

Using the MSS to Create Youth Profiles of Developmental Skills, Supports, & Challenges

Michael C. Rodriguez

Campbell Leadership Chair in Education & Human Development

Minnesota Youth Development Research Group

Anthony Albano

Okan Bulut

Julio Cabrera

Yu-Feng Chang

Raul Guzman

Tahoe Jung

Youngsoon Kang

Stacy Karl

Yukiko Maeda

Brett Morrow

Kyle Nickodem

Jose Palma

Luke Stanke

Martin Van Boekel

Kory Vue

Ari Warshawsky

 UNIVERSITY OF MINNESOTA

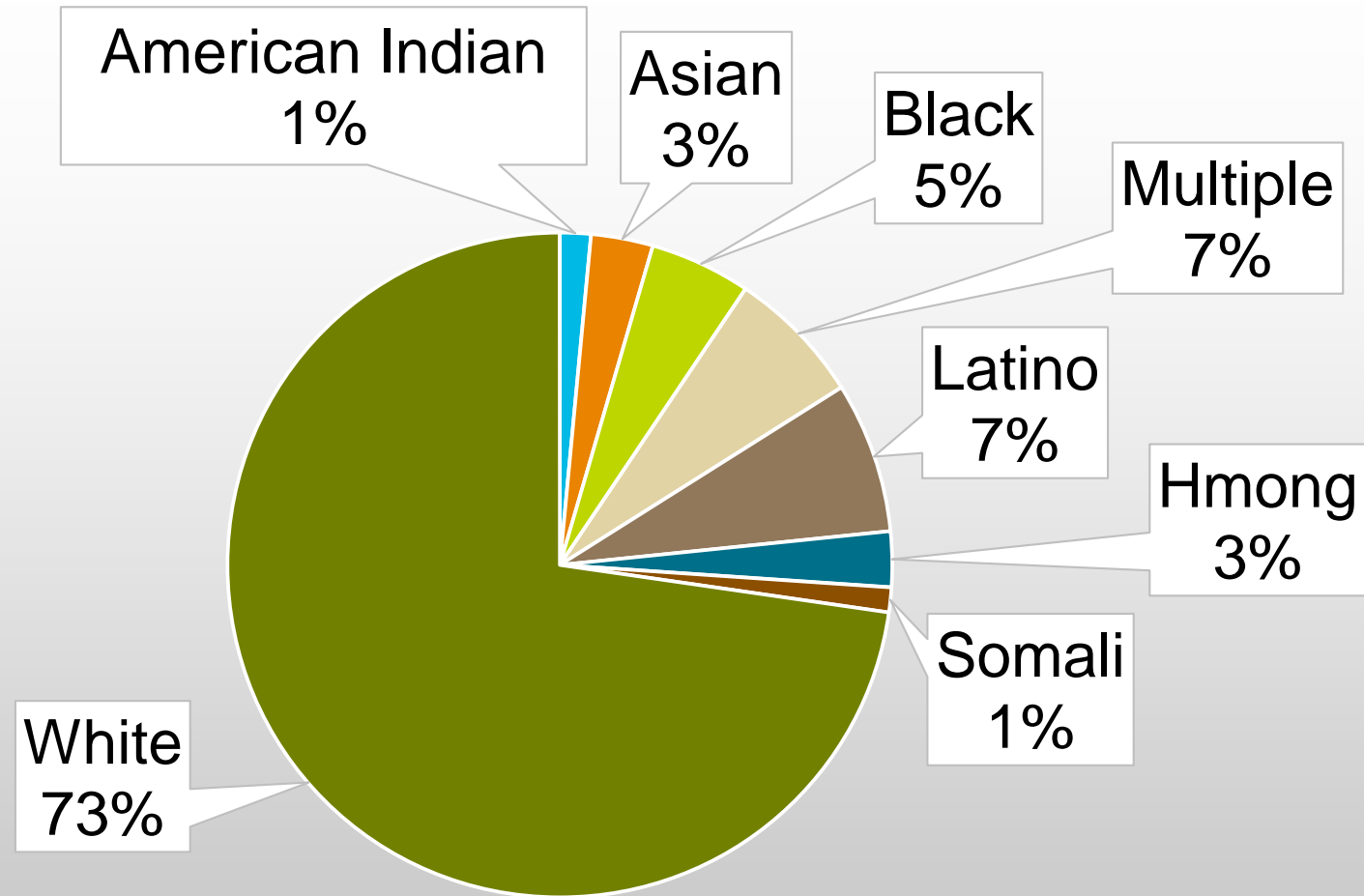
**Department of Educational Psychology
College of Education & Human Development**

**Michael C. Rodriguez
Campbell Leadership Chair**

- 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

- 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 Student Sample



- 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

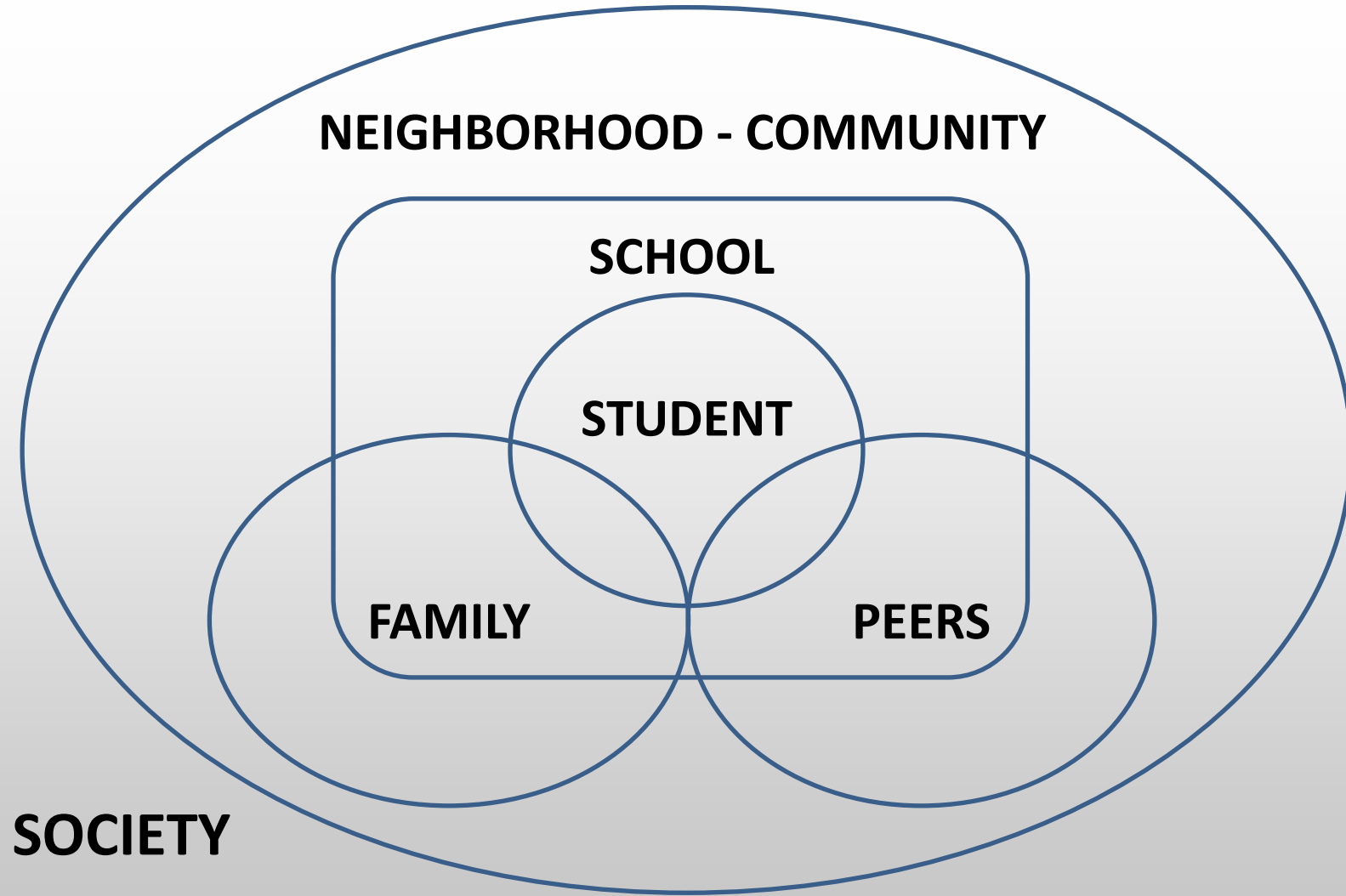
Our Process

- 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

- Youth have an inherent capacity for positive development
- That is enabled and enhanced through multiple meaningful relationships, contexts, and environments
- Where community is a critical delivery system
- And youth are major actors in their own development

The work in this area is exploring many aspects of context, all which might influence positive youth development, including success in school and beyond – providing useful information for strong policy development and positive youth development programming.



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

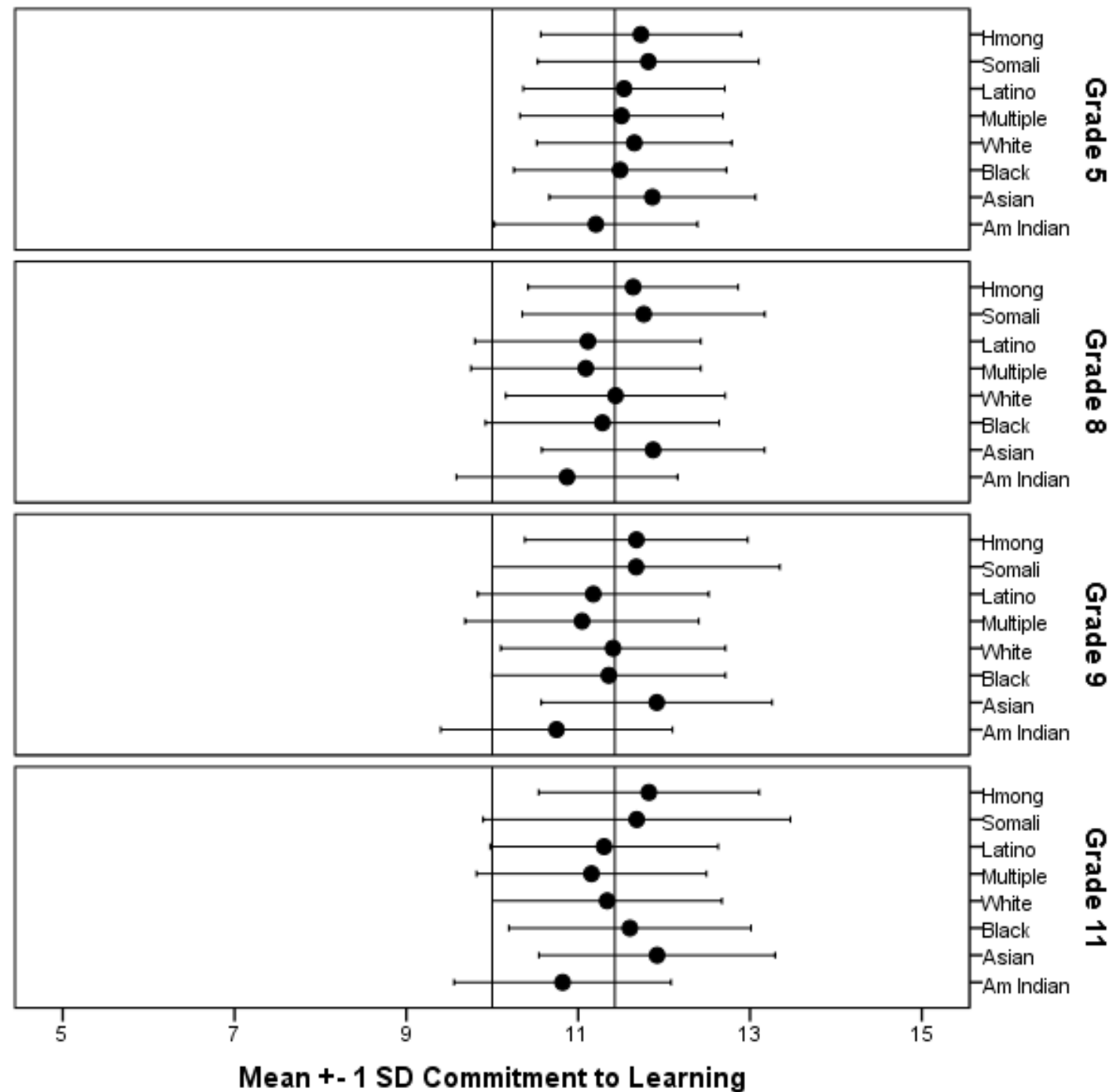
Developmental Skills	Developmental Supports	Developmental Challenges
1. Commitment to Learning	1. Empowerment*	1. Bullying
2. Positive Identity*	2. Supported	2. Bullied
3. Social Competence*	3. Teacher/School Support	3. School Violence
		4. Mental Distress
*DAP		5. Family Violence

