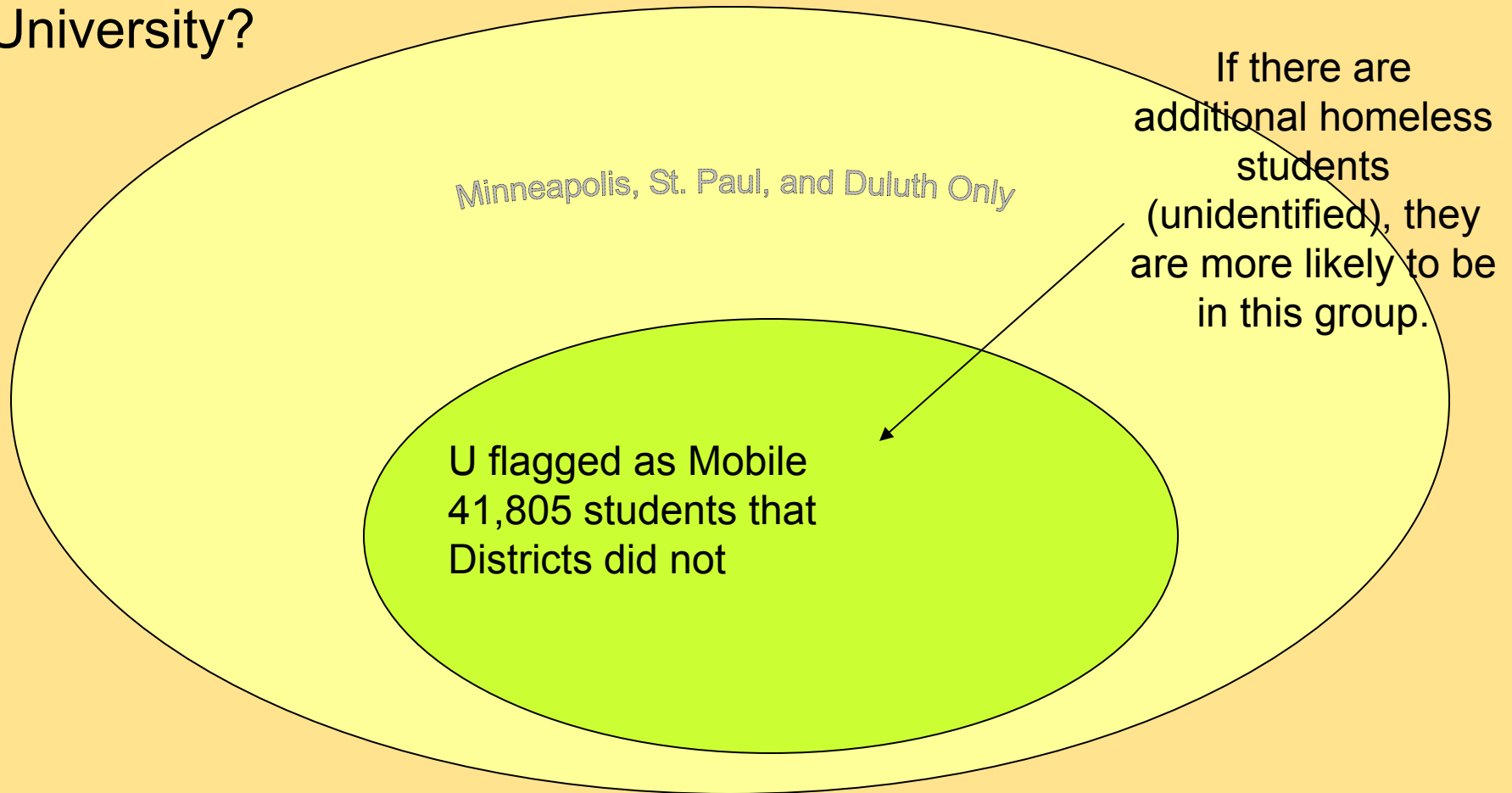
# Next Questions for the Data

- Might the data help identify students
  - who are homeless but have not (yet) come to the attention of systems?
  - whose family circumstances might be ‘headed toward’ homelessness?

