Minnesota Youth Development Research Group

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*Current Members
• Population survey of students in grades 5, 8, 9, 11
• Three forms of the survey (5th, 8th, 9th/11th)
• 336 questions on the 9th/11th grade forms
• Optional for schools (84% of public districts in 2013)
• Administered every 3 years (2013 most recently)
• 162,034 students
MSS is a rich database

Data on student background provides unique access to investigate unique group differences

Large data base that provides access to deeply investigate unique communities, and to examine variability within a single group
• Too many variables (336)
• Item-level data are less meaningful at program, system, and policy levels
• Many districts have limited capacity to work with large databases
• Student group disaggregation is promising
• Composite measures are desired
Our Process
• Using a positive youth development framework and ecological models of development, we identify items related to research-based constructs
• Confirmatory factor analysis is employed to test model-data fit
• Items are calibrated using the Rasch family of measurement models
• Scores are estimated and transformed to support score interpretation
• Evaluating the ecological model of youth development
• Investigating components of youth development
• Contributing to the developmental skills (assets) framework research
• Investigating substantive issues related to youth development
• Investigating racial and ethnic variation
Our Current Efforts
• Demonstrate how items can be used to create meaningful and useful measures to monitor school and district-wide efforts and special programs

• Respond to the efforts of Generation Next to measure aspects of social-emotional learning (providing support for the 6th goal area)

• Provide composite scores to schools regarding developmental skills, supports, and challenges
<table>
<thead>
<tr>
<th>Developmental Skills</th>
<th>Developmental Supports</th>
<th>Developmental Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commitment to Learning</td>
<td>1. Empowerment*</td>
<td>1. Bullying</td>
</tr>
<tr>
<td>2. Positive Identity*</td>
<td>2. Supported</td>
<td>2. Bullied</td>
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<td></td>
<td>*DAP</td>
<td>4. Mental Distress</td>
</tr>
<tr>
<td>5. Family Violence</td>
<td></td>
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</tbody>
</table>

*DAP
Learning about MN Students
• To support interpretation, the score scale was converted to a scale that generally ranges from a low of 5 to a high of 15.

• A score of 10 is the mid-point of the scale. It describes the point at which a development skill or support goes from weak to strong or negative to positive.

• A score of 10 indicates that the skill, support, or challenge is more true for a student than not
• 10 is scale mid-point
• Second vertical bar is MN average (11.4)

• Overall HIGH CtL
• 87% report positive CtL
• CtL decreases for some from grade 5 to 8
• Student groups vary
• Overall, PI is moderate to high overall (11.1)
• 79% report positive PI
• PI decreases for most from grade 5 to 8
• Student groups vary
• Overall, SC is moderate to high
• 85% report positive SC
• SC decreases for most from grade 5 to 8
• Student groups vary
Commitment to Learning

Grade 5, 8, 9, 11

- Asian
- Hmong
- Somali
- Black
- White
- Latino
- Multiple
- Am Indian
Empowerment

- White
- Somali
- Black
- Asian
- Latino
- Multiple
- Am Indian
- Hmong

Grade 5 8 9 11
• Disparities are defined in the next few slides as group differences from the State Average Score.
• Each bar represents the number of standard deviations difference between youth in each group and the state average.
• We generally interpret these differences as being very small when 0.2 or less, small when 0.2—0.4, moderate when 0.4—0.6, and large when 0.6 or more.
Disparities in Commitment to Learning

Effect Size: Difference from MN Average

- Hmong
- Somali
- Latino
- White
- Multiple
- Black
- Asian
- Am Indian
Disparities in Positive Identity

Effect Size: Difference from MN Average

- Hmong
- Somali
- Latino
- White
- Multiple
- Black
- Asian
- Am Indian

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Disparities in Social Competence

-6 -4 -2 0 2 4 6

Effect Size: Difference from MN Average

Hmong
Somali
Latino
White
Multiple
Black
Asian
Am Indian

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Disparities in Empowerment

Effect Size: Difference from MN Average

- Hmong
- Somali
- Latino
- White
- Multiple
- Black
- Asian
- Am Indian
Disparities in Supported

Effect Size: Difference from MN Average

Hmong
Somali
Latino
White
Multiple
Black
Asian
Am Indian
Disparities in Teacher/School Support

- Am Indian
- Asian
- Black
- Multiple
- White
- Latino
- Hmong

Effect Size: Difference from MN Average
Disparities in Mental Distress

- Am Indian
- Somali
- Latino
- White
- Multiple
- Black
- Asian

Effect Size: Difference from MN Average

-6 -4 -2 0 2 4 6
• Since we use a common effect size – the difference between groups in standard deviations, we can compare disparities in developmental skills with those we see in achievement (achievement gaps).
• Similar data was obtained for 2013 MN Student Survey and the 2013 state MCA tests in Reading and Mathematics.
• We see much larger disparities in achievement than we do with Developmental Skills.
8th Grade MCA & PI Disparities v. White
Equipped for Learning
To be equipped means that, on average, the student
• recognizes characteristics associated with the
developmental skill as being very much or
extremely like them;
• agrees or strongly agrees with values, behaviors,
and characteristics defining each skill;
• engages in relevant skill-based behaviors most or
all of the time.
Developmental Skills

Positive Identity
- 4%

Social Competence
- 6%
- 39%
- 12%

Commitment to Learning
- 5%
- 12%
- 12%

17% have 0 Skills
21% have 1 Skill
23% have 2 Skills
39% have 3 Skills
Proportion Equipped: Commitment to Learning

Grade

Hmong
Asian
Black
Somali
White
Latino
Multiple
Am Indian

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Proportion Equipped: Commitment to Learning
Proportion Equipped: Social Competence

Grade

Somali
Asian
White
Black
Hmong
Multiple
Latino
Am Indian
Proportion Equipped: Positive Identity

Grade

Somali
Black
White
Latino
Asian
Multiple
Hmong
Am Indian

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Unending Questions...
Equipped Skills & Grades Earned in School
Equipped Skills & Afterschool Participation
Disparities in After-School Participation
Of students in grades 8-11 in St. Paul:

- About 31% report to work at least 1 hour a week (of these, 22% work more than 10 hours/week).

- Of those working, 77% participate in after-school activities.

- Of those not working, 70% participate in after-school activities.
Disparities: Sexual Orientation

Mental Distress
Empowerment
Social Competence
Positive Identity
Commit to Learning

-1.0 -0.5 0.0 0.5 1.0

- Questioning
- Gay or lesbian
- Bisexual

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