Developmental Measures in 2013 MSS

- 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

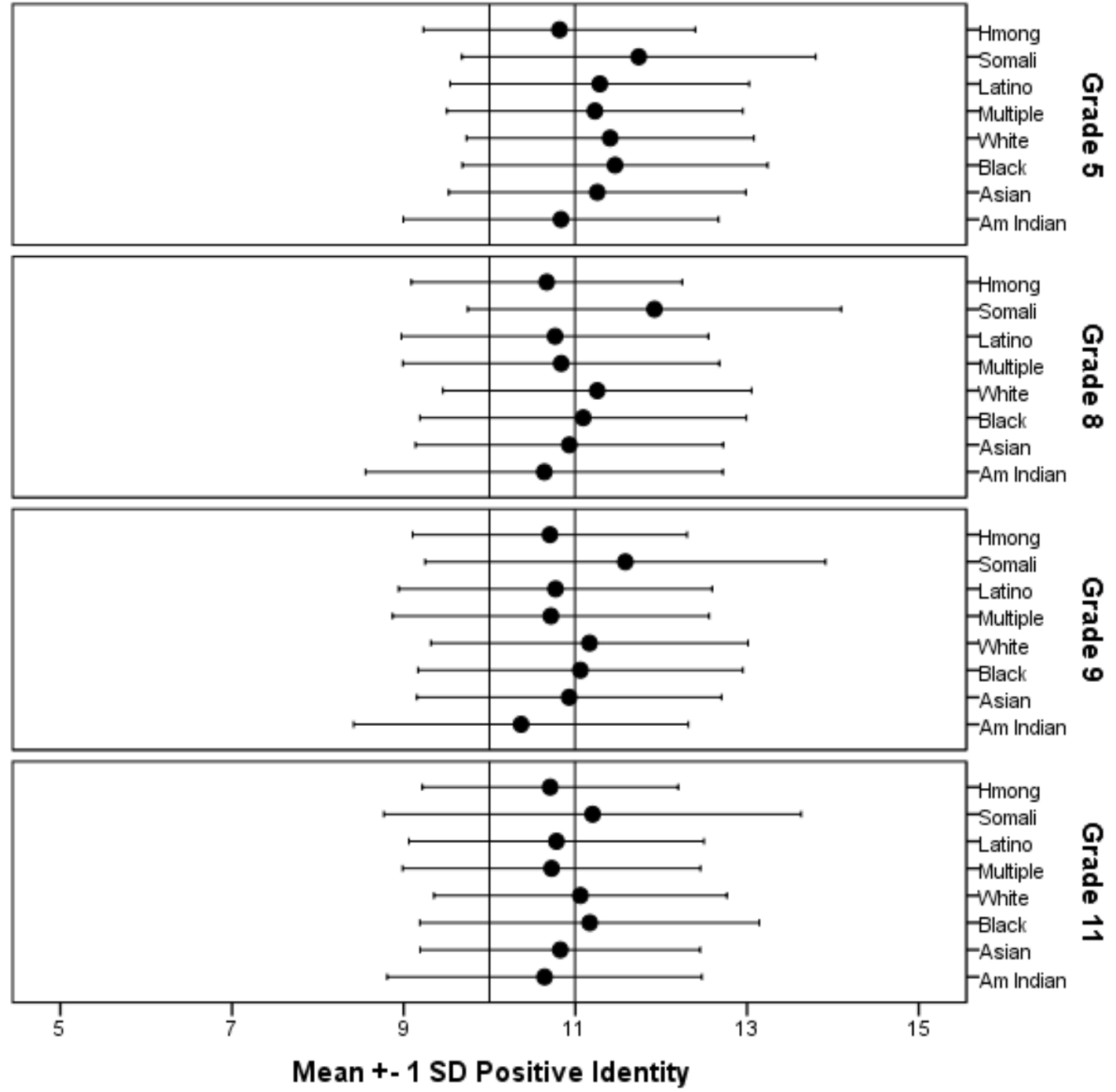
Learning about MN Students

- 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



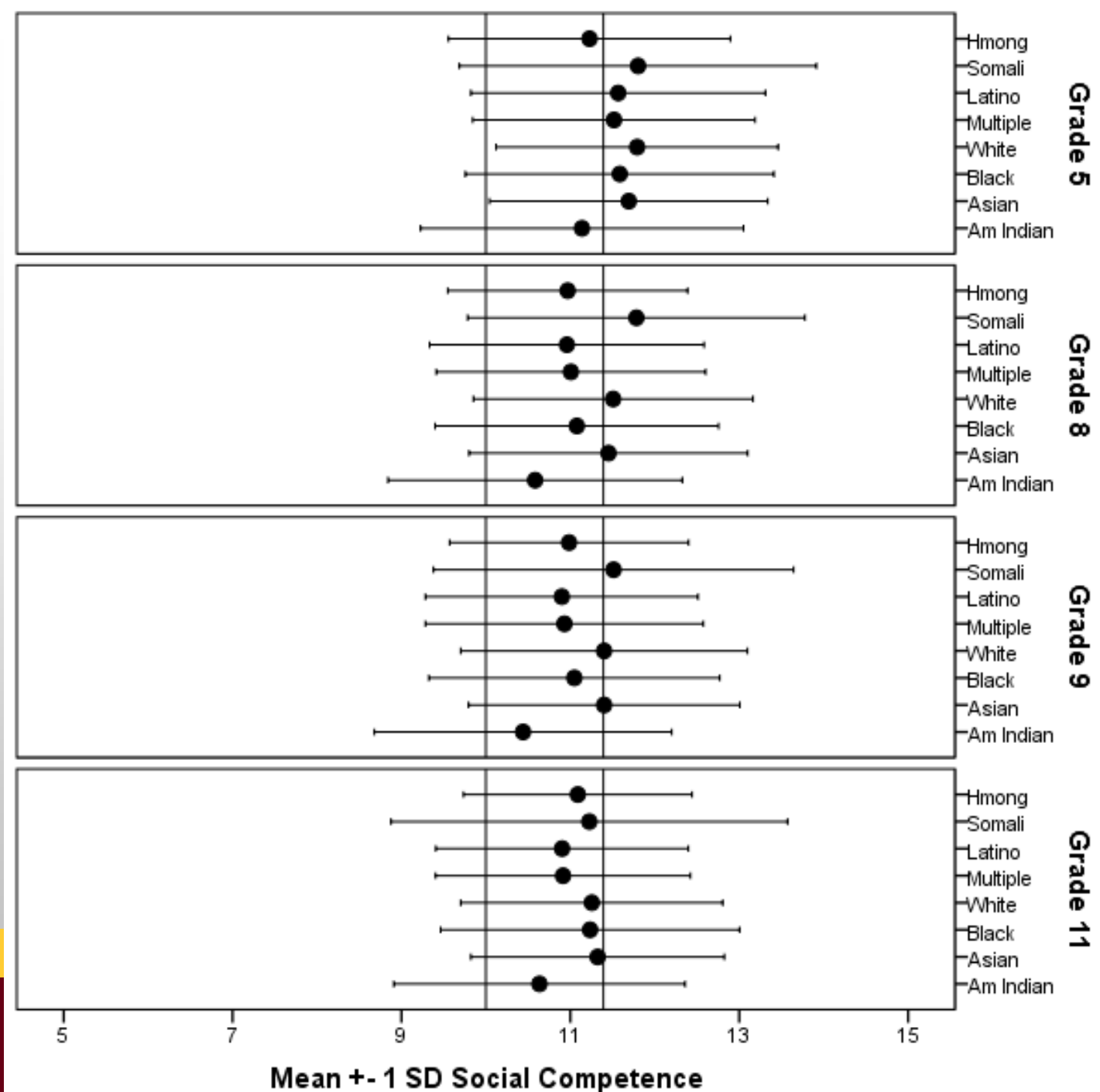
Commit to Learning

- 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



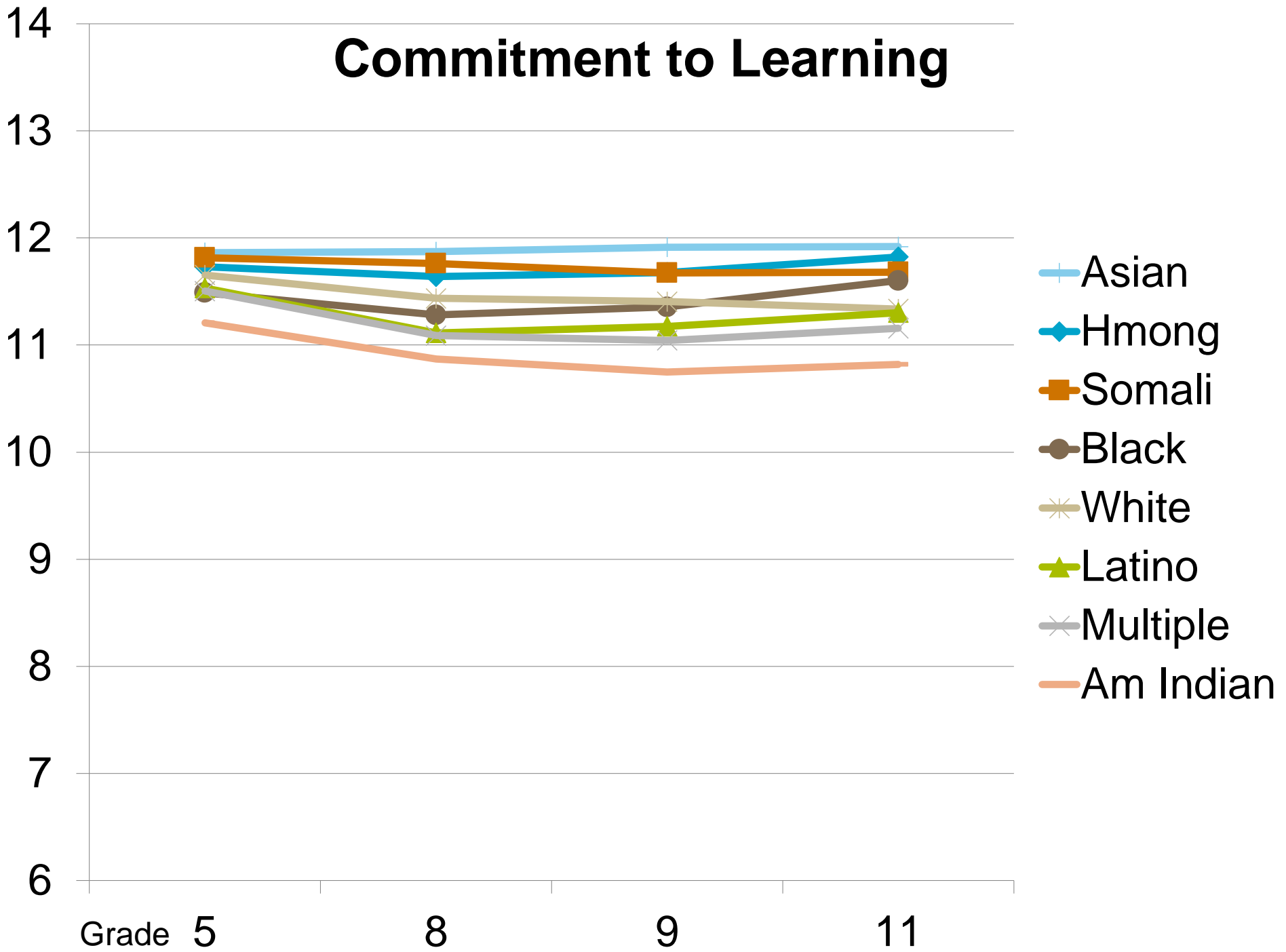
Positive Identity

- Overall, SC is moderate to high
- 85% report positive SC
- SC decreases for most from grade 5 to 8
- Student groups vary