The attendance history data hints at this

# Revisiting the Mobile Group

Remember the Mobile group flagged by the University?



# To Attempt to Identify Mobile Students who might be Homeless

- Explore what attributes (variables) are more common among H/HM students
- Examine which of these variables increase the likelihood of being H/HM (log odds/risk ratios)

# Risk Ratios (log odds)

Some examples of variables with this kind of influence in our data:

- Free Meals: 64.6
- Prior year's (04-05) attendance < 90%: 1.7
- Significant values were also observed for race, residential district moves, and a variety of others.

# Models

Important: There are many different ways to build a model – we built two models based on our variables

$$\log(\text{odds}) = \beta_0 + \beta_1 * x_1 + \beta_2 * x_2 + \beta_3 * x_3 + \text{error}$$

$\beta_1 * x_1$  = Free Meals (*both*)

$\beta_2 * x_2$  = Race (Black/AmerInd) (*Model 1*)

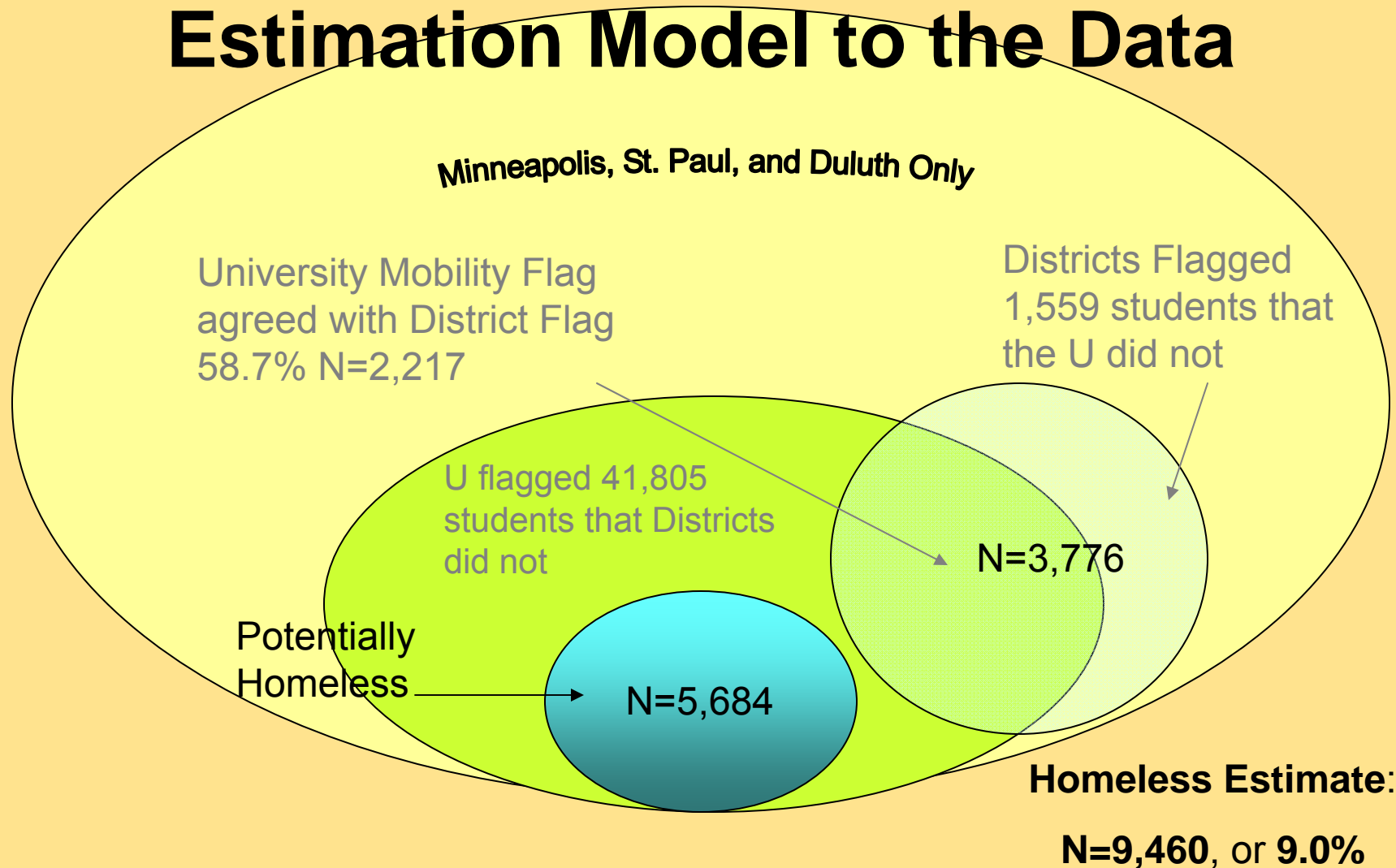
$\beta_3 * x_3$  = Prior Year's poor attendance (*both*)

