The purpose of this study was to examine the relative contributions of academic self-efficacy and self-handicapping by gender. The sample consisted of 468 middle school students from a suburban middle school in the Southeastern United States. Participants were primarily Black (98%). Half of the participants (n = 234) qualified to receive free or reduced-priced lunch. Students completed a paper survey during one of their regular math classes. All items were read aloud to students by the researcher. Lunch status was used as proxy for SES and was coded as follows: 1 = low-SES; 2 = middle-SES; 3 = high-SES.

### Purpose Statement
The purpose of this study was to examine the relative contributions of academic self-efficacy and self-handicapping by gender for African American middle school students in Grade 8. We also examined whether this relationship differed by gender.

### Method
#### Participants and Procedure
Participants in the study were 468 eighth-grade students (227 girls, 235 boys) from one suburban middle school in the Southeastern United States. Participants were primarily Black (98%). Half of the participants (n = 234) qualified to receive free or reduced-priced lunch. Students completed a paper survey during one of their regular math classes. All items were read aloud to students by the researcher.

#### Measures
**General Mathematics Self-Efficacy**
- General Mathematics Self-Efficacy was measured using 8 items (e.g., “In general, how confident are you in your abilities in math?”) adapted from Bandura (2006).
- A 6-point Likert-type response scale (1 = Not confident at all; 6 = Completely confident) was used.

**Academic Self-Handicapping**
- The Academic Self-Handicapping scale (Midgley & Urdan, 2001) was used to measure self-handicapping. The scale comprises six statements to which students rate how true or false each is for them (e.g., “Some students fool around the night before a math test. Then if they don’t do well, they can say that is the reason.” How true is this of you?). On a 6-point scale (1 = Definitely false; 6 = Definitely true).

### Analyses
#### Bivariate correlation analysis to examine relationships among math self-efficacy, self-handicapping, and achievement.
#### Hierarchical linear regression analysis to examine relative contributions of self-efficacy and self-handicapping to the prediction of math achievement. Predictors at Step 1: gender and SES; added at Step 2: self-efficacy; added at Step 3: self-handicapping.

### Results
**Means, Standard Deviations, and Zero-Order Correlations for Variables of Interest**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Boys (n = 234)</th>
<th>Girls (n = 234)</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>217</td>
<td>207</td>
<td></td>
</tr>
<tr>
<td>White</td>
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<td>17</td>
<td></td>
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<tr>
<td>Hispanic</td>
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<td>20</td>
<td></td>
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<tr>
<td>Other</td>
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<td>10</td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td></td>
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<tr>
<td>Grade level</td>
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<td>8</td>
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</tr>
<tr>
<td>SES</td>
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<td>1</td>
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<tr>
<td>Lunch</td>
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<td></td>
</tr>
<tr>
<td>Math GPA</td>
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<td>2.3</td>
<td></td>
</tr>
<tr>
<td>CRCT Math Score</td>
<td>258</td>
<td>258</td>
<td></td>
</tr>
</tbody>
</table>

#### Hierarchical Linear Regression Analyses for Math GPA and CRCT Math Scores for Total Sample

**Results**
- Gender significantly predicted math GPA but not CRCT math scores.
- SES significantly predicted CRCT math scores but not math GPA.
- Self-efficacy significantly predicted both math GPA and CRCT scores, whereas self-handicapping significantly predicted CRCT math scores but did not predict math GPA.
- Girls had significantly higher math GPA scores than did boys. No significant gender differences were obtained for the other variables of interest.

### Key Findings
- Self-efficacy was negatively associated with self-handicapping and positively associated with math GPA and CRCT math scores.
- Academic self-handicapping was negatively related to math GPA and CRCT math scores.
- Gender significantly predicted math GPA but not CRCT math scores.
- SES significantly predicted CRCT math scores but not math GPA.
- Self-efficacy significantly predicted both math GPA and CRCT scores, whereas self-handicapping significantly predicted CRCT math scores but did not predict math GPA.
- Girls had significantly higher math GPA scores than did boys. No significant gender differences were obtained for the other variables of interest.

### Conclusion
- Students with higher mathematics grades reported greater self-efficacy and lower self-handicapping tendencies.
- Mathematics self-efficacy and academic self-handicapping predict grades and test scores in mathematics with self-efficacy accounting for more of the variance.
- Absence of significant gender differences in self-handicapping may be a good sign particularly in area of mathematics, where girls have been historically stigmatized as lower-achieving.
- Our models explained only a modest portion of the variance in achievement outcomes such that other factors should be investigated.
- Our race-homogeneous investigation shows promise in exploring indicators of math achievement among ethnic minorities.

### References