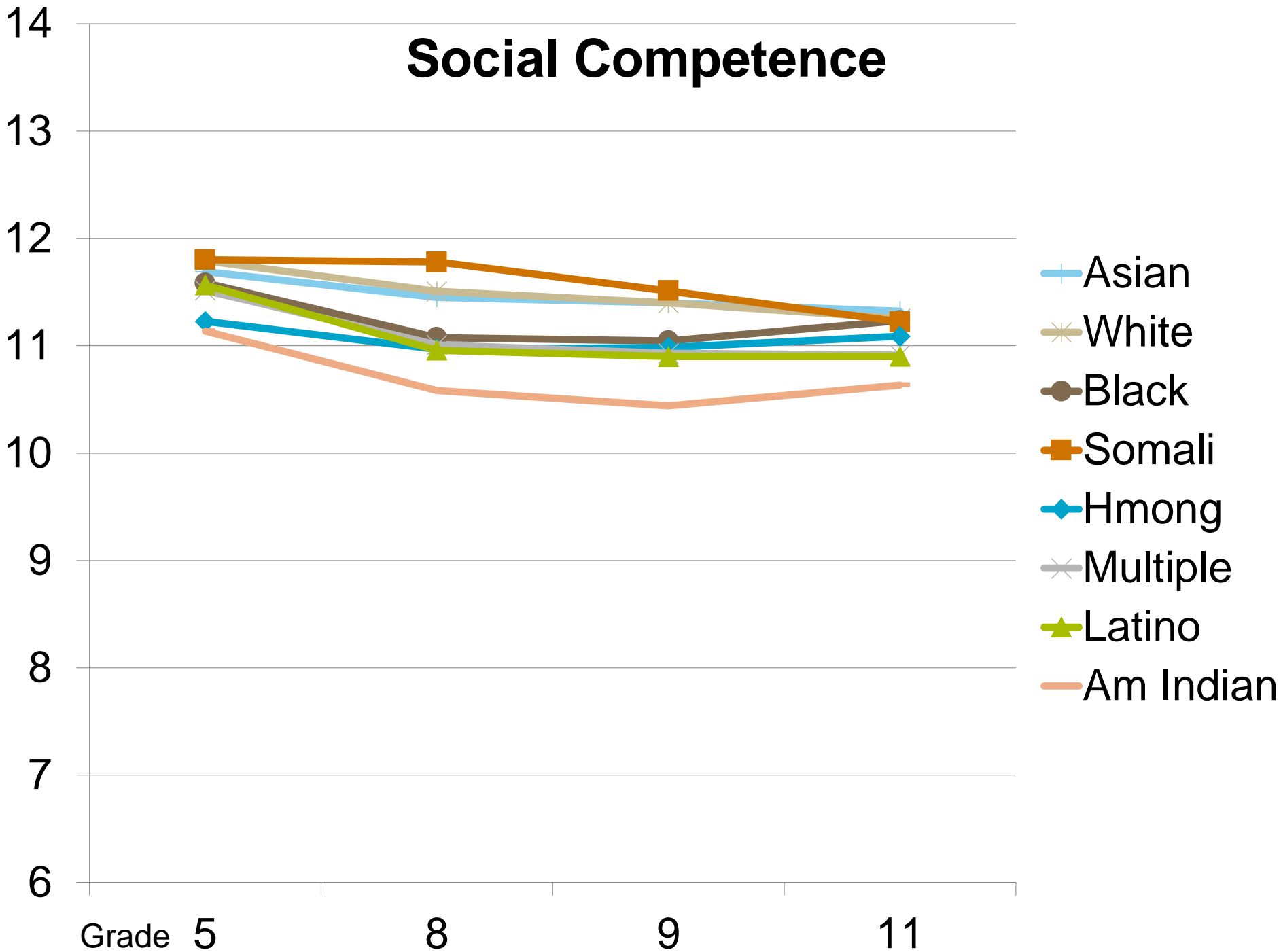


Social Competence

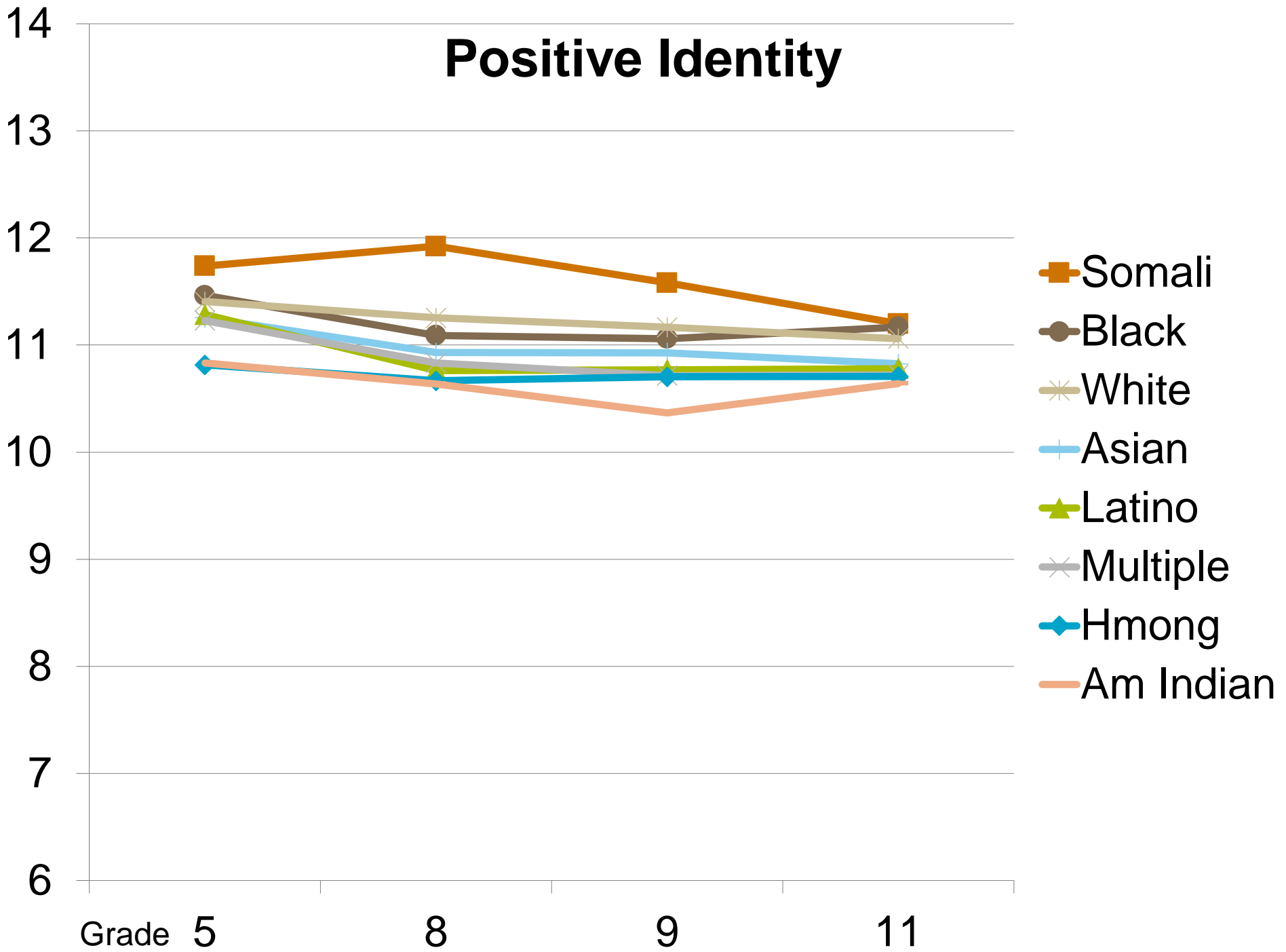
Commitment to Learning



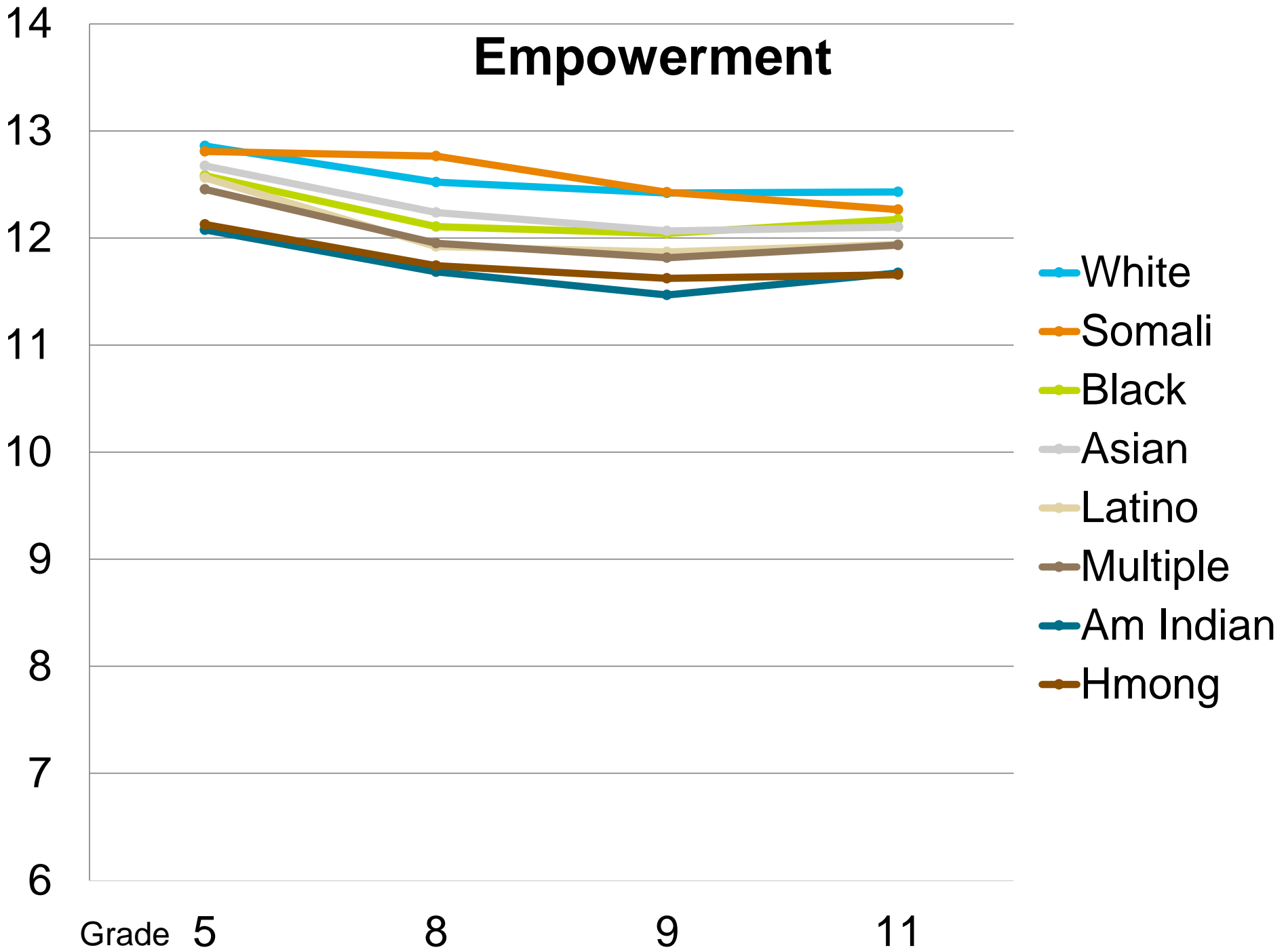
Social Competence



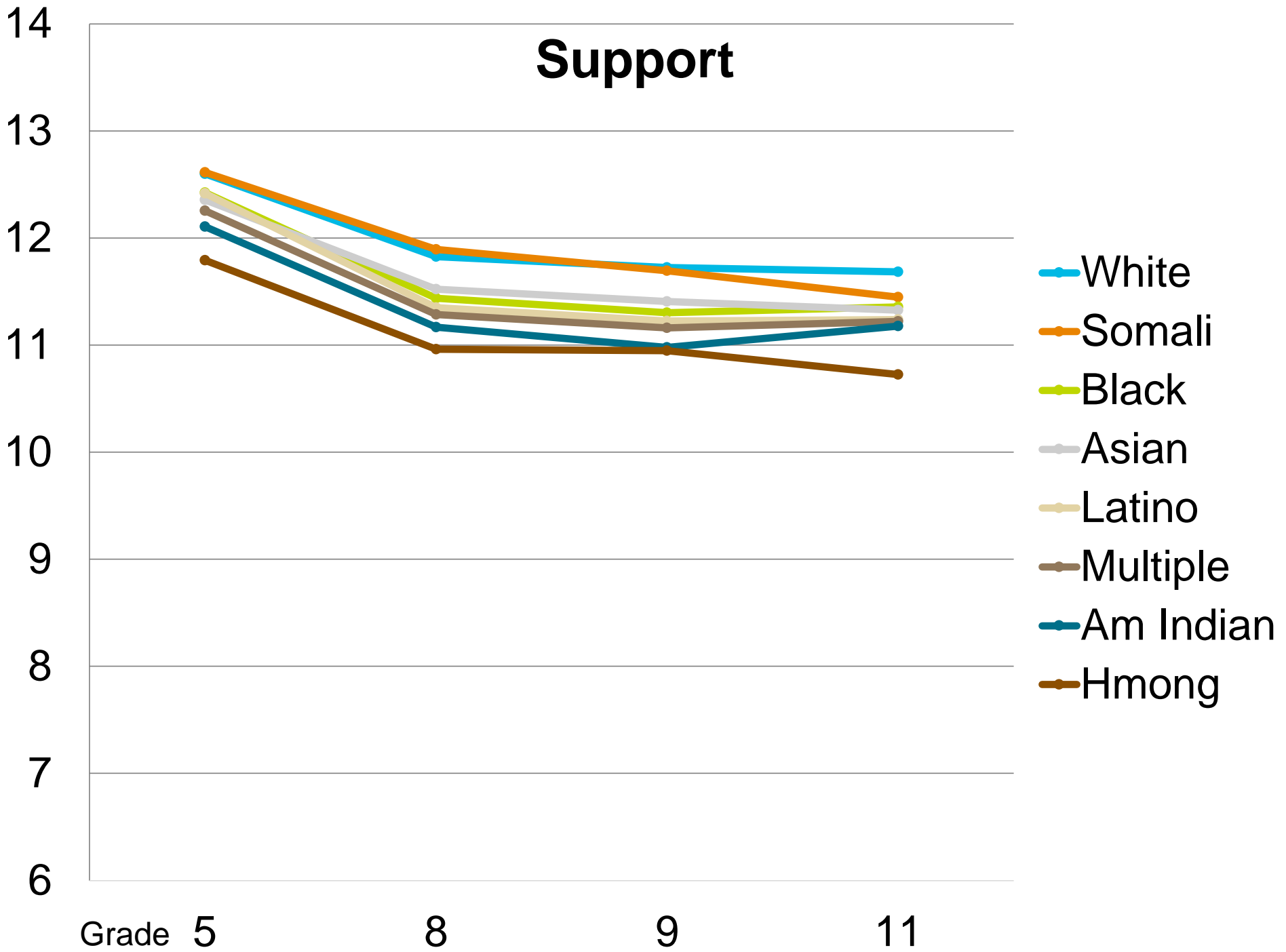
Positive Identity



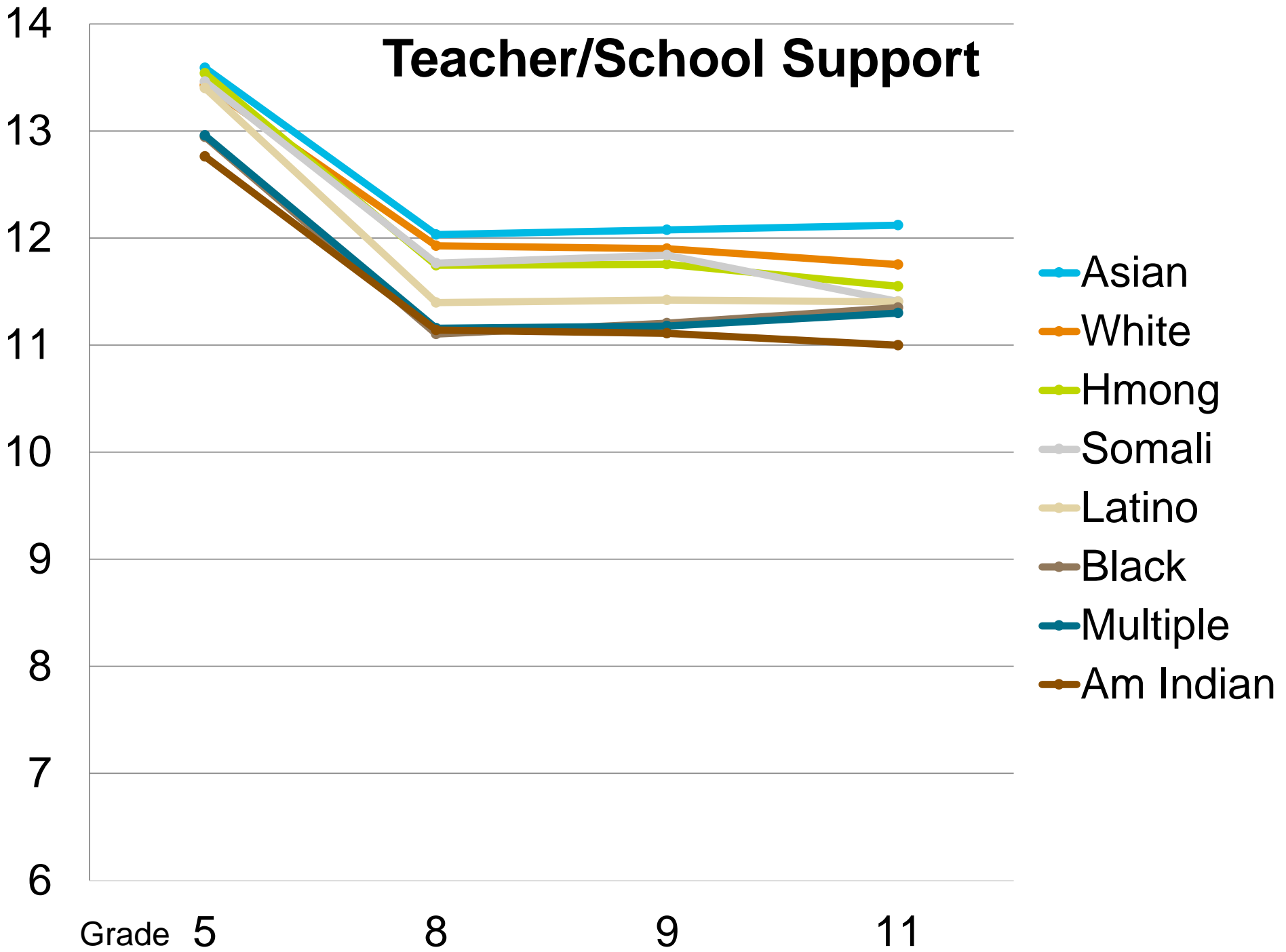
Empowerment



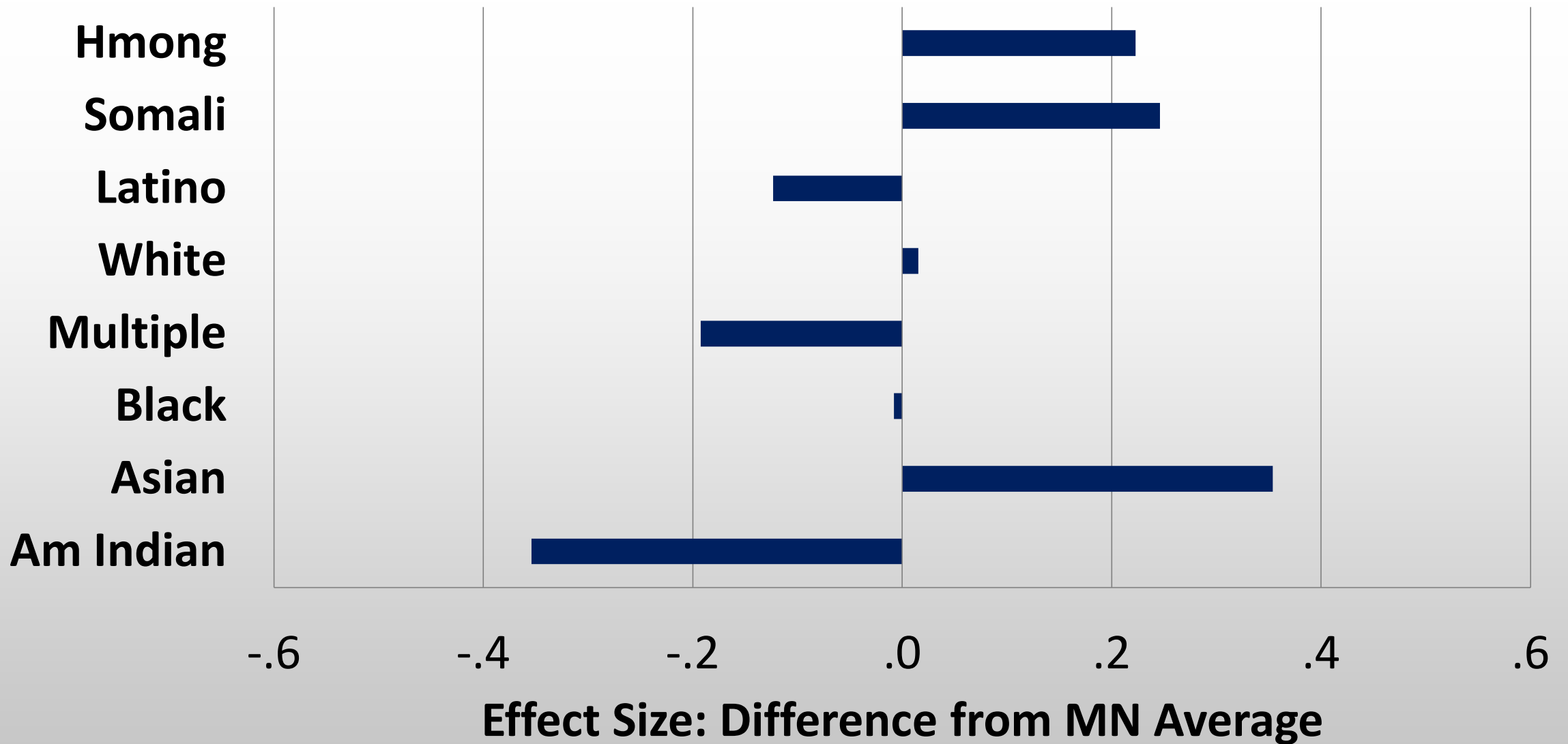
Support



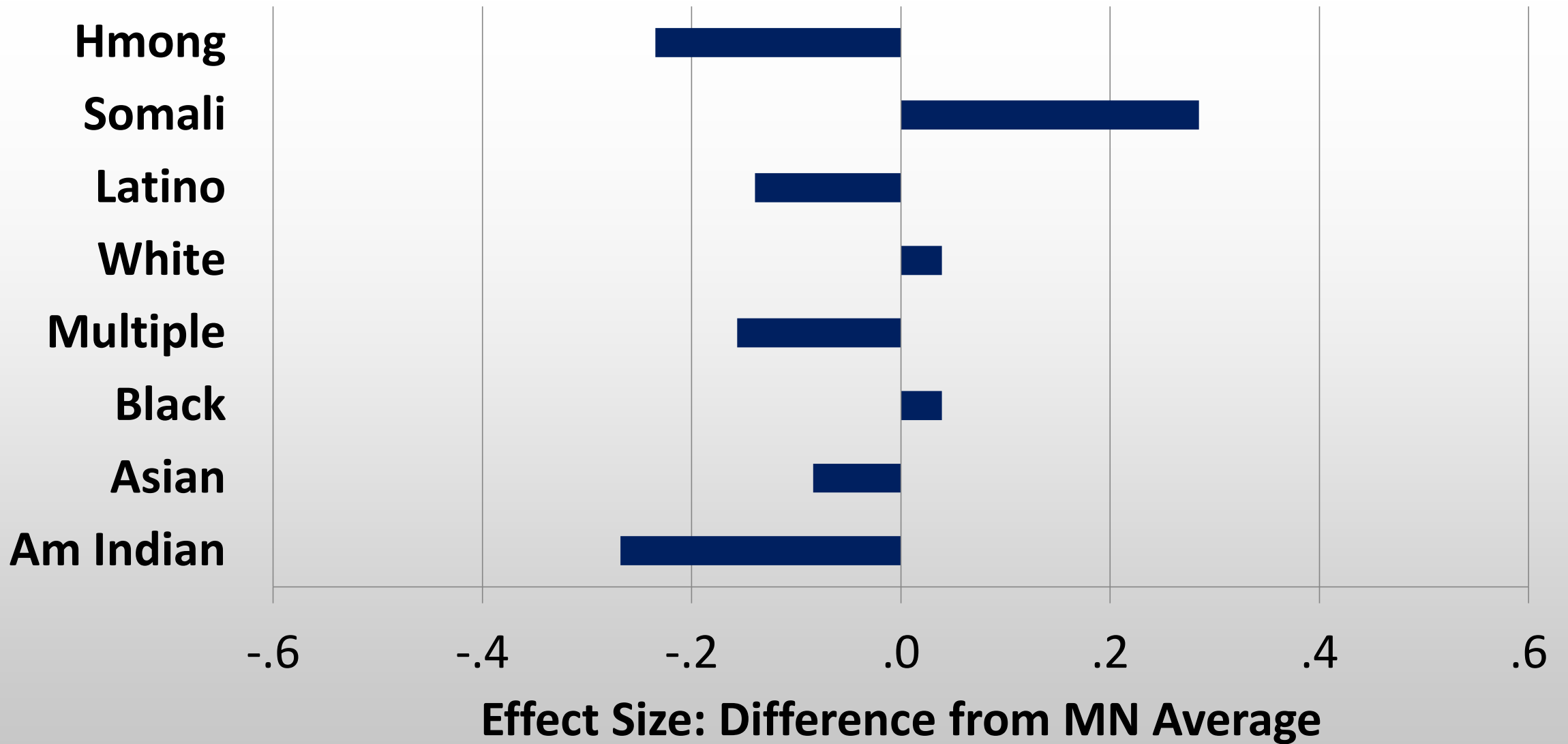
Teacher/School Support