# Applying Models to the Mobile Group Creates New Estimates

Re-coding the University Mobile group (N=41,805) using this model results in

- **Model 1:** another 5,684 students identified as potentially homeless. This raises the estimated H/HM count from 3.6% of students to 9%.

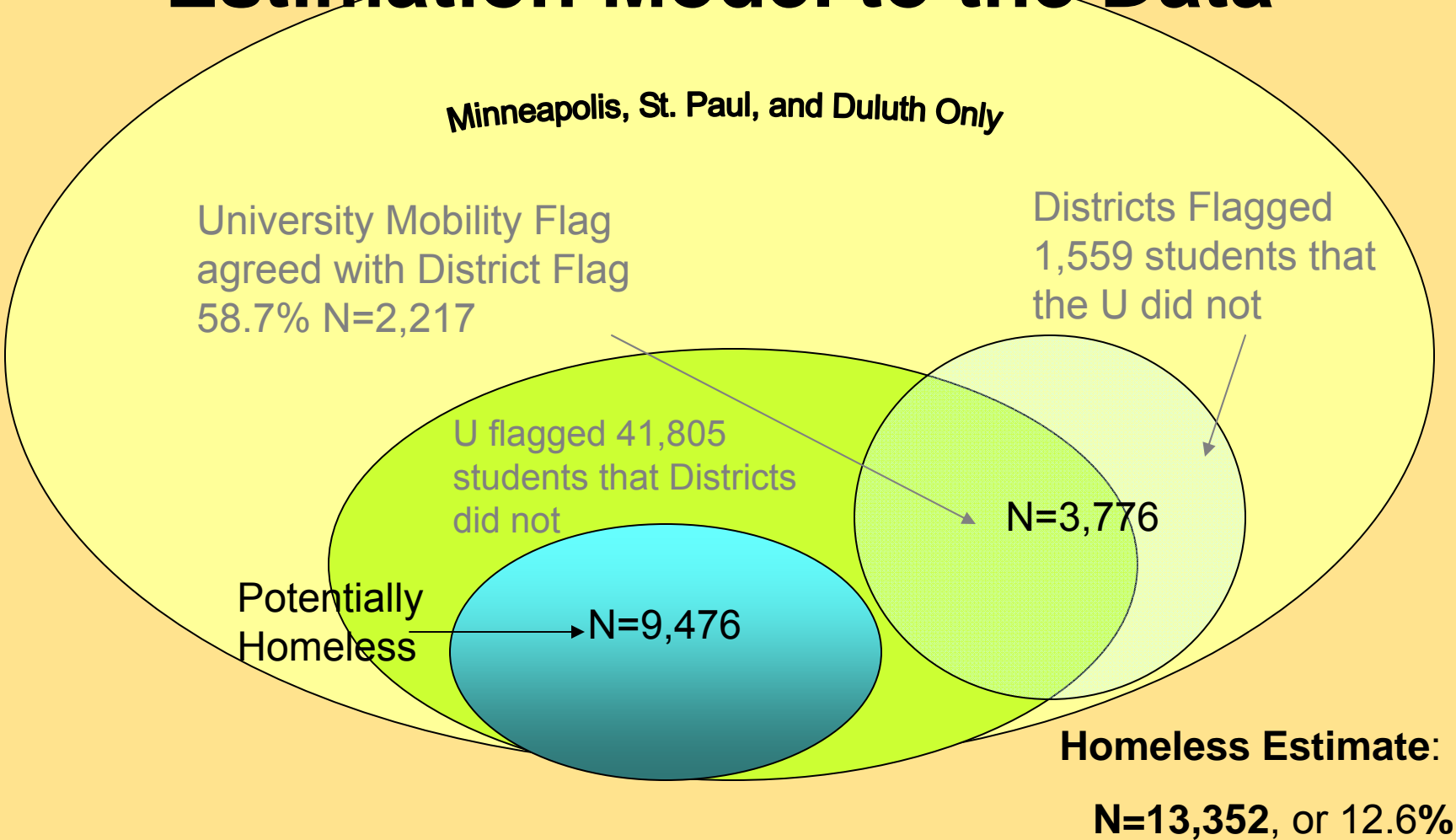
# Result of Applying One Estimation Model to the Data