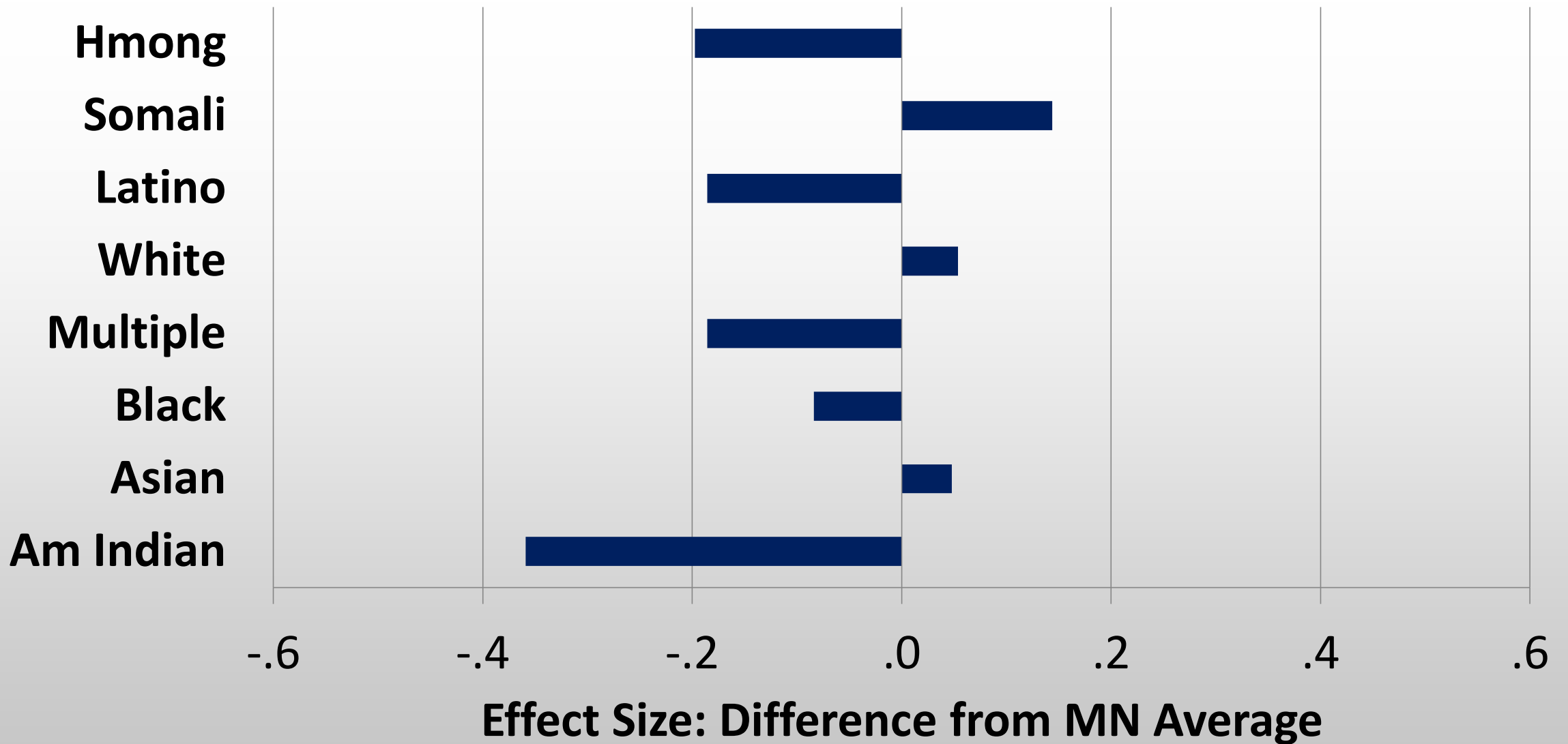
- Disparities are defined in the next few slides as group differences from the State Average Score
- Each bar represents the number of standard deviations difference between youth in each group and the state average.
- We generally interpret these differences as being
 - 0.2 or less = very small
 - 0.2 to 0.4 = small
 - 0.4 to 0.6 = moderate
 - 0.6 + = large



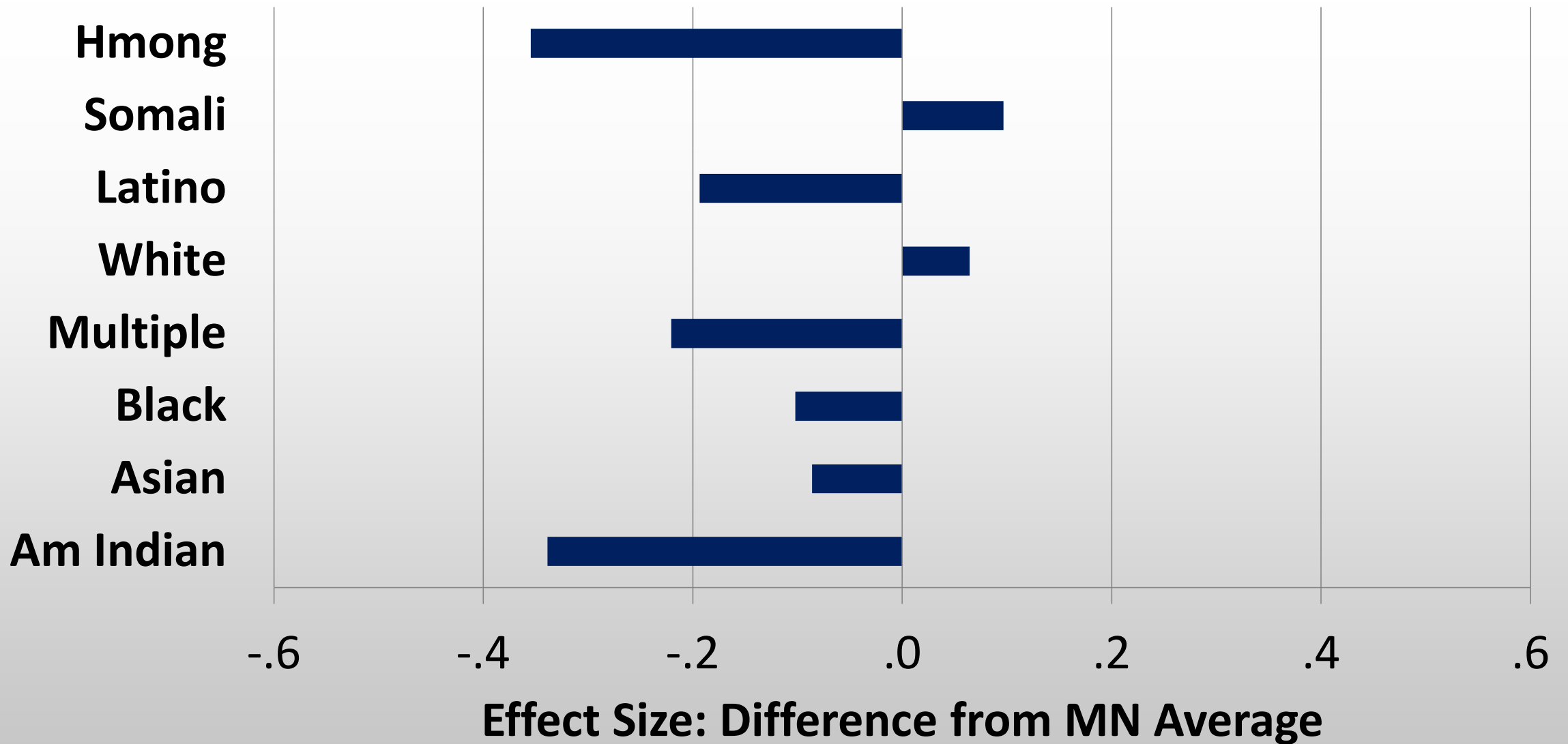
Disparities in Commitment to Learning



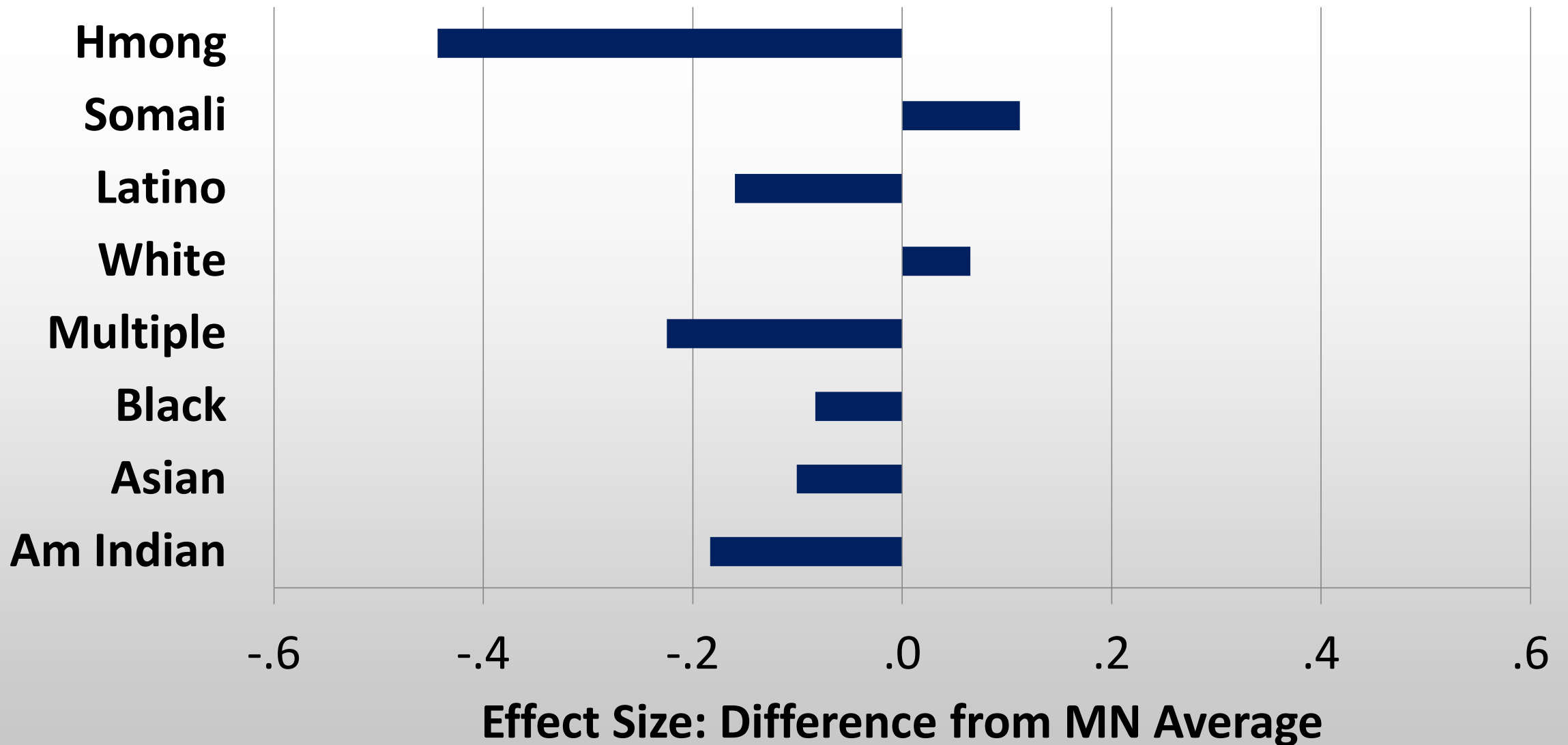
Disparities in Positive Identity



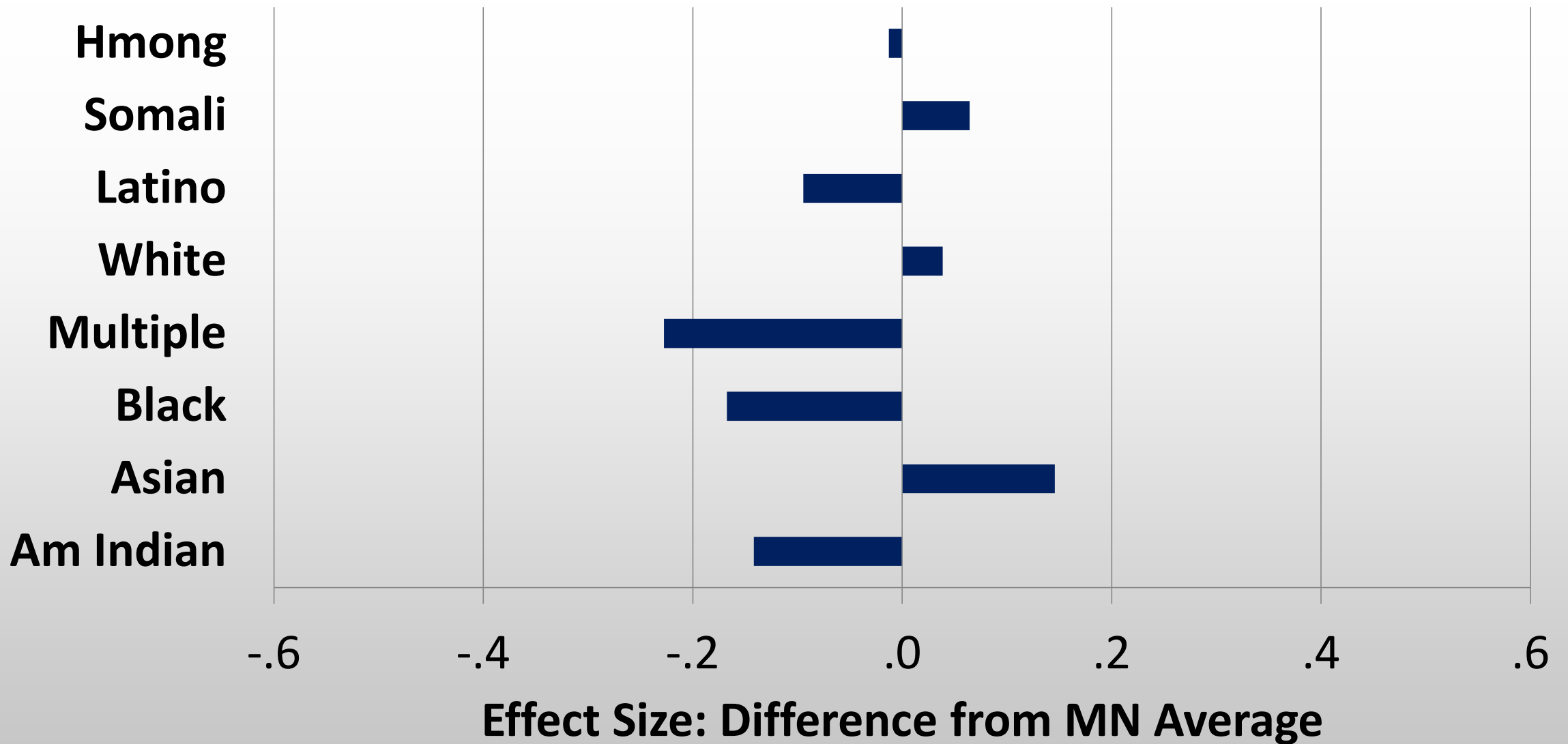
Disparities in Social Competence



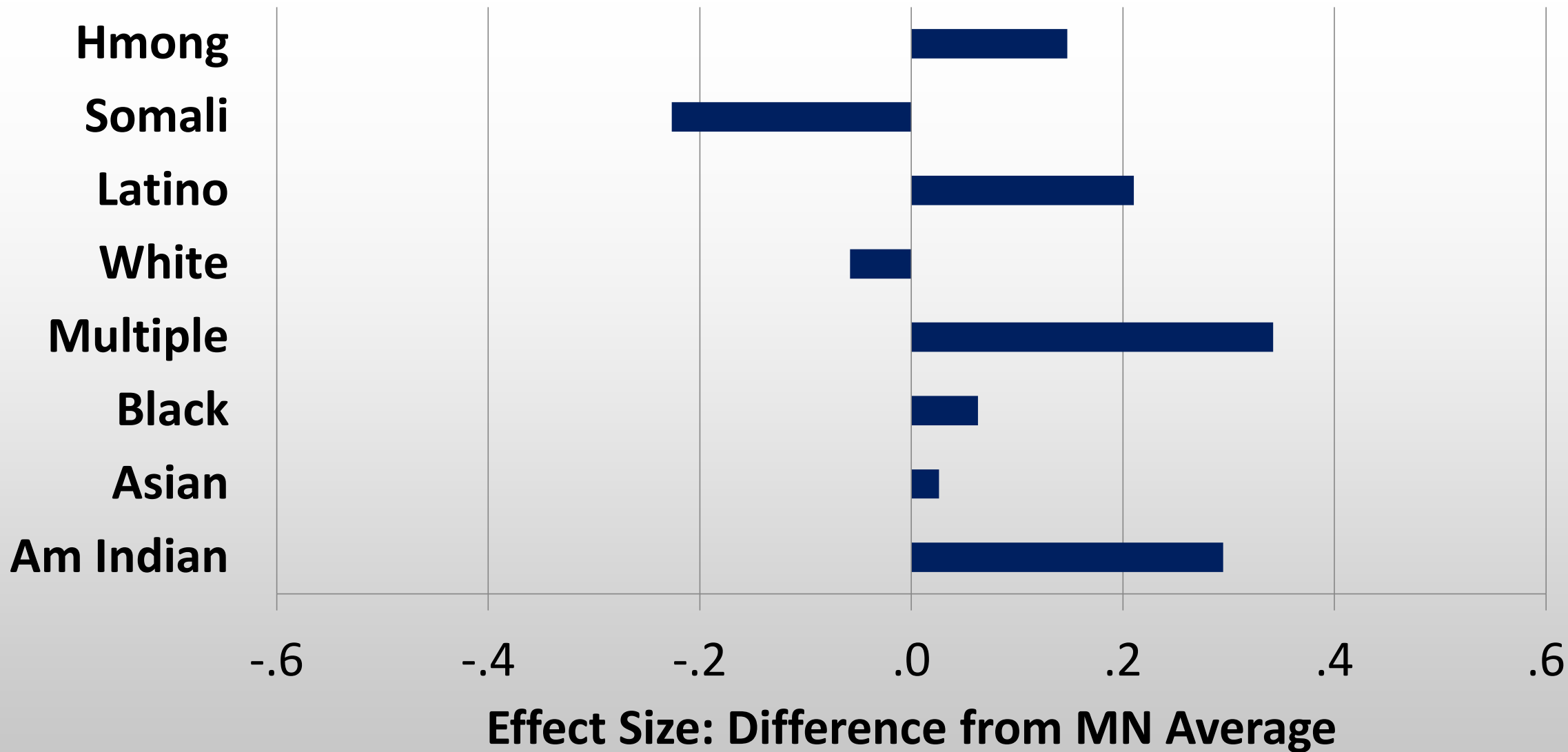
Disparities in Empowerment



Disparities in Supported



Disparities in Teacher/School Support

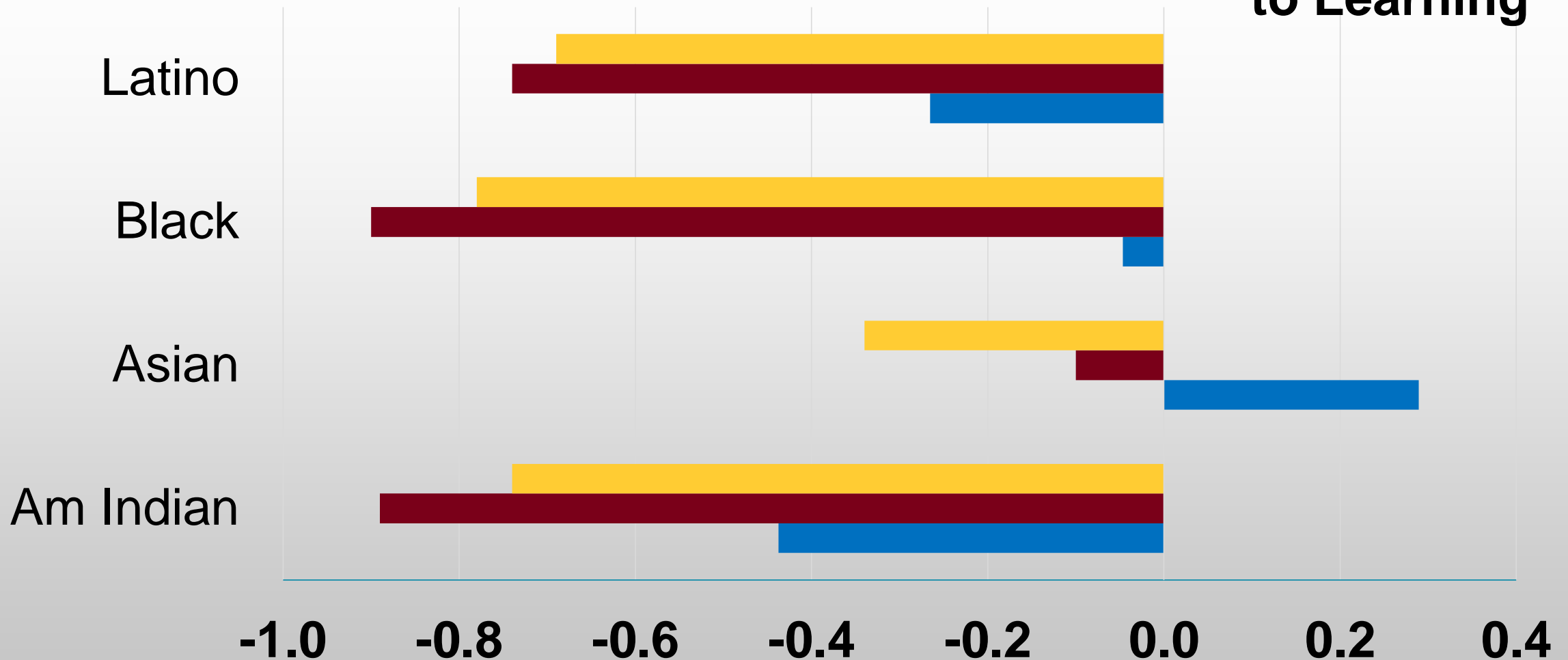


Disparities in Mental Distress

- 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.

■ Reading ■ Math ■ CTL

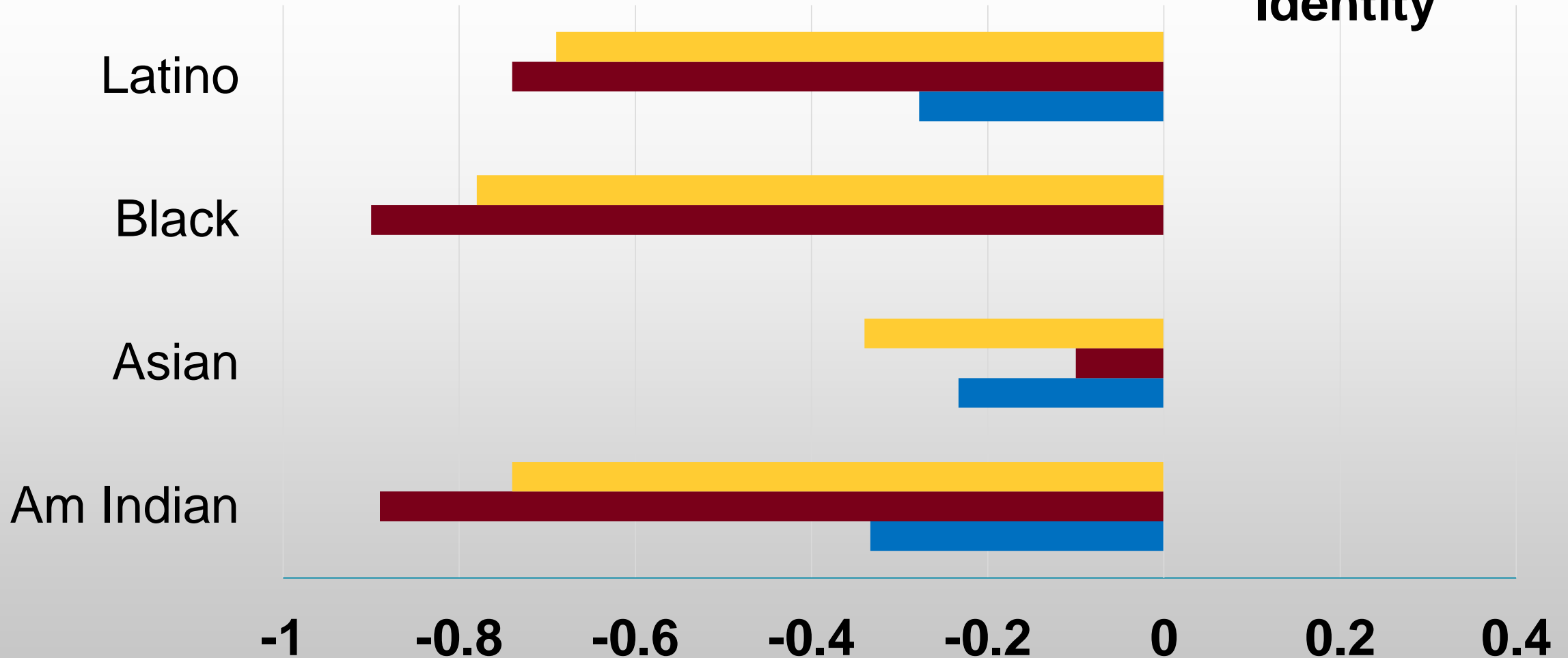
Commitment to Learning



8th Grade MCA & CtL Disparities v. White

■ Reading ■ Math ■ PI

Positive Identity

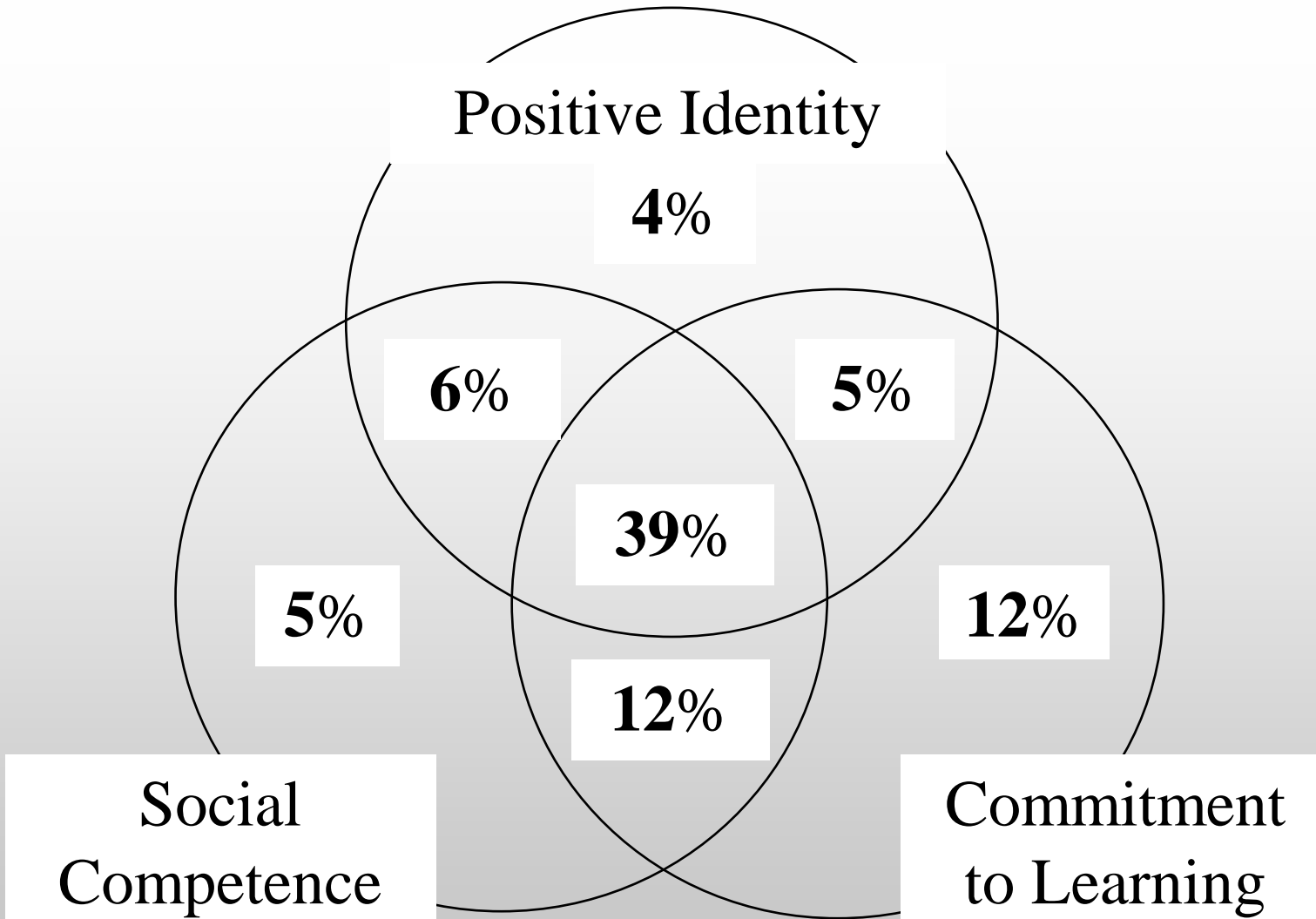


8th Grade MCA & PI Disparities v. White

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.