# Applying Models to the Mobile Group Creates New Estimates

- **Model 2:** identifies another 9,476 students which raises the estimated H/HM count to 12.6%

# Result of Applying Another Estimation Model to the Data



# How Reasonable Are These Estimates?

- **GAO** report (1989) used a 2.7 population multiplier:  $3,776 \times 2.7 =$  total of 10,195 (9.7%)
- “**2.8 percent** of a national sample of currently housed youth (12-17) had spent at least one night...” in a non-permanent setting and in a later report, these authors revised this figure to **5%** -  
(*Research Triangle Institute, 1993; Estimate used by Wilder for 2006 study “Overview of youth and young adult homelessness in Minnesota”*)
  - Results in a range of 2,931 (2.8%) – 5,234 (5%) if applied to all students

# How Reasonable Are These Estimates?

- Model/Estimate 1 is race-based.
  - Eliminating race increases Estimate (#2).
- Probably too low for 2008: current economic conditions are far worse than 2006
- Should be considered “bare minimum” estimates

# What Are the Implications?

1. It might be possible to estimate this population with more precision than is currently our practice.
2. Districts and schools may use their student data differently to target interventions or make resources available earlier to some students.

# What Are the Implications?

3. (More) estimation models might be most useful if geared towards specific program/service areas.
4. With a more closely monitored (estimated) population we can more effectively monitor community-level intervention effects.
5. Others?

# Next Steps

- Incorporate feedback from workshop (today)
- Incorporate initial reflections from our advisory group members, including McKinney-Vento district liaisons
- Continue to examine the models as written and modify
- Confirm group membership (H/HM versus Non-Mobile) using other statistical models (e.g. hierarchical cluster analysis)

# Next Steps

- Obtain newer (more recent) data on these students to see how they are doing (“after”)
  - Education outcomes for the 06-07 school year
  - Child welfare outcomes post December 2006
- Explore other potential data sources to broaden the picture further
  - Children’s Mental Health
  - Public Assistance (TANF/MFIP)
- Consider testing models within and across systems
- Revisit early childhood population identified by districts for study

# For More Information

- Please share your contact information if you'd like updates to our study
- Please visit our web site for more information about Minn-LInK or the CASCW:
  - CASCW: <http://cehd.umn.edu/SSW/cascw/>
  - Minn-LInk: <http://cehd.umn.edu/SSW/cascw/research/minnlink/default.asp>

# Thank you!

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