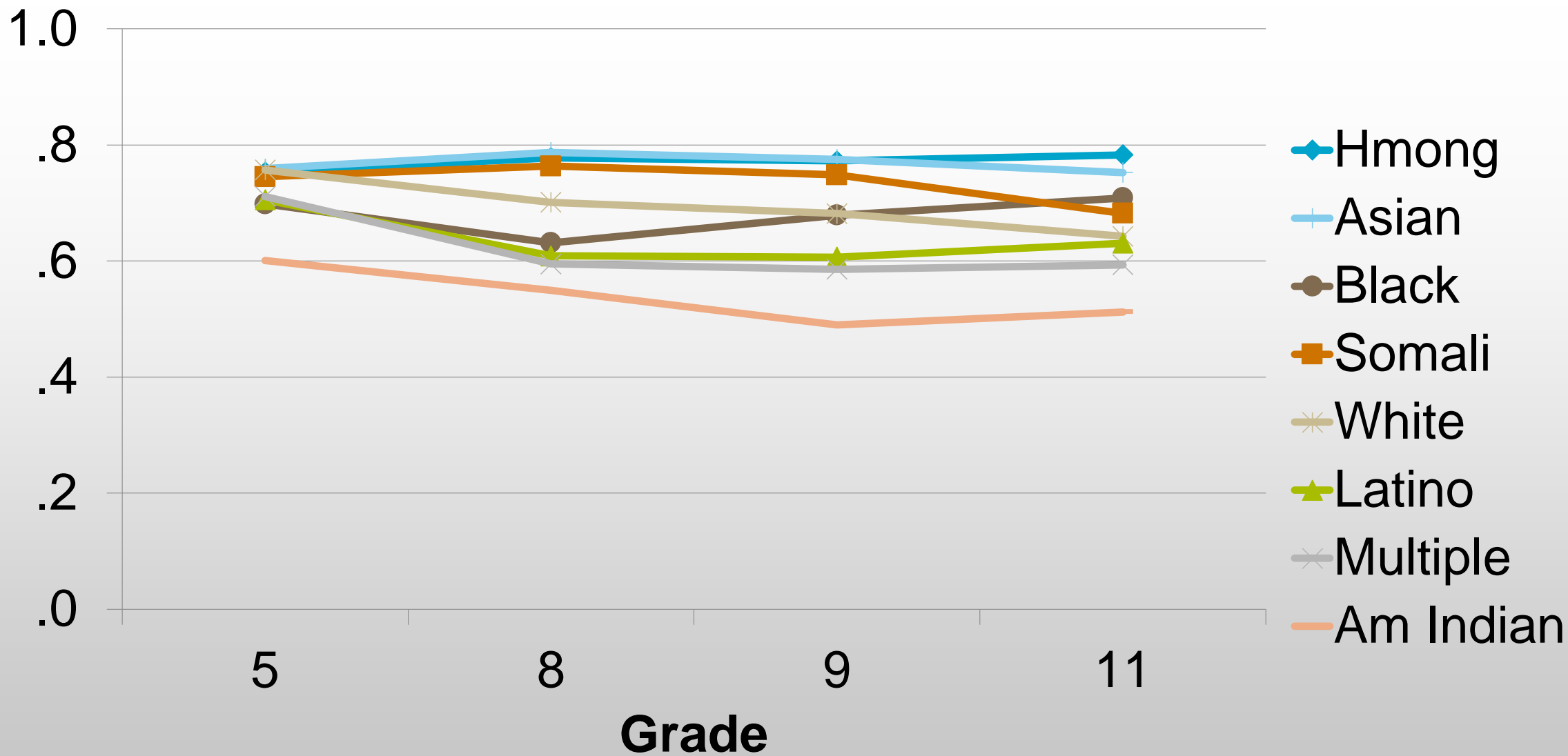


17% have 0 Skills

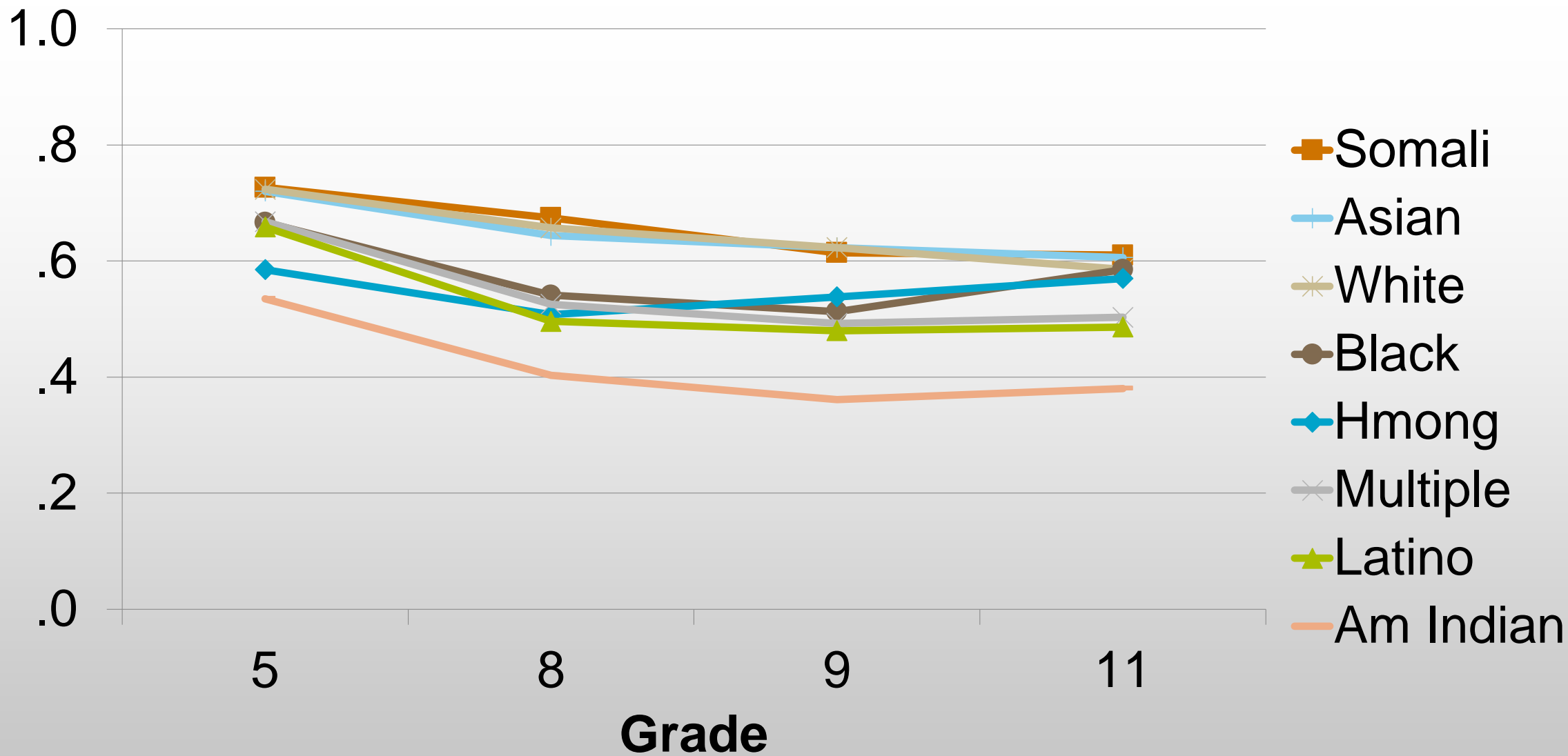
21% have 1 Skill

23% have 2 Skills

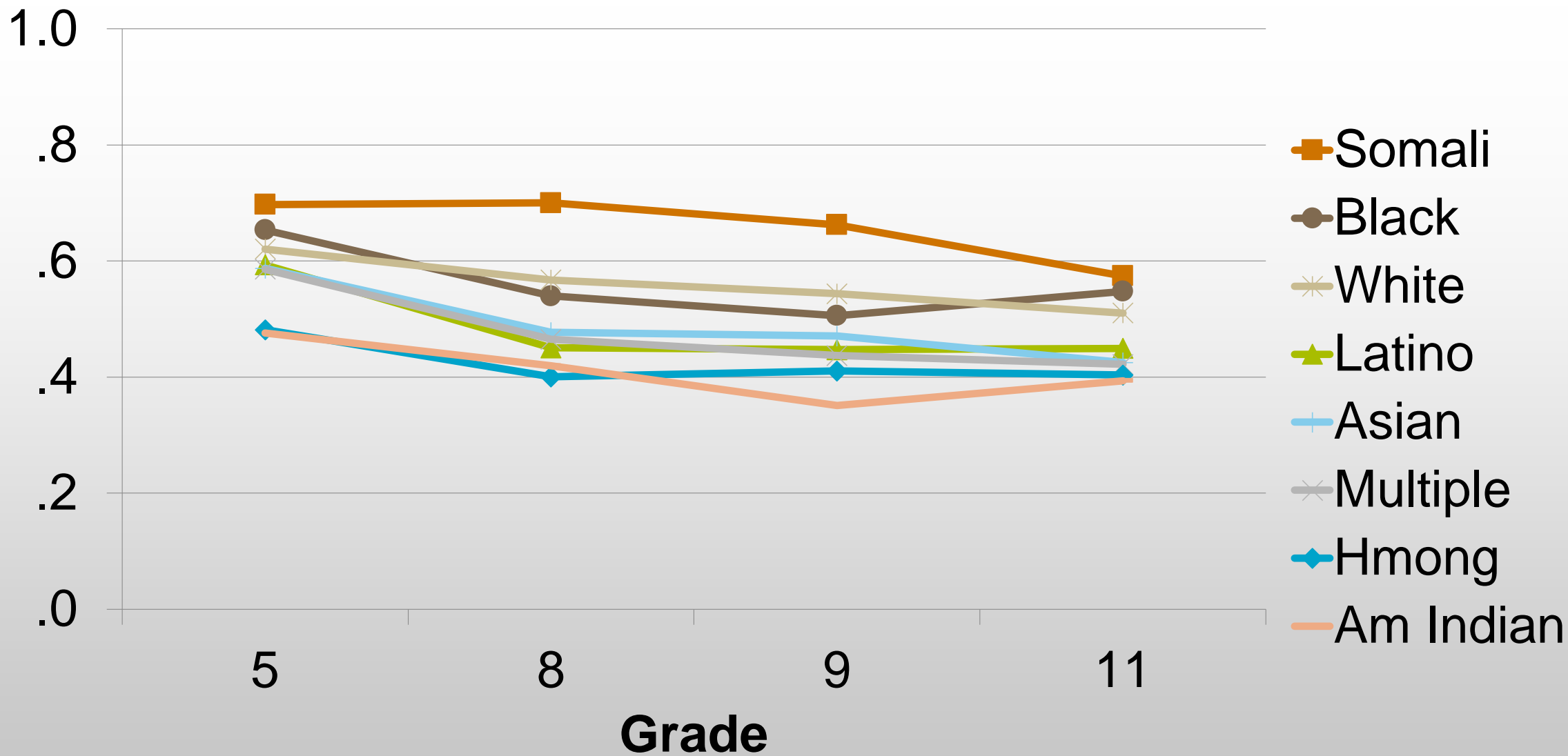
39% have 3 Skills



Proportion Equipped: Commitment to Learning

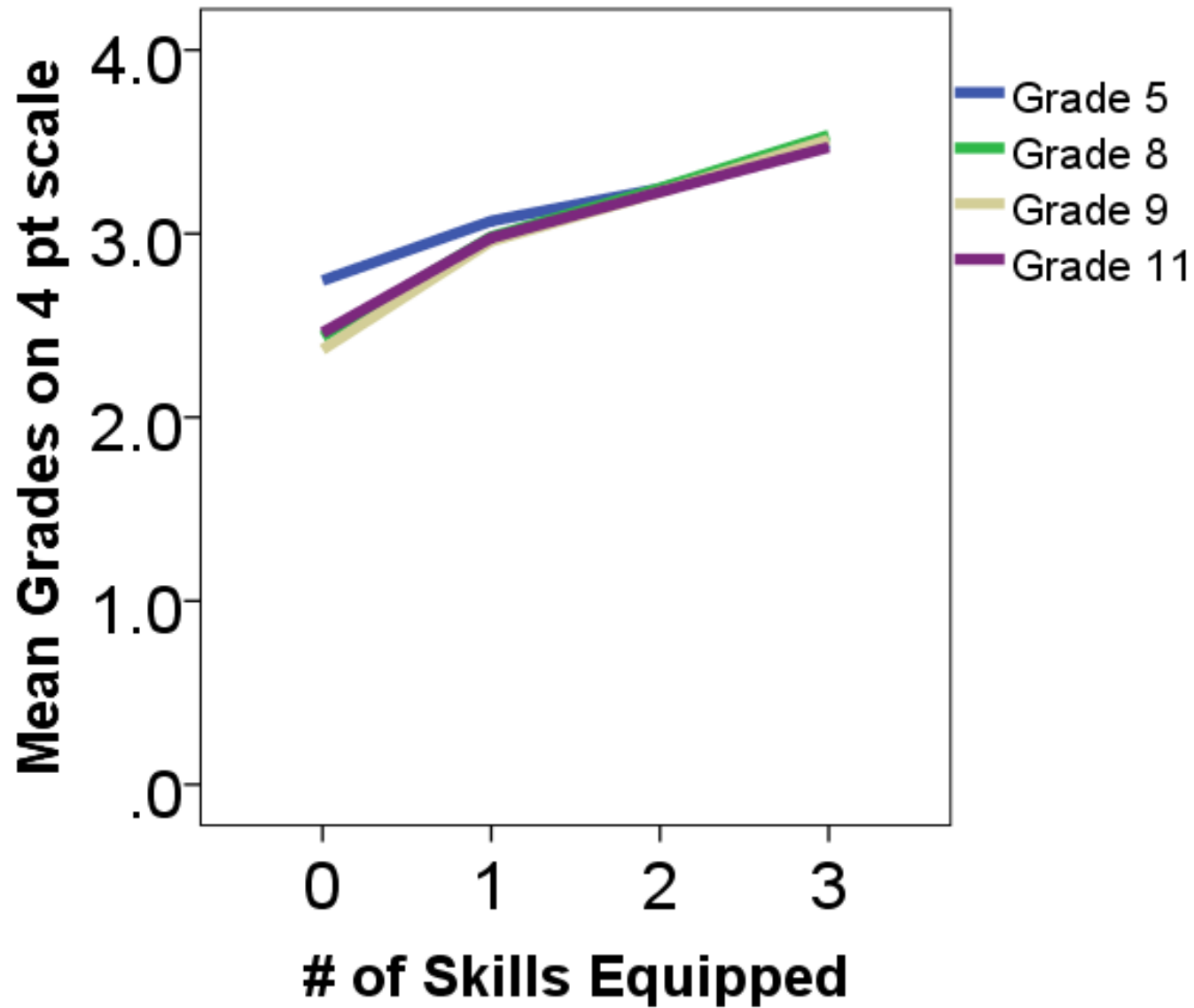


Proportion Equipped: Social Competence

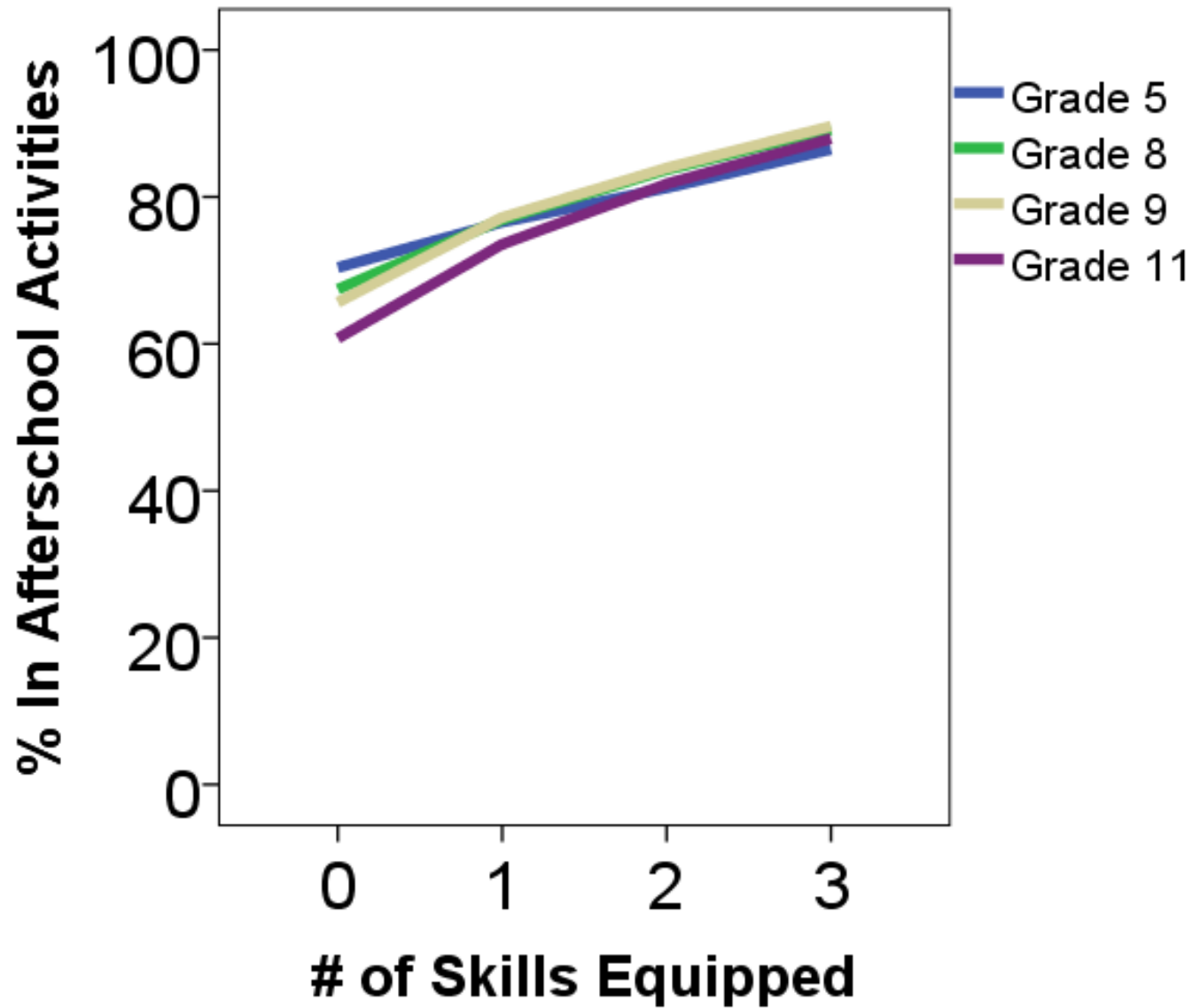


Proportion Equipped: Positive Identity

Unending Questions...

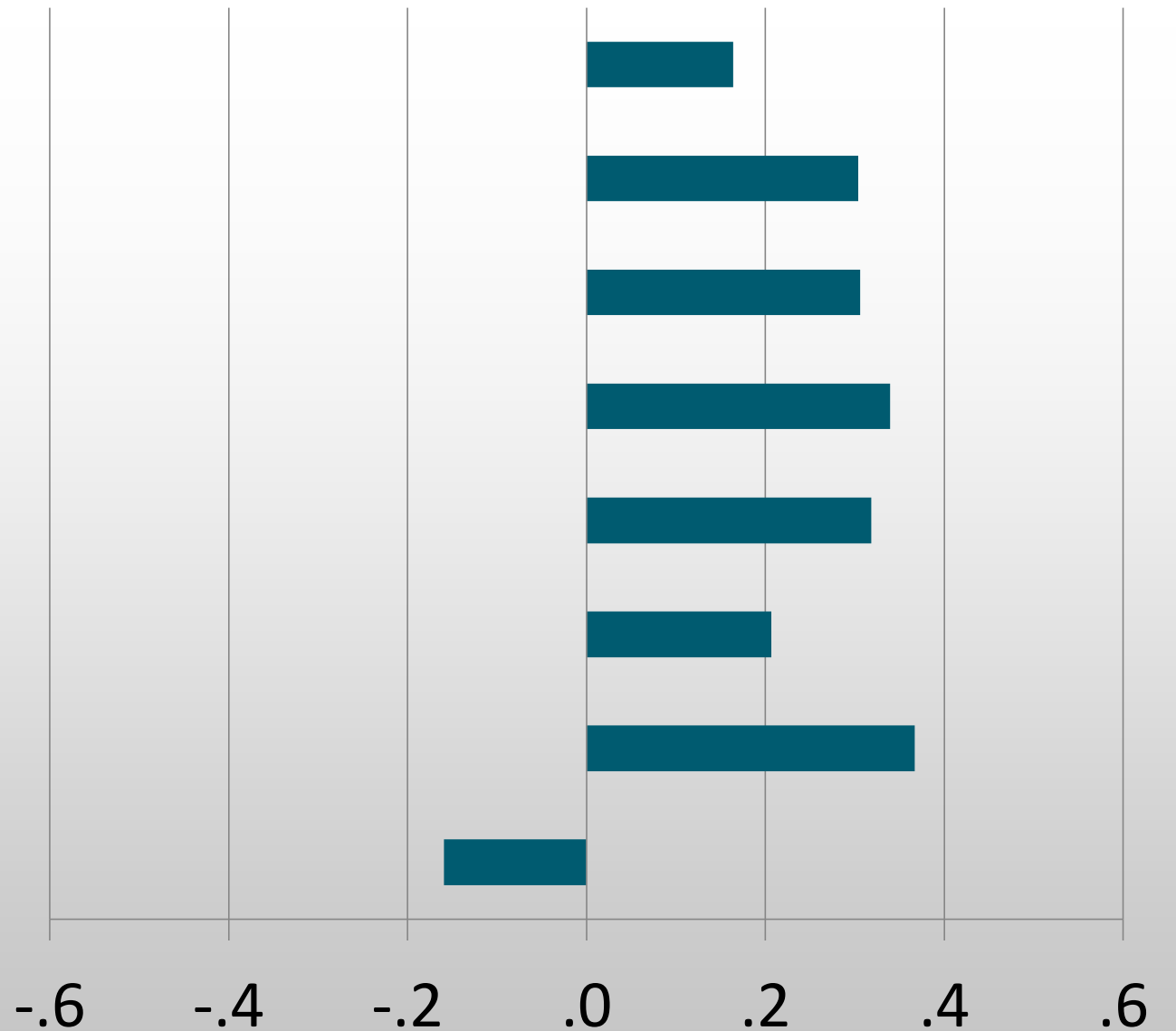


Equipped Skills & Grades Earned in School



Equipped Skills & Afterschool Participation

Teacher/School Support
Social Competence
Supported
Positive Identity
Empowerment
Commitment to Learning
Grades
Mental Distress



Disparities in After-School Participation

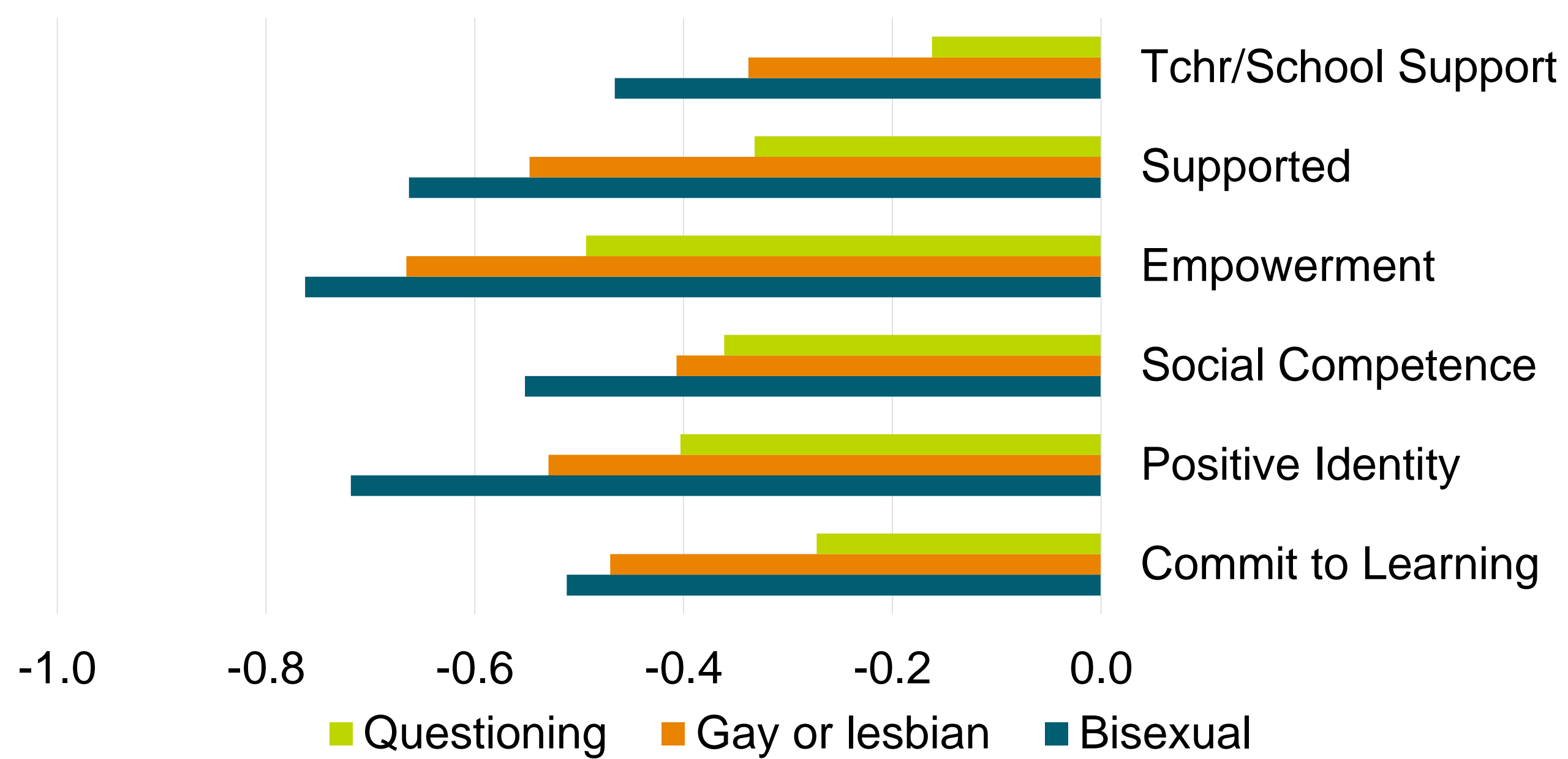
Of students in grades 8-11 in St. Paul:

- 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.

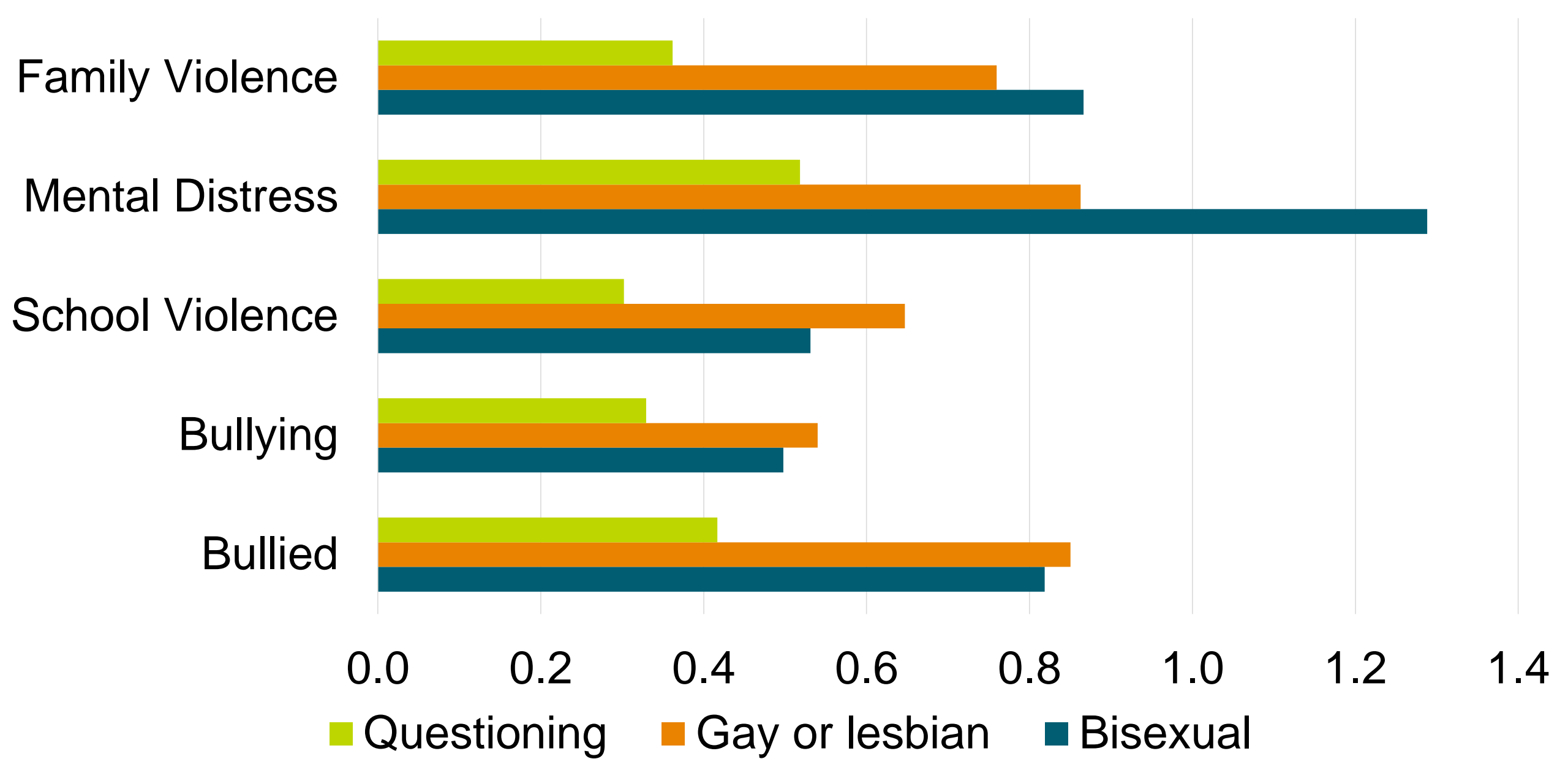
Which of the following best describes you?

- Heterosexual (straight)
- Bisexual
- Gay or lesbian
- Not sure (questioning)

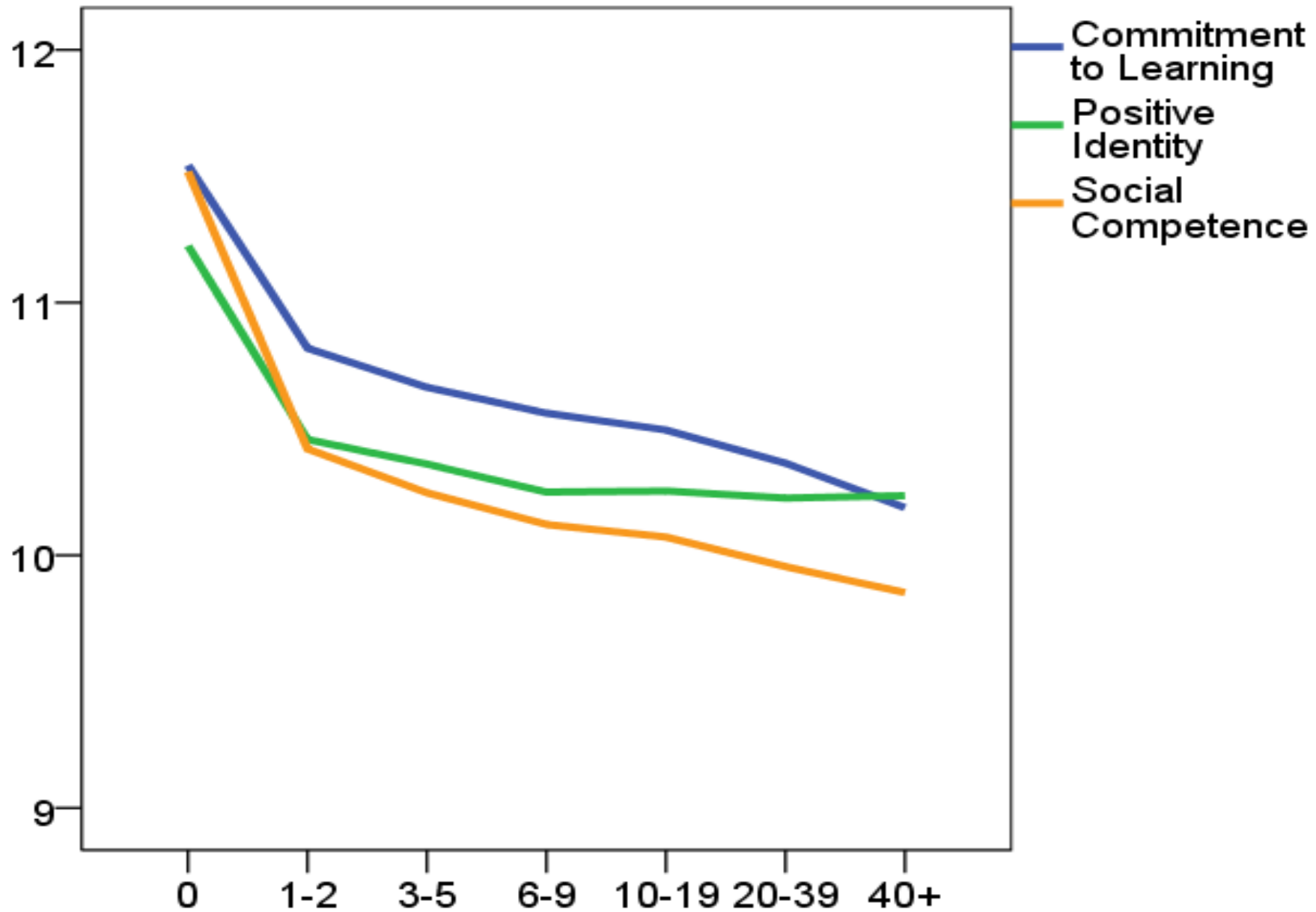
	<i>Gender</i>		<i>Total</i>
	<i>Male</i>	<i>Female</i>	
Heterosexual (straight)	95.1%	92.1%	72,798
Bisexual	1.3%	4.4%	2,223
Gay or lesbian	1.0%	0.7%	655
Not sure (questioning)	2.6%	2.7%	2,082
Total	38,955	38,803	77,758



Disparities: Sexual Orientation

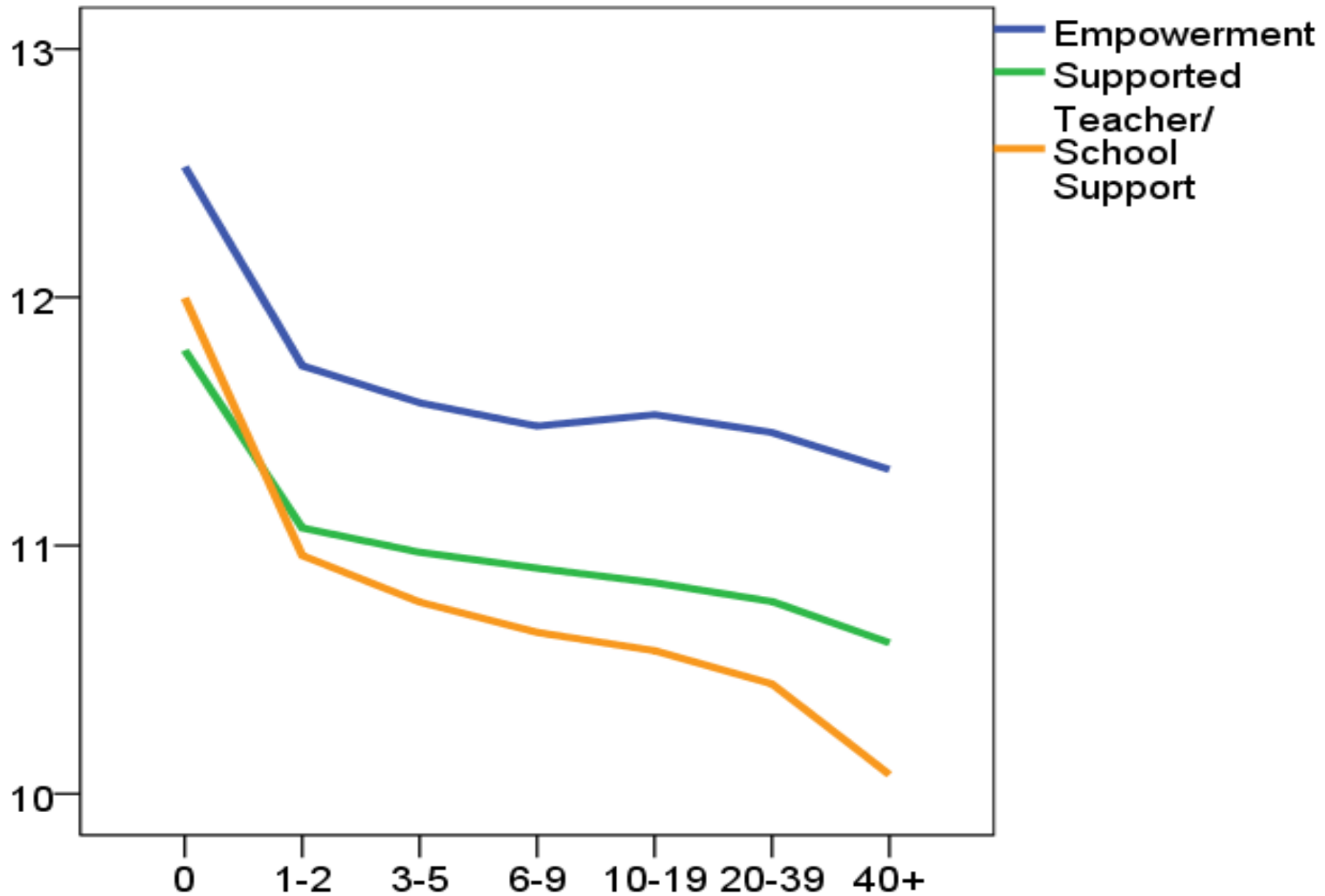


Disparities: Sexual Orientation



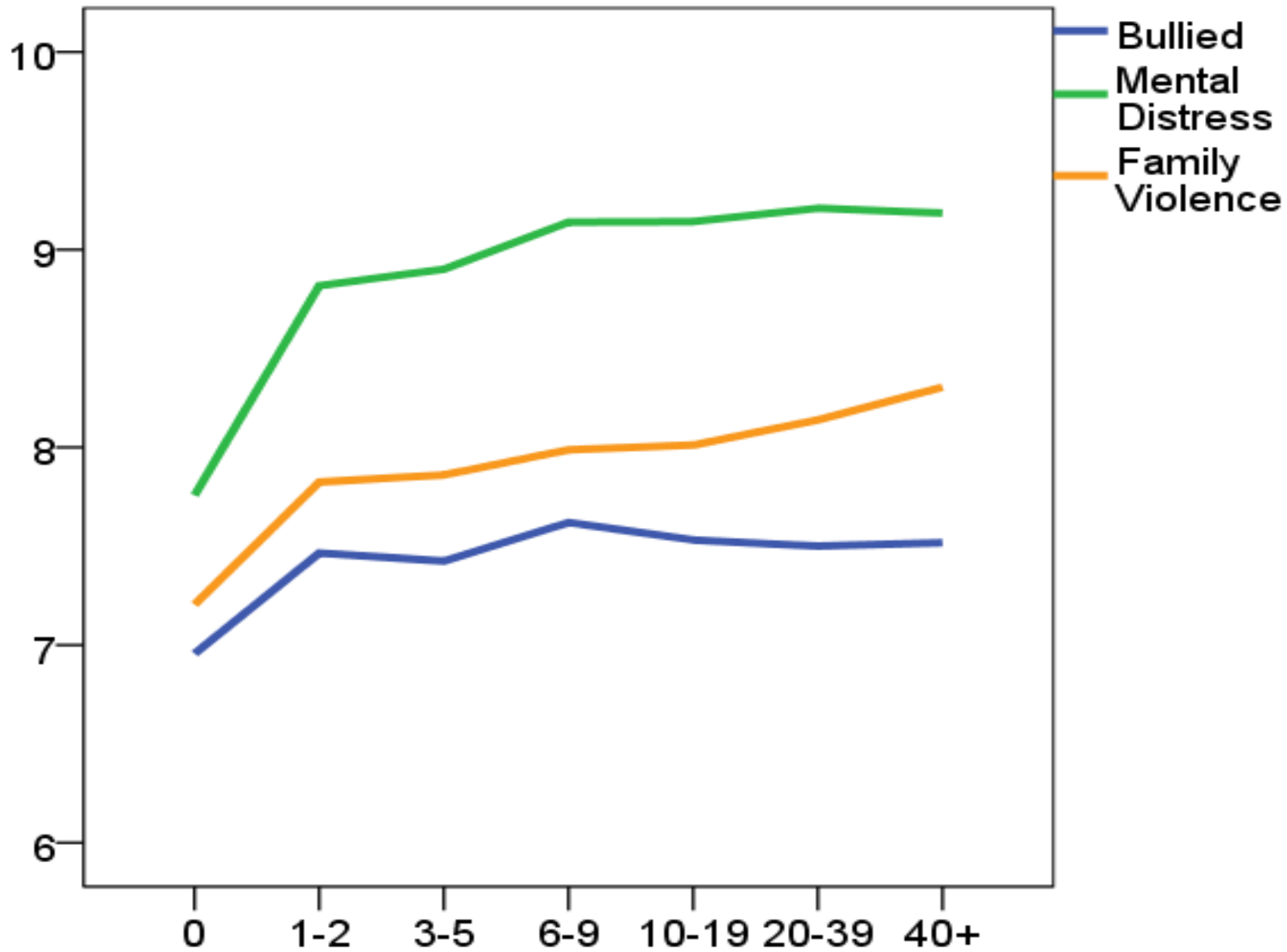
OF MINNESOTA

During the last 12 months, have you used marijuana?



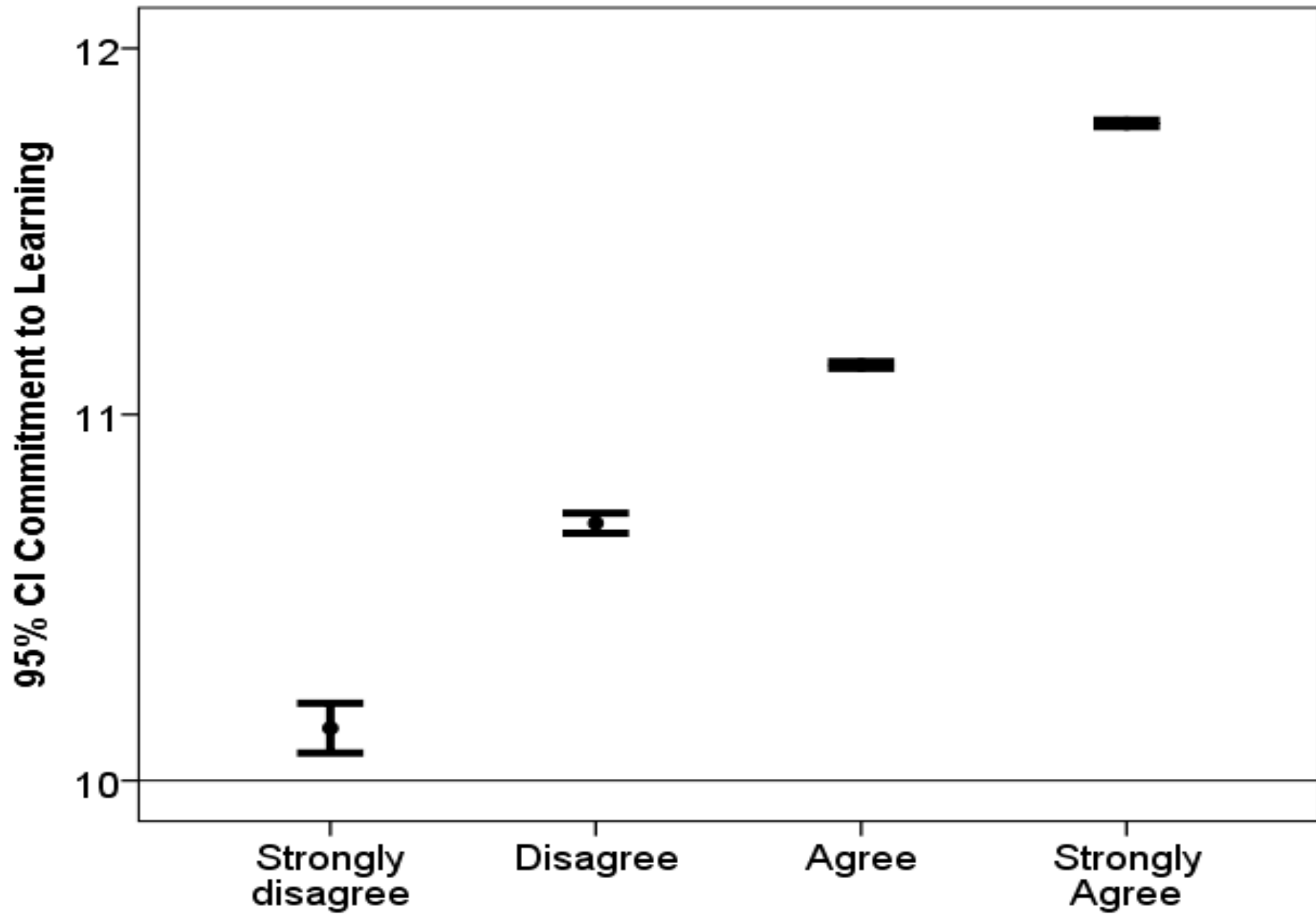
OF MINNESOTA

During the last 12 months, have you used marijuana?

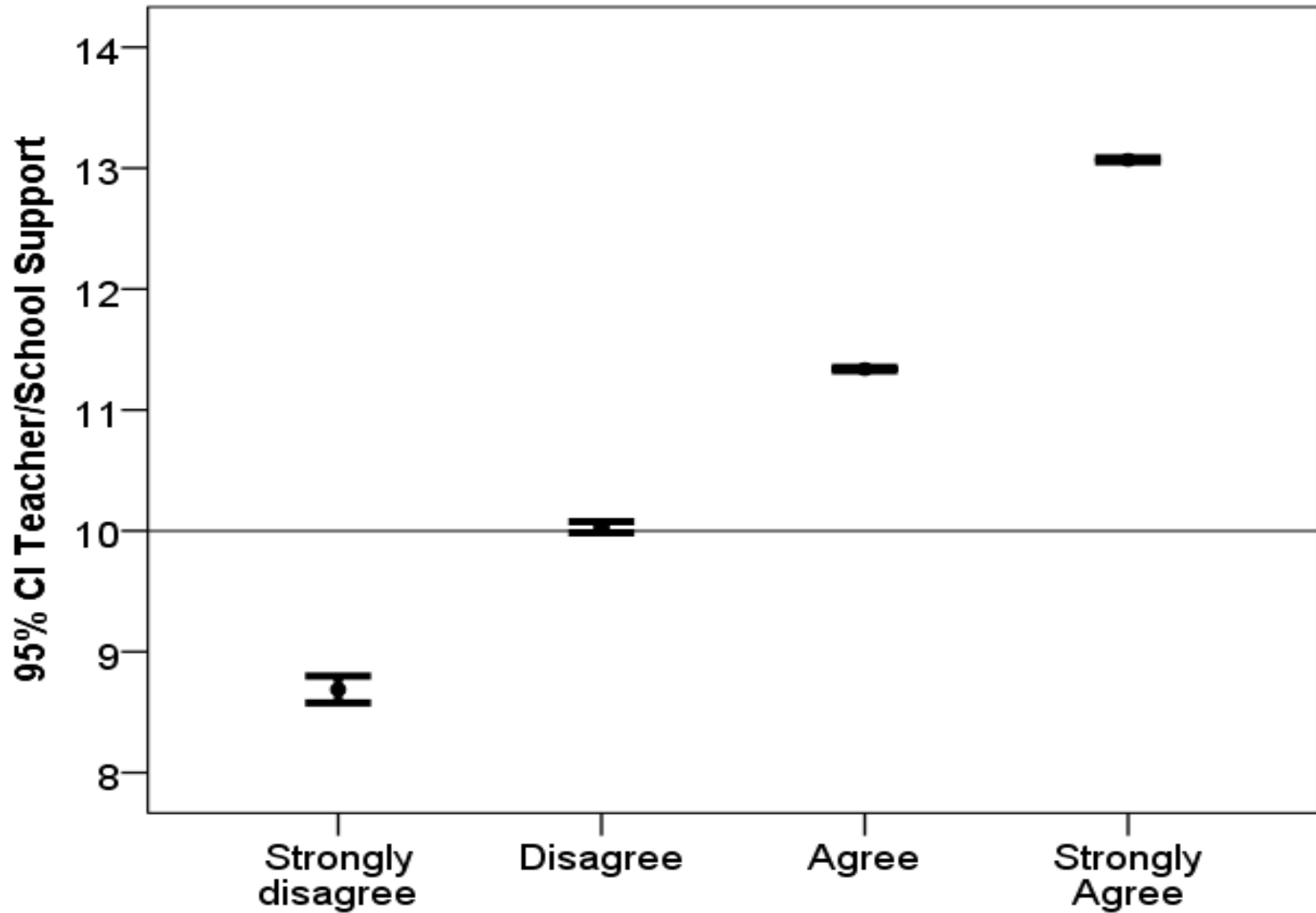


OF MINNESOTA

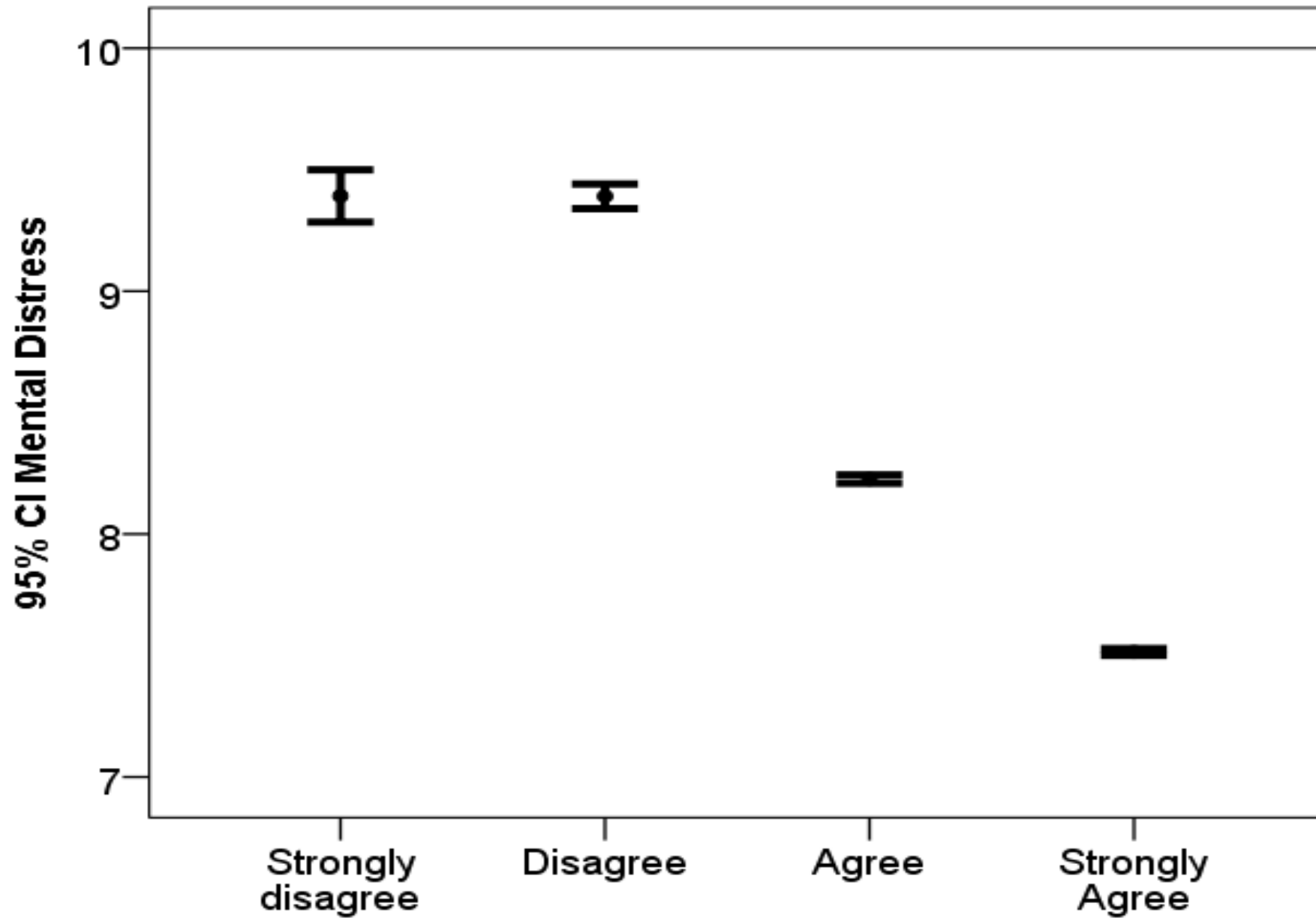
During the last 12 months, have you used marijuana?



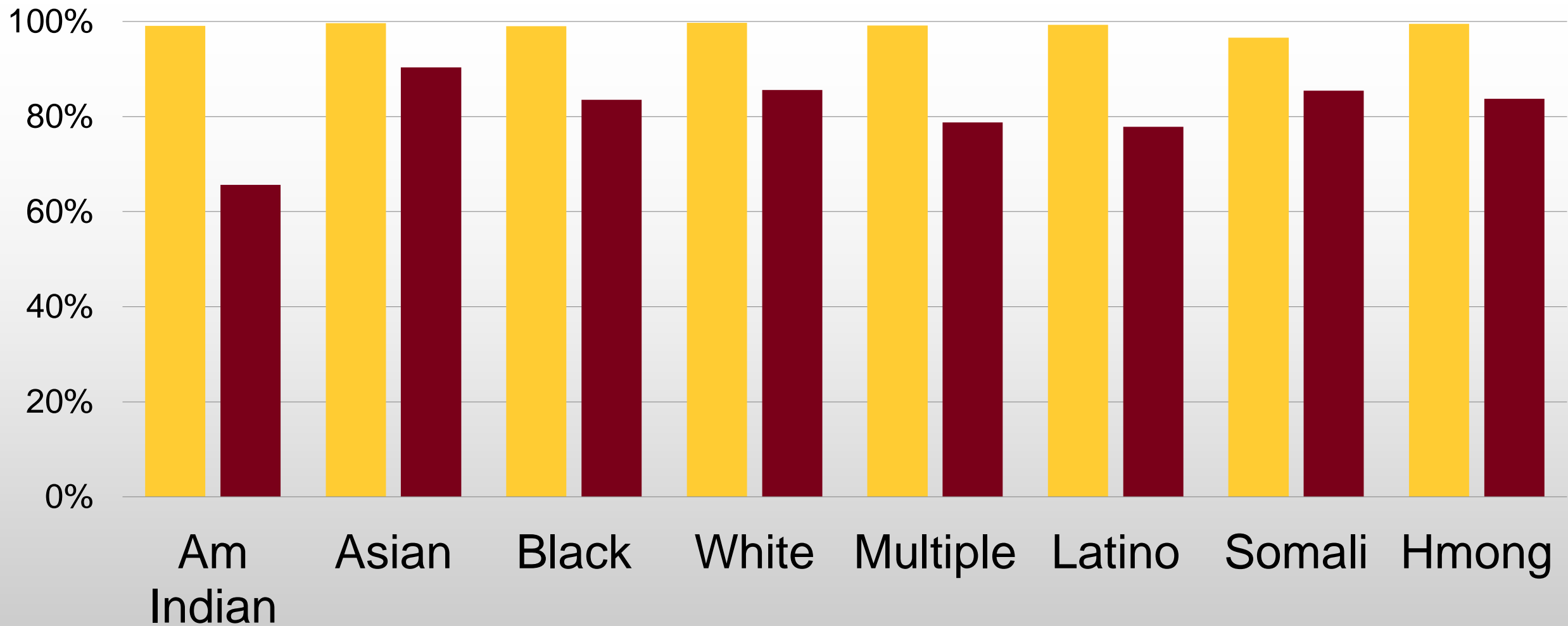
I feel safe at school.



I feel safe at school.



I feel safe at school.



■ **Complete High School**
■ **Post-Secondary Education**

Post High School Plans

UNIVERSITY OF MINNESOTA

Driven to DiscoverSM



More to come...